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**ANÁLISE DAS RELAÇÕES FILOGENÉTICAS ENTRE OS
GÊNEROS DE CHEIRODONTINAE (OSTARIOPHYSI:
CHARACIFORMES: CHARACIDAE) UTILIZANDO
SEQUÊNCIAS DE DNA MITOCONDRIAL E NUCLEAR**

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Orientador: Prof. Dr. Claudio de Oliveira

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Dedicatória

À minha família...

Ao Diogo...

“No princípio Deus criou o céu e a terra. A terra, porém, estava informe e vazia, e as trevas cobriam o Abismo, mas o espírito de Deus pairava por sobre as águas. Disse Deus: “Haja luz”. E houve luz. Viu Deus que a luz era boa; e Deus separou a luz das trevas. Deus chamou a luz de “dia”, e as trevas, “noite”. Houve tarde e houve manhã: um primeiro dia.

Disse Deus: “Haja um firmamento no meio das águas, para separar umas das outras”. E assim se fez. Deus fez o firmamento que separou as águas que estão debaixo do firmamento daquelas que estão por cima do firmamento. E assim se fez. Deus chamou o firmamento “céu”. Houve tarde e houve manhã: um segundo dia.

Disse Deus: “Juntem-se num só lugar as águas que estão debaixo do céu, e apareça o elemento seco”. E assim se fez. Deus chamou o elemento seco “terra”, e o ajuntamento das águas chamou “mares”. E Deus viu que isso era bom.

Disse Deus: “Verdeje a terra com o que é verdejante, ervas que produzam sementes e árvores frutíferas que dêem suas espécies de frutos nos quais está contida a semente, por sobre a terra”. E assim se fez. A terra produziu o que é verdejante, ervas que contêm semente conforme sua espécie e árvores frutíferas com suas espécies de frutos nos quais está contida a semente. E Deus viu que isso era bom. Houve tarde e houve manhã: um terceiro dia.

Deus disse: “Haja luzeiros no firmamento dos céus para separar o dia da noite. Sirvam eles de sinais para as estações, os dias e os anos. Sejam eles no firmamento dos céus os luzeiros que iluminem a terra”. E assim se fez. Deus fez os dois grandes luzeiros: o luzeiro maior, para dominar o dia, e o luzeiro menor, para dominar a noite, e as estrelas. Deus os colocou no firmamento do céu para iluminar a terra, para que presidissem ao dia e à noite e para que separassem a luz das trevas. E Deus viu que assim era bom. E houve tarde e manhã: um quarto dia.

Deus disse: “Pululem as águas de seres animados e voem as aves por sobre a terra, debaixo do firmamento do céu”. E assim foi feito. Deus criou os grandes monstros do mar e todos os seres animados que deslizam pelas águas, de cujas diferentes espécies pululam as águas, como também todas as espécies de seres alados. E Deus viu que assim era bom. Deus os abençoou dizendo: “Sede fecundos e multiplicai-vos, enchei as águas do mar; multipliquem-se também as aves sobre a terra”. Houve tarde e manhã: um quinto dia.

Disse também Deus: “Produza a terra seres vivos de diferentes espécies: animais domésticos, animais rasteiros e animais selvagens de diferentes espécies”. E assim foi feito. E Deus fez as diferentes espécies de animais selvagens, de animais domésticos e de animais rasteiros da terra. E Deus viu que assim era bom.”

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Resumo

Os Characiformes são peixes exclusivamente de água doce e encontram-se distribuídos nas Américas e na África, atingindo maior diversidade nas principais drenagens neotropicais. A família Characidae é o grupo mais especioso entre os Characiformes, porém, a relação dessa família com outras famílias é ainda incerta. São conhecidas cerca de 1000 espécies de Characidae das quais cerca de um terço estão distribuídas em 14 subfamílias, e as demais não tem uma posição filogenética clara, sendo incluídas em um grande grupo considerado *incertae sedis* em Characidae. A subfamília Cheirodontinae compreende cerca de 60 espécies, sendo um grupo de characídeos amplamente distribuídos nas bacias hidrográficas da América do Sul e Central, incluindo espécies trans-andinas. Os gêneros de Cheirodontinae atualmente estão divididos em três tribos: Cheirodontini, Compsurini e Odontostilbini. No presente estudo, o principal objetivo foi investigar as relações de Cheirodontinae com as subfamílias de Characidae e as relações internas dos membros de Cheirodontinae através da análise de sequências de DNA mitocondrial (16S e Citocromo *b*) e nuclear (RAG1, RAG2 e Myh6). As análises mostraram que *Spintherobolus* não pertence à subfamília e *Cheirodon stenodon*, que era considerado *incertae sedis* em Characidae, deve fazer parte da mesma. Diversos gêneros apareceram polifiléticos, principalmente *Odontostilbe*. As espécies trans-andinas e andinas, são as espécies mais antigas da subfamília. As relações observadas nas análises são bastante diferentes das correntemente aceitas para Cheirodontinae e assim é proposta uma nova classificação para o grupo. O gênero *Holoshesthes* é considerado válido e pertencente a um clado juntamente com o gênero *Aphyocheirodon* e *Acinocheirodon*. *Odontostilbe* forma um clado monofilético com as espécies antes pertencentes à *Serrapinnus*, uma espécie nova e *Compsura heterura*. As tribos Cheirodontini, Compsurini e Odontostilbini são mantidas, com diferentes composições e uma tribo adicional é sugerida (Pseudocheirodontini).

Abstract

The Characiformes are exclusively freshwater fishes and they are found distributed in Americas and Africa, reaching more diversity in the major Neotropical drainages. The family Characidae is the most specious group among characiforms, but the relationships among this family and other families remains unclear. It is known about 1,000 species belonging to Characidae, one third distributed in 14 subfamilies, and the remaining does not have a clear phylogenetic position, and currently are included in a large group considered *incertae sedis* in Characidae. The subfamily Cheirodontinae comprises about 60 species, being a characid group widely distributed in the South and Central America hydrographic basins, including trans-Andean species. The genera of Cheirodontinae are currently divided in three tribes: Cheirodontini, Compsurini, and Odontostilbini. In the present work, the main goal was investigate the internal relationships of the members of Cheirodontinae through sequencing and analysis of mitochondrial (16S rRNA and Cytochrome *b*) and nuclear (RAG1, RAG2, and Myh6) genes. These analyses shown that *Spintherobolus* does not belong to the subfamily and *Cheirodon stenodon*, which was considered *incertae sedis* in Characidae, belongs to the same. Several genera are polyphyletic, mainly *Odontostilbe*. The trans-Andean and Andean species are the older species of the subfamily. The relationships observed in the analyses are very different of the currently accepted to Cheirodontinae and thereby it is suggested a new classification to the group. The genus *Holoshesthes* is considered valid and belonging to a clade jointly with the genus *Aphyocheirodon* and *Acinocheirodon*. *Odontostilbe* form a monophyletic clade with the species currently belonging to *Serrapinnus*, a new species, and *Compsura heterura*. The tribes Cheirodontini, Compsurini and Odontostilbini are preserved, with different compositions and an additional tribe is suggested (Pseudocheirodontini).

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1. INTRODUÇÃO

A ictiofauna de água doce Neotropical é a mais rica de todo o planeta. De acordo com Reis et al. (2003), das 13.000 espécies de peixes de água doce supostamente existentes, aproximadamente 6.000 espécies encontram-se na região Neotropical, das quais, cerca de 4.500 são consideradas válidas e cerca de 1.550 são conhecidas e ainda não foram descritas formalmente. Dentro desse universo de espécies de água doce destacam-se os representantes da superordem Ostariophysi, que representam 71% dessa fauna (Reis et al. 2003).

Entre os Ostariophysi, os Characiformes são peixes exclusivamente de água doce e encontram-se distribuídos nas Américas e na África, atingindo maior diversidade nas principais drenagens neotropicais (Buckup 1998). Esta ordem compreende atualmente 1.460 espécies divididas em 14 famílias, sendo quatro africanas e as demais neotropicais (Reis et al. 2003). Os Characiformes apresentam uma grande variação na forma corporal, estrutura da mandíbula, dentição e anatomia interna (Vari 1998). Além disso, nessa ordem são encontrados desde espécies predadoras que alcançam cerca de 100 cm de comprimento total até espécies cujas formas adultas não ultrapassam os 15 mm, sendo as chamadas espécies miniaturas (Weitzman e Vari 1988).

Dentro da ordem Characiformes estão espécies de grande importância ecológica e econômica para o Brasil. Assim, temos muitas espécies utilizadas na pesca comercial, esportiva e na aquicultura como os curimatás (*Prochilodontidae*), piaparas e piaus (*Anostomidae*), traíras (*Erythrinidae*), pacus, tambaquis (*Serrasalminidae*), dourados e matrinhãs (*Characidae*), etc. Há ainda um enorme número de espécies, principalmente da família *Characidae*, exportadas na forma de peixes ornamentais, o que tem gerado importantes divisas para o país, embora tenha causado sérios impactos ambientais (Chao et al. 2001).

Embora muitos grupos dentro da ordem Characiformes tenham sido objeto de vários estudos de taxonomia e sistemática, o conhecimento das relações filogenéticas da maioria de seus táxons é muito restrito. Assim, ainda que a maioria das famílias que compõem a ordem Characiformes já possam ser identificadas por caracteres sinapormórficos (ver referências em Reis et al. 2003), os estudos filogenéticos na ordem não são compatíveis com sua importância ecológica e econômica. A primeira hipótese filogenética abrangente de base cladística para os Characiformes (Figura 1) foi proposta por Buckup (1998), cujo estudo, ainda que

bastante importante, deve ser visto com muita cautela pois o autor utilizou apenas 27 táxons em seu grupo-interno, sendo estes apenas sete gêneros de Characidae (*Cynopotamus*, *Charax*, *Phenacogaster*, *Tetragonopterus*, *Oligosarchus*, *Bryconops* e *Brycon*), uma das famílias mais importantes em Characiformes.

1.1. A Família Characidae

O grupo mais especioso entre os Characiformes, a família Characidae, abrange cerca de 950 espécies válidas, 170 gêneros e 12 subfamílias (Reis et al. 2003), o que corresponde à aproximadamente 65% das espécies da ordem. Ao longo dos anos, essa família vem sofrendo várias modificações na sua classificação, mas muito pouco se conhece sobre as relações filogenéticas de seus membros constituintes. Isto decorre, dentre outras causas, do fato de que muitas espécies da família são de pequeno porte, apresentando redução no sistema da linha lateral, na complexidade do sistema esquelético, no número de raios das nadadeiras, na quantidade de escamas e diminuição do tamanho dos olhos em relação ao da cabeça, além de possuírem uma série de outros caracteres associados à pedomorfia, os quais podem ser convergentes ou homoplásticos, devendo ser utilizados com restrições nas análises cladísticas (Weitzman e Malabarba 1998). Além disso, vários trabalhos empregando caracteres morfológicos, realizados em diversos táxons de Characidae, inclusive os mais abrangentes (Lucena 1993; Moreira 2007), não foram publicados, estando apenas disponíveis no formato de teses, o que torna sua citação problemática.

Malabarba e Weitzman (2003), em uma análise visando posicionar filogeneticamente seu novo gênero de Characidae, *Cyanocharax*, propuseram, com base na presença de ganchos, principalmente nos raios das nadadeiras pélvicas e anal de machos adultos, um grupo monofilético de “characids” incluindo os Roestinae, Gasteropelecidae, Serrasalminae, Cheirodontinae, Characinae, Stethaprioninae, Iguanodectinae, Aphyocharacinae, Rhoadsiinae, parte de Tetragonopterinae juntamente com gêneros *incertae sedis*: *Salminus*, *Brycon*, *Bryconops*, *Lignobrycon*, *Triportheus* e o “Clado A” (Figura 2). Muitas espécies fazem parte do “Clado A”, sendo este, definido pela presença sinapomórfica de uma nadadeira dorsal com fórmula ii, 8 raios e quatro dentes na série interna do pré-maxilar. Apesar de representar um avanço no entendimento das relações filogenéticas em Characidae, o estudo é baseado em relativamente poucos

caracteres examinados (todos observáveis sem dissecação) sendo que a maior parte dos táxons do “Clado A” é parte de uma grande politomia não resolvida.

Além do que foi citado acima, muitas questões sobre a composição e as relações internas das subfamílias de Characidae permanecem em aberto. Assim, por exemplo, a subfamília Tetragonopterinae, outrora considerada como a subfamília mais bem sucedida entre os Characidae, estando presente em quase todos os ambientes neotropicais (Géry 1977), não pode ser reconhecida como monofilética, assim como muitos de seus gêneros mais especiosos (Weitzman e Malabarba 1998; Malabarba e Weitzman 2003). Recentemente, para assegurar a monofilia de Tetragonopterinae, somente o gênero *Tetragonopterus* foi mantido no grupo e todos os demais gêneros de Tetragonopterinae foram considerados *incertae sedis* em Characidae (Reis et al. 2003).

No último levantamento da fauna de água doce da região Neotropical, 88 gêneros e cerca de 620 espécies, anteriormente alocados em Tetragonopterinae, Cheirodontinae, Characinae, Bryconinae, Paragoniatinae e Aphyocharacinae, foram alocados como *incertae sedis* em Characidae (Reis et al. 2003). Portanto, somente as subfamílias de Characidae que apresentavam alguma evidência de monofilia foram retidas no grupo, sendo elas: Clupeocharacinae (1 espécie), Agoniatinae (2 espécies), Tetragonopterinae (2 espécies), Roadsiinae (6 espécies), Aphyocharacinae (10), Stethaprioninae (12 espécies), Bryconinae (43 espécies), Cheirodontinae (46 espécies), Glandulocaudinae (50 espécies), Characinae (70 espécies) e Serrasalminae (72 espécies), num total de 79 gêneros e cerca de 325 espécies (Reis et al. 2003). Embora algumas das subfamílias de Characidae, tais como Serrasalminae (Machado-Allison 1983), Glandulocaudinae (Weitzman e Menezes 1998; Menezes e Weitzman 2009) e Cheirodontinae (Malabarba 1998) tenham sido foco de estudos morfológicos recentes, as relações filogenéticas entre as subfamílias de Characidae e entre essas e os demais Characiformes permanecem desconhecidas. De acordo com Weitzman e Malabarba (1998), para que haja progresso na elucidação das inter-relações filogenéticas dos táxons da família Characidae, serão necessárias análises mais detalhadas de muitos aspectos da anatomia dessas espécies, assim como, o emprego de outros tipos de dados como fisiológicos e comportamentais.

O trabalho mais recente, abrangendo uma grande quantidade de gêneros e espécies de Characidae, é o de Mirande (2009) (Figura 3). O autor utilizou 160 espécies de Characidae e famílias relacionadas, comparando 360 caracteres

morfológicos, e concluiu que a monofilia da família é suportada por sete sinapomorfias. Uma nova subfamília, Heterocharacinae, foi proposta e as subfamílias Aphyocharacinae, Aphyoditeinae, Characinae, Gymnocharacinae e Stevardiinae foram redefinidas. Mirande (2009) também propõe que Glandulocaudinae seja incluso em Stevardiinae junto com membros remanescentes do “Clado A” e os gêneros *Auxilidens* e *Nantis*. A maioria dos gêneros *incertae sedis* estudados foram alocados à algum clado diagnosticado existente (Mirande 2009).

Mesmo com estudos englobando subfamílias de Characidae e espécies *incertae sedis*, dificilmente um trabalho abrange todas os gêneros de uma única subfamília, para que sejam conhecidos quanto as suas relações dentro da própria subfamília. Um exemplo disso são as relações da subfamília Cheirodontinae, a mais amplamente distribuída de Characidae.

1.2. A Subfamília Cheirodontinae

Cheirodontinae é a subfamília mais amplamente distribuída de Characidae. São encontrados na maioria das bacias hidrográficas da América do Sul e Central, como bacia Amazônica, Orinoco, Paraná-Paraguai e São Francisco. Possui os únicos representantes da ordem ocorrentes no oeste dos Andes no Chile e habitam ambientes lênticos e regiões de planície. Atualmente, um total de 17 gêneros são reconhecidos na subfamília (Malabarba 1998, 2003, 2007; Bührnheim et al. 2008), com cerca de 55 espécies válidas (Malabarba 2003; Malabarba et al. 2004; Bührnheim e Malabarba 2006, 2007; Bührnheim et al. 2008).

Cheirodontinae foi inicialmente definida por Eigenmann (1915) como sendo formada por 21 gêneros e 56 espécies. Eigenmann incluiu no grupo os seguintes gêneros: *Aphyocharax*, *Aphyocheirodon*, *Aphyodite*, *Cheirodon*, *Compsura*, *Grundulus*, *Holoshestes*, *Leptagoniates*, *Leptobrycon*, *Macropsobrycon*, *Megalamphodus*, *Microschemobrycon*, *Mixobrycon*, *Odontostilbe*, *Oligobrycon*, *Paragoniates*, *Parecbasis*, *Phenagoniates*, *Prionobrama*, *Probolodus* e *Spintherobolus*.

Entre a publicação de Eigenmann (1915) e o ano de 1960, 14 novos gêneros foram descritos em Cheirodontinae, todos inseridos na subfamília por apresentarem uma única série de dentes no pré-maxilar: *Pseudocheirodon* Meek & Hildebrand, 1916, *Monotocheirodon* Eigenmann & Pearson, em Pearson, 1924, *Prodontocharax* Eigenmann & Pearson, em Pearson, 1924, *Rachoviscus* Myers, 1927, *Othonocheirodon* Myers, 1927, *Amblystilbe* Fowler, 1940, *Pedalibrycon* Fowler,

1943, *Saccoderma* Schultz, 1944, *Cheirodontops* Schultz, 1944, *Odontostoechus* Gomes, 1947, *Distoechus* Gomes, 1947, *Aulixidens* Böhlke, 1952 e *Thrissobrycon* Böhlke, 1953.

Géry (1977) considerou que a subfamília Cheirodontinae, senso estrito, continha 13 gêneros: *Aphyocheirodon*, *Aulixidens*, *Cheirodon*, *Cheirodontops*, *Compsura*, *Holoshestes*, *Monotocheirodon*, *Myxobrycon*, *Odontostilbe*, *Odontostoechus*, *Othonocheirodon*, *Petitella* e *Saccoderma*. Além da inclusão de espécies no decorrer dos anos, muitos outros autores discutiram também os aspectos da sistemática de Cheirodontinae sem oferecer nenhuma proposição geral de classificação do grupo.

Algumas classificações agruparam Cheirodontinae e Tetragnopterinae em uma mesma subfamília (Regan 1911; Gregory e Conrad 1938), e mesmo após passar por muitas revisões durante os anos seguintes, Weitzman e Vari (1988) ainda não reconheceram essas duas subfamílias separadamente. Mirande (2009) corrobora a monofilia de Cheirodontinae, e sugere sua relação com Aphyocharacinae e Aphyoditeinae, apesar de ter analisado apenas seis espécies pertencentes a quatro gêneros da subfamília (Figura 3).

Malabarba (1988) e Casciotta et al. (1992) redefinem o gênero-tipo da subfamília, *Cheirodon*, com base em caracteres apomórficos compartilhados. Somente Malabarba (1998), após ampla revisão baseada em métodos cladísticos, encontrou quatro sinapomorfias para a subfamília Cheirodontinae com base em caracteres relacionados à(s): (1) presença de pseudotímpano junto à porção anterior da bexiga natatória, entre a face póstero-dorsal da primeira costela e a face ântero-dorsal da segunda costela; (2) ausência de mancha umeral ou de pigmentação diferenciada na região anterior do corpo; (3) dentes do pré-maxilar, maxilar e dentário, expandidos na porção distal, pedunculados, fortemente comprimidos no plano ântero-posterior na porção distal e com cúspides alinhadas em um mesmo plano; (4) presença de uma única série de dentes no pré-maxilar, semelhantes em forma e número de cúspides.

Após analisar essas características, Malabarba (1998) concluiu que a subfamília Cheirodontinae é composta pelos gêneros: *Acinocheirodon* (citado como *New gen. & sp. B*), *Aphyocheirodon*, *Cheirodon*, *Cheirodontops*, *Compsura*, *Heterocheirodon*, *Kolpotocheirodon* (citado como *New gen. & sp. A*), *Macropsobrycon*, †*Megacheirodon*, *Nanocheirodon*, *Odontostilbe* (*Holoshestes* e *Lobodeuterodon* como sinônimos), *Prodontocharax* (*Amblystilbe* como sinônimo), *Pseudocheirodon*,

Saccoderma, *Serrapinnus*, *Spintherobolus* e um táxon identificado como *New gen. & sp. C* (Figura 4). Após isso, Malabarba (1998) dividiu os gêneros nas tribos Cheirodontini (formada com base, principalmente, em caracteres relacionados ao dimorfismo sexual secundário observado nos raios procorrentes ventrais da nadadeira caudal e raios da nadadeira anal dos machos) e Compsurini (inclui os cheirodontíneos com inseminação, sendo caracterizada pela transferência de esperma dos testículos dos machos maduros para os ovários das fêmeas) e o restante foi alocado como um grupo de gêneros considerados *incertae sedis* (os que não possuem as características que definem as tribos Compsurini e Cheirodontini).

A tribo Cheirodontini compreende os gêneros: *Cheirodon*, *Nanocheirodon*, *Heterocheirodon*, †*Megacheirodon*, *Spintherobolus* e *Serrapinnus* e a tribo Compsurini os gêneros: *Saccoderma*, *Compsura*, *Macropsobrycon*, *Acinocheirodon* e *Kolpotocheirodon*; os gêneros *Odontostilbe* (= *Holoshestes*), *Cheirodontops*, *Pseudocheirodon*, *Prodontocharax* e *Aphyocheirodon*, são os considerados *incertae sedis* dentro de Cheirodontinae.

Um novo gênero e espécie, *Amazonspinther dalmata*, foi descrito por Bührnheim et al. (2008) somando mais um gênero na subfamília Cheirodontinae. Neste trabalho, *Amazonspinther* foi diagnosticado como pertencente à tribo Cheirodontini e mais relacionado ao gênero *Spintherobolus*.

Recentemente, a monofilia de Cheirodontinae apresentada por Malabarba (1998) foi confirmada por Bührnheim (2006), baseando-se em uma nova análise filogenética com 53 táxons e 169 caracteres pesados (Figura 5) e não pesados (Figura 6). A subfamília é redefinida por 15 sinapomorfias, duas correspondentes às encontradas por Malabarba (1998) e algumas novas unicamente derivadas. Segundo Bührnheim (2006) essas sinapomorfias são: “(1) anteromedial process of the mesethmoid forming a short projection, wide at its base and narrower at its tip, with slightly sinusoidal lateral borders, similar to brackets contour [2*-1]; (2) first infraorbital subrectangular with anteroventral portion extended [14*-1]; (3) long, preopercular canal reaching the anterodorsal corner of opercle [27-0]; (4) laminae of the medial border of the premaxilla in articulation with the mesethmoid slightly pronounced, forming a V-shaped bifurcation, the posteromedial lamina oblique to anteromedial lamina [34-1]; (5) posterior edentulous portion of the maxilla approximately of equal size of the anterior tooth bearing portion of maxilla [50*-1]; (6) ventral margin of posterior portion of maxilla extended ventrally beyond maxillary teeth tips [51-1]; (7) usually two or three maxillary teeth [54*-2]; (8) all

tooth bearing portion of dentary nearly straight and forming an angle of approximate 120° relative to the posterior dorsal border of dentary, in lateral view [56-2]; (9) short lateral ridge with a somewhat straight surface of the upper portion of angulo-articular, on posterolateral portion of lower jaw, near the posterior portion of maxilla, observed in dorsal view [57-1]; (10) approximately the third anterior portion of dentary longitudinal axis with teeth [62-1]; (11) anteriormost portion of dentary, at the symphyseal joint, narrow, 4-5 times in the height of middle portion of dentary; (2) narrow, 7 times or more the height of middle portion of dentary, in lateral view [64-1]; (12) posteroventral border of the coracoid nearly forming an angle of 90° or slight extended, forming a small point or a truncate corner [100-1]; (13) anal-fin profile of males with the anterior lobe pointed and distal profile concave; sexually dimorphic; the last unbranched anal-fin ray and first two branched anal-fin rays in males elongate, longer than in females [112-1]; (14) absence of humeral spot [157-1]; (15) a large pseudotympanum between the first and second pleural ribs, nearly triangular hiatus on muscles covering the anterior swimbladder, limited dorsally by the *lateralis superficialis* muscle, posteriorly by a naked anterior surface of the second pleural rib, anteroventrally by the *obliquus superioris* muscle, and posteroventrally by the *obliquus inferioris* [163-1].

Bührnheim (2006) propôs uma nova tribo, Odontostilbini, baseada em 13 sinapomorfias: “(1) longitudinal branch of the laterosensory canal of parietal posteriorly contiguous to the transverse laterosensory canal of parietal, and anteriorly contiguous to the laterosensory canal of frontal [11-0]; (2) laterosensory canal along almost the entire length of the longest axis of the first infraorbital or reaching to about half length of the longest axis [15-0]; anterodorsal border of the sixth infraorbital with a small to well-developed pointed projection, underneath the posterodorsal portion of the first infraorbital [18-1]; (4) anterior border of the sixth infraorbital with the anterior lamella expanded in a lingual-like shape [22-2]; (5) palatine regular rectangular, well developed [30-1]; (6) present of the flange on anterodorsal portion of the maxilla, posterior to rod-like ascending process of the maxilla [45-0]; (7) laminar ridge with a straight surface of the upper portion of the angulo-articular, on posterolateral portion of the lower jaw, near the posterior portion of the maxilla, well-marked in dorsal view [57-3]; (8) lower branch of the angulo-articular on lateral surface of dentary short, not extended anteriorly or slightly extended, anterior border forming a slight convexity, 4-5 times in the longitudinal length of the dentary [61-0]; (9) ventral border of the posteriormost

branchiostegal ray in males slightly concave on the anterior to median length of the ventral border [77-1]; (10) unbranched pelvic-fin ray elongate [103*-1]; (11) anal-fin profile of males concave to almost straight; absence of sexual dimorphism [112-0]; (12) laterosensory canal of the lateral line relatively long, extending nearly half-length of the middle caudal-fin rays [114-1]; (13) lateral line complete [153-0]”.

Bührnheim (2006) também propôs diversas alterações nomenclaturais, assim, *Aphyocheirodon* e *Cheirodontops* seriam sinônimos juniores de *Holoshesthes*, *Lobodeuterodon* e *Holoshesthes* sairiam da sinonímia de *Odontostilbe*, e *Amblystilbe* sairia da sinonímia de *Prodontocharax*, sendo revalidados. Para a autora, a tribo Odontostilbini é composta por 26 espécies distribuídas nos seguintes seis gêneros: *Amblystilbe* Fowler 1940; *Holoshesthes* Eigenmann 1903; *Lobodeuterodon* Fowler 1945; *Odontostilbe* Cope 1870, *Prodontocharax* Pearson 1924 e *Pseudocheirodon* Meek & Hildebrand 1916.

1.3. Estudos Moleculares

O estudo das relações entre organismos tem recebido nos últimos anos, um considerável impulso com o advento das técnicas de sequenciamento de DNA. Estudos filogenéticos empregando sequências parciais ou totais do DNA mitocondrial em peixes é uma realidade bastante atual, o que pode ser confirmado pelo grande número de trabalhos recentemente publicados com essa abordagem (Ortí et al. 2008; Heckman et al. 2009; Betancur-R 2009; Javonillo et al. 2010; entre outros). Por outro lado, o número de publicações que usam genes nucleares nesses estudos ainda é pequeno em relação ao dos que utilizam genes mitocondriais. Contudo, diversos trabalhos tem sido publicados nos últimos anos, mostrando a utilidade desses genes em estudos de diversos grupos de peixes (Li et al. 2008; Ilves e Taylor 2009; Musilová et al. 2009; Javonillo et al. 2010) e espera-se que nos próximos anos, muitas filogenias baseadas em genes nucleares estejam disponíveis, juntamente com genes mitocondriais e outros tipos de caracteres.

Estudos filogenéticos, utilizando dados de sequências de DNA com representantes da ordem Characiformes tiveram início em 1996 com a publicação de um estudo sobre a filogenia de piranhas e pacus (Ortí e Meyer 1996), sugerindo a existência de um padrão de relacionamento intergenérico ainda não conhecido para o grupo. Estudos abrangentes com representantes da ordem Characiformes foram publicados por Ortí e Meyer (1997) e a filogenia molecular de consenso

obtida, utilizando dados de genes mitocondriais, está apresentada na Figura 7. A filogenia é bastante diferente das demais propostas para a ordem Characiformes com base em caracteres morfológicos, mas muitos nós são suportados apenas por baixos valores estatísticos. Essas discrepâncias podem estar relacionadas ao pequeno número de grupos estudados e a pequena quantidade de dados moleculares utilizada. Por outro lado, as relações inter-genéricas foram bem suportadas nas análises estatísticas. Stethaprioninae e Aphyocharacinae formam um grupo irmão do clado onde estão Characinae, Cheirodontinae e Glandulocaudinae.

Calcagnotto et al. (2005) estudaram 135 taxa da ordem Characiformes, representando todas as famílias da África e América do Sul com exceção de Curimatidae e Gasteropelecidae, utilizando seis genes, sendo dois do DNA mitocondrial (16S e Citocromo *b*) e quatro nucleares (Rag2, Fkh, Sia e Trop). A análise de 3.660 caracteres resultou em 18 árvores construídas com o método de máxima parcimônia. O uso de espécies de Siluriformes e Cypriniformes como grupo externo mostrou que a ordem Characiformes é monofilética. Muitas das relações entre as famílias de Characiformes foram bem resolvidas e a monofilia de vários grupos como Distichodontidae, Citharinidae, Alestidae e Characidae (parcial) foi recuperada. As relações entre representantes da família Characidae foram bem resolvidas, porém, somente 24 gêneros foram amostrados (Figura 8) e a subfamília Serrasalminae apareceu fora dessa família. Nesse estudo, os gêneros pertencentes a Cheirodontinae, *Aphyocheirodon*, *Cheirodon*, *Cheirodontops* e *Prodontocharax*, formaram um grupo monofilético entre os demais Characidae estudados. Cheirodontinae é grupo irmão de Characinae e este grupo é irmão de Glandulocaudinae.

O estudo molecular mais abrangente para a subfamília Cheirodontinae, até o momento, é o de Javonillo et al. (2010), onde foram utilizados os genes mitocondriais 12S, 16S e COI e o gene nuclear RAG2, para o estudo das relações filogenéticas entre várias espécies pertencentes a Characidae (Figura 9). Cheirodontinae aparece monofilético (os seis gêneros estudados) como grupo irmão de vários gêneros como *Aphyocharax*, *Exodon*, da subfamília Characinae (*Phenacogaster*, *Roeboides*, *Galeocharax* e *Cynopotamus*) e *Tetragonopterus*. Cheirodontinae forma um grupo monofilético (*Prodontocharax*, *Cheirodon interruptus*, *Macropsobrycon uruguayanae*, *Compsura*, *Serrapinnus kriegi*, *Odontostilbe*, *Serrapinnus 1* e *Serrapinnus 2*), mas a relações entre as espécies

utilizadas apresentam baixo suporte estatístico e, além disso, a análise não apresenta um número representativo de gêneros e espécies da subfamília.

Considerando-se o pouco conhecimento disponível das relações entre Cheirodontinae e as subfamílias de Characidae e principalmente, a falta de conhecimento das inter-relações dos atuais membros de Cheirodontinae, pretendeu-se, no presente trabalho, realizar uma análise com base em sequências de DNA mitocondrial e nuclear de um número representativo de gêneros e espécies, visando elaborar hipóteses que melhorem nossa compreensão da composição e história evolutiva desse grupo.

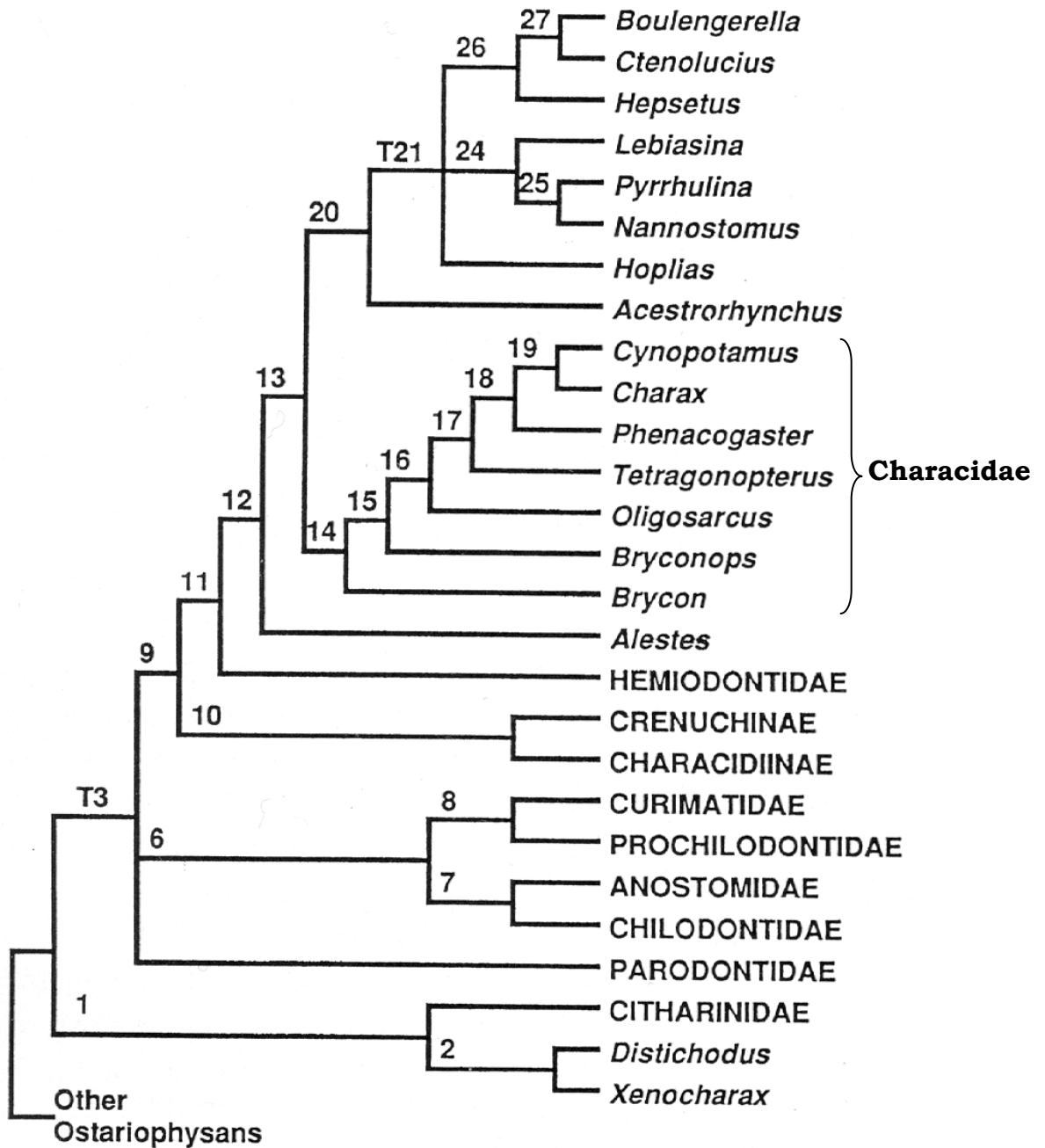


Figura 1. Hipótese de relacionamento entre as famílias de Characiformes e alguns gêneros de Characidae segundo Buckup (1998). Os números identificam os clados discutidos pelo autor da hipótese.

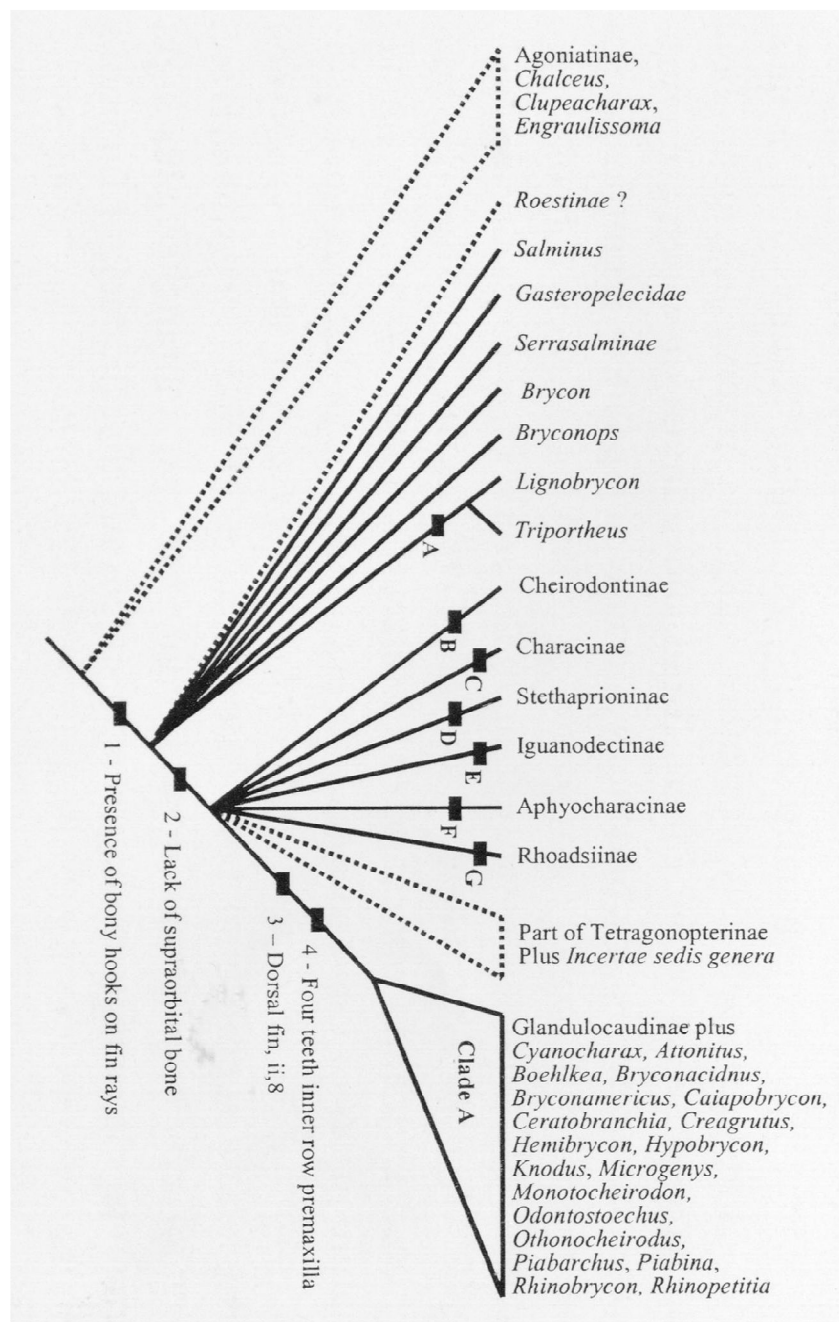


Figura 2. Cladograma resumindo o conhecimento sobre as relações de Characidae, segundo Malabarba e Weitzman (2003).

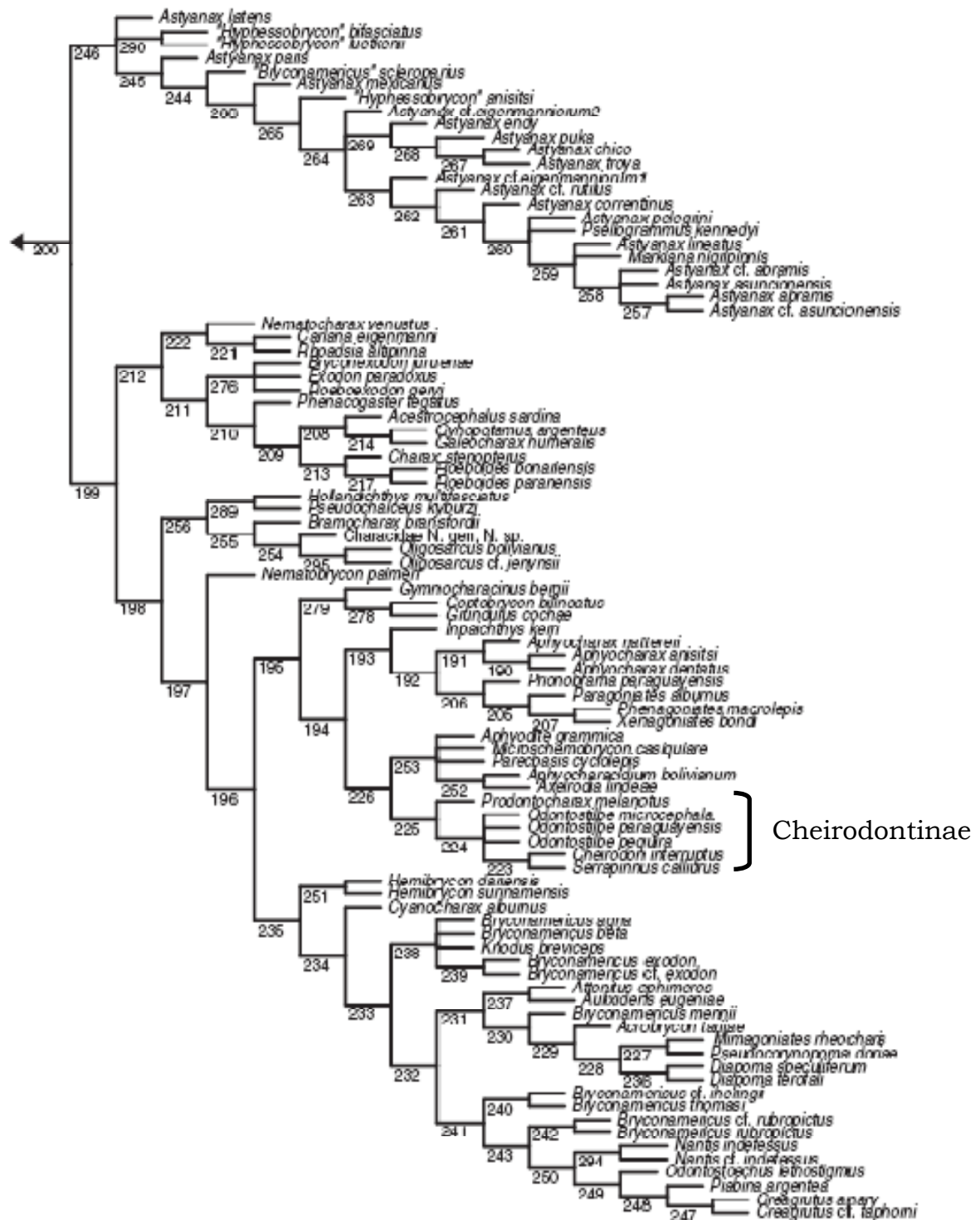


Figura 3. Hipótese final, parte 2, de Mirande (2009). Os números nos ramos representam clados obtidos nas análises de implied weighting.

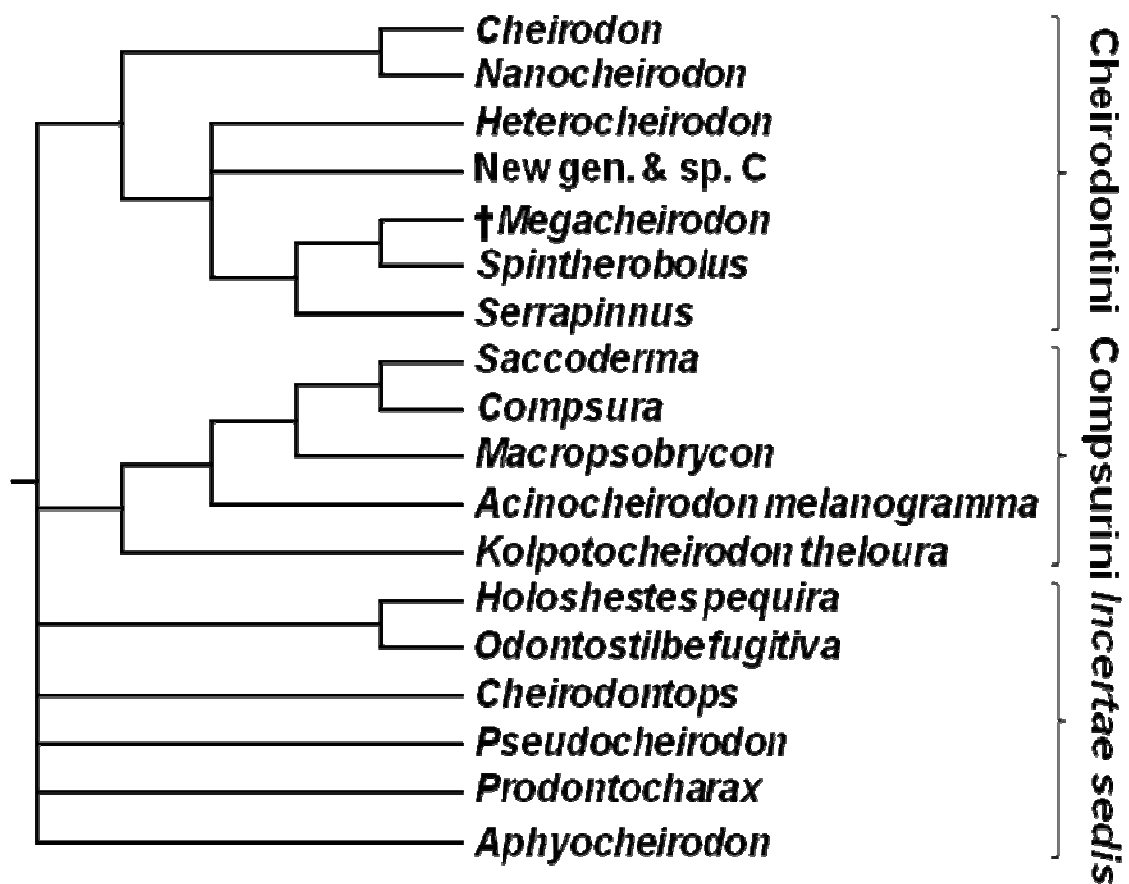


Figura 4. Cladograma de consenso estrito mostrando as relações entre os gêneros de Cheirodontinae, modificado de Malabarba (1998).

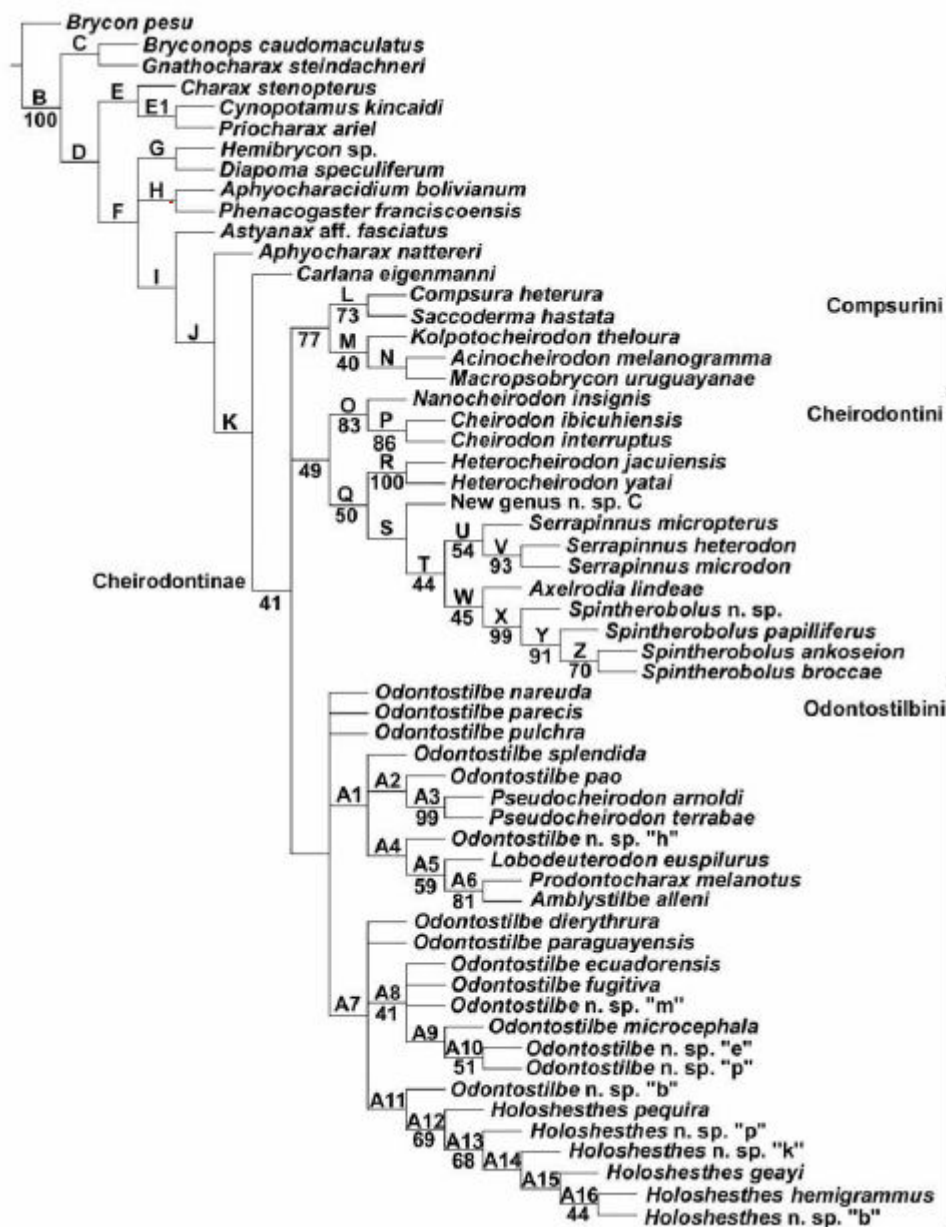


Figura 5. Cladograma apresentado por Bührnheim (2006), com atribuição de peso, sugerindo a nova tribo Odontostilbini e as relações entre Cheirodontinae. Os números abaixo dos nós são valores de *bootstrap*.

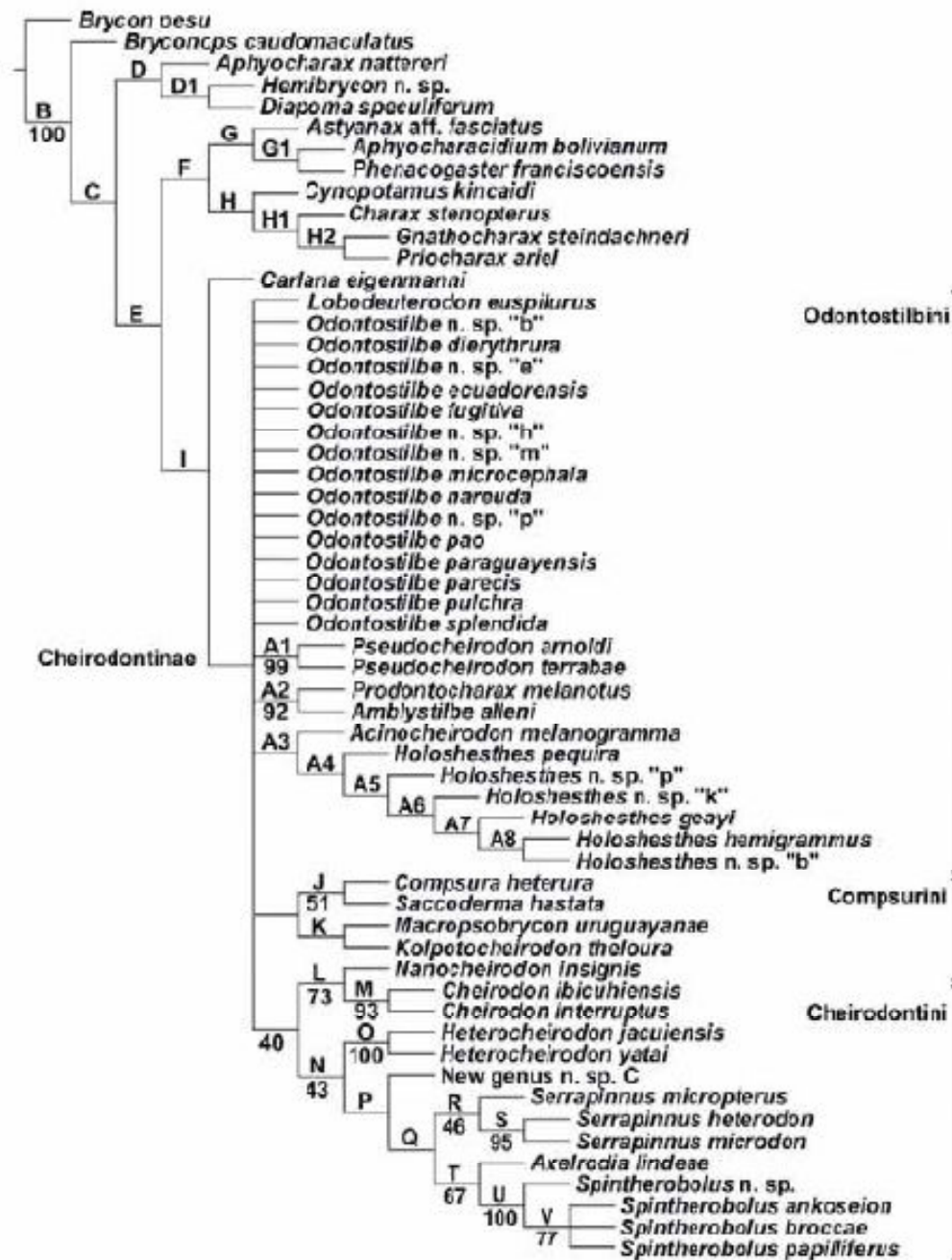


Figura 6. Cladograma apresentado por Bührnheim (2006), com caracteres sem atribuição de peso, sugerindo a nova tribo Odontostilbini e as relações entre Cheirodontinae. Os números abaixo dos nós são valores de *bootstrap*.

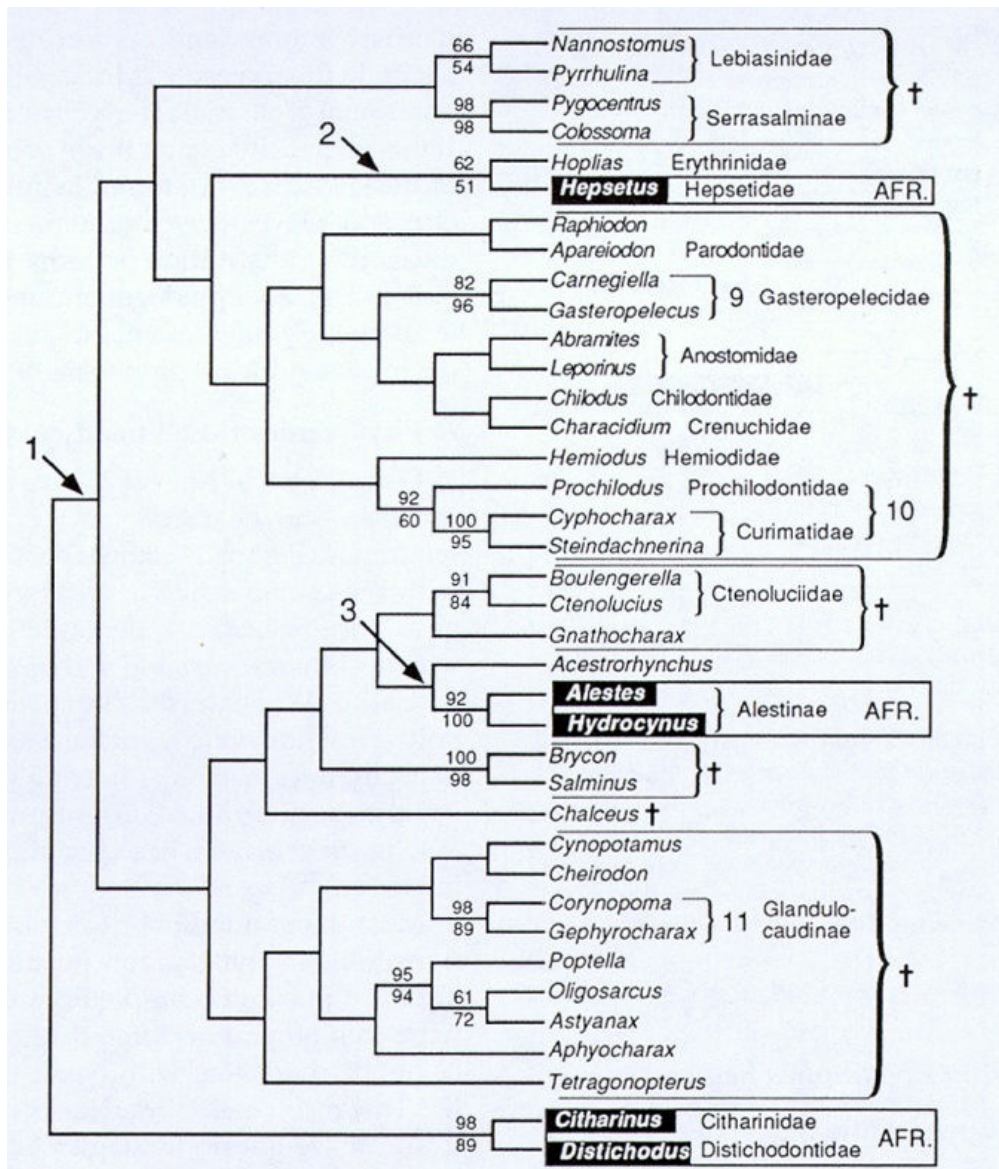


Figura 7. Árvore de consenso obtida para 38 táxons de Characiformes utilizando seqüências parciais dos genes mitocondriais 12S e 16S rRNA, segundo Ortí e Meyer (1997). Os números acima e abaixo dos ramos representam os valores de *bootstrap* obtidos nas análises de máxima parcimônia e “neighbour-joining” respectivamente. Os gêneros marcados em negro representam grupos africanos.

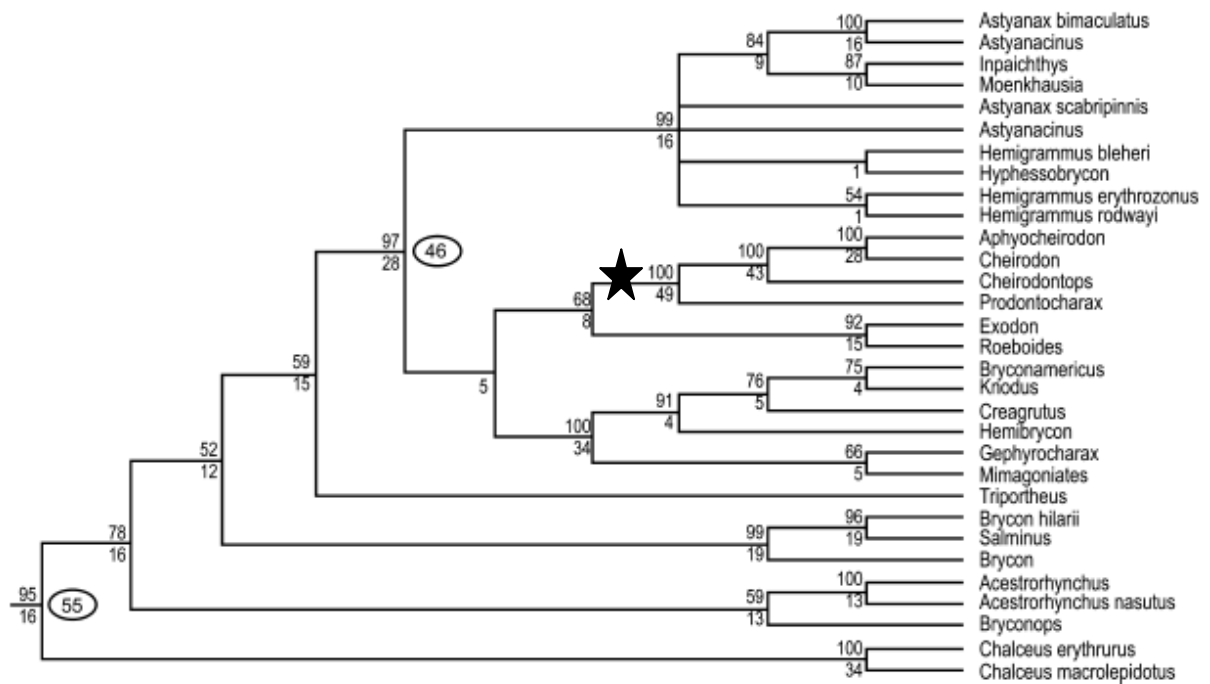


Figura 8. Árvore de consenso estrito obtida para Characidae, segundo Calcagnotto et al. (2005). Os números acima e abaixo dos ramos representam os valores de *bootstrap* obtidos nas análises de máxima parcimônia e os índices de Bremer, respectivamente. A estrela mostra a subfamília Cheirodontinae.

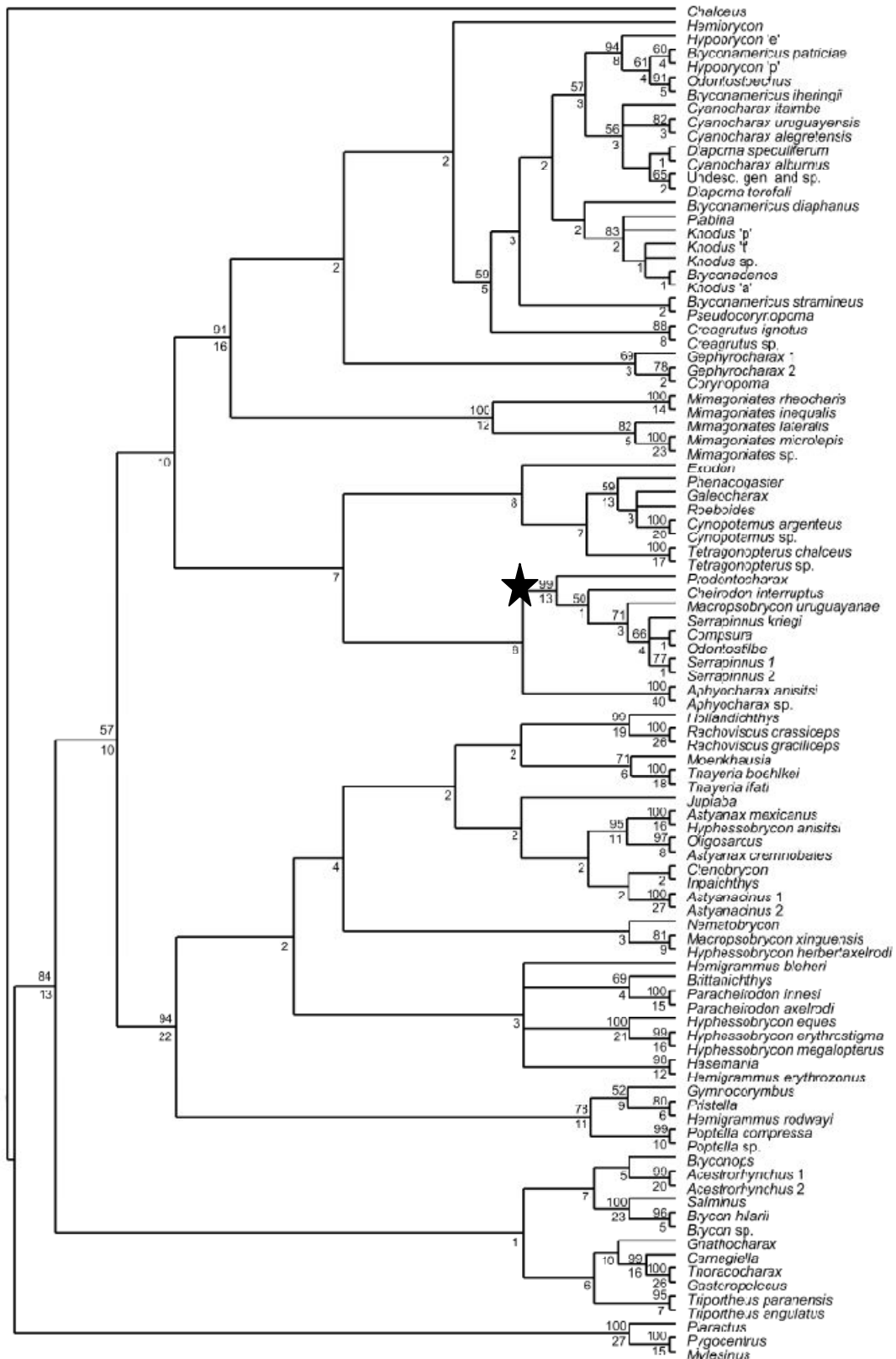


Figura 9. Árvore de consenso obtida para Characidae, segundo Javonillo et al. (2010). Os números acima e abaixo dos ramos representam os valores de *bootstrap* obtidos nas análises de máxima parcimônia e os índices de Bremer, respectivamente. A estrela mostra a subfamília Cheirodontinae.

2. OBJETIVOS

Considerando que a família Characidae é o grupo com maior diversidade taxonômica entre os Characiformes; que a grande maioria de suas espécies é de pequeno porte; que atualmente a família não pode ser diagnosticada como um grupo monofilético; e que as relações filogenéticas entre seus táxons constituintes são pouco conhecidas, o estudo de seqüências de DNA de genes nucleares e mitocondriais pode ser de grande valia para um melhor entendimento das relações filogenéticas entre seus táxons constituintes (principalmente subfamílias). Assim, o objetivo principal do presente trabalho foi testar as hipóteses de relacionamento entre Cheirodontinae (*sensu* Malabarba, 2003) e as demais subfamílias de Characidae, testar se Cheirodontinae é um grupo monofilético e por fim testar as hipóteses de monofilia e relacionamento entre os gêneros de Cheirodontinae.

Os objetivos operacionais foram:

- 1- Sequenciar segmentos do genoma mitocondrial e nuclear de exemplares de gêneros e espécies das subfamílias representativas de Characidae, para que sejam conhecidas suas relações com Cheirodontinae;
- 2- Sequenciar segmentos do genoma mitocondrial e nuclear de exemplares dos gêneros e espécies de Cheirodontinae (*sensu* Malabarba, 2003) com o propósito de obter dados suficientes para testar a monofilia dessa subfamília;
- 3- Obter dados para elaborar e testar hipóteses de relacionamento entre espécies e gêneros dessa subfamília.

3. MATERIAIS E MÉTODOS

3.1. Materiais

No presente estudo, foram utilizadas espécies pertencentes à Cheirodontinae, identificadas com base nos estudos de Malabarba (2003) e Malabarba (2007).

As coletas dos exemplares da subfamília Cheirodontinae foram realizadas em diversos pontos da América do Sul (Brasil, Chile, Uruguai e Venezuela). Algumas das amostras de DNA foram cedidas pelo Smithsonian Tropical Research Institute (Panamá), American Museum of Natural History (AMNH), Universidade Federal do Rio Grande do Sul (UFRGS) e Museu de Ciências da Pontifícia Universidade Católica do Rio Grande do Sul (MCP/PUC-RS) e suas identificações foram realizadas por pesquisadores dos próprios institutos mencionados.

