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Teleostei fishes of the North Coast of Brazil

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Abstract. The North Coast of Brazil is a biogeographical area of the Exclusive Economic Zone of Brazil that share environmental features with region under influence of the Plume of the rio Amazon and Orinoco. Despite the relevance of the region's fish fauna, in biogeographic, ecologic, and commercial terms, this area is poorly known. This study presents the most complete and updated list of the bony fish fauna from the North Coast of Brazil, aiming to minimize our knowledge gap on such region's biodiversity. The main sources of information were records from zoological collections, inventories obtained during the surveys of the Research and Conservation National Center of Northern Marine Biodiversity and collections from the authors. A total of 787 species of the Teleostei were recorded off the North Coast of Brazil and adjacent waters, representing 156 families and 45 orders. Most (531) of these species are coastal, 256 inhabit deeper water, and 31 pelagic (oceanic) species are common to both the internal and external continental shelf, of which 54 represent new records. Given the progressive intensification of fisheries and increasing incentives for the exploitation of the local gas and oil reserves, a more adequate inventory of the marine fish fauna of the North Coast of Brazil is fundamentally important for the management of the region's aquatic biodiversity.

Keywords: Marine biodiversity, Amazon-Orinoco Plume, knowledge gaps, zoological collections.

Resumo. Peixes teleósteos da costa Norte do Brasil. A costa Norte do Brasil é uma área biogeográfica da Zona Econômica Exclusiva brasileira que compartilha características ambientais com a região sob influência da Pluma dos rios Amazonas e Orinoco. Apesar da relevância em termos biogeográficos, ecológicos e comerciais, a ictiofauna da região é muito pouco conhecida. Este estudo apresenta a lista mais completa e atualizada da fauna de peixes ósseos da costa Norte do Brasil, procurando minimizar a lacuna no conhecimento da biodiversidade da região. As principais fontes de informação foram registros de coleções zoológicas, inventários de fauna realizados pelo Centro Nacional de Pesquisa e Conservação da Biodiversidade Marinha do Norte (ICMBio/CEPNOR) e coletas dos autores. Um total de 787 espécies de Teleostei foram registradas para a costa Norte do Brasil e águas adjacentes, com 156 famílias e 45 ordens. A maioria (531) dessas espécies apresenta hábitos costeiros, 256 espécies habitam águas profundas e 31 espécies pelágicas (oceânicas) são comuns à plataforma continental interna e externa, com pelo menos 54 novos registros para região. Dada a intensificação da pesca e o aumento dos incentivos à exploração das reservas de gás e petróleo, o inventário adequado da ictiofauna marinha do Litoral Norte do Brasil é fundamental para o manejo da biodiversidade aquática da região.

Palavras-chave: biodiversidade marinha, pluma dos rios Amazonas-Orinoco, lacuna no conhecimento, coleções zoológicas.

Introduction

The Brazilian coast stretches about 8,500 km in eastern South America and is characterized by a great variety of environments associated with an ample variation of geologic, geographic, climatic, hydrographic, and sedimentological features, including estuaries, lagoons, sandy beaches, phanerogam and rhodolite beds, rocky cliffs, and coral reefs (MMA, 2002, 2006 e 2007). Climatological and oceanographic phenomena, combined with historical factors, determine the variation in the diversity of marine fish found off the different areas of the Brazilian coast (Couto *et al.*, 2003, Amaral & Jablonski, 2005).

The North Coast of Brazil encompasses the region between the mouth of the Oiapoque River, which forms the border between Brazil and French Guiana, and the Parnaíba delta, at the border between Maranhão and Piauí states (Ekau & Knoppers, 1999). This region is one of the most productive portions of the Brazilian coast (MMA, 2006) and supports one of the world's most important fisheries (Correa & Martinelli, 2009). Despite the relevance of the region's fish fauna, in biogeographic, ecologic, and commercial terms, this sector of the Exclusive Economic Zone (EEZ) of the Brazilian coast has been poorly surveyed (Couto *et al.*, 2003). The lack of inventories of the region's marine fish fauna is clear from the paucity of records in zoological collections, which reflects the limited history of research by taxonomists focusing on the marine organisms of northern Brazil (Marceniuk *et al.*, 2013). As a result, the majority of the records attributed to this region are derived from inferences based on the occurrence of species off the Surinam and Guianas or the northeastern Coast of Brazil (e.g., Menezes *et al.*, 2003).

The most comprehensive inventory of marine fishes available for the North Coast of Brazil was undertaken by the North American National Marine Fisheries Service vessel Oregon between 1957 and 1969, which revealed the presence of a fish fauna highly similar to that found off the Guianas (Collette & Rutzler, 1977). The surveys conducted by the Oregon also provided the first evidence of the existence of a reef system off the Amazon coast and produced a large number of specimens that were deposited in zoological collections in the US, providing the type material for the description of a number of species endemic to the "Amazon -Orinoco Plume" (Briggs & Berry 1959, Woods, 1961, Eschmeyer, 1965, Dawson, 1982, Iwamo-

to & Arai 1987, Nielsen, 1999).

The subsequent surveys of the Pesquisador IV research vessel, between 1973 and 1974, focused on commercially important fish species, which were collected using longlines, traps, and trawls over the continental shelf of the state of Maranhão, in the eastern boundary of the Brazilian North Coast (Sudene, 1976). Between 1977 and 1982, a program of fisheries research and development (PDP) from the Brazilian Fisheries Development Superintendence (SUDEPE) surveyed the demersal resources of the continental shelf off the states of Pará and Amapá, at depths between 10–90 m (Ueno *et al.*, 1978). In 1996 and 1997, an agreement established between the Brazilian and the Japanese governments supported new surveys of the of the estuarine complex of the Amazon and Tocantins rivers, with specimens being deposited in the zoological collectionof the Museu Paraense Emílio Goeldi, Belém, Pará (Sanyo Techno Marine, 1998).

The Brazilian National Program for the Assessment of the Sustainable Potential of Natural Resources in the Exclusive Economic Zone (REVIZEE Score-Norte) began in 1996 and again focused on the natural resources exploited by commercial fisheries, in addition to the stocks of potential target species on the continental shelf and slope of the North Coast of Brazil (Lucena & Asano-Filho 2006). This program produced very little information on the region's biota, and specimens collected during those campaigns were not deposited in zoological collections (Marceniuk *et al.*, 2019). Two other projects were developed within the scope of the REVIZEE Score-Norte Program. One was the PROTUNA (Technological Development for the Exploitation of Large Pelagic Oceanic Fish off the North Coast of Brazil) conducted between 2000 and 2002 (Asano-Filho, 2004), and the other was the PRODEMERSAL (Technological Development for the Exploitation of Demersal Resources using Trawls off the North Coastof Brazil), between 2002 and 2004 (Asano-Filho, 2005). The main focus of these projects was the inventory of the stocks of potential target species of pelagic and demersal fishes. As a result, lists of the species captured were published (Asano-Filho, 2004 and 2005). However, as in the case of the REVIZEE Score-Norte Program, overall, these projects did not provided specimens to scientific collections (Klautau *et al.*, 2020).

The fauna of the coastal and reef environments of the region is also poorly documented (Eskinazi & Lima, 1968, Collette & Rutzler 1977, Rocha & Rosa, 2001, Espírito-Santo & Isaac 2005, Moura *et al.*, 2016, Marceniuk *et al.*, 2017). However, several advances have been achieved in recent years, mainly through inventories conducted by the Research and Conservation National Center of Northern Marine Biodiversity, ICMBio/CEPNOR (Marceniuk *et al.*, 2019), with important advances being made in the accumulation of specimens that confirm the presence of endemic species in the region (Caires *et al.*, 2019), as well as records (Rotundo *et al.*, 2019).

This study is the result of the authors' collections and compilation of the available data on the marine bony fish fauna of the North Coast of Brazil, aiming to reduce the knowledge gap on the marine biodiversity of the region. Based on the results, we provide insights into the origin, evolution, and diversification of the region's marine fish fauna.

Materials and methods

Study area

The North Coast of Brazil (Figure 1) is a biogeographical area of the Exclusive Economic Zone of Brazil (Ekau & Knoppers,1999), between the mouth of the Oiapoque River and the Parnaíba delta, that share environmental features observed along region under influence of Amazon and Orinoco Plume. This area encompasses the sedimentary basins of the Amazon River and the states of Piauí and Maranhão, which were formed during the Paleozoic and was reactivated between the late Jurassic and early Cretaceous (Martins *et al.*, 1979). This area encompasses the sedimentary basins of the Amazon River and Piauí/Maranhão, which formed during the Paleozoic and was reactivated between the late Jurassic and early Creta-

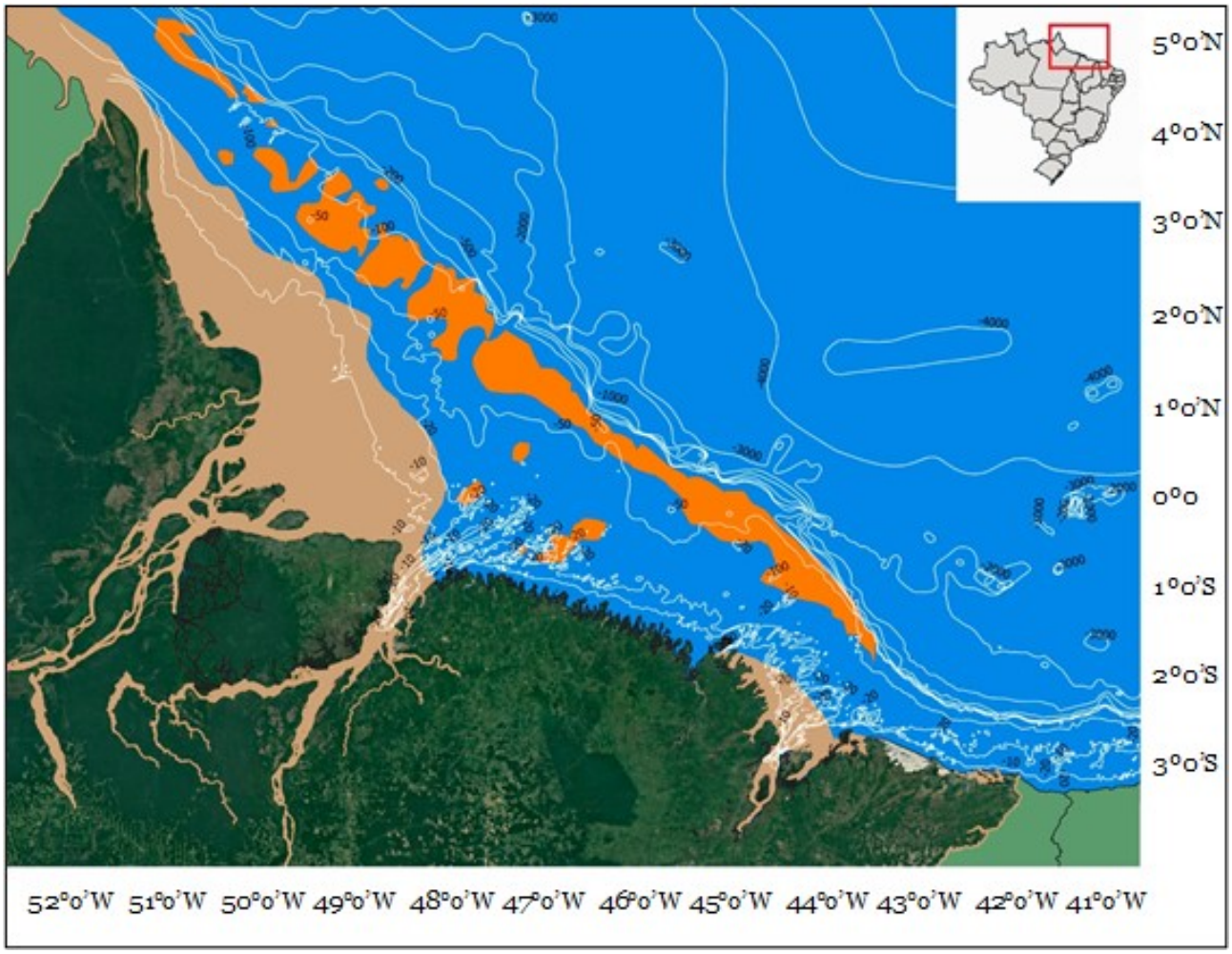

Figure 1. North Coast of Brazil, with the plumes (shaded brown) of the Amazon, Pará, Mearim, and Parnaíba rivers (from north to south) and the Great Amazon Reef System (shaded orange) indicated (Moura *et al.*, 2016, Francini-Filho *et al.*, 2018) .

ceous (Martins *et al.*, 1979). This coast stretches more than 2,500 km, and includes a highly heterogeneous coastline that can be divided into three sectors: (i) the Amapá state coast, with a relatively straight coastline and continental shelf dominated by hard and rocky substrates; (ii) the Pará state coast, with an indented coastline and continental shelf dominated primarily by muddy substrates, and (iii) the Maranhão state coast, also with an indented coastline west of Tubarão Bay, which then becomes more straight between the Cape of Gurupi and the rio Parnaíba mouth, with a continental shelf formed by a mixture of muddy and sandy substrates.