Para testar a hipótese de relação entre Cheirodontinae e as demais subfamílias de Characidae foram escolhidas 14 espécies como grupo interno, visando incluir representantes de todas as subfamílias de Characidae, seguindo Malabarba e Weitzman (2003) e Weitzman et al. (2005). As espécies escolhidas foram: *Brycon petrosus* (Bryconinae), *Aphyocharax anisitsi* (Aphyocharacinae), *Iguanodectes* sp. (Iguanodectinae), *Piaractus mesopotamicus* (Serrasalminae), *Charax leticiae* (Characinae), *Tetragonopterus argenteus* (Tetragonopterinae), *Pseudocorynopoma heterandria* (Stevardiinae), *Glandulocauda melanogenys* (Glandulocaudinae), *Carlana eigenmanni* (Rhoadsiinae), *Stethaprion crenatum* (Stethaprioninae), *Clupeaicharax* sp. (Clupeaicharacinae) e *Agoniates halecinus* (Agoniatinae).

As espécies utilizadas como grupo externo nas análises das inter-relações de Cheirodontinae foram escolhidas com base nos estudos realizados por Bührnheim (2006). Espécies de Characinae foram escolhidas a fim de testar a possível relação entre Cheirodontinae e Characinae como sugerido por Malabarba e Lucena (1995), e pelos dados moleculares de Ortí e Meyer (1997) e Calcagnotto et al. (2005), como citado em Bührnheim (2006). As espécies basais inclusas, das principais linhagens de Characinae identificadas por Lucena (1998), são representadas pelos gêneros *Gnatocharax*, *Phenacogaster*, *Cynopotamus* e *Charax*. *Aphyocharax* foi também incluso nas análises baseando-se nas sugestões prévias de relação próxima entre Aphyocharacinae de Eigenmann (1909) e o antigo senso de Cheirodontinae de Eigenmann (1915). *Chalceus* foi incluso no grupo externo porque, mesmo sendo

considerado um Alestidae por Zanata e Vari (2005), aparece como grupo irmão de Characidae em Calcagnotto et al. (2005), com exceção de Serrasalminae.

Outra espécie, *Aphyocharacidium sp.*, atualmente considerada *incertae sedis* em Characidae, foi utilizada nos estudos. Bührnheim (2006) utilizou *Aphyocharacidium bolivianum* e *Axelrodia lindeae*, sendo esta última não incluída no presente trabalho. O gênero *Aphyocharacidium* foi descrito por Géry (1960b) para acomodar *Odontostilbe melandetus* Eigenmann, 1912 e não foi considerado Cheirodontinae por Malabarba (1998), embora eles compartilhem um pseudotímpano similar. A espécie foi inserida como grupo externo para que fosse testada uma possível relação com Cheirodontinae. Portanto, as espécies utilizadas como grupo externo no presente trabalho das relações entre os membros de Cheirodontinae foram: *Brycon insignis*, *Carlana eignmanni*, *Chalceus epakros*, *Astyanax mexicanus*, *Aphyocharax anisitsi*, *Bryconops affinis*, *Gnatocharax sp.*, *Hemibrycon sp.*, *Diapoma sp.*, *Tetragonopterus argenteus*, *Phenacogaster sp.*, *Cynopotamus magdalenae*, *Charax leticiae* e *Aphyocharacidium sp.*

Os peixes foram identificados e depositados na coleção de peixes do Laboratório de Biologia de Peixes (LBP), Instituto de Biociências, Universidade Estadual Paulista - UNESP, Botucatu, SP, Brasil. A confirmação da identificação dos animais pertencentes à subfamília Cheirodontinae foi feita com a ajuda do Professor Dr. Luiz R. Malabarba da Universidade Federal do Rio Grande do Sul (UFRGS). Na Tabela 1 estão relacionados os 52 exemplares de Cheirodontinae, representando 15 gêneros, utilizados como grupo interno, os locais de coleta e o número de catálogo da coleção onde estão depositados os exemplares. As espécies representantes das subfamílias de Characidae e o grupo externo utilizado, suas localidades, e o número de catálogo, estão listados na Tabela 2. Na Figura 10 estão indicados os pontos onde foram obtidas as espécies de Cheirodontinae, amplamente distribuídas na Região Neotropical.

Dos animais capturados foram retiradas amostras de tecidos, como fígado, músculo e brânquias. Os tecidos foram preservados em etanol 95% com 0,5 µM de EDTA. Os exemplares foram fixados em formol 10% e também estão conservados em álcool 70% para realização de estudos taxonômicos futuros.

Os exemplares denominados *Odontostilbe sp.1* e gênero e espécie nova tiveram suas identificações feitas com base na tese de doutorado do Prof. Dr. Luiz R. Malabarba (1994), não sendo possível, por essa razão, a utilização dos nomes dados por não terem sido publicados. A identificação correta das espécies, baseado no estudo citado, é '*Odontostilbe britskii*' e '*Ctenurus pristis*' [ou New Genus and

Species C, segundo Malabarba (1998)], respectivamente. O exemplar *Odontostilbe* sp.2 ainda não possui uma identificação exata, devendo essa espécie ser nomeada posteriormente.



Figura 10. Região Neotropical e as localizações das espécies utilizadas no presente trabalho. As coordenadas cartesianas e os nomes das espécies estão listadas na Tabela 1.

Tabela 1. Relação dos exemplares utilizados como grupo interno nas análises filogenéticas e seus respectivos dados sobre localidade de coleta.

Espécie	Localidade	Coordenadas	Número	Voucher
<i>Acinocheirodon cf melanogramma</i>	Rio Jequitinhonha/MG	S 16°30'35.0" W 41°20'02.0"	37550	LBP8112
<i>Aphyocheirodon hemigrammus</i>	Rio Paraná/SP	S 22°22'42.4" W 47°25'37.9"	40025	LBP8306
<i>Cheirodon ibicuiensis</i>	Rio Guaíba/RS	S 30°18'03.9" W 51°20'40.8"	25598	LBP4777
<i>Cheirodon interruptus</i>	Arroio dos Corrientes/RS	S 31°28'46.3" W 52°12'46.9"	21266	LBP3381
<i>Cheirodon interruptus</i>	Rio Grande/RS	S 32°09'06.9" W 52°06'24.2"	20486	LBP3343
<i>Cheirodon australe</i>	Rio Quinchilca/Chile	S 39°51'36" W 72°45'16"	24979	LBP4732
<i>Cheirodon australe</i>	Lago Pumquipulli/Chile	S 39°36'30" W 72°14'01"	24963	LBP4728
<i>Cheirodon killiani</i>	Rio la Laja/Chile	S 37°12'54.8" W 72°26'49.1"	19803	LBP3115
<i>Cheirodon killiani</i>	Rio Renuico/Chile	S 37°39'16" W 72°39'45"	24969	LBP4730
<i>Cheirodon killiani</i>	Rio Duqueco/Chile	S 37°31'27" W 72°14'13"	24974	LBP4731
<i>Cheirodon killiani</i>	Rio Quinchilca/Chile	S 39°51'36" W 72°45'16"	24964	LBP4729
<i>Cheirodon stenodon</i>	Rio Tietê/SP	S 22°45'48.2" W 48°15'41.8"	20130	LBP3015
<i>Compsura gorgonae</i>	Rio Yape/Panamá	N 8,1125 W -77,5914	1	-
<i>Compsura heterura</i>	Natal/RN	S 05°37'47" W 35°37'09"	24984	LBP4733
<i>Compsura sp. nova</i>	Rio Tabasará/Panamá	N 8,2039 W -81,5861	4	-
<i>Genêro e espécie nova</i>	Barra do Garças/MT	S 15°40.678' W 52°17.863"	27603	LBP5699
<i>Heterocheirodon yatai</i>	Durazno/Uruguai	S 33°23'49" W 56°24'10"	24954	LBP4872
<i>Kolpotocheirodon figueiredoi</i>	Rio Paraguaçu/BA	S 12°22'19.0" W 41°31'06.3"	37575	LBP7178
<i>Kolpotocheirodon theloura</i>	Rio Paraná/DF	S 15°43'42.7" W 47°54'39.4"	25982	LBP5033
<i>Macropsobrycon uruguayanae</i>	Cachoeira do Sul/RS	S30°14'46" W52°45'53"	29061	LBP6039
<i>Macropsobrycon xinguensis</i>	Rio Tapajós/AM	N 10°12'54.0" W 54°58'04.0"	40499	LBP8731
<i>Nanocheirodon insignis</i>	Venezuela	N 10°09'42.0" W 72°25'58.0"	27476	LBP6104
<i>Odontostilbe dialeptura</i>	Rio Santa Maria/Panamá	N 8,1962 W -80,7657	2	-
<i>Odontostilbe ecuadorensis</i>	Santa Cruz/ Bolívia	S 17°34'42" W 63°44'16"	AMNH	102077
<i>Odontostilbe fugitiva</i>	Mâncio Lima/AC	S 07°26'35.5" W 73°03'33.5"	23714	LBP4129
<i>Odontostilbe fugitiva</i>	Cruzeiro do Sul/AC	S 7°37'20.0" W 72°47'42.2"	22932	LBP4052
<i>Odontostilbe mitoptera</i>	Rio San Juan Coclesito/Panamá	N 8°80'42" W 80°58'08"	3	-
<i>Odontostilbe paraguayensis</i>	Botucatu/Capivara/SP	S 22°44' W 48°23'	20129	LBP3486
<i>Odontostilbe pequirá</i>	Botucatu/Capivara/SP	S 22°44' W 48°23'	20124	LBP3013
<i>Odontostilbe pequirá</i>	Paysandu/Uruguai	S 32°18'36" W 58°05'54"	24958	LBP4726
<i>Odontostilbe pequirá</i>	Coxim/MS	S 18°25'42.5" W 54°50'02.8"	12659	LBP1469
<i>Odontostilbe pulchra</i>	Venezuela	N 07°38'11.6" W 66°19'04.2"	25845	LBP3070
<i>Odontostilbe pulchra</i>	Rio Turure/Panamá	N 10,5897 W -61,0903	8	-
<i>Odontostilbe sp.1</i>	Rio Araquá/SP	S 22°47.135' W 48°28.892	22626	LBP4650
<i>Odontostilbe sp.2</i>	Rio Grande/SP	S 20°56'49.5" W 48°08'51.9"	29616	LBP6280
<i>Prodontocharax melanotus</i>	Santa Cruz/Bolívia	S 17°41'29" W 63°38'96"	AMNH	102082
<i>Prodontocharax sp.</i>	Rio Amazonas	S -11,8025 W -71,4581	7	-
<i>Pseudocheirodon arnoldi</i>	Rio Iglesias/Panamá	N 8,4231 W -78,0014	5	-
<i>Pseudocheirodon terrabae</i>	Rio Salama Nuevo/Costa Rica	N 8,9043 W -83,4393	6	-
<i>Saccoderma melanostigma</i>	Venezuela	N 10°09'42.0" W 72°25'58.0"	27475	LBP6103
<i>Serrapinnus calliurus</i>	Aquidauana/MS	S 19°34'02.3" W 56°14'09.1"	25768	LBP3800
<i>Serrapinnus calliurus</i>	Aquidauana/MS	S 19°34'54.6" W 56°15'16.5"	22121	LBP3776
<i>Serrapinnus heterodon</i>	Rio Matipó/MG	S 20°18'09.3" W 42°20'04.6"	20305	LBP3441
<i>Serrapinnus heterodon</i>	Rio São Francisco/MG	S 17°08'54.9" W 43°49'32.3"	37551	LBP8104
<i>Serrapinnus kriegi</i>	Aquidauana/MS	S 19°34'17.3" W 56°14'44.8"	25764	LBP4738
<i>Serrapinnus microdon</i>	Rio Purus/AM	S 08°51'21.5" W 68°42'22.6"	17057	LBP2525
<i>Serrapinnus notomelas</i>	Bauru- Córrego Campo Novo/SP	S 22°20'27.1" W 48°56'05.0"	19890	LBP3861
<i>Serrapinnus notomelas</i>	Córrego Piriquito/SP	S 20°44'44.9" W 49°46'45.0"	18293	LBP3860
<i>Serrapinnus notomelas</i>	Rio Paraná/SP	S 22°46'41.5" W 53°19'21.3"	22401	LBP3857
<i>Spintherobolus ankoseion</i>	São Francisco do Sul/SC	S 26°17'35" W 48°35'21"	24957	LBP4725
<i>Spintherobolus broccae</i>	Bertioga/SP	S 23°46'16.2" W 46°00'37.2"	22558	LBP3916
<i>Spintherobolus leptoura</i>	Rio Ribeira de Iguape/SP	S 24°42'57.8" W 47°41'28.3"	36098	LBP7544

Tabela 2. Relação dos exemplares utilizados como grupo externo nas análises filogenéticas e seus respectivos dados sobre localidade de coleta.

Espécie	Localidade	Coordenadas	Número	Voucher
<i>Agoniatas halecinus</i>	Laranjal do Jari/AP	S 00°34'03'' W 52°34'41''	26594	LBP5503
<i>Aphyocharax anisitsi</i>	Coxim/MS	S 18°25'42.5" W 54°50'02.8"	12660	LBP1470
<i>Aphyocharacidium sp</i>	Rio Negro/AM	N 00°05.610' W 66°49.034"	33167	LBP6875
<i>Astyanax mexicanus</i>	Aquário	-	24599	LBP4527
<i>Brycon insignis</i>	Rio Paraíba do Sul/SP	S 22°00' W 41°20'	16075	LBP2369
<i>Brycon petrosus</i>	Santa Rita Arriba/Panamá	N 09°19'26.2'' W 79°46'08.2	18511	LBP2750
<i>Bryconops affinis</i>	Represa de Três Marias	S 18°13,661' W 45°14,857'	4168	LBP262
<i>Carlana eigenmanni</i>	Rio Pizote/Costa Rica	-	19864	LBP3299
<i>Chalceus epakros</i>	Rio Amazonas/PA	S 00°38'46'' W 52°30'33''	26504	LBP5443
<i>Charax leticiae</i>	Rio Paraguay/MS	S 18°25'42.5'' W 54°50'02.8''	12700	LBP1480
<i>Clupeacharax sp.</i>	Cáceres/MT	S 16°06'56' W 57°44'33'	26012	LBP5046
<i>Cynopotamus magdalenae</i>	Lago Maracaibo/Venezuela	N 09°38'53.8' W 72°34'56.4"	29515	LBP6132
<i>Diapoma sp</i>	Arroio dos Corrientes/RS	S 31°28'46.3" W 52°12'46.9"	21274	LBP3383
<i>Glandulocauda melanogenys</i>	Riacho Grande/SP	S 23°46'13.2'' W 46°18'39.6''	24538	LBP4507
<i>Gnatocharax sp</i>	Rio Negro/AM	S 00°53'18.6" W 62°40'36/1"	24494	LBP4496
<i>Hemibrycon sp</i>	Trinidad Tobago	N 10°41.320' W 61°19.499'	33168	LBP6847
<i>Iguanodectes sp.</i>	Igarapé Boiboi/AM	S 00°49'43.7'' W 62°49'59.8''	23840	LBP4266
<i>Phenacogaster sp</i>	Rio Paranaíba/PI	S 09°09'51' W 45°51'15'	27299	LBP5582
<i>Piaractus mesopotamicus</i>	Caunesp/SP	-	23803	LBP4255
<i>Pseudocorynopoma heterandria</i>	Rio Fau/SP	S 24°12,441' W 47°28,616'	18570	LBP2862
<i>Stetapriion crenatum</i>	Mâncio Lima/AC	S 07°34'28.8' W 72°55'24.9"	22994	LBP4078
<i>Tetragonopterus argenteus</i>	Rio Negro/MT	S 19°34'33.7' W 56°14'49.5"	22029	LBP3758

3.2. Métodos

3.2.1. Isolamento de DNA genômico

O DNA genômico foi obtido a partir de amostras de fígado, músculo ou brânquias, utilizando-se kits de extração DNeasy® Blood & Tissue da Qiagen, seguindo o protocolo do próprio fabricante.

3.2.2. Amplificação e Sequenciamento dos Genes Mitocondriais (16S, COI e Citocromo *b*) e Nucleares (*Sia* e *Trop*)

Para amplificar as regiões do DNA mitocondrial (16S, COI e Citocromo *b*) e nuclear (*Sia* e *Trop*) estudadas foram realizadas reações de PCR com um volume final de 25,0µl, contendo: 0,4µl de dNTP (8mM), 2,5 µl de 10X "PCR Buffer" (Invitrogen), 0,5µl de cada primer (5µM), 0,2µl de *Taq DNA polymerase* (Invitrogen), 0,5 – 3,0µl (10 – 50ng) de DNA molde e água destilada estéril para completar os 25,0 µl. Os *primers* utilizados estão listados na Tabela 3.

Tabela 3. Relação dos *primers* utilizados para amplificação de parte dos genes mitocondriais e nucleares com amplificação por PCR única.

Gene	Identificação dos <i>Primers</i>	Sequência dos <i>primers</i>	Referência
Cyt b	L14841	5'- AAA TCA AAG CAT AAC ACT GAA GAT G -3'	Kocher <i>et al</i> (1989)
	H15915	5'- CCA ATT TGC ATG GAT GTC TTC TCG G -3'	Irwing <i>et al</i> (1991)
	Cytb08R2	5'- GCT TTG GGA GTT AGD GGT GGG AGT TAG AAT C -3'	Presente estudo
	Cytb -Novo	5'- GAC TTG AAA AAC CAY CGT TGT -3'	Presente estudo
16S rRNA	16Sa-L	5'- ACG CCT GTT TAT CAA AAA CAT - 3'	Palumbi (1996)
	16Sb-H	5'- CCG GTC TGA ACT CAG ATC ACG T - 3'	
Sia	T3b	5'- ATT AAC CCT CAC TAA AGT CGA GTG CCC CGT GTG YTT YGA YTA- 3'	Friesen <i>et al.</i> (1999)
	T7b	5'- AAT ACG ACT CAC TAT AGG AAG TGG AAG CCG AAG CAG SWY TGC ATC AT- 3'	
Trop	TropF	5'- GAG TTG GAT CGG GCT CAG GA GCG -3'	Friesen <i>et al.</i> (1999)
	TropR	5'- CGG TCA GCC TCT TCA GCA ATG TGC TT -3'	Friesen <i>et al.</i> (1999)

As reações de PCR seguiram as seguintes condições gerais: um ciclo inicial de desnaturação a 95°C por 180 segundos, seguido de 30 ciclos de 94°C por 30 segundos, 48-58°C por 60 segundos para anelamento dos *primers*, 72°C por 120 segundos, estendendo a cadeia e para finalizar, um ciclo a 72°C por 300 segundos. As reações de PCR foram realizadas em termocicladores Applied Biosystems Veriti 96 Well Thermal Cycler.

Os produtos foram aplicados em um gel de agarose 1,0%, utilizando *Blue Green Loading Dye I* (LGC Biotecnologia), e visualizados em um transluminador de luz ultravioleta, para verificação da qualidade e tamanho dos fragmentos amplificados. Os géis foram fotografados e digitalizados pelo programa da Kodak “Electrophoresis Documentation and Analysis System 120”. Os produtos da reação de PCR foram purificados usando a enzima ExoI/SAP.

Os produtos purificados foram utilizados como molde para as reações de sequenciamento (com volume final de 7,0µl) usando 0,7µl de ABI Prism BigDye Terminator Cycle Sequencing 3.0 Ready Reaction Kits (Applied Biosystems), junto com 0,7µl de um dos *primers* na concentração de 5,0µM e 1,5-2,8µl (50-200ng) do DNA purificado, sendo a reação completada com água para 7,0µl. Para a reação de PCR de sequenciamento foram utilizados os mesmos *primers*, *forward* separadamente do *reverse*, usados nas reações de amplificação padrão. As condições da PCR de sequenciamento foram: um ciclo inicial a 95°C por 120 segundos, seguido de 25 ciclos a 95°C por 45 segundos, 56°C por 30 segundos e 60°C por 120 segundos.

Depois da PCR de sequenciamento, as amostras foram purificadas e sequenciadas em um sequenciador automático ABI PRISM 3110 DNA Sequencer (Applied Biosystems).

3.2.3. Amplificação e Sequenciamento dos Genes Nucleares RAG1, RAG2, Ptr e Myh6

Para amplificar as outras regiões do DNA nuclear estudadas, Recombination activating gene 1 (RAG1), Recombination activating gene 2 (RAG2), si:ch211-105n9.1-like protein (Ptr) e Myosin, heavy chain 6, cardiac muscle, alpha (Myh6) foram realizadas reações de PCR com um volume final de 25,0µl, contendo: 0,4µl de dNTP (8mM), 2,5 µl de 10X “PCR Buffer” (Invitrogen), 0,25µl de cada primer (20µM), 0,2µl de *Taq DNA polymerase* (Invitrogen), 1,0 – 3,0µl de DNA molde e água destilada estéril para completar os 25,0µl. Os *primers* utilizados estão listados na Tabela 4.

Tabela 4: Relação dos *primers* utilizados para amplificação de parte dos genes nucleares.

Gene	Identificação dos Primers	Sequência dos primers	T°C	Referência
RAG1 1stPCR	2510F	5'- TGG CCA TCC GGG TMA ACA C - 3'	56/54°C	Li e Ortí (2007)
	4090R	5'- CTG AGT CCT TGT GAG CTT CCA TRA AYT T - 3'		Li e Ortí (2007)
RAG1 2ndPCR	2535F	5'- AGC CAG TAC CAT AAG ATG TA - 3'	56/54°C	Li e Ortí (2007)
	4078R	5'- TGA GCC TCC ATG AAC TTC TGA AGR TAY TT- 3'		Li e Ortí (2007)
RAG2 1stPCR	164F	5'- AGC TCA AGC TGC GYG CCA T -3'	58/56°C	Presente estudo
	RAG2-R6	5'- TGRTCCARGCAGAAGTACTTG -3'		Lovejoy e Collette (2001)
RAG2 2ndPCR	176R	5'- GYG CCA TCT CAT TCT CCA ACA -3'	58/56°C	Presente estudo
	Rag2Ri	5'-AGA ACA AAA GAT CAT TGC TGG TCG GG-3'		Presente estudo
Myh6 1stPCR	F329	5'- CCG CMT GGA TGA TCT ACA C - 3'	56/54°C	Li et al.(2007)
	A3R1	5'- ATT CTC ACC ACC ATC CAG TTG AA- 3'		Li et al.(2007)
Myh6 2ndPCR	A3F2	5'- GGA GAA TCA RTC KGT GCT CAT CA - 3'	56/54°C	Li et al.(2007)
	A3R2	5'- CTC ACC ACC ATC CAG TTG AAC AT - 3'		Li et al.(2007)
Ptr 1st PCR	F458	5' – AGA ATG GAT WAC CAA CAC YTA CG – 3'	56/54°C	Li et al.(2007)
	R1248	5'- TAA GGC ACA GGA TTG AGA TGC T -3'		Li et al.(2007)
Ptr 2nd PCR	F463	5'- GGA TAA CCA ACA CYT ACG TCA A -3'	56/54°C	Li et al.(2007)
	R1242	5'- ACA GGA TTG AGA TGC TGT CCA -3'		Li et al.(2007)

As reações de PCR seguiram dois ciclos de amplificação (Nested-PCR), um ciclo com o par de *primers* denominado 1stPCR e o segundo ciclo com o par denominado 2ndPCR. A primeira amplificação realizada para cada gene resultou em um produto de PCR que foi utilizado como molde nas reações com o segundo primer. Os ciclos de amplificação seguiram um padrão geral como descrito a seguir: um ciclo inicial de desnaturação por 60 segundos, seguido de 15 ciclos de 95°C por 45 segundos, a primeira temperatura de anelamento dos *primers* por 60 segundos como apresentado na Tabela 4 respectivamente, 72°C por 60 segundos, seguindo novamente com 15 ciclos de amplificação com 95°C de desnaturação por 45 segundos, a segunda temperatura de anelamento dos *primers* por 60 segundos, 72°C por 90 segundos para extensão da cadeia e para finalizar, um ciclo a 72°C por

300 segundos. As reações de PCR foram realizadas em termocicladores Applied Biosystems Veriti 96 Well Thermal Cycler.

Os produtos foram aplicados em um gel de agarose 1,0%, corados com brometo de etídio (2µl/100ml) e visualizados em um transluminador de luz ultravioleta, verificando a qualidade e tamanho dos fragmentos amplificados. Os géis de agarose foram fotografados e digitalizados pelo programa Quantity One 4.2.2 da BIORAD.

Os produtos das reações de PCR foram enviados para sequenciamento no Throughput Genomics Unit (HTGU) situado no Department of Genome Sciences, University of Washington, seguindo as recomendações da equipe.

3.2.4. Alinhamento das sequências e análises filogenéticas

Sequências individuais de cada espécie foram inicialmente analisadas com o software BioEdit 5.0.9 (Hall 1999) e uma sequência consenso foi obtida para cada segmento de DNA de cada espécie. Após isso, todas as sequências foram alinhadas usando o software Muscle (Edgar 2004). As sequências de DNA das regiões codificadoras de proteínas como citocromo *b*, RAG1, RAG2, Myh6, Ptr, foram alinhadas baseadas em sequências de amino ácidos, aplicando o código genético universal e mitocondrial no programa MacClade 4.0 (Maddison e Maddison 2000).

A possível saturação de substituições de nucleotídeos foi avaliada pelo programa DAMBE versão 4.0.65 (Xia e Xie 2001) plotando-se o número absoluto de transições (Ti) e transversões (Tv) contra os valores de distância genética estimada pelo modelo Kimura-2-parâmetros (Kimura 1980). A escolha do melhor modelo de distância genética foi realizada com o programa Modeltest 3.06 (Posada e Crandall 1998).

As análises filogenéticas foram efetuadas utilizando-se de métodos de máxima parcimônia como implementado nos programas Mega 4 (Tamura et al. 2007) e TNT (Golobof *et al.* 2006), máxima verossimilhança como implementados nos programas Paup*4.0b10 (Swofford 2002) e PHYML (Guindon e Gascuel 2003), e análise Bayesiana como implementados nos programas MrBayes 3.1 (Huelsenbeck et al. 2001). Seguindo as recomendações de Swofford et al. (1996), Nei e Kumar (2000) e Felsenstein (2004), uma vez obtidos os dados moleculares, foram construídas filogenias testando o maior número possível de variáveis, com o ordenamento ou não dos dados, inclusão ou não de *gaps*, pesando diferentemente ou não as transições e transversões e excluindo ou não regiões de difícil

alinhamento. Todas as filogenias obtidas foram testadas utilizando métodos estatísticos, como *bootstrap* (Felsenstein 1985). Ao final das análises, as filogenias finais foram elaboradas com o método de consenso por maioria (com corte em nível de 50%), conforme tem sido feito nos estudos utilizando dados moleculares. A discussão foi feita comparando todas as filogenias obtidas, tendo em vista principalmente a que se apresentou mais bem resolvida (com maior suporte estatístico) após a análise de todas as combinações de variáveis citadas acima.

As sequências obtidas e seu respectivo alinhamento estão apresentados no Apêndice.

4. RESULTADOS

Aos resultados obtidos no presente trabalho foram dados dois diferentes enfoques. Primeiramente, foram analisadas as relações entre os representantes de todas as subfamílias consideradas válidas para Characidae, dando uma principal atenção à posição filogenética da subfamília Cheirodontinae. Após essa primeira análise, foram analisadas as relações entre os gêneros e espécies pertencentes à subfamília Cheirodontinae.

As transições/transversões (Ti/Tv) foram plotadas versus a distância genética segundo o modelo de Kimura-2-parâmetros (Kimura, 1980) para cada gene individualmente, considerando como relações lineares, aquelas que possuíam o coeficiente de correlação linear (r) maior que 0,75, indicando que não houve saturação dos nucleotídeos.

As sequências dos genes foram analisadas sob uma variedade de modelos, dos mais simples (todos os caracteres escolhidos pesados igualmente) aos mais complexos (utilizando apenas caracteres mais conservados e diferentes esquemas de pesagens de transições e transversões). Em alguns casos, regiões com dificuldade de alinhamento foram excluídas das análises. As análises filogenéticas resultaram em uma série de cladogramas que exprimem hipóteses de relacionamentos entre membros constituintes de Cheirodontinae.

4.1. Análise das relações entre as subfamílias representantes de Characidae

Foram utilizados nas análises, representantes de todas as subfamílias pertencentes à Characidae segundo Reis et al. (2003) e Weitzman et al. (2005). As espécies escolhidas foram: *Agoniatodes halecinus* (Agoniatinae), *Aphyocharax anisitsi* (Aphyocharacinae), *Brycon petrosus* (Bryconinae), *Carlana eigenmanni* (Rhoadsiinae), *Charax leticiae* (Characinae), *Clupeacharax* sp. (Clupeacharacinae), *Glandulocauda melanogenys* (Glandulocaudinae), *Iguanodectes* sp. (Iguanodectinae), *Piaractus mesopotamicus* (Serrasalminae), *Pseudocorynopoma heterandria* (Stevardiinae), *Stetaprion crenatum* (Stethaprioninae), *Tetragonopterus argenteus* (Tetragonopterinae) e mais três gêneros representativos de Cheirodontinae (*Cheirodon*, *Macropsobrycon* e *Heterocheirodon*). As amostras tiveram sequenciados os genes 16S, Citocromo *b*, *Sia*, *Trop*, *RAG1*, *RAG2*, *Ptr* e *Myh6* e suas análises foram realizadas com todos os genes em conjunto.

Após serem feitas as análises, foram retiradas as sequências do gene nuclear Ptr porque esse não apresentou uma boa resolução para a filogenia. Após o procedimento de alinhamento e correção manual, o alinhamento das sequências resultou em uma matriz com 6.801 caracteres dos quais 4.569 foram conservados, 2.193 foram variáveis e 1.403 foram informativos para as análises de parcimônia. A proporção transição/transversão (Ti/Tv) observada foi de 1,1. A composição média, em porcentagem, de bases para os genes estudados foi de 25,8% de adenina (A), 25,7% de citosina (C), 24,2% de guanina (G) e 24,3% de timina (T). A distância média entre as sequências foi de $d = 0,121 \pm 0,003$, segundo o modelo de Tamura-Nei (Tamura e Nei, 1993). Uma análise gráfica da relação entre as transições (Ti) e transversões (Tv) e a distância genética estimada pelo modelo Kimura-2-parâmetros (Kimura, 1980) indica que não há saturação nestes nucleotídeos (Figura 11).

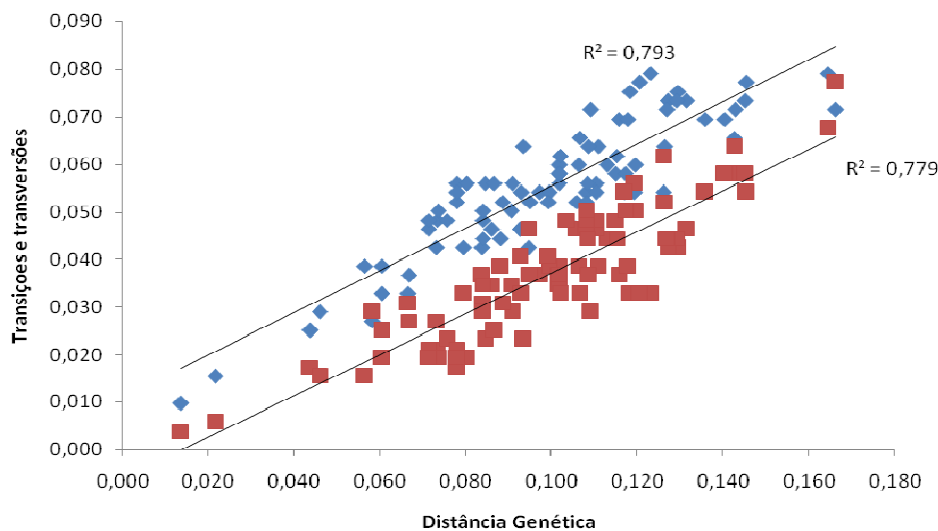


Figura 11. Frequência observada de transições (losangos) e transversões (quadrados) em relação à distância genética estimada pelo modelo Kimura-2-parâmetros.

4.1.1. Análise filogenética realizada pelo método de análise Bayesiana

As análises heurísticas, utilizando o método de análise Bayesiana, foram realizadas considerando todos os dados obtidos (6.801 pb) e considerando os *gaps* como quinta base (no caso do gene 16S por exemplo). A árvore de consenso obtida está representada na Figura 12. Nenhuma espécie foi considerada como grupo externo nas análises (árvore sem raiz). Uma árvore contendo apenas os nomes das subfamílias (Figura 13) foi gerada a partir da filogenia apresentada na Figura 12,

para que o entendimento das relações fosse facilitado. Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 60%.

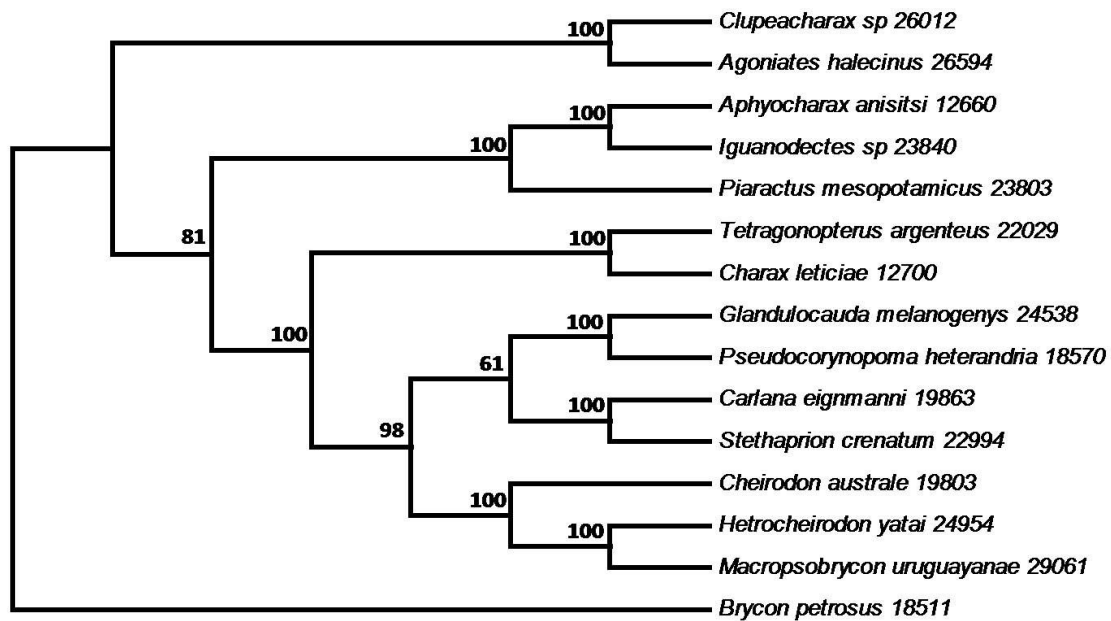


Figura 12. Árvore de consenso, com todos os genes em conjunto, por maioria entre 20.002 árvores, encontrada pelo método de análise Bayesiana. Os números apresentados representam valores das probabilidades *a priori* obtidos.

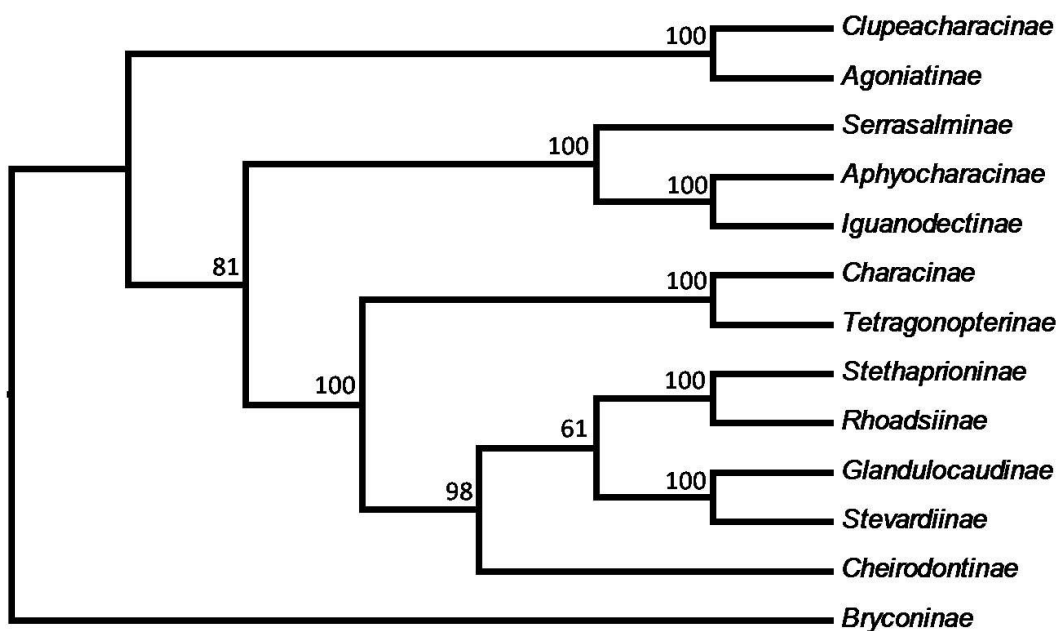


Figura 13. Árvore consenso por maioria somente com os nomes das subfamílias de Characidae. Árvore de consenso por maioria entre 20.002 árvores, encontrada pelo método de análise Bayesiana. Os números apresentados representam valores das probabilidades *a priori* obtidos.

4.2. Análise das relações entre os gêneros e espécies pertencentes à Cheirodontinae

Primeiramente, foram realizadas análises com os genes separadamente, e após isso, análises mais abrangentes, com todos os genes em conjunto. As análises em conjunto foram feitas para que também fossem excluídos casos de diferenças entre árvores de genes e árvores de espécies.

4.2.1. Análises baseadas no gene mitocondrial 16S rRNA

Foram obtidas sequências do gene mitocondrial 16S rRNA de 66 das 68 espécies listadas na Tabela 1 e 2. O tamanho das sequências do gene 16S rRNA variou de 488 pb em *Carlanna eigenmanni* a 590 pb na grande maioria das espécies, com um valor médio de 587,5 pb. Após o procedimento de alinhamento e correção manual, o alinhamento das seqüências resultou em uma matriz com 592 caracteres dos quais 368 foram conservados, 224 foram variáveis e 154 foram informativos nas análises de parcimônia. A proporção transição/transversão (Ti/Tv) observada foi de 2,5. A composição média, em porcentagem, de bases para este gene foi de 31,5% de adenina (A), 23,5% de citosina (C), 21,9% de guanina (G) e 23,1% de timina (T). A distância média entre as seqüências foi de $d = 0.070 \pm 0.006$, segundo o modelo de Tamura-Nei (Tamura e Nei, 1993). Uma análise gráfica da relação entre as transições (Ti) e transversões (Tv) e a distância genética estimada pelo modelo Kimura-2-parâmetros (Kimura, 1980) indica que não há saturação nestes nucleotídeos (Figura 14). A espécie *Brycon insignis* foi utilizado como grupo externo nas análises.

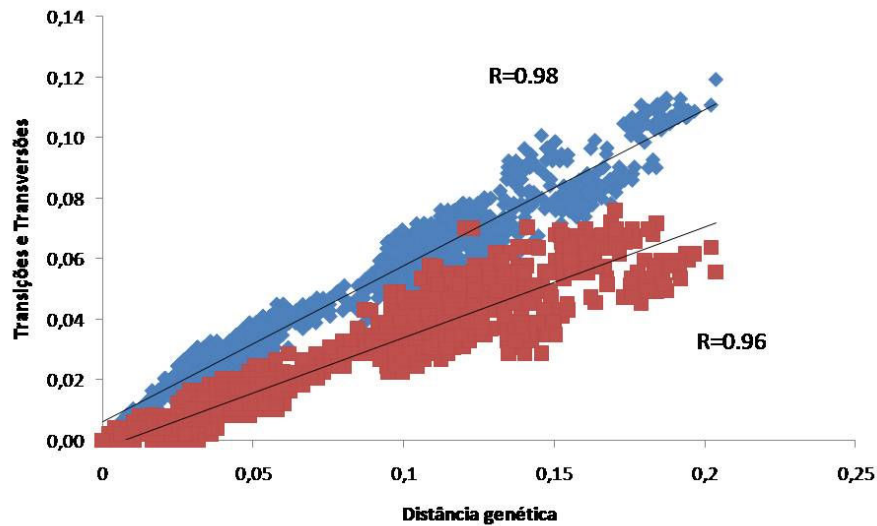


Figura 14. Frequência observada de transições (losangos) e transversões (quadrados) em relação à distância genética estimada pelo modelo Kimura-2-parâmetros.

4.2.1.1. Análise filogenética realizada pelo método de análise Bayesiana

As análises heurísticas, utilizando o método de análise Bayesiana, foram feitas considerando todos os animais cujas sequências de 16S rRNA foram obtidas, todos os dados obtidos (592 pb) e considerando os *gaps* como quinta base. O melhor modelo escolhido pelo Modeltest 3.7 foi o GTR+I+G com parâmetro gamma, selecionado pelo critério de informação Akaike (AIC). A árvore de consenso obtida está representada na Figura 15. *Brycon insignis* foi considerado como grupo externo nas análises.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, os mais baixos foram apenas em nós cujas espécies eram semelhantes, e discorda dos dados morfológicos e moleculares encontrados na literatura.

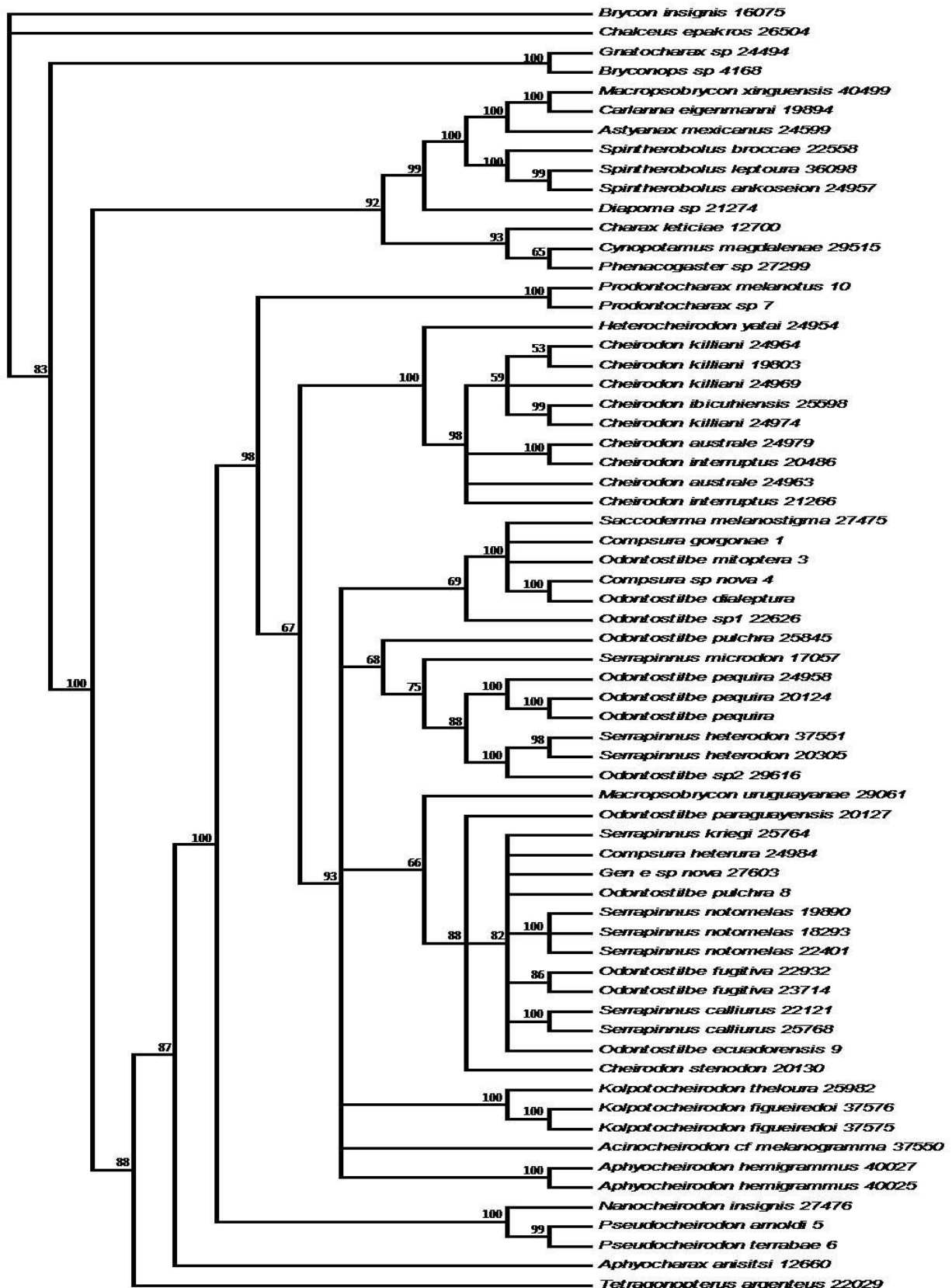


Figura 15. Árvore de consenso com o gene 16S rRNA por maioria (50%) entre 20.002 árvores, encontrada pelo método de análise bayesiana. Os números apresentados representam valores das probabilidades *a posteriori* obtidos. *Brycon insignis* foi utilizado como grupo externo.

4.2.1.2. Análise filogenética realizada pelo método Máxima Verossimilhança (ML)

As análises de Máxima Verossimilhança foram realizadas pelo programa PhyML 3.0 (Guindon e Gascuel 2003), com os dados sendo enviados pelo site <http://www.atgc-montpellier.fr/phyml>. O modelo de substituição foi o HKY (Hasegawa et al. 1985). As análises resultaram em uma filogenia consenso e os valores foram encontrados em 500 réplicas pelo método de *bootstrap*, cujos quais são mostrados na Figura 16.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, os mais baixos foram omitidos da filogenia, e os resultados discordam dos dados morfológicos e moleculares encontrados na literatura.

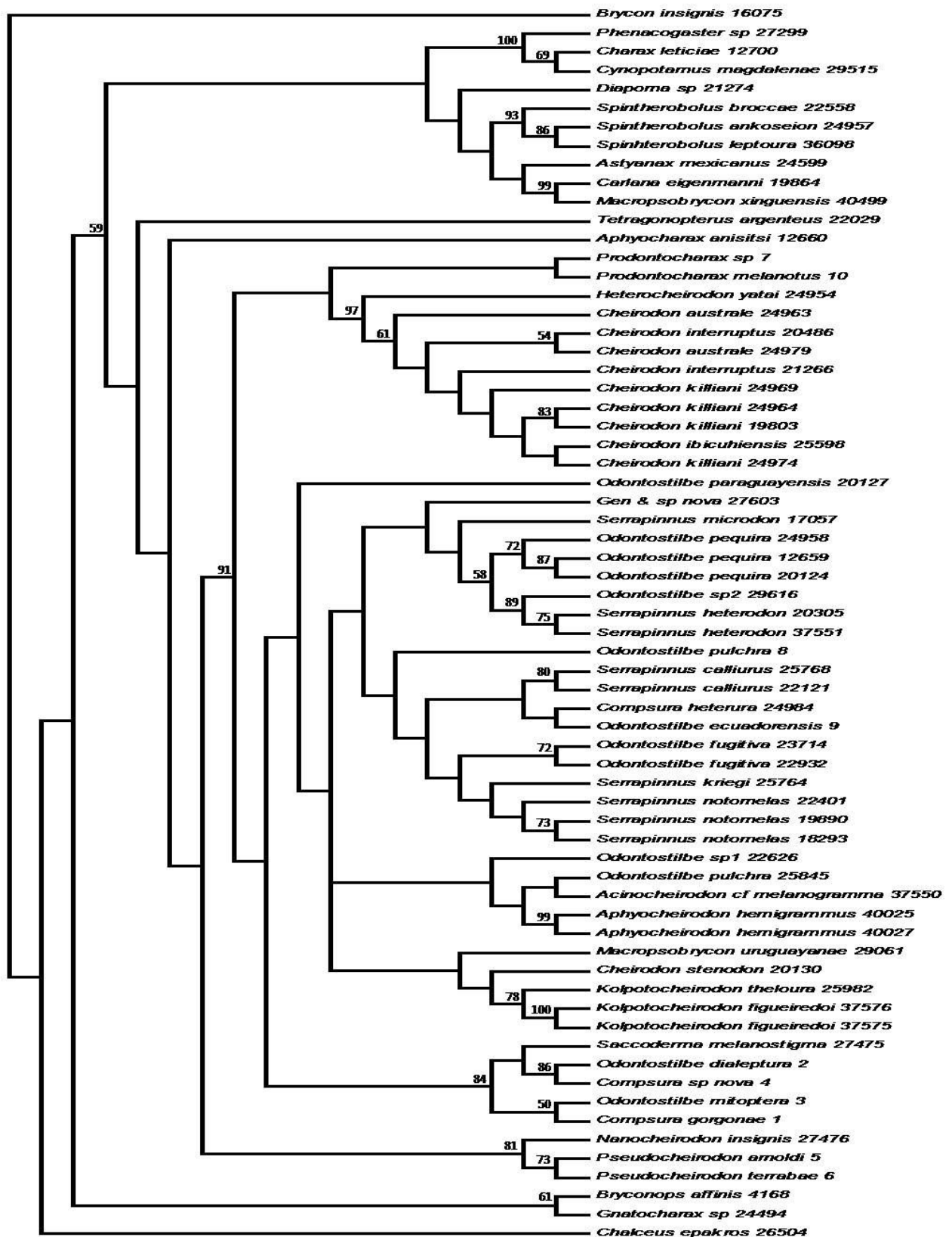


Figura 16. Árvore de consenso com o gene 16S rRNA por maioria (50%) de Máxima Verossimilhança. As análises foram realizadas com 500 réplicas e considerando a árvore de consenso resultante das árvores obtidas. *Brycon insignis* foi considerado com grupo externo.

4.2.2. Análises baseadas no gene mitocondrial Citocromo *b*

Foram obtidas sequências do gene mitocondrial Citocromo *b* de 67 das 68 espécies listadas na Tabela 1 e 2. O tamanho das sequências do gene Citocromo *b* variou de 808 pb em *Diapoma sp.* e 979 pb em mais de 50% das espécies, com um valor médio de 967,2 pb. Após o procedimento de alinhamento e correção manual, o alinhamento das seqüências resultou em uma matriz com 979 caracteres dos quais 374 foram conservados, 605 foram variáveis e 457 foram informativos nas análises de parcimônia. A proporção transição/transversão (Ti/Tv) observada foi de 0,9. A composição média, em porcentagem, de bases para este gene foi de 27,2% de adenina (A), 28,9% de citosina (C), 14,5% de guanina (G) e 29,4% de timina (T). A distância média entre as seqüências foi de $d = 0.180 \pm 0.009$, segundo o modelo de Tamura-Nei (Tamura e Nei, 1993). Uma análise gráfica da relação entre as transições (Ti) e transversões (Tv) e a distância genética estimada pelo modelo Kimura-2-parâmetros (Kimura, 1980) indica que não há saturação nestes nucleotídeos (Figura 17). A espécie *Brycon insignis* foi utilizado como grupo externo nas análises.

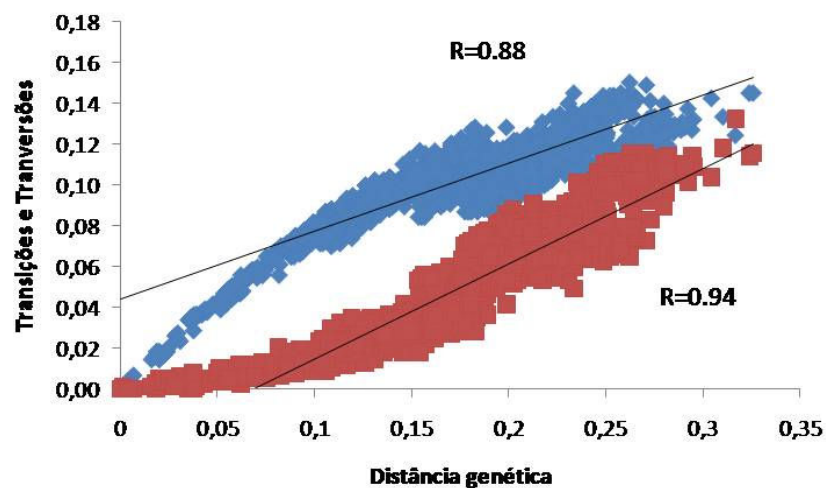


Figura 17. Frequência observada de transições (losangos) e transversões (quadrados) em relação à distância genética estimada pelo modelo Kimura-2-parâmetros.

4.2.2.1. Análise filogenética realizada pelo método de análise Bayesiana

As análises heurísticas, utilizando o método de análise Bayesiana, foram feitas considerando todos os animais cujas sequências de citocromo *b* foram obtidas, todos os dados obtidos (979 pb) e considerando os *gaps* como quinta base. O melhor modelo escolhido pelo Modeltest 3.7 foi o GTR+I+G com parâmetro gama, selecionado pelo critério de informação Akaike (AIC). A árvore de consenso obtida está representada na Figura 18. *Brycon insignis* foi considerado como grupo externo nas análises.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, e discorda dos dados morfológicos e moleculares encontrados na literatura.

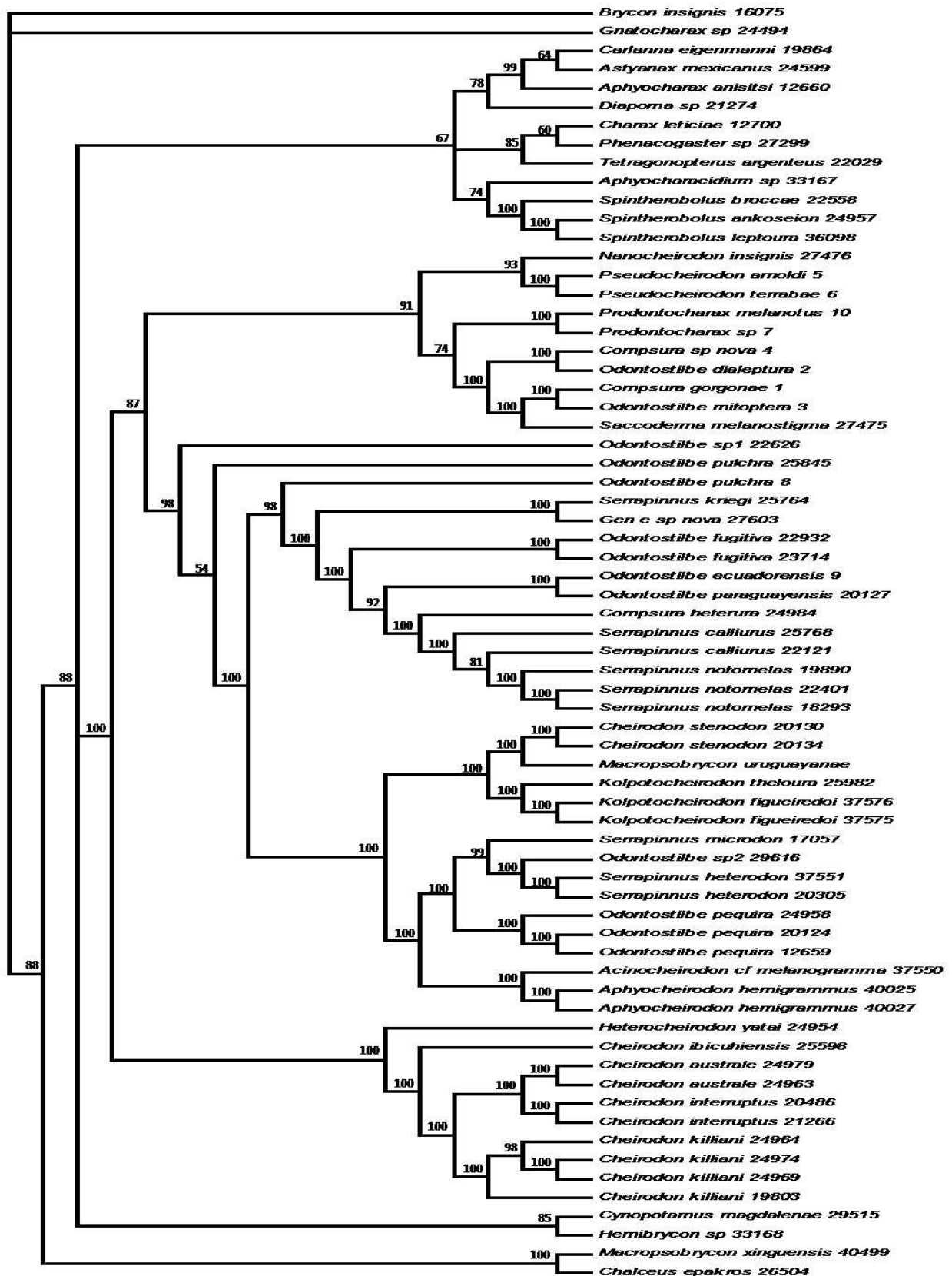


Figura 18. Árvore de consenso com Citocromo *b* por maioria (50%) entre 20.002 árvores, encontrada pelo método de análise bayesiana. Os números apresentados representam valores das probabilidades *a priori* obtidos. *Brycon insignis* foi utilizado como grupo externo.

4.2.2.2. Análise filogenética realizada pelo método Máxima Verossimilhança (ML)

As análises de Máxima Verossimilhança foram realizadas pelo programa PhyML 3.0 (Guindon e Gascuel 2003), com os dados sendo enviados pelo site <http://www.atgc-montpellier.fr/phyml>. O modelo de substituição foi o HKY (Hasegawa et al. 1985). As análises resultaram em uma filogenia consenso e os valores foram encontrados em 500 réplicas pelo método de *bootstrap*, cujos quais são mostrados na Figura 19.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, os mais baixos foram omitidos da filogenia, e os resultados discordam dos dados morfológicos e moleculares encontrados na literatura.

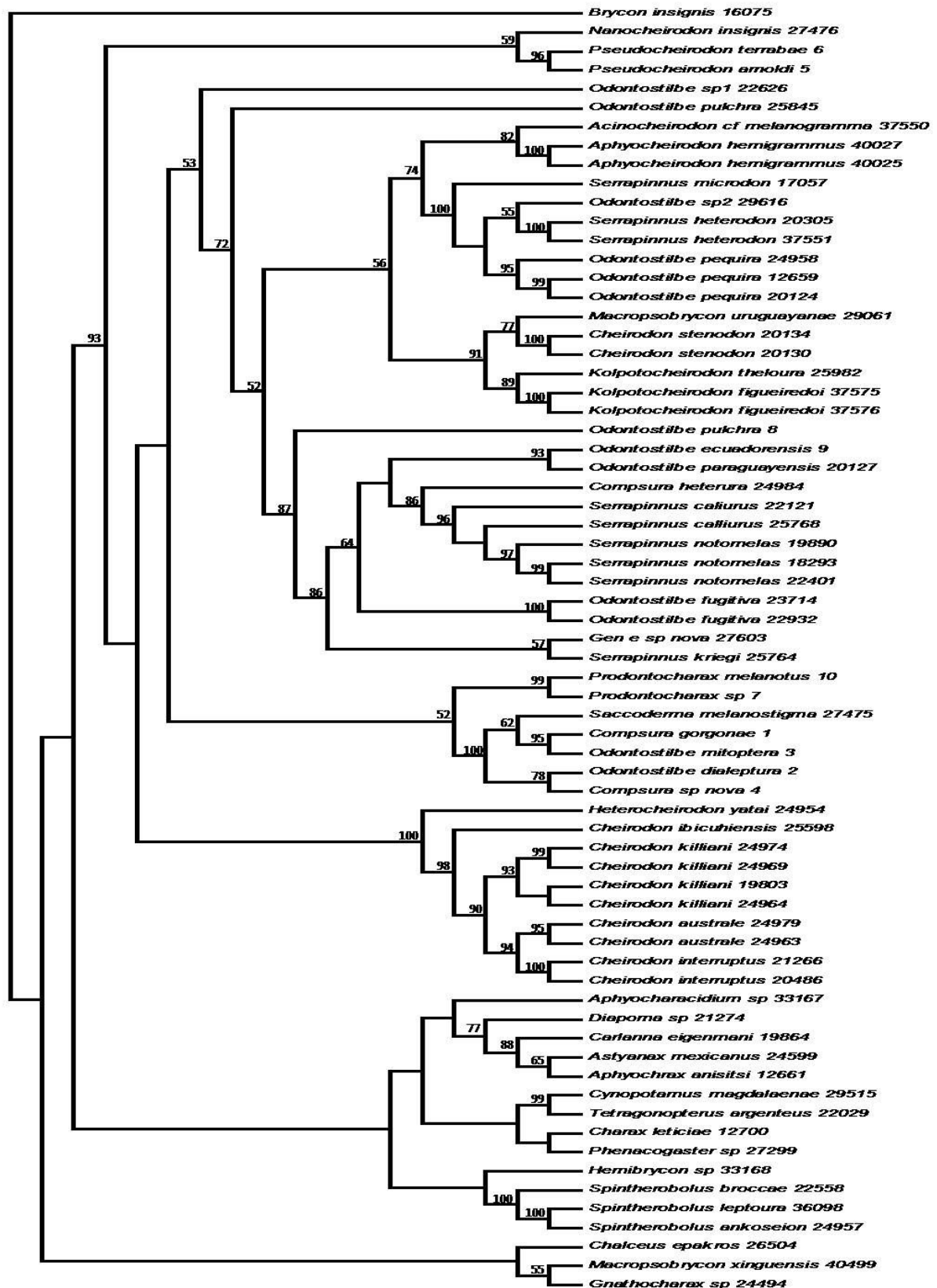


Figura 19. Árvore de consenso com citocromo *b* por maioria (50%) de Máxima Verossimilhança. As análises foram realizadas com 500 réplicas e considerando a árvore de consenso resultante das árvores obtidas. *Brycon insignis* foi considerado com grupo externo.

4.2.3. Análises baseadas no gene nuclear *Myh6* (*Myosin, heavy chain 6, cardiac muscle, alpha*)

Foram obtidas sequências do gene nuclear *Myh6* de 55 das 68 espécies listadas na Tabela 1 e 2. O tamanho das sequências do gene *Myh6* variou de 632 pb em *Brycon insignis* a 750 pb em 24 das espécies sequenciadas, com um valor médio de 706,9 pb. Esse gene possui diversas cópias diferentes, denominados psedogenes, que são comumente amplificados sem que seja notada a diferença, dificultando assim, a obtenção das sequências do gene “correto” de todos os exemplares utilizados no estudo. Após o procedimento de alinhamento e correção manual, o alinhamento das seqüências resultou em uma matriz com 750 caracteres dos quais 528 foram conservados, 222 foram variáveis e 150 foram informativos nas análises de parcimônia. A proporção transição/transversão (Ti/Tv) observada foi de 2,0. A composição média, em porcentagem, de bases para este gene foi de 30,2% de adenina (A), 22,1% de citosina (C), 23,7% de guanina (G) e 24,0% de timina (T). A distância média entre as seqüências foi de $d = 0.056 \pm 0.004$, segundo o modelo de Tamura-Nei (Tamura e Nei, 1993). Uma análise gráfica da relação entre as transições (Ti) e transversões (Tv) e a distância genética estimada pelo modelo Kimura-2-parâmetros (Kimura, 1980) indica que não há saturação nestes nucleotídeos (Figura 20). A espécie *Brycon insignis* foi utilizado como grupo externo nas análises.

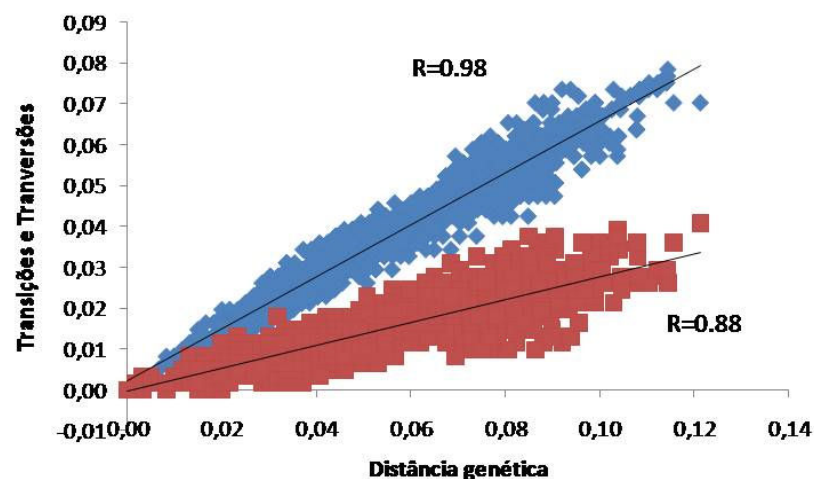


Figura 20. Frequência observada de transições (losangos) e transversões (quadrados) em relação à distância genética estimada pelo modelo Kimura-2-parâmetros.

4.2.3.1. Análise filogenética realizada pelo método de análise Bayesiana

As análises heurísticas, utilizando o método de análise Bayesiana, foram feitas considerando todos os animais cujas sequências de Myh6 foram obtidas, todos os dados obtidos (750 pb) e considerando os *gaps* como dados pertencentes às sequências. O melhor modelo escolhido pelo Modeltest 3.7 foi o GTR+I+G com parâmetro gama, selecionado pelo critério de informação Akaike (AIC). A árvore de consenso obtida está representada na Figura 21. *Brycon insignis* foi considerado como grupo externo nas análises.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, e discorda dos dados morfológicos e moleculares encontrados na literatura.

4.2.3.2. Análise filogenética realizada pelo método Máxima Verossimilhança (ML)

As análises de Máxima Verossimilhança foram realizadas pelo programa PhyML 3.0 (Guindon e Gascuel 2003), com os dados sendo enviados pelo site <http://www.atgc-montpellier.fr/phyml>. O modelo de substituição foi o HKY (Hasegawa et al. 1985). As análises resultaram em uma filogenia consenso e os valores foram encontrados em 500 réplicas pelo método de *bootstrap*, cujos quais são mostrados na Figura 22.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, os mais baixos foram omitidos da filogenia, e os resultados discordam dos dados morfológicos e moleculares encontrados na literatura.

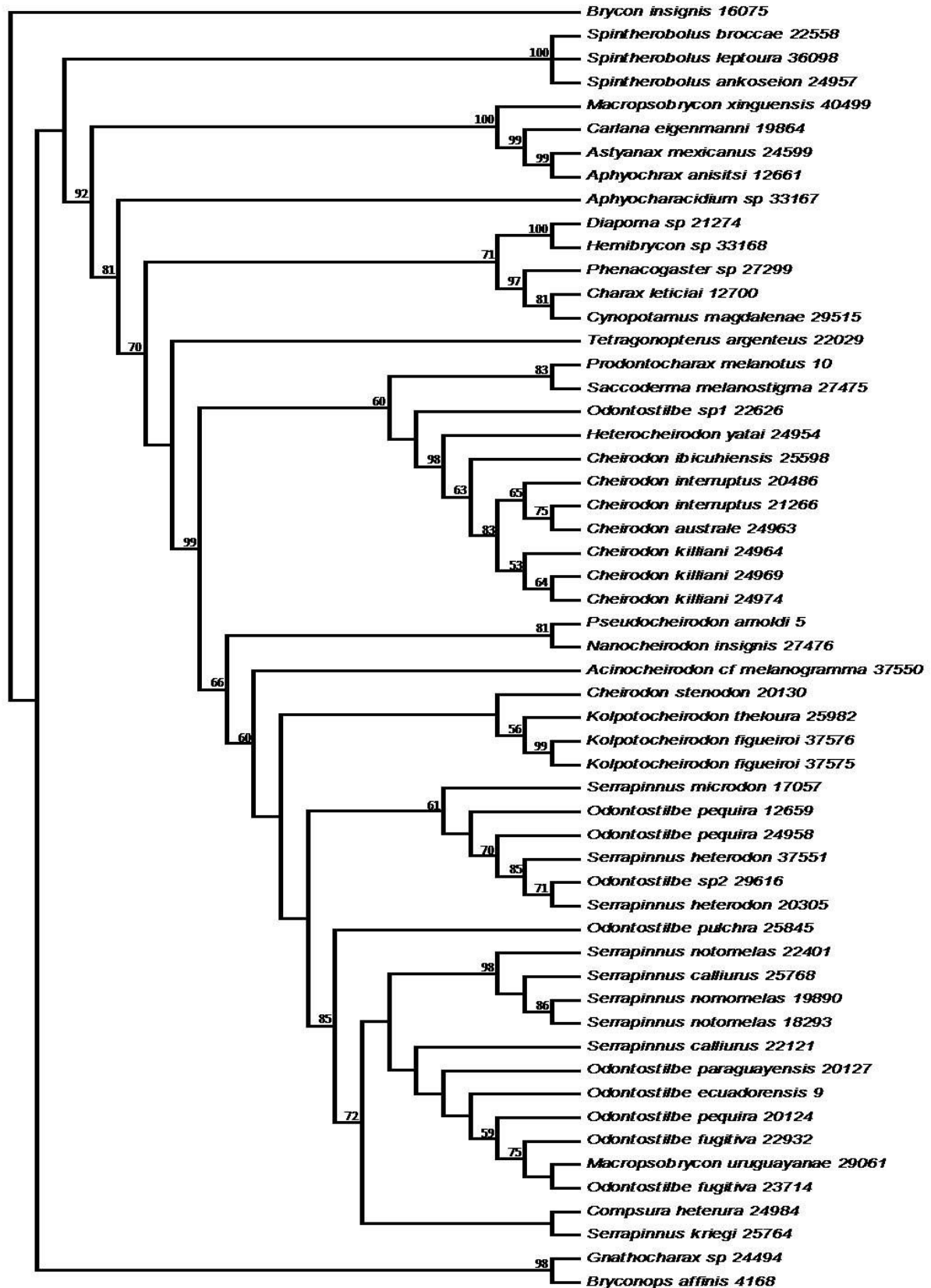


Figura 22. Árvore de consenso com Myh6 por maioria (50%) de Máxima Verossimilhança. As análises foram realizadas com 500 réplicas e considerando a árvore de consenso resultante das árvores obtidas. *Brycon insignis* foi considerado com grupo externo.

4.2.4. Análises baseadas no gene nuclear RAG1 (*Recombination activating gene 1*)

Foram obtidas seqüências do gene nuclear RAG1 de 64 das 68 espécies listadas na Tabela 1 e 2. O tamanho das seqüências do gene RAG1 variou de 1098 pb em *Phenacogaster sp* a 1437 pb em mais de 50% das espécies, com um valor médio de 1409,4 pb. Após o procedimento de alinhamento e correção manual, o alinhamento das seqüências resultou em uma matriz com 1437 caracteres dos quais 848 foram conservados, 589 foram variáveis e 382 foram informativos nas análises de parcimônia. A proporção transição/transversão (Ti/Tv) observada foi de 1,4. A composição média, em porcentagem, de bases para este gene foi de 24,6% de adenina (A), 25,2% de citosina (C), 28,3% de guanina (G) e 22,0% de timina (T). A distância média entre as seqüências foi de $d = 0.072 \pm 0.004$, segundo o modelo de Tamura-Nei (Tamura e Nei, 1993). Uma análise gráfica da relação entre as transições (Ti) e transversões (Tv) e a distância genética estimada pelo modelo Kimura-2-parâmetros (Kimura, 1980) indica que não há saturação nestes nucleotídeos (Figura 23). A espécie *Brycon insignis* foi utilizado como grupo externo nas análises.

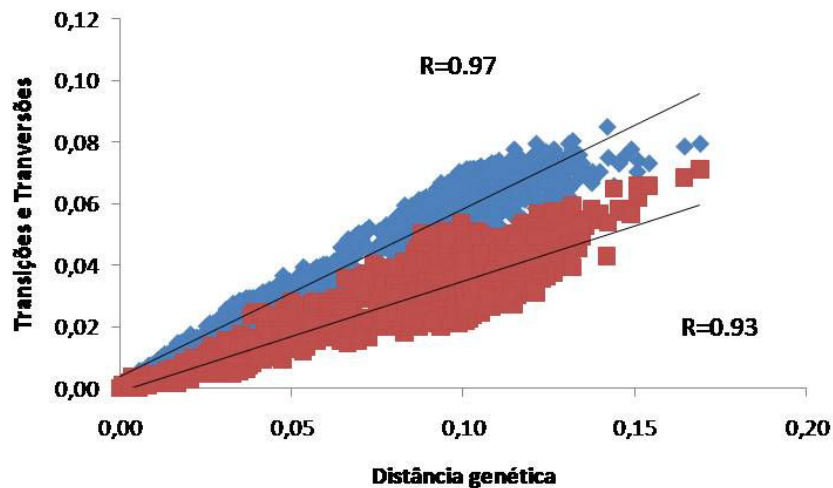


Figura 23. Frequência observada de transições (losangos) e transversões (quadrados) em relação à distância genética estimada pelo modelo Kimura-2-parâmetros.

4.2.4.1. Análise filogenética realizada pelo método de análise Bayesiana

As análises heurísticas, utilizando o método de análise Bayesiana, foram feitas considerando todos os animais cujas sequências de RAG1 foram obtidas, todos os dados obtidos (1.437 pb) e considerando os *gaps* como dados pertencentes às sequências. O melhor modelo escolhido pelo Modeltest 3.7 foi o GTR+I+G com parâmetro gama, selecionado pelo critério de informação Akaike (AIC). A árvore de consenso obtida está representada na Figura 24. *Brycon insignis* foi considerado como grupo externo nas análises.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, e discorda dos dados morfológicos e moleculares encontrados na literatura.

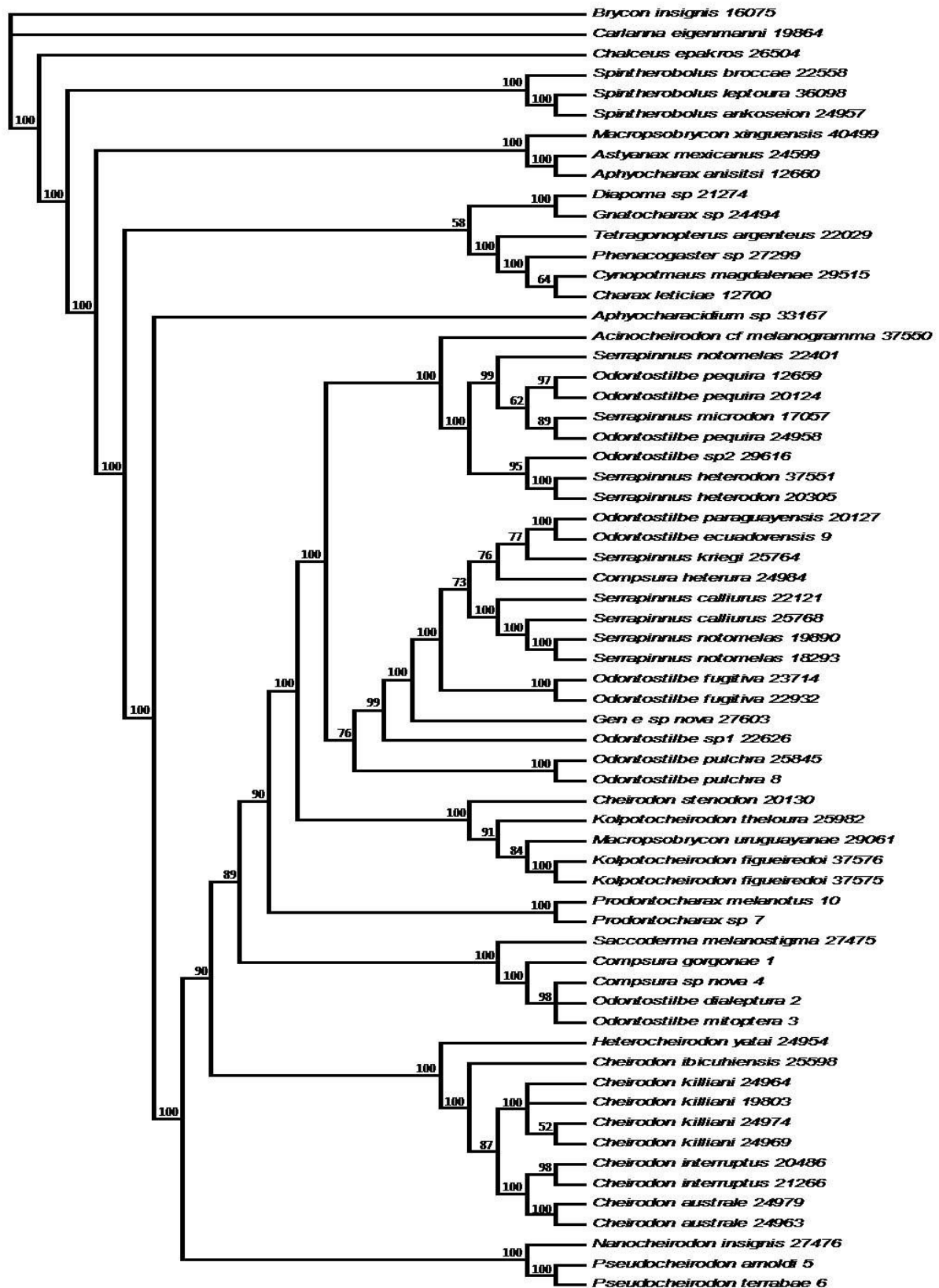


Figura 24. Árvore de consenso com RAG1 por maioria (50%) entre 20.002 árvores, encontrada pelo método de análise bayesiana. Os números apresentados representam valores das probabilidades *a priori* obtidos. *Brycon insignis* foi utilizado como grupo externo.

4.2.4.2. Análise filogenética realizada pelo método Máxima Verossimilhança (ML)

As análises de Máxima Verossimilhança foram realizadas pelo programa PhyML 3.0 (Guindon e Gascuel 2003), com os dados sendo enviados pelo site <http://www.atgc-montpellier.fr/phyml>. O modelo de substituição foi o HKY (Hasegawa et al. 1985). As análises resultaram em uma filogenia consenso e os valores foram encontrados em 500 réplicas pelo método de *bootstrap*, cujos quais são mostrados na Figura 25.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, os mais baixos foram omitidos da filogenia, e os resultados discordam dos dados morfológicos e moleculares encontrados na literatura.

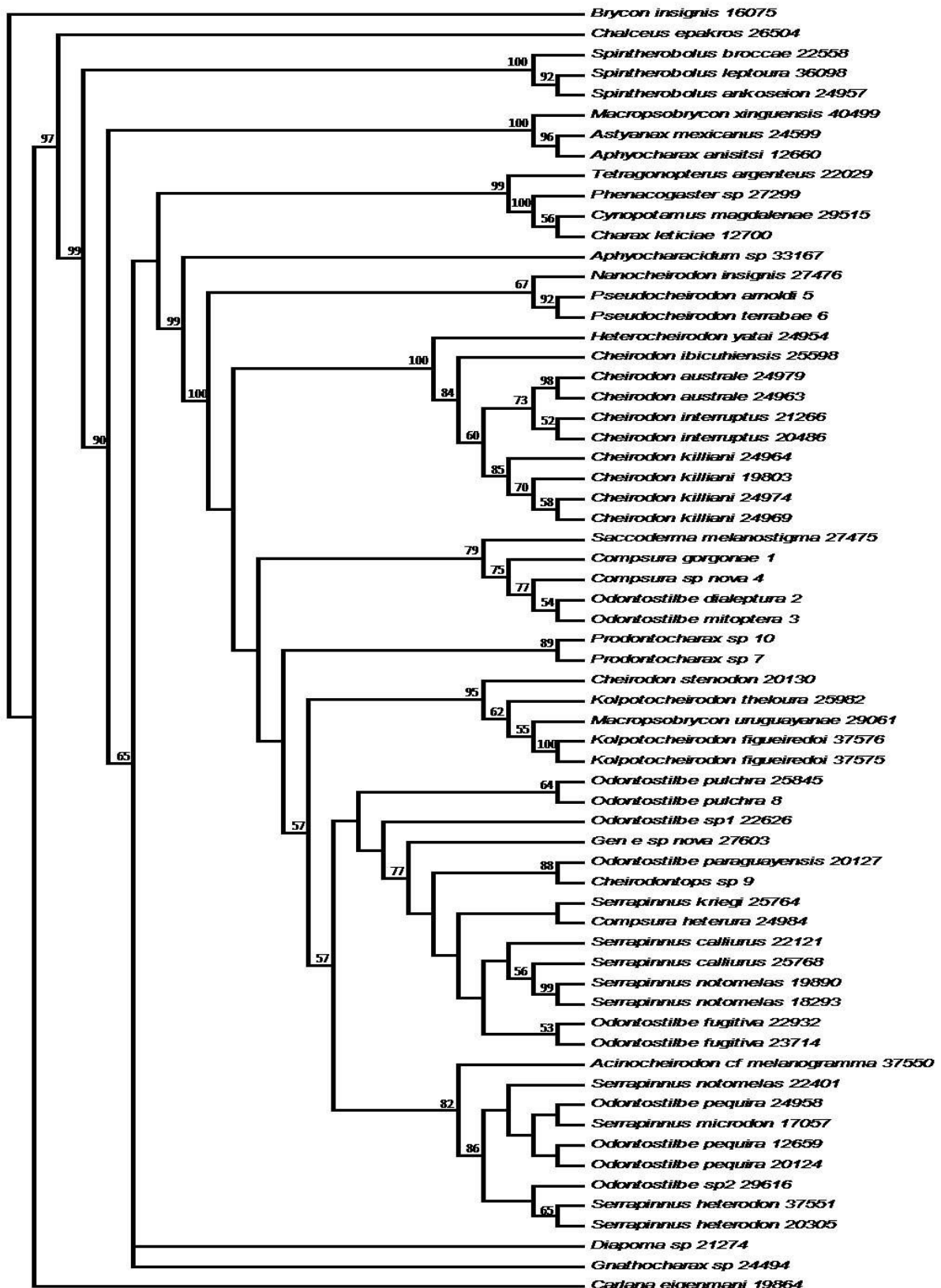


Figura 25. Árvore de consenso com RAG1 por maioria (50%) de Máxima Verossimilhança. As análises foram realizadas com 500 réplicas e considerando a árvore de consenso resultante das árvores obtidas. *Brycon insignis* foi considerado com grupo externo.

4.2.5. Análises baseadas no gene nuclear RAG2 (*Recombination activating gene 2*)

Foram obtidas seqüências do gene nuclear RAG2 de 63 das 68 espécies listadas na Tabela 1 e 2. O tamanho das seqüências do gene RAG2 variou de 1038 pb em *Chalceus epakros* a 1094 pb em mais de 50% das espécies, com um valor médio de 1085,0 pb. Após o procedimento de alinhamento e correção manual, o alinhamento das seqüências resultou em uma matriz com 1094 caracteres dos quais 660 foram conservados, 434 foram variáveis e 285 foram informativos nas análises de parcimônia. A proporção transição/transversão (Ti/Tv) observada foi de 1,7. A composição média, em porcentagem, de bases para este gene foi de 24,1% de adenina (A), 26,1% de citosina (C), 27,2% de guanina (G) e 22,6% de timina (T). A distância média entre as seqüências foi de $d = 0.064 \pm 0.004$, segundo o modelo de Tamura-Nei (Tamura e Nei, 1993). Uma análise gráfica da relação entre as transições (Ti) e transversões (Tv) e a distância genética estimada pelo modelo Kimura-2-parâmetros (Kimura, 1980) indica que não há saturação nestes nucleotídeos (Figura 26). A espécie *Brycon insignis* foi utilizado como grupo externo nas análises.

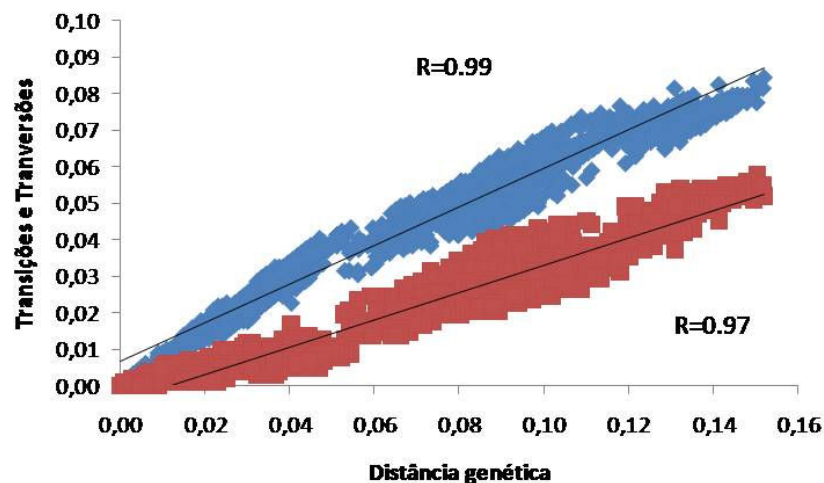


Figura 26. Frequência observada de transições (losangos) e transversões (quadrados) em relação à distância genética estimada pelo modelo Kimura-2-parâmetros.

4.2.5.1. Análise filogenética realizada pelo método de análise Bayesiana

As análises heurísticas, utilizando o método de análise Bayesiana, foram feitas considerando todos os animais cujas sequências de RAG2 foram obtidas, todos os dados obtidos (1.094 pb) e considerando os *gaps* como dados pertencentes às sequências. O melhor modelo escolhido pelo Modeltest 3.7 foi o GTR+I+G com parâmetro gama, selecionado pelo critério de informação Akaike (AIC). A árvore de consenso obtida está representada na Figura 27. *Brycon insignis* foi considerado como grupo externo nas análises.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, e discorda dos dados morfológicos e moleculares encontrados na literatura.

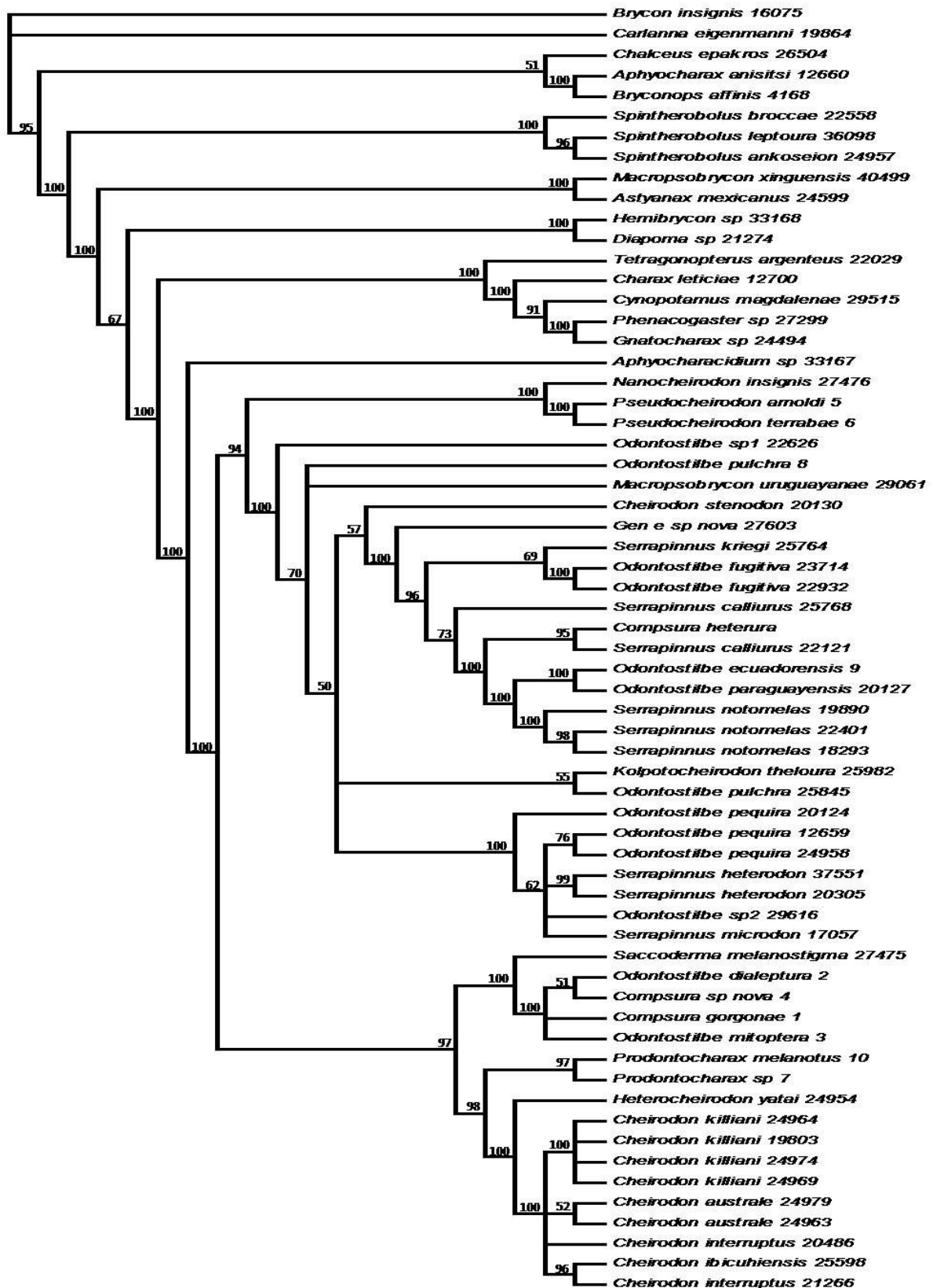


Figura 27. Árvore de consenso com RAG2 por maioria (50%) entre 20.002 árvores, encontrada pelo método de análise bayesiana. Os números apresentados representam valores das probabilidades *a priori* obtidos. *Brycon insignis* foi utilizado como grupo externo.

4.2.5.2. Análise filogenética realizada pelo método Máxima Verossimilhança (ML)

As análises de Máxima Verossimilhança foram realizadas pelo programa PhyML 3.0 (Guindon e Gascuel 2003), com os dados sendo enviados pelo site <http://www.atgc-montpellier.fr/phyml>. O modelo de substituição foi o HKY (Hasegawa et al. 1985). As análises resultaram em uma filogenia consenso e os valores foram encontrados em 500 réplicas pelo método de *bootstrap*, cujos quais são mostrados na Figura 28.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, os mais baixos foram omitidos da filogenia, e os resultados discordam dos dados morfológicos e moleculares encontrados na literatura.

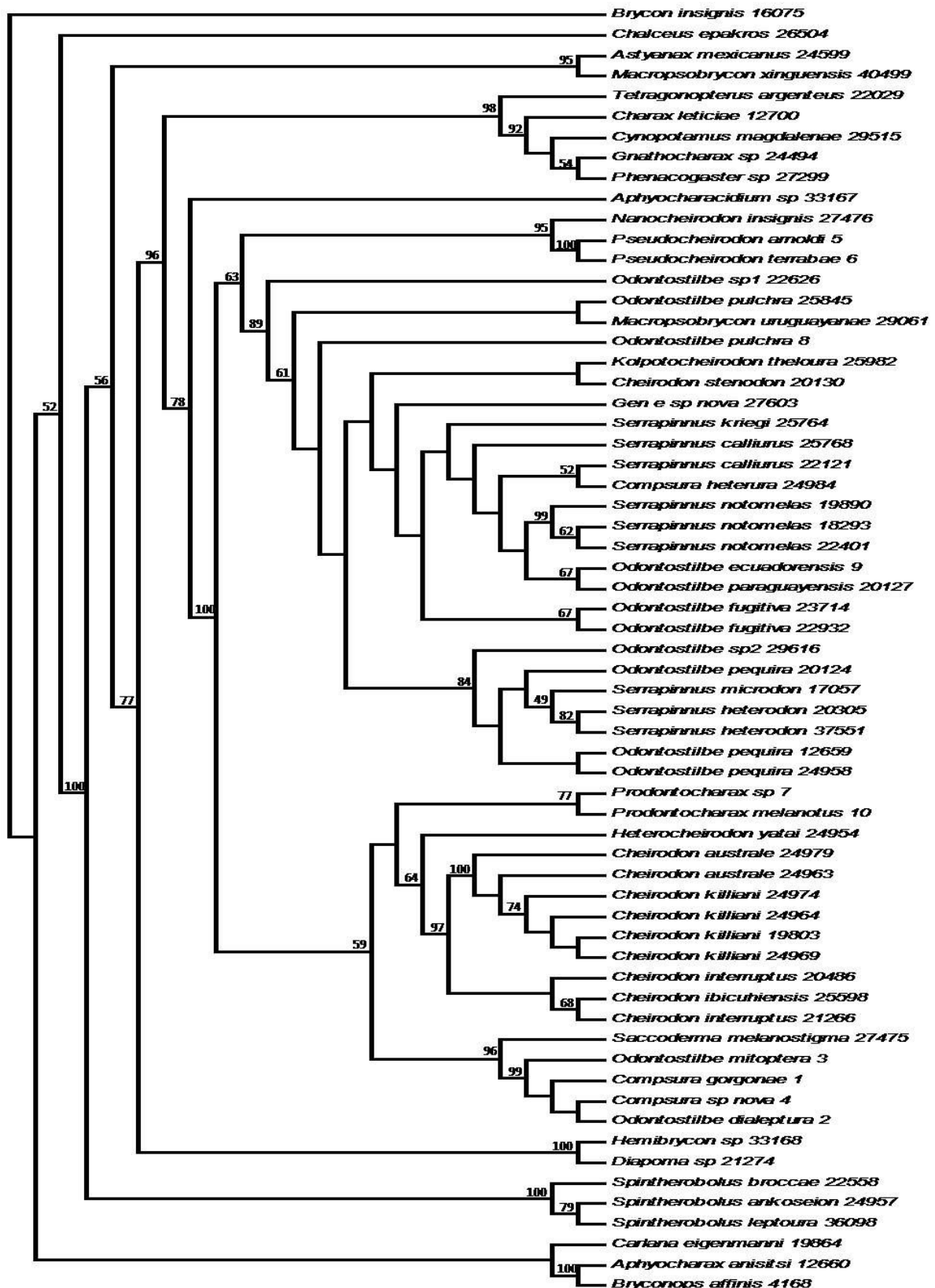


Figura 28. Árvore de consenso com RAG2 por maioria (50%) de Máxima Verossimilhança. As análises foram realizadas com 500 réplicas e considerando a árvore de consenso resultante das árvores obtidas. *Brycon insignis* foi considerado com grupo externo.

4.2.6. Análises baseadas no gene nuclear *Ptr* (*si:ch211-105n9.1-like protein*)

Foram obtidas sequências do gene nuclear *Ptr* de 50 das 68 espécies listadas na Tabela 1 e 2. O tamanho das sequências do gene *Ptr* variou de 702 pb em *Odontostilbe pequirá*, *O. fugitiva* e *Cheirodon killiani* a 1180 pb em mais de 20% das espécies, com um valor médio de 865,0 pb. Após o procedimento de alinhamento e correção manual, o alinhamento das seqüências resultou em uma matriz com 1180 caracteres dos quais 771 foram conservados, 409 foram variáveis e 209 foram informativos nas análises de parcimônia. A proporção transição/transversão (Ti/Tv) observada foi de 1,1. A composição média, em porcentagem, de bases para este gene foi de 25,5% de adenina (A), 24,9% de citosina (C), 20,8% de guanina (G) e 28,8% de timina (T). A distância média entre as seqüências foi de $d = 0.052 \pm 0.004$, segundo o modelo de Tamura-Nei (Tamura e Nei, 1993). Uma análise gráfica da relação entre as transições (Ti) e transversões (Tv) e a distância genética estimada pelo modelo Kimura-2-parâmetros (Kimura, 1980) indica que não há saturação nestes nucleotídeos (Figura 29). A espécie *Brycon insignis* foi utilizado como grupo externo nas análises. O que pode ser notado nos resultados com esse gene é que ele provavelmente possui os chamados “pseudo-genes”, sendo amplificados e sequenciados juntamente com o gene de interesse, dificultando depois o uso desses dados nas análises.

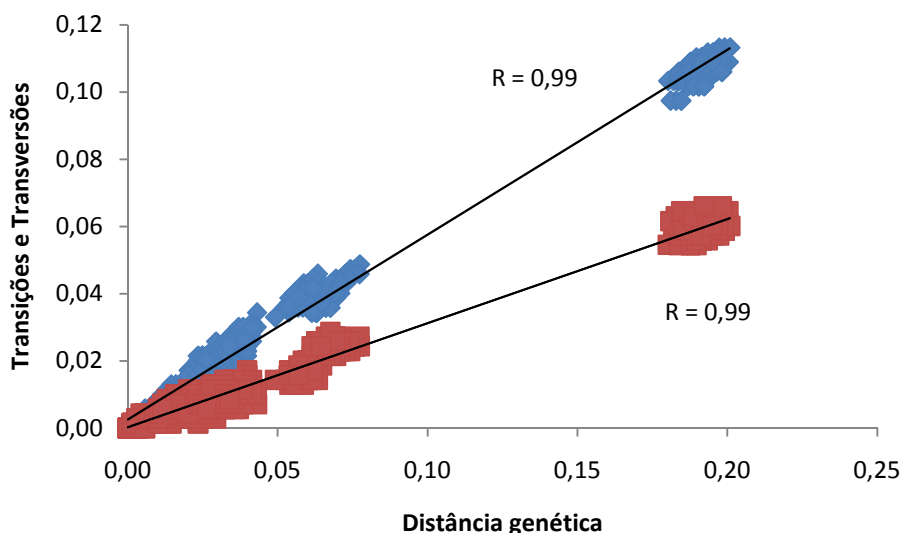


Figura 29. Frequência observada de transições (losangos) e transversões (quadrados) em relação à distância genética estimada pelo modelo Kimura-2-parâmetros.

4.2.6.1. Análise filogenética realizada pelo método de análise Bayesiana

As análises heurísticas, utilizando o método de análise Bayesiana, foram feitas considerando todos os animais cujas sequências de Ptr foram obtidas, todos os dados obtidos (1.180 pb) e considerando os *gaps* como dados pertencentes às sequências. O melhor modelo escolhido pelo Modeltest 3.7 foi o GTR+I+G com parâmetro gama, selecionado pelo critério de informação Akaike (AIC). A árvore de consenso obtida está representada na Figura 30. *Tetragonopterus argenteus* foi considerado como grupo externo nas análises por não terem sido sequenciados os demais exemplares utilizados nas análises dos outros genes.

Nessa análise, os valores de suporte para os nós internos foram maiores que 50%, e discorda dos dados morfológicos e moleculares encontrados na literatura.

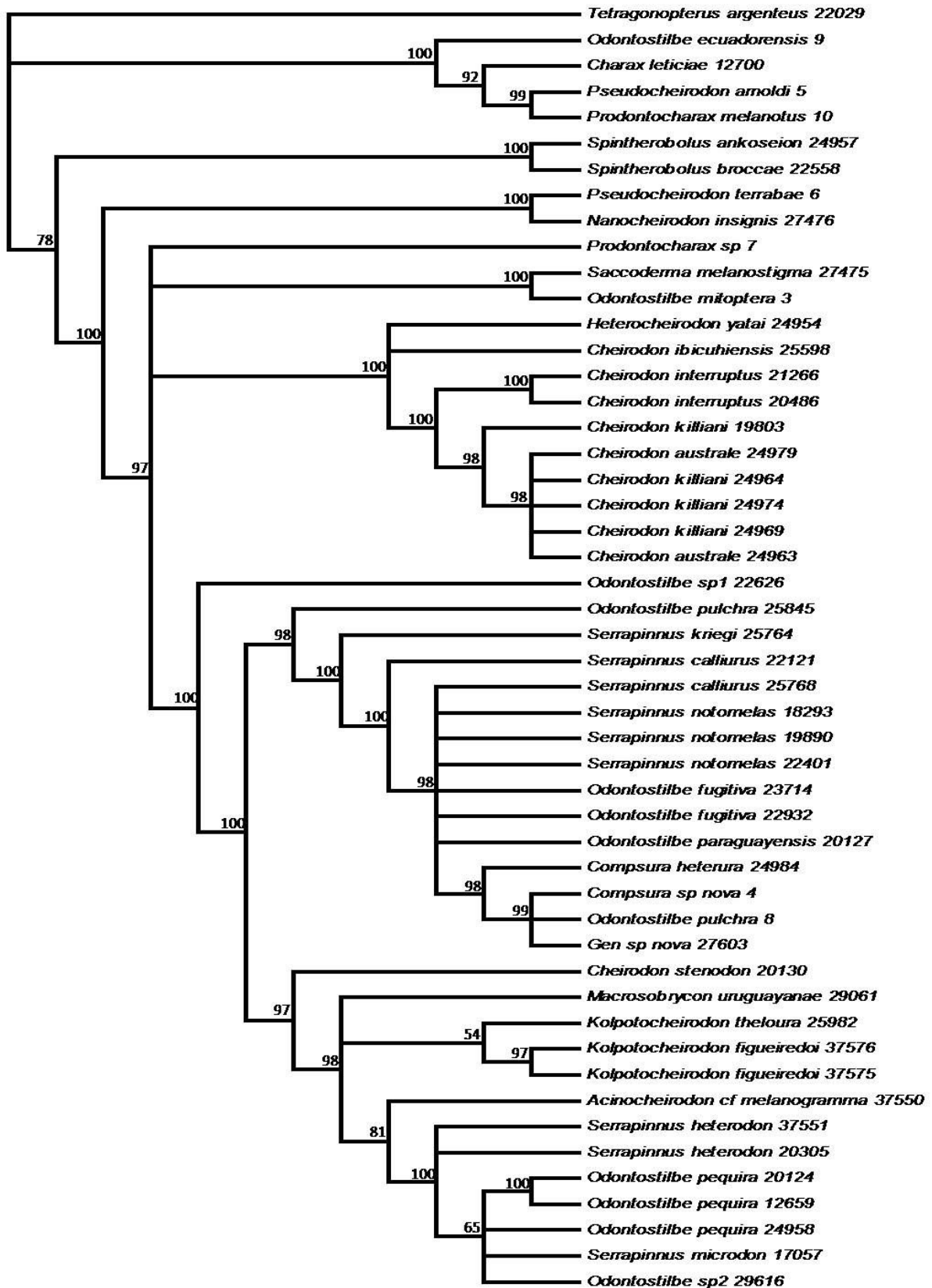


Figura 30. Árvore de consenso com Ptr por maioria (50%) entre 20.002 árvores, encontrada pelo método de análise bayesiana. Os números apresentados representam valores das probabilidades *a priori* obtidos. *Tetragonopterus argenteus* foi utilizado como grupo externo.

4.2.6.2. Análise filogenética realizada pelo método Máxima Verossimilhança (ML)

As análises de Máxima Verossimilhança foram realizadas pelo programa PhyML 3.0 (Guindon e Gascuel 2003), com os dados sendo enviados pelo site <http://www.atgc-montpellier.fr/phyml>. O modelo de substituição foi o HKY (Hasegawa et al. 1985). As análises resultaram em uma filogenia consenso e os valores foram encontrados em 500 réplicas pelo método de *bootstrap*, cujos quais são mostrados na Figura 31.

Nessa análise, os valores de suporte para a maioria dos nós internos foram menores que 50%, cujo qual foram omitidos da filogenia, e os resultados discordam dos dados morfológicos e moleculares encontrados na literatura e também da maior parte dos dados encontrados no presente trabalho.

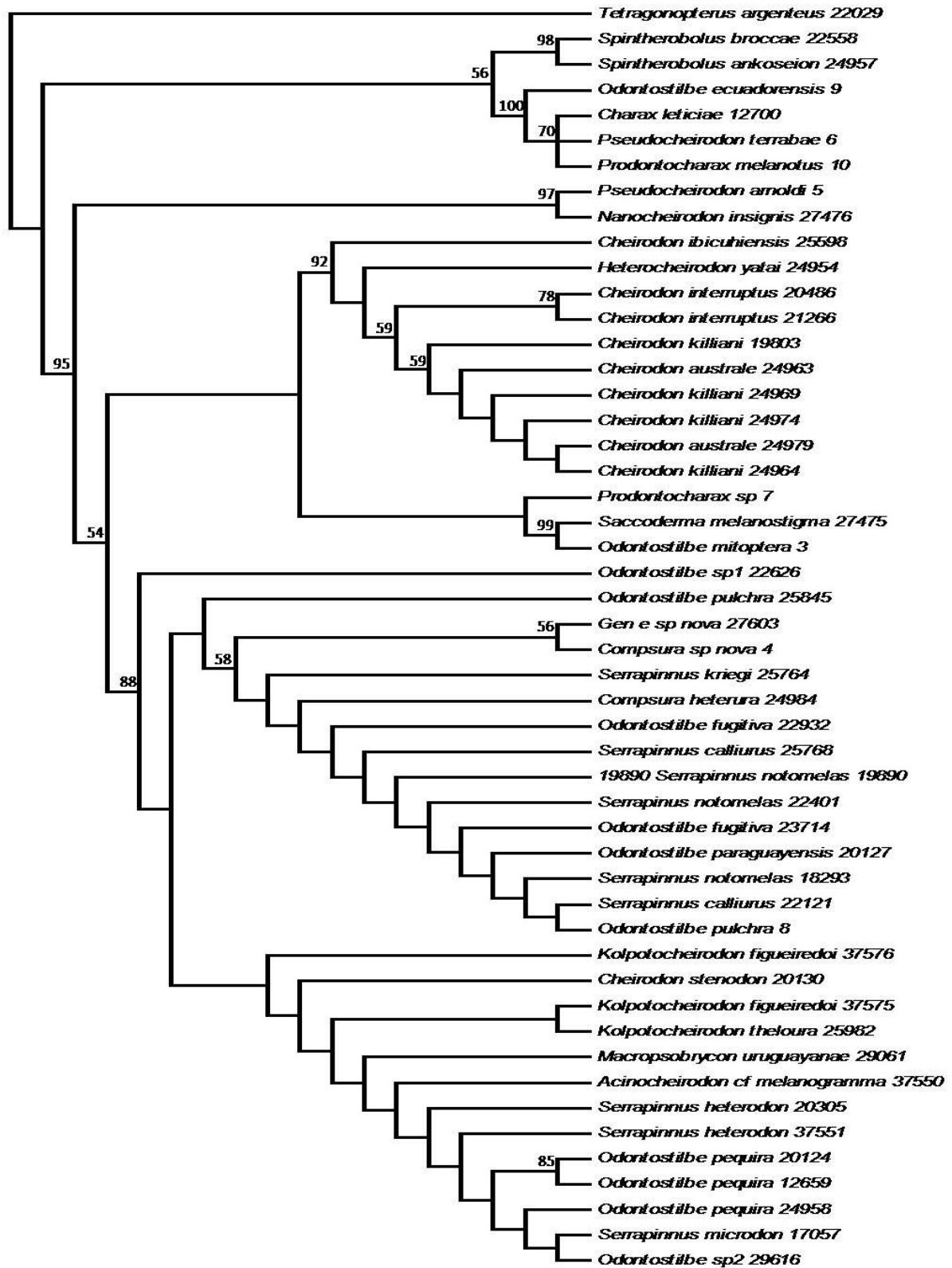


Figura 31. Árvore de consenso com Ptr por maioria (50%) de Máxima Verossimilhança. As análises foram realizadas com 500 réplicas e considerando a árvore de consenso resultante das árvores obtidas. *Tetragonopterus argenteus* foi considerado com grupo externo.

4.2.7. Análises baseadas nos genes mitocondriais e nucleares em conjunto (16S rRNA, Citocromo b, Myh6, RAG1 e Rag2)

Foram obtidas sequências dos genes mitocondriais 16S rRNA e citocromo b, e dos genes nucleares RAG1, RAG2 e Myh6 dos exemplares das espécies de Cheirodontinae apresentadas na Tabela 1 e 2. Após serem realizadas as análises, foram retiradas as sequências do gene nuclear Ptr porque esse não apresentou uma boa resolução para a filogenia. Após o procedimento de alinhamento e correção manual, o alinhamento das sequências resultou em uma matriz com 4852 caracteres dos quais 2778 foram conservados, 2074 foram variáveis e 1422 foram informativos nas análises de parcimônia. A proporção transição/transversão (Ti/Tv) observada foi de 1,3. A composição média, em porcentagem, de bases para estes genes foi de 26,6% de adenina (A), 25,6% de citosina (C), 23,6% de guanina (G) e 24,1% de timina (T). A distância média entre as sequências foi de $d = 0.092 \pm 0,002$, segundo o modelo de Tamura-Nei (Tamura e Nei, 1993). Uma análise gráfica da relação entre as transições (Ti) e transversões (Tv) e a distância genética estimada pelo modelo Kimura-2-parâmetros (Kimura, 1980) indica que não há saturação nestes nucleotídeos (Figura 32). A espécie *Brycon insignis* foi utilizado como grupo externo nas análises.

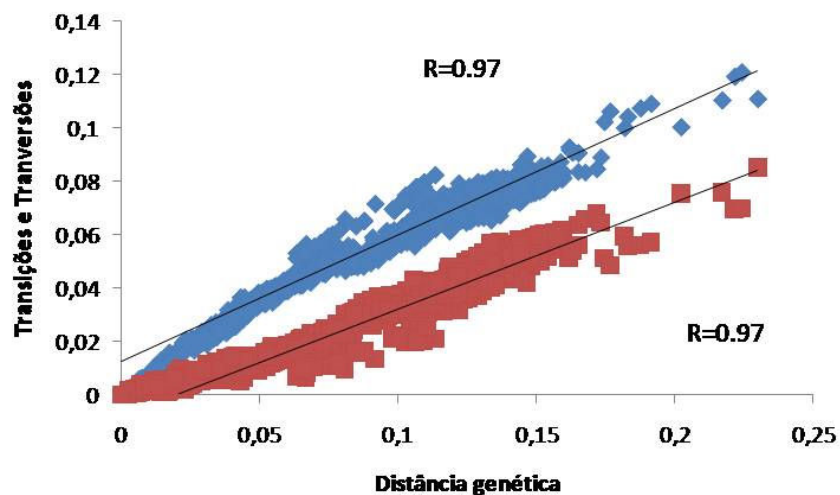


Figura 32. Frequência observada de transições (losangos) e transversões (quadrados) em relação à distância genética estimada pelo modelo Kimura-2-parâmetros.

4.2.7.1. Análise filogenética realizada pelo método de análise Bayesiana

As análises heurísticas, utilizando o método de análise Bayesiana, foram feitas considerando todos os animais cujas sequências foram obtidas, totalizando 4.852 pb, e considerando os *gaps* como dados pertencentes às sequências. O melhor modelo escolhido pelo Modeltest 3.7 foi o GTR+I+G com parâmetro gama, selecionado pelo critério de informação Akaike (AIC). A árvore de consenso obtida está representada na Figura 33. *Brycon insignis* foi considerado como grupo externo nas análises.

Nessa análise, os valores de suporte para a maioria dos nós internos foram maiores que 50%, e discorda dos dados morfológicos e moleculares encontrados na literatura. Os números nos clados foram utilizados para maior entendimento.



Figura 33. Árvore de consenso, utilizando todos os genes em conjunto, por maioria (50%) entre 20.002 árvores, encontrada pelo método de análise bayesiana. Os números apresentados representam valores das probabilidades *a priori* obtidos. *Brycon insignis* foi utilizado como grupo externo.

4.1.7.2. Análise filogenética realizada pelo método de Máxima Parcimônia (MP)

As análises heurísticas, utilizando o método de Máxima Parcimônia, foram feitas considerando todos as sequências obtidas, todos os dados obtidos (4.852 pb) e considerando os *gaps* como dados pertencentes às sequências. A árvore de consenso obtida está representada na Figura 34. *Brycon insignis* foi considerado como grupo externo em todas as análises.

Nessa análise, foi utilizado o programa TNT (Golobof et al. 2006). Os valores de suporte para quase todos os nós internos foram maiores que 50%, e discorda dos dados morfológicos e moleculares encontrados na literatura. A análise não foi bem resolutiva já que possui um grupo polifilético.

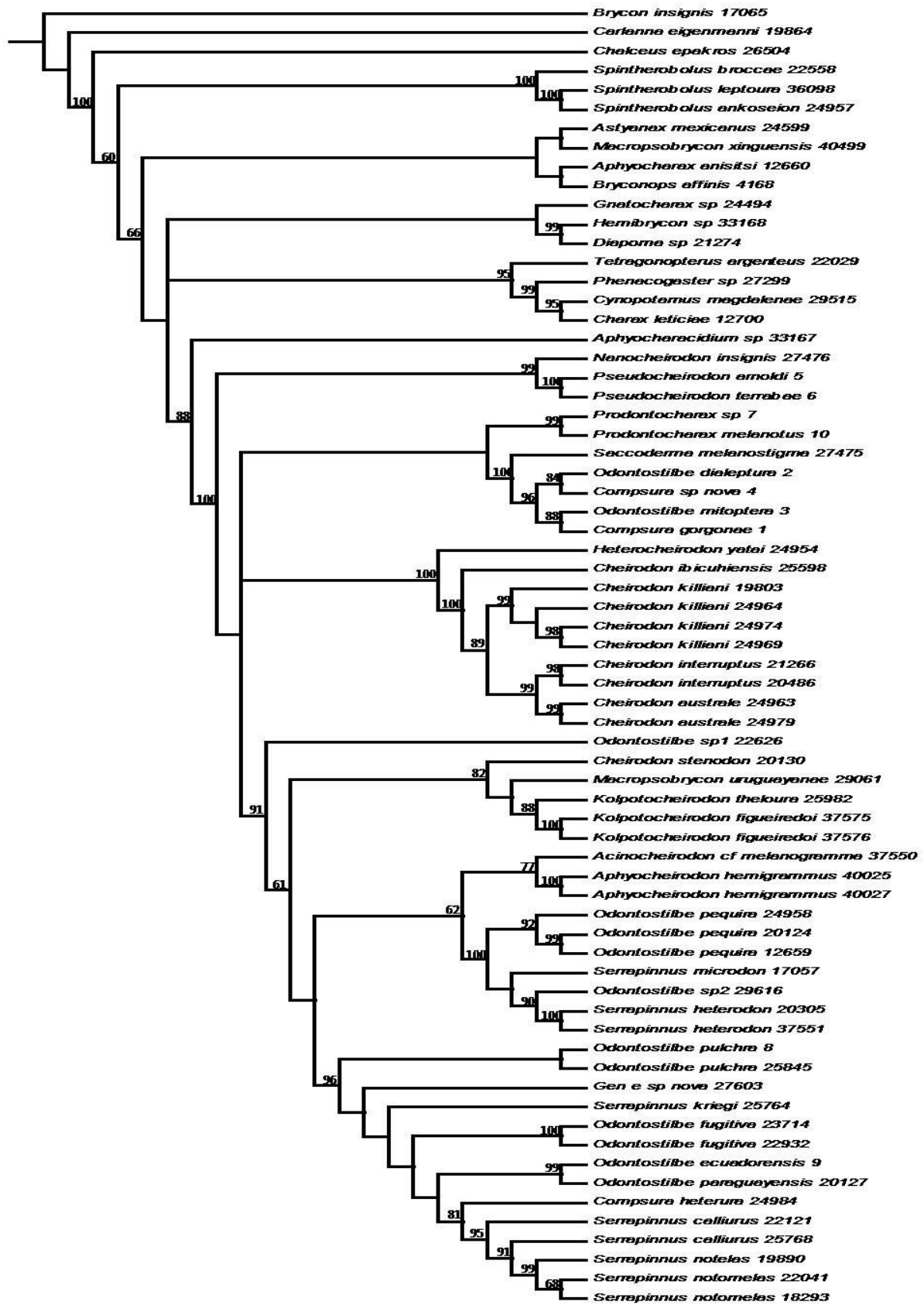


Figura 34. Árvore de consenso, utilizando todos os genes em conjunto, por maioria (50%) baseada no método de Máxima Parcimônia. As análises foram realizadas pelo programa TNT. Os valores apresentados são valores de *bootstrap*.

Com a utilização de vários genes, mitocondriais e nucleares, várias topologias discordantes foram encontradas. Isso destaca um impasse atual das filogenias moleculares, onde as árvores de espécies são muitas vezes diferentes das árvores de genes. Tal fato pode ocorrer quando o tempo de divergência entre as diferentes espécies é curto (Pamilo & Nei, 1988). Mas, com a obtenção das filogenias por diferentes tipos de análises, com genes analisados separadamente e em conjunto, foi possível a escolha da melhor resolução das relações entre os membros de Cheirodontinae.

A melhor filogenia encontrada foi a resultante da análise Bayesiana com todos os genes analisados em conjunto. Após isso, foram numerados os clados monofiléticos formados, para que fosse facilitado o entendimento na discussão. A discussão dos resultados foi baseada na filogenia representada na Figura 33. Abaixo estão listadas as espécies pertencentes à cada grupo e os clados numerados na árvore escolhida (Figura 33):

- (1). *Nanocheirodon insignis*, *Pseudocheirodon arnoldi* e *P. terrabae*;
- (2). *Prodontocharax melanotus*, *Prodontocharax sp.*, *Saccoderma melanostigma*, *Compsura gorgonae*, *Odontostilbe mitoptera*, *Compsura sp. nova*, *Odontostilbe dialeptura*;
- (3). *Heterocheirodon yatai*, *Cheirodon ibicuihensis*, *C. australe*, *C. killiani* e *C. interruptus*;
- (4). *Odontostilbe sp. 1* (clado 5) e os clados 6, 7 e 8;
- (5). *Odontostilbe sp. 1*;
- (6). *Cheirodon stenodon*, *Macropsobrycon uruguayanae*, *Kolpotocheirodon theloura* e *K. figueiredoi*;
- (7). *Serrapinnus microdon*, *Odontostilbe pequirá*, *Odontostilbe sp. 2*, *S. heterodon*, *Acinocheirodon cf. melanograma* e *Aphyocheirodon hemigrammus*;
- (8). *Odontostilbe pulchra*, *Genêro e espécie nova*, *Serrapinnus kriegi*, *Odontostilbe fugitiva*, *O. paraguayensis*, *O. ecuadorensis*, *Compsura heterura*, *S. calliurus* e *S. notomelas*.

5. DISCUSSÃO

5.1. Relação de Cheirodontinae com as demais subfamílias de Characidae

No presente estudo, foram analisadas espécies pertencentes à todas as subfamílias reconhecidas de Characidae e, com isso, foi possível testar as relações de Cheirodontinae com essas subfamílias. Estudos filogenéticos utilizando abordagens filogenéticas que incluem representantes da subfamília Cheirodontinae e outros caracídeos são ainda muito escassos e além disso, com exceção do trabalho de Malabarba e Weitzman (2003), em nenhum dos estudos estão inclusos representantes de todas as subfamílias de Characidae.

Os três gêneros da subfamília Cheirodontinae utilizados nas análises comparativas em Characidae (*Cheirodon australe*, *Heterocheirodon yatai*, *Macropsobrycon uruguayanae*) aparecem como grupo monofilético em todas as análises realizadas, corroborando o trabalho de Malabarba (1998), Calcagnotto et al. (2005), Mirande (2009) e Javonillo et al. (2010). Cheirodontinae forma o grupo irmão do clado onde estão alocados Stethaprioninae com Rhoadsiinae e Glandulocaudinae com Stevardiinae, com um alto suporte estatístico (Figura 13). Por outro lado, Characinae e Tetragonopterinae formam um clado irmão do clado maior onde está inserido Cheirodontinae. Em nenhum dos estudos citados anteriormente, usando caracteres moleculares ou morfológicos, Tetragonopterinae aparece como um grupo diretamente relacionado com Cheirodontinae, o que, juntamente com os dados obtidos no presente estudo, corrobora a hipótese de que Cheirodontinae e Tetragonopterinae não formam uma só subfamília, como anteriormente proposto por Weitzman e Vari (1988) e outros autores.

Glandulocaudinae, Stevardiinae e Cheirodontinae possuem espécies com inseminação (Malabarba 1998; Malabarba e Weitzman 1999; Weitzman et al. 2005; Burns et al. 2008; entre outros) e essa característica pode ter surgido de um ancestral comum, ou então, teve seu aparecimento independente nas subfamílias (Malabarba e Weitzman 1999; Weitzman et al. 2005). Em Cheirodontinae, as espécies inseminadoras foram reunidas na tribo Compsurini por Malabarba (1998). Adicionalmente, Burns et al. (1997) mostraram que haviam duas outras espécies inseminadoras: *Odontostilbe dialeptura* e *O. mitoptera*, que precisariam de uma nova classificação dentro de Cheirodontinae (Malabarba 1998). No presente trabalho, Glandulocaudinae e Stevardiinae aparecem como duas das subfamílias mais próximas de Cheirodontinae e, devido a esse fato, tal resultado sugere que a

hipótese citada por Malabarba e Weitzman (1999) de existir um ancestral com inseminação nesses táxons pode ser verdadeira. Em Ortí e Meyer (1997), Glandulocaudinae e Stevardiinae formam um grupo irmão do clado formado por Cheirodontinae e Characinae, resultado semelhante ao obtido no presente estudo. Em Calcagnotto et al. (2005), foram utilizadas algumas espécies pertencentes ao “Clado A” (onde muitas possuem inseminação) o que resultou em um grupo monofilético irmão do clado onde está inserido Cheirodontinae. Assim, levando em consideração a hipótese de que Glandulocaudinae, Stevardiinae e Cheirodontinae compartilharam um ancestral comum, o que pode ter ocorrido nesse caso é a perda dessa capacidade de inseminação na evolução de alguns cheirodontíneos, sendo, portanto, essa característica (ausência de inseminação) um caráter derivado em Cheirodontinae.

A família Characidae contém muitas espécies *incertae sedis* que não estão inseridas em nenhuma subfamília e, devido a esse fato, fazer estudos das relações de Cheirodontinae com outros membros pertencentes à Characidae quase sempre resulta apenas em suposições, se não forem incluídos ao menos uma grande parte dessas espécies *incertae sedis*. É necessário também, a utilização de várias espécies pertencentes às subfamílias reconhecidas, considerando que várias podem ser polifiléticas. No presente estudo, foram utilizados apenas uma espécie de cada subfamília, considerando que esse não era o foco principal deste estudo. Uma análise mais abrangente está sendo realizada com um grande número de exemplares da família Characidae para que sejam conhecidas não só as relações com Cheirodontinae, mas sim, as relações de uma grande parte dessa família tão importante em Characiformes e principalmente para o Brasil (nossos dados não apresentados).

5.2. Relação entre gêneros e espécies de Cheirodontinae

5.2.1. A inclusão e exclusão de espécies em Cheirodontinae

Nas nossas análises, incluindo todos os representantes de Cheirodontinae e representantes de diversas subfamílias e gêneros de Characidae, a espécie *Aphyocharacidium* sp. aparece como o grupo mais relacionado à Cheirodontinae (Figura 33). Esse resultado corrobora os achados de Mirande (2009), que já havia encontrado a mesma relação próxima de *Aphyocharacidium bolivianum* e os cheirodontíneos. *Aphyocharacidium* possui raios procorrentes salientes no

pedúnculo caudal, dentes tricúspides (Géry 1960a; Géry 1973; Miquelarena 1984; Malabarba 1998) e pseudotímpano, como em Cheirodontinae, o que pode corroborar, também com dados morfológicos, uma relação de maior parentesco das espécies. A espécie tipo de *Aphyocharacidium* (Géry 1960a) é *Odontostilbe melandetus* Eigenmann, 1912, e foi agrupada com os cheirodontíneos *Prodontocharax* e *Aphyocheirodon* por Géry (1960b). Essa classificação, sugerida por Géry (1960b), reflete o fato de que esse grupo possui muitas características em comum com Cheirodontinae. As relações de *Aphyocharacidium* não são bem conhecidas e assim, essa espécie foi considerada *incertae sedis* em Characidae na última revisão geral da família (Reis et al. 2003). Investigações mais detalhadas estão sendo realizadas, com um maior número de espécies pertencentes à Characidae, para que sejam conhecidas mais profundamente as relações de parentesco entre *Aphyocharacidium* e os outros caracídeos.

Em Characidae, algumas espécies foram alocadas para *incertae sedis* por não apresentarem características morfológicas diagnósticas de nenhuma subfamília (Reis et al. 2003). Dentre essas espécies, duas são conhecidas por nomes de gêneros pertencentes à Cheirodontinae: *Macropsobrycon xinguensis* Géry, 1973 e *Cheirodon stenodon* Eigenmann, 1915. No presente trabalho, foram realizadas análises incluindo essas duas espécies porque, apesar de não pertencerem à subfamília atualmente, fizeram parte dos cheirodontíneos em algum momento na história de sua classificação.

A espécie *Macropsobrycon xinguensis*, alocada para a lista dos *incertae sedis* em Characidae por Malabarba (2003), foi analisada no conjunto de dados de cheirodontíneos e, corroborando o trabalho de Malabarba (2003) e Javonillo et al. (2010), ela aparece como uma espécie não pertencente à Cheirodontinae. Os resultados sugerem que esta espécie seja irmã de *Astyanax mexicanus*, formando um clado com *Bryconops affinis* e *Aphyocharax anisitsi* (Figura 33). Por outro lado, devido aos poucos exemplares de Characidae utilizados como grupo externo nas análises aqui realizadas, também é possível que essa espécie esteja mais relacionada com algum grupo não amostrado de Characidae. Investigações mais detalhadas estão sendo realizadas, com um maior número de espécies pertencentes à Characidae, para que sejam conhecidas mais profundamente as relações de parentesco entre *M. xinguensis* e os outros caracídeos.

A espécie *Cheirodon stenodon*, anteriormente considerada pertencente à Cheirodontinae por Eigenmann (1915) e Géry (1977) e mais recentemente alocada como *incertae sedis* em Characidae por Malabarba (1998), apareceu aqui como

membro de Cheirodontinae em todas as árvores consenso produzidas (ex. Figura 33). *C. stenodon* possui vários caracteres compartilhados com Cheirodontinae como presença de pseudotímpano, uma fileira de dentes no pré-maxilar e ausência de mancha umeral, entre outras. Mas, por outro lado, difere quanto ao arranjo dos dentes no pré-maxilar, sendo que, em *C. stenodon*, o terceiro dente é tricuspídeo, não pentacuspídeo como os outros dentes e dirigido para frente. Em cheirodontíneos, os mesmos dentes possuem semelhança na forma e número de cúspides, perfeitamente alinhadas em um mesmo plano (Malabarba 1998). O aparecimento de um dente tricuspídeo e desalinhado em meio aos outros pentacúspides em *C. stenodon* pode ser uma adaptação à algum tipo de alimentação ou pode estar relacionado ao aparecimento de diferentes tipos de dentes em outras espécies de Cheirodontinae. Como já foi discutido em Weitzman e Malabarba (1999), como acontece com muitos outros caracteres, a evolução convergente de características nos dentes frequentemente causa problemas em reconstruções filogenéticas, especialmente quando os dentes não são comparados e descritos em detalhes suficientes para detectar diferenças e similaridades, e acabam sendo usados para esse propósito sem o uso abundante de outros dados. Dando ênfase às presentes análises moleculares, sugere-se uma revisão morfológica de *C. stenodon*, para que essa espécie seja incluída novamente na subfamília, como um possível novo gênero.

O gênero *Spintherobolus* e suas espécies reconhecidas, *S. ankoseion*, *S. broccae*, *S. leptoura* e *S. papilliferus*, aparece como um grupo monofilético em análises morfológicas baseadas na presença de neuromastos papilares e sete outras características anatômicas (Sarraf 1997; Weitzman e Malabarba 1999). O monofiletismo deste gênero também foi corroborado nas nossas análises moleculares, onde apenas *S. papilliferus* não foi utilizado por não ter sido possível a obtenção de amostra de tecido dessa espécie. Nas relações internas do gênero, *S. ankoseion* e *S. leptoura* formam um grupo irmão de *S. broccae*, divergindo da literatura onde *S. ankoseion* é espécie irmã do grupo formado por *S. broccae* e *S. leptoura*; *S. papilliferus* aparece como a espécie irmã de todas as outras (Bührnheim et al. 2008). Na Figura 35, pode-se observar que a distribuição geográfica das espécies analisadas de *Spintherobolus* é congruente com a relação filogenética encontrada no presente trabalho.

Nas presentes análises de Cheirodontinae, os resultados sugerem que *Spintherobolus* não pertence à subfamília Cheirodontinae. O gênero *Spintherobolus* aparece como mais relacionado à outros caracídeos, como um clado monofilético,

não relacionado com nenhum outro Characidae mais intimamente (Figura 33). É interessante notar que os representantes desse gênero apresentam uma rede de tubérculos ou papilas sobre os ossos da face, caráter não observado em nenhum outro caracídeo (Malabarba 1994). Foi demonstrado por Weitzman e Malabarba (1999) que várias características de *Spintherobolus* são distintas das outras espécies da subfamília Cheirodontinae. Além de sua coloração ser nitidamente distinta dos cheirodontíneos (sendo composta por um padrão de séries de linhas na cabeça e corpo), *Spintherobolus* é o único gênero que possui dois pseudotímpanos (além do pseudotímpano entre a primeira e a segunda costela, a redução e ausência de musculatura à frente da primeira costela), ausência da nadadeira adiposa e dentes modificados para cônicos em vez de possuírem uma expansão distal comprimida (ver Weitzman e Malabarba 1999). Em todas as espécies do gênero, faltam a maioria dos canais latero-sensoriais e um complexo padrão de séries de neuromastos expostos são distribuídos na cabeça e corpo (Weitzman e Malabarba 1999). Como apontado por Sarraf (1997), órgãos similares são encontrados nas espécies de *Phenacogaster* e *Roeboides*. Essas espécies possuem padrões diferentes de distribuição dos neuromastos na cabeça e corpo, mas as estruturas possuem a mesma anatomia grosseira aparente e, às vezes, as mesmas características de coloração de *Spintherobolus*. Apesar disso, Weitzman e Malabarba (1999) e Sarraf (1997) discutem que esses padrões poderiam ser independentemente derivados em *Spintherobolus* de um lado e *Phenacogaster* e *Roeboides* de outro. No presente trabalho, uma das espécies utilizadas como grupo externo nas análises foi *Phenacogaster*, juntamente com *Cynopotamus* e *Charax* como representantes de Characinae (Figura 33), porém, *Spintherobolus* não apareceu relacionado à esse grupo. As espécies citadas formam um grupo monofilético com *Tetragonopterus* e esse clado é o grupo irmão mais próximo de Cheirodontinae (exceto *Aphyocharacidium* que é o gênero mais próximo como já discutido anteriormente). Considerando o grupo formado por *Spintherobolus*, essa característica dos neuromastos em Characinae pode ser derivada, e não como foi citado anteriormente (Weitzman e Malabarba 1999). O mesmo acontece para o tamanho dos olhos, que foi tido como derivado em *Spintherobolus* em relação aos cheirodontíneos (Weitzman e Malabarba 1999). Além das características que diferem *Spintherobolus* de Cheirodontinae citadas acima, há muitas outras na literatura (ver Weitzman e Malabarba 1999). Tais características morfológicas são, a nosso ver, fortes indícios de que esse gênero não pertence mesmo a Cheirodontinae, fato que pode ser reforçado também pela biogeografia do gênero, cujas três espécies analisadas aqui,

são apenas encontradas em rios litorâneos, diferindo dos outros cheirodontíneos (Figura 35). A quarta espécie, *S. papilliferus*, não analisada no presente estudo ocorre no Alto rio Tietê, onde pode ter surgido por eventos de captura de cabeceiras, comuns nos rios do alto da Serra do Mar (Ribeiro 2006). Como foi relatado acima para *Macropsobrycon xinguensis*, investigações mais detalhadas estão sendo realizadas, com um maior número de táxons, para que sejam conhecidas as relações de parentesco entre *Spintherobolus* e outros caracídeos.

5.2.2. Os gêneros, espécies e tribos de Cheirodontinae

Efetuada as inclusões e exclusões de gêneros e espécies dentro de Cheirodontinae, como discutido no item anterior, essa subfamília se torna monofilética. A monofilia de Cheirodontinae foi parcialmente corroborada nos estudos moleculares de Calcagnotto *et al.* (2005) e Javonillo *et al.* (2010), tendo em vista que o número de gêneros e espécies analisadas por esses autores foi bastante pequeno. Da mesma maneira, a monofilia de Cheirodontinae foi corroborada no amplo estudo morfológico de Mirande (2009), mas também esse autor utilizou apenas quatro gêneros de Cheirodontinae.

Malabarba (1998) investigou as relações entre os gêneros de Cheirodontinae, mas não realizou uma ampla comparação com os demais Characidae. Bührnheim (2006) utilizou várias espécies no grupo externo e encontrou que Cheirodontinae é monofilético após a inclusão de *Axelrodia lindeae*.

As análises gerais realizadas no presente estudo (Figura 33) resultaram em um padrão de relacionamento bastante diferente das hipóteses disponíveis na literatura para Cheirodontinae, desde as baseadas em dados morfológicos até em dados moleculares (Malabarba 1998; Calcagnotto *et al.* 2005; Bührnheim 2006; Mirande 2009; Javonillo *et al.* 2010).

Diversos gêneros pertencentes atualmente à Cheirodontinae (Malabarba 2003; Bührnheim *et al.* 2008) analisados no presente trabalho se mostraram polifiléticos ou parafiléticos (Figura 33).

Fink e Weitzman (1974), em uma análise de Cheirodontinae, consideraram os caracteres diagnósticos de *Odontostilbe* e *Pseudocheirodon* variáveis e não válidos para a definição de gêneros em Characidae. Ao contrário de *Odontostilbe*, que aparece polifilético nas nossas análises, e também nas análises de Bührnheim (2006), as duas espécies reconhecidas de *Pseudocheirodon* (*P. arnoldi* e *P. terrabae*)

aparecem altamente suportadas estatisticamente como um gênero monofilético (Figura 33).