The geomorphology of the whole region is highly unstable due to the processes of erosion and the high levels of sediment deposition, which contribute to the formation of flood plains and innumerable islands (Floriani *et al.*, 2004). The jagged, indented coastline favors the formation of estuarine ecosystems, which are dominated by mangrove forest, with the states of Amapá, Pará, and Maranhão together encompassing the world's largest continuous tract of mangrove, with an area of some 8,900km^2, responsible for an enormous input of nutrients into the adjacent marine waters (Paiva, 1981, Dittmar, 1999). The Amazon River alone discharges between 80,000 and 250,000 m^3 of freshwater per second (Curtrin, 1986), carrying annually up to 1.4 milliontons of sediment into the ocean (Milliman & Meade, 1983, Degens *et al.*, 1991). This enormous input of freshwater and sediment into the marine environment results in a highly energetic and dynamic system that influences a series of oceanographic processes and determines the

composition and distribution of natural resources in the region (Nittrouer & Demaster, 1986, Costa & Figueiredo, 1998).

The region's high biological productivity supports a complex food web in the coastal environments and a considerable biomass, which is exploited intensively by local fisheries (Isaac & Barthem 1995, Sanyo Techno Marine, 1998, Isaac-Nahum, 2006). The hydrological dynamics of the northern coast, in particularly off the mouth of the Amazon River, are also subjected to considerable seasonal variation, which is influenced by fluctuations in the discharge of the Amazon River, the North Brazil Current and the trade winds (Shimabukuro *et al.*, 2005). The North Brazil, or Guianas Current transports water from the external shelf and slope to the northwest, while the tidal cycle and rainfall patterns provide the nutrients that support the demersal coastal fauna (Richardson *et al.*, 1994, Oliveira *et al.*, 2004, Oliveira *et al.*, 2007). The pelagic environment of the continental shelf is considered as oligotrophic, with a relatively shallow eutrophic zone, which is maintained by nutrients derived from the transportation of benthic organic material into shallow coastal sectors, and through the discharge of rivers and estuaries, which enrich the local waters (Teixeira & Gaeta, 1991). This region is also influenced by the basin of the Orinoco River, with the combined discharge of the Amazon and Orinoco rivers forming unique oceanographic conditions in the "Amazon-Orinoco Plume", which creates unique oceanographic conditions (Hu *et al.*, 2004, Grodsky *et al.*, 2014).

The North Coast of Brazil is also influenced by the waves formed by the trade winds, which regularly reach a height of 1.5 m on the open sea, although they may increase to an amplitude of 3 m and speeds of approximately 30 cm/s during the Amazonian winter, and during extra-tropical cyclones in the northern hemisphere (Cachione *et al.*, 1995). The surface temperature of the water may reach 31°C close to the coast and 27°C on the continental shelf. In the adjacent oceanic waters, the thermocline is located at a depth of approximately 120 m, with temperatures of 17°C at depths of up to 200 m. The salinity of the estuarine and coastal waters is reduced by the discharge of the rivers, increasing towards the open sea, reaching 36.9% in the oceanic waters (Oliveira *et al.*, 2004, Oliveira *et al.*, 2007, Grodsky *et al.*, 2014).

The continental shelf of the North Coast of Brazil is also extensive and mostly flat. However, the internal portion of the continental shelf, between the Pará and Parnaíba rivers is undulating, with ridges of coarse and quartz sand that may reach heights of 10 m. Off Amapá, the internal continental shelf is covered with deposits of fluvial mud, which shift progressively to quartz sands in Pará and Maranhão, formed by the remnants of deposits laid down when sea levels were lower than those of the present day (Kowsmann & Costa, 1979). The internal shelf presents isolated deposits of fluvial sand in areas off the mouths of the Amazon and Pará rivers. The highly turbid sediment discharge of the Amazon River may extend around 500 km to the northwestern more than 200 km off the mouth of the river (Curtrin, 1986). The muddy bottom adjacent to the mouth of the Amazon River is composed principally of fine sand (silt), while the northwestern shelf is rich in clay, a condition that is probably determined by the local tidal currents (Kowsmann & Costa, 1979, Coutinho, 1996).

The Amazon Cone, adjacent to the mouth of the Amazon River, is formed by the accumulation of sediments from the Amazon River and extends beyond the limits of the Exclusive Economic Zone. The Amazon Cone does not form a typical continental shelf with well-defined depth gradients, for instance, but is continuous to and extends as far as the abyssal plain, being interrupted only by paleo channels and other non-tectonic geological features resulting from depositional or erosional processes (Coutinho 1996, Oliveira *et al.*, 2015). The external portion of the Amazon continental shelf is quite irregular, with numerous gullies and canyons, and an abrupt shift in slope at a depth of 80 m. At depths between 60 and 120 meters, three carbonate facies can befound, formed by molluscs, benthic foraminifers and Holocenic algae typical of shallow coastal zones, in addition to biodetritic sands

(Kowsmann & Costa, 1979, Lana *et al.*, 1996, Oliveira *et al.*, 2004, Oliveira *et al.*, 2007, Oliveira *et al.*, 2015). The slope of the shelf tends to decrease where it widens, while it narrows towards the outer extremities of the Amazon Gulf, following the increase in the coastal relief.

The Great Amazon Reef System (GARS) is a complex environment with a consolidated bottom formed by living organisms, first recognized by Collette & Rutzler (1977). The recognition of the GARS was later reinforced by dredge probes and underwater photography obtained by the Deep Worker submarine at depths of between 70 m and 250 m (Cordeiro *et al.*, 2015, Moura *et al.*, 2016, Francini-Filho *et al.*, 2018). The available evidence indicates that the GARS covers a total area of 9,500 km² (Moura *et al.*, 2016), and is made up of typical mesophotic coral reefs at depths of between 70 m and 220 m, constructed primarily of calcareous algae, sponges, and scleractinian corals, which may potentially cover a total area of approximately 56,000 km² (Francini- Filho *et al.*, 2018). The enormous diversity of habitats, including algae, rhodolites, sponges, soft coral, and black coral (Cordeiro *et al.*, 2015) is delimited by the discharge of sediments and suspended material from the Amazon River, as well as the strong local marine currents. On the middle continental shelf, the penetration of sun light is modulated by an interplay between the Amazon River plume and by the more transparent waters of the North Brazil Current (Francini-Filho *et al.*, 2018).

Data base

The list of species of the Teleostei that occur on the North Coast of Brazil is the result of the inventory of the Research and Conservation National Center of Northern Marine Biodiversity (CEPNOR) conducted between 2016 and 2020, with the material collected being deposited in Brazilian zoological collections. All the species cited are therefore represented by voucher specimens in zoological collections (Table 1), photographic records of the CEPNOR or REVIZEE database (Figures 2 and 3) and collections of the authors themselves or fellow researchers (see Acknowledgments). Records from French Guiana and Suriname, that share the same geological history and environmental conditions, without physical or oceanographic barriers, were based on the published records of specimens in zoological collections (Uyeno *et al.*, 1983). Additionally, records were checked in three databases: SpeciesLink (http://www.splink.org.br/), FishNet2 (http://www.fishnet2.net), and the Global Biodiversity Information Facility (https://www.gbif.org). The inventory presented here does not include species of groups found primarily in freshwater environments, i.e., Siluriformes, except for the Ariidae, and species of primarily marine groups that are restricted to freshwater habitats (e.g., *Plagioscion* Gill, 1861).

Records of the species from other biogeographic areas in the western Atlantic also were also checked in data bases listed above (Table 1 column K-L), including the East Coast of the United States, the Gulf of Mexico, Caribbean, and the northeastern, eastern, southeastern and southern coasts of Brazil (Ekau & Knoppers, 1999). The conservation status of each species at the national (Brazil) and global level were obtained from the Red Book of the Brazilian Fauna Threatened with Extinction (ICMBio, 2018) and the IUCN Red List of Threatened Species (http://www.iucnredlist.org).

Taxonomic procedures and assessment of life traits

The species nomenclature follows Eschmeyer's Catalog of Fishes (Fricke *et al.*, 2019), with classification above genus following Nelson (2006), with the genera and species, within each family, being presented in alphabetic order in Table 1. The species were divided into coastal, that is, fishes that are more common at depths up to 100 m, and deep water species, which are more common at depths below 100 m. Pelagic species living in both coastal and deeper regions are recognized as oceanic. Species recorded off French Guiana and Suriname but not in Brazil were recognized as rec-

Table 1. The marine Teleostei fishes from North Coast of Brazil (asterisks represent new records). A - Vouchers. B - Habitat: coastal (C), waters depth (DW), oceanic (O). Asterisk corresponds to registration only for French Guinea and Suriname. C - Estuarine. D - Soft bottom. E - Reef. F - Water column. G - Pelagic. H - Demersal. I - Bentonic. J - Distribution. K - USA East coast. L - Gulf of Mexico. M - Caribe. N - Brazilian North coast, plus Pluma do Amazonas Orinoco. O - Brazilian Northeast coast. P - Brazilian East coast. Q - Brazilian Southeast coast. R - Brazilian South coast. S - Conservation status in Red Book of the Brazilian Fauna Threatened with Extinction (ICMBio, 2018). T - Conservation status in IUCN Red List of Threatened Species (https://www.iucnredlist.org).