As duas espécies reconhecidas de *Pseudocheirodon* (*P. arnoldi* e *P. terrabae*) formam um clado monofilético com o gênero monotípico *Nanocheirodon* (Figura 33 - clado 1), sendo estes dois gêneros, os gêneros irmãos de todos os outros cheirodontíneos. Os resultados encontrados aqui não corroboram os estudos morfológicos de Malabarba (1998), onde *Pseudocheirodon* é considerado como gênero *incertae sedis* em Cheirodontinae e *Nanocheirodon*, que possui *Cheirodon* como grupo irmão, pertencendo, portanto, à tribo Cheirodontini. *Pseudocheirodon* e *Nanocheirodon* são espécies trans-Andinas e Andinas (Panamá, Costa Rica e Venezuela), podendo estar separadas dos outros Cheirodontinae há milhares de anos pelo aparecimento da Cordilheira dos Andes.

Nas análises aqui realizadas, o clado 1 aparece como irmão de todos os outros e, em seguida, surge o clado 2 (Figura 33) onde estão todas as outras espécies trans-Andinas e Andinas pertencentes à parte noroeste da região Neotropical (*Prodontocharax melanotus*, *Prodontocharax* sp., *Saccoderma melanostigma*, *Compsura gorgonae*, *Compsura* sp. nov., *Odontostilbe dialeptura* e *O. mitoptera*). Este grupo, assim como o anterior, deve ter tido origem antes da formação da Cordilheira dos Andes. Muitos autores discutem a data correta do início do soerguimento da Cordilheira dos Andes, que pode ser de cerca de 60 m.a. (Gregory-Wodzicki 2000; Parra et al. 2009). Assim sendo, pode-se supor que a subfamília Cheirodontinae representa uma linhagem bastante antiga de peixes.

O gênero *Compsura* possui duas espécies reconhecidas, *C. heterura* e *C. gorgonae*. Essas duas espécies são encontradas em localidades e drenagens muito distantes. *C. heterura* é encontrada na América do Sul, nas bacias do rios São Francisco e Parnaíba, sendo que estes representam drenagens do Atlântico e *C. gorgonae* é apenas encontrada na América Central, em drenagens do Pacífico (Malabarba 2003). No presente estudo, foi amostrada uma nova espécie de *Compsura* (*Compsura* sp. nov.), procedente do Rio Tabasará no Panamá, a qual aparece inserida no clado onde estão os outros exemplares da região trans-Andina (*O. dialeptura*, *O. mitoptera* e *Compsura gorgonae*). Mesmo formando um clado monofilético com *C. gorgonae*, a nova *Compsura* é mais relacionada à *Odontostilbe dialeptura* e *C. gorgonae* mais relacionada à *O. mitoptera*, não sendo clara a monofilia no gênero nem em espécies de localidades mais próximas. Considerando os dados obtidos no presente estudo, para que as relações dentre as espécies que compõe esse gênero sejam esclarecidas, sugere-se uma revisão do gênero

Compsura, utilizando os dados morfológicos juntamente com os moleculares. As relações de *O. mitoptera* e *O. dialeptura* serão discutidas mais adiante.

O gênero *Cheirodon* foi o mais especioso a apresentar monofiletismo em todas as análises realizadas. A distribuição de *Cheirodon* abrange as drenagens trans-andinas do Pacífico, no Chile, e as drenagens cis-andinas do Atlântico, no Brasil, Uruguai e Argentina. A distribuição desses cheirodontíneos compreende a área de distribuição mais meridional dos caracídeos sul-americanos, tanto a leste como a oeste da Cordilheira dos Andes, respectivamente no Chile e na Argentina. Segundo Malabarba (1994), não foram encontradas evidências que sustentem a hipótese de monofiletismo de dois grupos distintos entre as espécies pertencentes à *Cheirodon*, a leste e oeste dos Andes, o que foi corroborado nas presentes análises uma vez que *C. australe* (trans-andina) aparece como grupo irmão de *C. interruptus* (cis-andina) e estas espécies, mais *C. killiani* (trans-andina), aparecem como grupo irmão de *C. ibicuiensis* (cis-andina).

O gênero *Cheirodon*, além de ser monofilético, formou também um grupo monofilético com *Heterocheirodon yatai* (clado 3). *Heterocheirodon yatai* aparece como a espécie irmã de todas as espécies do gênero *Cheirodon*, diferente do que foi proposto por Malabarba (1998) e Bührnheim (2006). Como já foi discutido na literatura, as relações de *Heterocheirodon* dentro do grupo de gêneros pertencentes à tribo mencionada não são totalmente resolvidas (Malabarba e Bertaco 1999), o que deixa em aberto a resolução de suas relações. *C. ibicuiensis* é a espécie do gênero mais relacionada à *Heterocheirodon* nas presentes análises e as duas espécies ocorrem na bacia do Rio Uruguai (Brasil, Argentina e Uruguai), o que pode indicar uma relação bastante antiga (antes do surgimento do Andes). Além da simpatria, essas duas espécies compartilham a presença de dois a três ganchos de cada lado dos segmentos dos raios da nadadeira anal dos machos, o que não acontece nas outras espécies do gênero *Cheirodon* (Malabarba 1998). Logo após *H. yatai* e *C. ibicuiensis*, surge outro grupo contendo *C. killiani* como espécie irmã do clado formado por *C. interruptus* e *C. australe*, corroborando a hipótese de Campos (1982), onde foram encontradas as mesmas relações encontradas no presente trabalho. *C. interruptus* é encontrado na região sul do Brasil, Argentina, Uruguai e Chile, podendo ter sido introduzida neste último país (Malabarba 2003). A relação mais próxima de *C. interruptus* com *C. australe*, além de ser corroborada nesse trabalho, pode ser explicada também, pelo número semelhante (22-30) de raios procorrentes ventrais da nadadeira caudal (Malabarba 1998). A relação de *C. interruptus* com as outras espécies trans-andinas também pode indicar que *C.*

interruptus pode ter sido introduzido na região cis-andina e não o contrário como foi sugerido na literatura. Pode-se concluir, pela posição de *Heterocheirodon* e *C. ibicuihensis* nas filogenias, que essas linhagens são ainda mais antigas que as outras espécies de *Cheirodon*, e a separação das mesmas, com o soerguimento da Cordilheira dos Andes, foi simultânea ou anterior a origem das espécies trans-andinas.

A monofilia do clado 4 (Figura 33) foi bem suportada nas análises realizadas. Nesse clado, *Odontostilbe sp.1* aparece como grupo irmão de todos os demais membros do clado. Essa espécie foi citada como '*Odontostilbe britskii*' por Malabarba (1994), porém, esse nome não está ainda disponível. Como *Odontostilbe sp.1* aparece como único representante do clado 5 (Figura 33) esse animal deveria ser descrito como membro de um novo gênero.

Três outras linhagens monofiléticas foram observadas dentro do clado 4. O primeiro é o clado 6, formado por *Cheirodon stenodon* (já discutido acima), *Macropsobrycon uruguayanae*, *Kolpotocheirodon theloura* e *K. figueiredoi*.

Macropsobrycon uruguayanae é a única espécie válida de *Macropsobrycon* uma vez que *M. xinguensis* não é um Cheirodontinae, como discutido acima. *M. uruguayanae* possui dentes cônicos considerados como uma reversão dos dentes de Cheirodontinae por Malabarba (1994), como consequência da redução do número de cúspides nos dentes. Há diferenças nos dentes de *C. stenodon* e *Macropsobrycon*, que é uma característica marcante em Cheirodontinae, como também discutido aqui. Mas, além disso, não foi possível encontrar, nos dados morfológicos da literatura, caracteres que unam ou separem essas espécies. *M. uruguayanae* está distribuída em drenagens da Lagoa dos Patos e das bacias dos rios Uruguai e Tramandaí (Malabarba 2003) e *C. stenodon* é encontrada na bacia do rio Paraná. Ainda que atualmente essas drenagens sejam independentes, pode ter havido conexões das mesmas no passado, uma vez que representam cursos de água adjacentes.

O gênero *Kolpotocheirodon*, como descrito em Malabarba et al. (2004), aparece como monofilético em todas as análises realizadas e, de acordo com estes autores, existem claras características morfológicas que justificam a monofilia do gênero. Um dos caracteres mais marcantes e unicamente derivado é a forma das dobras de pele nas nadadeiras caudal e dorsal. A margem dessas dobras de pele é recortada em numerosas papilas dérmicas, formando órgãos semelhantes à um "abacaxi", que não estão presentes em nenhum outro cheirodontíneo. *K. theloura* é

encontrada no alto rio Paraná (próximo à Brasília) e *K. figueiredoi* na Chapada Diamantina (Bahia).

O monofiletismo do clado 7, fortemente sustentado em todas análises moleculares, pode ser confirmado também com caracteres morfológicos uma vez que todos os membros deste clado possuem uma morfologia dentária semelhante (Figura 36). Nessas espécies os dentes do dentário são bastante especializados, com três cúspides centrais igualmente desenvolvidas, formando uma borda de corte (Malabarba e Weitzman 1999).

O clado 7 é formado por duas linhagens monofiléticas. Uma delas é composta por *Acinocheiroduon cf. melanogramma* e *Aphyocheiroduon hemigrammus* (Figura 33). O gênero *Acinocheiroduon* possui apenas duas espécies reconhecidas: *A. melanogramma* (da bacia do Rio São Francisco) e *A. cf. melanogramma* (da bacia do rio Jequitinhonha) (Malabarba e Weitzman 1999). Nas análises aqui realizadas, a única espécie de *Acinocheiroduon* utilizada foi *Acinocheiroduon cf. melanogramma*, que aparece como irmã de *Aphyocheiroduon hemigrammus*. Mais estudos devem ser realizados para que sejam conhecidas as relações entre as duas espécies do gênero *Acinocheiroduon*.

O segundo grupo monofilético pertencente ao clado 7 é composto por *Odontostilbe pequiria*, *Serrapinnus heterodon*, *S. microdon* e uma nova espécie de *Odontostilbe* (*Odontostilbe sp.2*). Neste grupo, *Odontostilbe pequiria* não aparece relacionado a *Odontostilbe fugitiva*, contrariando o que havia sido proposto por Malabarba e Weitzman (1999). Eigenmann (1903) descreveu o gênero *Holoshesthes*, que tinha como espécie tipo *Chirodon pequiria*, descrita por Steindachner (1882). Assim, os presentes resultados corroboram a hipótese de que o gênero *Holoshesthes* é um gênero válido, devendo sair da sinonímia de *Odontostilbe*, como sugerido por Bührnheim (2006). Além disso, também a espécie hoje identificada como *Serrapinnus heterodon* foi inicialmente descrita no gênero *Holoshesthes* (Eigenmann 1915) e os presentes resultados corroboram essa hipótese inicial.

Nas análises de Bührnheim (2006), quando os caracteres morfológicos não foram pesados, *Acinocheiroduon melanogramma* aparece relacionado a *Odontostilbe pequiria*, como encontrado no presente estudo.

Ainda de acordo com Bührnheim (2006 p. 180) “though the 21 synapomorphies supporting the *Holoshesthes* clade are homoplastic, they identify a rather concise lineage of cheirodontines with profound modifications linked to feeding mechanisms, including dentition, gill rakers, and associated bones as the second infraorbital, and mesethmoid. Most of these characters appear

independently in *Serrapinnus heterodon*, *Serrapinnus microdon*, and *Acinocheiroduon melanogramma*. However, these species do not share with *Holoshesthes* the 14 synapomorphies of the Odontostibini, otherwise having respectively the synapomorphies of the tribes Cheiroduontini (*Serrapinnus* species), and Compsurini (*A. melanogramma*)”.

Odontostilbe e *Serrapinnus* são os gêneros com a mais ampla distribuição e número de espécies em Cheiroduontinae e também, não se apresentaram monofiléticos nas análises moleculares. O gênero *Odontostilbe*, originalmente, foi definido com base na presença de uma linha lateral completa, *versus*, interrompida em *Cheiroduon*. O reconhecimento de *Odontostilbe* separadamente dos gêneros pertencentes às tribos Compsurini e Cheiroduontini é suportado pela falta de várias sinapomorfias diagnósticas dessas tribos e seus gêneros inclusos (essas sinapomorfias consistem de caracteres sexuais primários e secundários) (Bührnheim e Malabarba 2006). O gênero possui espécies distribuídas nas regiões trans e cis-andinas. Mesmo com a criação de uma nova tribo (Odontostilbini) e os estudos feitos com *Odontostilbe*, o gênero também não se mostrou monofilético em Bührnheim (2006), e apenas três linhagens monofiléticas, de posição incerta, puderam ser propostas em Odontostilbini. Duas das espécies, temporariamente referidas como *Odontostilbe*, *O. mitoptera* e *O. dialeptura*, as únicas trans-andinas do gênero, são espécies inseminadoras, o que é uma característica diagnóstica da tribo Compsurini (Malabarba e Weitzman 1999, 2000).

Em uma análise recente publicada por Bührnheim e Malabarba (2006), onde a espécie tipo de *Odontostilbe* (*O. fugitiva*) é redescrita e as espécies amazônicas são revistas, os autores reconhecem nove espécies válidas no gênero: *O. fugitiva*, *O. dierythra*, *O. microcephala*, *O. paraguayensis*, *O. pequirá*, *O. rolhoffi*, *O. equadorensis*, *O. nareuda* e *O. parecis* e citam a existência de outras dez espécies que devem fazer parte do gênero, incluindo oito novas espécies e as espécies *O. pulchra* (Gill, 1858) e *Cheiroduontops geayi* Schultz, 1944. Na presente análise, que incluiu apenas cinco das espécies citadas acima (*O. fugitiva*, *O. paraguayensis*, *O. pequirá*, *O. equadorensis* e *O. pulchra*) o grupo aparece totalmente polifilético (Figura 33), o que também foi observado em Bührnheim (2006) (Figura 6) em sua filogenia sem pesagem. Na filogenia de Bührnheim (2006) (Figura 5), com pesagem de caracteres, o gênero *Odontostilbe* aparece parafilético.

O gênero *Serrapinnus* foi descrito por Malabarba (1998), com base na presença de raios procorrentes ventrais e na curvatura do pedúnculo caudal do macho. *Serrapinnus* inclui espécies previamente referidas como *Cheiroduon*,

Odontostilbe ou *Holoshesthes*, encontradas nas bacias do rio Amazonas, rio São Francisco, rio da Prata e drenagens do nordeste do Brasil (Malabarba 1998). Sua distribuição em áreas distantes e as inúmeras características que um dia inseriram essas espécies em outros gêneros, reforçam a fragilidade do gênero proposto por Malabarba (1998).

Nos resultados encontrados aqui, o gênero *Serrapinnus* não mostrou-se monofilético (Figura 33). O clado 6 (Figura 33), fortemente sustentado nas análises moleculares, possui várias espécies dos gêneros *Serrapinnus* (*S. calliurus*, *S. kriegi*, *S. notomelas*), *Odontostilbe* (*O. paraguayensis*, *O. ecuadorensis*, *O. fugitiva*, *O. pulchra*), a espécie *Compsura heterura*, e um gênero e espécie nova.

Odontostilbe pulchra, o gênero e espécie nova (New gen. & sp. C – Malabarba 1998) e *Serrapinnus kriegi* aparecem como espécies irmãs das outras espécies desse clado. *Odontostilbe fugitiva* surge como a espécie mais próxima do clado formado pelos outros *Serrapinnus*, *Compsura heterura*, *O. ecuadorensis* e *O. paraguayensis*, sendo que estes dois últimos são espécies irmãs. Anteriormente à Malabarba (1998), as espécies atualmente reunidas em *Serrapinnus* eram referidas na literatura nos gêneros *Cheirodon*, *Odontostilbe* e *Holoshesthes*. Nas propostas de redefinição de *Cheirodon* (Uj 1987; Casciotta et al. 1992), todas essas espécies são removidas de *Cheirodon* e referidas em *Odontostilbe*, juntamente com outros Cheirodontinae, exceto *Holoshesthes heterodon*. Malabarba (1988) formula a hipótese de monofiletismo de um agrupamento em Cheirodontinae, que denomina “grupo calliura”, com base em caracteres derivados dos raios procorrentes ventrais da nadadeira caudal e raios da nadadeira anal, reunindo *C. calliurus*, *C. notomelas*, *C. kriegi*, *C. microdon* e *C. piaba* juntamente com *H. heterodon*. Este agrupamento, juntamente com espécies não mencionadas em Malabarba (1988), da bacia do rio Amazonas e rio Tocantins, é reunido no novo gênero *Serrapinnus* em Malabarba (1998), que descreve novas espécies e re-descreve *S. piaba*, *S. heterodon* e *S. micropterus*. Portanto, o agrupamento das espécies pertencentes ao gênero *Serrapinnus* juntamente com as de *Odontostilbe* nos clados 7 e 8, pode ser o resultado dessas espécies compartilharem caracteres em comum e, por isso, um dia terem sido consideradas pertencentes aos mesmos gêneros.

Segundo Malabarba (1994), *Serrapinnus calliurus* e *S. notomelas* (e mais duas espécies de *Serrapinnus* não analisadas aqui) são diagnosticadas pela presença de uma pequena aba na base da nadadeira caudal dos machos, formada pela expansão ventral dos três raios procorrentes ventrais mais posteriores nos machos. No presente estudo, as duas espécies citadas aparecem mais próximas nas análises

realizadas. *Serrapinnus kriegi* aparece mais distante das espécies citadas acima, mas esse fato pode ser explicado morfológicamente, pela presença de uma mancha escura na parede lateral do abdome junto à região anal, única nos cheirodontíneos, semelhante à observada em poecilídeos (Malabarba 1994). O novo gênero e espécie nova (ou New Genus and Species C, Malabarba 1998) apresenta a forma dos raios procorrentes da nadadeira ventral similar aquela encontrada em *Serrapinnus* (Malabarba 1998). Fato que pode suportar o agrupamento dessas espécies por caracteres morfológicos em um mesmo clado (clado 8).

Por outro lado, considerando a ampla monofilia dos clados 7 e 8, corroborase a hipótese de que *Odontostilbe* e *Holoshesthes* são mais relacionados entre si (Malabarba 1998; Bührnheim 2006).

Além de todos esses resultados encontrados, tudo indica que, uma análise futura de mais espécies de Cheirodontinae, principalmente dos gêneros *Cheirodontops* e *Amazonspinther* (não amostrados no presente estudo, será importante para um entendimento mais amplo das relações dentro dessa subfamília.

5.2.3. Classificação Proposta

Bührnheim (2006) discute que os estudos osteológicos em caracídeos com propósitos filogenéticos têm sido tradicionalmente problemáticos. Isso é usualmente relacionado à alta ocorrência de homoplasias, que podem ser encontradas entre espécies de diferentes linhagens, em todos os níveis de Characidae (Lucena 1993), como subfamílias ou gêneros (*Brycon*, Zanatta 2000; *Moenkhausia*, Benine 2004), ou mesmo em famílias relacionadas de Characiformes (Alestidae, Zanatta e Vari 2005). Em Bührnheim (2006), esse problema é exemplificado claramente ao longo da descrição de caracteres e discussão, onde vários caracteres que eram variáveis e potencialmente informativos para reconstruir a filogenia de Cheirodontinae são encontrados em estados equivalentes em outras linhagens monofiléticas reconhecidas de Characidae. Mesmo entre os cheirodontíneos, onde os caracteres utilizados em Bührnheim (2006) foram baseados em um profundo estudo da morfologia do crânio, os resultados revelaram que a maioria dos caracteres são altamente homoplásticos. A solução encontrada no referido trabalho foi dar pesos diferentes aos caracteres homoplásticos nas análises, resultando em uma melhor filogenia quando se reduziu o peso relativo desses caracteres na hipótese

final. Por outro lado o uso de pesagem de caracteres pode tornar os resultados bastante tendenciosos.

Com base nos resultados aqui obtidos, nota-se que Cheirodontinae não pode ser simplesmente dividida nas tribos existentes, Cheirodontini, Compsurini (Malabarba 1998) e Odontostilbini (Bührnheim 2006), primeiramente, devido ao o fato de que muitos dos gêneros não apresentam monofilia. Segundo Malabarba (1998), *Spintherobolus* pertence à tribo Cheirodontini juntamente com *Serrapinnus*, *Cheirodon*, *Heterocheirodon* e *Nanocheirodon*. No presente estudo, os gêneros pertencentes à tribo em questão, não formaram um grupo monofilético. Os gêneros pertencentes à tribo Compsurini também não formaram um grupo monofilético em nenhuma das análises aqui realizadas. Assim, é possível que os caracteres morfológicos diagnósticos das tribos, encontrados por Malabarba (1998) e Bührnheim (2006), podem ter surgido independentemente nas espécies da subfamília. Sugere-se assim uma revisão nestes dados morfológicos dos caracteres que unem esses gêneros em tribos, com a exclusão do gênero *Spintherobolus* e a inclusão de *Cheirodon stenodon*, além de outras mudanças citadas abaixo:

(1) No clado referido como 1, sugere-se que os gêneros continuem como o existente na literatura, *Nanocheirodon* e *Pseudocheirodon*, o primeiro com uma só espécie, *N. insignis*, e o segundo com duas espécies *P. terrabae* e *P. arnoldi*, sendo estes os gêneros mais antigos de Cheirodontinae.

(2) Para o clado referido como 2, que possui espécies trans-andinas e andinas (*Prodontocharax*, *Saccoderma*, *C. gorgonae*, *Compsura sp. nov.*, *O. dialeptura* e *O. mitoptera*), sugere-se a manutenção dos gêneros *Prodontocharax*, *Saccoderma* e *Compsura*. O gênero *Compsura* deveria passar a incluir as espécies *C. gorgonae*, *Compsura sp. nov.*, *C. mitoptera* e *C. dialeptura*.

(3) No clado formado por *Heterocheirodon* e *Cheirodon*, clado 3, sugere-se a manutenção dos gêneros separadamente.

(4) Para *Odontostilbe sp.1*, clado 5, sugere-se a descrição da espécie dentro de um novo gênero, sendo que esta é espécie irmã de todos os gêneros pertencentes aos clados 6, 7 e 8.

(5) Para o clado monofilético, referido como 6, sugere-se a mudança de gênero da espécie *Cheirodon stenodon*, como um gênero novo, e os gêneros *Kolpotocheirodon* e *Macropsobrycon* deveriam permanecer como gêneros válidos.

(6) No clado 7, *Holoshesthes* deveria sair da sinonímia de *Odontostilbe* e passar a incorporar novamente a espécie *S. heterodon* (*H. heterodon*) e as espécies *S. microdon* e *Odontostilbe sp.2*. Então, após uma mudança de gênero, as espécies

passariam a ser nomeadas *H. microdon* e *Holoshesthes sp. nov.*. *Aphyocheirodon* e *Acinocheirodon* continuam como gêneros válidos, fazendo parte de um mesmo clado monofilético com *Holoshesthes*.

(7) Para o clado 8, que possui algumas espécies de *Odontostilbe* e *Serrapinnus*, *Compsura heterura* e gênero e espécie nova (New gen & sp C – Malabarba 1998), sugere-se a nomeação de todas essas espécies do clado como pertencentes ao gênero *Odontostilbe*. Como já foi discutido, muitas dessas espécies já haviam pertencido ao gênero citado, além das outras que já fazem parte de *Odontostilbe*. Após a mudança de gênero, as espécies passariam a ser denominadas *Odontostilbe kriegi*, *O. heterura*, *O. calliurus* e *O. notomelas*, além da nova espécie *Odontostilbe sp. nov.* (“New gen & sp C”). Assim como foi feito em Bührnheim (2006), utilizando-se de uma posição conservadora, todas as espécies que formaram um clado monofilético juntamente com a espécie tipo do gênero (*O. fugitiva*), também foram alocadas em *Odontostilbe*.

Após as novas classificações sugeridas, baseando-se na árvore filogenética apresentada na Figura 33, Cheirodontinae mostra uma clara divisão em grupos monofiléticos, são eles: (1) grupo formado pelos gêneros trans-andinos: *Pseudocheirodon* e *Nanocheirodon* (clado 1); (2) grupo formado pelos gêneros trans-andinos e andino da região norte da América do Sul: *Saccoderma*, *Prodontocharax* e *Compsura* (clado 2); (3) grupo formado pelos gêneros pertencentes ao sul trans-andino e cis-Andino da América do Sul: *Cheirodon* e *Heterocheirodon* (clado 3); (4) grupo formado pelo novo gênero e espécie, que pode representar um novo gênero (clado 5); (5) grupo formado pelos gêneros *Macropsobrycon*, *Kolpotocheirodon* e novo gênero e espécie (clado 6); (6) grupo formado pelas espécies de *Holoshesthes*, *Aphyocheirodon* e *Acinocheirodon* (clado 7); (7) grupo formado por *Odontostilbe* (clado 8); (8) um grupo monofilético maior, o clado 4, que é composto pelos cladros 5, 6, 7 e 8.

Baseando-se nos resultados obtidos no presente estudo e visando um melhor entendimento da subfamília e suas espécies, sugere-se uma nova distribuição das tribos em Cheirodontinae, mantendo os nomes sugeridos por Géry (1960a), Malabarba (1998) e Bührnheim (2006), adicionando uma nova tribo, apenas realocando as espécies com suas novas nomeações propostas. As tribos estão apresentadas na filogenia da Figura 37 e a distribuição das espécies, por cladros, está apresentada na Figura 35.

Assim, apresenta-se a seguir, uma nova proposta de rearranjo das espécies nas tribos de Cheirodontinae:

TRIBO PSEUDOCHEIRODONTINI (nova tribo)

A tribo Pseudocheiroidontini, uma nova tribo aqui proposta, agrupa os gêneros *Pseudocheiroidon* e *Nanocheiroidon*, e são representadas por espécies trans-Andinas no norte da região Neotropical.

As espécies de Pseudocheiroidontini são reunidas em dois gêneros, listados a seguir, com as espécies nominais e sua classificação atual proposta, para quais forem necessárias:

ESPÉCIES NOMINAIS DE *Pseudocheiroidon* Meek e Hildebrand, 1916:

Nomenclatura anterior	Nomenclatura proposta
<i>Chirodon arnoldi</i> Boulenger, 1909	<i>Pseudocheiroidon arnoldi</i> Boulenger, 1909
<i>Pseudocheiroidon terrabae</i> Bussing, 1967	<i>Pseudocheiroidon terrabae</i> Bussing, 1967

ESPÉCIES NOMINAIS DE *Nanocheiroidon* Malabarba, 1998:

Nomenclatura anterior	Nomenclatura proposta
<i>Chirodon insignis</i> Steindachner, 1880	<i>Nanocheiroidon insignis</i> (Steindachner, 1880)

TRIBO COMPSURINI (Malabarba, 1998)

A tribo Compsurini, aqui proposta, agrupa os gêneros *Prodontocharax*, *Saccoderma* e *Compsura* e são representados pelas espécies trans-Andinas e Andinas da região norte da região Neotropical. Os caracteres diagnósticos empregados por Malabarba (1998) – caracteres unicamente derivados relacionados aos órgãos de contato (ganchos) e padrão de colorido da nadadeira anal dos machos – não são mais diagnósticos da tribo.

As espécies de Compsurini são reunidas em quatro gêneros, listados a seguir, com as espécies nominais e sua classificação atual proposta, para quais forem necessárias:

ESPÉCIES NOMINAIS DE *Prodontocharax* Eigenmann e Pearson, in Pearson, 1924:

Nomenclatura anterior	Nomenclatura proposta
<i>Prodontocharax melanotus</i> Pearson, 1924	<i>Prodontocharax melanotus</i> Pearson, 1924

ESPÉCIES NOMINAIS DE *Saccoderma* Schultz, 1944:

Nomenclatura anterior	Nomenclatura proposta
<i>Saccoderma melanostigma</i> Schultz, 1944	<i>Saccoderma melanostigma</i> Schultz, 1944

ESPÉCIES NOMINAIS DE *Compsura* Eigenmann, 1915:

Nomenclatura anterior	Nomenclatura proposta
<i>Cheirodon gorgonae</i> Evermann e Goldsborough, 1909	<i>Compsura gorgonae</i> (Evermann e Goldsborough, 1909)
<i>Compsura sp. nov.</i>	<i>Compsura sp. nov.</i>
<i>Odontostilbe mitoptera</i> (Fink e Weitzman, 1974)	<i>Compsura mitoptera</i> (Fink e Weitzman, 1974)
<i>Odontostilbe dialeptura</i> (Fink e Weitzman, 1974)	<i>Compsura dialeptura</i> (Fink e Weitzman, 1974)

TRIBO CHEIRODONTINI Géry, 1960

A tribo Cheirodontini, aqui proposta, agrupa os gêneros *Heterocheirodon* e *Cheirodon* e são representados pelas espécies trans e cis-andinas da região sul da América do Sul. Os caracteres diagnósticos empregados por Malabarba (1998) - caracteres relacionados ao dimorfismo sexual secundário observado nos raios procorrentes ventrais da nadadeira caudal e raios da nadadeira anal dos machos - não são mais diagnósticos da tribo. As espécies de Cheirodontini são reunidas em dois gêneros, listados a seguir, com as espécies nominiais e sua classificação atual proposta, para quais forem necessárias:

ESPÉCIES NOMINAIS DE *Heterocheirodon* Malabarba, 1998:

Nomenclatura anterior	Nomenclatura proposta
<i>Odontostilbe yatai</i> Casciotta, Miquelarena e Protogino, 1992	<i>Heterocheirodon yatai</i> (Casciotta, Miquelarena e Protogino, 1992)

ESPÉCIES NOMINAIS DE *Cheirodon* Girard, 1855:

Nomenclatura anterior	Nomenclatura proposta
<i>Cheirodon ibicuihensis</i> Eigenmann, 1915	<i>Cheirodon ibicuihensis</i> Eigenmann, 1915
<i>Cheirodon australe</i> Eigenmann, 1927	<i>Cheirodon australe</i> Eigenmann, 1927
<i>Tetragonopterus interruptus</i> Jenyns, 1842	<i>Cheirodon interruptus</i> (Jenyns, 1842)
<i>Cheirodon killiani</i> Campos, 1982	<i>Cheirodon killiani</i> Campos, 1982

TRIBO ODONTOSTILBINI Bührnheim, 2006

A tribo Odontostilbini, aqui proposta, agrupa os gêneros *Odontostilbe*, *Holoshesthes*, *Macropsobrycon*, *Kolpotocheirodon*, *Aphyocheirodon*, *Acinocheirodon* e os novos gêneros e espécies e são representados pelas espécies presentes nas principais bacias da América do Sul. Os caracteres diagnósticos empregados por Bührnheim (2006) não são mais diagnósticos da tribo. As espécies de Cheirodontini

são reunidas em dois gêneros, listados a seguir, com as espécies nominais e sua classificação atual proposta, para quais forem necessárias:

ESPÉCIES NOMINAIS DE *Macropsobrycon* Eigenmann, 1915:

Nomenclatura anterior	Nomenclatura proposta
<i>Macropsobrycon uruguayanae</i> Eigenmann, 1915	<i>Macropsobrycon uruguayanae</i> Eigenmann, 1915

ESPÉCIES NOMINAIS DE *Holoshesthes* Eigenmann, 1903:

Nomenclatura anterior	Nomenclatura proposta
<i>Odontostilbe pequirá</i> (Steindachner, 1882)	<i>Holoshesthes pequirá</i> (Steindachner, 1882)
<i>Serrapinnus heterodon</i> (Eigenmann, 1915)	<i>Holoshesthes heterodon</i> Eigenmann, 1915
<i>Serrapinnus microdon</i> (Eigenmann, 1915)	<i>Holoshesthes microdon</i> (Eigenmann, 1915)
<i>Odontostilbe sp.2</i>	<i>Holoshesthes sp. nov.</i>

ESPÉCIES NOMINAIS DE *Aphyocheiroduon* Eigenmann, 1915:

Nomenclatura anterior	Nomenclatura proposta
<i>Aphyocheiroduon hemigrammus</i> Eigenmann, 1915	<i>Aphyocheiroduon hemigrammus</i> Eigenmann, 1915

ESPÉCIES NOMINAIS DE *Acinocheiroduon* Malabarba e Weitzman, 1999:

Nomenclatura anterior	Nomenclatura proposta
<i>Acinocheiroduon cf melanogramma</i> Malabarba e Weitzman, 1999	<i>Acinocheiroduon cf melanogramma</i> (Malabarba e Weitzman, 1999)

ESPÉCIES NOMINAIS DE *Kolpotocheiroduon* Malabarba e Weitzman, 2000:

Nomenclatura anterior	Nomenclatura proposta
<i>Kolpotocheiroduon theloura</i> Malabarba e Weitzman, 2000	<i>Kolpotocheiroduon theloura</i> Malabarba e Weitzman, 2000
<i>Kolpotocheiroduon figueiredoi</i> Malabarba, Lima e Weitzman, 2004	<i>Kolpotocheiroduon figueiredoi</i> Malabarba, Lima e Weitzman, 2004

ESPÉCIES NOMINAIS DE *Odontostilbe* Cope, 1870:

Nomenclatura anterior	Nomenclatura proposta
<i>Odontostilbe fugitiva</i> Cope, 1870	<i>Odontostilbe fugitiva</i> Cope, 1870
<i>Poecilurichthys pulcher</i> Gill, 1858	<i>Odontostilbe pulchra</i> (Gill, 1858)
<i>Odontostilbe paraguayensis</i> Eigenmann e Kennedy, 1903	<i>Odontostilbe paraguayensis</i> Eigenmann e Kennedy, 1903
<i>Odontostilbe ecuadorensis</i> Bührnheim, 2006	<i>Odontostilbe ecuadorensis</i> Bührnheim, 2006
<i>Serrapinnus kriegi</i> (Schindler, 1937)	<i>Odontostilbe kriegi</i> (Schindler, 1937)
<i>Serrapinnus calliurus</i> (Boulenger, 1900)	<i>Odontostilbe calliurus</i> (Boulenger, 1900)
<i>Serrapinnus notomelas</i> (Eigenmann, 1915)	<i>Odontostilbe notomelas</i> (Eigenmann, 1915)
<i>Compsura heterura</i> Eigenmann, 1915	<i>Odontostilbe heterura</i> (Eigenmann, 1915)

Odontostilbe sp.2 (New gen. & sp. C Malabarba, 1998)

Odontostilbe sp. nov.

ESPÉCIES NOMINAIS DE Novo gênero (*Odontostilbe britskii* – nova espécie proposta em Malabarba, 1994):

Nomenclatura anterior

Odontostilbe sp.1 (Malabarba, 1994)

Nomenclatura proposta

Novo gênero e espécie

ESPÉCIES NOMINAIS DO Segundo Novo gênero:

Nomenclatura anterior

Cheirodon stenodon Eigenmann, 1915

Nomenclatura proposta

Novo gênero e espécie

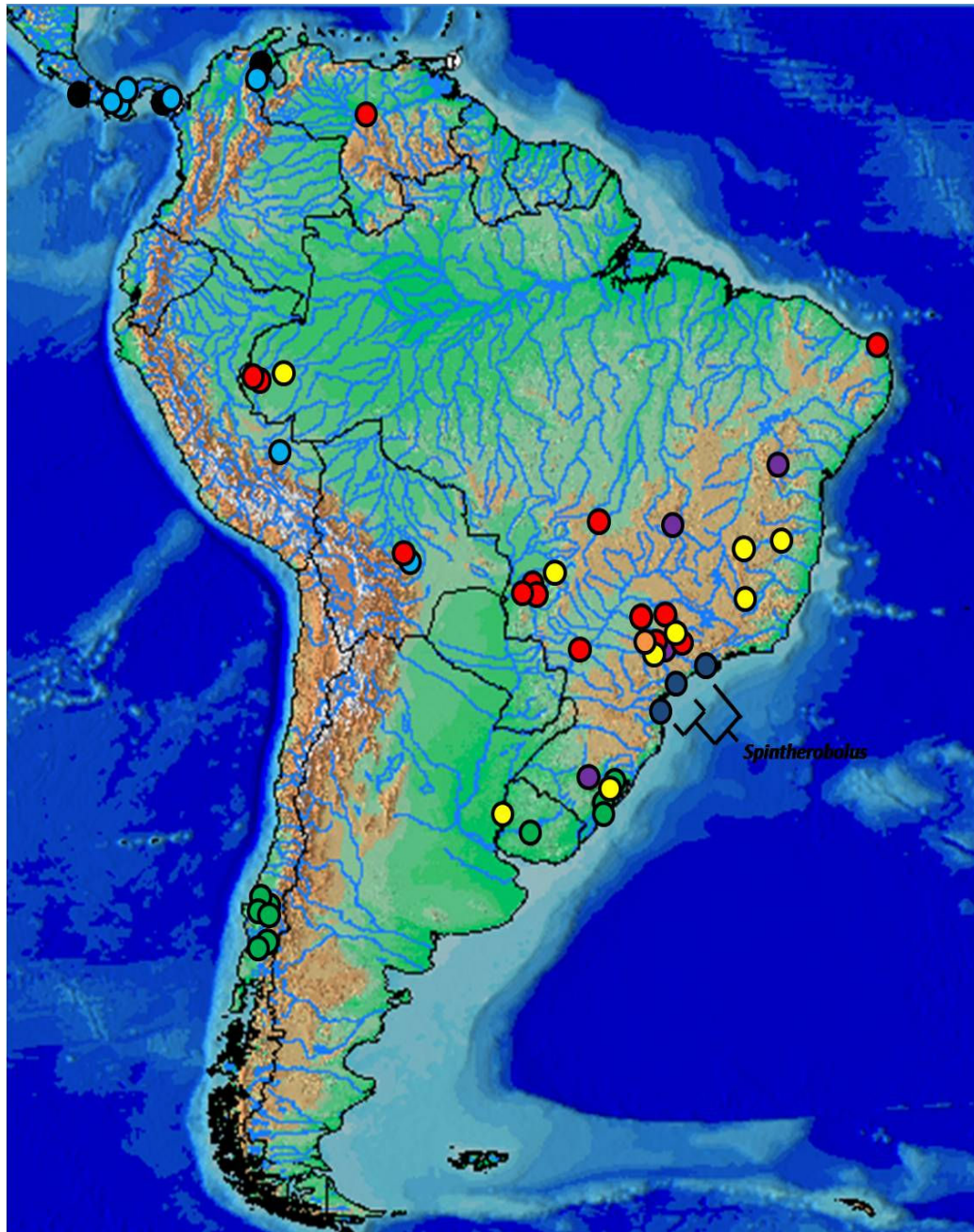


Figura 35. Distribuição das espécies de Cheirodontinae estudadas com as cores baseadas nos clados formados. O cladograma resumido mostra a localização biogeográfica das espécies de *Spintherobolus*.

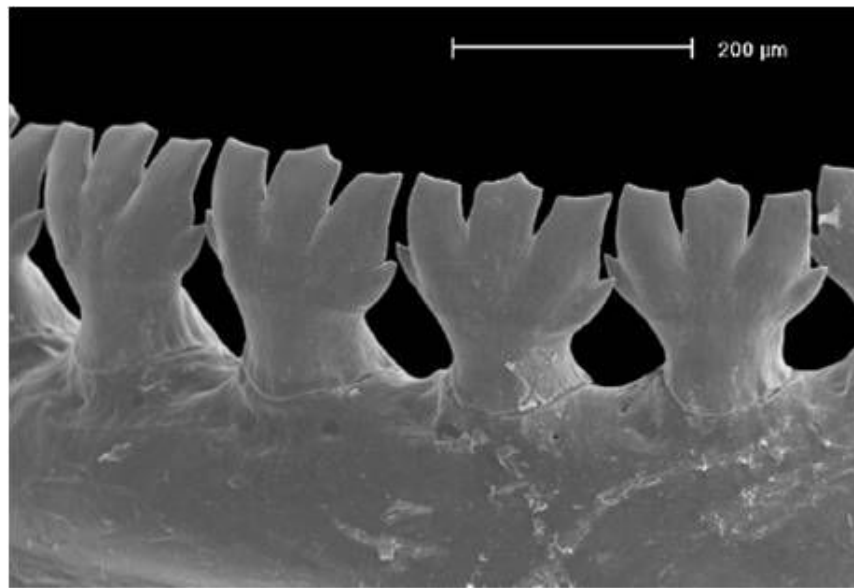


Figura 36. Dentes do dentário de *Aphyocheirodon hemigrammus* segundo Bührnheim (2006). Estes dentes possuem três cúspides centrais igualmente desenvolvidas formando uma borda de corte e são compartilhados por todas as espécies do clado 7.

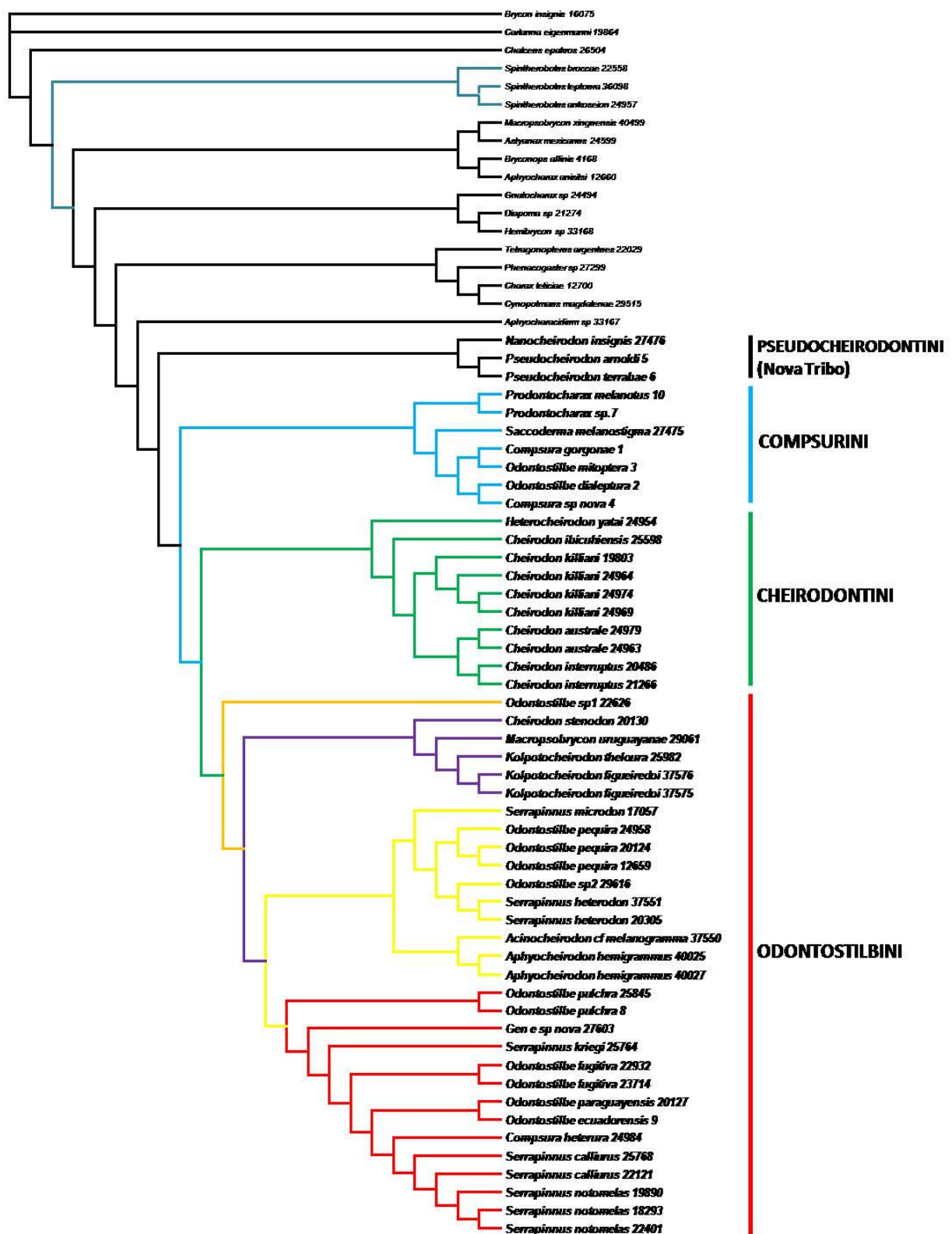


Figura 37. Identificação das tribos e espécies propostas como resultado do presente estudo. Os nomes propostos foram aplicados sobre a árvore de consenso apresentada na Figura 33.

6. CONCLUSÕES

Com base nos resultados obtidos no presente estudo pode-se concluir que:

1. Cheirodontinae forma um grupo irmão do clado onde estão relacionados Stethaprioninae com Rhoadsiinae e Glandulocaudinae com Stevardiinae. A análise de mais táxons representantes de Characidae é fundamental para um correto posicionamento de Cheirodontinae nessa família;
2. A espécie *Macropsobrycon xinguensis* não faz parte de Cheirodontinae, como já havia sido discutido na literatura;
3. O gênero *Spintherobolus* não pertence à Cheirodontinae;
4. *Cheirodon stenodon*, que era considerado *incertae sedis* em Characidae, é um táxon pertencente a essa subfamília;
5. Com as inclusões e exclusões de gêneros e espécies citadas acima (itens 2, 3 e 4) a subfamília Cheirodontinae torna-se monofilética;
6. As espécies trans-andinas e andinas são as mais antigas da subfamília;
7. *Cheirodon*, que possui espécies trans e cis-andinas, é o único gênero especioso que apresentou monofiletismo nas presentes análises, sendo este, grupo irmão de *Heterocheirodon*;
8. Diversos gêneros apareceram polifiléticos, principalmente *Odontostilbe*.
9. *Holoshesthes* deveria sair da sinonímia de *Odontostilbe*, passando a ser novamente um gênero válido em Cheirodontinae;
10. O clado formado por *Aphyocheirodon*, *Acinocheirodon*, *Odontostilbe pequirá* (= *Holoshesthes pequirá*), *Serrapinnus heterodon*, *S. microdon* e uma nova espécie de *Odontostilbe* (*Odontostilbe sp2*) pode ser confirmado também pela presença de caracteres morfológicos derivados;
11. *Macropsobrycon*, *Kolpotocheirodon* e *Cheirodon stenodon* formam um clado monofilético.
12. *Odontostilbe* forma um clado monofilético com as espécies antes pertencentes à *Serrapinnus*, uma espécie nova e *Compsura heterura*.

13. O clado monofilético que possui *O. pequirá* (= *Holoshesthes*) e o que possui *O. fugitiva*, também monofilético, formam um clado monofilético maior, reforçando a idéia de que *Holoshesthes* é mais relacionado à *Odontostilbe*;
14. Sugere-se uma revisão nos dados morfológicos dos caracteres que unem os gêneros de Cheirodontinae em tribos, com a exclusão do gênero *Spintherobolus* e a inclusão de *Cheirodon stenodon*.
15. Uma mudança na nomenclatura é proposta baseada nos clados monofiléticos formados. Assim, as tribos Cheirodontini, Compsurini e Odontostilbini são mantidas, com diferentes composições e uma nova tribo é sugerida (Pseudocheirodontini).
16. A análise futura de mais espécies de Cheirodontinae, principalmente dos gêneros *Cheirodontops* e *Amazonspinther* (não amostrados no presente estudo), será importante para um entendimento mais amplo das relações dentro dessa subfamília.

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8. Apêndice

Aqui estão apresentadas as sequências e o alinhamento utilizados no presente trabalho:

Brycon_insignis_16075	AAAACATCGCCTCCCGCAA	AACCAAGTATAAGGAGTCC	TACCTGCCCAATGACATTTT	GTTCAACGGCCGCGGTATCT	TGACCGTGCTAAGGTAGCGC
Gnatocharax_sp_24494	AAAACATCGCCTCCCGCAAG	CCTCTAGGTATGGGAGGTCT	TACCTGCCCCAGTGACGACGA	GTTAAACGGCCGCGGTATCT	TGACCGTGCTAAGGTAGCGC
Macropodobrycon_kinguensis_40499	AAAACATCGCCTCCTGCAAC	AATCAATGTATAAGGAGTCC	TACCTGCCCGGTGAC--TAA	GTTAAACGGCCGCGGTATCC	TGACCGTGCAAAAGGTAGCGC
Bryconops_affinis_4168	AAAACATCGCCTCCCGCAA--	-ATCTAAGTATGGGAGGTCT	TACCTGCCCCAGTGACA-TAA	GTTAAATGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Chalceus_epakros_26504	????CATCGCCTCCCGCAA	AACCAATATATGGGAGGTCT	TACCTGCCCCAGTGACAATA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Aphyocharax_anisitsi_12660	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCAATGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Carlana_eigenmani_19864	????????????????????	????????????????????	????????????????????	????????????????????	????????????????TACGCG
Astyanax_mexicanus_24599	AAAACATCGCCTCCTGCAA	AATCAATGTATAAGGAGTCC	TACCTGCCCCAGTGAT--TTA	ATTAACGGCCGCGGTATTT	TGACCGTGCAAAAGGTAGCGC
Spintherobolus_brocceae_22558	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGAC--TAA	GTTAAACGGCCGCGGTATTT	TAAACGGCGCTAAGGTAGCGC
Spintherobolus_leptoura_36098	AAAACATCGCCTCCTGCAA	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGAC--TAA	GTTAAACGGCCGCGGTATTT	TAAACGGCGCTAAGGTAGCGC
Spintherobolus_ankoseion_24957	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGAC--TAA	GTTAAACGGCCGCGGTATTT	TAAACGGCGCTAAGGTAGCGC
Charax_leticiae_12700	AAAACATCGCCTCCTGCAA-	AATCAAAGTATA--GAGGTCT	TACCTGCCCCAGTGACAATA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Diapoma_sp_21274	AAAACATCGCCTCTTGTGAG	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGGT--CTAAGGTAGCGC
Prodontocharax_melanotus_10	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Prodontocharax_sp_7	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Nanochirodon_insignis_24746	AAAACATCGCCTCCTGCAA	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACG--TAA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Pseudocheirodon_arnoldi_5	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACA-TAA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Pseudocheirodon_terrabrae_6	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACA-TAT	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Heterochirodon_yatai_24954	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACA-TAA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_killiani_24964	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGATATTTA	GTTAAATCGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_australe_24979	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACTTAA	GTTAAATCGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_interruptu_20486	AAAACATCGCCTCCTGCAA-	-ATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_killiani_19803	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_killiani_24969	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_australe_24963	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_interruptus_21266	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_ibicuhiensis_23598	AAAACATCGCCTCCTGCAA-	-ATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGAC--TTA	GTTAAATCGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_killiani_24974	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAATCGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Saccoderma_melanostigma_27475	AAAACATCGCCTC--TGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Compsura_gorgonae_1	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_mitoptera_3	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Compsura_sp_nova_4	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_dialepturus_2	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_pulchra_25845	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACAATA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_paraguayensis_20127	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGAC--TTA	GTTAAATCGGCCGCGGTATTT	TAAACCGTGCTAAGGTAGCGC
Odontostilbe_sp1_22626	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Serrapinnus_microdon_17057	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACTTTT	GTTAAACGGCCGCGGTATTT	TGACCGTGCAAAAGGTAGCGC
Kolpotocheirodon_theloura_25982	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGATATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Macropodobrycon_uruguayanae_29061	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_pequirina_24958	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGATATTTA	ATTAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_pequirina_20124	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGATATTTA	ATTAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_pequirina_12659	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGATATTTA	ATTAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Acinocheirodon_melanogrammus_37551	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Serrapinnus_heterodon_20305	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_sp2_29616	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Kolpotocheirodon_figueiredoi_37576	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Kolpotocheirodon_figueiredoi_37575	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Serrapinnus_kriegi_25764	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAATCGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Compsura_heterura_24984	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACA-TAT	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Gen_e_sp_nova_27603	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Acinocheirodon_cf_melanogrammus_37550	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
lAphyocheirodon_hemigrammus_40027	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Aphyocheirodon_hemigrammus_40025	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Tetragonopterus_argenteus_22029	AAAACATCGCCTC--TGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGATATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Serrapinnus_notomelas_19890	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Serrapinnus_notomelas_18293	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGAC--TTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_стенodon_20130	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Serrapinnus_sp1_22401	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_fugitiva_22932	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cheirodon_pulcher_8	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_fugitiva_23714	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Serrapinnus_calliurus_22121	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Serrapinnus_calliurus_25768	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Odontostilbe_ecuadorensis_9	AAAACATCGCCTCCTGCAA-	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Cynopotamus_magdalena_29515	AAAACATCGCCTCCTGCTAA	AACCAAAATATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC
Phenacogaster_sp_27299	AAAACATCGCCTCCTGCAA	AATCAAAGTATAAGGAGTCC	TACCTGCCCCAGTGACATTTA	GTTAAACGGCCGCGGTATTT	TGACCGTGCTAAGGTAGCGC

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Aphyocharacidium_sp_33167	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	AATCACTTGTCTTTTAAATG	AGGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CTTTTCAAGTCAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Gnatocharax_sp_24494	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGA	AACGAGGGCTTAACTGTCTC	CCTTTATCTGGTCAATGAAAT	TGATCTGCCCGTGCAGAAGC		
Macropsobrycon_xinguensis_40499	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCCTCCCAATCAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Bryconops_affinis_4168	AATCACTTGTCTTTTAAATG	AGGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	ACTCTTCAAGTCAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Chalceus_epakros_26504	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Aphyocharax_anisitsi_12660	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CTTTTCAAGTCAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Carlana_eigenmani_19864	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGA	AACGAGGGCTTAACTGTCTC	CCTTTTTCTAATCAGTGAAT	TGATCCACCCGTGCAGAAGC		
Astyanax_mexicanus_24599	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGA	AACGAGGGCTTAACTGTCTC	CCTTTTTCTGATCAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Spintherobolus_brocceae_22558	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGA	AACGAGGGCTTAACTGTCTC	CCCTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Spintherobolus_leptoura_36098	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGA	AACGAGGGCTTAACTGTCTC	CCTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Spintherobolus_ankoseion_24957	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGA	AACGAGGGCTTAACTGTCTC	CCTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Charax_leticiae_12700	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Diapoma_sp_21274	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Prodontocharax_melanotus_10	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Prodontocharax_sp_7	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Nanocheirodon_insignis_27476	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCCTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Pseudocheirodon_arnoldi_5	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Pseudocheirodon_terrabae_6	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Heterocheirodon_yatai_24954	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_killiani_24964	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_australe_24979	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_interruptu_20486	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_killiani_19803	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_killiani_24969	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_australe_24963	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_interruptus_21266	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_ibicuhiensis_25598	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_killiani_24974	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Saccoderma_melanostigma_27475	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Compura_gorgonae_1	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_mitoptera_3	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Compura_sp_nova_4	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_dialepturus_2	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_pulchra_25845	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_paraguayensis_20127	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_sp1_22626	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Serrapinnus_microdon_17057	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Kolpotocheirodon_theloura_25982	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Macropsobrycon_uruguayanae_29061	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_pequiri_24958	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_pequiri_20124	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_pequiri_12659	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Acinocheirodon_melanogrammus_37551	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Serrapinnus_heterodon_20305	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_sp2_29616	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Kolpotocheirodon_figueiredoi_37576	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
1Kolpotocheirodon_figueiredoi_37575	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Serrapinnus_kriegi_25764	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Compura_heterura_24984	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Gen_e_sp_nova_27603	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Acinocheirodon_cf_melanogrammus_37550	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
1Aphyocheirodon_hemigrammus_40027	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Aphyocheirodon_hemigrammus_40025	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Tetragonopterus_argenteus_22029	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Serrapinnus_notomelas_19890	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Serrapinnus_notomelas_18293	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_stenodon_20130	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Serrapinnus_sp1_22401	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_fugitiva_22932	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cheirodon_pulcher_8	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_fugitiva_23714	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Serrapinnus_calliurus_22121	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Serrapinnus_calliurus_25768	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Odontostilbe_ecuadorensis_9	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Cynopotamus_magdalena_29515	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Phenacogaster_sp_27299	AATCACTTGTCTTTTAAATG	AAGACCTGTATGAATGGTGG	AACGAGGGCTTAACTGTCTC	CCTTTTTCAGTCAAGTGAAT	TGATCTGCCCGTGCAGAAGC		
Aphyocharacidium_sp_33167	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	GGACATAAAATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACATACAGTCAACTGTGT	TAAAAGTTCTAATCAAAA	--AATTAACAAAACA--ATAA		
Gnatocharax_sp_24494	GGGGATTATAGTACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACAAAAGCAACTGTATG	TTAAACCTCTCCATAAAG	GAAGGAACAAAACA--GCAA		
Macropsobrycon_xinguensis_40499	GGGTATTAATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACATATGATCAACTGTGT	TAAGACCACTAA--TTAAG	AGATTAACAAAACA--GCAA		
Bryconops_affinis_4168	GGACATAAAATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATA--AAGTCAACTGTGT	TATAAGTTTCAA--CTTAAAG	AGACAAAACAAAACA--GCCA		

Chalceus_epakros_26504	GGGCATAAACATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACATAAAGCCCAACTGTGT	CAAAAACCCCAATCAAAAAG	AAGCTAAACAAAACAGAAA
Aphyocharax_anisitsi_12660	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATTAAGTCAAAATATGT	TAAGAATACACA--AAATGG	CAATAAACAATAATA-TCTA
Carlana_eigenmani_19864	GGGTATAAACTACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACATAAAATCAACTATGT	TAATTAACCCCTA-ATTAAG	GAA-TAAACAAAATAGCCAA
Astyanax_mexicanus_24599	GGGTATAAGAATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACACAAAATCAACTATGT	TAAAAACCCCTATTAAA--A	GAATAAACAACAAAAC-GCAA
Spintherobolus_broccae_22558	GGGTATAACAATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAGTCAACTAAAT	TAAAGGCCCTAA-TAAAAG	GACATAAATAAATA-ATAA
Spintherobolus_leptoura_36098	GGGTATAACAATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAGATCAACTAAAT	TAAAGGCCCTAA-TAAAAG	GGCATAAATAAATA-ATAA
Spintherobolus_ankoseion_24957	GGGTATAACAATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAGATCAACTAAAT	TAAAGGCCCTAA-TAAAAG	AGCATAAATAAATA-ATAA
Charax_leticiae_12700	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACATATGCCCAATTACGT	CAATAATCCCTA-CGAACAG	GAGTAAACATAGTA-ACAA
Diapoma_sp_21274	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACACAAGATCAACTATGT	CAAAAACCCCTAA-TAAAAG	ATATTTAACAATAA-TTAA
Prodontocharax_melanotus_10	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAGATTTAACCACAT	CAAAAACCCCTTA-TAAACAG	GAACTAAATAAATTTGTACAA
Prodontocharax_sp_7	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAGAGCTAACCACAT	CAAAAACCCCTCA-TAAACAG	GAGCCAAACAATTTGTACAA
Nanocheiroidon_insignis_27476	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAATTAAT	CAAAATGCCCTTA-CAACAG	GAAACAAAACAATATACTT
Pseudocheiroidon_arnoldi_5	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAATTAAT	CAAAAACCCCTTA-CAACAG	GAAACAAAACAATTTGTACTA
Pseudocheiroidon_terrabeae_6	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAATTAAT	CAAAAACCCCTTA-CAACAG	GGACAAAACAATTTGTATTA
Heterocheiroidon_yatai_24954	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAACAG	GAACTAATCAAACTGTGCCAA
Cheiroidon_killiani_24964	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-CAACAG	GGACAAAACAATTTGTACTA
Cheiroidon_australe_24979	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-CAACAG	GGACAAAACAATTTGTACTA
Cheiroidon_interruptu_20486	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-CAACAG	GGACAAAACAATTTGTACTA
Cheiroidon_killiani_19803	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-CAACAG	GGACAAAACAATTTGTACTA
Cheiroidon_killiani_24969	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-CAACAG	GGACAAAACAATTTGTACTA
Cheiroidon_australe_24963	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-CAACAG	GGACAAAACAATTTGTACTA
Cheiroidon_interruptus_21266	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-CAACAG	GGACAAAACAATTTGTACTA
Cheiroidon_ibicuhiensis_25598	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-CAACAG	GGACAAAACAATTTGTACTA
Cheiroidon_australe_24974	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-CAACAG	GGACAAAACAATTTGTACTA
Saccoderma_melanostigma_27475	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAACAG	GAGCTAAACAAAATTTGTATTA
Campsura_gorgonae_1	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAAAATG	GAGCTAAACAAAATTTGTATTA
Odontostilbe_mitoptera_3	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAAAATG	GAGCTAAACAAAATTTGTATTA
Campsura_sp_nova_4	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAAAATG	GAAACAAAACAATTTGTACTAA
Odontostilbe_dialepturus_2	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAAAATG	GAGCCAAACAATTTGTATTA
Odontostilbe_pulchra_25845	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACTACAT	CAAAAACCCCTTA-TAAACAG	GTGCTAAACAAAATTTGTACTAA
Odontostilbe_paraguayensis_20127	GGACATAAATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACTACAT	CAAAAACCCCTTA-TAAACAG	GAAACAAAACAATTTGTATTA
Odontostilbe_sp1_22626	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-CAACTAG	GAGCCAAACAATTTGTATTA
Serrapinnus_microdon_17057	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAACAG	GAAACAAAACAATTTGTATTA
Kolpotocheiroidon_theloura_25982	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	TAAAAGCCCTCA-CAACAG	GGCCAAAACAATTTGTATTA
Macropsobrycon_uruguayanae_29061	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-CAACAG	GAAACAAAACAATTTGTATTA
Odontostilbe_pequirá_24958	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAACAG	GAAACAAAACAATTTGTATTA
Odontostilbe_pequirá_20124	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAACAG	GAAACAAAACAATTTGTATTA
Odontostilbe_pequirá_12659	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTTA-CAACAG	GAAACAAAACAATTTGTATTA
Acinocheiroidon_melanogrammus_37551	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACTACAC	CAAAAACCCCTCA-CAACAG	GAAACAAAACAATTTGTATTA
Serrapinnus_heterodon_20305	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACTACAC	CAAAAACCCCTCA-CAACAG	GAAACAAAACAATTTGTATTA
Odontostilbe_sp2_29616	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	CAAAAACCCCTCA-CAACAG	GAAACAAAACAATTTGTATTA
Kolpotocheiroidon_figueiredoi_37576	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAATAGCCCTCA-CAACAG	GAGCCAAAACAATTTGTACTAA
1Kolpotocheiroidon_figueiredoi_37575	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAATAGCCCTCA-CAACAG	GAGCCAAAACAATTTGTACTAA
Serrapinnus_kriegi_25764	GGCATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACTACAT	CAAAAACCCCTTA-TAAACAG	GAAACAAAACAATTTGTATTA
Campsura_heterura_24984	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-TAAATAG	GAGCTAAATAAATTTGTATTA
Gen_e_sp_nova_27603	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAC	TAAAAGCCCTTA-TAAACAG	GAAACAAAACAATTTGTATTA
Acinocheiroidon_cf_melanogrammus_37550	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-TAAACAG	GAAACAAAACAATTTGTATTA
1Aphyocheiroidon_hemigrammus_40027	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTG-CAACAG	GAAACAAAACAATTTGTATTA
Aphyocheiroidon_hemigrammus_40025	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTG-CAACAG	GAAACAAAACAATTTGTATTA
Tetragonopterus_argenteus_22029	GGACATACATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACATAAAGTCAACTATGT	CAAAAATCTCAA-CAATGA	GAATAAACAATAATA-ACAA
Serrapinnus_notomelas_19890	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-TAAACAG	GAAACAAAACAATTTGTATTA
Serrapinnus_notomelas_18293	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-TAAACAG	GAAACAAAACAATTTGTATTA
Cheiroidon_stenodon_20130	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTCA-TAAACAG	GAAACAAAACAATTTGTATTA
Serrapinnus_sp1_22401	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-TAAACAG	GAAACAAAACAATTTGTATTA
Odontostilbe_fugitiva_22932	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	TAAAAGCCCTTA-TAAACAG	GAAACAAAACAATTTGTATTA
Cheiroidon_pulcher_8	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTGA-CAACAG	GAAACAAAACAATTTGTATTA
Odontostilbe_fugitiva_23714	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	TAAAAGCCCTTA-TAAACAG	GAAACAAAACAATTTGTATTA
Serrapinnus_calliurus_22121	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-TAAATAG	GAAACAAAACAATTTGTATTA
Serrapinnus_calliurus_25768	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-TAAATAG	GAAACAAAACAATTTGTATTA
Odontostilbe_ecuadorensis_9	GGACATTATAACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATATAAAGTCAACCACAT	CAAAAACCCCTTA-TAAATAG	GAAACAAAACAATTTGTATTA
Cynopotamus_magdalena_29515	GGACATGAATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGATACAAGGCCAACTATGT	CAAAAATCCCTA-TAAAAG	GAATAAACAATAATA-ATAA
Phenacogaster_sp_27299	GGACATAAGCATACAAGACG	AGAAGACCCCTTTGGAGCTTA	AGACATAAAGGCCAACTATGT	CAAAAAGTCTCA-TAAAAG	GAACTAAACAATAA-CTAA
Aphyocharacidium_sp_33167	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	CTGACTCCCGTCTTCGGTTG	GGCGACCGGGGGGAAAAA	AAAGCCCCACGTAGAATGG	GACACTCCCTAAAACCAAGA	GAAACTCTCTAAGTCACAG
Gnatocharax_sp_24494	CTGGCCCAAGTCTTCGGTTG	GGCGACCGGGGGGAAAAA	AAAGCCCCACGTAGAATGG	AATT-TTCTAAAACCAAGA	GTGACTCTCTAAGTCACAG
Macropsobrycon_xinguensis_40499	CTGATTTAAGTCTTCGATG	GGCGATCGGGGGGAAAAA	AAATCCCCACGTAGAATAA	GATA-ATCTTTAAACTACGA	AGCACACTCTAAGTCACAG
Bryconops_affinis_4168	CTGGCCAAAATCTTCGGTTG	GGCGACCGGGGGGAAAAA	AAAGCCCCACGTAGAATGG	GAAATTTCTAAAACCAAGA	GGGACACTCTAAGTCACAG
Chalceus_epakros_26504	CTGGCTGACGCTCTTCGGTTG	GGCGACCGGGGGGAAAAA	AAAGCCCCACGTAGAATGG	GAAAACCTCTAATACCAGA	GAGACTCTCTAAGTCACAG
Aphyocharax_anisitsi_12660	CTGATCTACATCTTCGGTTG	GGCGACCGGGGGGAAAAA	AAAGCCCCACGTAGAATGG	GCT--ACCTTAAAACCAAGA	GTGACTCTCTAAGTCACAG
Carlana_eigenmani_19864	CTGATTGATGTCTTCGGTTG	GGCGACCGGGGGGAAAAA	AAATCCCCACGTAGAATGG	GAAACTCTCTAAAACCAAGA	GGGACACTCTAAGTCACAG
Astyanax_mexicanus_24599	CTGATTAGCGTCTTCGGTTG	GGCGACCGGGGGGAAAAA	CAATCCCCACGTAGAATGG	GATTCTCTCTAAAACCAAGA	GGGACACTCTAAGTCACAG
Spintherobolus_broccae_22558	CTGTTTCAAAATCTTCGGTTG	GGCGACCGGGGGGAAAAA	AAATCCCCACGTAGAATGG	GTTT-AACTTAAAACCAAGA	GGGACACTCTAAGTCACAG
Spintherobolus_leptoura_36098	CTGATTCAAAATCTTCGGTTG	GGCGACCGGGGGGAAAAA	CAATCCCCACGTAGAATGG	GTTT-AACTTAAAACCAAGA	GGGACACTCTAAGTCACAG
Spintherobolus_ankoseion_24957	CTGATTCAAAATCTTCGGTTG	GGCGACCGGGGGGAAAAA	AAATCCCCACGTAGAATGG	GTTT-AACTTAAAACCAAGA	GGGACACTCTAAGTCACAG

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Charax_leticiae_12700	CTGACCTACGCTCTCGGTTG	GGGCGACCACGGGGGATAAA	CAAGCCCCACGTGGACTGG	GGC--AACCTAAAACCACGA	GGGACACCTCTAAGTCACAG
Diapoma_sp_21274	CTGATCAAAGTCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAGCCCCATGTGGAATGG	GATAAAACCTAAAACCACGA	GGGACACCTCTAAGTCACAG
Prodontocharax_melanotus_10	CTAACTCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Prodontocharax_sp_7	CTAGCTCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Nanocheiroidon_insignis_27476	CTGACCCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Pseudocheiroidon_arnoldi_5	CTGACCCGATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Pseudocheiroidon_terrabrae_6	CTGACCCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Heterocheiroidon_yatai_24954	CTGACCTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	TAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_killiani_24964	CTGACCTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_australe_24979	CTGACCTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_killiani_19803	CTGACCTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_killiani_24963	CTGACCTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_australe_24963	CTGACCTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_interruptus_21266	CTGACCTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_ibicuhiensis_25598	CTGACCTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_killiani_24974	CTGACCTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Saccoderma_melanostigma_27475	CTGACTCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Compsura_gorgoneae_1	CTGACTCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_mitoptera_3	CTGACTCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Compsura_sp_nova_4	CTGACTCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_dialepturus_2	CTGACTCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_pulchra_25845	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_paraguayensis_20127	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_sp1_22626	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Serrapinnus_microdon_17057	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Kolpotocheiroidon_theloura_25982	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Macropsobrycon_uruguayanae_29061	CTGACCCATATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_pequiri_24958	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_pequiri_20124	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_pequiri_12659	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Acinocheiroidon_melanogrammus_37551	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Serrapinnus_heterodon_20305	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_sp2_29616	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Kolpotocheiroidon_figueiredoi_37576	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
1Kolpotocheiroidon_figueiredoi_37575	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Serrapinnus_kriegi_25764	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Compsura_heterura_24984	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Gen_e_sp_nova_27603	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Acinocheiroidon_cf_melanogrammus_37550	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
1Aphyocheiroidon_hemigrammus_40027	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Aphyocheiroidon_hemigrammus_40025	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Tetragonopterus_argenteus_22029	CTGACCCAGCTCTTCGGTTG	GGGCGACCACGGGGGAAAAA	CAAGCCCCATGTGGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Serrapinnus_notomelas_19890	CTGACCCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Serrapinnus_notomelas_18293	CTGACCCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_stendon_20130	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Serrapinnus_sp1_22401	CTGACCCACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_fugitiva_22932	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cheiroidon_pulchra_8	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_fugitiva_23714	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Serrapinnus_calliurus_22121	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Serrapinnus_calliurus_25768	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Odontostilbe_ecuadorensis_9	CTGACTTACATCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAACCCCCACAGAATGG	GTTTAACTCCAAAACCACGA	GAGACATCTCCAAGTCACAG
Cynopotamus_magdalena_29515	CTGACCAACGCTCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAGCCCCATGTGATTGG	GAT-AAACCTAAAACCTACGA	GGGACACCTCTAAGTCACAG
Phenacogaster_sp_27299	CTGACCAACGCTCTTCGGTTG	GGGCGACCACGGGGGAAAAA	AAAGCCCCATGTGATTGG	GAT-AAACCTAAAACCTACGA	GGGACACCTCTAAGTCACAG
Aphyocharacidium_sp_33167	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	AACCTCTGACTAAAAGATCC	GGC-TCATGCCGATCGACGA	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGCCCGTATCAACAAGGGGG
Gnatocharax_sp_24494	AACATCTGACTTAGAGATCC	GGCAATTAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGCCCGTATCAACAAGGGGG
Macropsobrycon_xinguensis_40499	AACCTCTGACTAAAAGATCC	GATATTTAAACGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGCCCGTATCAACAAGGGGG
Bryconops_affinis_4168	AACATCTGACTTAAAGATCC	GGCAACAAGCCGATCAACGA	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Chalceus_epakros_26504	AACATCTGACTAAAAGATCC	GGCCATAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Aphyocharax_anisitsi_12660	AAATCTGACTTAGAGATCC	GGCATTAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Carlana_eigenmanni_19864	AACTTCTGACTTAAAGATCC	GGCTTCTAGCCGATCAACGA	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Astyanax_mexicanus_24599	AACCTCTGACTAAAAGATCC	GGTAAATAACCGATCAACGA	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Spintherobolus_broccae_22558	AACATCTGACTTAAAGATCC	GGCAATAAGCCGATCAACGA	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Spintherobolus_leptoura_36098	AACATCTGACTTAAAGATCC	GGCAGATAGCCGATCAACGA	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Spintherobolus_ankoseion_24957	AACATCTGACTTAAAGATCC	GGCGAATAAGCCGATCAACGA	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Charax_leticiae_12700	AAATCTGACTAAAAGATCC	GGCAACCTGCCGATCAACGA	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Diapoma_sp_21274	AACATCTGACTAAAAGATCC	GGCCAAAGCCGATCAACGA	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Prodontocharax_melanotus_10	AACCTCTGACTAAAAGATCC	GGCTATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Prodontocharax_sp_7	AACCTCTGACTAAAAGATCC	GGCA-ATAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Nanocheiroidon_insignis_27476	AACCTCTGACTAAAAGATCC	GGTACTTAAACGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Pseudocheiroidon_arnoldi_5	AACCTCTGACTAAAAGATCC	GGCACTTAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG
Pseudocheiroidon_terrabrae_6	AACCTCTGACTAAAAGATCC	GGCACTTAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCTCCAAG	AGTCATATCGACAAGGGGG

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Heterocheirodon_yatai_24954	AACCTTCTGACTAAAAGATCC	GGCATTAAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_killiani_24964	AACCTTCTGACTAAAAGATCC	GGCCTAAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_australe_24979	AACCTTCTGACTAAAAGATCC	GGCCTAAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_interruptu20486	AACCTTCTGACTAAAAGATCC	GGCCTAAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_killiani_19803	AACCTTCTGACTAAAAGATCC	GGCCTAAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_killiani_24969	AACCTTCTGACTAAAAGATCC	GGCA-CAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_australe_24963	AACCTTCTGACTAAAAGATCC	GGCA-CAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_interruptus_21266	AACCTTCTGACTAAAAGATCC	GGCA-CAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_ibicuhiensis_25598	AACCTTCTGACTAAAAGATCC	GGCCTAAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_killiani_24974	AACCTTCTGACTAAAAGATCC	GGCCTAAAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Saccoderma_melanostigma_27475	AACCTTCTGACTAAAAGATCC	GGTATAAAACCGATCAACGA	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Compsura_gorgonae_1	AACCTTCTGACTAAAAGATCC	GGCATAAAGCCGATCAACGA	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_mitoptera_3	AACCTTCTGACTAAAAGATCC	GGCATAAAGCCGATCAACGA	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Compsura_sp_nova_4	AACCTTCTGACTAAAAGATCC	GGCATAAAGCCGATCAACGA	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_dialepturus_2	AACCTTCTGACTAAAAGATCC	GGCATAAAGCCGATCAACGA	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_pulchra_25845	AACCTTCTGACTAAAAGATCC	GGCA-TAAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_paraguayensis_20127	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_sp1_22626	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Serrapinnus_microdon_17057	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Kolpotocheirodon_theloura_25982	AACATCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Macropsobrycon_uruguayanae_29061	AACATCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_pequirá_24958	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_pequirá_20124	AACCTTCTGACTAAAAGATCC	GGCGTTTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_pequirá_12659	AACCTTCTGACTAAAAGATCC	GGCGTTTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Acinocheirodon_melanogrammus_37551	AACCTTCTGACTAAAAGATCC	GGCGTCTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Serrapinnus_heterodon_20305	AACCTTCTGACTAAAAGATCC	GGCGTCTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_sp2_29616	AACCTTCTGACTAAAAGATCC	GGCGTCTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Kolpotocheirodon_figueiredoi_37576	AACATCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
1Kolpotocheirodon_figueiredoi_37575	AACATCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Serrapinnus_kriegi_25764	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Compsura_heterura_24984	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Gen_e_sp_nova_27603	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Acinocheirodon_cf_melanogrammus_37550	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
1Aphyocheirodon_hemigrammus_40027	AATTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Aphyocheirodon_hemigrammus_40025	AATTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Tetragonopterus_argenteus_22029	AATTTCTGACTAAAAGATCC	GGCAACTAGCCGATCAACGG	ACCAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Serrapinnus_notomelas_19890	AATTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Serrapinnus_notomelas_18293	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_stenodon_20130	AACATCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Serrapinnus_sp1_22401	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_fugitiva_22932	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cheirodon_pulcher_8	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_fugitiva_23714	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Serrapinnus_calliurus_22121	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Serrapinnus_calliurus_25768	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Odontostilbe_ecuadorensis_9	AACCTTCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Cynopotamus_magdalenae_29515	AACATCTGACTAAAAGATCC	GGCATTAGCCGATCAACGG	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Phenacogaster_sp_27299	AAAATCTGACCAAAAGATCC	GGCATATCCGATCAACGA	ACTAAGTTACCCCTAGGGATA	ACAGCGCAATCCCCTCCAAG	AGTCCATATCGCAAAAGGGGG
Aphyocharacidium_sp_33167	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Gnatocharax_sp_24494	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Macropsobrycon_xinguensis_40499	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Bryconops_affinis_4168	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Chalceus_epakros_26504	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Aphyocharax_anisitsi_12660	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Carlana_eigenmani_19864	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Astyanax_mexicanus_24599	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Spintherobolus_brocceae_22558	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Spintherobolus_leptoura_36098	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Spintherobolus_ankoseion_24957	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Charax_leticiae_12700	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Diapoma_sp_21274	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Prodontocharax_ankoseion_24957	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Prodontocharax_sp_7	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Nanocheirodon_insignis_27476	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Pseudocheirodon_arnoldi_5	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Pseudocheirodon_terrabae_6	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Heterocheirodon_yatai_24954	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Cheirodon_killiani_24964	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Cheirodon_australe_24979	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Cheirodon_interruptu20486	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Cheirodon_killiani_19803	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Cheirodon_killiani_24969	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT
Cheirodon_australe_24963	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCT

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Cheirodon_interruptus_21266	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Cheirodon_ibicuihiensis_25598	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Cheirodon_killiani_24974	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Saccoderma_melanostigma_27475	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Compsura_gorgonae_1	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_mitoptera_3	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Compsura_sp_nova_4	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_dialepturus_2	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_pulchra_25845	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_paraguayensis_20127	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_sp1_22626	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Serrapinnus_microdon_17057	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Kolpotocheirodon_theloura_25982	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Macropsobrycon_uruguayanae_29061	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_pequirá_24958	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_pequirá_20124	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_pequirá_12659	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Acinocheirodon_melanogrammus_37551	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Serrapinnus_heterodon_20305	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_sp2_29616	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Kolpotocheirodon_figueiredoi_37576	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
1Kolpotocheirodon_figueiredoi_37575	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Serrapinnus_kriegi_25764	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Compsura_heterura_24984	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Gen_e_sp_nova_27603	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Acinocheirodon_cf_melanogrammus_37550	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
1Aphyocheirodon_hemigrammus_40027	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Aphyocheirodon_hemigrammus_40025	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Tetragonopterus_argenteus_22029	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Serrapinnus_notomelas_19890	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Serrapinnus_notomelas_18293	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Cheirodon_stenodon_20130	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Serrapinnus_sp1_22401	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_fugitiva_22932	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Cheirodon_pulcher_8	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_fugitiva_23714	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Serrapinnus_calliurus_22121	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Serrapinnus_calliurus_25768	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Odontostilbe_ecuadorensis_9	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Cynopotamus_magdalena_29515	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AGCCGCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Phenacogaster_sp_27299	TTTACGACCTCGATGTTGGA	TCAGGACATCCTAATGGTGC	AACCCTATTAAGGGTTCGT	TTGTTCAACGATTAAGTCC	TACGTGATCTGATACACCTC
Aphyocharacidium_sp_33167	????????????????????	????????????????????	????????????????????	????????????????????	????????????????TACACCTC
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????TACACCTA
Brycon_insignis_16075	?GAAATCTCACAGCCTTTT	CATCCGTAACCCATATCACC	CGAGACGTAATACGGTGA	AATTCCTCGAACTTACACG	CCAAACGGAGCCTCATTTCTC
Gnatocharax_sp_24494	AGATATCTCCAGCCCTTTT	CTTCAGTAGCCACATCTCG	CGCAGCTAAATACGGTGA	AATTCCTCGAACTTACACG	CCAAACGGAGCCTCATTTCTC
Macropsobrycon_xinguensis_40499	GCACATCTCCAGCCCTTCT	CTTCAGTAGCCACATCTCG	CGAGACGTAAGTACGGTGA	AACAATCCGAAACATACACG	CTAATGGAGCCTCATTTCTC
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????TACACCTC
Chalceus_epakros_26504	GCACATCTCCAGCCCTTTT	CATCAGTAGCCACATCTCG	CGAGACGTAAGTACGGTGA	ACTTATCCGAAATATACATG	CCAAACGGAGCCTCATTTCTC
Aphyocharax_anisitsi_12660	????????????????????	????????????????????	CGAGACGTAAGTACGGTGA	AGTTATCCGAAACATACATG	CTAACGGAGCCTCATTTCTC
Carlana_eigenmani_19864	TGATATTTCTTAGCCTTTT	CCTCTGTAGCCACATCTCG	CGAGATGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Astyanax_mexicanus_24599	TGATATTTCAACAGCTTTT	CTTCGTTAGCCATATCTCG	CGAGATGTAAGTACGGTGA	AATTCCTCGAAATATACATG	CTAACGGAGCCTCATTTCTC
Spintherobolus_broccae_22558	AGATATTTCCACAGCCCTTCT	CATCCGTAACCCATATCTCG	CGAGATGTAAGTACGGTGA	AATTCCTCGAAATATACATG	CCAAACGGAGCCTCATTTCTC
Spintherobolus_leptoura_36098	AGATATCTCCAGCCCTTCT	CATCCGTTATACATATTTGC	CGAGATGTAAGTACGGTGA	AGTCATCCGAAATATACATG	CCAAACGGAGCCTCATTTCTC
Spintherobolus_ankoseion_24957	AGACATCTCCAGCCCTTCT	CATCCGTTATACATATTTGC	CGAGATGTAAGTACGGTGA	AATTCCTCGAAATATACATG	CCAAACGGAGCCTCATTTCTC
Charax_leticiae_12700	????????????????????	????????????????????	????????????????????	????????????????????	????????????????TACACCTC
Diapoma_sp_21274	????????????????????	????????????????????	????????????????????	AGGAATTCGTAACCTCATG	CCAAATGGAGCCTCATTTCTC
Prodontocharax_melanotus_10	????????????????????	????????????????????	????????????????????	????????????????????	????????????????TCTTTCTC
Prodontocharax_sp_7	AGATATCTCTACACTTTT	CCTCTGTAGACTCATATCG	CGAGATGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAACGGAGCCTCATTTCTC
Nanocheirodon_insignis_27476	GCACATCTCTACAGCTTTT	CTTCGTTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAACTTACATG	CCAAACGGAGCCTCATTTCTC
Pseudocheirodon_arnoldi_5	GCACATCTCCAGCCCTTTT	CTTCGTTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAACGGAGCCTCATTTCTC
Pseudocheirodon_terrabae_6	GCACATCTCCAGCCCTTTT	CTTCGTTAGCCATATTTGC	CTCAGTAGCCACATCTCG	TTCAGTGTAAAGCACAGCTG	AATGATCTGAAACATACATG
Heterocheirodon_yatai_24954	GCACATCTCCAGCCCTTTT	CTTCGTTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Cheirodon_killiani_24964	GCACATCTCCAGCCCTTTT	CCTCTGTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Cheirodon_australe_24979	GCACATCTCCAGCCCTTTT	CCTCTGTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAACTTACATG	CCAAATGGAGCCTCATTTCTC
Cheirodon_interruptu20486	GCACATCTCCAGCCCTTTT	CCTCTGTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Cheirodon_killiani_19803	GCACATCTCCAGCCCTTTT	CCTCTGTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Cheirodon_killiani_24969	GCACATCTCCAGCCCTTTT	CCTCTGTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Cheirodon_australe_24963	GCACATCTCCAGCCCTTTT	CCTCTGTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Cheirodon_interruptus_21266	GCACATCTCCAGCCCTTTT	CCTCTGTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Cheirodon_ibicuihiensis_25598	GCACATCTCCAGCCCTTTT	CCTCTGTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Cheirodon_killiani_24974	GCACATCTCCAGCCCTTTT	CCTCTGTAGCCATATTTGC	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAATGGAGCCTCATTTCTC
Saccoderma_melanostigma_27475	GCACATCTCCAGCCCTTTT	CTTCGTTAGCCACATCTCG	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAACGGAGCCTCATTTCTC
Compsura_gorgonae_1	GCACATCTCTACAGCTTTT	CCTCCGTTAGCCACATCTCG	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAACGGAGCCTCATTTCTC
Odontostilbe_mitoptera_3	GCATATCTCCAGCCCTTTT	CCTCCGTTAGCCACATCTCG	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAACGGAGCCTCATTTCTC
Compsura_sp_nova_4	GCACATCTCCAGCCCTTTT	CCTCCGTTAGCCACATCTCG	CGAGACGTAAGTACGGTGA	AATTCCTCGAAACATACATG	CCAAACGGAGCCTCATTTCTC

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Odontostilbe_dialepturus_2	CGACATCTCCACAGCTTTT	CCTCCGTAGCACACATATG	CGAGACGTATACCAGGGTG	AATACCCGAAACATCAGCG	CCAACGGAGCCTCATTTTTC
Odontostilbe_pulchra_25845	TGACATCTCCACAGCATT	CTTCCGTAGCACATATTTG	CGAGACGTCAACCAGGGTG	AATTATCCGAAATATACAG	CCAACGGAGCCTCATTTTTC
Odontostilbe_paraguayensis_20127	TGAAATCTCCACAGCATT	CTTCCGTAGCACATATCTG	CGAGATGTAATCACGGTGT	AATTATCCGAAACATCAGC	CCAACGGGGCCTCATTTTTC
Odontostilbe_spl_22626	CGACATCTCCACAGCCTTCT	CTTCTGTGACACATATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAATATTCATG	CCAACGGAGCCTCATTTTTC
Serrapinnus_microdon_17057	CGACATTTCTACAGCATTCT	CTTCCGTAGCACATATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATCAGC	CCAACGGAGCCTCATTTTTC
Kolpotocheirodon_theloura_25982	CGACATCTCCACAGCATTCT	CCTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATCAGC	CCAACGGAGCCTCATTTTTC
Macropsobrycon_uruguayanae_29061	CGAAATCTCTACAGCCTTCT	CCTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAATATGACG	CCAACGGAGCCTCATTTTTC
Odontostilbe_pequira_24958	????????????????????	????????????????????	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATCAGC	CCAACGGAGCCTCATTTTTC
Odontostilbe_pequira_20124	CGACATCTCCACAGCATT	CTTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAATATACATG	CCAACGGAGCCTCATTTTTC
Odontostilbe_pequira_12659	CGACATCTCCACAGCATT	CTTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAATATACATG	CCAACGGAGCCTCATTTTTC
Acinocheirodon_melanogrammus_37551	CGACATCTCTACAGCATT	CTTCCGTAGCACATATTTG	CGAGATGTAACCACAGGGTG	AATCATCCGAAACATCAGC	CCAACGGAGCCTCATTTTTC
Serrapinnus_heterodon_20305	AGACATCTCTACAGCATT	CTTCCGTAGCACATATTTG	CGAGATGTAACCACAGGGTG	AATCATCCGAAACATCAGC	CCAACGGAGCCTCATTTTTC
Odontostilbe_sp2_29616	CGACATCTCTACAGCATT	CTTCCGTAGCACATATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAATATACATG	CCAACGGAGCCTCATTTTTC
Kolpotocheirodon_figueiredoi_37576	CGAAATCTCCACAGCATT	CCTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATCAGC	CCAACGGAGCCTCATTTTTC
1Kolpotocheirodon_figueiredoi_37575	AGATATCTCCACAGCATT	CCTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATGATG	CCAACGGAGCCTCATTTTTC
Serrapinnus_kriegi_25764	CGACATCTCCACAGCATTCT	CCTCCGTAGCACACATCTG	CGAGATGTAATCACGGTGT	AATTATCCGAAACATCAGC	CCAACGGGGCCTCATTTTTC
Compsura_heterura_24984	CGACATCTCCACAGCATTCT	CCTCCGTAGCACATATTTG	CGAGATGTAATCACGGTGT	AATTATCCGAAATATCAGC	CCAACGGAGCCTCATTTTTC
Gen_e_sp_nova_27603	CGACATCTCCACAGCATT	CTTCTGTAGCACATATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATGACG	CCAACGGAGCCTCATTTTTC
Acinocheirodon_cf_melanogrammus_37550	AGAAATCTCCACAGCATTCT	CTTCTGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAATATACAG	CCAACGGAGCCTCATTTTTC
1Aphyocheirodon_hemigrammus_40027	CGACATCTCTACAGCATTCT	CTTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATGACG	CCAACGGGGCCTCATTTTTC
Aphyocheirodon_hemigrammus_40025	CGACATCTCTACAGCATTCT	CTTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATGACG	CCAACGGGGCCTCATTTTTC
Tetragonopterus_argenteus_22029	AGACATCTCAACAGCCTTCT	CCTCAGTTGTCACACATCTG	CGAGACGTAACCAGGAGATG	AGCCATTCGAAATATTCATG	CCAACGGAGCCTCATTTTTC
Serrapinnus_notomelas_19890	CGACATCTCCACAGCATTCT	CATTCGTAGCACACAGCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATGACG	CCAACGGAGCCTCATTTTTC
Serrapinnus_notomelas_18293	CGACATCTCCACAGCATTCT	CCTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATGACG	CCAACGGAGCCTCATTTTTC
Cheirodon_stenodon_20130	CGACATCTCTACAGCCTTCT	CTTCCGTAGCACACATCTG	CGAGACGTAACCACAGGGTG	AATTATCCGAAACATGACG	CCAACGGGGCCTCATTTTTC
Serrapinnus_spl_22401	AGACATCTCCACAGCATTCT	CTTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATGACG	CCAACGGAGCCTCATTTTTC
Odontostilbe_fugitiva_22932	CGACTTCTCTGCTGCTTCT	CTTCCGTAGCGCGGCTGCTG	CGATACGACTACTACGGTGT	AATCATCCGAAACATCAGC	CCAACGGGGCCTCATTTTTC
Cheirodon_pulcher_8	CGCAATCTCCACAGCATTCT	CCTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAATATGACG	CCAACGGAGCCTCATTTTTC
Odontostilbe_fugitiva_23714	CGACATCTCCACAGCATTCT	CTTCCGTAGCACACATCTG	CGAGATGTAACCACAGGGTG	AATTATCCGAAACATGACG	CCAACGGGGCCTCATTTTTC
Serrapinnus_calliurus_21211	CGACATCTCCACAGCATTCT	CTTCCGTAGCACACATCTG	CGAGATGTAATCACGGTGT	AATTATCCGAAACATGACG	CCAACGGAGCCTCATTTTTC
Serrapinnus_calliurus_25768	CGACATCTCCACAGCATTCT	CTTCCGTAGCACACATCTG	CGAGATGTAATCACGGTGT	AATTATCCGAAACATGACG	CCAACGGAGCCTCATTTTTC
Odontostilbe_ecuadrensis_9	CGGCATCTCCATACCACTTT	CATTCGCAACCGATGTCAC	GAGCATGTAAGTCATGGCTG	AATTATCCGAAACATGACG	CCAACGGAGCCTCATTTTTC
Cynopotamus_magdalenae_29515	CGACATCTCCACAGCCTT	CCTCCGTAGCGCATATCTG	CGAGATGTAATCATGGATG	AATTATCCGAAATATGACG	CCAACGGAGCCTCATTTTTC
Phenacogaster_sp_27299	AGATATCTCTACAGCCTTCT	CCTCCTGTAGCCCATATCTG	CGAGACGTAACACTACGGATG	AATTATCCGAAATATACATG	CTAACGGGGCCTCATTTTTC
Aphyocharacidium_sp_33167	AGATATTTCTACAGCTTTCT	CATCCGTAGCCCATATTTG	CGGGATGTAATCACGGTGT	AGTCATTCGAAATATACATG	CTAACGGAGCCTCATTTTTC
Hemibrycon_sp_33168	GGAGGGTCCCCAGCTTTT	CCTCCGAAGCCGAAATCTG	CGAGATGTAACACTACGGATG	AGTTATCCGAAACATGACG	CCAATGGAGCATCATTTTTC
Brycon_insignis_16075	TTTATCTGCCTTTATCTACA	CGTTGGCCGAGGATTATAT	ACGGATCATACGTGTACATA	AAACATGAAATGTCGGAGT	CGTACTTCTACTCTGGTAA
Gnatocharax_sp_24494	TTTATTTGTATCTATTTC	TATGGTTCGAGGACTATAT	ATGGCTCCTACTTATATAAA	GAACATGAAACATTGGAGT	AATTTCTCTCTCTAGTAA
Macropsobrycon_xinguensis_40499	TTTATCTGCATCTACCTCCA	CATCCGACGAGGGCTCTACT	ACGGTCTCCTACTCTACAAA	GAACATGAAACATCTGAGT	AATCTCTACTACTAGTAA
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	TTTATCTGTATTACCTCCA	CATCCGCGGAGGCTTTACT	ATGGCTCTTACTTATATAAA	GAACATGAAACATTGGAGT	AGTCTCTTTACTATTATTA
Aphyocharax_anisitsi_12660	TTTATCTGCATTTACCTCCA	CATCCGCGGAGGCTCTACT	ATGGATCCTACTTTTATAAA	GAACATGAAATATCGGGGT	CGTCTCTCTCTCTAGTAA
Carlana_eigenmani_19864	TTTATCTGTATTACATACA	CATGGCCGAGGCTTACT	ACGGTCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AATTTCTTTTACTAGTAA
Astyanax_mexicanus_24599	TTTATCTGTATTACCTCCA	TATGGCCGAGGCTTTACT	ACGGCTCTTACTTATATAAA	GAGACATGAAACATTGGTGT	TATTTCTCTCTCTAGTAA
Spintherobolus_brocceus_25258	TTTATTTGTATCTACTTCCA	CATCCGTCGAGGCTTACT	ATGGTCTTACTTATATAAA	GAGACATGAAATATGGTGT	AGTCTCTCTCTCTAGTAA
Spintherobolus_leptoura_36098	TTTATTTGTATTACTTCCA	CATCCGTCGAGGCTTACT	ATGGCTCTTACTTATATAAA	GAGACATGAAATATGGTGT	AGTCTCTCTCTCTAGTAA
Spintherobolus_ankoseion_24957	TTTATTTGTATTACTTCCA	CATCCGTCGAGGCTTACT	ATGGCTCTTACTTATATAAA	GAGACATGAAATATGGTGT	AATTTCTCTCTCTAGTAA
Charax_leticiei_12700	TTTATTTGCATTTACTTCCA	CATCCGCGGAGGCTTTACT	ATGGCTCATACTTATAAA	GAACATGAAACATTGGGCT	AATTTACTTCTCTAGTAA
Diapoma_sp_21274	TTTATTTGCATTTACTTCCA	CATGGCCGAGGCTTTACT	ACGGCTCTTACTTATAAA	GAACATGAAACATTGGTGT	AGTCTCTCTCTCTAGTAA
Prodontocharax_melanotus_10	TTTATCTGCATTTACTTCCA	TATGGCCGATGGCCTTACT	ATGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTTCTCTCTAGTAA
Prodontocharax_sp_7	TTTATCTGCATTTACTTCCA	CATGGCCGAGGCTTTACT	ACGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTTCTCTCTAGTAA
Nanocheirodon_insignis_27476	TTTATTTGTATTACTTCCA	CATGGCCGAGGCTTTACT	ATGGATCCTATTATATAAA	GAACATGAAACATTGGGCT	AATTTCTCTCTCTAGTAA
Pseudocheirodon_arnoldi_5	TTTATTTAGCATTACTTCCA	CATGGTTCGAGGCTTTACT	ACGGTCTCCTACTTATAAA	GAACATGAAATATGGAGT	AGTACTTCTCTCTAGTAA
Pseudocheirodon_terrabae_6	TTTATTTGCATTTACTTCCA	CATGGCCGAGGCTTTACT	ACGGTCTCATACTTATAAA	GAACATGAAATATGGAGT	AGTACTTCTCTCTAGTAA
Heterocheirodon_yatai_24954	TACATCTGTATTACTTCCA	CATCCGCGGAGGCTTTACT	ATGGCTCATACTTATAAA	GAACATGAAACATTGGTGT	AATCTACTTCTTTAGTAA
Cheirodon_killiani_24964	TTTATCTGTATCTATTTC	CATCCGCGGAGGCTTTACT	ATGGATCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTTTAACAA
Cheirodon_australe_24979	TTTATCTGTATCTATTTC	TATGGCCGAGGCTTTACT	ATGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTTTAACAA
Cheirodon_interruptu20486	TTTATCTGTATCTATTTC	TATGGCCGAGGCTTTACT	ATGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTTTAACAA
Cheirodon_killiani_19803	TTTATCTGTATCTATTTC	CATCCGCGGAGGCTTTACT	ATGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTTTAACAA
Cheirodon_killiani_24969	TTTATCTGTATCTATTTC	CATCCGCGGAGGCTTTACT	ATGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTTTAACAA
Cheirodon_australe_24963	TTTATCTGTATCTATTTC	TATGGCCGAGGCTTTACT	ATGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTTTAACAA
Cheirodon_interruptu_21266	TTTATCTGTATCTATTTC	TATGGCCGAGGCTTTACT	ATGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTTTAACAA
Cheirodon_ibicuhiensis_25598	TTTATCTGTATTACTTCCA	CATCCGCGGAGGCTTTACT	ATGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTTTAACAA
Cheirodon_australe_24974	TTTATCTGTATCTATTTC	CATCCGCGGAGGCTTTACT	ATGGCTCCTACTTATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTTTAACAA
Saccoderma_melanostigma_27475	TTTATTTGTATTACTTCCA	CATGGCCGAGGCTTTACT	ATGGCTCATACTTATAAA	GAACATGAAACATTGGTGT	AGTCTCTCTCTCTAGTAA
Compsura_gorgoneae_1	TTTATTTGTATTACTTCCA	CATGGCCGAGGCTTTACT	ACGGCTCATACTTATAAA	GAACATGAAACATTGGTGT	AGTACTTCTCTCTAGTAA
Odontostilbe_mitoptera_3	TTTATTTGTATTACTTCCA	CATGGCCGAGGCTTTACT	ACGGCTCATACTTATAAA	GAACATGAAACATTGGTGT	AGTACTTCTCTCTAGTAA
Compsura_sp_nova_4	TTTATTTGTATTACTTCCA	CATGGCCGAGGCTTTACT	ACGGCTCATACTTATAAA	GAACATGAAACATTGGTGT	AGTACTTCTCTCTAGTAA
Odontostilbe_dialepturus_2	TTTATTTGTATCTACTTCCA	TATGGCCGAGGCTTTACT	ACGGCTCATACTTATAAA	GAACATGAAACATTGGTGT	AGTACTTCTCTCTAGTAA
Odontostilbe_pulchra_25845	TTTATTTGCATTTACTTCCA	CATGGAGCAGGCTTTACT	ACGGCTCTTACTTATAAA	GAGACATGAAATATGGCGT	AGTACTACTTCTCTAGTAA
Odontostilbe_paraguayensis_20127	TTTATTTGCATTTACTTCCA	CATGGTTCGAGGCTTTACT	ATGGCTCTTACTTATAAA	GAACATGAAACATTGGGCT	AGTACTACTTCTTATAGTAA
Odontostilbe_spl_22626	TTTATTTGTATTACTTCCA	CATGGCCGAGGCTTTACT	ACGGCTCTTACTTATAAA	GAACATGAAACATTGGGCT	AGTACTCTCTCTAGTAA
Serrapinnus_microdon_17057	TTTATTTGGATTTACTTCCA	TATGGCCGAGGCTTTACT	ACGGCTCATACTTATAAA	GAACATGAAATATTAGTAT	AATACTACTTCTCTAGTAA
Kolpotocheirodon_theloura_25982	TTTATCTGCATTTACTTCCA	CATGGTTCGAGGCTTTACT	ATGGTCTCATACTTATAAA	GAACATGAAACATTGGGCT	AGTACTACTTCTCTAGTAA
Macropsobrycon_uruguayanae_29061	TTTATTTGTATTACTTCCA	CATCCGTCGAGGCTTACT	ACGGCTCATACTTATAAA	GAACATGAAATATGGGCT	AGTACTCTCTCTAGTAA

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Odontostilbe_pequira_24958	TTTATTGCATTACTTCCA	TATGGTCGAGGCCCTTACT	ATGGTCTACCTTTATAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTATTAGTTA
Odontostilbe_pequira_20124	TTTATTGCATTACTTCCA	TATGGTCGAGGCCCTTACT	ATGGTCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTATTAGTTA
Odontostilbe_pequira_12659	TTTATTGCATTACTTCCA	TATGGTCGAGGCCCTTACT	ATGGTCTACCTTTATAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTATTAGTTA
Acinocheirodon_melanogrammus_37551	TTTATTGCATTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTATATAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTATTAGTTA
Serrapinnus_heterodon_20305	TTTATTGCATTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTATATAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTATTAGTTA
Odontostilbe_sp2_29616	TTTATTGCATTACTTCCA	CATGGTCGAGGCCCTTACT	ATGGTCTACCTATATAAA	GAACATGAAATATTGGTGT	TGACTACTTCTACTAGTTA
Kolpotocheirodon_figueiredoi_37576	TTTATCTGCATTACTTCCA	CATTGGCCGAGGCCCTTACT	ACGGCTCATACTATACAAA	GAACATGAAACATTGGTGT	AATCTACTCTTATTAGTAA
1Kolpotocheirodon_figueiredoi_37575	TTTATCTGCATTACTTCCA	CATTGGCCGAGGCCCTTACT	ACGGCTCATACTATACAAA	GAACATGAAACATTGGTGT	AATCTACTCTTATTAGTAA
Serrapinnus_kriegi_25764	TTTATCTGCATTACTTCCA	CATTGGTCGAGGCCCTTACT	ACGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTAGTAA
Compsura_heterura_24984	TTTATCTGCATTACTTCCA	CATGGTCGAGGCCCTTACT	ATGGCTCTTACCTTTATAAA	GAGACATGAAATATTGGTGT	AGTATTACTCTCTTAGTAA
Gen_e_sp_nova_27603	TTTATTGTATCTATTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCTTACCTTTACAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTCTTAGTAA
Acinocheirodon_cf_melanogrammus_37550	TTTATTGTATCTATTCCA	CATTGGTCGAGGCCCTTACT	ATGGTCTCCTACCTATATAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTCTTAGTAA
1Aphyocheirodon_hemigrammus_40027	TTTATTGTATCTATTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTATATAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Aphyocheirodon_hemigrammus_40025	TTTATTGTATCTATTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTATATAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Tetragonopterus_argenteus_22029	TTTATCTGTCTTACTTCCA	CATTGGCCGAGGCCCTTACT	ACGGCTCTTATGTTTACATA	GAACATGAAACATTGGTGT	AATCTACTCTTCTTAGTAA
Serrapinnus_notomelas_19890	TTTATTGTATCTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Serrapinnus_notomelas_18293	TTTATTGTATCTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Cheirodon_stenodon_20130	TTTATTGTATCTACTTCCA	TATGGCCGAGGCCCTTACT	ACGGCTCATACTATATAAA	GAACATGAAATATTGGTGT	AGTATTACTTCTCTTAGTAA
Serrapinnus_spl_22401	TTTATTGTATCTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Odontostilbe_fugitiva_22932	TTTATTGCATTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Cheirodon_pulcher_8	TTTATTGTATCTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTATATAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Odontostilbe_fugitiva_23714	TTTATTGCATTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Serrapinnus_calliurus_22121	TTTATTGCATTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Serrapinnus_calliurus_25768	TTTATTGCATTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Odontostilbe_ecuadorensis_9	TTTATTGCATTACTTCCA	CATTGGTCGAGGCCCTTACT	ATGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	AGTACTACTTCTCTTAGTAA
Cynopotamus_magdalena_29515	TTTATTGTATCTACTTCCA	CATTGGCCGAGGCCCTTACT	ATGGCTCATACTATATAAA	GAACATGAAATATTGGTGT	CGTCTATTACTTAGTAA
Phenacogaster_sp_27299	TTTATCTGTATCTACTTCCA	CATGGCCGAGGCCCTTACT	ACGGCTCCTACCTTTACAAA	GAACATGAAATATTGGTGT	TATCTCTCTCTTAGTAA
Aphyocharacidium_sp_33167	TTTATTGCATTACTTCCA	TGTGGCCGAGGCCCTTACT	ACGGATCCTTCTTTATAAA	GAACATGAAATATTGGTGT	GATTCTCTCTTAGTAA
Hemibrycon_sp_33168	TTTATCTGCATTACTTCCA	CATTGGCCGAGGCCCTTACT	ATGGCTCCTACCTTTACAAA	GAACATGAAACATTGGTGT	AGTACTACTTCTCTTAGTAA
Brycon_insignis_16075	TAGCAACCGCATTCTGAGG	TATGTTTACCATTGGGCA	AATATCTTCTGAGGTGCA	CAGTAATTACCAACCTCTTA	TCAGTATTCTCTTAGTGG
Gnatocharax_sp_24494	TAATAACCGCATTCTGAGG	TAGTCCTACCATGAGGCA	AATATCTTCTGAGGGGCA	CCGTATTACCAACCTCTCT	TCTGCTGTTCCATATGTTG
Macropsobrycon_xinguensis_40499	TAATAACCGCATTCTGAGG	TAGTCCTCCCTGAGGCA	AATATCTCTGAGGGGCA	CCGTGATCACAACCTCTCT	TCCGCATCCCTATATGAG
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTCTGAGGGGCA	CCGTATTACCAACCTCTCT	TCAGCTGCTCCATACGATG
Aphyocharax_anisitsi_12660	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATGCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTACATAGG
Carlana_eigenmani_19864	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCTGAGTCTCTTATATGG
Astyanax_mexicanus_24599	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCTGAGTCTCTTATATGG
Spintherobolus_brocceae_22558	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CTGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Spintherobolus_leptoura_36098	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CTGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Spintherobolus_ankoseion_24957	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CTGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Charax_leticiae_12700	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCTGAGTCCCTATATAGG
Diapoma_sp_21274	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCTGAGTCCCTATATAGG
Prodontocharax_melanotus_10	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTACATAGG
Prodontocharax_sp_7	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Nanocheirodon_insignis_24726	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCTGAGTCCCTATATAGG
Pseudocheirodon_arnoldi_5	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCTGAGTCCCTACATAGG
Pseudocheirodon_terrabae_6	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCTGAGTCCCTACATAGG
Heterocheirodon_yatai_24954	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Cheirodon_killiani_24964	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTACATAGG
Cheirodon_australe_24979	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Cheirodon_interruptu_20486	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Cheirodon_killiani_19803	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Cheirodon_killiani_24969	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTACATAGG
Cheirodon_australe_24963	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Cheirodon_interruptus_21266	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Cheirodon_ibicuhiensis_25598	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCTGAGTCCCTACATAGG
Cheirodon_killiani_24974	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTACATAGG
Saccoderma_melanostigma_27475	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Compsura_gorgonae_1	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Odontostilbe_mitoptera_3	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Compsura_sp_nova_4	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Odontostilbe_dialepturus_2	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Odontostilbe_pulchra_25845	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTACATAGG
Odontostilbe_paraguayensis_20127	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Odontostilbe_sp1_22626	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Serrapinnus_microdon_17057	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTACATAGG
Kolpotocheirodon_theloura_25982	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Macropsobrycon_uruguayanae_29061	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Odontostilbe_pequira_24958	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTACATAGG
Odontostilbe_pequira_20124	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Odontostilbe_pequira_12659	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Acinocheirodon_melanogrammus_37551	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Serrapinnus_heterodon_20305	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG
Odontostilbe_sp2_29616	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTACGTTGG
Kolpotocheirodon_figueiredoi_37576	TAATAACCGCATTCTGAGG	TATGCTTACCATTGAGGCA	AATATCTTCTGAGGGGCA	CAGTAATTACCAACCTCTCT	TCCGCAGTCCCTATATAGG

Kolpotocheirodon_figueiredoi_37575	TAATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Serrapinnus_kriegi_25764	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	GATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Compsura_heterura_24984	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	GATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Gen_e_sp_nova_27603	TAATGACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Acinocheirodon_cf_melanogrammus_37550	TAATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
1Aphyocheirodon_hemigrammus_40027	TGATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Aphyocheirodon_hemigrammus_40025	TGATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Tetragonopterus_argenteus_22029	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Serrapinnus_notomelas_19890	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Serrapinnus_notomelas_18293	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Cheirodon_stenodon_20130	TGATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	GATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Serrapinnus_spl_22401	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Odontostilbe_fugitiva_22932	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Cheirodon_pulcher_8	TGATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Odontostilbe_fugitiva_23714	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Serrapinnus_calliurus_22121	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Serrapinnus_calliurus_25768	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Odontostilbe_ecuadorensis_9	TAATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Cynopotamus_magdalenae_29515	TAATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Phenacogaster_sp_27299	TAATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Aphyocharacidium_sp_33167	TAATAACCGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Hemibrycon_sp_33168	TAATAACTGCATTGATAGG	TACGTCCTCCCTGAGGACA	AATATCCTTCTGAGGTGCTA	CAGTAATTACAAACCTTCTT	TCCGCAGTCCCTTATATAGG
Brycon_insignis_16075	AGACCAACTCAGTCGATGAG	TATGAGGTGGCTTCTCCGTA	GACCACGCAACTCTCACCG	ATTCTTTGCCTTCCACTTCA	TTTTACCTTTTCAATTGTA
Gnatocharax_sp_24494	AGACATGCTTGTGCAATGAA	TTTGAGGGGGGATTTCTCGTA	GACAACGCAACTCTCACCG	ATTCTTTGCCTTCCACTTCC	TACTGCCATTTACTAATTGTA
Macropsobrycon_xinguensis_40499	AGACGCCCTAATCCAATGAA	TTTGAGGGGGGATTTCTCCGTA	GACAACGCAACTCTCACCG	ATTCTTTGCCTTCCACTTCC	TACTGCCATTTACTAATTGTA
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	AGACATACTAGTACAATGAA	TCTGAGGAGGCTTTCCGTT	GATAACGCAACCTTAACCG	ATTCTTTGCATTCACCTTTC	TACTGCCATTCGCAATCGTA
Aphyocharax_anisitsi_12660	GGTGCACTAGTACAATGAA	TCTGAGGAGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TCTTTCCATTTGTAATTGTA
Carlana_eigenmani_19864	GGGTATTTAGTCAAGTAA	TTTGAGGGGGGATTTCTCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TCTTTCCATTTGTAATTGTA
Astyanax_mexicanus_24599	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCCGTT	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TCTTTCCATTTGTAATTGTA
Spintherobolus_brocceae_22558	AGATATACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TTTTACCATTTATATTGTA
Spintherobolus_leptoura_36098	AGACATACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TTTTACCATTTATATTGTA
Spintherobolus_ankoseion_24957	AGACATGCTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TTTTACCATTTATATTGTA
Charax_leticiae_12700	AGACATACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TCTTTCCATTTGTAATTGTA
Diapoma_sp_21274	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAACGCAACTCTCACCG	ATTCTTTGCCTTCCACTTTC	TCTTTCCATTTGTAATTGTA
Prodontocharax_melanotus_10	AGACGCACTAGTACAATGAA	TTTGAGGGGGGATTTCCGTA	GATAATGCAACTCTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Prodontocharax_sp_7	AGATGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GATAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Nanocheirodon_insignis_27476	AGATATACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Pseudocheirodon_arnoldi_5	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GATAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Pseudocheirodon_terrabae_6	AGACGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GATAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Heterocheirodon_yatai_24954	AGACGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Cheirodon_killiani_24964	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Cheirodon_australe_24979	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Cheirodon_interruptu_20486	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Cheirodon_killiani_19803	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Cheirodon_killiani_24969	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Cheirodon_australe_24963	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Cheirodon_interruptu_21266	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Cheirodon_ibicuhiensis_25598	GGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Cheirodon_killiani_24974	AGATGCACTAGTACAATGAA	TTTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Saccoderma_melanostigma_27475	CGATGCACTAGTACAATGAA	TCTGAGGGGGATTTCTCGTA	GATAATGCAACTCTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Compsura_gorgonae_1	CAATGCACTAGTACAATGAA	TTTGAGGGGGGATTTCCGTA	GATAATGCAACTCTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Odontostilbe_mitoptera_3	CAATGCACTAGTACAATGAA	TTTGAGGGGGGATTTCCGTA	GATAATGCAACTCTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Compsura_sp_nova_4	CGATGCACTAGTACAATGAA	TTTGAGGGGGATTTCTCGTA	GACAATGCAACTCTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Odontostilbe_dialepturus_2	CAATGCACTAGTACAATGAA	TTTGAGGGGGGATTTCCGTA	GACAATGCAACTCTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Odontostilbe_pulchra_25845	AGACATACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GATAATGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TCTTACCATTTGTAATTGTA
Odontostilbe_paraguayensis_20127	AGATGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GACAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Odontostilbe_sp_122626	AGACGCACTAGTACAATGAA	TTTGAGGGGGGATTTCCGTA	GACAATGCAACTCTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Serrapinnus_microdon_17057	AGACGCACTAGTACAATGAA	TCTGAGGGGGGATTTCCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TGCTCCCATTCTGTAATTGTA
Kolpotocheirodon_theloura_25982	AGATGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Macropsobrycon_uruguayanae_29061	AGACGCACTAGTACAATGAA	TTTGAGGGGGGATTTCCGTA	GACAATGCAACTCTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Odontostilbe_pequira_24958	AGACGCACTAGTACAATGAA	TCTGAGGGGGGATTTCCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Odontostilbe_pequira_20124	AGACGCACTAGTACAATGAA	TCTGAGGGGGGATTTCCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Odontostilbe_pequira_12659	AGACGCACTAGTACAATGAA	TCTGAGGGGGGATTTCCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Acinocheirodon_melanogrammus_37551	AGACGCACTAGTACAATGAA	TCTGAGGGGGGATTTCCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Serrapinnus_heterodon_20305	AGACGCACTAGTACAATGAA	TCTGAGGGGGGATTTCCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Odontostilbe_sp_229616	GGACGCACTAGTACAATGAA	TCTGAGGGGGGATTTCCGTA	GATAACGCAACCTTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Kolpotocheirodon_figueiredoi_37576	AGATGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
1Kolpotocheirodon_figueiredoi_37575	AGATGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GACAATGCAACCTTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Serrapinnus_kriegi_25764	AGATGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GATAACGCAACCTTAACCG	ATTTTTCGCCTTCCACTTTC	TGTTCCCATTCTGTAATTGTA
Compsura_heterura_24984	AGACGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GACAACGCAACTCTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Gen_e_sp_nova_27603	AGACGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GACAACGCAACTCTAACCG	ATTCTTTGCCTTCCACTTTC	TGTTCCCATTCTGTAATTGTA
Acinocheirodon_cf_melanogrammus_37550	AGATGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GATAACGCAACCTTAACCG	ATTTTTCGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
1Aphyocheirodon_hemigrammus_40027	AGATGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GACAACGCAACTCTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA
Aphyocheirodon_hemigrammus_40025	AGATGCACTAGTACAATGAA	TCTGAGGGGGGCTTTCTCGTA	GACAACGCAACTCTAACCG	ATTCTTTGCCTTCCACTTTC	TACTTTCCATTTATATTGTA

Apêndice

Tetragonopterus_argenteus_22029	AGATACCTAGTACAATGAA	TCTGAGGGGGTTTTCTGTA	GACTGCCAACCCCTCACAG	ATTTTTTGCCTTCCACTTCC	TCCTACCAATTTGCAGTAGTA
Serrapinnus_notomelas_19890	AGATGCACTAGTACAATGAA	TCTGGGGTGGTCTCTGTA	GATAACGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTCGCCATTCGTTATTGTA
Serrapinnus_notomelas_18293	AGATGCACTAGTACAATGAA	TCTGAGGTGGTCTCTGTA	GATAACGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTCGCCATTCGTTATTGTA
Cheirodon_stenodon_20130	AGACGCCTAGTCAATGAA	TTTGGGGCGGCTTCTGTA	GACAATGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTTCCATTCGTAATTGTA
Serrapinnus_sp1_22401	AGATGCACTAGTACAATGAA	TCTGAGGTGGTCTCTGTA	GATAACGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTCGCCATTCGTTATTGTA
Odontostilbe_fugitiva_22932	AGATGCACTAGTACAATGAA	TCTGAGGTGGTCTCTGTA	GACAACGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTCGCCATTCGTTATTGTA
Cheirodon_pulcher_8	GGATGCACTAGTACAATGAA	TTTGGGGCGGCTTCTGTA	GATAATGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTCGCCATTCGTTATTGTA
Odontostilbe_fugitiva_23714	AGATGCACTAGTACAATGAA	TCTGAGGTGGTCTCTGTA	GACAACGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTCGCCATTCGTTATTGTA
Serrapinnus_calliurus_22121	AGATGCACTAGTACAATGAA	TCTGAGGTGGTCTCTGTA	GATAACGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTCGCCATTCGTTATTGTA
Serrapinnus_calliurus_25768	AGATGCACTAGTACAATGAA	TCTGAGGTGGTCTCTGTA	GACAACGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTCGCCATTCGTTATTGTA
Odontostilbe_ecuadorensis_9	AGATGCACTAGTACAATGAA	TCTGAGGTGGTCTCTGTA	GACAACGCAACCCCTCACCG	ATTCCTTGCCTTCCACTTCC	TATTCGCCATTCGTTATTGTA
Cynopotamus_magdaleneae_29515	AGATGTCTAGTCAATGAA	TTTGGGGAGGATCTCTGTA	GACAATGCAACCCCTCACAG	ATTCCTTGCCTTCCACTTCC	TCTCCCTTCGCAATTGTA
Phenacogaster_sp_27299	AGATGATTAGTACAGTAA	TCTGAGGGGGTTTTCTGTA	GATAACGCAACCCCTAACAG	ATTCCTTGCCTTCCACTTCC	TCTCCCTTCGCGTAGTA
Aphyocharacidium_sp_33167	AGATGCACTAGTACAATGAA	TTTGGGGAGGATTTCTGTA	GATAACGCAACCCCTAACCG	ATTTTTTGCCTTCCACTTCC	TACTCCCATTCGCAATTGTA
Hemibrycon_sp_33168	AGATGCACTAGTACAATGAA	TCTGAGGAGGCTTTCTGTA	GACAATGCCACACTAACAG	ATTTTTTGCCTTCCACTTCC	TCTTACCATTGCAATCGTA
Brycon_insignis_16075	GCAGTACTGCAGTACACGC	CCTTTCTCCTCATGAACAG	GATCCAACAACCCAGCTGGA	TTAAACTCAGACAGACAA	AATTCCTTCCACCCTACT
Gnatocharax_sp_24494	GCAGCAACCCCTGCTCATGC	CCTGTTCTCCTCATGAACAG	GGTCAATAATCCAGCCGG	CTAAACTCAAACGTCAGAA	AATTCCTTCCACCCTACT
Macropsobrycon_xinguensis_40499	GCAGTACTACCCCTCATGC	CCTATTCTCCTCAGAACAG	GGTCAACAACCCCTACAGGA	CTAAACTCAAACGTCAGAA	AATTCATTCCACCCTACT
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	GCAGCAACCCGATCATGC	CCTATTCTCCTCAGAACAG	GCTCAATAAACCAGTCGGA	CTAAACTCAGACGACAGAA	AATTTCAATCCACCCTACT
Aphyocharax_anisitsi_12660	GCAGCAACCCCTCCTCATGC	TCTTCTCCTCAGAACAG	GCTCAATAAACCAGCCGG	CTAAACTCGGACTCAGATA	AATTCCTTCCACCCTACT
Carlana_eigenmani_19864	GGGTAAACCCCTCCTCATGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCAGCCGG	TTAAACTCAGACAGACAA	AATTTCTTCCACCCTACT
Astyanax_mexicanus_24599	GCAGCAACCCCTCCTCATGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCAGCCGG	TTAAACTCGGACTCAGATA	AATTCATTCCACCCTACT
Spintherobolus_brocceae_22558	GCAGCAACCCGTTTACACGC	CCTGTTCTCCTCATGAACAG	GCTCAACAATCCACCCGG	TTAAACTCAGATGTCAGAA	AATTTCTTCCACCCTACT
Spintherobolus_leptoura_36098	GCAGCAACCCGTTTACACGC	CCTGTTCTCCTCATGAACAG	GTTCAATAAACCACCCGG	TTAAACTCAGATGTCAGAA	AATTCCTTCCACCCTACT
Spintherobolus_ankosein_24957	GCAGCAACCCGTTTACACGC	CCTGTTCTCCTCATGAACAG	GTTCAATAAACCACCCGG	TTAAACTCAGATGTCAGAA	AATTCCTTCCACCCTACT
Charax_leticiae_12700	GCAGCAACTCTCTCATGC	TTTATTCTTACATGAACAG	GCTCAAAACCTCTGTTGG	CTAAACTCAGACAGATA	AATTCCTTCCACCCTACT
Diapoma_sp_21274	GCAGCAACCCCTTCTCATGC	CCTTTCTCCTCATGAACAG	GCTCAATAAACCAGCCGG	TTAAACTCAGACTCAGATA	AATTCCTTCCACCCTACT
Prodontocharax_melanotus_10	GCAGCAACTATTCTACACGC	CCTTCTCCTCAGAACAG	GCTCAATAAACCACCCGG	ATCAACTCAGACGACAGAA	AATTCCTTCCACCCTACT
Prodontocharax_sp_7	GCAGCAACTATTCTACATGC	CCTTCTCCTCATGAACAG	GCTCAAAACCCACCCGG	ATCAACTCAGACGACAGAA	ATTCCTTCCACCCTACT
Nanocheirodon_insignis_27476	GCAGCAACTATTCTACATGC	CATCTCTCCTCAGAACAG	GCTCAAAACCCCAATGGA	CTAAACTCAGCAGATA	AATTTCTTCCACCCTACT
Pseudocheirodon_arnoldi_5	GCAGCAACCCGTTTACACGC	CCTTTCTCCTCAGAACAG	GCTCAATAAACCACCCGG	CTAAACTCAGATGTCAGATA	AATTCCTTCCACCCTACT
Pseudocheirodon_terrabae_6	GCAGCAACCCGTTTACACGC	CCTTCTCCTCAGAACAG	GCTCAATAAACCACCCGG	CTAAACTCAGACGACAGAA	AATTCCTTCCACCCTACT
Heterocheirodon_yatai_24954	GCAGCAACCCGTTTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGATGTCAGATA	AATTCCTTCCACCCTACT
Cheirodon_killiani_24964	GCAGCAACCCGTTTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGAA	AATTTCTTCCACCCTACT
Cheirodon_australe_24979	GCAGCAACTATTCTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGAA	AATTTCTTCCACCCTACT
Cheirodon_interruptu_20486	GCAGCAACTATTCTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGAA	AATTCCTTCCACCCTACT
Cheirodon_killiani_19803	GCAGCAACCCGTTTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Cheirodon_killiani_24969	GCAGCAACCCGTTTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Cheirodon_australe_24963	GCAGCAACTATTCTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTCCTTCCACCCTACT
Cheirodon_interruptus_21266	GCAGCAACTATTCTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTCCTTCCACCCTACT
Cheirodon_ibicuihensis_25598	GCAGCAACCCGTTTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTCCTTCCACCCTACT
Cheirodon_killiani_24974	GCAGCAACCCGTTTACACGC	CCTTCTCCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Saccoderma_melanostigma_27475	GCAGCAACTATTCTACACGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCCAACCCGG	CTCAACTCGGATGACAGAA	AATTCCTTCCACCCTACT
Compsura_gorgoneae_1	GCAGCAACTATTCTACACGC	CCTTCTCCTCAGAACAG	GTTCAAAACCCCTACTGGA	CTCAACTCGGACGACAGAA	AATTCCTTCCACCCTACT
Odontostilbe_mitoptera_3	GCAGCAACTATTCTACACGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCCACTGGA	CTCAACTCGGACGACAGAA	AATTCCTTCCACCCTACT
Compsura_sp_nova_4	GCAGCAACTATTCTACACGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCCAACCCGG	CTCAACTCGGACGACAGAA	AATTCCTTCCACCCTACT
Odontostilbe_dialepturus_2	GCAGCAACTATTCTACACGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCCAACCCGG	CTCAACTCGGACGACAGAA	AATTCCTTCCACCCTACT
Odontostilbe_pulchra_25845	GCAGCAACTATTCTACACGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCCAACCCGG	CTCAACTCGGACGACAGATA	AATTTCTTCCACCCTACT
Odontostilbe_paraguayensis_20127	GCAGCAACTATTCTACACGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCCAACCCGG	CTCAACTCGGACGACAGATA	AATTCCTTCCACCCTACT
Odontostilbe_sp1_22626	GCAGCAACTATTCTACACGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCCAACCCGG	CTCAACTCGGATGACAGATA	AATTCCTTCCACCCTACT
Serrapinnus_microdon_17057	GCAGCAACTATTCTACATGC	CCTTTCTCCTCAGAACAG	GTTCAAAACCCCAACCCGG	CTCAACTCGGACGACAGATA	AATTTCTTCCACCCTACT
Kolpotocheirodon_theloura_25982	GCAGCAACCCGTTTACACGC	CCTGTTTTTACAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGAA	AATTTCTTCCACCCTACT
Macropsobrycon_uruguayanae_29061	GCAGCAACCCGTTTACACGC	CCTATTCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Odontostilbe_pequira_24958	GCAGCAACCCGTTTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Odontostilbe_pequira_20124	GCAGCAACTATTCTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Odontostilbe_pequira_12659	GCAGCAACTATTCTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Acinocheirodon_melanogrammus_37551	GCAGCAACCCGTTTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Serrapinnus_heterodon_20305	GCAGCAACTATTCTACATGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Odontostilbe_sp2_29616	GCAGCAACTATTCTACATGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Kolpotocheirodon_figueiredoi_37576	GCAGCAACTATTCTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCACTGGA	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
1Kolpotocheirodon_figueiredoi_37575	GCAGCAACTATTCTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCACTGGA	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Serrapinnus_kriegei_25764	GCAGCAACTATTCTACATGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Compsura_heterura_24984	GCAGCAACTATTCTACATGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Gen_e_sp_nova_27603	GCAGCAACTATTCTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Acinocheirodon_cf_melanogrammus_37550	GCAGCAACCCGTTTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
1Aphyocheirodon_hemigrammus_40027	GCAGCAACTATTCTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCACTGGA	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Aphyocheirodon_hemigrammus_40025	GCAGCAACTATTCTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCACTGGA	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Tetragonopterus_argenteus_22029	GCAGCAACCCCTATTCTCATGC	AGTATTTTACAGAACAG	GCTCAAAACCCCACTCGG	CTAAACTCAGATGTCAGATA	AATTCCTTCCACCCTACT
Serrapinnus_notomelas_19890	GCAGCAACTATTCTACATGC	CCTGTTCTCAGAACAG	GCTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Serrapinnus_notomelas_18293	GCAGCAACTATTCTACATGC	CCTGTTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Cheirodon_stenodon_20130	GCAGCAACCCGTTTACACGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Serrapinnus_sp1_22401	GCAGCAACTATTCTACATGC	CCTGTTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Odontostilbe_fugitiva_22932	GCAGCAACTATTCTACATGC	CCTGTTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT
Cheirodon_pulcher_8	GCAGCAACTATTCTACATGC	CCTATTCTCAGAACAG	GTTCAAAACCCCAACCCGG	ATCAACTCAGACGACAGATA	AATTTCTTCCACCCTACT