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
ELOPIFORMES																				
ELOPIDAE																				
Elops smithi McBride, Rocha *et al*., 2010	MPEG 32873	C	X	X	X	X	X	X		Western Atlantic	0	1	1	1	1	1	1	1	LC	DD
MEGALOPIDAE																				
Megalops atlanticus Valenciennes, 1847	MPEG 33669	C	X		X	X	X			Atlantic	1	1	1	1	1	1	1	0	VU	VU
ALBULIFORMES																				
ALBULIDAE																				
Albula goreensis Valenciennes, 1847 *	Fig. 2A	C	X	X	X			X		Atlantic	1	0	1	1	1	1	0	0	N	N
Albula nemoptera (Fowler, 1911) *	NSMT-P-40058	C		X	X			X		Western Atlantic	0	0	1	1	1	1	1	0	LC	DD
Albula vulpes (Linnaeus, 1758)	MPEG 35113	C	X	X	X			X		Circumglobal	1	1	1	1	1	1	1	1	DD	NT
NOTACANTHIFORMES																				
HALOSAURIDAE																				
Aldrovandia oleosa Sulak, 1977	FLMNH 231478	DW*		X				X		Circumglobal	1	0	1	1	1	1	1	0	LC	LC
Halosaurus guentheri Goode & Bean, 1896	NSMT-P-40084	DW*		X				X		Atlantic	1	1	1	1	1	1	0	0	LC	LC
ANGUILLIFORMES																				
CHLOPSIDAE																				
Robinsia catherinae Bohlke & Smith, 1967	MCZ 99337	DW		X				X		Circumglobal	1	0	1	1	1	0	0	0	N	LC
SYNAPHOBRANCHIDAE																				
Dysommina rugosa Ginsburg, 1951	NSMT-P-40066	DW*		X				X		Circumglobal	1	1	1	1	1	1	1	1	LC	N
Synaphobranchus brevidorsalis Günther, 1887	NSMT-P-40065	DW*		X				X		Circumglobal	1	1	1	1	1	1	1	1	LC	NA
Synaphobranchus oregoni Castle, 1960	FLMNH 228255	DW*		X				X		Circumglobal	0	1	1	1	1	1	1	1	LC	LC
HETERENCHELYIDAE																				
Pythonichthys sanguineus Poey, 1868	MPEG 35269	C		X	X				X	Western Atlantic	0	1	1	1	0	0	0	0	N	LC
MURAENIDAE																				
Channomuraena vittata (Richardson, 1845) *	MPEG uncataloged	C			X*				X	Circumglobal	1	1	1	1	1	1	0	0	LC	LC
Enchelycore nigricans (Bonnaterre, 1788) *	AZUSC 5432	C			X*				X	Atlantic	1	1	1	1	1	1	1	0	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
MURAENIDAE																				
Gymnothorax conspersus Poey, 1867	AZUSC 5059	DW		X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	DD	LC
Gymnothorax funebris Ranzani, 1839	CIUFES 2636	C	X		X				X	Atlantic	1	1	1	1	1	1	1	0	DD	LC
Gymnothorax moringa (Cuvier, 1829)	GEA 39	C			X*				X	Atlantic	1	1	1	1	1	1	1	0	DD	LC
Gymnothorax nigromarginatus (Girard, 1858) *	MPEG uncataloged	C	X	X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Gymnothorax ocellatus Agassiz, 1831	MPEG 35107	C	X	X					X	Western Atlantic	1	1	1	1	1	1	1	1	DD	LC
Gymnothorax polygonius Poey, 1875	Klautau *et al.* 2020	DW			X*				X	Atlantic	1	1	1	1	1	1	1	0	DD	LC
Gymnothorax vicinus (Castelnau, 1855)	GEA 14	C			X*				X	Atlantic	1	1	1	1	1	1	1	0	DD	LC
Uropterygius macularius (Lesueur, 1825)	FLMNH 212317	C			X*				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
DERYCHTHYIDAE																				
Coloconger meadi Kanazawa, 1957	Klautau *et al.* 2020	DW		X				X		Western Atlantic	0	1	1	1	1	1	1	0	LC	N
Nessorhamphus ingolfianus (Schmidt, 1912)	NSMT-P-40082	DW*				X	X			Circumglobal	1	1	1	1	1	0	0	0	N	LC
OPHICHTHIDAE																				
Aplatophis chauliodus Böhlke, 1956 *	AZUSC 5456	C	X	X	X				X	Western Atlantic	0	1	1	1	1	0	0	0	N	LC
Asarcenchelys longimanus McCosker, 1985	MNHN B-2994	C	X	X					X	Western Atlantic	0	0	0	1	1	0	0	0	DD	LC
Echiophis intertinctus (Richardson, 1848) *	MPEG 35510	C	X	X	X				X	Western Atlantic	1	1	0	1	0	1	0	0		
Echiophis punctifer (Kaup, 1859) *	AZUSC 5409	C	X	X	X				X	Atlantic	1	1	1	1	1	1	1	1	N	LC
Ichthyapus ophioneus (Evermann & Marsh, 1900)	FSBC 16923	C	X*						X	Atlantic	1	1	1	1	1	1	1	0	LC	LC
Kertomichthys blastorhinos (Kanazawa, 1963)	USNM 158960	DW*		X				X		Western Atlantic	0	1	0	1	0	0	0	0	N	N
Myrophis plumbeus (Cope, 1871)	USNM 214067	C	X*						X	Atlantic	0	1	1	1	1	0	0	0	LC	LC
Ophichthus cylindroideus (Ranzani, 1839)	MPEG 35643	C	X	X					X	Western Atlantic	1	0	1	1	1	1	1	1	LC	LC
Ophichthus gomesii (Castelnau, 1855)	AZUSC 5635	C	X	X					X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Ophichthus ophis (Linnaeus, 1758) *	AZUSC 5179	C		X	X				X	Atlantic	1	1	1	1	1	1	1	0	LC	LC
Stictorhinus potamius Böhlke & McCosker, 1975	ANSP 128521	C	X*						X	Western Atlantic	1	0	1	1	1	1	0	0	LC	LC
MURAENESOCIDAE																				
Cynoponticus savanna (Bancroft, 1831)	MPEG 35223	C	X	X				X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
NETTASTOMATIDAE																				
Hoplunnis diomediana Goode & Bean, 1896	NSMT-P-40077	DW*		X				X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Hoplunnis macrura Ginsburg, 1951 *	AZUSC 5670	DW		X				X		Western Atlantic	1	1	1	1	1	0	0	0	NA	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
NETTASTOMATIDAE																				
Hoplunnis tenuis Ginsburg, 1951	USNM 444956	DW*		X				X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Nettastoma melanura Rafinesque, 1810	NSMT 42438	DW*				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
CONGRIDAE																				
Ariosoma anale (Poey, 1860)	NSMT-P-40068	DW*		X				X		Atlantic	1	1	1	1	1	0	0	0	NA	LC
Ariosoma balearicum (Delaroche, 1809)	USNM 218913	C		X	X			X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Ariosoma coquettei Smith & Kanazawa, 1977	NSMT-P-40069	C*		X				X		Endemic AOP	0	0	0	1	0	0	0	0	N	LC
Ariosoma selenops Reid, 1934	Klautau *et al.* 2020	DW		X				X		Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Bathycongrus bullisi (Smith & Kanazawa, 1977)	Klautau *et al.* 2020	DW		X				X		Western Atlantic	0	1	1	1	0	0	0	0	NA	LC
Bathyuroconger vicinus (Vaillant, 1888)	Klautau *et al.* 2020	DW*		X				X		Circumglobal	1	1	1	1	1	1	0	0	LC	LC
Conger esculentus Poey, 1861	Cervigón *et al.* 1992	C*		X	X			X		Western Atlantic	1	0	1	1	1	1	1	1	LC	LC
Parabathymyrus oregoni Smith & Kanazawa, 1977	USNM 158900	DW*		X				X		Western Atlantic	0	1	1	1	1	0	0	0	NA	LC
Paraconger caudilimbatus (Poey, 1867)	Klautau *et al.* 2020	DW		X					X	Atlantic	1	1	1	1	0	0	0	0	N	LC
Paraconger guianensis Kanazawa, 1961	MPEG 35216	C		X	X			X		Western Atlantic	0	0	0	1	1	0	0	0	LC	LC
Pseudophichthys splendens (Lea, 1913)	NSMT-P-40070	DW*		X				X		Atlantic	1	1	1	1	1	1	0	0	LC	LC
Rhynchoconger flavus (Goode & Bean, 1896)	MPEG 35737	C		X				X		Western Atlantic	1	1	1	1	0	0	0	0	LC	LC
Xenomystax congroides Smith & Kanazawa, 1989	Klautau *et al.* 2020	DW*				X	X			Atlantic	1	1	1	1	1	1	0	0	LC	LC
NEMICHTHYIDAE																				
Avocettina infans (Günther, 1878)	NSTM 40450	DW*				X	X			Circumglobal	1	1	1	1	1	1	0	0	LC	LC
Nemichthys scolopaceus Richardson, 1848	NSTM 40061	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
MORINGUIDAE																				
Neoconger sp. *	Marceniuk *et al.*, 2019	C		X				X		Endemic AOP	0	0	0	1	0	0	0	0	N	N
SERRIVOMERIDAE																				
Serrivomer beani Gill & Ryder, 1883	NSMT-P-40078	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Serrivomer lanceolatoides (Schmidt, 1916)	USNM 315339	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	LC	LC
Stemonidium hypomelas Gilbert, 1905	Klautau *et al.*, 2020	DW				X	X			Circumglobal	1	0	0	1	1	1	1	1	LC	LC
CLUPEIFORMES																				
PRISTIGASTERIDAE																				
Chirocentrodon bleekerianus (Poey, 1867)	MPEG 35674	C	X			X	X			Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Odontognathus compressus Meek & Hildebrand, 1923	FLMNH 14785	C*	X			X	X			Western Atlantic	0	0	1	1	0	0	0	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
PRISTIGASTERIDAE																				
Odontognathus mucronatus Lacepède, 1800	MPEG 35048	C	X			X	X			Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Pellona harroweri (Fowler, 1917)	MPEG 35208	C	X			X	X			Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
ENGRAULIDAE																				
Anchoa filifera (Fowler, 1915) *	MPEG 35122	C	X		X	X	X			Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Anchoa hepsetus (Linnaeus, 1758)	OBIS BR 157	C*	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	N	LC
Anchoa januaria (Steindachner, 1879)	HU-Zoo 58746	C	X		X	X	X			Western Atlantic	0	0	0	1	1	1	1	1	LC	LC
Anchoa lyolepis (Evermann & Marsh, 1900)	USNM 258295	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Anchoa pectoralis Hildebrand, 1943	MCZ 35276	C	X		X	X	X			Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Anchoa spinifer (Valenciennes, 1848)	MPEG 32865	C	X		X	X	X			W Atlantic, E Pacific	0	0	1	1	1	1	1	0	LC	LC
Anchovia clupeoides (Swainson, 1839)	MCZ 18044	C	X		X	X	X			Western Atlantic	0	1	1	1	1	1	1	0	LC	LC
Anchovia surinamensis (Bleeker, 1865)	MPEG 32997	C	X			X	X			Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Anchoviella brevirostris (Günther, 1868)	MCZ 35255	C	X		X	X	X			Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Anchoviella cayennensis (Puyo, 1945)	UF 189087	C	X			X	X			Western Atlantic	0	0	0	1	1	1	0	0	LC	LC
Anchoviella elongata (Meek & Hildebrand, 1923)	Fonseca & Souza 2006	C	X		X	X	X			Western Atlantic	0	0	1	1	1	0	0	0	N	LC
Anchoviella guianensis (Eigenmann, 1912)	CAS 58084	C	X		X	X	X			Western Atlantic	0	0	1	1	0	0	0	0	LC	LC
Anchoviella lepidentostole (Fowler, 1911)	MPEG 35240	C	X		X	X	X			Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Cetengraulis edentulus (Cuvier, 1829)	MPEG 32974	C	X		X	X	X			Western Atlantic	0	1	1	1	1	1	1	1	LC	LC
Engraulis eurystole (Swain & Meek, 1884)	UF 223947	C*	X			X	X			Western Atlantic	1	1	1	1	0	0	0	0	LC	LC
Lycengraulis batesii (Günther, 1868)	LBP 21388	C	X			X	X			Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Lycengraulis grossidens (Spix & Agassiz, 1829)	MPEG 32017	C	X		X	X	X			Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Pterengraulis atherinoides (Linnaeus, 1766)	MPEG 33003	C	X			X	X			Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
CLUPEIDAE																				
Etrumeus sadina (Mitchill, 1814)	USNM 159703	C	X		X	X	X			Circumglobal	1	1	1	1	0	0	0	0	N	LC
Harengula clupeola (Cuvier, 1829)	MNHN 1900-0184	C	X		X	X	X			Western Atlantic	0	1	1	1	1	1	1	0	LC	LC
Harengula jaguana Poey, 1865	UF 135772	C*	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	N	LC
Lile piquitinga (Schreiner & Miranda Ribeiro, 1903) *	MPEG 35023	C	X			X	X			Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Opisthonema oglinum (Lesueur, 1818)	AZUSC 5286	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Rhinosardinia amazonica (Steindachner, 1879)	MPEG 33161	C	X			X	X			Endemic AOP	0	0	0	1	0	0	0	0	LC	N

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
CLUPEIDAE																				
Sardinella aurita Valenciennes, 1847	UF 204292	C*	X		X	X	X			Atlantic	1	1	1	1	1	1	1	1	DD	LC
Sardinella brasiliensis (Steindachner, 1879)	Fig. 2B	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	DD	DD
ALEPOCEPHALIFORMES																				
PLATYTROCTIDAE																				
Maulisia mauli Parr, 1960	NSMT 101785	DW*				X	X			Circumglobal	0	0	0	1	0	0	0	0	LC	N
Platytroctes apus Günther, 1878	UF 173075	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	N	N
ALEPOCEPHALIDAE																				
Alepocephalus agassizii Goode & Bean, 1883	UF 190954	DW*				X	X			Atlantic	1	1	0	1	0	0	0	0	N	LC
Talismania antillarum (Goode & Bean, 1896)	UF 190914	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	N	LC
Talismania homoptera (Vaillant, 1888)	NSMT-P-40085	DW*				X	X			Atlantic	1	1	1	1	0	0	0	0	N	LC
Xenodermichthys copei (Gill, 1884)	NSMT-P-40086	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
SILURIFORMES																				
ARIIDAE																				
Amphiarius phrygiatus (Valenciennes, 1840)	MPEG 35077	C	X	X				X		Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Amphiarius rugispinis Valenciennes, 1840	MPEG 30636	C	X*					X		Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Aspistor quadriscutis (Valenciennes, 1840)	MPEG 30662	C	X	X				X		Endemic AOP	0	0	0	1	0	0	0	0	VU	LC
Bagre bagre (Linnaeus, 1766)	MPEG 35197	C	X	X			X			Western Atlantic	0	0	1	1	1	1	1	0	NT	LC
Cathorops agassizii (Eigenmann & Eigenmann, 1888)	MPEG 30666	C	X*					X		Western Atlantic	0	0	0	1	1	0	0	0	LC	N
Cathorops arenatus (Valenciennes, 1840)	MPEG 30657	C	X*					X		Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Cathorops spixii (Agassiz, 1829)	MPEG 30676	C	X	X				X		Western Atlantic	0	0	0	1	1	1	1	0	LC	N
Notarius grandicassis (Valenciennes, 1840)	MPEG 35204	C	X*	X				X		Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Sciades couma (Valenciennes 1840)	CAS 22460	C	X	X				X		Endemic AOP	0	0	0	1	0	0	0	0	DD	LC
Sciades herzbergii (Bloch, 1794)	MPEG 30619	C	X*					X		Western Atlantic	0	0	0	1	1	0	0	0	LC	LC
Sciades parkeri (Traill 1832)	MPEG 30688	C	X	X				X		Endemic AOP	0	0	0	1	0	0	0	0	VU	VU
Sciades passany (Valenciennes, 1840)	MPEG 30669	C	X*					X		Endemic AOP	0	0	0	1	0	0	0	0	LC	DD
Sciades proops (Valenciennes, 1840)	MPEG 30687	C	X	X				X		Western Atlantic	0	0	0	1	1	0	0	0	DD	N
ARGENTINIFORMES																				
ARGENTINIDAE																				
Glossanodon polli Cohen, 1958	USNM 159355	DW				X	X			Western Atlantic	1	1	1	1	0	0	0	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
ARGENTINIDAE																				
Glossanodon pygmaeus Cohen, 1958	USNM 159350	DW				X	X			Atlantic	0	0	0	1	0	0	0	0	LC	LC
BATHYLAGIDAE																				
Dolicholagus longirostris (Maul, 1948)	NSMT-P-40089	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	N	N
Melanolagus bericoides (Borodin, 1929)	NSMT-P-40090	DW*				X	X			Circumglobal	1	1	1	1	0	0	1	1	LC	N
STOMIIFORMES																				
GONOSTOMATIDAE																				
Manducus maderensis (Johnson, 1890)	NMST-P-40091	DW*				X	X			Atlantic	1	1	1	1	1	1	1	0	LC	N
Sigmops elongatus (Günther, 1878)	NMST-P-40095	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	N	N
STERNOPTYCHIDAE																				
Argyropelecus aculeatus Valenciennes, 1850	NMST-P-40096	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Argyropelecus affinis Garman, 1899	NMST-P-40097	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Argyropelecus sladeni Regan, 1908	NMST-P-40098	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Polyipnus asteroides Schultz, 1938	FMNH 71609	DW*				X	X			Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Sternoptyx diaphana Hermann, 1781	NMST-P-40099	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Sternoptyx pseudobscura Baird, 1971	NMST-P-40100	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	N	LC
PHOSICHTHYIDAE																				
Ichthyococcus polli Blache, 1964	NSMT-P-40094	DW*				X	X			Atlantic	0	0	0	1	0	0	0	0	N	LC
Polymetme corythaeola (Alcock, 1898)	NSMT-P-40093	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	1	N	LC
Yarrella blackfordi Goode & Bean, 1896	NSMT-P-40092	DW*				X	X			Atlantic	1	1	1	1	0	0	0	0	N	LC
STOMIIDAE																				
Aristostomias grimaldii Zugmayer, 1913	NSMT-P-40113	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	1	N	LC
Astronesthes macropogon Goodyear & Gibbs, 1970	NSMT-P-40103	DW*				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Astronesthes richardsoni (Poey, 1852)	UF 178399	DW*				X	X			Atlantic	1	1	1	1	1	1	1	1	N	LC
Borostomias elucens (Brauer, 1906)	NMST-P-40105	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	N	LC
Borostomias mononema (Regan & Trewavas, 1929)	NMST-P-40106	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	N	LC
Chauliodus sloani Bloch & Schneider, 1801	NSMT-P-40101	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Heterophotus ophistoma Regan & Trewavas, 1929	MCZ 59100	DW				X	X			Circumglobal	1	1	1	1	1	0	0	1	N	LC
Malacosteus niger Ayres, 1848	NMST-P-40114	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Melanostomias biseriatus Regan & Trewavas, 1930	NMST-P-40108	DW*				X	X			Atlantic	1	1	1	1	1	0	0	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
STOMIIDAE																				
Melanostomias macrophotus Regan & Trewavas, 1930	NMST-P-40109	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	N	LC
Melanostomias melanops Brauer, 1902	NMST-P-40107	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	0	N	LC
Photonectes braueri (Zugmayer, 1913)	NMST-P-40111	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	N	LC
Photonectes gracilis Goode & Bean, 1896	NMST-P-40112	DW*				X	X			Circumglobal	0	0	1	1	0	0	0	0	N	LC
Stomias affinis Günther, 1887	NSMT-P-40102	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Stomias boa (Risso, 1810)	UF 190902	DW*				X	X			Circumglobal	1	1	0	1	1	1	1	1	N	LC
ATELEOPODIFORMES																				
ATELEOPODIDAE																				
Ijimaia antillarum Howell Rivero, 1935	USNM 392171	DW		X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	N	LC
AULOPIFORMES																				
SYNODONTIDAE																				
Saurida brasiliensis Norman, 1935 *	UF 136790	DW*		X					X	Atlantic	1	1	1	1	1	1	1	1	LC	LC
Saurida caribbaea Breder, 1927	MPEG 35598	C		X					X	Atlantic	1	1	1	1	1	1	1	1	LC	LC
Saurida normani Longley, 1935	NSMT-P-40123	DW*		X					X	Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Synodus bondi Fowler, 1939	MPEG 35202	C	X	X	X				X	Western Atlantic	0	1	1	1	1	1	1	0	LC	LC
Synodus foetens (Linnaeus, 1766)	UF 123655	C	X	X	X				X	Atlantic	0	1	1	1	1	1	1	0	LC	LC
Synodus intermedius (Spix & Agassiz, 1829)	USNM 398292	C			X*				X	Atlantic	1	1	1	1	1	1	1	0	LC	LC
Synodus poeyi Jordan, 1887	CAS 48800	C			X*				X	Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
*Synodus synodus (*Linnaeus, 1758)	UF 137001	C			X*				X	Atlantic	1	1	1	1	1	1	0	0	LC	LC
Trachinocephalus myops (Forster, 1801)	MPEG 33634	C	X	X	X				X	Atlantic	1	1	1	1	1	1	1	0	LC	LC
IPNOPIDAE																				
Bathypterois quadrifilis Günther, 1878	NSMT-P-40126	DW*		X					X	Atlantic	1	1	1	1	1	1	0	0	LC	LC
Bathypterois viridensis (Roule, 1916)	NSMT-P-40127	DW*		X					X	Atlantic	1	1	1	1	1	1	0	0	LC	LC
Bathytyphlops marionae Mead, 1958	NSMT-P-40128	DW*		X					X	Circumglobal	1	1	1	1	1	0	0	0	LC	LC
CHLOROPHTHALMIDAE																				
Chlorophthalmus brasiliensis Mead, 1958	FMNH 67136	DW		X				X		Western Atlantic	0	1	1	1	1	1	1	1	LC	LC
Parasudis truculenta (Goode & Bean, 1896)	MCZ 66482	DW		X				X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
NOTOSUDIDAE																				
Scopelosaurus smithii Bean, 1925	NSMT-P-40129	DW*				X	X			Circumglobal	1	1	1	1	1	1	0	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
PARALEPIDIDAE																				
Dolichosudis fuliginosa Post, 1969	NSMT-P-40154	DW*				X	X			W Atlantic, E Pacific	0	0	0	1	1	0	0	1	LC	LC
Lestidiops affinis (Ege, 1930)	MCZ 66885	DW				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Lestidiops jayakari (Boulenger, 1889)	MCZ 68083	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Lestidiops mirabilis (Ege, 1933)	NSMT-P-40153	DW*				X	X			Circumglobal	1	0	1	1	1	1	0	0	LC	LC
Lestidium atlanticum Borodin, 1928	NSMT-P-40151	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Lestrolepis intermedia (Poey, 1868)	NSMT-P-40152	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	N	LC
Magnisudis atlantica (Krøyer, 1868)	NSMT-P-40150	DW*				X	X			Circumglobal	1	1	1	1	1	0	1	1	LC	LC
Stemonosudis rothschildi Richards, 1967	NSMT-P-40155	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	N	LC
ALEPISAURIDAE																				
Alepisaurus brevirostris Gibbs, 1960	Klautau, *et al.*, 2020	DW				X	X			Circumglobal	1	0	1	1	0	1	1	1	LC	LC
Omosudis lowii Günther, 1887	NSMT-P-40156	DW*				X	X			Circumglobal	1	1	1	1	1	0	0	0	LC	LC
MYCTOPHIFORMES																				
NEOSCOPELIDAE																				
Neoscopelus macrolepidotus Johnson, 1863	NSMT-P-40149	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Scopelengys tristis Alcock, 1890	NSMT-P-40148	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	NA	LC
MYCTOPHIDAE																				
Bolinichthys supralateralis (Parr, 1928)	NSMT-P-40146	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Centrobranchus nigroocellatus (Günther, 1873)	MCZ 123172	DW				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Ceratoscopelus maderensis (Lowe, 1839)	MCZ 122793	DW*				X	X			Atlantic	1	1	1	1	1	1	0	0	NA	LC
Ceratoscopelus warmingii (Lütken, 1892)	NSMT-P-40147	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Dasyscopelus obtusirostris (Tåning, 1928)	NSMT-P-40135	DW*				X	X			Circumglobal	0	0	0	1	1	1	1	1	N	N
Diaphus dumerilii (Bleeker, 1856)	MCZ 120089	DW				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Diaphus fragilis Tåning, 1928	NSMT-P-40140	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Diaphus garmani Gilbert, 1906	NSMT-P-40137	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Diaphus problematicus Parr, 1928	NSMT-P-40138	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Diaphus taaningi Norman, 1930	NSMT-P-40139	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	N	DD
Electrona risso (Cocco, 1829)	NSMT-P-40131	DW*				X	X			Circumglobal	1	0	0	1	0	0	0	1	LC	LC
Lampadena luminosa (Garman, 1899)	NSMT-P-40453	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Lampanyctus nobilis Tåning, 1928	NSMT-P-40143	DW*				X	X			Circumglobal	1	1	1	1	1	1	0	0	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
MYCTOPHIDAE																				
Lampanyctus tenuiformis (Brauer, 1906)	MNHN 1990-1028	DW*				X	X			Circumglobal	1	1	1	1	1	0	0	0	LC	LC
Lampanyctus vadulus Hulley, 1981	NSMT-P-40144	DW*				X	X			Circumglobal	0	0	0	1	1	0	0	0	LC	LC
Lepidophanes guentheri (Goode & Bean, 1896)	MCZ 108648	DW				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Myctophum nitidulum Garman, 1899	NSMT-P-40134	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Notoscopelus resplendens (Richardson, 1845)	MCZ 103815	DW				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
LAMPRIFORMES																				
TRACHIPTERIDAE																				
Zu cristatus (Bonelli, 1820)	NSMT-P-40246	DW*				X	X			Circumglobal	1	1	1	1	1	1	0	0	NA	LC
POLYMIXIIFORMES																				
POLYMIXIIDAE																				
Polymixia lowei Günther, 1859	Klautau, *et al.*, 2020	DW		X				X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Polymixia nobilis Lowe, 1836	Cervigón *et al.* 1992	DW*		X				X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
ZEIFORMES																				
OREOSOMATIDAE																				
Allocyttus verrucosus (Gilchrist, 1906)	NSMT-P-40249	DW*				X	X			Circumglobal	0	0	0	1	1	1	1	1	LC	LC
Pseudocyttus maculatus Gilchrist, 1906		DW*				X	X			Circumglobal	0	0	0	1	0	0	1	1	N	DD
PARAZENIDAE																				
Cyttopsis rosea (Lowe, 1843)	NSMT-P-40247	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	N	LC
GRAMMICOLEPIDIDAE																				
Grammicolepis brachiusculus Poey, 1873	NSMT-P-40251	DW*		X	X			X		Circumglobal	1	1	1	1	1	1	0	0	LC	LC
Xenolepidichthys dalgleishi Gilchrist, 1922	NSMT-P-40252	DW*		X	X			X		Circumglobal	1	1	1	1	1	1	1	1	LC	LC
ZEIDAE																				
Zenopsis conchifer (Lowe, 1852)	Klautau *et al.*, 2020	DW		X	X	X	X	X		Atlantic	1	1	1	1	1	1	1	1	DD	LC
GADIFORMES																				
MELANONIDAE																				
Melanonus zugmayeri Norman, 1930	NSMT-P-40166	DW*		X				X		Circumglobal	1	1	1	1	1	1	1	1	LC	LC
MACROURIDAE																				
Bathygadus melanobranchus Vaillant, 1888	NSMT-P-40173	DW*		X				X		Atlantic	1	1	1	1	0	0	0	0	N	LC
Coelorinchus caelorhincus (Risso, 1810)	NSMT-P-40176	DW*		X				X		Atlantic	1	1	1	1	0	0	0	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
MACROURIDAE																				
Coelorinchus caribbaeus (Goode & Bean, 1885)	NSMT-P-40175	DW*		X				X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Coelorinchus occa (Goode & Bean, 1885)	NSMT-P-40174	DW*		X				X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Gadomus arcuatus (Goode & Bean, 1886)	NSMT-P-40171	DW*		X				X		Atlantic	1	1	1	1	1	1	0	0	LC	LC
Gadomus longifilis (Goode & Bean, 1885)	NSMT-P-40172	DW*		X				X		Atlantic	1	1	1	1	0	0	0	0	N	LC
Hymenocephalus italicus Giglioli, 1884	NSMT-P-40177	DW*		X				X		Circumglobal	1	1	1	1	1	0	0	0	N	LC
Kuronezumia bubonis (Iwamoto, 1974)	NSMT-P-40181	DW*		X				X		Circumglobal	0	1	1	1	0	0	0	0	N	LC
Macrouroides inflaticeps Smith & Radcliffe, 1912	NSMT-P-40170	DW*		X				X		Circumglobal	0	0	0	1	1	1	0	0	LC	LC
Malacocephalus laevis (Lowe, 1843)	Klautau *et al*., 2020	DW		X				X		Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Malacocephalus occidentalis Goode & Bean, 1885	NSMT-P-40183	DW*		X				X		Western Atlantic	1	1	1	1	1	1	1	1	DD	LC
Nezumia aequalis (Günther, 1878)	NSMT-P-40178	DW*		X				X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Nezumia atlantica (Parr, 1946)	NSMT-P-40182	DW*		X				X		Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Nezumia cyrano Marshall & Iwamoto, 1973	NSMT-P-40180	DW*		X				X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Nezumia suilla Marshall & Iwamoto, 1973	NSMT-P-40179	DW*		X				X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Ventrifossa macropogon Marshall, 1973	UF 117928	DW*		X				X		Circumglobal	1	1	1	1	1	1	1	1	LC	LC
MORIDAE																				
Gadella imberbis (Vaillant, 1888)	NSMT-P-40165	DW*		X				X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Laemonema barbatulum Goode & Bean, 1883	NSMT-P-40164	DW*		X				X		Western Atlantic	1	1	1	1	1	0	0	0	LC	LC
Physiculus fulvus Bean, 1884	USNM 184926	DW		X				X		Atlantic	1	1	1	1	1	0	0	0	LC	LC
Physiculus kaupi Poey, 1865	USNM 266300	DW		X				X		Western Atlantic	1	1	1	1	1	1	1	1	LC	N
MERLUCCIIDAE																				
Merluccius albidus (Mitchill, 1818)	NSMT-P-40167	DW*		X				X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Steindachneria argentea Goode & Bean, 1896	NSMT-P-40168	DW*		X				X		Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
HOLOCENTRIFORMES																				
HOLOCENTRIDAE																				
Corniger spinosus Agassiz, 1831	NSMT-P-40236	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Holocentrus ascensionis (Osbeck, 1765)	AZUSC 5180	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Holocentrus rufus (Walbaum, 1792) *	MPEG uncataloged	C			X*			X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Myripristis jacobus Cuvier, 1829	AZUSC 5181	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Ostichthys trachypoma (Günther, 1859)	NSMT-P-40237	DW*			X*			X		Western Atlantic	1	1	1	1	1	0	0	0	NA	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
HOLOCENTRIDAE																				
Sargocentron bullisi (Woods, 1955)	NSTM-P-40233	C*			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
TRACHICHTHYIFORMES																				
ANOPLOGASTRIDAE																				
Anoplogaster cornuta (Valenciennes, 1833)	NSTM-P-40232	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
DIRETMIDAE																				
Diretmichthys parini (Post & Quéro, 1981)	NSTM-P-40231	DW*				X	X			Circumglobal	1	1	1	1	1	1	0	0	LC	LC
Diretmoides pauciradiatus (Woods, 1973)	NSTM-P-40230	DW*				X	X			Circumglobal	1	1	1	1	1	0	0	0	N	LC
Diretmus argenteus Johnson, 1864	Klautau *et al.*, 2020	DW				X	X			Circumglobal	1	1	1	1	1	1	0	0	N	LC
TRACHICHTHYIDAE																				
Aulotrachichthys argyrophanus (Woods, 1961)	UF 202342	DW				X	X			Western Atlantic	0	0	0	1	1	0	0	0	LC	DD
Gephyroberyx darwinii (Johnson, 1866)	Klautau *et al.*, 2020	DW			X	X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Hoplostethus occidentalis Woods, 1973	NSTM-P-40228	DW*			X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
BERYCIFORMES																				
GIBBERICHTHYIDAE																				
Gibberichthys pumilus Parr, 1933	NSMT-P-40240	DW*				X	X			Western Atlantic	1	1	1	1	0	0	0	0	LC	LC
RONDELETIIDAE																				
Rondeletia bicolor Goode & Bean, 1895	NSMT-P-40241	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	LC	LC
Rondeletia loricata Abe & Hotta, 1963	NSMT-P-40242	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
BARBOURISIIDAE																				
Barbourisia rufa Parr, 1945	NSMT-P-40243	DW*		X				X		Circumglobal	1	1	1	1	1	1	0	0	LC	LC
MELAMPHAIDAE																				
Melamphaes polylepis Ebeling, 1962	NSMT-P-40238	DW*				X	X			Circumglobal	1	1	1	1	1	1	0	0	LC	DD
Scopelogadus mizolepis (Günther, 1878)	NSMT-P-40239	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
OPHIDIIFORMES																				
CARAPIDAE																				
Snyderidia canina Gilbert, 1905	NSMT-P-40198	DW*		X			X	X	X	Circumglobal	1	1	1	1	1	1	0	1	LC	LC
OPHIDIIDAE																				
Brotula barbata (Bloch & Schneider, 1801)	AZUSC 5056	C		X	X			X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Dicrolene introniger Goode & Bean, 1883	NSMT-P-40190	DW*		X				X		Atlantic	1	1	1	1	1	0	0	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
OPHIDIIDAE																				
Lamprogrammus niger Alcock, 1891	NSMT-P-40191	DW*				X	X			Circumglobal	0	1	1	1	0	0	0	0	N	LC
Lepophidium aporrhox Robins, 1961	UF 234531	C*		X				X		Western Atlantic	0	0	1	1	0	0	0	0	N	LC
Lepophidium brevibarbe (Cuvier, 1829)	MPEG 35673	C		X				X		Western Atlantic	0	1	1	1	1	1	1	1	LC	LC
Lepophidium collettei Robins, Robins & Brown, 2012	CAS 48099	C		X				X		Endemic AOP	0	0	0	1	0	0	0	0	N	LC
Lepophidium cultratum Robins, Robins & Brown, 2012	UF 179756	DW*		X				X		Western Atlantic	0	0	0	1	1	0	0	0	N	LC
Lepophidium pheromystax Robins, 1960	USNM 185738	C		X				X		Western Atlantic	1	1	1	1	0	0	0	0	LC	LC
Lepophidium profundorum (Gill, 1863)	NSMT-P-40185	DW*		X				X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Lepophidium zophochir Robins, Robins & Brown, 2012	USNM 405927	DW*		X				X		Western Atlantic	0	0	1	1	0	0	0	0	N	LC
Luciobrotula corethromycter Cohen, 1964	NSMT-P-40193	DW*		X				X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Monomitopus agassizii (Goode & Bean, 1896)	NSMT-P-40194	DW*				X	X			Western Atlantic	1	1	1	1	1	1	1	0	N	LC
Neobythites braziliensis Nielsen, 1999	UF 204180	DW		X	X			X		Western Atlantic	0	0	0	1	1	0	0	0	DD	LC
Neobythites gilli Goode & Bean, 1885	NSMT-P-40195	DW*		X		X	X	X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Neobythites monocellatus Nielsen, 1999	NSMT 40195	DW*				X	X	X		Western Atlantic	0	1	1	1	1	1	0	0	DD	LC
Ophidion dromio Lea & Robins, 2003	KU 29982	C*		X		X	X	X		Western Atlantic	1	1	1	1	1	0	0	0	N	LC
Ophidion guianense Lea & Robins, 2003	UF 204008	C*		X		X	X	X		Endemic AOP	0	0	0	1	0	0	0	0	N	LC
Ophidion holbrookii Putnam, 1874	UF 211572	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	CR	LC
Otophidium omostigma (Jordan & Gilbert, 1882)	NSMT-P-40189	C*		X		X	X	X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
BYTHITIDAE																				
Diplacanthopoma brachysoma Günther, 1887	UF 181664	DW*		X				X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
APHYONIDAE																				
Barathronus bicolor Goode & Bean, 1886	NSMT-P-40197	DW*		X				X		Western Atlantic	1	1	1	1	0	0	1	0	LC	LC
BATRACHOIDIFORMES																				
BATRACHOIDIDAE																				
Amphichthys cryptocentrus (Valenciennes, 1837)	MPEG uncataloged	C	X	X	X				X	Western Atlantic	0	1	1	1	1	1	0	0	LC	LC
Batrachoides surinamensis (Bloch & Schneider, 1801)	MPEG 35740	C	X	X	X				X	Western Atlantic	0	1	1	1	1	1	0	0	LC	LC
Porichthys bathoiketes Gilbert, 1968	NSMT-P-40200	DW*	X	X					X	Western Atlantic	0	0	1	1	0	0	0	0	N	N
Porichthys kymosemeum Gilbert, 1968	MZUSP 14820	C	X	X	X				X	Western Atlantic	0	0	0	1	1	0	0	0	DD	N
Porichthys oculofrenum Gilbert, 1968	UF 11624	C	X	X					X	Endemic AOP	0	0	0	1	0	0	0	0	DD	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
BATRACHOIDIDAE																				
Porichthys pauciradiatus Caldwell & Caldwell, 1963	TU 40105	C	X	X					X	W Atlantic, E Pacific	0	0	1	1	0	0	0	0	DD	LC
Porichthys plectrodon Jordan & Gilbert, 1882	MPEG 35806	C	X	X					X	Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Thalassophryne maculosa Günther, 1861	OBIS 2635	C*	X	X					X	Western Atlantic	0	0	1	1	1	0	0	0	N	LC
Thalassophryne nattereri Steindachner, 1876	LBP 21587	C	X	X	X				X	Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Thalassophryne punctata Steindachner, 1876	GEA 31*	C	X	X	X				X	Western Atlantic	0	0	0	1	1	1	0	0	LC	LC
KURTIFORMES																				
APOGONIDAE																				
Apogon americanus Castelnau, 1855	NSMT-P 40281	C			X*			X		Western Atlantic	0	1	1	1	1	1	1	0	LC	LC
Apogon pseudomaculatus Longley, 1932	USNM 215277	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Paroncheilus affinis (Poey, 1875)	NSMT-P-40280	C*			X*			X		Atlantic	1	1	1	1	1	1	1	0	N	LC
Phaeoptyx pigmentaria (Poey, 1860)	NSMT-P 40281	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
GOBIIFORMES																				
ELEOTRIDAE																				
Dormitator maculatus (Bloch, 1792)	USNM 88288	C	X*						X	Western Atlantic	1	1	1	1	1	1	1	1	NT	LC
Butis koilomatodon (Bleeker, 1849)	GEA 1657	C	X		X				X	exotic species	0	0	0	1	1	1	1	0	N	LC
Eleotris amblyopsis (Cope, 1871)	INPA 40675	C	X*						X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Eleotris pisonis (Gmelin, 1789)	GEA 3653	C	X*						X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Erotelis smaragdus (Valenciennes, 1837)	OBIS BR 977	C	X*						X	Western Atlantic	1	1	1	1	1	0	0	0	LC	LC
Guavina guavina (Valenciennes, 1837)	MPEG 32774	C	X*						X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
GOBIIDAE																				
Akko dionaea Birdsong & Robins, 1995	USNM 329524	C		X					X	Endemic AOP	0	0	0	1	0	0	0	0	LC	DD
Awaous flavus (Valenciennes, 1837)	GEA 2463	C	X*						X	Western Atlantic	0	0	1	1	0	0	0	0	DD	LC
Barbulifer enigmaticus Joyeux *et al.*, 2009	GEA 1619	C			X*				X	Western Atlantic	0	0	0	1	1	1	1	0	LC	N
Bathygobius soporator (Valenciennes, 1837)	GEA 1652	C	X		X				X	Atlantic	1	1	1	1	1	1	1	1	LC	LC
Coryphopterus dicrus Böhlke & Robins, 1960	MZUSP 53119	C			X*				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Coryphopterus thrix Böhlke & Robins, 1960	Rocha & Rosa 2001	C			X*				X	Western Atlantic	0	1	1	1	1	1	1	0	LC	VU
Ctenogobius boleosoma (Jordan & Gilbert, 1882)	GEA 3656	C	X		X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Ctenogobius phenacus (Pezold & Lasala, 1987)	USNM 244153	C*	X		X				X	Endemic AOP	0	0	0	1	0	0	0	0	N	LC
Ctenogobius saepepallens (Gilbert & Randall, 1968)	ZUEC 4154	C	X		X				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
GOBIIDAE																				
Ctenogobius smaragdus (Valenciennes, 1837)	CIUFES 2644	C	X		X				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Ctenogobius stigmaticus (Poey, 1860)	OBIS BR 619	C	X		X				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Ctenogobius thoropsis Pezold & Gilbert, 1987	USNM 263436	C	X*						X	Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Evorthodus lyricus (Girard, 1858)	GEA 1662	C	X		X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Gnatholepis thompsoni Jordan, 1904	Rocha & Rosa 2001	C			X*				X	Atlantic	1	1	1	1	1	1	1	0	LC	LC
Gobioides broussonnetii Lacepède, 1800	MZUSP 77702	C	X*						X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Gobioides grahamae Palmer & Wheeler, 1955	BMNH 1925.10.28.464.	C	X*						X	Western Atlantic	0	0	0	1	1	1	0	0	LC	DD
Gobionellus oceanicus (Pallas, 1770)	MPEG 33222	C	X*						X	Atlantic	1	1	1	1	1	1	1	1	LC	LC
Lythrypnus brasiliensis Greenfield, 1988	MZUSP 53107	C			X*				X	Western Atlantic	0	0	0	1	1	1	1	0	LC	N
Microdesmus bahianus Dawson, 1973	GEA 454	C	X		X				X	Western Atlantic	0	0	1	1	1	1	0	0	LC	LC
Microgobius meeki Evermann & Marsh, 1899	OBIS BR 160	C	X*						X	Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Priolepis dawsoni Greenfield, 1989	AZUSC 5667	C			X*				X	Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Ptereleotris randalli Gasparini, Rocha & Floeter, 2001	Rocha & Rosa 2001*	C			X*				X	Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
GRAMMATIDAE																				
Gramma brasiliensis Sazima, Gasparini & Moura, 1998	MZUSP 53053	C			X*				X	Western Atlantic	0	0	0	1	1	1	1	0	NT	N
POMACENTRIDAE																				
Abudefduf saxatilis (Linnaeus, 1758)	MZUSP 53177	C			X*			X		Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Chromis cyanea (Poey 1860) *	RBF Pers. Obs	C			X*			X		Western Atlantic	1	1	1	1	0	0	0	0	LC	LC
Chromis enchrysura Jordan & Gilbert, 1882	NMNH 273563	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Chromis flavicauda (Günther, 1880)	ACF PML Pers. Obs	C			X*			X		Western Atlantic	0	0	0	1	1	1	0	0	LC	DD
Chromis multilineata (Guichenot, 1853)	MZUSP 53069	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Chromis scotti Emery, 1968	MZUSP 53095	C			X*			X		Western Atlantic	1	1	1	1	1	0	0	0	LC	LC
Microspathodon chrysurus (Cuvier, 1830)	MZUSP 53171	C			X*			X		Western Atlantic	1	1	1	1	1	1	0	0	VU	LC
Stegastes pictus (Castelnau, 1855)	MZUSP 53116	C			X*			X		Western Atlantic	0	1	1	1	1	1	1	0	LC	N
Stegastes variabilis (Castelnau, 1855)	MZUSP 53210	C			X*			X		Circumglobal	1	1	1	1	1	1	1	0	N	N
OPISTOGNATHIDAE																				
Lonchopisthus higmani Mead, 1959	Marceniuk *et al.*, 2019	C		X				X		Western Atlantic	0	0	1	1	0	0	0	0	N	LC
Opistognathus cuvierii Valenciennes, 1836	CAS 52354	C			X*				X	Western Atlantic	0	1	1	1	1	1	1	0	N	N