Odontostilbe_fugitiva_23714	CGAGCAACTATTTTACATGC	CCTATTCTCAGCAGAACAG	GCTCAAATAACCCAACCGGA	ATTAACCTCAGACGAGACAA	AATTTCTTTCCACCCTACT
Serrapinnus_calliurus_22121	CGAGCAACTATTTTACATGC	CCTGTTCTCAGCAGAAAGT	GCTCAAATAACCCAACCGGG	ATTAACCTCAGACGAGACAA	AATTTCTTTCCACCCTACT
Serrapinnus_calliurus_25768	CGAGCAACTATTTTACATGC	CCTGTTCTCAGCAGAAAGC	GCTCAAATAACCCAACCGGG	ATTAACCTCAGACGAGACAA	AATTTCTTTCCACCCTACT
Odontostilbe_ecuadorensis_9	CGAGCAACTATTTTACATGC	CCTATTCTCAGCAGAACAG	GCTCAAATAACCCAACCGGG	ATTAACCTCAGACGAGACAA	AATTTCTTTCCACCCTACT
Cynopotamus_magdalena_29515	CGAGCAACTCTATTACATGC	TTTATTCTCAGCAGAAAGC	GCTCAAATAACCCAATGGC	CTAAACTCAGACTCTGACAA	AATTTCTTTCCACCCTACT
Phenacogaster_sp_27299	CGAGCAACCTCTTACATGC	CTGTTTCTCAGCAGAACAG	GCTCAAATAACCTCTGGGG	CTAAACTCAGACGCGACAA	AATTTCTTTCCACCCTACT
Aphyocharacidium_sp_33167	GCCGCCACTCTTTACATGC	CCTATTCTCAGCAGAACAG	GCTCAAATAACCCAACCGGG	CTAAACTCAGACGAGACAA	AATTTCTTTCCACCCTACT
Hemibrycon_sp_33168	CGAGCAACCTCTTACATGC	CCTCTTCTCAGCAGAACAG	GCTCAAATAACCCAACCGGT	TTAAACTCAGACGCGACAA	AATTTCTTTCCACCCTACT
Brycon_insignis_16075	TCTCATATAAAGACCTCTCT	GGATTCTGGCTCTCTCAC	CGCACTCGCATCACTAGCTT	TATTTTCCCCAAATCTCTTA	GGTGATCCAGAACACTTTCAC
Gnatocharax_sp_24494	TCTCATATAAAGATGTTCTC	GGGTTTCATGGCCTCTCAC	AGGACTAGCATCCCTTGCCG	TATTTACCCCCAACCTCTTA	GGGACCCAGAAAACCTTTCAC
Macropsobrycon_xinguensis_40499	TCTCCTACAAGACCTCTTG	GGCTTCATAGTCTTCTTG	AGCCTTAATAGCCCTAGGCC	TGTTACCCCCAACCTTGCTC	GGAGACCCAGAGAACTTTCAC
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	TCTCATACAAGACCTCTTA	GGATTGTATTCTACTAAT	AGCCTAGTATCACTAGGCC	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Aphyocharax_anisitsi_12660	TTTCTTATAAAGACCTCTCT	GGCTTCATAATTTTACTCAC	CGCACTCGCATCACTAGGCC	TATTTCTCCCCTAATCTCTTA	GGAGATCCAGAAAACCTTTCAC
Carlana_eigenmani_19864	TCTCTTACAAGACCTCTCT	GGCTTATTATTAATCTTAC	CTTACTCAGCTCACTAGCTT	TATTTTCCCCAACCTCTTA	GGAGATCCAGAAAACCTTTCAC
Astyanax_mexicanus_24599	TTTCTTATAAAGACCTCTCA	GGTTTATAATCACTACTAC	TGCACTAACATCGTTAGCCG	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Spintherobolus_brocdae_22558	TCTCCTATAAAGACCTGCTG	GGCTTCGTAGTCTTAATTAC	AACACTTGCATCCCTAGCTT	TATTTCTCCCCAACCTGTTA	GGGGACCCGAAAAATTTTTCAC
Spintherobolus_leptoura_36098	TCTCCTATAAAGATCTCTCT	GGCTTCGTAACTTAAATAC	AACACTTGCATCCCTAGGCC	TATTTCTCCCCAACCTATTA	GGGGACCCGAAAAATTTTTCAC
Spintherobolus_ankoseion_24957	TCTCCTATAAAGATCTCTCT	GGCTTCGTAACTTAAATAC	AACACTTGCATCCCTAGGCC	TATTTCTCCCCAACCTATTA	GGGGACCCGAAAAATTTTTCAC
Charax_leticiae_12700	TTTCTTATAAAGATCTCTCT	GGATTATTATTAATGCTAAT	AGCACTTACGTCCTTAGCCG	TATTTTCCCCGAACTTTTTA	GGGACCCAGAAAACCTTTCAC
Diapoma_sp_21274	TCTCCTATAAAGACCTCTCT	GGATTGTAACTTAAATAC	AATACTTGCATCCCTAGCCG	TCTTTTCCCCAACCTGTTA	GGAGACCCAGAAAACCTTTCAC
Prodontocharax_melanotus_10	TTTCTTATAAAGACCTCTCT	GGCTTCGTAACTTAAATAC	AACACTTGCATCCCTAGGCC	TATTTTCCCCAACCTCTTA	GGAGATCCAGAAAATTTTTCAC
Prodontocharax_sp_7	TCTCATACAAGACCTCTCT	GGCTTCGTAACTTAAATAC	AACACTTGCATCCCTAGGCC	TATTTTCCCCGAACTCTCTTA	GGGACCCAGAAAACCTTTCAC
Nanocheiroidon_insignis_27476	TTTCTATACAAGATTTACTC	GGCTTTGACTTATACTTAC	AACACAGGCATCCCTAGCTT	TATTTTCTCTAACCTTTTTA	GGTGACCCAGAAAACCTTTCAC
Pseudocheiroidon_arnoldi_5	TTTCTATACAAGACCTTCTC	GGCTTTGCTGTAATACTCAC	AACATTAGCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGGGACCCAGAAAACCTTTCAC
Pseudocheiroidon_terrabae_6	TTTCTATACAAGACCTTCTC	GGTTTTGCTGTAATACTCAC	AACATTAGCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGGGACCCAGAAAACCTTTCAC
Heterocheiroidon_yatai_24954	TCTCATACAAGACCTCTCT	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCACCAACCTCTTA	GGTGACCCAGAAAACCTTTCAC
Cheiroidon_killiani_24964	TCTCATACAAGACCTCTCT	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCACCAACCTATTA	GGTGATCCGAGAAAATTTTCAC
Cheiroidon_australe_24979	TCTCATACAAGACCTCTCT	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCACCAACCTATTA	GGTGATCCGAGAAAATTTTCAC
Cheiroidon_interruptu20486	TCTCATACAAGACCTCTCT	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCACCAACCTATTA	GGTGATCCGAGAAAATTTTCAC
Cheiroidon_killiani_19803	TCTCATACAAGACCTCTCT	GGCTTCGTAGTATACTTAC	AACACTAGCATCCCTAGCCG	TATTTTCCACCAACCTATTA	GGTGATCCGAGAAAATTTTCAC
Cheiroidon_killiani_24969	TCTCATACAAGACCTCTCT	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCACCAACCTATTA	GGTGATCCGAGAAAATTTTCAC
Cheiroidon_australe_24963	TCTCATACAAGACCTCTCT	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCACCAACCTATTA	GGTGATCCGAGAAAATTTTCAC
Cheiroidon_interruptus_21266	TCTCATACAAGACCTCTCT	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCACCAACCTATTA	GGTGATCCGAGAAAATTTTCAC
Cheiroidon_ibicuihiensis_25598	TCTCATACAAGACCTCTCT	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCACCAACCTATTA	GGTGATCCGAGAAAATTTTCAC
Cheiroidon_killiani_24974	TCTCATACAAGACCTCTCT	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCGCAACCTGTTA	GGTGATCCGAGAAAATTTTCAC
Saccoderma_melanostigma_27475	TCTCATACAAGACCTACTC	GGCTTCGTAGTAACTACTAC	GACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTTTTA	GGTGACCCAGAAAACCTTTCAC
Compsura_gorgonae_1	TCTCATACAAGACCTACTC	GGCTTCGTAGTAACTACTAC	AACACTGGCATCCCTAGCCG	TATTTCTCCCCAACCTTTTA	GGGACCCAGAAAATTTTTCAC
Odontostilbe_mitoptera_3	TCTCATACAAGACCTACTCT	GGCTTCGTAGTAACTACTAC	AACACTGGCATCCCTAGCCG	TATTTCTCCCCAACCTTTTA	GGGACCCAGAAAATTTTTCAC
Compsura_sp_nova_4	TTTCTATACAAGACCTACTC	GGCTTCGTAGTAACTACTAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGTGACCCAGAAAACCTTTCAC
Odontostilbe_dialepturus_2	TTTCTATACAAGACCTACTC	GGCTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGTGACCCAGAAAACCTTTCAC
Odontostilbe_pulchra_25845	TTTCTATACAAGACCTTCTC	GGCTTCGTAGTAACTACTAC	AACACTAGCATCATTAGCCG	TATTTTCCCCAACCTTTTA	GGGATCCAGAAAACCTTTCAC
Odontostilbe_paraguayensis_20127	TCTCATATAAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTAGCATCATTAGCCG	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Odontostilbe_sp1_22626	TTTCTATACAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTGGCATCCCTAGCCT	TATTTCTCCCCAACCTCTTA	GGAGACCCAGAAAATTTTTCAC
Serrapinnus_microdon_17057	TCTCATACAAGACCTTCTC	GGCTTTGCTGTAATACTCAC	AACATTAGCATCCCTGGCCG	TATTTCTCCCCAACCTTTTA	GGGACCCAGAAAACCTTTCAC
Kolpotocheiroidon_theloura_25982	TTTCTATACAAGACCTTCTC	GGTTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTTCCCCAACCTCTTA	GGGGACCCAGAAAACCTTTCAC
Macropsobrycon_uruguayanae_29061	TTTCTATACAAGACCTTCTC	GGCTTCGTAGTAACTACTAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGAGATCCAGAAAACCTTTCAC
Odontostilbe_pequira_24958	TTTCTATACAAGACCTTCTT	GGTTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTTTTA	GGGACCCAGAAAACCTTTCAC
Odontostilbe_pequira_20124	TTTCTATACAAGACCTTCTT	GGTTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTTTTA	GGGACCCAGAAAACCTTTCAC
Odontostilbe_pequira_12659	TTTCTATACAAGACCTTCTT	GGTTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTTTTA	GGGACCCAGAAAACCTTTCAC
Acinocheiroidon_melanogrammus_37551	TTTCTATACAAGACCTTCTT	GGTTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Serrapinnus_heterodon_20305	TTTCTATACAAGACCTTCTT	GGTTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGGACCCAGAAAACCTTTCAC
Odontostilbe_sp2_29616	TTTCTATACAAGACCTTCTT	GGTTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGGATCCAGAAAACCTTTCAC
Kolpotocheiroidon_figueiredoi_37576	TCTCATACAAGACCTTCTA	GGTTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCT	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
1Kolpotocheiroidon_figueiredoi_37575	TCTCATACAAGACCTTCTA	GGTTTTGCTGTAATACTCAC	AACACTAGCATCCCTAGCCT	TATTTTCCCCAACCTCTTA	GGGACCCAGAAAACCTTTCAC
Serrapinnus_kriegi_25764	TCTCATACAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTAGCATCCCTAGCCG	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Compsura_heterura_24984	TCTCATATAAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTAGCATCCCTAACCC	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Gen_e_sp_nova_27603	TCTCATACAAGACCTTCTT	GGGTTCTGTAATACTACTAC	AACACTGGCATCCCTGGCCG	TGTTTTCCACCAACCTCTTA	GGGACCCAGAAAACCTTTCAC
Acinocheiroidon_cf_melanogrammus_37550	TTTCTATACAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTAGCATCCCTAGCCT	TATTTTCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
1Aphyocheiroidon_hemigrammus_40027	TTTCTATACAAGACCTTCTT	GGTTTTGCTGTAATACTCAC	AACACTAGCCTCCCTGGCCG	TATTTTCCCCAACCTCTTA	GGGGACCCAGAAAACCTTTCAC
Aphyocheiroidon_hemigrammus_40025	TTTCTATACAAGACCTTCTT	GGTTTTGCTGTAATACTCAC	AACACTAGCCTCCCTGGCCG	TATTTTCCCCAACCTCTTA	GGGGACCCAGAAAACCTTTCAC
Tetragonopterus_argenteus_22029	TCTCCTACAAGACCTCTCA	GGAGTCTACTGTTATTACT	AGCACTTATATCTCTAGCTA	TATTTTATCCAAACCTCTTA	GGAGATCCAGAAAACCTTTCAC
Serrapinnus_notomelas_19890	TCTCATATAAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTAGCATCCCTAGCCG	TATTTTCCCCAACCTCTAG	GGAGACCCAGAAAACCTTTCAC
Serrapinnus_notomelas_18293	TCTCATATAAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTGGCATCCCTAGCCG	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Cheiroidon_stenodon_20130	TTTCTATACAAGACCTTCTC	GGTTTTGCTGTAATACTCAC	CACACTAGCAGCCCTAGCCT	TATTTTCCCCAACCTCTTA	GGGGACCCAGAAAACCTTTCAC
Serrapinnus_sp1_22401	TCTCATATAAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTGGCATCCCTAGCCG	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Odontostilbe_fugitiva_22932	TCTCATATAAAGACCTCTCT	GGCTTCGTAGTAACTACTAC	AACACTAGCATCATTAGCTT	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Cheiroidon_pulcher_8	TCTCATATAAAGACCTTCTC	GGCTTCGTAGTAACTACTAC	AACACTAGCATCCCTAGCCG	TATTTTCCCCAACCTCTTA	GGGACCCAGAAAACCTTTCAC
Odontostilbe_fugitiva_23714	TCTCATATAAAGACCTCTCT	GGCTTCGTAGTAACTACTAC	AACACTAGCATCATTAGCTT	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Serrapinnus_calliurus_22121	TCTCATATAAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTAGCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Serrapinnus_calliurus_25768	TCTCATATAAAGACCTTCTT	GGGTTCTGTAATACTACTAC	AACACTAGCATCCCTAGCCG	TATTTTCCCCAACCTCTTA	GGGACCCAGAAAACCTTTCAC
Odontostilbe_ecuadorensis_9	TCTCATATAAAGACCTTCTT	GGCTTCGTAGTAACTACTAC	AACACTAGCATCCCTAGCCG	TATTTTCCCCAACCTCTTA	GGAGACCCAGAAAACCTTTCAC
Cynopotamus_magdalena_29515	TCTCCTATAAAGACCTTCTT	GGCTTCAGATTAATATAGT	ATTACTTACATCCCTAGCCT	TATTTCTCCCCTAATCTCTTA	GGGACCCAGAAAACCTTTCAC
Phenacogaster_sp_27299	TCTCCTACAAGACCTTCTC	GGATTGTCAATTAATACTAC	AGCACTTTCATCCCTAGCCG	TATTTCTCCCCAACCTCTTA	GGTGACCCAGAAAACCTTTCAC
Aphyocharacidium_sp_33167	TTTCTATACAAGACCTTCTT	GGATTGTAAATTTACTACT	AATACTTGCATCTTAGCCG	TGTTTTCCGCAACCTCTTA	GGTGACCCAGAAAATTTTTCAC

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Hemibrycon_sp_33168	TCTCTATAAAGACCTTCTT	GGGTTTGGTAATACTAAC	CGCACTCGCATCTTTGGCC	TATTTTCCCGAATCTTCTA	GGTGACCCAGAAAACTTCA
Brycon_insignis_16075	CCCCGCCAACCCCTAGTCA	CACCAACCCACATTAACCA	GAATGATATTTCTATTTC	CTACGCCATTTACAGTAC	TCCCAAAACAATAGGAGG
Gnatocharax_sp_24494	CCCCGCTAATCCACTAGTAA	CACCCCCACACATTAACCT	GAATGATATTTCTTTTTC	CTACGCCATTTACAGTAC	TCCCAAAACAATAGGAGG
Macropsobrycon_xinguensis_40499	CCCAGCCAAACCCCTAGTCC	CACCCCCACACATTAAGCCA	GAATGAAATTTCTTTTTC	TTACGCCATTTACAGTAC	TCCCAAAACAATAGGAGG
Bryconops_affinis_4168	????????????????	????????????????	????????????????	????????????????	????????????????
Chalceus_epakros_26504	CCCTGCTAACCCCTTAGTAA	CTCCCCACACATTAAGCCA	GAGTGGTACTTCTATTTC	CTACGCCATCTACAGTCA	TCCCAAAACAATAGGAGG
Aphyocharax_anisitsi_12660	ACCCGCCAACCCCTTGTTA	CACCCCTCAGATTAACCC	GAATGATACTTCTATTTC	CTACGCCATCTACAGTCA	TCCCAAAACAATAGGAGG
Carlana_eigenmani_19864	CCCCGCCAACCCCTTGTTA	CACCACTCATATTAACCA	GAATGATATTTCTGTTTC	CTATGCTATTTACGGTCA	TCCCAAAACAATAGGAGG
Astyanax_mexicanus_24599	ACCCGCCAACCCCTTGTTA	CACCCCCATATCAAAACA	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Spintherobolus_broccae_22558	ACCTGCCAACCCCTGTTA	CACCAACAGATTAACCC	GAATGGTATTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Spintherobolus_leptoura_36098	ACCTGCCAACCCCTGTTA	CACCAACAGATTAACCC	GAATGGTATTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Spintherobolus_ankoseini_24957	ACCTGCCAACCCCTGTTA	CACCAACAGATTAACCC	GAATGGTATTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Charax_leticiae_12700	TCCAGCCAACCCCTGTTA	CCCCCTCAGATTAACCA	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Diapoma_sp_21274	CCCCGCCAACCCCTAGTAA	CACCAACCCACATTAACCT	GAATGATACTTCTTTTTC	TTACGCTATCTTCAGTCA	TCCCAAAACAATAGGAGG
Prodontocharax_melanotus_10	CCCCGCCAACCCCTAGTAA	CACCCCCACATTAACCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Prodontocharax_sp_7	CCCCGCTAATCCGCTAGTAA	CCCCCTCAGATTAACCA	GAATGGTATTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Nanocheirodon_insignis_27476	CCCCGCCAACCCCTAGTCA	CACCCCCACACATTAACCA	GAATGATACTTCTATTTC	TTACGCTATTTACAGTCA	TCCCAAAACAATAGGAGG
Pseudocheirodon_arnoldi_5	CCCCGCCAACCCCTAGTCA	CACCCCCACATTAACCT	GAATGATACTTCTATTTC	TTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Pseudocheirodon_terrabrae_6	TCCCGCCAACCCCTAGTCA	CACCCCCACATTAAGCT	GAGTATACTTCTATTTC	TTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Heterocheirodon_yatai_24954	CCCCGCTAACCCCTAGTAA	CACCCCCACACATTAAGCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_killiani_24964	CCCCGCCAACCCCTAGTAA	CGCCCCACACATTAACCT	GAGTGGTACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_austroale_24979	CCCTGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAATGGTACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_interruptu20486	CCCTGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAGTGGTACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_killiani_19803	CCCCGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAATGGTACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_killiani_24969	CCCCGCCAACCCCTAGTCA	CACCCCCACACATTAACCT	GAGTGGTACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_austroale_24963	CCCTGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAATGGTACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_interruptu_21266	CCCTGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAGTGGTACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_ibicuihiensis_25598	CCCTGCTAACCCCTAGTCA	CACCCCCACACATTAACCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_killiani_24974	CCCCGCCAACCCCTAGTCA	CACCCCCACACATTAACCT	GAGTATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Saccoderma_melanostigma_27475	CCCCGCCAACCCCTAGTCA	CACCTCCACACATTAACCC	GAATGATACTTTTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Compsura_gorgonae_1	CCCCGCCAACCCCTAATTA	CACCTCCGACATTAAGCC	GAATGATACTTTTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_mitoptera_3	CCCCGCCAACCCCTAGTCA	CACCTCCACACATTAACCC	GAATGATACTTTTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Compsura_sp_nova_4	CCCCGCCAACCCCTAGTCA	CACCCCCACATTAACCC	GAATGATACTTTTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_dialepturus_2	CCCCGCCAACCCCTAGTCA	CACCCCCACACATTAACCC	GAATGATACTTTTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_pulchra_25845	TCTGCTAACCCGCTAGTAA	CACCCCCACATTAACCC	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_paraguayensis_20127	CCCCGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAATGATACTTCTATTTC	TTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_sp1_22626	CCCCGCCAACCCCTAGTCA	CACCCCTCAGATTAACCT	GAGTATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Serrapinnus_micronodon_17057	CCCTGCTAATCCCTTAGTCA	CACCAACACATTAACCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Kolpotocheirodon_theloura_25982	CCCCGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Macropsobrycon_uruguayanae_29061	CCCCGCTAACCCCTTAGTCA	CACCCCCACATTAACCT	GAATGATATTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_pequiri_24958	CCCCGCTAATCCCTTAGTCA	CACCCCCACATTAACCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_pequiri_20124	CCCCGCTAATCCCTTAGTCA	CACCCCCACATTAACCT	GAGTATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_pequiri_12659	CCCCGCTAATCCCTTAGTCA	CACCCCCACATTAACCT	GAGTATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Acinocheirodon_melanogrammus_37551	CCCCGCTAACCCCTTAGTCA	CACCCCCACACATTAAGCT	GAGTATACTTCTATTTC	CTATGCTATTTACAGTCA	TCCCAAAACAATAGGAGG
Serrapinnus_heterodon_20305	CCCCGCTAACCCCTTAGTCA	CACCCCCACACATTAAGCT	GAGTATACTTCTATTTC	CTATGCTATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_sp2_29616	CCCCGCTAATCCCTTAGTCA	CACCCCCACATTAAGCT	GAATGATACTTCTATTTC	CTATGCTATTTACAGTCA	TCCCAAAACAATAGGAGG
Kolpotocheirodon_figueiredoi_37576	CCCCGCTAACCCCTAGTAA	CACCCCCACACATTAACCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
1Kolpotocheirodon_figueiredoi_37575	CCCCGCTAACCCCTAGTAA	CACCCCCACACATTAACCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Serrapinnus_kriegi_25764	CCCCGCCAACCCCTAGTCA	CACCCCCACACATTAACCT	GAGTATACTTCTATTTC	TTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Compsura_heterura_24984	CCCCGCCAACCCCTTAGTAA	CACCCCCACACATTAACCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Gen_e_sp_nova_27603	CCCCGCCAACCCCTAGTCA	CACCCCCACACATTAACCT	GAGTATACTTCTATTTC	TTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Acinocheirodon_cf_melanogrammus_37550	CCCCGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAATGATACTTCTATTTC	TTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
1Aphyocheirodon_hemigrammus_40027	CCCCGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAGTATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Aphyocheirodon_hemigrammus_40025	CCCCGCCAACCCCTAGTAA	CACCCCCACACATTAACCT	GAGTATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Tetragonopterus_argenteus_22029	TCCCGCCAACCCCTTGTTA	CTCCCCACACATTAACCA	GAATGATACTTCTATTTC	TTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Serrapinnus_notomelas_19890	CCCCGCCAACCCCTAGTAA	CACCCCGGACATTAACCT	GAGTATACTTCTATTTC	CTATGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Serrapinnus_notomelas_18293	CCCCGCCAACCCCTAGTAA	CACCCCGGACATTAACCT	GAGTATACTTCTATTTC	CTATGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_stenodon_20130	CCCCGCCAACCCCTAGTCA	CACCCCCACATTAAGCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Serrapinnus_sp1_22401	CCCCGCCAACCCCTAGTAA	CACCCCGGACATTAACCT	GAGTATACTTCTATTTC	CTATGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_fugitiva_22932	CCCCGCCAACCCCTAGTCA	CACCCCCACACATTAACCT	GAATGATACTTCTATTTC	CTATGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cheirodon_pulcher_8	CCCCGCCAACCCCTAGTAA	CACCCCGGACATTAACCT	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_fugitiva_23714	CCCCGCCAACCCCTAGTCA	CACCCCCACACATTAACCT	GAATGATACTTCTATTTC	CTATGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Serrapinnus_calliurus_22121	CCCCGCCAACCCCTAGTAA	CACCCCGGACATTAACCT	GAGTATACTTCTATTTC	CTATGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Serrapinnus_calliurus_25768	CCCCGCCAACCCCTAGTAA	CACCCCGGACATTAACCT	GAGTATACTTCTATTTC	CTATGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Odontostilbe_ecuadorensis_9	CCCCGCCAACCCCTAGTAA	CACCCCGGACATTAACCT	GAATGATACTTCTATTTC	CTATGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Cynopotamus_magdaleneae_29515	TCTGCTAACCCCTTGTTA	CTCCCCCAGATTAACCA	GAATGATACTTCTATTTC	CTATGCTATTTACAGTCA	TCCCAAAACAATAGGAGG
Phenacogaster_sp_27299	CCCCGCCAACCCCTTGTTA	CACCTCCACATTAACCA	GAATGATACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Aphyocharacidium_sp_33167	CCCCGCTAATCCCTTAGTAA	CACCCCTCAGATTAACCT	GAGTGGTACTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Hemibrycon_sp_33168	CCCCGCTAACCCCTTGTTA	CACCCCCACACATTAACCC	GAATGGTATTTCTATTTC	CTACGCCATTTACAGTCA	TCCCAAAACAATAGGAGG
Brycon_insignis_16075	GTCTTAGCTTTACTAGCTTC	AATCCTAATCTAATAGTAG	TACCCATACTACACATCC	AAACAACAAGGCCTCACATT	CGCAGCTATCTCCCAATTC
Gnatocharax_sp_24494	GTATTAGCCTTACTATTCTC	CATCTTAGCTTTAATAGTAG	TCCCTCCTTCACACCTCA	AAGCAGCAAGGCCTAACATT	CGCAGCTATCTCCCAATTC
Macropsobrycon_xinguensis_40499	GTACTCGCCCTCCTCTTCTC	AATCCTTAGCTTTAATAGTAG	TCCCACTCCACACACCTCA	AAGCAACAAGGCATATCTT	CGGTCCTCTCCCAACTTC
Bryconops_affinis_4168	????????????????	????????????????	????????????????	????????????????	????????????????
Chalceus_epakros_26504	GTCTAGCCCTACTATTCTC	AATCCTTAGCTTTAATAGTAG	TTCCAATTTGCACACCTCA	AAACAACAAGGCCTAACATT	CGGTCCTCTCCCAACTTC

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Aphyocharax_anisitsi_12660	GTCTAGCACTTCTATTCTC	CATCTAGTACTTATACTAG	TGCTCTTCTTCACATATC	AAACAACAAGGCTCAACATT	CGGACCCCTTAACCAATTCT
Carlana_eigenmani_19864	GTCTAGCACTTTTATTCTC	TATCTAGTACTCATATTA	TCCCTCTTCCACACATCA	AAACAACAAGGCTTACATT	CGGCCCCCTTACTCAATTCC
Astyanax_mexicanus_24599	GTCTGGCTCTCTTATTCTC	AATCTAGTACTTATGTTAG	TACCCTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCCTTACTCAATTCC
Spintherobolus_brocceae_22558	GTCTAGCACTACTATTCTC	TATCTGTACTTATACTGG	TTCCTTACTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCAATTACCAATTCC
Spintherobolus_leptoura_36098	GTCCGGGCACTACTATTTTC	TATCTCGTCTCATATTTG	TCCCTTACTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCAATTACCAATTCC
Spintherobolus_ankoseion_24957	GTCTGGCACTACTATTCTC	TATCTCGTCTCATATTTG	TCCCTTACTTCCACACATC	AAACAACAAGGCTTACATT	CGGACGATTACTCAATTCC
Charax_leticiae_12700	GTGTTAGCCTTACTATTTTC	AATTTAGTACTAATACTAG	TACCCTTCTCCACACATC	AAGTCCAAGGCTTACATT	TGCCCAATCGCCCAATTTA
Diapoma_sp_21274	GTCTAGCACTTTTATTCTC	AATCTGTATTATACTAG	TCCCTTACTCCACACATCA	AAACAACAAGGCTCAACGTT	CGGCCCCCTTAACAACAATCC
Prodontocharax_melanotus_10	GTCTAGCACTTCTATTCTC	CATCTAGTCTTAATACTGG	TCCCTTACTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAACTCT
Prodontocharax_sp_7	GTCTAGCACTTCTATTCTC	TATCTAGTCTTAATACTGG	TCCCTTACTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCAACCAACTCT
Nanochirodon_insignis_27476	GTCTAGCACTTTTATTCTC	TATCTAGTACTTATGCTTA	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCCTTACTCAACTCT
Pseudochirodon_arnoldi_5	GTCTGGGCTCTTATTCTC	CATCTGGTCTCATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCTATCACTCAGTAC
Pseudochirodon_terrabrae_6	GTCTAGCACTCTTATTCTC	CATCTAGGTTCTCATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	TGACCCCTTACTCACTCTC
Heterochirodon_yatai_24954	GTACTAGCACTTCTATTCTC	CATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCA	AAACAACAAGGCTTACATT	CGGACCTTACTCAACTCTC
Cheirodon_killiani_24964	GTACTAGCACTTCTGTTTTC	CATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCA	AAGCAACGAGGCTTGACATT	CGGACCCCTCAACCAACTCTC
Cheirodon_australe_24979	GTACTAGCACTTCTATTCTC	TATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCG	AAGCAACGAGGCTTGACATT	CGGACCCCTCAACCAACTCTC
Cheirodon_interruptu_20486	GTACTAGCACTTCTATTCTC	TATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCA	AAGCAACGAGGCTTGACATT	CGGACCCCTCAACCAACTCTC
Cheirodon_killiani_19803	GTACTAGCACTTCTGTTTTC	TATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCA	AAACAACAAGGCTTGACATT	CGGACCCCTCAACCAACTCTC
Cheirodon_killiani_24969	GTACTAGCACTTCTGTTTTC	CATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCA	AAGCAACGAGGCTTGACATT	CGGACCCCTTACTCAACTCTC
Cheirodon_australe_24963	GTACTAGCACTTCTATTCTC	TATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCG	AAGCAACGAGGCTTGACATT	CGGACCCCTCAACCAACTCTC
Cheirodon_interruptus_21266	GTACTAGCACTTCTATTCTC	TATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCA	AAGCAACGAGGCTTGACATT	CGGACCCCTCAACCAACTCTC
Cheirodon_ibicuihensis_25598	GTACTAGCACTTCTATTCTC	TATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCA	AAACAACAAGGCTTACATT	CGGACCCCTCAACCAACTCTC
Cheirodon_killiani_24974	GTACTAGCACTTCTGTTTTC	CATCTAGTCTTAATACTGG	TCCCTTCTTCCACACATCA	AAGCAACGAGGCTTGACATT	CGGACCCCTCAACCAACTCTC
Saccoderma_melanostigma_27475	GTATTAGCACTGTTTCTTC	CATCTGGTCTTATACTGG	TCCCTTCTTCCACACATCG	AAACAACAAGGCTTACATT	CGGACCCCTTACTCAATTTC
Compsura_gorgoneae_1	GTATTAGCACTACTTTTCTC	CATCTAGTCTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Odontostilbe_mitoptera_3	GTATTAGCACTGCTTTTCTC	CATCTGGTCTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Compsura_sp_nova_4	GTATTAGCACTGCTTTTCTC	CATCTGGTCTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Odontostilbe_dialepturus_2	GTATTAGCACTGCTTTTCTC	CATCTGGTCTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Odontostilbe_pulchra_25845	GTCTAGCACTCTCTTCTC	CATCTAGTCTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Odontostilbe_paraguayensis_20127	GTCTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Odontostilbe_sp_1_22626	GTCTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Serrapinnus_microdon_17057	GTACTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAGCAACGAGGCTTGACATT	CGGACCCCTCAACCAACTCTC
Kolpotochirodon_theloura_25982	GTCTGGCACTTTTATTCTC	CATCTAGTCTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	TGACCCCTTACTCAACTCTC
Macropsobrycon_uruguayanae_29061	GTCTGGCACTTCTATTCTC	CATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Odontostilbe_pequirá_24958	GTACTAGCACTCTGTTTTC	TATCTAGTACTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCCTCAACCAACTCTC
Odontostilbe_pequirá_20124	GTACTAGCACTCTTATTCTC	TATCTAGTACTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCCTCAACCAACTCTC
Odontostilbe_pequirá_12659	GTACTAGCACTCTTATTCTC	TATCTAGTACTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCCTCAACCAACTCTC
Acinochirodon_melanogrammus_37551	GTACTAGCACTCTTATTCTC	TATCTAGTACTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCCTTACTCAATTTC
Serrapinnus_heterodon_20305	GTACTAGCACTCTTATTCTC	TATCTAGTACTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCCTTACTCAATTTC
Odontostilbe_sp_2_29616	GTACTAGCACTCTTATTCTC	CATCTAGTACTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCCTCAACCAACTCTC
Kolpotochirodon_figueiredoi_37576	GTCTGGCACTCTTATTCTC	CATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCA	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
1Kolpotochirodon_figueiredoi_37575	GTCTGGCACTCTTATTCTC	CATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCA	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Serrapinnus_kriegi_25764	GTCTGGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Compsura_heterura_24984	GTCTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Gen_e_sp_nova_27603	GTCTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Acinochirodon_cf_melanogrammus_37550	GTCTGGCACTCTTATTCTC	CATCTAGTACTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
1Aphyocheirodon_hemigrammus_40027	GTCTGGCACTCTTATTCTC	CATTTAGTCTTATACTGG	TCCCTTCTTCCACATCGTCT	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Aphyocheirodon_hemigrammus_40025	GTCTGGCACTCTTATTCTC	CATTTAGTCTTATACTGG	TCCCTTCTTCCACATCGTCT	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Tetragonopterus_argenteus_22029	FCCTAGCACTACTTCTTTC	GATCTTATCTTATACTAG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Serrapinnus_notomelas_19890	GTACTAGCACTCTTATTCTC	TATTTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCCTCACTCAGTCC
Serrapinnus_notomelas_18293	GTACTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCCTCACTCAGTCC
Cheirodon_stenodon_20130	GTCTGGCACTCTTATTCTC	CATCTGGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCCTCACTCAATTTC
Serrapinnus_sp_1_22401	GTACTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCCTCACTCAGTCC
Odontostilbe_fugitiva_22932	GTCTAGCACTTCTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Cheirodon_pulcher_8	GTACTAGCACTCTGTTTTC	TATCTGGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCATCTCAGTCC
Odontostilbe_fugitiva_23714	FCCTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Serrapinnus_calliurus_22121	GTACTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Serrapinnus_calliurus_25768	GTACTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATCC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Odontostilbe_ecuadorensis_9	FCCTAGCACTCTTATTCTC	TATCTAGTCTTATACTGG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Cynopotamus_magdalenae_29515	GTCTAGCCCTACTCTTCTC	AATCTAATTTAATACTAG	TACCTTACTTCCACATCC	AAATGCAAGGCTTACATT	CGGACCCATCTCAATTTC
Phenacogaster_sp_27299	GTCTAGCACTACTATTCTC	CATCTTACTTATACTAG	TCCCTTCTTCCACACATC	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Aphyocharacidium_sp_33167	GTCTAGCACTACTATTCTC	AATCTAATTTAATACTAG	TCCCTTCTTCCACACATCA	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Hemibrycon_sp_33168	GTCTGGGCTTACTATTCTC	CATCTAGTCTTATACTAG	TCCCTTCTTCCACACATCA	AAACAACAAGGCTTACATT	CGGACCCATCTCAATTTC
Brycon_insignis_16075	TATTTGATTATTAGTCGCA	GACGTGGCAATCTAACATG	AATGGAGGTATACCTGCA	AGCCCCCTTATCGGCATC	GGCTTAGCAGTCTCCACCTC
Gnatocharax_sp_24494	TATTTGAAACCTAGTCGCA	GACGTATTATTTTAACATG	AATGGAGGTATACCAAGTTG	AACACCCATTATATTATAT	GGCCAAAGTAGCATCCGCTCT
Macropsobrycon_xinguensis_40499	TATTTGGGCCCTAATCGCA	GACATCTTATCTAACATG	AATGGAGGAATGCCGCTAG	AACACCCATTATTTGCATC	GGCAAAATCCCTCAGCTCT
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	TATTTGGGCACTAGTTGCA	GACGTAGCAATCTGACATG	AATGGAGGATACCAAGTTG	AACACCCATTATTTGCATC	GGCAAAATCCCTCAGCTCT
Aphyocharax_anisitsi_12660	TATTTGAGCTCTAGTCGCA	GACGTATAATCTTACATG	AATGGAGGATACCTGTTG	AGCACCATTATTTATATAT	GGCAAAATCCCTCAGCTCT
Carlana_eigenmani_19864	TATTTGAACTTAAATGCT	GATGGTTTTATTCTCACATG	AATGGAGGAATACCAAGTTG	AACACCCCTTATTTATATAT	GGCAAAATCCCTCAGCTCT
Astyanax_mexicanus_24599	TATTTGAGCCCTAGTTGCA	GACGTTTTTATTCTCACATG	AATGGAGGAATACCAAGTTG	AACACCCCTTATTTATATAT	GGCAAAATCCCTCAGCTCT
Spintherobolus_brocceae_22558	TATTTGAACTTATAGTTGCC	GACGTGATAATCTAACATG	AATGGGGGATGCTGTAG	AACACCCCTTATTTATATAT	GGCCAAATGGCTTCTGCTCT
Spintherobolus_leptoura_36098	TATTTGAACTTATAGTTGCC	GACGTGGCAATCTAACATG	AATGGGGGATGCTGTAG	AACACCCCTTATTTATATAT	GGCCAAATGGCTTCTGCTCT
Spintherobolus_ankoseion_24957	TATTTGAACTTATAGTTGCC	GACGTGGCAATCTAACATG	AATGGGGGATGCTGTAG	AACACCCCTTATTTATATAT	GGCCAAATGGCTTCTGCTCT
Charax_leticiae_12700	TATTTGAACTTATAGTTGCC	GACGTGATAATCTAACATG	AATGGGGGATGCTGTAG	AACACCCCTTATTTATATAT	GGCCAAATGGCTTCTGCTCT

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Diapoma_sp_21274	TATTTCTGAACCTGGTGGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Prodontocharax_melanotus_10	TATTTCTGAACCTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Prodontocharax_sp_7	TATTTCTGAACCTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Nanocheiroidon_insignis_27476	TATTTCTGAACCTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Pseudocheiroidon_arnoldi_5	TATTTCTGAACCTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Pseudocheiroidon_terrabaes_6	AATTTTGAGCTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Heterocheiroidon_yatai_24954	TATTTTGAGCACTAGAAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AGCACCC????????????	????????????????????
Cheirodon_killiani_24964	TATTTTGAGCACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cheirodon_australe_24979	TATTTTGAGCACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cheirodon_interruptu_20486	TATTTTGAGCACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cheirodon_killiani_19803	TATTTTGAGCACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cheirodon_killiani_24969	TATTTTGAGCACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cheirodon_australe_24963	TATTTTGAGCACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cheirodon_interruptu_21266	TATTTTGAGCACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cheirodon_ibicuhiensis_25598	TATTTTGAGCACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AGCACCC????????????	????????????????????
Cheirodon_killiani_24974	TATTTTGAGCACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Saccoderma_melanostigma_27475	TATTTTGAGTCTTGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Compsura_gorgonae_1	TATTTTGAGTCTTGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_mitoptera_3	TATTTTGAGTCTTGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Compsura_sp_nova_4	TATTTTGAGTCTTGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_dialepturus_2	TGTTTTGAGTCTTGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_pulchra_25845	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_paraguayensis_20127	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_spl_22626	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Serrapinnus_microdon_17057	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Kolpotocheiroidon_theloura_25982	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Macropsobrycon_uruguayanae_29061	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AGCATCC????????????	????????????????????
Odontostilbe_pequira_24958	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_pequira_20124	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_pequira_12659	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Acinocheiroidon_melanogrammus_37551	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Serrapinnus_heterodon_20305	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_sp2_29616	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Kolpotocheiroidon_figueiredoi_37576	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
1Kolpotocheiroidon_figueiredoi_37575	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Serrapinnus_kriegei_25764	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AGCACCC????????????	????????????????????
Compsura_heterura_24984	TGTTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Gen_e_sp_nova_27603	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Acinocheiroidon_cf_melanogrammus_37550	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
1Aphyocheiroidon_hemigrammus_40027	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Aphyocheiroidon_hemigrammus_40025	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Tetragonopterus_argenteus_22029	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Serrapinnus_notomelas_19890	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Serrapinnus_notomelas_18293	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cheirodon_stenodon_20130	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Serrapinnus_spl_22401	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_fugitiva_22932	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cheirodon_pulcher_8	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_fugitiva_23714	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Serrapinnus_calliurus_22121	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Serrapinnus_calliurus_25768	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Odontostilbe_ecuadorensis_9	TATTTTGAGCCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Cynopotamus_magdalena_29515	TATTTTGAACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AGCACCC????????????	????????????????????
Phenacogaster_sp_27299	TATTTTGAACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Aphyocharacidium_sp_33167	TCTTTTGAGCTTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AACACCC????????????	????????????????????
Hemibrycon_sp_33168	TATTTTGAACTAGTAGCA	GACGTAATATTTTAAACATG	AATCGGAGGAATACCAGTGC	AGCACCC????????????	????????????????????
Brycon_insignis_16075	TTATTTTCACATTTCTCTGC	T????????????????????	????????????????????	????????????????????	????????????????????
Gnatocharax_sp_24494	ATACTTTGCGCTTTTCTCTCA	TTCTCAACCCCTTAGCTGGC	TGACTAGAAAACAACACTACCT	CAACCGGCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Macropsobrycon_xinguensis_40499	CTACTTCGCGCTTATCTCTAA	TTCTCAACCCCTTAGCTGGC	TGACTAGAAAACAACACTACCT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	ATACTTCGCATTTCTCTCTAA	TTCTCAACCCCTTAGCTGGC	TGACTAGAAAACAACACTACCT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Aphyocharax_anisitsi_12660	ATA??TGGAGCTTCCCTTAA	CCCCCAACCCCTTAGCTGGC	TTCTTGAACCAAGAGATC	GGAGGTTTCAACCAAGAGA	GTTATCCAGTATTTGCGAAG
Carlana_eigenmani_19864	CTACTTTTCAATTTTCTCTGC	TTCTCAACCCCTTAGCTGGC	TTAGTAGAAAACAAA?????	????????????????????	????????????????????
Astyanax_mexicanus_24599	TATTTTTCATTTTCTCTCTCA	TTCTCAACCCCTTAGCTGGC	CTTGTAGAAAACAAAATTTCT	CAA????????????????	????????????????????
Spintherobolus_brocceae_22558	TTACTTTGCATTTCTCTGCTG	TTCTCAACCCCTTAGCTGGC	TCAGTAGAAAATTAATAAT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Spintherobolus_leptoura_36098	TTACTTTTACATTTCTCTGCTG	TTCTCAACCCCTTAGCTGGC	TTATAGAAAATAAATTAAT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Spintherobolus_ankoseion_24957	TTACTTTTACATTTCTCTGCTG	TTCTCAACCCCTTAGCTGGC	TTAGTAGAAAATAAATTAAT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Charax_leticiae_12700	TTATTTTGCATTTCTCTCTCA	TTCTCAACCCCTTAGCTGGC	TTACTAGAGAATAAATTCCT	T????????????????	????????????????
Diapoma_sp_21274	????????????????????	????????????????????	????????????????????	????????????????	????????????????
Prodontocharax_melanotus_10	TTACTTCGCAGTATTTCTCTG	TTCTCAACCCCTTAGCTGGC	TGGGCAGAAAACAAAACACT	CAGCTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Prodontocharax_sp_7	TTACTTCGCAGTATTTCTCTG	TTCTCAACCCCTTAGCTGGC	TGAGCAGCGCAAAAAGACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Nanocheiroidon_insignis_27476	TTACTTTTAAATTTCTCTCTAA	TTCTCAACCCCTTAGCTGGC	TGGGTAGAAAACAAGACACT	TAATCGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Pseudocheiroidon_arnoldi_5	CTACTTCGCAGTATTTCTCTG	TTCTCAACCCCTTAGCTGGC	TGAGCAGAAAATAAACAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Pseudocheiroidon_terrabaes_6	TTACTTTTTCAGTATTTCTCTA	TTCTCAACCCCTTAGCTGGC	AGGGCAGGAAAATAAACAACCT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Heterocheiroidon_yatai_24954	ATACTTCGCAGTATTTCTCTA	TTCTCAACCCCTTAGCTGGC	TGAGCAGAAAATAAACAACACT	TAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG

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Cheirodon_killiani_24964	TTACTTTACAGTATTTCTTG	TTCTCAACCCCTTAATGGC	TGAGCAGAAAAAAAACACT	TAAGTATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Cheirodon_australe_24979	GTACTTTGAGTATTTATTG	TTCTAACCCCTTAATGGC	TGAGCAGAAAAACGAAACACT	TAAGTATCTT????????	????????????????????
Cheirodon_interruptu20486	TTACTTTGAGTATTTCTTG	TTCTCAACCCCTTAATGGC	TGAGCAGAAAAAAAACACT	TAAGTATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Cheirodon_killiani_19803	TTACTTTACAGTATTTCTTG	TTCTCAACCCCTTAATGGC	TGAGCAGAAAAAAAACACT	TAAGTATCTT????????	????????????????????
Cheirodon_killiani_24969	TTACTTTACAGTATTTCTTG	TTCTCAACCCCTTAATGGC	TGAGCAGAAAAAAAACACT	TAAGTATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Cheirodon_australe_24963	TTACTTTGAGTATTTCTTG	TTCTCAACCCCTTAATGGC	TGAGCAGAAAAAAAACACT	TAAGTATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Cheirodon_interruptus_21266	TTACTTTGAGTATTTCTTG	TTCTCAACCCCTTAATGGC	TGAGCAGAAAAAAAACACT	TAAGTATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Cheirodon_ibicuhiensis_25598	TTACTTTGAGTATTTCTTG	TTCTCAACCCCTTAATGGC	TGAGCAGAAAAACGAAACACT	TAAGTATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Cheirodon_killiani_24974	TTACTTTACAGTATTTCTTG	TTCTCAACCCCTTAATGGC	TGAGCAGAAAAAAAACACT	TAAGTATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Saccoderma_melanostigma_27475	CTACTTTGAGTGTCTCTCG	TTCTCAACCCCTTAGCTGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Compsura_gorgonae_1	CTACTTTGAGTGTCTCTCG	TTCTCAACCCCTTAGCTGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTT????????	????????????????????
Odontostilbe_mitoptera_3	CTACTTTGAGTGTCTCTCG	TTCTCAACCCCTTAGCTGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTT????????	????????????????????
Compsura_sp_nova_4	TTATTTTGAGTGTCTCTCG	TTCTCAACCCCTTAGCTGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTT????????	????????????????????
Odontostilbe_dialepturus_2	TTACTTTGAGTGTCTCTCG	TTCTCAACCCCTTAGCTGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTT????????	????????????????????
Odontostilbe_pulchra_25845	TTACTTTGCCCTTATTCCTCA	TTCTAAACCCCTTAGCCGGC	TGGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Odontostilbe_paraguayensis_20127	TTATTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Odontostilbe_sp1_22626	TTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Serrapinnus_microdon_17057	TTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Kolpotocheirodon_theloura_25982	TTACTTTACAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Macropsobrycon_uruguayanae_29061	TTACTTTGCCGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Odontostilbe_pequirara_24958	TTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Odontostilbe_pequirara_20124	TTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Odontostilbe_pequirara_12659	TTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Acinocheirodon_melanogrammus_37551	TTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Serrapinnus_heterodon_20305	TTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Odontostilbe_sp2_29616	TTACTTTGCCGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Kolpotocheirodon_figueiredoi_37576	TTACTTTGCCGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	TAAGTATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
1Kolpotocheirodon_figueiredoi_37575	TTACTTTGCCGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Serrapinnus_kriegi_25764	CTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Compsura_heterura_24984	TTATTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Gen_e_sp_nova_27603	CTATTTGAGTCTTCTCTCG	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTT????????	????????????????????
Acinocheirodon_cf_melanogrammus_37550	TTATTTGCCGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
1Aphyocheirodon_hemigrammus_40027	TTATTTGCCGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTT????????	????????????????????
Aphyocheirodon_hemigrammus_40025	TTATTTGCCGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTT????????	????????????????????
Tetragonopterus_argenteus_22029	????????????????????	????????????????????	????????????????????	????????????ACCAAGAGA	GTTATCCAGTATTTGCGAAG
Serrapinnus_notomelas_19890	CTATTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Serrapinnus_notomelas_18293	CTATTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Cheirodon_stenodon_20130	CTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Serrapinnus_sp1_22401	CTATTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAAGTATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Odontostilbe_fugitiva_22932	TTATTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAACAGAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Cheirodon_pulcher_8	TTACTTTGCCGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTT????????	????????????????????
Odontostilbe_fugitiva_23714	TTATTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCTGGC	TGAGCAGAAAAACAGAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Serrapinnus_calliurus_22121	CTATTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Serrapinnus_calliurus_25768	CTATTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Odontostilbe_ecuadorensis_9	TTATTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCCGGC	TGAGCAGAAAAAAAACACT	CAACTGATCTTACCAAGAGA	GTTATCCAGTATTTGCGAAG
Cynopotamus_magdalenae_29515	????????????????????	????????????????????	????????????????????	????????????CCCAAGAGA	GTTATCCAGTATTTGCGAAG
Phenacogaster_sp_27299	TTACTTTGAGTCTTCTCTCG	TTCTCAACCCCTTAGCTGGC	CTACTAGAGAACACTCACT	TAATGACACTACCAAGAGA	GTTATCCAGTATTTGCGAG
Aphyocharacidium_sp_33167	CTACTTTGAGTATTTCTCTCA	TTCTAAACCCCTTAGCTGGC	TTAGCTGAAAATA???????	????????????ACCAAGAGA	GTTATCCAGTATTTGCGAAG
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????ACCAAGAGA	GTTATCCAGTATTTGCGAAG
Brycon_insignis_16075	????????????????????	????????AAAGAAGGCTCA	AACAAGGGCACCTGGAGGA	CCAAATCATGGAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Gnatocharax_sp_24494	TATTGCAGCTGCTGGAGGAT	CTGTGGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	CCAAATCATCCAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Macropsobrycon_xinguensis_40499	TATTGCAGCTGCTGGAGGAT	CTGTGGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	CCAAATCATCCAGGCAATC	CTGCCTTGAGGCTTTTGGC
Bryconops_affinis_4168	TATTGCAGCTGCTGGAGGAT	CTGTGGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	CCAAATCATCCAGGCAATC	CAGCCTTGAGGCTTTTGGC
Chalceus_epakros_26504	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharax_anisitsi_12660	TATTGCAGCTGCTGGAGGAT	CTTCTGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATCCAGGCAATC	CTGCCTTGAGGCTTTTGGC
Carlana_eigenmani_19864	TATTGCAGCTGCTGGAGGAT	CTTCTGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATCCAGGCAATC	CTGCCTTGAGGCTTTTGGC
Astyanax_mexicanus_24599	TATTGCAGCTGCTGGAGGAT	CTTCTGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATCCAGGCAATC	CTGCCTTGAGGCTTTTGGC
Spintherobolus_brocae_22558	TATTGCAGCTGCTGGAGGAT	CTTCTGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATCCAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Spintherobolus_leptoura_36098	TATTGCAGCTGCTGGAGGAT	CTTCTGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	CCAAATCATCCAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Spintherobolus_ankoseion_24957	TATTGCAGCTGCTGGAGGAT	CTTCTGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	CCAAATCATCCAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Charax_leticiae_12700	TATTGCAGCTGCTGGAGGAT	CTTCTGCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATCCAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Diapoma_sp_21274	TATTGCAGCTGCTGGAGGAT	CTTCTAGCAAGAAGGACTCA	AGCAAGGGCACCTGGAGGA	TCAAATCATCCAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Prodontocharax_melanotus_10	TATTGCAGCTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATCCAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Prodontocharax_sp_7	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Nanocheirodon_insignis_27476	TATTGCAGCTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATCCAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Pseudocheirodon_arnoldi_5	TATTGCAGCTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATCCAGGCTAATC	CAGCCTTGAGGCTTTTGGC
Pseudocheirodon_terrabaes_6	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Heterocheirodon_yatai_24954	TATTGCAGCTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATCCAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Cheirodon_killiani_24964	TATTGCAGCTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATACAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Cheirodon_australe_24979	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_interruptu20486	TATTGCAGCTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATACAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Cheirodon_killiani_19803	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_killiani_24969	TATTGCAGCTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATACAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Cheirodon_australe_24963	TATTGCAGCTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATACAGGCTAATC	CTGCCTTGAGGCTTTTGGC
Cheirodon_interruptus_21266	TATTGCAGCTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTGGAGGA	TCAAATCATACAGGCTAATC	CTGCCTTGAGGCTTTTGGC

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Cheirodon_ibicuihensis_25598	TATTGCCGTGCTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAATC	CTGCACCTTGGAGCCCTTTGGC
Cheirodon_killiani_24974	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAATC	CTGCACCTTGGAGCCCTTTGGC
Saccoderma_melanostigma_27475	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAATC	CTGCACCTTGGAGCCCTTTGGC
Compsura_gorgonae_1	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_mitoptera_3	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Compsura_sp_nova_4	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_dialepturus_2	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_pulchra_25845	TATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Odontostilbe_paraguayensis_20127	TATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACTCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Odontostilbe_sp1_22626	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAATC	CTGCACCTTGGAGCCCTTTGGC
Serrapinnus_microdon_17057	CATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Kolpotocheirodon_theloura_25982	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Macropsobrycon_uruguayanae_29061	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Odontostilbe_pequirá_12458	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Odontostilbe_pequirá_20124	CATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Odontostilbe_pequirá_12659	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Acinocheirodon_melanogrammus_37551	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGATGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Serrapinnus_heterodon_20305	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGATGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Odontostilbe_sp2_29616	CATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Kolpotocheirodon_figueiredoi_37576	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
1Kolpotocheirodon_figueiredoi_37575	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Serrapinnus_kriegei_25764	TATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Compsura_heterura_24984	CATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Gen_e_sp_nova_27603	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Acinocheirodon_cf_melanogrammus_37550	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Serrapinnus_notomelas_19890	CATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Serrapinnus_notomelas_18293	CATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Cheirodon_stenodon_20130	TATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Serrapinnus_sp1_22401	CATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Odontostilbe_fugitiva_22932	CATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Cheirodon_pulcher_8	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_fugitiva_23714	CATTGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Serrapinnus_calliurus_22121	TATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Serrapinnus_calliurus_25768	CATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Odontostilbe_ecuadorensis_9	TATCGCAGCTGTGGAGGAT	CTGCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Cynopotamus_magdalenae_29515	TATTGCAGCTGTGGAGGAT	CTTCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Phenacogaster_sp_27299	TATTGCAGCTGTGGAGGAT	CTTCTGTCAAGAAGGACGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Aphyocharacidium_sp_33167	TATTGCAGCTGTGGAGGAT	CTTCTGTCAAGAAGGATGCA	AACAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Hemibrycon_sp_33168	TATTGCAGCTGTGGAGGAT	CTTCTGTCAAGAAGGACGCA	AGCAAGGGCACCTTGGAGGA	TCAAATCATACAGGCTAACC	CTGCACCTTGGAGCCCTTTGGC
Brycon_insignis_16075	AATGCCAAAACATAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Gnatocharax_sp_24494	AATGCCAAAACACTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Macropsobrycon_xinguensis_40499	AATGCCAAAACAGTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Bryconops_affinis_4168	AATGCCAAAACATTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Chalceus_epakros_26504	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharax_anisitsi_12654	AACGCCAAAACAGTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Carlana_eigenmani_19864	AACGCCAAAACAGTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Astyanax_mexicanus_24599	AACGCCAAAACAGTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Spintherobolus_brocceae_22558	AATGCCAAAACACTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Spintherobolus_leptoura_36098	AATGCCAAAACACTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Spintherobolus_ankoseion_24957	AATGCCAAAACACTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Charax_leticia_12700	AACGCCAAAACCTTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Diapoma_sp_21274	AACGCCAAAACCTTAAGAAA	TGACAACTCGTCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Prodontocharax_melanotus_10	AACGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Prodontocharax_sp_7	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Nanocheirodon_insignis_27476	AATGCCAAAACCGTGAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Pseudocheirodon_arnoldi_5	AATGCCAAAACCGTGAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Pseudocheirodon_terrabae_6	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Heterocheirodon_yatai_12464	AATGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Cheirodon_killiani_24964	AATGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Cheirodon_australe_24979	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_interruptus_21266	AATGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Cheirodon_killiani_19803	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_killiani_24969	AATGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Cheirodon_australe_24963	AATGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Cheirodon_interruptus_21266	AATGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Cheirodon_ibicuihensis_25598	AATGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Cheirodon_killiani_24974	AATGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Saccoderma_melanostigma_27475	AATGCCAAAACCGCAAGAAA	TGACAACTCATCTCGTTTTG	GAAAGTTTATCCGGATTATC	TTTGGAAACAAGCGGTAACCT	TTCTTCAGCTGACATTTGAAA
Compsura_gorgonae_1	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_mitoptera_3	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Compsura_sp_nova_4	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_dialepturus_2	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????

Odontostilbe_pulchra_25845	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCGACATCGAAA
Odontostilbe_paraguayensis_20127	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATTGAAA
Odontostilbe_spl_22626	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATTGAAA
Serrapinnus_microdon_17057	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGATATCGAAA
Kolpotocheiroidon_theloura_25982	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Macropsobrycon_uruguayanae_29061	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Odontostilbe_pequira_24958	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Odontostilbe_pequira_20124	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Odontostilbe_pequira_12659	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATTGAAA
Acinocheiroidon_melanogrammus_37551	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Serrapinnus_heterodon_20305	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Odontostilbe_sp2_29616	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Kolpotocheiroidon_figueiredoi_37576	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
1Kolpotocheiroidon_figueiredoi_37575	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Serrapinnus_kriegi_25764	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Compsura_heterura_24984	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Gen_e_sp_nova_27603	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Acinocheiroidon_cf_melanogrammus_37550	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
1Aphyocheiroidon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheiroidon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_stenodon_22029	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Serrapinnus_notomelas_19890	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Serrapinnus_notomelas_18293	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Cheirodon_stenodon_20130	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Serrapinnus_spl_22401	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Odontostilbe_fugitiva_22932	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Cheirodon_pulcher_8	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_fugitiva_23714	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Serrapinnus_calliurus_22121	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Serrapinnus_calliurus_25768	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Odontostilbe_ecuadorensis_9	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Cynopotamus_magdaleneae_29515	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Phenacogaster_sp_27299	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Aphyocharacidium_sp_33167	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Hemibrycon_sp_33168	AATGCCAAAACGGTGAGAAA	TGACAACTCATCTCGTTTCG	GAAAGTTTATCCGGATTAC	TTTGGAAACAAGCGGCAAACT	TTCTTCAGCTGACATCGAAA
Brycon_insignis_16075	CGTATCTGCTGAAAAGTCA	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Gnatocharax_sp_24494	CATACCTCTGGAAGAGTCA	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Macropsobrycon_xinguensis_40499	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Bryconops_affinis_4168	CATACCTCTGGAAGAGTCA	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Chalceus_epakros_26504	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharax_anisitsi_12660	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Carlana_eigenmani_19864	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AGTGCAAAAGCCAGAGCTGCT
Astyanax_mexicanus_24599	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Spintherobolus_brocaeae_22558	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Spintherobolus_leptoura_36098	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Spintherobolus_ankoseion_24957	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Charax_leticiaiae_12700	CGTATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Diapoma_sp_21274	CGTATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Prodontocharax_melanotus_10	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Prodontocharax_sp_7	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Nanocheiroidon_insignis_27476	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Pseudocheiroidon_arnoldi_5	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Pseudocheiroidon_terrabae_6	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Heterocheiroidon_yatai_24954	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Cheirodon_killiani_24964	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Cheirodon_australe_24979	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_interruptu_20486	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Cheirodon_killiani_19803	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_killiani_24969	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Cheirodon_australe_24963	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Cheirodon_interruptu_21266	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Cheirodon_ibicuhiensis_25598	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Cheirodon_killiani_24974	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Saccoderma_melanostigma_27475	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AGTGCAAAAGCCAGAGCTGCT
Compsura_gorgoneae_1	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_mitoptera_3	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Compsura_sp_nova_4	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_dialepturus_2	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_pulchra_25845	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Odontostilbe_paraguayensis_20127	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Odontostilbe_spl_22626	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Serrapinnus_microdon_17057	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Kolpotocheiroidon_theloura_25982	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Macropsobrycon_uruguayanae_29061	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT
Odontostilbe_pequira_24958	CATATCTGCTGAAAAGTCC	CGTGTACCTTTTCAGCTAAA	ATCAGAAAAGAACTACCACA	TCTTTTCCAGATATTATCC	AATGCAAAAGCCAGAGCTGCT

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Odontostilbe_pequira_20124	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Odontostilbe_pequira_12659	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Acinocheirodon_melanogrammus_37551	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Serrapinnus_heterodon_20305	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Odontostilbe_sp2_29616	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Kolpotocheirodon_figueiredoi_37576	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
1Kolpotocheirodon_figueiredoi_37575	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Serrapinnus_kriegi_25764	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Compsura_heterura_24984	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Gen_e_sp_nova_27603	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Acinocheirodon_cf_melanogrammus_37550	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	CATATCTGCTGGAAAAGTCC	CGAGTTACCTTTCCAGCTGAA	ATCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Serrapinnus_notomelas_19890	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Serrapinnus_notomelas_18293	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Cheirodon_stenodon_20130	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Serrapinnus_sp1_22401	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Odontostilbe_fugitiva_22932	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Cheirodon_pulcher_8	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_fugitiva_23714	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Serrapinnus_calliurus_22121	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Serrapinnus_calliurus_25768	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Odontostilbe_ecuadorensis_9	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Cynopotamus_magdaleneae_29515	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	AGCTGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Phenacogaster_sp_27299	CATATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	ATCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AGTGCAGAAAGCCAGAGCTGCT
Aphyocharacidium_sp_33167	CATATCTGCTGGAAAAGTCC	CGCGTTACCTTTCCAGCTGAA	GTCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Hemibrycon_sp_33168	CGTATCTGCTGGAAAAGTCC	CGTGTACCTTTCCAGCTGAA	ATCAGAAAGAACTACCACA	TCTTTTCCAGATCTTATCC	AATGCAAAAGCCAGAGCTGCT
Brycon_insignis_16075	GGATATGCTGCTGATTACAA	ACAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGCTAGCC
Gnatocharax_sp_24494	GGATATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Macropsohbrycon_xinguensis_40499	GGATATGCTGCTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Bryconops_affinis_4168	GGATATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Chalceus_epakros_26504	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharax_anisitsi_12660	GGATATGCTGCTGATTACAA	ACAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Carlana_eigenmani_19864	GGATATGCTGCTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Astyanax_mexicanus_24591	GGATATGCTGCTGATTACAA	ACAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Spintherobolus_brocceae_22558	GGATATGCTGCTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Spintherobolus_leptoura_36098	GGATATGCTGCTGATTACAA	ACAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Spintherobolus_ankoseion_24957	GGATATGCTGCTGATTACAA	ACAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Charax_leticiae_12700	GGATATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Diapoma_sp_21274	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Prodontocharax_melanotus_10	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Prodontocharax_sp_7	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Nanocheirodon_insignis_27476	GGACATGCTGTTGATTACAA	ACAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Pseudocheirodon_arnoldi_5	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Pseudocheirodon_terrabeae_6	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Heterocheirodon_yatai_24954	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Cheirodon_killiani_24964	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Cheirodon_australe_24979	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_interruptu_20486	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Cheirodon_killiani_19803	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_killiani_24969	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Cheirodon_australe_24963	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Cheirodon_interruptu_21266	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Cheirodon_ibicuhiensis_25598	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Cheirodon_killiani_24974	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Saccoderma_melanostigma_27475	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Compsura_gorgoneae_1	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_mitoptera_3	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Compsura_sp_nova_4	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_dialepturus_2	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_pulchra_25845	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Odontostilbe_paraguayensis_20127	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Odontostilbe_sp1_22626	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Serrapinnus_microdon_17057	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Kolpotocheirodon_theloura_25982	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Macropsohbrycon_uruguayanae_29061	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Odontostilbe_pequira_24958	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Odontostilbe_pequira_20124	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Odontostilbe_pequira_12659	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Acinocheirodon_melanogrammus_37551	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Serrapinnus_heterodon_20305	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Odontostilbe_sp2_29616	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
Kolpotocheirodon_figueiredoi_37576	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC
1Kolpotocheirodon_figueiredoi_37575	GGACATGCTGTTGATTACAA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGCGAGGAGCTGTTAGCC

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Serrapinnus_kriegei_25764	GGACATGCTGTTGATTACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Compsura_heterura_24984	GGACATGCTGTTGATTACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Gen_e_sp_nova_27603	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Acinocheirodon_cf_melanogrammus_37550	GGACATGCTGTTGATTACGA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGTGGAGGAGCTGCTAGCC
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	GGATATGCTGTTGATTACAA	ATAATCCCTATGATTACTCG	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACACGGAGGAGCTGCTAGCC
Serrapinnus_notomelas_19890	GGACATGCTGTTGATAACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Serrapinnus_notomelas_18293	GGACATGCTGTTGATAACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Cheirodon_stenodon_20130	GGACATGCTGTTGATTACGA	ATAATCCCTATGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACAGTGGAGGAGCTGCTAGCC
Serrapinnus_sp1_22401	GGACATGCTGTTGATTACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Odontostilbe_fugitiva_22932	GGACATGCTGTTGATTACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Cheirodon_pulcher_8	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_fugitiva_23714	GGACATGCTGTTGATTACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Serrapinnus_calliurus_22121	GGACATGCTGTTGATTACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Serrapinnus_calliurus_25768	GGACATGCTGTTGATTACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Odontostilbe_ecuadorensis_9	GGACATGCTGTTGATTACGA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGCATCAATG	ACACGGAGGAGCTGCTAGCC
Cynopotamus_magdalena_29515	GGATATGCTGTTGATTACAA	ATAATCCCTACGATTACTCG	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACTGTGGAGGAGTCTGCTAGCC
Phenacogaster_sp_27299	GGATATGCTGTTGATTACAA	ATAATCCCTACGATTACTCG	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACACGGAGGAGCTGCTAGCC
Aphyocharacidium_sp_33167	GGATATGCTGTTGATTACAA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACACGGAGGAGTCTGCTAGCC
Hemibrycon_sp_33168	GGATATGCTGTTGATTACAA	ATAATCCCTACGATTACTCT	TACATCTCCCAAGGAGAAGT	AACTGTTGCAAGTATCAATG	ACACGGAGGAGTCTGCTAGCC
Brycon_insignis_16075	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGATTGGTCCATCATGCA	TTACGGTAACATGAAGTTCA
Gnatocharax_sp_24494	ACCGATAGTGCCTTTGACGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	CTAAGTGGTCTATCATGCA	CTATGGTAATGAAGTTCA
Macropsobrycon_xinguensis_40499	ACTGACAGTGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCTATCATGCA	TTATGGGAACATGAAGTTCA
Bryconops_affinis_4168	ACCGATAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	CTATGGTAACATGAAGTTCA
Chalceus_epakros_26504	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharax_anisitsi_12660	ACTGACAGTGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCTATCATGCA	TTATGGGAACATGAAGTTCA
Carlana_eigenmani_19864	ACTGACAGTGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCTATCATGCA	TTATGGGAACATGAAGTTCA
Astyanax_mexicanus_24599	ACTGACAGTGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTATGGGAACATGAAGTTCA
Spintherobolus_brocceae_22558	ACCGACAGTGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Spintherobolus_leptoura_36098	ACCGACAGTGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTATGGGAACATGAAGTTCA
Spintherobolus_ankoseion_24957	ACCGACAGTGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTATGGGAACATGAAGTTCA
Charax_leticiae_12700	ACAGACAATGCCTTTGATGT	TCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	CTGATTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Diapoma_sp_21274	ACCGACAGTGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	CTATGGGAACATGAAGTTCA
Prodontocharax_melanotus_10	ACCGACAGTGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Prodontocharax_sp_7	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Nanocheirodon_insignis_27476	ACAGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Pseudocheirodon_arnoldi_5	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Pseudocheirodon_terrabae_6	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Heterocheirodon_yatai_24954	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Cheirodon_killiani_24964	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Cheirodon_austroale_24979	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_interruptu20486	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Cheirodon_killiani_19803	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_killiani_24969	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Cheirodon_austroale_24963	ACAGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Cheirodon_interruptu_21266	ACAGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Cheirodon_libichuensis_25598	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Cheirodon_killiani_24974	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Saccoderma_melanostigma_27475	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTACGGGAACATGAAGTTCA
Compsura_gorgonae_1	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_mitoptera_3	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Compsura_sp_nova_4	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_dialepturus_2	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_pulchra_25845	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Odontostilbe_paraguayensis_20127	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Odontostilbe_sp1_22626	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Serrapinnus_microdon_17057	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Kolpotocheirodon_theloura_25982	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Macropsobrycon_uruguayanae_29061	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Odontostilbe_pequira_24958	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Odontostilbe_pequira_20124	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Odontostilbe_pequira_12659	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Acinocheirodon_melanogrammus_37551	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Serrapinnus_heterodon_20305	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGATCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Odontostilbe_sp2_29616	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGATCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Kolpotocheirodon_figueiredoi_37576	ACAGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
1Kolpotocheirodon_figueiredoi_37575	ACAGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Serrapinnus_kriegei_25764	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Compsura_heterura_24984	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
Gen_e_sp_nova_27603	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Acinocheirodon_cf_melanogrammus_37550	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGTCTATCATGCA	TTACGGGAACATGAAGTTCA
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	ACCGACAATGCCTTTGATGT	GCTTGGTTTCACTCCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCTATCATGCA	TTATGGGAACATGAAGTTCA

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Serrapinnus_notomelas_19890	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGGTGCTATCATGCA	TTACCGGAACATGAAGTTCA
Serrapinnus_notomelas_18293	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGGTGCTATCATGCA	TTACCGGAACATGAAGTTCA
Cheirodon_stenodon_20130	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	TTGACCGGTGCTATCATGCA	TTACCGGAACATGAAGTTCA
Serrapinnus_spl_22401	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGGTGCTATCATGCA	TTACCGGAACATGAAGTTCA
Odontostilbe_fugitiva_22932	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGGTGCTATCATGCA	TTACCGGAACATGAAGTTCA
Cheirodon_pulcher_8	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_fugitiva_23714	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGGTGCTATCATGCA	TTACCGGAACATGAAGTTCA
Serrapinnus_calliurus_22121	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGGTGCTATCATGCA	TTACCGGAACATGAAGTTCA
Serrapinnus_calliurus_25768	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGGTGCTATCATGCA	TTACCGGAACATGAAGTTCA
Odontostilbe_ecuadorensis_9	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	CTGACCGGTGCTATCATGCA	TTACCGGAACATGAAGTTCA
Cynopotamus_magdaleneae_29515	ACAGACAACGCGTTGATG	TCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGCGCATCATGCA	TTACCGGAACATGAAGTTCA
Phenacogaster_sp_27299	ACAGACAATGCCTTTGATG	TCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	CTGACTGGTCCATCATGCA	TTATGGGAACATGAAGTTCA
Aphyocheiracidium_sp_33167	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTATGGGAACATGAAGTTCA
Hemibrycon_sp_33168	ACCGACAATGCCTTTGATG	GCTTGGTTTCACACCAGATG	AGAAGATGGGAGTGTACAAA	TTGACTGGTCCATCATGCA	TTATGGGAACATGAAGTTCA
Brycon_insignis_16075	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Gnatocharax_sp_24494	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CTTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Macropodichthys_xinguensis_40499	AGCAAAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Bryconops_affinis_4168	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Chalceus_epakros_26504	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheiracidium_sp_12660	AGCAAAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Carlsana_eigenmani_19864	AGCAAAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Astyanax_mexicanus_24599	AGCAAAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Spintherobolus_brocceae_22558	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Spintherobolus_leptoura_36098	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Spintherobolus_ankoseian_24957	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Charax_leticiae_12700	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Diapoma_sp_21274	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Prodontocharax_melanotus_10	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Prodontocharax_sp_7	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Nanocheirodon_insignis_27476	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Pseudocheirodon_arnoldi_5	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Pseudocheirodon_terrabaee_6	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Heterocheirodon_yatai_24954	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cheirodon_killiani_24964	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cheirodon_australe_24979	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_interruptu20486	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cheirodon_killiani_19803	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheirodon_killiani_24969	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cheirodon_australe_24963	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cheirodon_interruptu_21266	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cheirodon_ibicuhiensis_25598	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cheirodon_killiani_24974	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Saccoderma_melanostigma_27475	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cmpsura_gorgoneae_1	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_mitoptera_3	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cmpsura_sp_nova_4	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_dialepturus_2	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_pulchra_25845	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Odontostilbe_paraguayensis_20127	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Odontostilbe_spl_22626	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Serrapinnus_microdon_17057	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Kolpotocheirodon_theioura_25982	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Macropodichthys_uruguayanae_29061	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Odontostilbe_pequirá_24958	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Odontostilbe_pequirá_20124	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Odontostilbe_pequirá_12659	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Acinocheirodon_melanogrammus_37551	AGCAAAAGCAGCGTGAGGAA	CAGGCTGAGCCGATGGTAC	AGAAGCTGTGACAAATCTG	CATACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Serrapinnus_heterodon_20305	AGCAAAAGCAGCGTGAGGAA	CAGGCTGAGCCGATGGTAC	AGAAGCTGTGACAAATCTG	CATACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Odontostilbe_sp2_29616	AGCAAAAGCAGCGTGAGGAA	CAGGCTGAGCCGATGGTAC	AGAAGCTGTGACAAATCTG	CATACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Kolpotocheirodon_figueiredoi_37576	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
1Kolpotocheirodon_figueiredoi_37575	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Serrapinnus_kriegi_25764	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cmpsura_heterura_24984	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Gen_e_sp_nova_27603	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Acinocheirodon_cf_melanogrammus_37550	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Serrapinnus_notomelas_19890	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Serrapinnus_notomelas_18293	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cheirodon_stenodon_20130	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Serrapinnus_spl_22401	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Odontostilbe_fugitiva_22932	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Cheirodon_pulcher_8	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_fugitiva_23714	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGATGGTAC	AGAAGCTGTGACAAATCTG	CCTACCTAATGGGGCTGAAC	TCTGCAGATCTTCTGAAGGG