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
OPISTOGNATHIDAE																				
Opistognathus lonchurus Jordan & Gilbert, 1882	FMNH 79582	C*			X*				X	Western Atlantic	0	1	1	1	1	1	0	0	LC	LC
Opistognathus sp.	Rocha & Rosa 2001	C			X*				X	Western Atlantic	0	0	0	1	1	1	1	0	N	N
MUGILIFORMES																				
MUGILIDAE																				
Mugil brevirostris Miranda Ribeiro, 1915	MPEG 32744	C	X		X	X	X			Western Atlantic	0	0	0	1	1	1	1	1	N	N
Mugil curema Valenciennes, 1836	LBP 21585	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	DD	LC
Mugil curvidens Valenciennes, 1836	MZUSP 115080	C	X		X	X	X			Western Atlantic	1	0	1	1	1	1	1	0	DD	LC
Mugil incilis Hancock, 1830	MPEG 33674	C	X		X	X	X			Western Atlantic	0	1	1	1	0	0	0	0	LC	LC
Mugil liza Valenciennes, 1836	MZUSP 67422	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	NT	DD
Mugil rubrioculus Harrison, *et al*., 2007	MPEG 33025	C	X		X	X	X			Western Atlantic	0	0	1	1	1	1	0	0	DD	N
BLENIIFORMES																				
TRIPTERYGIIDAE																				
Enneanectes altivelis Rosenblatt, 1960	ACF PML Pers. Obs	C			X*				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
DACTYLOSCOPIDAE																				
Dactyloscopus foraminosus Dawson, 1982	USNM 221439	C			X*				X	Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
BLENNIIDAE																				
Entomacrodus vomerinus (Valenciennes, 1836)	MCZ 4637	C			X*				X	Western Atlantic	0	0	0	1	1	1	0	0	LC	LC
Lupinoblennius paivai (Pinto, 1958)	GEA 449	C	X*						X	Western Atlantic	0	0	0	1	1	1	1	0	LC	EN
Omobranchus punctatus (Valenciennes, 1836)	GEA 1631	C	X		X				X	exotic species	0	0	1	1	1	1	1	0	N	LC
Ophioblennius trinitatis Miranda Ribeiro, 1919	Rocha & Rosa*	C			X*				X	Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Parablennius marmoreus (Poey, 1876)	USNM 42078*	C			X*				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Scartella cristata (Linnaeus, 1758)	GEA 04212	C			X*				X	Atlantic	1	1	1	1	1	1	1	1	LC	LC
LABRISOMIDAE																				
Malacoctenus zaluari Alfredo Carvalho-Filho *et al.*, 2020	Rocha & Rosa*	C			X*				X	Western Atlantic	0	0	0	1	1	1	1	0	N	N
Starksia brasiliensis (Gilbert, 1900)	Rocha & Rosa	C			X*				X	Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Starksia sluiteri (Metzelaar, 1919)	Rocha & Rosa*	C			X*				X	Western Atlantic	0	0	1	1	1	0	0	0	LC	LC
CHAENOPSIDAE																				
Emblemariopsis signifera (Ginsburg, 1942)	Rocha & Rosa*	C			X*				X	Western Atlantic	0	0	1	1	1	1	1	0	N	N

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
ATHERINIFORMES																				
ATHERINOPSIDAE																				
Atherinella brasiliensis (Quoy & Gaimard, 1825)	MPEG 33236	C	X		X	X	X			Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
BELONIFORMES																				
EXOCOETIDAE																				
Cheilopogon cyanopterus (Valenciennes, 1847)	UF 212278	C-O*				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Cheilopogon exsiliens (Linnaeus, 1771)	UF 214039	C-O*				X	X			Atlantic	1	1	1	1	1	1	1	0	LC	LC
Cheilopogon melanurus (Valenciennes, 1847) *	MPEG 32900	C-O				X	X			Atlantic	1	1	1	1	1	1	1	0	LC	LC
Exocoetus obtusirostris Günther, 1866	Leopold, 2004	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Exocoetus volitans Linnaeus, 1758	MCZ 156477	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Hirundichthys affinis (Günther, 1866)	UF 213961	C-O*				X	X			Atlantic	1	1	1	1	1	1	0	0	LC	LC
Hirundichthys speculiger (Valenciennes, 1847)	MCZ 156278	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Parexocoetus brachypterus (Richardson, 1846)	MPEG not cataloged	C-O				X	X			Atlantic	1	1	1	1	1	1	1	0	LC	N
Parexocoetus hillianus (Gosse, 1851)	MCZ 156225	C-O				X	X			Atlantic	1	1	1	1	1	1	0	0	N	LC
HEMIRAMPHIDAE																				
Euleptorhamphus velox Poey, 1868	MCZ 72070	C-O				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Hemiramphus balao Lesueur, 1821	Zacardi & Bittencourt 2017	C	X		X	X	X			Atlantic	1	1	1	1	1	1	1	0	DD	LC
Hemiramphus brasiliensis (Linnaeus, 1758)	HU-Zoo 100314	C	X		X	X	X			Atlantic	1	1	1	1	1	1	1	0	LC	LC
Hyporhamphus roberti (Valenciennes, 1847)	MPEG 32949	C	X		X	X	X			W Atlantic, E Pacific	1	1	1	1	1	1	1	0	LC	LC
Hyporhamphus unifasciatus (Ranzani, 1841)	OBIS BR 192	C	X		X	X	X			Circumglobal	1	1	1	1	1	1	1	1	NT	LC
Oxyporhamphus micropterus (Valenciennes, 1847)	MCZ 60166	C				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
BELONIDAE																				
Ablennes hians (Valenciennes, 1846)	UF 93355	C	X		X	X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Platybelone argalus (Lesueur, 1821)	MNHN 2002-0946	C*	X		X	X	X			Circumglobal	1	1	1	1	1	1	0	0	LC	LC
Strongylura marina (Walbaum, 1792)	MCZ 4680	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Strongylura timucu (Walbaum, 1792)	MPEG 32847	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Tylosurus acus (Lacepède, 1803)	MCZ 8816	C	X		X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Tylosurus crocodilus (Péron & Lesueur, 1821)	Leopold, 2004	C*	X		X	X	X			Circumglobal	1	1	1	1	1	1	0	0	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
CYPRINODONTIFORMES																				
ANABLEPIDAE																				
Anableps anableps (Linnaeus, 1758)	MPEG 32754	C	X*				X			Western Atlantic	0	0	1	1	1	0	0	0	LC	N
Anableps microlepis Müller & Troschel, 1844	MPEG 32791	C	X*				X			Endemic AOP	0	0	0	1	0	0	0	0	LC	N
CARANGIFORMES																				
CORYPHAENIDAE																				
Coryphaena equiselis Linnaeus, 1758	MCZ 166436	C-O			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Coryphaena hippurus Linnaeus, 1758	Asano-Filho, 2004	C-O			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
RACHYCENTRIDAE																				
Rachycentron canadum (Linnaeus, 1766)	MPEG 33667	C			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
ECHENEIDAE																				
Echeneis naucrates Linnaeus, 1758	MPEG 35641	C			X	X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	DD
Phtheirichthys lineatus (Menzies, 1791)	ROM 71438	C*				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Remora osteochir (Cuvier, 1829)	USNM 383265	C				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Remora remora (Linnaeus, 1758)	GEA 04235	C				X	X			Circumglobal	1	1	1	1	1	1	1	1	N	LC
CARANGIDAE																				
Alectis ciliaris (Bloch, 1787)	MPEG 35701	C	X		X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Caranx bartholomaei Cuvier, 1833	MPEG 35098	C	X		X	X	X			Atlantic	1	1	1	1	1	1	1	0	LC	LC
Caranx crysos (Mitchill, 1815)	AZUSC 5091	C	X		X	X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Caranx hippos (Linnaeus, 1766)	MPEG 35183	C	X		X	X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Caranx latus Agassiz, 1831	AZUSC 5060	C	X		X	X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Caranx lugubris Poey, 1860	MPEG uncataloged	C-O			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Caranx ruber (Bloch, 1793)	Rocha & Rosa 2001	C*	X		X	X	X			Atlantic	1	1	1	1	1	1	1	0	LC	LC
Chloroscombrus chrysurus (Linnaeus, 1766)	MPEG 35654	C	X			X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
macarellus (Cuvier, 1833)	Fig. 2D	C			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Decapterus punctatus (Cuvier, 1829)	AZUSC 5524	C			X	X	X			Atlantic	1	1	1	1	1	1	1	0	LC	LC
Decapterus tabl Berry, 1968 *	AZUSC 5516	C			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Elagatis bipinnulata (Quoy & Gaimard, 1825)	Rocha & Rosa 2001	C			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Hemicaranx amblyrhynchus (Cuvier, 1833)	MPEG 35045	C	X			X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Oligoplites palometa (Cuvier, 1832)	MPEG 32916	C	X			X	X			Western Atlantic	0	0	1	1	1	1	1	1	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
CARANGIDAE																				
Oligoplites saliens (Bloch, 1793)	MPEG 35173	C	X		X	X	X			Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Oligoplites saurus (Bloch & Schneider, 1801)	AZUSC 5303	C	X		X	X	X			W Atlantic, E Pacific	1	1	1	1	1	1	1	1	LC	LC
Selar crumenophthalmus (Bloch, 1793)	MPEG 35969	C			X	X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Selene brownii (Cuvier, 1816)	AZUSC 5058	C	X		X	X	X			Western Atlantic	0	1	1	1	1	1	0	0	LC	LC
Selene setapinnis (Mitchill, 1815)	MPEG 35764	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Selene vomer (Linnaeus, 1758)	MPEG 35123	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Seriola dumerili (Risso, 1810) *	MPEG uncataloged	C-O			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Seriola rivoliana Valenciennes, 1833 *	MPEG uncataloged	C-O			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Trachinotus carolinus (Linnaeus, 1766)	MPEG 32982	C	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Trachinotus cayennensis Cuvier, 1832	MPEG 34410	C	X			X	X			Endemic AOP	0	0	0	1	0	0	0	0	DD	LC
Trachinotus falcatus (Linnaeus, 1758)	MPEG 33668	C	X		X	X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Trachinotus goodei Jordan & Evermann, 1896	MCZ 23915	C*	X		X	X	X			Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Trachurus lathami Nichols, 1920	UF 211586	C			X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Uraspis secunda (Poey, 1860) *	MPEG uncataloged	C			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
ISTIOPHORIFORMES																				
SPHYRAENIDAE																				
Sphyraena barracuda (Edwards, 1771)	Rocha & Rosa 2001	C-O	X		X	X	X			Circumglobal	0	1	1	1	1	1	1	0	LC	LC
Sphyraena borealis DeKay, 1842	Moura *et al* 2016*	C			X	X	X			Western Atlantic	1	1	1	1	1	1	1	1	N	LC
Sphyraena guachancho Cuvier, 1829	MPEG 35063	C	X		X	X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
XIPHIIDAE																				
Xiphias gladius Linnaeus, 1758	Asano-Filho, 2004	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	1	NT	LC
ISTIOPHORIDAE																				
Istiophorus platypterus (Shaw, 1792)	Asano-Filho, 2004	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	1	N	LC
Makaira nigricans Lacepède, 1802	Asano-Filho, 2004	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	1	EN	VU
PLEURONECTIFORMES																				
PARALICHTHYIDAE																				
Ancylopsetta cycloidea Tyler, 1959	ANSP 82633	C*		X					X	Western Atlantic	0	0	1	1	0	0	0	0	N	LC
Ancylopsetta dilecta (Goode & Bean, 1883)	NSMT-P-40402	DW*		X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Ancylopsetta kumperae Tyler, 1959	USNM 159620	C		X					X	Western Atlantic	0	0	0	1	1	0	0	0	NA	DD