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Serrapinnus_calliurus_22121	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCTGACGGCAC	AGAAGCTGCTGACAAGTCTG	CTTACCTAATGGGACTGAAC	TCTGCGGATCTTCTGAAGGG
Serrapinnus_calliurus_25768	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCTGACGGCAC	AGAAGCTGCTGACAAGTCTG	CCTACCTAATGGGACTGAAC	TCTGCAGATCTTCTGAAGGG
Odontostilbe_ecuadorensis_9	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCCGACGGCAC	AGAAGCTGCTGACAAGTCTG	CCTACCTAATGGGACTGAAC	TCTGCAGATCTTCTGAAGGG
Cynopotamus_magdalanae_29515	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCTGATGGTAC	AGAAGCTGCTGACAAGTCTG	CTTATCTAATGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Phenacogaster_sp_27299	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCTGATGGTAC	AGAAGCTGCTGACAAGTCTG	CCTACCTAATGGGCTGAAC	TCTGCAGATCTTCTGAAGGG
Aphyocharacidium_sp_33167	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCTGATGGTAC	AGAAGCTGCTGACAAGTCTG	CCTACCTAATGGGACTGAAC	TCTGCAGATCTTCTGAAGGG
Hemibrycon_sp_33168	AGCAGAAGCAGCGTGAGGAA	CAGGCTGAACCTGATGGTAC	AGAAGCTGCTGACAAGTCTG	CCTACCTAATGGGACTGAAC	TCTGCAGATCTTCTGAAGGG
Brycon_insignis_16075	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	????????????????????	????????????????????
Gnatocharax_sp_24494	GCTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Macropsobrycon_kinguensis_40499	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	AC?AAGGGTCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Bryconops_affinis_4168	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Chalceus_epakros_26504	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharax_anisitsi_12660	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Carlana_eigenmani_19864	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Astyanax_mexicanus_24599	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Spintherobolus_brocceae_22558	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Spintherobolus_leptoura_36098	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Spintherobolus_ankoseion_24957	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Charax_leticia_12700	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Diapoma_sp_21274	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Prodontocharax_melanotus_10	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Prodontocharax_sp_7	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Nanocheiroidon_insignis_27476	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Pseudocheiroidon_arnoldi_5	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Pseudocheiroidon_terrabae_6	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Heterochiroidon_yatai_24954	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Cheiroidon_killiani_24964	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Cheiroidon_austriale_24979	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheiroidon_interruptus_20486	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Cheiroidon_killiani_19803	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Cheiroidon_killiani_24969	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Cheiroidon_austriale_24963	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Cheiroidon_interruptus_21266	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Cheiroidon_ibicuiensis_25598	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Cheiroidon_killiani_24974	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Saccoderma_melanostigma_27475	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Compsura_gorgonae_1	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_mitoptera_3	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Compsura_sp_nova_4	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_dialepturus_2	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_pulchra_25845	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Odontostilbe_paraguayensis_20127	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Odontostilbe_spl_22626	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Serrapinnus_microdon_17057	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Kolpotocheiroidon_theloura_25982	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Macropsobrycon_uruguayanae_29061	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Odontostilbe_pequirá_24958	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Odontostilbe_pequirá_20124	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Odontostilbe_pequirá_12659	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Acinocheiroidon_melanogrammus_37551	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Serrapinnus_heterodon_20305	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Odontostilbe_sp_29616	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Kolpotocheiroidon_figueiredoi_37576	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
1Kolpotocheiroidon_figueiredoi_37575	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Compsura_heterura_24984	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Gen_e_sp_nova_27603	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Acinocheiroidon_cf_melanogrammus_37550	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
1Aphyochiroidon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyochiroidon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Serrapinnus_notomelas_19890	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Serrapinnus_notomelas_18293	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Cheiroidon_stendon_20130	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Serrapinnus_spl_22401	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Odontostilbe_fugitiva_22932	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Cheiroidon_pulcher_8	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Odontostilbe_fugitiva_23714	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Serrapinnus_calliurus_22121	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	????????????????????	????????????????????	????????????????????
Serrapinnus_calliurus_25768	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Odontostilbe_ecuadorensis_9	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Cynopotamus_magdalanae_29515	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Phenacogaster_sp_27299	TCTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Aphyocharacidium_sp_33167	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG
Hemibrycon_sp_33168	ACTCTGCCATCCAAGGGTCA	AGGTAGGAAATGAATATGTC	ACAAAAGGCCAAGGTGTGGA	TCAAGTACTACTACTCTG	GTGCCTGGCTAAGTCAGTG

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Brycon_insignis_16075	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACCCTGAGAAG	GAGCTTCTCCCTGGCTTCCA	TCAGTTTGATGGCAGCCAG
Gnatocharax_sp_24494	TATGAGAAGATGTTCAACTG	G????????????????????	????????????????????	????????????????????	????????????????????
Macropsobrycon_xinguensis_40499	TATGAGAAGATGTTCAACTG	G????????????????????	????????????????????	????????????????????	????????????????????
Bryconops_affinis_4168	TATGAGAAGATGTTCAACTG	G????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharax_anisitsi_12660	TATGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCCTGGCTTCCA	TCAGTTTGATGGCAGCCAG
Carlana_eigenmani_19864	TATGAGAAGATGTTCAACTG	G????????????????????	????????????????????	????????????????????	????????????????????
Astyanax_mexicanus_24599	TATGAGAAGATGTTCAACTG	G????????????????????	????????????????????	????????????????????	????????????????????
Spintherobolus_broccae_22558	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCCTGGCTTCCA	TCAGTTTGATGGCAGCCAG
Spintherobolus_leptoura_36098	TATGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCCTGGCTTCCA	TCAGTTTGATGGCAGCCAG
Spintherobolus_ankoseion_24957	TATGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCCTGGCTTCCA	TCAGTTTGATGGCAGCCAG
Charax_leticiae_12700	????????????????????	?ATCTTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Diapoma_sp_21274	TATGAAAAGATGTTCAACTG	G????????????????????	????????????????????	????????????????????	????????????????????
Prodontocharax_melanotus_10	TATGAGAAGATGTTCAACTG	G????????????????????	????????????????????	????????????????????	????????????????????
Prodontocharax_sp_7	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Nanocheiroidon_insignis_27476	TATGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Pseudocheiroidon_arnoldi_5	TACGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Pseudocheiroidon_terrabae_6	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Heterocheiroidon_yatai_24954	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_killiani_24964	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_austriale_24979	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_interruptu_20486	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_killiani_19803	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_killiani_24969	TATGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_austriale_24963	TATGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_interruptus_21266	TATGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_ibicuihensis_25598	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_killiani_24974	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Saccoderma_melanostigma_27475	TATGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Compsura_gorgonae_1	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_mitoptera_3	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Compsura_sp_nova_4	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_dialepturus_2	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_pulchra_25845	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_paraguayensis_20127	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_sp_1_22626	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Serrapinnus_microdon_17057	TACGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Kolpotocheiroidon_theloura_25982	TATGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Macropsobrycon_uruguayanae_29061	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_pequira_24958	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_pequira_20124	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_pequira_12659	TACGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Acinocheiroidon_melanogrammus_37551	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Serrapinnus_heterodon_20305	TACGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_sp_2_29616	TACGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Kolpotocheiroidon_figueiredoi_37576	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
1Kolpotocheiroidon_figueiredoi_37575	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Serrapinnus_kriegi_25764	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Compsura_heterura_24984	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Gen_e_sp_nova_27603	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Acinocheiroidon_cf_melanogrammus_37550	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
1Aphyocheiroidon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheiroidon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Serrapinnus_notomelas_19890	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Serrapinnus_notomelas_18293	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_stenodon_20130	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Serrapinnus_sp_1_22401	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_fugitiva_22932	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cheiroidon_pulcher_8	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_fugitiva_23714	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Serrapinnus_calliurus_22121	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Serrapinnus_calliurus_25768	TACGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Odontostilbe_ecuadorensis_9	TACGAGAAGATGTTCAACTG	GATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Cynopotamus_magdalenae_29515	TATGAAAAGAT????????	????????????????????	????????????????????	????????????????????	????????????????????
Phenacogaster_sp_27299	TATGAGAAGATGTTCAACTG	G????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharacidium_sp_33167	????????????????????	?ATATTCAGCCCTTGACAG	CCCTCCGTACTGCTGAGAAG	GAGCTTCTCCAGGCTTCCA	TCAGTTTGATGGCAGCCAG
Hemibrycon_sp_33168	TATGAGAAGATGTTCAACTG	G????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	CTCTCAAAAACGTGGCCAGC	TCCTGGAACTGAGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGATGAAGTG	CCGCGACAGACCATCTCTAG
Gnatocharax_sp_24494	????????????????????	TCCTGGAACTGAGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGATGAAGTG	CCGCGACAGACCATCTCTAG
Macropsobrycon_xinguensis_40499	????????????????????	TCCTGGAACTGAGCATCAT	CGCTGGGCTCTCTGGCTGGA	CAGTGTCTGTAGAGGAGTG	CCGCGACAGACCATCTCTAG
Bryconops_affinis_4168	????????????????????	TCCTGGAACTGAGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGAGGAGTG	CCGCGACAGACCATCTCTAG
Chalceus_epakros_26504	CTCTCAAAAACGTGGCCAGC	TCCTGGAACTGAGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGAGGAGTG	CCGCGACAGACCATCTCTAG
Aphyocharax_anisitsi_12660	CTCTCAAAAACGTGGCCAGC	TCCTGGAACTGAGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGTGTCTGTAGAGGAGTG	CCGCGACAGACCATCTCTAG

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Carlana_eigenmani_19864	CTCTC?AAAAAGTATCCAGC	TCTTGGAAACATAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CGCGCTCTGTAGATGAAGTA	CCAGCAGACACCATCTCTAG
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Spintherobolus_brocceae_22558	CTCTCAAAAACGTGTCCAGC	TCTTGGAAACATAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGATGACGTA	CCAGCAGACACCATCTCTAG
Spintherobolus_leptoura_36098	CTCTCAAAAACGTGTCCAGC	TCTTGGAAACATAGGCATTAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGATGACGTA	CCAGCAGACACCATCTCTAG
Spintherobolus_ankoseion_24957	CTCTCAAAAACGTGTCCAGC	TCTTGGAAACATAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGATGACGTA	CCAGCAGACACCATCTCTAG
Charax_leticiae_12700	CTCTCAAAAACGTGTCCAGC	TCTTGGAAACATAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGAGATGTT	CCAGCAGACACCATCTCTAG
Diapoma_sp_21274	CTCTCAAAAACGTGTCCAGC	TCTTGGAAACGTAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTGAAGATGTT	CCAGCAGACACCATCTCTAG
Prodontocharax_melanotus_10	?????????GTGTCCAGC	TCTTGGGGCGTAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CGGTGTCTGTGAAGACGTT	CCAGCAGACACCATCTCCAG
Prodontocharax_sp_7	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CGGTGTCTGTGAAGACGTT	CCAGCAGACACCATCTCCAG
Nanocheiroidon_insignis_27476	CTCTCAAAAATGTGTCCAGC	TCTTGGAAACATAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Pseudocheiroidon_arnoldi_5	CTCTCAAAAATGTGTCCAGC	TCTTGGAAACGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Pseudocheiroidon_terrabaee_6	CTCTCAAAAATGTGTCCAGC	TCTTGGAAACGTAGGCATTAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Heterocheiroidon_yatai_24954	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CAGCGTCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Cheiroidon_killiani_24964	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCGTCTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
Cheiroidon_australe_24979	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CAGCGTCTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
Cheiroidon_interruptu_20486	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CAGCGTCTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
Cheiroidon_killiani_19803	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCGTCTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
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Cheiroidon_australe_24963	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CAGCGTCTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
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Cheiroidon_ibicuhiensis_25598	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CAGCGTCTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
Cheiroidon_killiani_24974	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCGTCTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
Saccoderma_melanostigma_27475	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCATCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Compusura_gorgonae_1	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCATCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Odontostilbe_mitoptera_3	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCATCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Compusura_sp_nova_4	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCATCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Odontostilbe_dialepturus_2	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCATCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Odontostilbe_pulchra_25845	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
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Serrapinnus_microdon_17057	CTCTCAAAAATGTGTCCAGC	TCTTGGAAACATAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGATGTT	CCAGCGGACACCATCTCTAG
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Macropsobrycon_uruguayanae_29061	CTCTCAAAAATGTGTCCAGT	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGATGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCTAG
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Acinocheiroidon_melanogrammus_37550	CTCTCAAAAATGTGTCCAGC	TCTTGGAAACATAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGGTCTGTGTAGAAGATGTT	CCAGCGGACACCATCTCTAG
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Odontostilbe_sp2_29616	CTCTCAAAAATGTGTCCAGC	TCTTGGAAACATAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGGTCTGTGTAGAAGATGTT	CCAGCGGACACCATCTCTAG
Kolpotocheiroidon_figueiredoi_37576	CTCTCAAAAATGTGTCCAGT	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGATGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCTAG
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Serrapinnus_kriegei_25764	CTCTCAAAAATGTGTCCAGT	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGATGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCCAG
Compusura_heterura_24984	CTCTCAAAAATGTGTCCAGC	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCCAG
Gen_e_sp_nova_27603	CTCTCAAAAATGTGTCCAGC	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCTAG
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1Aphyocheiroidon_hemigrammus_40052	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheiroidon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_20209	CTCTCAAAAACGTGTCCAGC	TCTTGGAAATGTAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
Serrapinnus_notomelas_19890	CTCTCAAAAATGTGTCCAGC	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCCAG
Serrapinnus_notomelas_18293	CTCTCAAAAATGTGTCCAGT	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCCAG
Cheiroidon_stenodon_20130	CTCTCAAAAATGTGTCCAGT	GCTTGGAGCGTAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCCAG
Serrapinnus_spl_22401	CTCTCAAAAATGTGTCCAGC	TCTTGGAAACATAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGGTCTGTGTAGAAGATGTT	CCAGCGGACACCATCTCTAG
Odontostilbe_fugitiva_22932	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCTAG
Cheiroidon_pulcher_8	CTCTCAAAAATGTGTCCAGC	TCTTGGAGCGTAGGCATCAT	TGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCAGACACCATCTCTAG
Odontostilbe_fugitiva_23714	CTCTCAAAAATGTGTCCAGT	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCTAG
Serrapinnus_calliurus_22121	CTCTCAAAAATGTGTCCAGC	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCCAG
Serrapinnus_calliurus_25768	CTCTCAAAAATGTGTCCAGC	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGGTCTGTGTAGAAGACGTT	CCAGCGGACACCATCTCCAG
Odontostilbe_ecuadorensis_9	CTCTCAAAAATGTGTCCAGC	GCTTGGAGCGTAGGCATCAT	CGACGGGCTCTCTGGCTGGA	CGCGTCTGTAGAAGACGTT	CCAGCGGACACCATCTCCAG
Cynopotamus_magdalenaee_29515	CTCTCAAAAACGTGTCCAGC	TCTTGGAAACGTAGGAATCAT	CGATGGGCTCTCTGGCTGGA	CAGTCTGTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
Phenacogaster_sp_27299	????????????????????	????????????????????	????????????????????	????????????????????	????????GACACCATCTCTAG
Aphyocharacidium_sp_33167	CTCTCAAAAATGTGTCCAGC	TCTTGGAAATGTAGGCATCAT	CGATGGGCTCTCTGGCTGGA	CAGCCTCTGTAGAAGATGTT	CCAGCAGACACCATCTCTAG
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	AAGGTTCCGCTATGATGTTG	CGCTAGTATCAGCTTAAAA	GACCTGGAGGAGGACATCAT	GGAGGGATTGAGAGAGAG	GGTTGGATGACAGACCTGTC
Gnatocharax_sp_24494	ACGATTCGCTATGATGTTG	CGCTAGTATCAGCTTTGAAG	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGG	GGTTGGATGACAGACCTGTC
Macropsobrycon_xinguensis_40499	ACGATTCGCTATGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGG	GGTTGGATGACAGACCTGTC
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	AAGATTCGCTACGATGTTG	CGCTAGTATCAGCTTGA	GACTTGGAGGAGGACATCAT	GGAGGGATTGAGAGAGAG	GGCTGGACGACAGACCTGTC
Aphyocharax_anisitsi_12660	ACGATTCGCTATGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGG	GGTTGGATGACAGACCTGTC
Carlana_eigenmani_19864	AAGGTTCCGCTATGATGTTG	CGCTGGTATCAGCTTAAAA	GACTTGGAGGAGGACATCAT	GGAGGGACTGAGAGAGAG	GGTTGGATGACAGACCTGTC
Astyanax_mexicanus_24599	ACGATTCGCTATGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAG	GGTTGGATGACAGACCTGTC
Spintherobolus_brocceae_22558	ACGATTCGCTATGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGG	GGTTGGATGACAGACCTGTC
Spintherobolus_leptoura_36098	AAGGTTCCGCTATGATGTTG	CGCTGGTATCAGCTTGA	GACTTGGAGGAGGACATCAT	GGAGGGTTCCGAGAGAGG	GGCTGGATGACAGACCTGTC
Spintherobolus_ankoseion_24957	AAGGTTCCGCTATGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTTCCGAGAGAGG	GGCTGGATGACAGACCTGTC
Charax_leticiae_12700	ACGATTCGCTATGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAAAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGG	GGTTGGATGACAGACCTGTC
Diapoma_sp_21274	ACGATTCGCTATGATGTTG	CGCTAGTATCAGCTTTGAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGG	GGTTGGATGACAGACATGTC

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Prodontocharax_melanotus_10	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Prodontocharax_sp_7	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Nanocheirodon_insignis_27476	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Pseudocheirodon_arnoldi_5	ACGGTCCCGCTACGATGTTG	CAGTATTTTACGCTTTAAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTAGATGACAGCACCTGC
Pseudocheirodon_terrabaie_6	ACGGTCCCGCTACGATGTTG	CAGTATTTTACGCTTTAAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Heterocheirodon_yatai_24954	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Cheirodon_killiani_24964	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAAAGAG	GGCTGGATGACAGCACCTGC
Cheirodon_australe_24979	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAAAGAG	GGCTGGATGACAGCACCTGC
Cheirodon_interruptu20486	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAAAGAG	GGCTGGATGACAGCACCTGC
Cheirodon_killiani_19803	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAAAGAG	GGCTGGATGACAGCACCTGC
Cheirodon_killiani_24969	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAAAGAG	GGCTGGATGACAGCACCTGC
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Cheirodon_interruptu_21266	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAAAGAG	GGCTGGATGACAGCACCTGC
Cheirodon_ibicuhiensis_25598	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAAAGAG	GGCTGGATGACAGCACCTGC
Cheirodon_killiani_24974	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAAAGAG	GGCTGGATGACAGCACCTGC
Saccoderma_melanostigma_27475	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGACAGAG	GGCTGGATGACAGCACCTGC
Compsura_gorgonae_1	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGACAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_mitoptera_3	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGACAGAG	GGCTGGATGACAGCACCTGC
Compsura_sp_nova_4	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGACAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_dialepturus_2	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGACAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_pulchra_25845	ACGGTCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_paraguayensis_20127	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_sp1_22626	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Serrapinnus_microdon_17057	ACGATCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Kolpotocheirodon_theloura_25982	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Macropsobrycon_uruguayanae_29061	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_pequira_24958	ACGATCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_pequira_20124	ACGATCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_pequira_12659	ACGATCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Acinocheirodon_melanogrammus_37551	ACGATCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Serrapinnus_heterodon_20305	ACGATCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_sp2_29616	ACGATCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Kolpotocheirodon_figueiredoi_37576	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
1Kolpotocheirodon_figueiredoi_37575	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Serrapinnus_kriegeri_25764	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Compsura_heterura_24984	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Gen_e_sp_nova_27603	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Acinocheirodon_of_melanogrammus_37550	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	ACGATCCCGCTATGATGTTG	CAGTATTTTACGCTTTAAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGAG	GGTGGATGACAGCACCTGC
Serrapinnus_notomelas_19890	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Serrapinnus_notomelas_18293	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Cheirodon_stenodon_20130	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Serrapinnus_sp1_22401	ACGATCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_fugitiva_22932	ACGGTCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Cheirodon_pulcher_8	ACGATCCCGCTACGATGTTG	CGCTGGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_fugitiva_23714	ACGGTCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Serrapinnus_anilurus_22121	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Serrapinnus_calliurus_25768	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Odontostilbe_ecuadorensis_9	ACGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGATAGAG	GGCTGGATGACAGCACCTGC
Cynopotamus_magdalenae_29515	ACGATCCCGCTATGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGAG	GGTGGATGACAGCACCTGC
Phenacogaster_sp_27299	AAGATCCCGCTACGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGAG	GGTGGATGACAGCACCTGC
Aphyocharacidium_sp_33167	ACGATCCCGCTATGATGTTG	CGCTAGTATCAGCTTTGAAA	GACTTGGAGGAGGACATCAT	GGAGGGTCTGAGAGAGAGAG	GGCTGGATGACAGCACCTGC
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	ACGTCAGGTTTCACTGTGGT	AGTCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCACGGGGAGGACCCAG	CGTTCCTGAGAAGGCTGTGA
Gnatocharax_sp_24494	ACCTCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGTGTG	AAGCATGGAGGAGGACCCGG	TGTTCCCTGAGAAGGCTGTGA
Macropsobrycon_xinguensis_40499	ACATCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCACGGAGGAGGACCCGG	TGTTCCCTGAGAAGGCTGTGA
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	ACGTCAGGTTTCACTGTGGT	GATAAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCACGGTGGAGGACCCGG	CATTCCAGAAAGGCTGTGA
Aphyocharax_anisitsi_12660	ACGCCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCACGGAGGAGGACCCGG	TGTTCCCTGAGAAGGCTGTGA
Carlana_eigenmani_19864	ACGTCAGGTTTCACTGTGGT	AGTCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCACGGAGGAGGACCCAG	CATTCCCTGAGAAGGCTGTGA
Astyanax_mexicanus_24599	ACGTCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCACGGAGGAGGACCCGG	TGTTCCCTGAGAAGGCTGTGA
Spintherobolus_brocaciae_22558	ACCTCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCATGGAGGAGGACCCAG	TGTTCCCTGAGAAGGCTGTGA
Spintherobolus_leptoura_36098	ACATCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCATGGAGGAGGACCCAG	TGTTCCCTGAGAAGGCTGTGA
Spintherobolus_ankoseion_24957	ACATCAGGTTTCACTGTAGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCATGGAGGAGGACCCAG	TGTTCCCTGAGAAGGCTGTGA
Charax_leticiae_12700	ACATCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCATGGAGGAGGACCCAG	TATTCCCTGAGAAGGCTGTGA
Diapoma_sp_21274	ACACAGGTTTCACTGTGGT	AGTCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAGCATGGAGGAGGACCCGG	TGTTCCCTGAGAAGGCTGTGA
Prodontocharax_melanotus_10	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AACACGGAGGAGGACCCGG	TGTTCCCAAAAAGGCTGTGA
Prodontocharax_sp_7	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCCGG	TGTTCCCAAAAAGGCTGTGA
Nanocheirodon_insignis_27476	ACCTCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCCGG	TGTTCCCAAAAAGGCTGTGA
Pseudocheirodon_arnoldi_5	ACCTCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCCGG	TGTTCCCAAAAAGGCTGTGA
Pseudocheirodon_terrabaie_6	ACCTCAGGTTTCACTGTGGT	AATCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCCGG	TGTTCCCAAAAAGGCTGTGA
Heterocheirodon_yatai_24954	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCCGG	AGTCCCAAAAAGGCTGTGA
Cheirodon_killiani_24964	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCATGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCCGG	TGTTCCCAAAAAGGCTGTGA

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Cheirodon_australe_24979	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Cheirodon_interruptu20486	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Cheirodon_killiani_19803	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Cheirodon_killiani_24969	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Cheirodon_australe_24963	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Cheirodon_interruptus_21266	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Cheirodon_ibicuihensis_25598	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Cheirodon_killiani_24974	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Saccoderma_melanostigma_27475	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Compsura_gorgonae_1	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_mitoptera_3	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Compsura_sp_nova_4	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_dialepturus_2	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_pulchra_25845	ACCTCAGGTTTCACTGTGGT	AATCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_paraguayensis_20127	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_spl_22626	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Serrapinnus_microdon_17057	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACATGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Kolpotocheirodon_theloura_25982	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Macropsobrycon_uruguayanae_29061	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACATGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_pequirá_24958	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACATGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_pequirá_20124	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACATGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_pequirá_12659	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACATGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Acinocheirodon_melanogrammus_37551	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Serrapinnus_heterodon_20305	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_spl_29616	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Kolpotocheirodon_figueiredoi_37576	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
1Kolpotocheirodon_figueiredoi_37575	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Serrapinnus_kriegi_25764	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Compsura_heterura_24984	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Gen_e_sp_nova_27603	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Acinocheirodon_cf_melanogrammus_37550	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	ACGTCAGGTTTCACTGTGGT	AATCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAGCATGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Serrapinnus_notomelas_19890	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Serrapinnus_notomelas_18293	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Cheirodon_stenodon_20130	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGTGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Serrapinnus_spl_22401	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACATGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_fugitiva_22932	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACATGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Cheirodon_pulcher_8	ACCTCAGGTTTCACTGTGGT	AATCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_fugitiva_23714	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Serrapinnus_calliurus_22121	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Serrapinnus_calliurus_25768	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Odontostilbe_ecuadorensis_9	ACCTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAACACGGAGGAGGACCGGT	TGTCGCCAGAAAAGGCTGTAA
Cynopotamus_magdalenae_29515	ACCTCAGGTTTCACTGTGGT	AATCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAGCATGGAGGAGGACCGAG	TGTCGCCAGAAAAGGCTGTAA
Phenacogaster_sp_27299	ACGTCAGGTTTCACTGTGGT	AATCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAGCATGGAGGAGGACCGAG	TGTCGCCAGAAAAGGCTGTAA
Aphyocharacidium_sp_33167	ACGTCAGGTTTCACTGTGGT	AGTCAAGGAGTCTTGTGATG	GCATGGGAGATGTCAGCGAG	AAGCATGGAGGAGGACCGGC	TGTCGCCAGAAAAGGCTGTAA
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Gnatocharax_sp_24494	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Macropsobrycon_xinguensis_40499	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Aphyocharax_anisitsi_12660	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Carlana_eigenmani_19864	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Astyanax_mexicanus_24599	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Spintherobolus_brocceae_22558	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Spintherobolus_leptoura_36098	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Spintherobolus_ankoseion_24957	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Charax_leticiae_12700	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Diapoma_sp_21274	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Prodontocharax_melanotus_10	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Prodontocharax_sp_7	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Nanocheirodon_insignis_27476	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Pseudocheirodon_arnoldi_5	GATTCTCTTTTACAGTGATG	TCAATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Pseudocheirodon_terrabae_6	GATTCTCTTTTACAGTGATG	TCAATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Heterocheirodon_yatai_24954	GGTTCCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Cheirodon_killiani_19803	GGTTCCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Cheirodon_australe_24979	GGTTCCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Cheirodon_interruptu20486	GGTTCCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Cheirodon_killiani_19803	GGTTCCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Cheirodon_killiani_24969	GGTTCCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Cheirodon_australe_24963	GGTTCCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Cheirodon_interruptu21266	GGTTCCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG
Cheirodon_ibicuihensis_25598	GGTTCCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCGTGTCA	CAATCTTCCAGGAGCAAAAAG	CCCAACTCAGAGCTTTCCTG

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Cheirodon_killiani_24974	GTTTCTCTTTTACTGTGATG	TCCATCAGTCTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Saccoderma_melanostigma_27475	GATTCTCTTTTACTGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Compsura_gorgonae_1	GATTCTCTTTTACTGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_mitoptera_3	GATTCTCTTTTACTGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCGGAGCTTTCCCTG
Compsura_sp_nova_4	GATTCTCTTTTACTGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCGGAGCTTTCCCTG
Odontostilbe_dialepturus_2	GATTCTCTTTTACTGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_pulchra_25845	GATTCTCGTTCACGGTGATG	TCCATCACTATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCGGAGCTTTCCCTG
Odontostilbe_paraguayensis_20127	GATTCTCGTTCACGGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_sp1_22626	GATTCTCGTTCACGGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Serrapinnus_microdon_17057	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Kolpotocheirodon_theloura_25982	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Macropsobrycon_uruguayanae_29061	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_pequirá_24958	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_pequirá_20124	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_pequirá_12659	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Acinocheirodon_melanogrammus_37551	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Serrapinnus_heterodon_20305	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_sp2_29616	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Kolpotocheirodon_figueiredoi_37576	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
1Kolpotocheirodon_figueiredoi_37575	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Serrapinnus_kriegi_25764	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Compsura_heterura_24984	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Gen_e_sp_nova_27603	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Acinocheirodon_cf_melanogrammus_37550	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Serrapinnus_notomelas_19890	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Serrapinnus_notomelas_18293	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Cheirodon_stenodon_20130	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Serrapinnus_sp1_22401	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_fugitiva_22932	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Cheirodon_pulcher_8	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_fugitiva_23714	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Serrapinnus_calliurus_22121	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Serrapinnus_calliurus_25768	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Odontostilbe_ecuadorensis_9	GATTCTCTTTTACAGTGATG	TCCATCACCATTCAAGCGGA	AGGCGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Cynopotamus_magdalenae_29515	GATTCTCTTTTACTGTGATG	TCCATCACTGTTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCAGAGCTTTCCCTG
Phenacogaster_sp_27299	GATTCTCTTTTACTGTGATG	TCCGTCAGTCTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCCAACTCGGAGCTTTCCCTG
Aphyocharacidium_sp_33167	GATTTCTTTTACAGTGATG	GCCGTCAGTCTCAAGCGGA	AGGTGAGGAAGAAGCTGTCA	CAATCTTCCAGGAGCAAAA	CCTAAGCTCAGAGCTTTCCCTG
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	CAGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Gnatocharax_sp_24494	CGGACCGCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAGAGCGATGAAGGAGAGT
Macropsobrycon_kinguensis_40499	CGGACCGCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAGAGCGATGAAGGAGAGT
Bryconops_affinis_41168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	CAGGCCCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAGAGCGATGAAGGAGAGT
Aphyocharax_anisitsi_12660	CGGACCGCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAGAGCGATGAAGGAGAGT
Carlana_eigenmanni_19864	CAGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Astyanax_mexicanus_24599	CGGACCGCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAGAGCGATGAAGGAGAGT
Spintherobolus_brocceae_22558	CGGACCGCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Spintherobolus_leptoura_36098	CGGACCGCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Spintherobolus_ankoseion_24957	CGGACCGCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Charax_leticiae_12700	CGGACCGCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAGAGCGATGAAGGAGAGT
Diapoma_sp_21274	CGGACCGCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAGAGCGATGAAGGAGAGT
Prodontocharax_melanotus_10	TCGACCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Prodontocharax_sp_7	TCGACCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Nanocheirodon_insignis_27476	TCGACCACTGTGCCTCATGT	TTGTGGATGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGACCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Pseudocheirodon_arnoldi_5	TCGACCACTGTGCCTCATGT	TTGTGGATGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGACCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Pseudocheirodon_terrabaes_6	TCGACCACTGTGCCTCATGT	TTGTGGATGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGACCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Heterocheirodon_yatai_24954	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Cheirodon_killiani_24964	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Cheirodon_australe_24979	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Cheirodon_interruptu_20486	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Cheirodon_killiani_19803	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Cheirodon_killiani_24969	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Cheirodon_australe_24963	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Cheirodon_interruptu_21266	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Cheirodon_ibicuhiensis_25598	TCGGCCACTGTGCCTCATGT	TTGTGGATGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Cheirodon_killiani_24974	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	AGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Saccoderma_melanostigma_27475	TCGACCACTGTGCCTCATGT	TCGTGGATGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Compsura_gorgonae_1	TCGACCACTGTGCCTCATGT	TCGTGGATGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Odontostilbe_mitoptera_3	TCGACCACTGTGCCTCATGT	TCGTGGATGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Compsura_sp_nova_4	TCGACCACTGTGCCTCATGT	TCGTGGATGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Odontostilbe_dialepturus_2	TCGACCACTGTGCCTCATGT	TCGTGGATGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT
Odontostilbe_pulchra_25845	TCGGCCACTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACTGCCATCT	GGGTCTGTAGTGGCAGAGC	GTAAGCGATGAAGGAGAGT

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Odontostilbe_paraguayensis_20127	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGACCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Odontostilbe_sp1_22626	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Serrapinnus_microdon_17057	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Kolpotocheiroidon_theloura_25982	TCGACCACCTGTGCCTCATGT	TTGTGGACGAATCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
Macropsobrycon_uruguayanae_29061	TCGACCACCTGTGCCTCATGT	TTGTGGACGAATCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
Odontostilbe_pequira_24958	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Odontostilbe_pequira_20124	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCAATGAAGGAGAGT
Odontostilbe_pequira_12659	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Acinocheiroidon_melanogrammus_37551	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Serrapinnus_heterodon_20305	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Odontostilbe_sp2_29616	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Kolpotocheiroidon_figueiredoi_37576	TCGACCACCTGTGCCTCATGT	TTGTGGACGAATCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
1Kolpotocheiroidon_figueiredoi_37575	TCGACCACCTGTGCCTCATGT	TTGTGGACGAATCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
Serrapinnus_kriegi_25764	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
Compsura_heterura_24984	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
Gen_e_sp_nova_27603	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Acinocheiroidon_cf_melanogrammus_37550	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
1Aphyocheiroidon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheiroidon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	CCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAGAGCAATGAAGGAGAGT
Serrapinnus_notomelas_19890	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGACCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Serrapinnus_notomelas_18293	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGACCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Cheirodon_stenodon_20130	TCGACCACCTGTGCCTCATGT	TTGTGGACGAATCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
Serrapinnus_sp1_22401	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
Odontostilbe_fugitiva_22932	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Cheirodon_pulcher_8	TCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Odontostilbe_fugitiva_23714	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGACCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Serrapinnus_calliurus_22121	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGACCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Serrapinnus_calliurus_25768	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGACCTCTAGTGGCAGAGC	GTAAGCCGATGAAGGAGAGT
Odontostilbe_ecuadorensis_9	TCGACCACCTGTGCCTCATGT	TCGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
Cynopotamus_magdalena_29515	CCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAGAGCAATGAAGGAGAGT
Phenacogaster_sp_27299	CCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GCAAAGCCGATGAAGGAGAGT
Aphyocharacidium_sp_33167	CCGACCACCTGTGCCTCATGT	TTGTGGACGAGTCCGATCAC	GAGATGCTGACCCGCTATCTT	GGGTCTCTAGTGGCAGAGC	GTAGAGCAATGAAGGAGAGT
Hembrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Gnatocharax_sp_24494	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Macropsobrycon_xinguensis_40499	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Aphyocharax_anisitsi_12660	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Carlana_eigenmani_19864	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Astyanax_mexicanus_24599	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Spintherobolus_brocceae_22558	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Spintherobolus_leptoura_36098	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Spintherobolus_ankoseira_24957	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Charax_leticiae_12700	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Diapoma_sp_21274	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Prodontocharax_melanotus_10	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Prodontocharax_sp_7	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Nanocheiroidon_insignis_27476	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Pseudocheiroidon_arnoldi_5	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Pseudocheiroidon_terrabaie_6	CGCCTCATTCTGCCATAGG	TGGGCTCCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Heterocheiroidon_yatai_24954	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Cheirodon_killiani_24964	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Cheirodon_australe_24979	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Cheirodon_interruptu_20486	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Cheirodon_killiani_19803	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Cheirodon_killiani_24969	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Cheirodon_australe_24963	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Cheirodon_interruptu_21266	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Cheirodon_ibicuihensis_25598	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Cheirodon_killiani_24974	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGTACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Saccoderma_melanostigma_27475	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCAGAGGCACA	GGCTATGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Compsura_gorgonae_1	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCAGAGGCACA	GGCTATGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Odontostilbe_mitoptera_3	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCAGAGGCACA	GGCTATGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Compsura_sp_nova_4	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCAGAGGCACA	GGCTATGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Odontostilbe_dialepturus_2	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCAGAGGCACA	GGCTATGATGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Odontostilbe_pulchra_25845	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCAGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTAG
Odontostilbe_paraguayensis_20127	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Odontostilbe_sp1_22626	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Serrapinnus_microdon_17057	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Kolpotocheiroidon_theloura_25982	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Macropsobrycon_uruguayanae_29061	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Odontostilbe_pequira_24958	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG
Odontostilbe_pequira_20124	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGCTCCTTTC	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAAGGGTTGG

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Odontostilbe_pequira_12659	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Acinocheirodon_melanogrammus_37551	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Serrapinnus_heterodon_20305	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Odontostilbe_sp2_29616	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Kolpotocheirodon_figueiredoi_37576	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
1Kolpotocheirodon_figueiredoi_37575	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Serrapinnus_kriegi_25764	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGATGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Compsura_heterura_24984	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Gen_e_sp_nova_27603	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Acinocheirodon_cf_melanogrammus_37550	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	CGACTCATTCTGCCATAGG	TGGGCTCCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGATGAAAAGATGGT	GCGGAAATGGAGGGGTTGG
Serrapinnus_notomelas_19890	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Serrapinnus_notomelas_18293	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Cheirodon_stenodon_20130	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Serrapinnus_sp1_22041	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTATGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Odontostilbe_fugitiva_22932	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Cheirodon_pulcher_8	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Odontostilbe_fugitiva_23714	CGACTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Serrapinnus_calliurus_22121	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Serrapinnus_calliurus_25768	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Odontostilbe_ecuadorensis_9	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Cynopotamus_magdalena_29515	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Phenacogaster_sp_27299	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Aphyocheirodon_sp_33167	CGCCTCATTCTGCCATAGG	TGGGCTTCTTCGATCCTTTT	GCTTCTTCTCCGAGGCACA	GGCTACGACGAGAAGATGGT	GAGAGAAATGGAGGGGTTGG
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	GTCATCGAAGCCACGAGGA
Gnatocharax_sp_24494	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	GTCATCGAAGCCACGAGGA
Macropsobrycon_xinguensis_40499	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	AACACGAGCTGAAGCCTCTC	AAATATGGTGTGCATCTC	ATTACTCGAAGCCACGAGGA
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	GTCATCGAAGCCACGAGGA
Aphyocharax_anisitsi_12660	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	AACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGAAGCCACGAGGA
Carlana_eigenmani_19864	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	GTCATCGAAGCCACGAGGA
Astyanax_mexicanus_24599	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	AACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGAAGCCACGAGGA
Spintherobolus_brocae_22558	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGAAGCCACGAGGA
Spintherobolus_leptoura_36098	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGAAGCCACGAGGA
Spintherobolus_ankoseion_24957	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGAAGCCACGAGGA
Charax_leticia_12700	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	GACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGAAGCCACGAGGA
Diapoma_sp_21274	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGAAGCCACGAGGA
Prodontocharax_melanotus_10	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	GACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Prodontocharax_sp_7	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Nanocheirodon_insignis_27476	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Pseudocheirodon_arnoldi_5	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Pseudocheirodon_terrabae_6	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Heterocheirodon_yatai_24954	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Cheirodon_killiani_24964	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Cheirodon_australe_24974	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Cheirodon_interruptu_20486	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Cheirodon_killiani_19803	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Cheirodon_killiani_24969	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Cheirodon_australe_24963	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Cheirodon_interruptu_21266	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Cheirodon_ibicuhiensis_25598	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Cheirodon_killiani_24974	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Saccoderma_melanostigma_27475	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Compsura_gorgonae_1	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Odontostilbe_mitoptera_3	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Compsura_sp_nova_4	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Odontostilbe_dialepturus_2	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACACGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Odontostilbe_pulchra_25845	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Odontostilbe_paraguayensis_20127	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Odontostilbe_sp1_22626	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Serrapinnus_microdon_17057	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACTCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Kolpotocheirodon_theloura_25982	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Macropsobrycon_uruguayanae_29061	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Odontostilbe_pequira_24958	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACTCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Odontostilbe_pequira_20124	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Odontostilbe_pequira_12659	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACTCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Acinocheirodon_melanogrammus_37551	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACTCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Serrapinnus_heterodon_20305	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACTCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Odontostilbe_sp2_29616	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACTCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Kolpotocheirodon_figueiredoi_37576	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
1Kolpotocheirodon_figueiredoi_37575	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA
Serrapinnus_kriegi_25764	AGGCTTCAGGTTCCACTAC	ATCTGCACCTTGTGTGACTC	CACCGAGCTGAAGCCTCTC	AAACATGGTGTGCATCTC	ATTACTCGGAGCCACGAGGA

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Compsura_heterura_24984	AGGCTTCAGGTTCCACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Gen_e_sp_nova_27603	AGGCTTCGGGTTCCACGTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCATGAGGA
Acinocheironon_melanogrammus_37550	AGGCTTCAGGTTCCACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
1Aphyocheironon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheironon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	AGGCTTCAGGTTCCACGTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Serrapinnus_notomelas_19890	AGGCTTCAGGTTCCACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Serrapinnus_notomelas_18293	AGGCTTCAGGTTCCACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Cheirodon_stenodon_20130	AGGCTTCAGGTTCCACCTAT	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCATGAGGA
Serrapinnus_spl_22401	AGGCTTCGGGTTCCACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Odontostilbe_fugitiva_22932	AGGCTTCGGGTTCCACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Cheirodon_pulcher_8	AGGCTTCAGGTTCCACCTAT	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Odontostilbe_fugitiva_23714	AGGCTTCGGGTTCCACCTAT	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Serrapinnus_calliurus_21211	AGGCTTCAGGTTCCACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Serrapinnus_calliurus_25768	AGGCTTCGGGTTCCACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Odontostilbe_ecuadrensis_9	AGGCTTCAGGTTCCACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCGC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCATGAGGA
Cynopotamus_magdalenae_29515	AGGCTTCAGGTTCCACGTAC	ATCTGCACCTTGTGTGACTC	AACACGAGCTGAAGCCTCAC	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCATGAGGA
Phenacogaster_sp_27299	AGGCTTCAGGTTCCACATAC	ATCTGCACCTTGTGTGACTC	GACACGAGCTGAAGCCTCGC	AAAATATGGTGTGCACCTCC	ATCACTCGAAGCCATGAAGA
Aphyocharacidium_sp_33167	AGGCTTCGGGTTCAACCTAC	GTCTGCACCTTGTGTGACTC	CACGCGAGCTGAAGCCTCAA	AAAACATGGTGTGCACCTCC	ATCACTCGGAGCCACGAGGA
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	AAACCTTGAGCGTACGAGA	TCTGGAGGACCAACCCCTTC	TCCGAATCTGCAGAGGAAT	CGGAGATCGGGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Gnatocharax_sp_24494	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTCGGAGCAAT	CGGGATCGAGTCAAAGGGG	TCTCAGCAAAGCCCTTCATG
Macropsobrycon_xinguensis_40499	AAACCTTGAGAGATATGAGA	TTTGGAGATCAACCCCTTC	TCAGAGTCTGCAGAGCAAT	CGGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	GAACCTTCAGCGCTATGAGA	TCTGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGGAAT	CGGGATCGAGTCAAAGGGG	TCTCAGCGAAGCCCTTCATG
Aphyocharax_anisitsi_12660	AAACCTTGAGAGGATATGAGA	TTTGGAGATCAACCCCTTC	TCAGAGTCTGCAGAGCAAT	CGGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Carlana_eigenmani_19864	AAACCTTGAGCGTATGAGA	TCTGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGGAAT	CGGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Astyanax_mexicanus_24599	AAACCTTGAGAGATATGAGA	TTTGGAGGACCAACCCCTTC	TCAGAGTCTGCAGAGCAAT	CGGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Spintherobolus_brocceae_22558	AAACCTTGAGCGGTATGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	CGGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Spintherobolus_leptoura_36098	AAACCTTGAGCGGTATGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	GAGGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Spintherobolus_ankoseion_24957	AAACCTTGAGCGGTATGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	GAGGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Charax_leticiae_12700	AAACCTTGAGAGATATGAAA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	CGGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Diapoma_sp_21274	AAACCTTGAGGGGAGGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	CGGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Prodontocharax_melanotus_10	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Prodontocharax_sp_7	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	CGATGACCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Nanocheironon_insignis_27476	AAACCTTGAGAGATATGAGA	GAGGGAGGCGCTAACCCCTTC	TCTGAGTCTGCAGAGCAAT	GAGAGACCGGCTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Pseudocheironon_arnoldi_5	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGATCGGGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Pseudocheironon_terrabae_6	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGGAGATCGGGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Heterocheironon_yatai_24954	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Cheirodon_killiani_24964	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCAGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Cheirodon_australe_24979	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Cheirodon_interruptu20486	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Cheirodon_killiani_19803	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCAGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Cheirodon_killiani_24969	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Cheirodon_australe_24963	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Cheirodon_interruptu_21266	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Cheirodon_ibicuhiensis_25598	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Cheirodon_killiani_24947	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCAGAGTCTGCAGAGCAAT	CGGTGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Saccoderma_melanostigma_27475	AAACCTTGAGAGATCTGAGA	TATGGAGGCGCTAACCCCTTC	TCTCAGTCTACCGTCTAAT	AAGAGATAGAGTCAAAGGGG	TCTCAGCTACGCTTCATG
Compsura_gorgonae_1	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	ACGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Odontostilbe_mitoptera_3	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	ACGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Compsura_sp_nova_4	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	ACGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Odontostilbe_dialepturus_2	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	ACGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Odontostilbe_pulchra_25845	AAACCTTGAGCGGTACGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCGAAGCCCTTCATG
Odontostilbe_paraguayensis_20127	AAACCTTGAGCGGTACGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	CGCGACCGAGTCAAAGGGG	TCTCAGCGAAGCCCTTCATG
Odontostilbe_spl_22626	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGACCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Serrapinnus_microdon_17057	AAACCTTGAGAGATACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGACCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Kolpotocheironon_theloura_25982	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Macropsobrycon_uruguayanae_29061	AAACCTTGAGAGATATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCGAAGCCCTTCATG
Odontostilbe_pequirá_24958	GAACCTTGAGAGATACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGACCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Odontostilbe_pequirá_20124	GAACCTTGAGAGATACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGACCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Odontostilbe_pequirá_12659	GAACCTTGAGAGATACGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	CGGTGACCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Acinocheironon_melanogrammus_37551	AAACCTTGAGAGATACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Serrapinnus_heterodon_20305	AAACCTTGAGAGATACGAGA	TATGGAGGACCAACCCCTTC	TCTGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Odontostilbe_sp2_29616	AAACCTTGAGAGATACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Kolpotocheironon_figueiredoi_37576	AAACCTTGATAGGTATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
1Kolpotocheironon_figueiredoi_37575	AAACCTTGATAGGTATGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCGAAGCCCTTCATG
Serrapinnus_kriegi_25764	AAACCTTGAGCGGTACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGACCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Compsura_heterura_24984	AAACCTTGAGCGGTACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGACCGAGTCAAAGGGG	TCTCAGCGAAGCCCTTCATG
Gen_e_sp_nova_27603	AAACCTTGAGAGATACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGACCGAGTCAAAGGGG	TCTCAGCGAAGCCCTTCATG
Acinocheironon_melanogrammus_37550	AAACCTTGAGAGATACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGATCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG
1Aphyocheironon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheironon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	TAAACGTGAGAGATATGAAA	GAGGGAGGACCAACCCCTTC	TCTGAGTCTGCAGTCTAAT	CGGAGATACGGCCAAAGGGG	TCTCAGCTAAGCCCTTCATG
Serrapinnus_notomelas_19890	AAACCTTGAGCGGTACGAGA	TATGGAGGACCAACCCCTTC	TCCGAGTCTGCAGAGCAAT	CGCGACCGAGTCAAAGGGG	TCTCAGCTAAGCCCTTCATG

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Serrapinnus_notomelas_18293	AAACCTTGAGCGGTACGAGA	TATGGAGAACGAACCCCTTC	TCCGAGTCTGCAGACGAAT	GCGGACCGAGTCAAAGGGG	TCTCAGCTAAGCCTTTCATG
Cheirodon_stenodon_20130	AAACCTTGAGAGGTATGAGA	TATGGAGAACCAACCCCTTC	TCCGAGTCTGCAGACGAAT	GCGGATCGAGTCAAAGGGG	TCTCAGCGAAGCCTTTCATG
Serrapinnus_spl_22401	AAACCTTGAGAGATACGAGA	TATGGAGAACCAACCCCTTC	TCCGAGTCTGCAGACGAAT	GCGGACCGAGTCAAAGGGG	TCTCAGCTAAGCCTTTCATG
Odontostilbe_fugitiva_22932	AAACCTTGAGAGATACGAGA	TATGGAGAACCAACCCCTTC	TCTGAGTCTGCAGACTAAT	GCGGACCGAGTCAAAGGGG	TCTTAGCGAAGCCTTTCATG
Cheirodon_pulcher_8	AAACCTTGAGAGATACGAGA	TATGGAGAACCAACCCCTTC	TCCGAGTCTGCAGACGAAT	GCGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCTTTCATG
Odontostilbe_fugitiva_23714	AGACCTTGAGCGTACGAGA	TATGGAGAACCAACCCCTTC	TCTGAGTCTGCAGACGAAT	GCGGACCGAGTCAAAGGGG	TCTCAGCGAAGCCTTTCATG
Serrapinnus_calliurus_22121	AAACCTTGAGCGTACGAGA	TATGGAGAACCAACCCCTTC	TCCGAGTCTGCAGACGAAT	GCGGACCGAGTCAAAGGGG	TCTCAGCGAAGCCTTTCATG
Serrapinnus_calliurus_25768	AAACCTTGAGCGATACGAGA	TATGGAGAACCAACCCCTTC	TCCGAGTCTGCAGACGAAT	GCGGACCGAGTCAAAGGGG	TCTCAGCGAAGCCTTTCATG
Odontostilbe_ecuadorensis_9	TAACATTGAGCGTACGAGA	TATGGAGAACCAACCCCTTC	TCTGAGTCTGCAGACGAAT	GCGGACCGAGTCAAAGGGG	TCTCAGCGAAGCCTTTCATG
Cynopotamus_magdalenae_29515	AAACCTTGAGAGATATGAAA	TATGGAGAACCAACCCCTTC	TCTGAGTCTGCAGACGAAT	GCGGATCGAGTCAAAGGGG	TTTCAGCTAAGCCTTTCATG
Phenacogaster_sp_27299	AAACCTTGAGAGATATGAAA	TATGGAGAACCAACCCCTTC	TCTGAGTCTGCAGACGAAT	GCGGATCGAGTCAAAGGGG	TTTCAGCGAAGCCTTTCATG
Aphyocharacidium_sp_33167	AAACCTTGAGAGATATGAGA	TATGGAGAACCAACCCCTTC	TCCGAATCTGCAGACGAAT	GCGGATCGAGTCAAAGGGG	TCTCAGCTAAGCCTTTCATG
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACTGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Gnatocharax_sp_24494	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCCACAGAGTCTAC	AAGATATCCAGGATGAGAT	TGGGAAATGTACCAAAAAA
Macropsobrycon_xinguensis_40499	GAGACACAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAACTTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAACGCTACAGAGTTTAT	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
Aphyocharax_anisitsi_12660	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GTAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
Carlana_eigenmani_19864	GAGACCCAGCCACACTAGA	TGCTTGCACCTGTGACATTG	GCAATGCCACTGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Astyanax_mexicanus_24599	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAACTTCTAC	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
Spintherobolus_broccea_22558	GAGACCCAGCCACGTTAGA	TGCTTGCATTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
Spintherobolus_leptoura_36098	GAGACTCAGCCACGCTAGA	TGCTTGCATTGTGACATTG	GCAATGCTACGGAGTCTAC	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
Spintherobolus_ankoseion_24957	GAGACTCAGCCACGTTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
Charax_leticiae_12700	GAGATTGACCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
Diapoma_sp_21274	GAGAGTCAGCCACGCTAGA	TACCTTGCCTGTGACATAG	TCAAGACTTACAGAGTTATA	AAGATATCCAGGATGAGAT	TGGGAAATGTACCAAAAAA
Prodontocharax_melanotus_10	GAGACCCAGCCACACTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACGGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Prodontocharax_sp_7	GAGACCCAGCCACGTTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTTATA	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Nanocheirodon_insignis_27476	GAGATGCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAAGGATACAGAGTTATA	TCGATATTCCTGGATGAGAT	CGGTGAATGTACCAAAAAA
Pseudocheirodon_arnoldi_5	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Pseudocheirodon_terrabae_6	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Heterocheirodon_yatai_24954	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
Cheirodon_killiani_24964	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_austroale_24979	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_interruptu_20486	GAGACCCAGCCACGCTAGA	TGCTTGCATTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_killiani_19803	GAGACCCAGCCACGCTAGA	TGCTTGCATTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_killiani_24969	GAGACCCAGCCACGCTAGA	TGCTTGCATTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_austroale_24963	GAGACCCAGCCACGCTAGA	TGCTTGCATTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_interruptus_21266	GAGACCCAGCCACGCTAGA	TGCTTGCATTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_ibicuhiensis_25598	GAGACCCAGCCACGCTAGA	TGCTTGCATTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_killiani_24974	GAGACCCAGCCACGCTAGA	TGCTTGCATTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Saccoderma_melanostigma_27475	GAGATGCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAAGGATACAGAGTTATA	AAGATATTCCTGGATGAGAT	CGGTGAATGTACCAAAAAA
Compsura_gorgonae_1	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_mitoptera_4	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Compsura_sp_nova_3	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_dialepturus_2	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_pulchra_25845	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_paraguayensis_20127	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_sp1_22626	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Serrapinnus_microdon_17057	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Kolpotocheirodon_theloura_25982	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Macropsobrycon_uruguayanae_29061	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_pequirá_24958	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_pequirá_20124	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_pequirá_12659	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTTATA	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Acinocheirodon_melanogrammus_37551	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Serrapinnus_heterodon_20305	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_sp2_29616	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Kolpotocheirodon_figueiredoi_37576	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
1Kolpotocheirodon_figueiredoi_37575	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Serrapinnus_kriegi_25764	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Compsura_heterura_24984	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Gen_e_sp_nova_27603	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Acinocheirodon_cf_melanogrammus_37550	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	GAGACCCAGCCACTCTAGC	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTTAGC	AAGATATCCAGGATGAGAT	TGGTGAATGTACCAAAAAA
Serrapinnus_notomelas_19890	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Serrapinnus_notomelas_18293	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_stenodon_20130	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Serrapinnus_spl_22401	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_fugitiva_22932	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTTATA	TAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Cheirodon_pulcher_8	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Odontostilbe_fugitiva_23714	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA
Serrapinnus_calliurus_22121	GAGACCCAGCCACGCTAGA	TGCTTGCACCTGTGACATTG	GCAATGCTACAGAGTCTAC	AAGATATCCAGGATGAGAT	CGGTGAATGTACCAAAAAA

Serrapinnus_calliurus_25768	GAGACCCAGCCGACGCTTGA	TGCTCTGCACTGTGACATTG	GCAATGCTACAGAGTTCTAC	AAGATATTCAGGATGAGAT	CGGTGAATGTACCAAAAAAG
Odontostilbe_ecuadorensis_9	GAGACCCAGCCGACGCTGGA	TGCTCTGCACTGTGACATTG	GGAATGCTACAGAGTTCTAC	AAGATATTCAGGATGAGAT	CGGTGAATGTACCAAAAAAG
Cynopotamus_magdalenae_29515	GAGATTCAGCCGACGCTAGA	TGCTCTGCACTGTGACATTG	GCAATGCTACAGAGTTCTAC	AAATATTCAGGATGAGAT	TGTTGAGATGTACCAAGAGG
Phenacogaster_sp_27299	GAGATTCAGCCGACGCTAGA	TGCTCTGCACTGTGACATTG	GCAATGCTACAGAGTTCTAC	AAGATATTCAGGATGAGAT	AGGTGAGATGTACCAAGAAAG
Aphyocharacidium_sp_33167	GAGACCCAGCCGACGCTAGA	TGCTCTGCACTGTGACATTG	GCAATGCTACAGAGTTCTAC	AAGATATTCAGGATGAGAT	TGTTGAAATGTACCAAGAAAG
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	ACAACCCAGCTCGTAGAGG	CGCCGACGCTGGCGTTCAGC	CCTGACAAGCAGCTGAGAA	AGAAGATGAAGTTGAAGCCA	GTGATGAGGATGAATGGAAA
Gnatocharax_sp_24494	TCAACCCGCTCGAGAGGAG	CGAAGAAGCTGGCGATCAGC	CCTTGACAAGCAGCTGAGAA	AGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAATGGAAA
Macropodobrycon_xinguensis_40499	TCAACCCGCTCGAGAGGAG	CGCCGGCGCTGGCGATCGCC	TCTTGACAAGCAGTTGAGAA	TGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	CGACCCACCTCGAGAGGAG	CGCCGGCGCTGGCGATCAGC	CCTGACAAGCAGCTGAGAA	AGAAGCTGAAGCTGAAGCCA	GTGATGAGGATGAATGGAAA
Aphyocharax_anisitsi_12660	TCAACCTCTCGAGAGGAG	CGTCGGCGCTGGCGATTCGC	TCTTGACAAGCAGTTGAGAA	TGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Carlana_eigenmanni_19864	ACAACCCAGCTCGAGAGGAG	CGTCGGCGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAGATGAAGCTGAAGCCG	ATATGAGGATGAACGGGAA
Astyanax_mexicanus_24599	TCAACCCGCTCGAGAGGAG	AGACGGCGCTGGCGATCGCC	TCTTGACAAGCAGTTGAGAA	TGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Spintherobolus_brocceae_22558	TCAACCCAGCTCGAGAGGAG	CGACGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGCGAA	AGAAGATGAAGCTGAAGCCG	GTATGAGGATGAACGGGAA
Spintherobolus_leptoura_36098	TCAACCCAGCTCGAGAGGAG	CGACGGCGCTGGCGATTCGC	CCTTGACAAGCAGCTGCGAA	AGAAGATGAAGCTGAAGCCG	ATATGAGGATGAACGGGAA
Spintherobolus_ankoseion_24957	TCAACCCGCTCGAGAGGAG	CGACGGCGCTGGCGATTCGC	CCTTGACAAGCAGCTGCGAA	AGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Charax_leticiae_12700	TCAACCCGCTCGAGAGGAG	CGACGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Diapoma_sp_21274	TCAACCCGCTCGAGAGGAG	CGAAGACGAGGCGATCAGC	CCTTGACAAGCAGCTGAGAA	CGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Prodontocharax_melanotus_10	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Prodontocharax_sp_7	TCAACCCGCTCGAGAGGAG	CGACGATGCTGGCGATTCGC	CCTTGACAAGCAGCTGCGAA	AGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Nanocheiroidon_insignis_27476	TCAACCCGCTCGAGAGGAG	AGAAAATGAAGCGATTCGCG	CCTAGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Pseudocheiroidon_arnoldi_5	TCAACCTGCTCGAGAGGAG	CGCCGATGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Pseudocheiroidon_terrabae_6	TCAACCTGCTCGAGAGGAG	CGCCGATGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Heterocheiroidon_yatai_24954	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAATGGAAA
Cheiroidon_killiani_24964	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_australe_24979	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_interruptu_20486	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_killiani_19803	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_killiani_24969	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_australe_24963	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_interruptu_21266	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_ibicuhiensis_25598	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_killiani_24974	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Saccoderma_melanostigma_27475	TCAACCTGCTCGAGAGGAG	CGAAGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAATGGAAA
Campsura_gorgoneae_1	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAATGGAAA
Odontostilbe_mitoptera_3	TCAACCTGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAATGGAAA
Campsura_sp_nova_4	TCAACCTGCTCGAGAGGAG	CGAAGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAATGGAAA
Odontostilbe_dialepturus_2	TCAACCTGCTCGAGAGGAG	CGTCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAATGGAAA
Odontostilbe_pulchra_25845	TCAACCCGCTCGAGAGGAG	CGTCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Odontostilbe_paraguayensis_20127	TCAACCCGCTCGAGAGGAG	CGTCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Odontostilbe_sp_122626	TCAACCCGCTCGAGAGGAG	CGCCGATGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Serrapinnus_microdon_17057	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Kolpotocheiroidon_theloura_25982	TCAACCCGCTCGAGAGGAG	CGCCGATGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Macropodobrycon_uruguayanae_29061	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Odontostilbe_pequirá_24958	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Odontostilbe_pequirá_20124	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Odontostilbe_pequirá_12659	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Acinocheiroidon_melanogrammus_37551	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Serrapinnus_heterodon_20305	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Odontostilbe_sp_2_29616	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAATGGAAA
Kolpotocheiroidon_figueiredoi_37576	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
1Kolpotocheiroidon_figueiredoi_37575	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Serrapinnus_kriegi_25764	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Campsura_heterura_24984	TCAACCCGCTCGAGAGGAG	CGTCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Gen_e_sp_nova_27603	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Acinocheiroidon_cf_melanogrammus_37550	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAATGGAAA
1Aphyocheiroidon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheiroidon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	TCAACCCGCTCGAGAGGAG	AGAAGACGAGGCGATTCGCG	CCTGCCAAGCAGCTGAGAA	AGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Serrapinnus_notomelas_19890	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Serrapinnus_notomelas_18293	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_stenodon_20130	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Serrapinnus_sp_122401	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Odontostilbe_fugitiva_22932	TCAACCCGCTCGAGAGGAG	CGAAGACGAGGCGATTCGCG	TCTGACAAGCAGCTGCGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cheiroidon_pulcher_8	TCAACCCGCTCGAGAGGAG	CGTCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Odontostilbe_fugitiva_23714	TCAACCCGCTCGAGAGGAG	CGTCGACGCTGGCGATTCGC	TCTTGACAAGCAGCTGCGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Serrapinnus_calliurus_22121	TCAACCCGCTCGAGAGGAG	CGTCGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGCGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Serrapinnus_calliurus_25768	TCAACCCGCTCGAGAGGAG	CGCCGACGCTGGCGATTCGC	TCTAGACAAGCAGCTGCGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Odontostilbe_ecuadorensis_9	TCAACCCGCTCGAGAGGAG	CGTCGACGCTGGCGATTCGC	CCTAGACAAGCAGCTGAGAA	AGAAAATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Cynopotamus_magdalenae_29515	TCAATCCAGCTCGAGAGGAG	CGACGACGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Phenacogaster_sp_27299	TCAACCCGCTCGAGAGGAG	CGACGGCGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Aphyocharacidium_sp_33167	TCAATCTGCTCGAGAGGAG	CGCCGGCGCTGGCGATTCGC	CCTTGACAAGCAGCTGAGAA	AGAAGATGAAGCTGAAGCCG	GTGATGAGGATGAACGGGAA
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????