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
PARALICHTHYIDAE																				
Ancylopsetta ommata (Jordan & Gilbert, 1883)	Uyeno, *et al.*, 1983	C*		X					X	Western Atlantic	1	1	0	1	0	0	0	0	N	LC
Citharichthys arenaceus Evermann & Marsh, 1900	MPEG 35148	C	X	X	X				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Citharichthys cornutus (Günther, 1880)	MPEG 35677	DW		X					X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Citharichthys macrops Dresel, 1885	AZUSC 5649	C	X	X	X				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Citharichthys spilopterus Günther, 1862	AZUSC 5359	C	X	X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Cyclopsetta chittendeni Bean, 1895	MPEG 35119	C	X	X	X				X	Western Atlantic	0	1	1	1	1	1	1	0	LC	LC
Cyclopsetta fimbriata (Goode & Bean, 1885) *	Fig. 2F	C	X	X	X				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Etropus crossotus Jordan & Gilbert, 1882	AZUSC 5010	C	X	X	X				X	W Atlantic, E Pacific	1	1	1	1	1	1	1	1	LC	LC
Paralichthys brasiliensis (Ranzani, 1842)	MZUSP 72303	C	X	X	X				X	Western Atlantic	0	0	0	1	1	1	1	1	LC	N
Paralichthys tropicus Ginsburg, 1933	NSMT-P-40404	C*		X	X				X	Western Atlantic	1	0	1	1	0	0	0	0	N	DD
Syacium gunteri Ginsburg, 1933	GEA 12180	C	X	X					X	Western Atlantic	1	1	1	1	1	0	0	0	N	LC
Syacium micrurum Ranzani, 1842	MPEG 35559	C	X	X	X				X	Atlantic	1	1	1	1	1	1	1	0	LC	LC
Syacium papillosum (Linnaeus, 1758)	AZUSC 5007	C	X	X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
PLEURONECTIDAE																				
Poecilopsetta beanii (Goode, 1881)	UF 214393	DW*		X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Poecilopsetta inermis (Breder, 1927)	FMNH 65528	DW		X					X	Western Atlantic	1	1	1	1	0	0	0	0	NA	LC
BOTHIDAE																				
Bothus lunatus (Linnaeus, 1758)	MZUSP 53034	C		X	X				X	Atlantic	1	1	1	1	1	1	0	0	LC	LC
Bothus maculiferus (Poey, 1860) *	MPEG uncataloged	C		X	X				X	Western Atlantic	1	0	1	1	1	1	1	0	LC	LC
Bothus ocellatus (Agassiz, 1831)	UF 211608	C		X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Bothus robinsi Topp & Hoff, 1972	FMNH 65453	C		X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Chascanopsetta lugubris Alcock, 1894	Klautau *et al.*, 2020	DW		X					X	Circumglobal	1	1	1	1	1	0	0	0	LC	LC
Engyophrys senta Ginsburg, 1933	UF 210964	DW		X					X	Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Monolene antillarum Norman, 1933	UF 211185	DW		X					X	Western Atlantic	1	1	1	1	1	1	1	1	LC	N
Monolene atrimana Goode & Bean, 1886	UF 211179	DW		X					X	Western Atlantic	1	1	1	1	1	1	1	0	N	LC
Trichopsetta caribbaea Anderson & Gutherz, 1967	UF 19309	DW		X					X	Western Atlantic	0	0	1	1	1	0	0	0	N	LC
Trichopsetta ventralis (Goode & Bean, 1885)	GEA 12186	C		X					X	Western Atlantic	1	1	1	1	1	0	0	0	N	LC
ACHIRIDAE																				
Achirus achirus (Linnaeus, 1758)	MPEG 32952	C	X	X					X	Western Atlantic	0	0	0	1	1	1	1	0	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
ACHIRIDAE																				
Achirus declivis Chabanaud, 1940	AZUSC 5187	C	X	X					X	Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Achirus lineatus (Linnaeus, 1758)	MPEG 35113	C	X	X					X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Apionichthys dumerili Kaup, 1858	AZUSC 4720	C	X*	X					X	Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Gymnachirus nudus Kaup, 1858 *	AZUSC 5481	C		X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Trinectes maculatus (Bloch & Schneider, 1801)	USNM 286989	C*	X	X					X	Western Atlantic	1	1	1	1	1	1	1	0	N	LC
Trinectes microphthalmus (Chabanaud, 1928)	GEA 12198	C	X	X					X	Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Trinectes paulistanus (Miranda Ribeiro, 1915)	AZUSC 5642	C	X	X					X	Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
CYNOGLOSSIDAE																				
Symphurus diomedeanus (Goode & Bean, 1885)	FMNH 90535	C		X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Symphurus marginatus (Goode & Bean, 1886)	FMNH 86396	DW*		X					X	Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Symphurus oculellus Munroe, 1991	AZUSC 5136	C	X	X					X	Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Symphurus plagusia (Bloch & Schneider, 1801)	AZUSC 5084	C	X	X					X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Symphurus tesselatus (Quoy & Gaimard, 1824)	MPEG 35503	C	X	X	X				X	Western Atlantic	0	0	0	1	1	1	1	0	N	LC
SYNGNATHIFORMES																				
SYNGNATHIDAE																				
Bryx dunckeri (Metzelaar, 1919)	GEA 499	C			X*				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	N
Hippocampus erectus Perry, 1810	OBIS BR 1417	C	X		X				X	Western Atlantic	1	1	1	1	1	1	1	1	VU	VU
Hippocampus reidi Ginsburg, 1933	AZUSC 5388	C	X		X				X	Western Atlantic	1	1	1	1	1	1	1	1	VU	NT
Microphis lineatus (Kaup, 1856)	UESPIPH 124	C	X*					X		Western Atlantic	1	1	1	1	1	1	1	0	N	N
Pseudophallus brasiliensis Dawson, 1974	USNM 212058	C	X*					X		Western Atlantic	0	0	0	1	1	1	1	0	DD	DD
Syngnathus caribbaeus Dawson, 1979	NSMT-P-40162	C*	X		X			X		Western Atlantic	0	1	1	1	1	1	0	0	N	LC
Syngnathus folletti Herald, 1942	CAS 42762	C*	X		X			X		Western Atlantic	0	0	0	1	1	1	1	1	LC	LC
Syngnathus pelagicus Linnaeus, 1758	MPEG 32862	C	X				X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
AULOSTOMIDAE																				
Aulostomus maculatus Valenciennes, 1841	OBIS BR 175	C			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	N	LC
FISTULARIIDAE																				
Fistularia petimba Lacepède, 1803 *	AZUSC 5182	C	X*		X	X	X	X		Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Fistularia tabacaria Linnaeus, 1758	AZUSC 5669	C	X*		X	X	X	X		Atlantic	1	1	1	1	1	1	1	1	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
DACTYLOPTERIDAE																				
Dactylopterus volitans (Linnaeus, 1758)	MPEG 35089	C	X	X	X				X	Atlantic	1	1	1	1	1	1	1	1	LC	LC
CALLIONYMIFORMES																				
CALLIONYMIDAE																				
Callionymus bairdi Jordan, 1888	USNM 364273	C			X*				X	Atlantic	1	1	1	1	1	1	1	0	LC	LC
Synchiropus agassizii (Goode & Bean, 1888)	UF 204179	DW			X*				X	Western Atlantic	0	1	1	1	1	1	1	1	LC	LC
DRACONETTIDAE																				
Centrodraco oregonus (Briggs & Berry, 1959)	MCZ 40506	DW		X					X	Endemic AOP	0	0	0	1	0	0	0	0	DD	N
SCOMBROLABRACIFORMES																				
SCOMBROLABRACIDAE																				
Scombrolabrax heterolepis Roule, 1921	NSMT-P-40349	DW*				X	X			Circumglobal	1	1	1	1	1	1	0	0	LC	LC
SCOMBRIFORMES																				
GEMPYLIDAE																				
Gempylus serpens Cuvier, 1829	Klautau *et al.*, 2020	DW				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Lepidocybium flavobrunneum (Smith, 1843)	Klautau *et al.*, 2020	DW				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Nealotus tripes Johnson, 1865	NSMT-P-40352	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Neoepinnula americana (Grey, 1953)	Klautau *et al.*, 2020	DW				X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Nesiarchus nasutus Johnson, 1862	NSMT-P-40353	DW*				X	X			Circumglobal	1	1	1	1	1	1	0	0	LC	LC
Promethichthys prometheus (Cuvier, 1832)	NSMT-P-40351	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Ruvettus pretiosus Cocco, 1833	Klautau *et al.*, 2020	DW				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
TRICHIURIDAE																				
Benthodesmus tenuis (Günther, 1877)	NSMT-P-40357	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Lepidopus altifrons Parin & Collette, 1993	FMNH 64493	DW*				X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Trichiurus lepturus Linnaeus, 1758	MPEG 35189	C	X	X	X	X	X	X	X	Circumglobal	1	1	1	1	1	1	1	1	LC	LC
SCOMBRIDAE																				
Acanthocybium solandri (Cuvier, 1832)	Marceniuk *et al.*, 2019	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Auxis thazard (Lacepède, 1800)	Asano-Filho, 2004	C				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Euthynnus alletteratus (Rafinesque, 1810) *	Fig. 2J	C			X	X	X			Atlantic	1	1	1	1	1	1	1	0	LC	LC
Katsuwonus pelamis (Linnaeus, 1758) *	Fig. 2E	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Sarda sarda (Bloch, 1793)	Asano-Filho, 2004	C				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SCOMBRIDAE																				
Scomber colias Gmelin, 1789	NSMT-P 40359	C*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Scomberomorus brasiliensis Collette *et al.*, 1978	MPEG 35108	C			X	X	X			Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Scomberomorus cavalla (Cuvier, 1829)	AZUSC 5012	C			X	X	X			Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Scomberomorus regalis (Bloch, 1793)	Asano-Filho, 2004	C			X	X	X			Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Thunnus alalunga (Bonnaterre, 1788)	Asano-Filho, 2004	C-O				X	X			Circumglobal	1	1	1	1	1	1	0	0	LC	LC
Thunnus albacares (Bonnaterre, 1788)	Asano-Filho, 2004	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	NT
Thunnus atlanticus (Lesson, 1831)	Asano-Filho, 2004	C-O				X	X			Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Thunnus obesus (Lowe, 1839) *	Fig. 2I	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	0	NT	VU
NOMEIDAE																				
Cubiceps pauciradiatus Günther, 1872	NSMT-P-40365	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Psenes cyanophrys Valenciennes, 1833	NSMT-P-40367-8	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Psenes maculatus Lütken, 1880	NSMT-P-40366	DW*				X	X			Circumglobal	1	1	1	1	1	0	0	0	NA	LC
Psenes pellucidus Lütken, 1880	NSMT-P-40369	DW*				X	X			Circumglobal	1	1	1	1	1	0	0	0	N	LC
ARIOMMATIDAE																				
Ariomma bondi Fowler, 1930	Klautau *et al.*, 2020	DW				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Ariomma melana (Ginsburg, 1954)	Klautau *et al.*, 2020	DW				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	N
Ariomma regulus (Poey, 1868)	NSMT-P-40370	C*				X	X			Western Atlantic	1	1	1	1	0	0	0	0	N	LC
STROMATEIDAE																				
Peprilus crenulatus Cuvier, 1829	MPEG 35600	C	X			X	X			Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Peprilus xanthurus (Quoy & Gaimard, 1825)	MPEG 35778	C	X			X	X			Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
TRACHINIFORMES																				
CHIASMODONTIDAE																				
Pseudoscopelus altipinnis Parr, 1933	NSMT-P-40346	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Pseudoscopelus scriptus Lütken, 1892	NSMT-P-40345	DW*				X	X			Atlantic	1	1	1	1	1	0	0	0	LC	LC
PERCOPHIDAE																				
Bembrops anatirostris Ginsburg, 1955	NSMT-P-40347	DW*		X					X	Western Atlantic	1	1	1	1	1	1	0	0	N	LC
URANOSCOPIDAE																				
Astroscopus ygraecum (Cuvier, 1829)	OBIS BR 61	C	X	X	X				X	Western Atlantic	1	1	1	1	1	1	1	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
LABRIFORMES																				
LABRIDAE																				
Bodianus pulchellus (Poey, 1860)	Rocha & Rosa 2001	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Bodianus rufus (Linnaeus, 1758)	Rocha & Rosa 2001	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Clepticus brasiliensis Heiser, Moura & Robertson, 2000	Rocha & Rosa 2001	C			X	X	X	X		Western Atlantic	0	0	0	1	1	1	1	0	LC	N
Decodon puellaris (Poey, 1860)	USNM 185052	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Halichoeres bivittatus (Bloch, 1791)	Rocha & Rosa 2001	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Halichoeres brasiliensis (Bloch, 1791)	MZUSP 53170	C			X*			X		Western Atlantic	0	0	0	1	1	1	1	0	LC	DD
Halichoeres caudalis (Poey, 1860)	NSMT-P-40340	C*			X*			X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Halichoeres dimidiatus (Agassiz, 1831) *	Rocha & Rosa 2001	C			X*			X		Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Halichoeres penrosei Starks, 1913	Rocha & Rosa 2001	C			X*			X		Western Atlantic	0	0	0	1	1	1	1	0	N	LC
Halichoeres poeyi (Steindachner, 1867)	Rocha & Rosa 2001	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Thalassoma noronhanum (Boulenger, 1890)	Rocha & Rosa 2001	C			X*			X		Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Xyrichtys incandescens Edwards & Lubbock, 1981	Rocha & Rosa 2001	C		X	X*			X		Western Atlantic	0	0	0	1	1	0	0	0	LC	LC
Xyrichtys martinicensis Valenciennes, 1840	Rocha & Rosa 2001	C		X	X*			X		Western Atlantic	0	1	1	1	0	0	0	0	N	LC
Xyrichtys novacula (Linnaeus, 1758)	Rocha & Rosa 2001	C		X	X			X		Atlantic	0	1	1	1	1	1	1	0	LC	LC
Xyrichtys splendens Castelnau, 1855	Moura *et al* 2016	C		X	X*			X		Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
SCARIDAE																				
Cryptotomus roseus Cope, 1871	FMNH 67970	C		X	X			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Nicholsina usta (Valenciennes, 1840)	Rocha & Rosa 2001	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Scarus trispinosus Valenciennes, 1840	Rocha & Rosa 2001	C			X*			X		Western Atlantic	0	0	0	1	1	1	1	0	VU	DD
Scarus zelindae Moura, Figueiredo & Sazima, 2001	Rocha & Rosa 2001	C			X*			X		Western Atlantic	0	0	0	1	1	1	1	0	EN	EN
Sparisoma amplum (Ranzani, 1841)	Rocha & Rosa 2001	C			X*			X		Western Atlantic	0	0	1	1	1	1	1	0	NT	LC
Sparisoma axillare (Steindachner, 1878)	ZUEC-PIS 4163	C			X*			X		Western Atlantic	0	0	1	1	1	1	1	0	VU	DD
Sparisoma frondosum (Agassiz, 1831) *	AZUSC 5185	C			X*			X		Western Atlantic	0	0	1	1	1	1	1	0	VU	DD
Sparisoma radians (Valenciennes, 1840)	Rocha & Rosa 2001	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
PERCIFORMES																				
CENTROPOMIDAE																				
Centropomus ensiferus Poey, 1860	MPEG 35060	C	X	X	X			X		Western Atlantic	0	1	1	1	1	1	1	0	LC	LC
Centropomus irae Carvalho-Filho *et al.*, 2019	MPEG 33322	C	X	X				X		Endemic AOP	0	0	0	1	0	0	0	0	N	N