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Brycon_insignis_16075	CTACGCCCGCGGCTGATGA	CCCGTGAGGCTATAGAGGTTG	GTATGTGAGCTGGTTCCTTC	AGAAGAGCGTCGCAAGGCTC	TGACCGAGCTGATGGAGTTG
Gnatocharax_sp_24494	CTACGCCCGCGGCTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGATCTGATTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Macropsobrycon_xinguensis_40499	CTATGCCCGCGGTTGATGA	CCCGTGAGGCTATGAGGCTC	GTGTGTGAGTGGTTCCTTC	TGACGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	CTATGCCCGCGGCTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGGAGAGCTGATGGAGTTG
Aphyocharax_anisitsi_12660	CTACGCCCGCGGTTGATGA	CCCGGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Carlana_eigenmani_19864	CTATGCCCGCGGCTGATGA	CCCGTGAGGCTATAGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAAAGAGCTGATGGAGTTG
Astyanax_mexicanus_24599	CTATGCCCGGAGTTGATGA	CCAGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGCCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Spintherobolus_brocceae_22558	CTACGCCCGCGGCTGATGA	CCAGTGAGGCTGTGGAAAGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Spintherobolus_leptoura_36098	TTACGCTCGGCGCTGATGA	CCAGTGAGGCTGTGGAAAGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Spintherobolus_ankoseion_24957	TTACGCTCGGCGCTGATGA	CCAGTGAGGCTGTGGAAAGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Charax_leticiae_12700	CTACGCCCGCGGCTGATGA	CCCGTGAGGCTGTGGATGCG	GTGTGTGAGTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAAAGAGCTGATGGAGTTG
Diapoma_sp_21274	GTACGCCCGCGGCTGATGA	CCCGTGAGGCGATGATGTTG	GTGTGTGAGCGGTTCCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAAAGACTGATGGAGTTG
Prodontocharax_melanotus_10	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	CGAGGAGCGTCGCAAGGCTC	TGAAAGAGCTGATGGAGTTG
Prodontocharax_sp_7	GTATGCCAGACGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAAAGAGCTGATGGAGTTG
Nanocheirodon_insignis_27476	GTATGCCCGCGGTTGATGA	CCCGGAGTCCGTGGAGGTTG	GTGTGTGAGTGGTTCCTTC	AGAGGAGAGTCGCAAGGCTC	TAAGAGAGCTGATGGAGTTG
Pseudocheirodon_arnoldi_5	CTATGCCCGCGGTTGATGA	CCCGTGAGTCCGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Pseudocheirodon_terrabae_6	CTATGCCCGCGGTTGATGA	CCCGTGAGTCCGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TAAGAGAGCTGATGGAGTTG
Heterocheirodon_yatai_24954	CTATGCCCGCGGTTGATGA	CCCGTGAGTCCGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Cheirodon_killiani_24964	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGATGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Cheirodon_austriale_24979	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGATGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Cheirodon_interruptu_20486	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGATGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Cheirodon_killiani_19803	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGATGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Cheirodon_killiani_24969	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGATGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Cheirodon_austriale_24963	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGATGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Cheirodon_interruptus_21266	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGATGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Cheirodon_ibicuhiensis_25598	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGATGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Cheirodon_killiani_24974	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGATGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Saccoderma_melanostigma_27475	GTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGTGGTTCCTTC	CGAGGAGCGTCGCAAGGCTC	TAAGAGAGCTGATGGAGTTG
Compsura_gorgonae_1	CTATGCCAGACGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGAGAGAGCTGATGGAGTTA
Odontostilbe_mitoptera_3	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGAGAGAGCTGATGGAGTTA
Compsura_sp_nova_4	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGAGAGAGCTGATGGAGTTA
Odontostilbe_dialepturus_2	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGAGAGAGCTGATGGAGTTA
Odontostilbe_pulchra_25845	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Odontostilbe_paraguayensis_20127	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Odontostilbe_spl_22626	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGAGAGAGCTGATGGAGTTG
Serrapinnus_microdon_17057	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Kolpotocheirodon_theloura_25982	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Macropsobrycon_uruguayanae_29061	CTATGCCCGCGGTTGATGA	CCAGTGAAAGCTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTCGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Odontostilbe_pequirira_24958	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Odontostilbe_pequirira_20124	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Odontostilbe_pequirira_12659	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Acinocheirodon_melanogrammus_37551	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Serrapinnus_heterodon_20305	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Odontostilbe_sp2_29616	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Kolpotocheirodon_figueiredoi_37576	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGATTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
1Kolpotocheirodon_figueiredoi_37575	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGATTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Serrapinnus_kriegi_25764	CTACGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Compsura_heterura_24984	CTACGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Gen_e_sp_nova_27603	CTACGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Acinocheirodon_cf_melanogrammus_37550	CTATGCCCGCGGTTGATGA	CCCGTGAGGCGGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	GTACGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Serrapinnus_notomelas_19890	CTACGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Serrapinnus_notomelas_18293	CTACGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Cheirodon_stenodon_20130	CTATGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Serrapinnus_sp1_22401	CTACGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Odontostilbe_fugitiva_22932	GTACGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Cheirodon_pulcher_8	CTATGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Odontostilbe_fugitiva_23714	CTACGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Serrapinnus_calliurus_22121	CTACGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Serrapinnus_calliurus_25768	CTACGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Odontostilbe_ecuadorensis_9	CTACGCCCGCGGTTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGACAGAGCTGATGGAGTTG
Cynopotamus_magdalena_29515	CTACGCCAGACGGCTGATGA	CCCGTGAGGCTGTGGAAAGTTG	GTGTGTGATTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGAAAGAGCTGATGGAGTTG
Phenacogaster_sp_27299	CTACGCCCGCGGCTGATGA	CCCGTGAGGCTGTGGAGGTTG	GTGTGTGAGTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TGAAAGAGCTGATGGAGTTG
Aphyocharacidium_sp_33167	CTATGCCAGACGGCTGATGA	CCCGTGAGGCTGTGGAAAGTTG	GTGTGTGAGCTGGTTCCTTC	AGAGGAGCGTAGCAAGGCTC	TAAGAGAGCTGATGGAGTTG
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	TACCTCCAGATGAAGCCGCT	GTGGCGCTACCTGCCAGC	CCAAAGACTGCCCTGATCAA	CTCTGCCGTTACAGCTACAA	CTCAGACGCTTCGCTGAAC
Gnatocharax_sp_24494	TACCTCCAGATGAAGCCGCT	GTGGCGCTACCTGCCAGC	CCAAAGACTGCCCTGATCAA	CTCTGCCGTTACAGCTTAA	CTCAGACGCTTCGCTGAAC
Macropsobrycon_xinguensis_40499	TACCTCCAGATGAAGCCGCT	GTGGCGCTACCTGCCAGC	CCAAAGACTGCCCTGATCAA	CTCTGCCGTTACAGCTTAA	CTCAGACGCTTCGCTGAAC
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	TACCTCCAGATGAAGCCGCT	GTGGCGCTACCTGCCAGC	CCAAAGACTGCCCTGATCAA	CTCTGCCGTTACAGCTTAA	CTCAGACGCTTCGCTGAAC
Aphyocharax_anisitsi_12660	TACCTCCAGATGAAGCCGCT	GTGGCGCTACCTGCCAGC	CCAAAGACTGCCCTGATCAA	CTCTGCCGTTACAGCTTAA	CTCAGACGCTTCGCTGAAC
Carlana_eigenmani_19864	TACCTCCAGATGAAGCCGCT	GTGGCGCTACCTGCCAGC	CCAAAGACTGCCCTGATCAA	CTCTGCCGTTACAGCTACAA	CTCAGACGCTTCGCTGAAC

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Astyanax_mexicanus_24599	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACCTGCCAG	CCAGAGACTGCCCTGATCAA	CTCTGCCGTTATAGCTTCAA	CTCACAACGCTTTGCTGAAC
Spintherobolus_broccae_22558	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCGCAGCGCTTCGCTGAAA
Spintherobolus_leptoura_36098	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CAAAGACTGTCGGATCAA	CTCTGCCGTTACAGCTTCAA	CTCGCAGCGCTTCGCTGAAA
Spintherobolus_ankoseion_24957	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CAAAGACTGTCGGATCAA	CTCTGCCGTTACAGCTTCAA	CTCAGCAGCGCTTTGCTGATT
Charax_leticiae_12700	TACCTCCAGATGAAGCCCGT	CTGGCGCTCCACCTGCCAG	CAAAGACTGTCGGATCAA	CTGTGCGTTACAGCTTCAA	CTCACAACGATTTGCTGAAC
Diapoma_sp_21274	TACCTCCAGATGAAGCCCGT	CTGGCGCTTACTTGCCAA	CCAGAGACTGCCCGCTCAA	GTCTGTCGTTACAGTTCAA	CTCGCAACGCTTTGCGCGAAC
Prodontocharax_melanotus_10	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTTCTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGACC
Prodontocharax_sp_7	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCGACT
Nanocheiroidon_insignis_27476	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAAACGCTCCAGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGATT
Pseudocheiroidon_arnoldi_5	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGATTCGCTGATC
Pseudocheiroidon_terrae_6	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCTAATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGATTCGCTGATC
Heterocheiroidon_yatai_24954	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_killiani_24964	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_austroale_24979	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_interruptu20486	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_killiani_19803	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_killiani_24969	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_austroale_24963	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_interruptu_21266	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_ibicuihensis_25598	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_killiani_24974	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Saccoderma_melanostigma_27475	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAAAACGCTCCAGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Compsura_gorgonae_1	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_mitoptera_3	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Compsura_sp_nova_4	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_dialepturus_2	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_pulchra_25845	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_paraguayensis_20127	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_sp1_22626	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Serrapinnus_microdon_17057	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Kolpotocheiroidon_theloura_25982	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Macropsobrycon_uruguayanae_29061	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_pequira_14958	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_pequira_20124	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_pequira_12659	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Acinocheiroidon_melanogrammus_37551	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Serrapinnus_heterodon_20305	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_sp2_29616	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Kolpotocheiroidon_figueiredoi_37576	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
1Kolpotocheiroidon_figueiredoi_37575	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Serrapinnus_kriegeli_25764	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Compsura_heterura_24984	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Gen_e_sp_nova_27603	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Acinocheiroidon_cf_melanogrammus_37550	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
1Aphyocheiroidon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheiroidon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CAAAGACTGCCCGATCAA	CTGTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Serrapinnus_notomelas_19890	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Serrapinnus_notomelas_18293	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_stenodon_20130	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Serrapinnus_sp1_22401	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_fugitiva_22932	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CAAAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cheiroidon_pulcher_8	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_fugitiva_23714	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Serrapinnus_calliurus_22121	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Serrapinnus_calliurus_25768	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Odontostilbe_ecuadorensis_9	TACCTCCAGATGAAGCCCGT	CTGGCGCTCCACCTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Cynopotamus_magdalena_29515	TATCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTGTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Phenacogaster_sp_27299	TACATCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CAAAGACTGCCCGATCAA	CTGTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Aphyocharacidium_sp_33167	TACCTCCAGATGAAGCCCGT	CTGGCGCTCTACTTGCCAG	CCAGAGACTGCCCGATCAA	CTCTGCCGTTACAGCTTCAA	CTCACAACGCTTCGCTGAGC
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	TCCTGCCACTACATTCAA	TATCGTTACGATGGCAAGAT	TACCAACTACCTCCACAAGA	CAGTGGCTCACGTCGCTGAG	ATTGTGGAGCGGGA?GGCTC
Gnatocharax_sp_24494	TCCTGCCACTACATTCAA	TATCGTTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CAGTGGCTCACGTCGCTGAG	ATTGTGGAGCGGGA?GGCTC
Macropsobrycon_xinguensis_40499	TCTTGTACACTACATTCAA	TATCGTTACGATGGCAAGAT	TACCAACTACCTCCACAAGA	CTCTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	TCTTGTCCAGCACTTCAA	TATCGTTACGATGGCAAGAT	TACCAACTACCTCCACAAGA	CAGTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Aphyocharax_anisitsi_12660	TCCTGTCTACTACGTTCAA	TACCGCTACGATGGCAAGAT	TACCAACTACCTCCACAAGA	CTCTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Carlana_eigenmani_19864	TCTTGTCCACTACATTCAA	TATCGTTACGATGGCAAGAT	TACCAACTACCTCCACAAGA	CTCTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Astyanax_mexicanus_24599	TCTTGTCCACTACATTCAA	TATCGTTACGATGGCAAGAT	TACCAACTACCTCCACAAGA	CTCTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Spintherobolus_broccae_22558	TCTTGTCCACTACATTCAA	TATCGTTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CAGTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Spintherobolus_leptoura_36098	TCTTGTCCACTACATTCAA	TATCGTTACGATGGCAAGAT	TACCAACTACCTCCACAAGA	CTCTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Spintherobolus_ankoseion_24957	TCTTGTCCACTACATTCAA	TATCGTTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CAGTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Charax_leticiae_12700	TCTTGTCCACTACATTCAA	TATCGTTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CAGTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Diapoma_sp_21274	TCTTGTCCACTACATTCAA	TATCGTTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CAGTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC
Prodontocharax_melanotus_10	TCCTGTCTCACTTCAA	TATCGTTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CAGTGGCCCATGTTCGCGCC	ATTGTGGAGCGGGAATCCTTC

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Prodontocharax_sp_7	TCCCGTCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	TACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCGTGGAGCGGGATGGCTC
Nanocheirodon_insignis_27476	TCCCGTCCACAACCTTCAAG	CATTGGTCCGATGGCAAGAT	CTCCAACACTACCTGCACGAGA	CAATGGCTCATGTGCCTGAA	ATAGTAAAGCAGGATGGATC
Pseudocheirodon_arnoldi_5	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Pseudocheirodon_terrabrae_6	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCTCATGTGCCTGAA	????????????????????
Heterocheirodon_yatai_24954	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Cheirodon_killiani_24964	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Cheirodon_australe_24979	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAA	ATCTGGAGCGGGATGGCTC
Cheirodon_interruptu20486	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Cheirodon_killiani_19803	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Cheirodon_killiani_24969	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Cheirodon_australe_24963	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Cheirodon_interruptu_21266	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Cheirodon_ibicuhiensis_25598	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Cheirodon_killiani_24974	TCCGTGCCACAACATTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Saccoderma_melanostigma_27475	TCCGTGCCACAACCTTCAAG	CATCGCTCCGATGGCAAGAT	CTCCAACACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGATCAGGGAAGCTC
Compsura_gorgoneae_1	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_mitoptera_3	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Compsura_sp_nova_4	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_dialepturus_2	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_pulchra_25845	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CATTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_paraguayensis_20127	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CTCCAATTACCTCCACAAGA	CATTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_sp1_22626	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Serrapinnus_microdon_17057	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGAGATGGCTC
Kolpotocheirodon_theloura_25982	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Macropsobrycon_uruguayanae_29061	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGATC
Odontostilbe_pequira_24958	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CATTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_pequira_20124	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAATTACCTCCACAAGA	CATTGGCTCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_pequira_12659	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Acinocheirodon_melanogrammus_37551	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAATTACCTCCACAAGA	CATTGGCTCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Serrapinnus_heterodon_20305	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAATTACCTCCACAAGA	CATTGGCTCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_sp2_29616	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Kolpotocheirodon_figueiredoi_37576	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGATC
1Kolpotocheirodon_figueiredoi_37575	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGATC
Serrapinnus_kriegi_25764	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGATC
Compsura_heterura_24984	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Gen_e_sp_nova_27603	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CCTTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGATC
Acinocheirodon_cf_melanogrammus_37550	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CAATGGCCCATGTGCCTGAA	ATCTGGAGCGGGATGGATC
Serrapinnus_notomelas_19890	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Serrapinnus_notomelas_18293	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Cheirodon_stenodon_20130	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Serrapinnus_sp1_22401	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_fugitiva_22932	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGATC
Cheirodon_pulchra_8	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGATC
Odontostilbe_fugitiva_23714	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Serrapinnus_calliurus_22121	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Serrapinnus_calliurus_25268	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Odontostilbe_ecuadorensis_9	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CCCTGGCCCATGTGCCTGAG	ATCTGAAAGCGGGATGGATC
Cynopotamus_magdalenae_29515	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Phenacogaster_sp_27299	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharacidium_sp_33167	TCCGTGCCACAACCTTCAAG	TATCGGTACGATGGCAAGAT	CACCAACTACCTCCACAAGA	CACCTGGCCCATGTGCCTGAG	ATCTGGAGCGGGATGGCTC
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Brycon_insignis_16075	A????????????????????	????????????????????	????????????????????	AGCCTCGCATGGGAGCCCT	GAGTGTACCTTATTATCAA
Gnatocharax_sp_24494	????????????????????	????????????????????	????????????????????	AACTCTGGGACGGGAGCCCT	GAGTGTACCTCATTATGAG
Macropsobrycon_xinguensis_40499	AAT????????????????????	????????????????????	????????????????????	AACTCTGAGATGGGAGCCCT	GAGTGTACCTCATTATGAG
Bryconops_affinis_4168	????????????????????	????????????????????	????????????????????	AGCCTTGCACGGGAGCCCT	GAGTGTACCTCATTATGAG
Chalceus_epakros_26504	GATGT????????????????	????????????????????	????????????????????	????????????????????	GAGTGTACCTTATTATCAGG
Aphyocharax_anisitsi_12660	AATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AAGCTCTCCGACGCTTCAA	AGCCTCGCATGGGAGCCCT	GAGTGTGCCTCATTACAGG
Carlana_eigenmani_19864	????????????????????	????????????????????	????????????????????	AGCCTCGCATGGGAGCCCT	GAGTGTACCTTATTATGAG
Astyanax_mexicanus_24599	GATGTGCCTGGGACAGT	????????????????????	????????????????????	AACTCTGAGATGGGAGCCCT	GAGGTTACCTCATTATGAG
Spintherobolus_brocae_22558	AATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AAGCTCTCCGACGCTTCAA	GACCTCTGATGGGAGCCCT	GAGTGTACCTCATTATGAG
Spintherobolus_leptoura_36098	CATT????????????????	????????????????????	????????????????????	GACCTCTGATGGGAGCCCT	GAGTGTACCTCATTATGAG
Spintherobolus_ankoseion_24957	AATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AAGCTCTCCGACGCTTCAA	GACCTCTGATGGGAGCCCT	GAGTGTACCTCATTATGAG
Charax_leticiae_12700	AATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AAGCTCTCCGACGCTTCAA	AGCCTCGCATGGGAGCCCT	GAATGTACCTCATTATGAG
Diapoma_sp_21274	CTTGGCCCTTTTACCCTTC	AGTTCATGGAGGCTCCCAAG	GATCCCTCTTAC?CTTCAA	AACTCTGAGATGGGAGCCCT	GAGTGTACCTCATTATGAG
Prodontocharax_melanotus_10	????????????????????	????????????????????	????????????????????	AACTCTGATGGGAGCCCT	GAATGTACCTCATTATGAG
Prodontocharax_sp_7	TATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AAGCTCTCCGACGCTTCAA	AACTCTGATGGGAGCCCT	GAATGTACCTCATTATGAG
Nanocheirodon_insignis_27476	AATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AAGCTCTCAGAAGCTTCAA	AACTCTTGTATGGGAGCCCT	GAGTGTACCTCATTATGAG
Pseudocheirodon_arnoldi_5	AATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AACTCTCCGACGCTTCAA	AACTCTTGTATGGGAGCCCT	GAATGTACCTCATTATGAG
Pseudocheirodon_terrabrae_6	????????????????????	????????????????????	????????????????????	AACTCTTGTATGGGAGCCCT	GAGTGTACCTCATTATGAG
Heterocheirodon_yatai_24954	TATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AAGCTCTCCGACGCTTCAA	AACTCTGATGGGAGCCCT	GAATGTACCTCATTATGAG
Cheirodon_killiani_24964	TATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AAGCTCTCCGACGCTTCAA	AACTCTGATGGGAGCCCT	GAATGTACCTCATTATGAG
Cheirodon_australe_24979	TATGGTGCCTGGGACAGT	AGGGAAATGAGTCTGGCAAC	AAGCTCTCCGACGCTTCAA	AACTCTGATGGGAGCCCT	GAATGTACCTCATTATGAG

Cheirodon_interruptu20486	TATTGGTGCCTGGGCCAGTG	AAGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAATGTACCTCATTATCGG
Cheirodon_killiani_19803	TATTGGTGCCTGGGCCAGTG	AAGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAATGTACCTCATTATCGG
Cheirodon_killiani_24969	TATTGGTGCCTGGGCCAGTG	AAGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAATGTACCTCATTATCGG
Cheirodon_australe_24963	TATTGGTGCCTGGGCCAGTG	AAGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAATGTACCTCATTATCGG
Cheirodon_interruptus_21266	TATTGGTGCCTGGGCCAGTG	AAGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAATGTACCTCATTATCGG
Cheirodon_ibicuihensis_25598	TATTGGTGCCTGGGCCAGTG	AAGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAATGTACCTCATTATCGG
Cheirodon_killiani_24974	TATTGGTGCCTGGGCCAGTG	AAGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAATGTACCTCATTATCGG
Saccoderma_melanostigma_27475	CATTGGTGTCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Compsura_gorgonae_1	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_mitoptera_3	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Compsura_sp_nova_4	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_dialepturus_2	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_pulchra_25845	CATTGGTGTCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_paraguayensis_20127	CATTGGTGTCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_sp1_22626	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Serrapinnus_microdon_17057	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Kolpotocheirodon_theloura_25982	AATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Macropsobrycon_uruguayanae_29061	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_pequirá_24958	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_pequirá_20124	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_sp2_29616	CATTGGTGTCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Acinocheirodon_melanogrammus_37551	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_heterodon_20305	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_sp2_29616	GATT????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Kolpotocheirodon_figueiredoi_37576	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	????????????????????	????????????????????
1Kolpotocheirodon_figueiredoi_37575	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	????????????????????	????????????????????
Serrapinnus_sp1_25764	CATTGGTGTCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Compsura_heterura_24984	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Gen_e_sp_nova_27603	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Acinocheirodon_cf_melanogrammus_37550	GATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	????????????????????	????????????????????
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_20209	AATTGGTGCCTGGGCCAGTG	TGGGCAAGTATCTGGCAAC	CAGTCTTCTCAGGCTTCAA	AACCTCGGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Serrapinnus_notomelas_19890	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Serrapinnus_notomelas_18293	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Cheirodon_stenodon_20130	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Serrapinnus_sp1_22401	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_fugitiva_22932	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Cheirodon_pulcher_8	AATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_fugitiva_23714	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Serrapinnus_calliurus_22121	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Serrapinnus_calliurus_25768	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Odontostilbe_ecuadorensis_9	CATTGGTGCCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTTGTGACGGGAGCCCT	GAGTGTACCTCATTATCGG
Cynopotamus_magdalenae_29515	AAT?GGT????????????	????????????????????	????????????????????	AGCCTCGGATGGGAGCCCA	GAGTGTACCTCATTATCGG
Phenacogaster_sp_27299	????????????????????	????????????????????	????????????????????	AACCTCGGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Aphyocharacidium_sp_33167	GATTGGGCTGGGCCAGTG	AGGGCAATGAGCTGGCAAC	AAGCTCTCCGACGCTTCGA	AACCTGGTATGGGAGCCCT	GAGTGTACCTCATTATCGG
Hemibrycon_sp_33168	????????????????????	????????????????????	????????????????????	AACCTCGGATGGGAGCCCT	GAGTGTACCTCATTATCGG
Brycon_insignis_16075	AGGCCGAACACCCAATAAG	AAGTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CAGTGAATGTCTGGAGAAA
Gnatocharax_sp_24494	TGGCCGAACACCCAATAAG	AAGTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	AGGATGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA
Macropsobrycon_xinguensis_40499	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CGCTGAGATGTCTGGAGAAA
Bryconops_affinis_4168	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	CGGATGCAATCGGAAGGTCA	CGCTGACATGCCAGGAGAAA
Chalceus_epakros_26504	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CGCTGAATGTCTGGAGAAA
Aphyocharax_anisitsi_12660	TGGTGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CGCTGACATGCCAGGAGAAA
Carlana_eigenmani_19864	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CGCTGAGATGTCTGGAGAAA
Astyanax_mexicanus_24599	TGGTGAACACCCAATAAG	AATGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CGCTGAGATGTCTGGAGAAA
Spintherobolus_brocceae_22558	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CAGTGAATGTCTGGAGAAA
Spintherobolus_leptoura_36098	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CAGTGAATGTCTGGAGAAA
Spintherobolus_ankoseion_24957	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CAGTGAATGTCTGGAGAAA
Charax_leticiae_12700	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CGCTAAGATGTCTAGAGAAA
Diapoma_sp_21274	TGGCCGAACACCCAATAAG	AGTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGATGCAATCGGAAGGTCA	CGCTGAGATGTCTGGAGAAA
Prodontocharax_melanotus_10	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGATGTCTGGAGAAA
Prodontocharax_sp_7	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGATGTCTGGAGAAA
Nanocheirodon_insignis_27476	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGATGTCTGGAGAAA
Pseudocheirodon_arnoldi_5	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGTGAATCGGAAGGTCA	CGCTGAGGATGTCTGGAGAAA
Pseudocheirodon_terrabae_6	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGTGAATCGGAAGGTCA	CGCTGAGGATGTCTGGAGAAA
Heterocheirodon_yatai_24954	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CAGTGAATGTCTGGAGAAA
Cheirodon_killiani_24964	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA
Cheirodon_australe_24979	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA
Cheirodon_interruptu20486	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA
Cheirodon_killiani_19803	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA
Cheirodon_killiani_24969	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA
Cheirodon_australe_24963	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA
Cheirodon_interruptus_21266	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA
Cheirodon_ibicuihensis_25598	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA
Cheirodon_killiani_24974	TGGCCGAACACCCAATAAG	AGCTGTCTCTAGCCTCTAC	ATGCTTAGTGTGACAGCTCG	TGGCTGCAATCGGAAGGTCA	CGCTAAGATGTCTGGAGAAA

Apêndice

<i>Saccoderma_melanostigma</i> _27475	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Compsura_gorgonae</i> _1	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_mitoptera</i> _3	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Compsura_sp_nova</i> _4	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_dialepturus</i> _2	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_pulchra</i> _25845	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_paraguayensis</i> _20127	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Serrapinnus_microdon</i> _17057	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Kolpotocheirondon_theloura</i> _25982	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Macropsobrycon_uruguayanae</i> _29061	TGGCCGAATCCCAATAACG	ATCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_pequira</i> _24958	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_pequira</i> _20124	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_pequira</i> _12659	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Acinocheirondon_melanogrammus</i> _37551	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Serrapinnus_heterodon</i> _20305	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_sp2</i> _29616	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Kolpotocheirondon_figueiredoi</i> _37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
<i>1Kolpotocheirondon_figueiredoi</i> _37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
<i>Serrapinnus_kriegei</i> _25764	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Compsura_heterura</i> _24984	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Gen_e_sp_nova</i> _27603	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Acinocheirondon_cf_melanogrammus</i> _37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
<i>1Aphyocheirondon_hemigrammus</i> _40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
<i>Aphyocheirondon_hemigrammus</i> _40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
<i>Tetragonopterus_argenteus</i> _22029	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Serrapinnus_notomelas</i> _19890	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Serrapinnus_notomelas</i> _18293	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Cheirodon_stenodon</i> _20130	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Serrapinnus_sp1</i> _22401	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_fugitiva</i> _22932	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Cheirodon_pulcher</i> _8	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_fugitiva</i> _23714	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Serrapinnus_calliurus</i> _22121	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Serrapinnus_calliurus</i> _25768	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Odontostilbe_ecuadorensis</i> _9	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Cynopotamus_magdalena</i> _29515	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Phenacogaster_sp</i> _27299	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Aphyocheirondon_sp</i> _33167	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Hemibrycon_sp</i> _33168	TGGCCGAATCCCAATAACG	AGCTGTCTCCAGCCTCTAC	ATGCTTAGTGTCCGACAGTCG	TGGCTGCAATCGGAAGGTCA	CGCTGAGGTGTCTGGAGAAA
<i>Brycon_insignis</i> _16075	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CTATTATCGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Gnatocharax_sp</i> _24494	GAGCTGGTGGGGAGCCTCC	TGGACCTCGGTATGGCCACA	CTATTATCGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Macropsobrycon_xinguensis</i> _40499	GAGCTGGTGGGGAGCCTCC	GGGCTCGGTATGGCCACC	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Bryconops_affinis</i> _4168	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CTATTATCGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Chalceus_epakros</i> _26504	GAGCTGGTGGGGAGATCC	AGGGCTCGGTATGGCCACA	CTTTAGCTGGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Aphyocharax_anisitsi</i> _12660	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Carlana_eigenmani</i> _19864	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Astyanax_mexicanus</i> _24599	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Spintherobolus_broccae</i> _22558	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Spintherobolus_leptoura</i> _36098	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Spintherobolus_ankoseion</i> _24957	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Charax_leticiae</i> _12700	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CTATTATCGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Diapoma_sp</i> _21274	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Prodontocharax_melanotus</i> _10	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Prodontocharax_sp</i> _7	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Nanocheirondon_insignis</i> _27476	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Pseudocheirondon_arnoldi</i> _5	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Pseudocheirondon_terraba</i> _6	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Heterocheirondon_yatai</i> _24954	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Cheirodon_killiani</i> _24964	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Cheirodon_australe</i> _24979	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Cheirodon_interruptu</i> _20486	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Cheirodon_killiani</i> _19803	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Cheirodon_killiani</i> _24969	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Cheirodon_australe</i> _24963	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Cheirodon_interruptu</i> _21266	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Cheirodon_ibicuihiensis</i> _25598	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Cheirodon_killiani</i> _24974	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Saccoderma_melanostigma</i> _27475	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Compsura_gorgonae</i> _1	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Odontostilbe_mitoptera</i> _3	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Compsura_sp_nova</i> _4	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Odontostilbe_dialepturus</i> _2	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Odontostilbe_pulchra</i> _25845	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT
<i>Odontostilbe_paraguayensis</i> _20127	GAGCTGGTGGGGAGCCTCC	AGGGCTCGGTATGGCCACA	CCATTAGTGTAGTCCACAGC	AGGGGGAAGACCGCCTGTGT	CGCTTTTGGAGGACAGGTCTCT

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Odontostilbe_sp1_22626	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Serrapinnus_microdon_17057	GAGCTGGTGGGGAGCTTCC	AGGGCCCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Kolpotocheirodon_theloura_25982	GAGCTGGTGGGGAGCTTCC	AGGGCCCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Macropsobrycon_uruguayanae_29061	GAGCTGGTGGGGAGCTTCC	AGGGCCCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Odontostilbe_pequirá_24958	GAGCTGGTGGGGAGCTTCC	AGGGCCCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Odontostilbe_pequirá_20124	GAGCTGGTGGGGAGCTTCC	AGGGCCCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Odontostilbe_pequirá_12659	GAGCTGGTGGGGAGCTTCC	AGGGCCCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Acinocheirodon_melanogrammus_37551	GAGCTGGTGGGGAGCTTCC	AGGGCCCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Serrapinnus_heterodon_20305	GAGCTGGTGGGGAGCTTCC	AGGGCCCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Odontostilbe_sp2_29616	GAGCTGGTGGGGAGCTTCC	AGGGCCCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Kolpotocheirodon_figueiredoi_37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Kolpotocheirodon_figueiredoi_37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Compsura_heterura_24984	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Gen_e_sp_nova_27603	GAGCTGGTGGGGAGCTTCC	AGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Acinocheirodon_cf_melanogrammus_37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	GAGCTGGTGGGGAGCTTCC	AGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Serrapinnus_notomelas_19890	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAACGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Serrapinnus_notomelas_18293	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAACGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Cheirodon_stenodon_20130	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Serrapinnus_sp1_22401	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAACGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Odontostilbe_fugitiva_22932	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAACGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Cheirodon_pulcher_8	GAGCTGGTGGGGAGCTTCC	AGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Odontostilbe_fugitiva_23714	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Serrapinnus_calliurus_22121	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Serrapinnus_calliurus_25768	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Odontostilbe_ecuadorensis_9	GAGCTGGTGGGGAGCTTCC	GGGACCTCGCTACGGCCACA	CCATTAATGTTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Cynopotamus_magdalenae_29515	GAGCTGGTGGGGAGCTTCC	AGGACCTCGCTACGGCCACA	CCATTAAGTGTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Phenacogaster_sp_27299	GAGCTGGTGGGGAGCTTCC	AGGACCTCGCTACGGCCACA	CCATTAAGTGTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Aphyocharacidium_sp_33167	GAGCTGGTGGGGAGCTTCC	AGGACCTCGCTACGGCCACA	CCATTAAGTGTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Hemibrycon_sp_33168	GAGCTGGTGGGGAGCTTCC	AGGGCCCGGTTAGCCACAGC	CCATTAAGTGTGCCACAGC	AGGGGAAGACTGCCTGTGT	GCTTTTTGGAGGAAGGTCTCT
Brycon_insignis_16075	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Gnatocharax_sp_24494	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Macropsobrycon_xinguensis_40499	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Bryconops_affinis_4168	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Chalceus_epakros_26504	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Aphyocharax_anisitsi_12660	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Carlana_eigenmani_19864	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Astyanax_mexicanus_24599	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Spintherobolus_broccae_22558	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Spintherobolus_leptoura_36098	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Spintherobolus_ankoseion_24957	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Charax_leticiae_12700	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Diapoma_sp_21274	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Prodontocharax_melanotus_10	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Prodontocharax_sp_7	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Nanocheirodon_insignis_27476	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Pseudocheirodon_arnoldi_5	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Pseudocheirodon_terrabrae_6	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Heterocheirodon_yatai_24954	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Cheirodon_killiani_24964	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Cheirodon_australe_24979	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Cheirodon_interrupto_20486	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Cheirodon_killiani_19803	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Cheirodon_killiani_24969	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Cheirodon_australe_24963	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Cheirodon_interrupto_21266	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Cheirodon_ibicuhiensis_25598	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Cheirodon_killiani_24974	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Saccoderma_melanostigma_27475	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Compsura_gorgonae_1	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Odontostilbe_mitoptera_3	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Compsura_sp_nova_4	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Odontostilbe_dialepturus_2	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Odontostilbe_pulchra_25845	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Odontostilbe_paraguayensis_20127	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Odontostilbe_sp1_22626	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Serrapinnus_microdon_17057	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Kolpotocheirodon_theloura_25982	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Macropsobrycon_uruguayanae_29061	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Odontostilbe_pequirá_24958	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Odontostilbe_pequirá_20124	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC
Odontostilbe_pequirá_12659	ACATGCCACCTGCTGAGAGA	ACCACAGAACTGGAATTG	TGTGGTGGACTGTCCACCTC	AGGTGTACCTTATTGACCTA	GAGTTGGCTGCTGCTCAGC

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Acinocheirodon_melanogrammus_37551	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACACCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Serrapinnus_heterodon_20305	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACACCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Odontostilbe_sp2_29616	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACACCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Kolpotocheirodon_figueiredoi_37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Kolpotocheirodon_figueiredoi_37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACTCCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Compsura_heterura_24984	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACGCCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Gen_e_sp_nova_27603	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACTCCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Acinocheirodon_cf_melanogrammus_37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	ACATGCCACCTGCGGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACGCCCC	AGGTGTACCTTATTGACCTA	GAGTTTGGCTGTCTCAGC
Serrapinnus_notomelas_19890	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACTCCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Serrapinnus_notomelas_18293	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACTCCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Cheirodon_stenodon_20130	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACCCCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Serrapinnus_sp1_22401	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACTCCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Odontostilbe_fugitiva_22932	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACGCCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Cheirodon_pulcher_8	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACACCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Odontostilbe_fugitiva_23714	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACACCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Serrapinnus_calliurus_22121	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACACCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Serrapinnus_calliurus_25768	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACACCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Odontostilbe_ecuadorensis_9	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACACCTC	AGGTGTACCTTATTGACCTG	GAGTTTGGCTGTCTCAGC
Cynopotamus_magdalenae_29515	ACATGCCACCTGCGGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACGCCCC	AGGTGTACCTTATTGACCTA	GAGTTTGGCTGTCTCAGC
Phenacogaster_sp_27299	ACATGCCACCTGCGGAGAGA	ACCACAGAGAAGTGAATTG	CTGGTGGACTGTACGCCCC	AGGTGTACCTTATGACCTA	GAGTTTGGCTGTCTCAGC
Aphyocharacidium_sp_33167	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACGCCCC	AGGTGTACCTTATTGACCTA	GAGTTTGGCTGTCTCAGC
Hemibrycon_sp_33168	ACATGCCACCTGCTGAGAGA	ACCACAGAGAAGTGAATTG	TGTGGTGGACTGTACGCCCC	AGGTGTATCTTATTGACCTA	GAGTTTGGCTGTCTCAGC
Brycon_insignis_16075	GCATACCTCCCGAGCTCA	CAGACGGCCAGTCATTCCAC	CTGGCACTGGCTCGGAGGA	CTGTGTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Gnatocharax_sp_24494	ACATACCATTCCCTGAGCTGA	CGGATGGCCAGTCGTTCCAC	CTGACACTGGCTCGAGAGGA	CTGTGTCTATTCTCGGGGG	GCCACATCTTCTCCACTGAC
Macropsobrycon_xinquensis_40499	TCATACCTCCCGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCACTGGCTCGAGAGGA	CTGTGTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Bryconops_affinis_4168	GCATACCATTCCCGAGCTCA	CAGATGGCCAGTCATTCCAC	CTGGCGCTGGCTCGAGAGGA	CTGTGTCTATTCTTGGGGG	GCCACATCTCTCCACTGAC
Chalceus_epakros_26504	CAGACGGCTGCCCCGAGCTCA	CAGACGGCCAGTCATTCCAC	CTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTCGGGTG	GCCACATCTCTCCACTGAC
Aphyocharax_anisitsi_12660	GCATACTATCCCGAGCTCA	CAGACGGCCAGTCGTTCCAC	CTGGCGCTGGCTCGAGAGGA	CTGTGTCTATTCTTGGGGG	GCCACATCTCTCCACTGAC
Carlana_eigenmani_19864	GCATACCTCCCTGAGCTCA	CAGACGGCCAGTCATTCCAC	CTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Astyanax_mexicanus_24599	GCATACCTCCCTGAGCTAA	CAGACGGCCAGTCGTTCCAC	TTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Spintherobolus_brocceae_22558	GCATACCTCCCGAGCTGA	CAGATGGCCAGTCGTTCCAC	CTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Spintherobolus_leptoura_36098	GCATACCTCCCGAGCTGA	CAGATGGCCAGTCGTTCCAC	CTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Spintherobolus_ankoseion_24957	GCATACCTCCCGAGCTGA	CAGATGGCCAGTCGTTCCAC	CTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Charax_leticiae_12700	ACATACCTCCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	CTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Diapoma_sp_21274	ACATACCTCCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	CTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Prodontocharax_melanotus_10	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Prodontocharax_sp_7	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCACTGGCTAGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Nanocheirodon_insignis_27476	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Pseudocheirodon_arnoldi_5	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCATTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Pseudocheirodon_terrabae_6	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCATTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Heterocheirodon_yatai_12454	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Cheirodon_killiani_24964	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Cheirodon_australe_24979	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Cheirodon_interruptu20486	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Cheirodon_killiani_19803	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Cheirodon_killiani_24969	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Cheirodon_australe_24963	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Cheirodon_interruptu_21266	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Cheirodon_ibicuihensis_25598	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Cheirodon_killiani_24974	ACATAACCTTCTGAGCTGA	CAGATGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Saccoderma_melanostigma_27475	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Compsura_gorgoneae_1	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Odontostilbe_mitoptera_3	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Compsura_sp_nova_4	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Odontostilbe_dialepturus_2	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCACTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Odontostilbe_pulchra_25845	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Odontostilbe_paraguayensis_20127	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Odontostilbe_sp1_22626	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Serrapinnus_microdon_17057	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Odontostilbe_sp2_29616	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Kolpotocheirodon_figueiredoi_37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Kolpotocheirodon_figueiredoi_37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC
Compsura_heterura_24984	ACATAACCTTCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCTTGGGGG	GCCACATCTCTCCACTGAC

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Gen_e_sp_nova_27603	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Acinocheirodon_cf_melanogrammus_37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACTGAC
Serrapinnus_notomelas_19890	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCATTCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACTGAC
Serrapinnus_notomelas_18293	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACTGAC
Cheirodon_stenodon_20130	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACTGAC
Serrapinnus_spl_22401	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACTGAC
Odontostilbe_fugitiva_22932	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Cheirodon_pulcher_8	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCATTCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACTGAC
Odontostilbe_fugitiva_23714	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Serrapinnus_calliurus_22121	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Serrapinnus_calliurus_25768	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Odontostilbe_ecuadorensis_9	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Cynopotamus_magdalenae_29515	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Phenacogaster_sp_27299	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Aphyocharacidium_sp_33167	ACATAACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Hemibrycon_sp_33168	GCATACCTTCCTGAGCTGA	CAGACGGCCAGTCGTTCCAC	TTGGCGCTGGCTCGAGAGGA	CTGTGTCTACTTCCTTGGGG	GCCCAATTCCTCCACCAGC
Brycon_insignis_16075	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCTGTGAGGTCCTTAAAGA	TGCTGTGTCATCACAAAGT
Gnatocharax_sp_24494	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Macropsobrycon_xinguensis_40499	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Bryconops_affinis_4168	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Chalceus_epakros_26504	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Aphyocharax_anisitsi_12660	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Carlana_eigenmani_19864	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Astyanax_mexicanus_24599	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Spintherobolus_brocae_22558	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Spintherobolus_leptoura_36098	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Spintherobolus_ankoseion_24957	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Charax_leticiae_12700	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Diapoma_sp_21274	TGCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Prodontocharax_melanotus_10	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Prodontocharax_sp_7	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Nanocheirodon_insignis_27476	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Pseudocheirodon_arnoldi_5	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Pseudocheirodon_terrabae_6	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Heterocheirodon_yatai_24954	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Cheirodon_killiani_24964	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Cheirodon_australe_24979	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Cheirodon_interruptu_20486	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Cheirodon_killiani_19803	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Cheirodon_killiani_24969	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Cheirodon_australe_24963	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Cheirodon_interruptu_21266	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Cheirodon_ibicuhiensis_25598	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Cheirodon_killiani_24974	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Saccoderma_melanostigma_27475	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Compsura_gorgonae_1	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Odontostilbe_mitoptera_3	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Compsura_sp_nova_4	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Odontostilbe_dialepturus_2	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Odontostilbe_pulchra_25845	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Odontostilbe_paraguayensis_20127	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Odontostilbe_spl_22626	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Serrapinnus_microdon_17057	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Kolpotocheirodon_theloura_25982	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Macropsobrycon_uruguayanae_29061	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Odontostilbe_pequira_24958	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Odontostilbe_pequira_20124	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Odontostilbe_pequira_12659	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Acinocheirodon_melanogrammus_37551	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Serrapinnus_heterodon_20305	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Odontostilbe_sp_229616	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Kolpotocheirodon_figueiredoi_37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Kolpotocheirodon_figueiredoi_37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Compsura_heterura_24984	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Gen_e_sp_nova_27603	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Acinocheirodon_cf_melanogrammus_37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Serrapinnus_notomelas_19890	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT
Serrapinnus_notomelas_18293	TGTCGACCACTCGCTGTT	CAAGTCGCTGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGATTTTAAAGA	GGGCTGTCCATCACAAAGT

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Cheirodon_stenodon_20130	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCTTGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Serrapinnus_sp1_22401	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCTTGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Odontostilbe_fugitiva_22932	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCGTGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Cheirodon_pulcher_8	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCGTGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Odontostilbe_fugitiva_23714	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCGTGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Serrapinnus_calliurus_22121	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCTTGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Serrapinnus_calliurus_25768	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCGTGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Odontostilbe_ecuadorensis_9	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCTTGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Cynopotamus_magdaleneae_29515	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Phenacogaster_sp_27299	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Aphyocharacidium_sp_33167	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Hemibrycon_sp_33168	TGTCGACCACCTCGCTTGT	CAAGTCGCGTGGAGCTTC	TCTTAGGCAGTCCAGTGCTC	TCATGTGAGGCTTTAAACGA	GGGTCTGTCCATCACAAGTG
Brycon_insignis_16075	CCATTGCAACTTCTATAGGC	TCTGCTCATGATATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Gnatocharax_sp_24494	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Macropobrycon_xinguensis_40498	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Bryconops_affinis_4168	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Chalceus_epakros_26504	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Aphyocharax_anisitsi_12660	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Carlana_eigenmani_19864	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Astyanax_mexicanus_24599	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Spintherobolus_brocceae_22558	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Spintherobolus_leptoura_36098	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Spintherobolus_ankoseion_24957	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Charax_leticiae_12700	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Diapoma_sp_21274	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Prodontocharax_melanotus_10	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Prodontocharax_sp_7	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Nanocheirodon_insignis_27476	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Pseudocheirodon_arnoldi_5	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Pseudocheirodon_terrabaee_6	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Heterocheirodon_yatai_24954	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_killiani_24964	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_australe_24979	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_interruptu_20486	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_killiani_19803	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_killiani_24969	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_australe_24963	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_interruptu_21266	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_ibicuhiensis_25598	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_killiani_24974	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Saccoderma_melanostigma_27475	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Compusura_gorgonae_1	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_mitoptera_3	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Compusura_sp_nova_4	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_dialepturus_2	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_pulchra_25845	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_paraguayensis_20127	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_sp1_22626	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Serrapinnus_microdon_17057	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Kolpotocheirodon_theloura_25982	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Macropobrycon_uruguayanae_29061	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_pequira_24958	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_pequira_20124	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_pequira_12659	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Acinocheirodon_melanogrammus_37551	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Serrapinnus_heterodon_20305	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_sp2_29616	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Kolpotocheirodon_figueiredoi_37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Kolpotocheirodon_figueiredoi_37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Compusura_heterura_24984	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Gen_e_sp_nova_27603	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Acinocheirodon_cf_melanogrammus_37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	CCATTGCAACTTCTATAGGC	TCTACTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Serrapinnus_notomelas_19890	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Serrapinnus_notomelas_18293	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_stenodon_20130	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Serrapinnus_sp1_22401	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_fugitiva_22932	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Cheirodon_pulcher_8	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Odontostilbe_fugitiva_23714	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Serrapinnus_calliurus_22121	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA
Serrapinnus_calliurus_25768	CCATTGCAACTTCTATAGGC	TCTGCTCATGATGATATGAT	CCTTGGTGGTACCAGTCCG	AGTCCGAAAAGCGCATGCG	TGCACGTACGTTGCACTGGA

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Odontostilbe_ecuadorensis_9	CCATTGTAACCTCTAGTAGGC	TCTGCTCATGAGTACATGAT	CCTTGGTGGCTACCAGTCCG	AGTCTGAAAAGCGCATGCAG	TGCACCTTACGTTGCACTGGA
Cynopotamus_magdalenae_29515	CCATTGCAACTTCTGTAGGC	TCTGCTCATGAGTACATGAT	CCTTGGTGGCTACCAGTCCG	AGTCTGAAAAGCGCATGCAG	TGCACCTTACGTTGCACTGGA
Phenacogaster_sp_27299	CCATTGCAACTTCTGTAGGC	TCTGCTCATGAGTACATGAT	CCTTGGTGGTACCAGTCCG	AGTCTGAAAAGCGCATGCAG	TGCACCTTACGTTGCACTGGA
Aphyocharacidium_sp_33167	CCATTGCAACTTCTGTAGGC	TCTTCTCATGAGTACATGAT	CCTTGGTGGCTACCAGTCCG	AGTCTGAAAAGCGCATGCAG	TGCACATACGTTGCACTGGA
Hemibrycon_sp_33168	CAATTGCAACTTCTGTAGGC	TCTGCTCATGAGTACATGAT	CCTTGGTGGCTACCAGTCCG	AGTCTGAAAAGCGCATGCAG	TGCACATACGTTGCTTGGTA
Brycon_insignis_16075	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Gnatocharax_sp_24494	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGCAGT
Macropsobrycon_xinguensis_40499	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Bryconops_affinis_4168	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GCAGTCTGGAACAGGGGAGC
Chalceus_epakros_26504	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GAAGCTGGAAAAGGGGAGC
Aphyocharax_anisitsi_12660	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GCAGTCTGGAACAGGGGAGC
Carlana_eigenmani_19864	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Astyanax_mexicanus_24599	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Spintherobolus_brocceae_22558	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GAAGTCTGGAACAGGGGAGC
Spintherobolus_leptoura_36098	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GAAGCTGGAAAAGGGGAGC
Spintherobolus_ankoseira_20994	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GAAGTCTGGAACAGGGGAGC
Charax_leticiae_12700	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GAAGCTGGAAAAGGGGAGC
Diapoma_sp_21274	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGCCGCACTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Prodontocharax_melanotus_10	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Prodontocharax_sp_7	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Nanocheiroidon_insignis_27476	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Pseudocheiroidon_arnoldi_5	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Pseudocheiroidon_terrabae_6	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Heterocheiroidon_yatai_24954	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_killiani_24964	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_australe_24979	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_interruptu20486	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_killiani_19803	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_killiani_24969	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_australe_24963	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_interruptus_21266	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_ibicuhiensis_25598	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_killiani_24974	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Saccoderma_melanostigma_27475	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Compisura_gorgonae_1	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_mitoptera_3	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Compisura_sp_nova_4	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_dialepturus_2	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_pulchra_25845	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_paraguayensis_20127	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_spl_22626	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Serrapinnus_microdon_17057	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Kolpotocheiroidon_theloura_25982	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Macropsobrycon_uruguayanae_29061	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_pequiraa_6	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_pequiraa_20124	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_pequiraa_12659	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Acinocheiroidon_melanogrammus_37551	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Serrapinnus_heterodon_20305	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_sp2_29616	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Kolpotocheiroidon_figueiredoi_37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Kolpotocheiroidon_figueiredoi_37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Compisura_heterura_24984	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Gen_e_sp_nova_27603	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Acinocheiroidon_cf_melanogrammus_37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Aphyocheiroidon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheiroidon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Serrapinnus_notomelas_19890	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Serrapinnus_notomelas_18293	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_stenodon_20130	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGTCTGGAACAGGGGAGC
Serrapinnus_spl_22401	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_fugitiva_22932	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cheiroidon_pulcher_8	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_fugitiva_23714	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Serrapinnus_calliurus_22121	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Serrapinnus_calliurus_25768	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Odontostilbe_ecuadorensis_9	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Cynopotamus_magdalenae_29515	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGCAGT
Phenacogaster_sp_27299	TGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGCAGT
Aphyocharacidium_sp_33167	CGATGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Hemibrycon_sp_33168	CGACGTTGGCATACTAGTAGG	AACCTCGAGAACCACCACCA	TGGACCACTGAGATTAGCCA	AAGTCGCACCTGGTTGGTG	GAAGCTGGAAAAGGGTGTG
Brycon_insignis_16075	GCTCTGATCGCTATTCCGCT	AGAGGGAAATCCAGCACCTC	CAGATGCGCACTTACTCTAC	CAAGTAAGCTCCAGCAAGA	GGGAGATGCAGAAAGCCAA

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Gnatocharax_sp_24494	GCTTTGATCATTATTCCTC	AGAGGGAATCCATCACCTC	CAGAGGCGCACCCTTCTAC	CAGGTCAGCTTCCAACAAGA	GGCAGATGCAGAAGACCCAA
Macropsobrycon_xinguensis_40499	GCCTTGATCATTATTCATC	AGAGGGAATCCAGCACCTC	CAGAAGCGCCTACTTCTAC	CAGGTCAGCTTCCAACAAGA	GGGAGACACTGAAGATCCAA
Bryconops_affinis_4168	GCCTCTGATCGTATTCCATC	CGAAGGAAATCCAGCTCCTC	CGGATGCGCATCTTCTCTAC	CGGGTAAGCTTCCAGCAAGA	GGGAGGTCAGAGAAGCCCAA
Chalceus_epakros_26504	GCTCTGATCGTATTCCATC	AGAGGGAATCCATCACCTC	CAGATGCACATTACTTCTAC	CAGGTAAGCTTCCAGCAAGA	GGAAAGATGCAGAAGACCCAA
Aphyocharax_anisitsi_12660	GCTCTGATCGTATTCCATC	AGAGGGAATCCAGCACCTC	CGGATGCGCATCTTCTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGGTCAGAGAAGCCCAA
Carlana_eigenmani_19864	GCTCTGATCGTATTCCATC	AGAGGGAATCCAGCACCTC	CGGATGCGCATCTTCTCTAC	CAAGTAAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Astyanax_mexicanus_24599	GCTTTGATCATTATTCATC	AGAGGGAATCCAGCACCTC	CAGATGCGCCTACTGCTAC	CAGGTCAGCTTCCAGCATGA	GGAAAGATGCTGAAGATCCAA
Spintherobolus_broccae_22558	GCCTTGATAATGATCCCATC	AGAGGGAATCCAGCACCTC	CAGATGTGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Spintherobolus_leptoura_36098	GCCTTGATAATGATCCCATC	AGAGGGAATCCAGCACCTC	CAGATGTGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Spintherobolus_ankoseion_24957	GCCTTGATAATGATCCCATC	AGAGGGAATCCAGCACCTC	CAGATGTGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Charax_leticiae_12700	GCCTTGATCATGATCCATC	AGAGGGAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAACAAGA	GAGAGATGCAGAAGATCCAA
Diapoma_sp_21274	GCCTTGATCATGATCCATC	AGAGGGAATCCAGCACCTC	CCGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCCAGA	AGGAGATGCAGAAGACCCAA
Prodottocharax_melanotus_10	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Prodottocharax_sp_7	GCCTTGATCATGATCCATC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Nanocheirodon_insignis_27476	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Pseudocheirodon_arnoldi_5	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Pseudocheirodon_terrabaie_6	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Heterocheirodon_yatai_24954	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_killiani_24964	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_australe_24979	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_australe_24986	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_killiani_19803	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_killiani_24969	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_australe_24963	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_interruptus_21266	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_ibicuihiensis_25598	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_heterodon_24974	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Saccoderma_melanostigma_27475	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Compsura_gorgonae_1	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_mitopterae_3	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Compsura_sp_nova_4	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_dialepturus_2	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_pulchra_25845	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_paraguayensis_20127	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_sp1_22626	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Serrapinnus_microdon_17057	TCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Kolpotocheirodon_theloura_25982	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Macropsobrycon_uruguayanae_29061	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_pequirá_24958	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_pequirá_20124	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_pequirá_12659	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Acinocheirodon_melanogrammus_37551	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Serrapinnus_heterodon_20305	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_sp2_29616	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Kolpotocheirodon_figueiredoi_37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Kolpotocheirodon_figueiredoi_37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAACAAGA	GGGAGATGCAGAAGACCCAA
Compsura_heterura_24984	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Gen_e_sp_nova_27603	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Acinocheirodon_cf_melanogrammus_37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	GCCTTGATCATGATCCATC	AGAGGGAATCCAGCACCTC	CAGATGCACATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Serrapinnus_notomelas_19890	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Serrapinnus_notomelas_18293	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_stenodon_20130	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Serrapinnus_sp1_22401	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_fugitiva_22932	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAACAAGA	GGGAGATGCAGAAGACCCAA
Cheirodon_pulcher_8	GCCTTGATCATGATCCATC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_fugitiva_23714	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAACAAGA	GGGAGATGCAGAAGACCCAA
Serrapinnus_calliurus_22121	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Serrapinnus_calliurus_25768	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Odontostilbe_ecuadorensis_9	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Cynopotamus_magdaleneae_29515	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAACAAGA	AGCAGATGCAGAAGATCCAG
Phenacogaster_sp_27299	GCCTTGATCATGATCCCTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAACAAGA	GAGAGATGCTGAAGATCCAA
Aphyocharacidium_sp_33167	GCCTTGATCATGATCCGTC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGAAAGA	GGGAGATGCAGAAGACCCAA
Hemibrycon_sp_33168	GCCTTGATCATGATCCATC	AGAAGGAAATCCAGCACCTC	CAGATGCGCATTACTTCTAC	CAGGTCAGCTTCCAGCAAGA	GGGAGATGCAGAAGACCCAA
Brycon_insignis_16075	CTCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGCTCCTCTAGAGGATTCAG	AAGAGTGTACTTCGGGCGT	GATCCATAGAGATGGAGTT
Gnatocharax_sp_24494	CTCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGCTCCTCTAGAGGATTCAG	AAGAACTTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Macropsobrycon_xinguensis_40499	CTCAGACCTGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGCTCCTCTAGAGGATTCAG	AAGAACTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Bryconops_affinis_4168	CCCAGATGTGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGCTCCTCTAGAGGATTCAG	AAGAACTGTACTTTGGGCGT	GATCCATAGAGATGGAGTT
Chalceus_epakros_26504	CCCAGACCTGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGCTCCTCTAGAGGATTCAG	AAGAACTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Aphyocharax_anisitsi_12660	CTCTGACGTGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGCTCCTCTAGAGGATTCAG	AAGAACTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Carlana_eigenmani_19864	CTCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGCTCCTCTAGAGGATTCAG	AAGAACTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Astyanax_mexicanus_24599	CGCAGACCTGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGCTCCTCTAGAGGATTCAG	AAGAACTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT

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Spintherobolus_brocceae_22558	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCTATTGAGATGGAGTT
Spintherobolus_leptoura_36098	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCG	AAGAAGTGTACTTTGGGCGT	GATCCCTATTGAGATGGAGTT
Spintherobolus_ankoseion_24957	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCTATTGAGATGGAGTT
Charax_leticiae_12700	CTCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCAACGAGATGGAGTT
Diapoma_sp_21274	CCCAGACTTTGAGCCAAGAG	TCTACAGAGTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGA	GATCCCAATGAGATGGAGTT
Prodontocharax_melanotus_10	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Prodontocharax_sp_7	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Nanocheironon_insignis_27476	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Pseudocheironon_arnoldi_5	CCCAGACATGCAGTCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Pseudocheironon_terrabae_6	CCCAGACATGCAGTCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Heterocheironon_yatai_24954	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Cheironon_killiani_24964	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Cheironon_australe_24979	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Cheironon_interruptu20486	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Cheironon_killiani_19803	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Cheironon_killiani_24969	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Cheironon_australe_24963	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Cheironon_interruptus_21266	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Cheironon_ibicuhiensis_25598	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Cheironon_killiani_24974	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Saccoderma_melanostigma_27475	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Compsura_gorgoneae_1	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Odontostilbe_mitoptera_3	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCTG	AAGAAGTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Compsura_sp_nova_4	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCTG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Odontostilbe_dialepturus_2	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Odontostilbe_pulchra_25845	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Odontostilbe_paraguayensis_20127	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Odontostilbe_sp1_22626	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Serrapinnus_microdon_17057	CACAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Kolpotocheironon_theloura_25982	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Macropsobrycon_uruguayanae_29061	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAGATGGAGTT
Odontostilbe_pequirá_24958	CACAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Odontostilbe_pequirá_20124	CACAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Odontostilbe_pequirá_12659	CACAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Acinocheironon_melanogrammus_37551	CACAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Serrapinnus_heterodon_20305	CACAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Odontostilbe_sp2_29616	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Kolpotocheironon_figueiredoi_37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Kolpotocheironon_figueiredoi_37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Compsura_heterura_24984	CCCAGGCATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGACGT	GATCCCAATGAAATGGAGTT
Gen_e_sp_nova_27603	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Acinocheironon_cf_melanogrammus_37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Aphyocheironon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheironon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	CTCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Serrapinnus_notomelas_19890	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAAATGGAGTT
Serrapinnus_notomelas_18293	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAAATGGAGTT
Cheironon_stenodon_20130	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Serrapinnus_sp1_22401	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAAATGGAGTT
Odontostilbe_fugitiva_22932	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Cheironon_pulcher_8	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Odontostilbe_fugitiva_23714	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Serrapinnus_calliurus_22121	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAGATGGAGTT
Serrapinnus_calliurus_25768	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAAATGGAGTT
Odontostilbe_ecuadrensis_9	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTCGGGCGT	GATCCCAATGAAATGGAGTT
Cynopotamus_magdaleneae_29515	CTCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCAACGAGATGGAGTT
Phenacogaster_sp_27299	CTCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCAACGAGATGGAGTT
Aphyocharacidium_sp_33167	CCCAGACTTTGAGCCAAGAG	TCTACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGT	GATCCCAATGAGATGGAGTT
Hemibrycon_sp_33168	CCCAGACATGCAGCCAAGAG	TCCACAGACTTTGAGGATTC	AGTCTCCTCTAGAAGATTCCAG	AAGAAGTGTACTTTGGGCGA	GATCCCAATGAGATGGAGTT
Brycon_insignis_16075	CAGCAGTGTGAGGAGAAGGAG	ACACCTACAACGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCTGATAGAC
Gnatocharax_sp_24494	CAGCAGTGTGAGGAGAAGGAG	ACGCTTACAATGAGGAAAGAC	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAG
Macropsobrycon_inguensis_40499	CAGCAGTGTGAGGAGAAGGAG	ATGCTTACAATGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAC
Bryconops_affinis_4168	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	GGGTTATTGGATCAAGTGCT	GTCTCACTGCCTGGTAGAC
Chalceus_epakros_26504	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAC
Aphyocharax_anisitsi_12660	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	GGGTTATTGGATCAAGTGCT	GTCTCACTGCCTGGTAGAC
Carlana_eigenmani_19864	CAGCAGCGATGGAGAAGGAG	ATGCTTACAATGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	TGGTTATTGGATCAAGTGCT	GTCTCACTGCCTGGTAGAC
Astyanax_mexicanus_24599	CAGCAGCGATGGAGAAGGAG	ACGCTTACAACGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	TGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAC
Spintherobolus_brocceae_22558	TAGCAGCGATGGAGAAGGAG	ATGCTTACAATGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAT
Spintherobolus_leptoura_36098	TAGCAGCGATGGAGAAGGAG	ATGCTTACAATGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAT
Spintherobolus_ankoseion_24957	TAGCAGCGATGGAGAAGGAG	ATGCTTACAATGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAT
Charax_leticiae_12700	CAGCAGTGTGAGGAGAAGGAG	ACACCTACAATGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAC
Diapoma_sp_21274	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	TGGTTATTGGATCAAGTGCT	GTCTCACTGTCCAGGTAGAC
Prodontocharax_melanotus_10	CAGCAGTGTGAGGAGAAGGAG	ACACCTACAATGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAC
Prodontocharax_sp_7	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGAAAGAT	GAGGAGGACGAATCTCAGAC	CGGTTATTGGATCAAGTGCT	GTCTCACTGCCAGGTAGAC

Nanocheirodon_insignis_27476	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Pseudocheirodon_arnoldi_5	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Pseudocheirodon_terrabrae_6	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Heterocheirodon_yatai_24954	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_killiani_24964	CAGCAGCGATGGAGAAGGAG	ACATCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_australe_24979	CAGCAGTGTGGAGAAGGAG	ACATCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_interruptu_20486	CAGCAGCGATGGAGAAGGAG	ACATCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_killiani_19803	CAGCAGCGATGGAGAAGGAG	ACATCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_killiani_24969	CAGCAGCGATGGAGAAGGAG	ACATCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_australe_24963	CAGCAGCGATGGAGAAGGAG	ACATCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_interruptus_21266	CAGCAGCGATGGAGAAGGAG	ACATCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_ibicuhiensis_25598	CAGCAGCGATGGAGAAGGAG	ACATCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_killiani_24974	CAGCAGCGATGGAGAAGGAG	ACATCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Saccoderma_melanostigma_27475	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Compsura_gorgonae_1	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_mitoptera_3	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Compsura_sp_nova_4	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_dialepturus_2	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_pulchra_25845	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_paraguayensis_20127	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_sp1_22626	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Serrapinnus_microdon_17057	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Kolpotocheirodon_theloura_25982	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Macropsobrycon_uruguayanae_29061	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_pequira_24958	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_pequira_20124	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_pequira_12659	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Acinocheirodon_melanogrammus_37551	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Serrapinnus_heterodon_20305	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_sp2_29616	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Kolpotocheirodon_figueiredoi_37576	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Kolpotocheirodon_figueiredoi_37575	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Serrapinnus_kriegi_25764	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Compsura_heterura_24984	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Gen_e_sp_nova_27603	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Acinocheirodon_cf_melanogrammus_37550	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Tetragonopterus_argenteus_22029	CAGCAGTGTGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Serrapinnus_notomelas_19890	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Serrapinnus_notomelas_18293	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_stenodon_20130	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Serrapinnus_sp1_22401	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_fugitiva_22932	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cheirodon_pulcher_8	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_fugitiva_37314	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Serrapinnus_calliurus_22121	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Serrapinnus_calliurus_25768	CAGCAGCGACGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Odontostilbe_ecuadorensis_9	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Cynopotamus_magdaleneae_29515	CAGCAGTGTGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	TGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Phenacogaster_sp_27299	CAGCAGTGTGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	CGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Aphyocharacidium_sp_33167	CAGCAGCGATGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	TGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Hemibrycon_sp_33168	CAGCAGTGTGGAGAAGGAG	ACACCTACAACGAGGATGAT	GAGGAGGACGAATCTCAGAC	TGGTTACTGGATCAAGTGCT	GTCTCTCTGCCAGGTAGAC
Brycon_insignis_16075	GTGAACACCTGGAAACCC???	????????????????????	????????????????????	????????????????????	????????????????????
Gnatocharax_sp_24494	????????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Macropsobrycon_xinguensis_40499	ATCAAC????????????????	????????????????????	????????????????????	????????????????????	????????????????????
Bryconops_affinis_4168	GTGAACACCT???????????	????????????????????	????????????????????	????????????????????	????????????????????
Chalceus_epakros_26504	GTGAACACCTGGGAGCC???	????????????????????	????????????????????	????????????????????	????????????????????
Aphyocharax_anisitsi_12660	GTGAACACCTGGGAGCC???	????????????????????	????????????????????	????????????????????	????????????????????
Carlana_eigenmani_19864	GTGAACACCTG?????????	????????????????????	????????????????????	????????????????????	????????????????????
Astyanax_mexicanus_24599	ATCAACACCTGGGAAACCC???	????????????????????	????????????????????	????????????????????	????????????????????
Spintherobolus_brocceae_22558	GTCAACACCTGGGAGCCCTT	CTACTCCACTGAGCTCACCC	GACCAGCCATGA		
Spintherobolus_leptoura_36098	GTCAACACCTGGGAGCC???	????????????????????	????????????????????		
Spintherobolus_ankoseion_24957	GTCAACACCTGGGAGCCCTT	CTACTCCACTGAGCTCACCC	GACCAGCCATGA		
Charax_leticiae_12700	GTCAACACCTGGGAAACCTTT	TTACTCCACTGAGCTCACCC	GACCAGCCATGA		
Diapoma_sp_21274	ATCAACACCTGGGAAACCTTT	????????????????????	????????????????????		
Prodontocharax_melanotus_10	GTCAACACCTGGGAAACCGTT	CTACTCCACTGAGCTCACCC	GACCGCCCTGA		
Prodontocharax_sp_7	GTCAACACCTGGGAAACCGTT	CTACTCCACTGAGCTCACCC	GACCGCCCTGA		
Nanocheirodon_insignis_27476	GTCAACACCTGGGAAACCGTT	CTACTCCACTGAGCTCACCC	GACCGCCATGA		
Pseudocheirodon_arnoldi_5	GTCAACACCTGGGAAACCGTT	CTACTCCACTGAGCTCACCC	GACCAGCCATGA		
Pseudocheirodon_terrabrae_6	GTCAACACCTGGGAAACCGTT	CTACTCCACTGAGCTCACCC	GACCGCCATGA		
Heterocheirodon_yatai_24954	ATCAACACCTGGGAAACCGTT	CTACTCCACTGAGCTCACCC	GACCGCCATGA		
Cheirodon_killiani_24964	ATCAACACCTGGGAAACCGTT	CTACTCCACTGAGCTCACCC	GACCGCCATGA		
Cheirodon_australe_24979	ATCAACACCTGGGAAACCGTT	CTACTCCACTGAGCTCACCC	GACCGCCATGA		
Cheirodon_interruptu_20486	ATCAACACCTGGGAAACCGTT	CTACTCCACTGAGCTCACCC	GACCGCCATGA		

Cheirodon_killiani_19803	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Cheirodon_killiani_24969	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Cheirodon_australe_24963	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Cheirodon_interruptus_21266	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Cheirodon_ibicuhiensis_25598	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Cheirodon_killiani_24974	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Saccoderma_melanostigma_27475	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Compsura_gorgonae_1	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_mitoptera_3	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Compsura_sp_nova_4	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_dialepturus_2	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_pulchra_25845	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_paraguayensis_20127	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_sp1_22626	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Serrapinnus_microdon_17057	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Kolpotocheirodon_theloura_25982	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Macropsobrycon_uruguayanae_29061	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_pequira_24958	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_pequira_20124	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_pequira_12659	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Acinocheirodon_melanogrammus_37550	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Serrapinnus_heterodon_20305	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_sp2_29616	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Kolpotocheirodon_figueiredoi_37576	????????????????????	????????????????????	??????????????
1Kolpotocheirodon_figueiredoi_37575	????????????????????	????????????????????	??????????????
Serrapinnus_kriegi_25764	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Compsura_heterura_24984	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Gen_e_sp_nova_27603	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Acinocheirodon_cf_melanogrammus_37550	????????????????????	????????????????????	??????????????
1Aphyocheirodon_hemigrammus_40027	????????????????????	????????????????????	??????????????
Aphyocheirodon_hemigrammus_40025	????????????????????	????????????????????	??????????????
Tetragonopterus_argenteus_22029	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Serrapinnus_notomelas_19890	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Serrapinnus_notomelas_18293	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Cheirodon_stenodon_20130	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Serrapinnus_sp1_22401	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_fugitiva_22932	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Cheirodon_pulcher_8	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_fugitiva_23714	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Serrapinnus_calliurus_22121	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Serrapinnus_calliurus_25768	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Odontostilbe_ecuadorensis_9	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Cynopotamus_magdalena_29515	ATCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Phenacogaster_sp_27299	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Aphyocharacidium_sp_33167	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA
Hemibrycon_sp_33168	GTCAACACCTGGGAACCGTT	CTACTCCACTGAGCTCACCC	GACCGGCCATGA