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
CENTROPOMIDAE																				
Centropomus parallelus Poey, 1860	LBP 21691	C	X	X	X			X		Western Atlantic	0	1	1	1	1	1	1	1	LC	LC
Centropomus pectinatus Poey, 1860	Fig. 2H	C	X	X				X		Western Atlantic	0	1	1	1	1	1	1	0	LC	LC
Centropomus undecimalis (Bloch, 1792)	MPEG 30609	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
GERREIDAE																				
Diapterus auratus Ranzani, 1840	AZUSC 5626	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Diapterus rhombeus (Cuvier, 1829)	MPEG 35191	C	X	X	X			X		Western Atlantic	0	1	1	1	1	1	1	1	LC	LC
Eucinostomus argenteus Baird & Girard, 1855	AZUSC 5628	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Eucinostomus gula (Quoy & Gaimard, 1824)	AZUSC 5529	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Eucinostomus harengulus Goode & Bean, 1879	FMNH 88104	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	N	LC
Eucinostomus havana (Nichols, 1912)	OBIS BR 1054	C	X	X	X			X		Western Atlantic	0	1	1	1	1	1	1	0	LC	LC
Eucinostomus jonesii (Günther, 1879)	INPA-ICT 023864	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	NA	LC
Eucinostomus lefroyi (Goode, 1874)	UF 215838	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	N	LC
Eucinostomus melanopterus (Bleeker, 1863)	FMNH 92648	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Eugerrres brasilianus (Valenciennes, 1830)	MZUSP 61442	C	X	X	X			X		Western Atlantic	0	1	1	1	1	1	1	1	LC	N
Gerres cinereus (Walbaum, 1792)	Leopold, 2004	C*	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
HOWELLIDAE																				
Howella brodiei Ogilby, 1899	NSMT-P-40256	DW*				X	X			Circumglobal	1	1	1	1	1	1	0	1	LC	LC
ACROPOMATIDAE																				
Caraibops trispinosus (Mochizuki & Sano, 1984)	NSMT-P 21426	DW*				X	X			Western Atlantic	1	1	1	1	0	0	0	0	N	N
Parascombrops spinosus (Schultz, 1940)	NSMT-P-40258	DW*				X	X			Western Atlantic	1	1	1	1	1	1	1	1	N	N
Synagrops bellus (Goode & Bean, 1896)	NSMT-P-40257	DW*				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	N
SYMPHYSANODONTIDAE																				
Symphysanodon berryi Anderson, 1970	REVIZEE specie's list	DW			X			X		Atlantic	1	1	1	1	0	0	0	0	N	LC
EPIGONIDAE																				
Epigonus macrops (Brauer, 1906)	NSMT-P-40285	DW*				X	X			Circumglobal	1	1	1	1	0	0	0	0	LC	N
Epigonus occidentalis Goode & Bean, 1896 *	AZUSC 5671	DW				X	X			Western Atlantic	1	1	1	1	0	0	1	1	LC	LC
Epigonus pandionis (Goode & Bean, 1881)	NSMT-P-40283-4	DW*				X	X			Atlantic	1	1	1	1	0	0	0	0	N	LC
MULLIDAE																				
Mulloidichthys martinicus (Cuvier, 1829)	MNRJ 18230	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
MULLIDAE																				
Mullus argentinae Hubbs & Marini, 1933	FMNH 64778	C		X	X			X		Western Atlantic	0	0	0	1	1	1	1	1	N	LC
Mullus auratus Jordan & Gilbert, 1882	NSMT-P-40443	C*		X				X		Western Atlantic	1	1	1	1	0	0	0	0	LC	N
Pseudupeneus maculatus (Bloch, 1793)	MPEG uncatalogated	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Upeneus parvus Poey, 1852	AZUSC 5445	C		X				X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
PEMPHERIDAE																				
Pempheris schomburgkii Müller & Troschel, 1848	Rocha & Rosa 2001	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
BATHYCLUPEIDAE																				
Neobathyclupea argentea (Goode & Bean, 1896)	NSTM-P-40323	DW*				X	X			Western Atlantic	1	1	1	1	0	0	0	0	N	LC
KYPHOSIDAE																				
Kyphosus sectatrix (Linnaeus, 1758)	Rocha & Rosa 2001	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Kyphosus vaigiensis (Quoy & Gaimard, 1825)	MPEG 35156	C			X*			X		Circumglobal	1	1	1	1	1	1	1	0	N	LC
SERRANIDAE																				
Alphestes afer (Bloch, 1793)	MPEG 35142	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Anthias asperilinguis Günther, 1859	Klautau *et al.*, 2020	DW			X*			X		Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Anthias nicholsi Firth, 1933	Klautau *et al.*, 2020	DW			X*			X		Western Atlantic	1	1	1	1	0	0	0	0	LC	LC
Baldwinella aureorubens (Longley, 1935)	NSMT-P 40274*	DW*			X*			X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Baldwinella vivanus (Jordan & Swain, 1885)	USNM 290061	DW*			X*			X		Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Bathyanthias cubensis (Schultz, 1958)	UF 3570	DW*			X*			X		Western Atlantic	0	0	0	1	1	1	0	0	N	LC
Cephalopholis cruentata (Lacepède, 1802)	NSMT-P-40265	C*			X*			X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Cephalopholis fulva (Linnaeus, 1758)	MPEG uncatalogated	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Dermatolepis inermis (Valenciennes, 1833) *	MPEG uncatalogated	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	DD
Diplectrum bivittatum (Valenciennes, 1828)	USNM 364322	C		X	X			X		Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Diplectrum formosum (Linnaeus, 1766)	UF 213438	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Diplectrum radiale (Quoy & Gaimard, 1824)	MPEG 35622	C	X	X	X			X		Western Atlantic	0	1	1	1	1	1	1	0	LC	LC
Epinephelus adscensionis (Osbeck, 1765)	Leopold, 2004	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	DD	LC
Epinephelus itajara (Lichtenstein, 1822)	MPEG 35082	C	X	X	X			X		Atlantic	1	1	1	1	1	1	1	0	CR	VU
Epinephelus morio (Valenciennes, 1828)	AZUSC 5428	C		X	X			X		Atlantic	1	1	1	1	1	1	1	1	VU	VU
Epinephelus striatus (Bloch, 1792)	USNM 290033	C*			X*			X		Western Atlantic	1	1	1	1	0	0	0	0	N	CR
Hemanthias leptus (Ginsburg, 1952)	NSMT-P-40275	DW*			X	X		X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SERRANIDAE																				
Hyporthodus flavolimbatus Poey, 1865 *	Fig. 2C	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	VU
Hyporthodus mystacinus (Poey, 1852)	USNM 187080	DW*			X*			X		W Atlantic, E Pacific	1	1	1	1	0	0	0	0	DD	LC
Hyporthodus nigritus (Holbrook, 1855)	NSMT 40977	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	EN	NT
Hyporthodus niveatus (Valenciennes, 1828)	AZUSC 5583	DW		X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	VU	VU
Mycteroperca bonaci (Poey, 1860)	MZUSP 53192	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	VU	NT
Mycteroperca cidi Cervigón, 1966	NSMT-P-40266	C*			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	N	DD
Mycteroperca interstitialis (Poey, 1860) *	MPEG uncatalogated	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	VU	VU
Mycteroperca phenax Jordan & Swain, 1884 *	MPEG uncatalogated	C			X*			X		Atlantic	1	1	1	1	0	0	0	0	N	DD
Mycteroperca tigris (Valenciennes, 1833)	MCZ 10148	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	DD
Mycteroperca venenosa (Linnaeus, 1758)	MZUSP 53195	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	NT
Paralabrax dewegeri Metzelaar, 1919	UF 165481	C		X	X			X		Western Atlantic	0	0	1	1	1	0	0	0	LC	LC
Paranthias furcifer (Valenciennes, 1828)	Moura *et al* 2016	C			X	X	X	X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Pronotogrammus martinicensis (Guichenot, 1868)	FMNH 70677	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Pseudogramma gregoryi (Breder, 1927)	Moura et al 2016	C			X*			X		Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Rypticus bistrispinus (Mitchill, 1818)	UF 211487	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Rypticus randalli Courtenay, 1967	MZUSP 48036	C	X		X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Rypticus saponaceus (Bloch & Schneider, 1801)	MZUSP 53028	C	X		X			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Serranus annularis (Günther, 1880)	UF 204733	C*			X*			X		Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Serranus atrobranchus (Cuvier, 1829)	CAS 48428	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Serranus baldwini (Evermann & Marsh, 1899)	UF 211603	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Serranus flaviventris (Cuvier, 1829)	AZUSC 5103	C		X	X			X		Western Atlantic	1	0	1	1	1	1	1	0	LC	LC
Serranus notospilus Longley, 1935	AZUSC 5526	DW			X*			X		Western Atlantic	1	1	1	1	1	1	0	0	N	LC
Serranus phoebe Poey, 1851	UF 211502	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
POMATOMIDAE																				
Pomatomus saltatrix (Linnaeus, 1766)	AZUSC 5347	C	X		X	X	X			Circumglobal	1	1	1	1	1	1	1	1	NT	VU
BRAMIDAE																				
Brama brama (Bonnaterre, 1788)	Klautau et al., 2020	DW				X	X			Atlantic	1	1	1	1	1	1	1	1	LC	LC
Brama caribbea Mead, 1972	NSTM-P-40301	DW*				X	X			Western Atlantic	1	1	1	1	1	1	1	1	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
PRIACANTHIDAE																				
Cookeolus japonicus (Cuvier, 1829)	Klautau *et al.*, 2020	DW			X	X		X		Circumglobal	1	0	1	1	1	1	1	1	LC	LC
Heteropriacanthus cruentatus (Lacepède, 1801)	MPEG uncatalogated	C			X	X		X		Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Priacanthus arenatus Cuvier, 1829	AZUSC 5638	C			X	X		X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Pristigenys alta (Gill, 1862) *	MPEG uncatalogated	C			X	X		X		Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
CHAETODONTIDAE																				
Chaetodon ocellatus Bloch, 1787	MPEG 35080	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Chaetodon sedentarius Poey, 1860	AZUSC 5331	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Chaetodon striatus Linnaeus, 1758	MUSP 53189	C	X		X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Prognathodes guyanensis (Durand, 1960)	MNHN 1960-0272	C			X*			X		Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
POMACANTHIDAE																				
Centropyge aurantonotus Burgess, 1974	UF 24054	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	DD	LC
Holacanthus ciliaris (Linnaeus, 1758)	AZUSC 5325	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Holacanthus tricolor (Bloch, 1795) *	MPEG uncatalogated	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Pomacanthus arcuatus (Linnaeus, 1758)	USNM 216826	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Pomacanthus paru (Bloch, 1787)	MPEG 33670	C		X	X			X		Atlantic	1	1	1	1	1	1	1	0	DD	LC
MALACANTHIDAE																				
Caulolatilus guppyi Beebe & Tee-Van, 1937	Fig. 2G	C		X				X		Endemic AOP	0	0	0	1	0	0	0	0	N	LC
Caulolatilus intermedius Howell Rivero, 1936 *	AZUSC 5668	C		X				X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Malacanthus plumieri (Bloch, 1786) *	MPEG uncatalogated	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
HAEMULIDAE																				
Anisotremus surinamensis (Bloch, 1791) *	MPEG 35160	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	DD
Anisotremus virginicus (Linnaeus, 1758)	MPEG 33318	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Conodon nobilis (Linnaeus, 1758)	MPEG 35140	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Genyatremus luteus (Bloch, 1790)	MPEG 35052	C	X	X	X			X		Western Atlantic	0	0	1	1	1	1	1	0	LC	DD
Haemulon atlanticus Carvalho *et al.*, 2020	MPEG 35708	C		X	X			X		Western Atlantic	0	0	1	1	1	1	1	0	N	N
Haemulon aurolineatum Cuvier, 1830	Rocha & Rosa 2001	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Haemulon boschmae (Metzelaar, 1919) *	Fig. 3A	C			X*			X		Western Atlantic	0	1	1	1	0	0	0	0	N	LC
Haemulon carbonarium Poey, 1860 *	Fig. 3B	C		X	X			X		Western Atlantic	1	1	1	1	1	0	0	0	N	LC
Haemulon melanurum (Linnaeus, 1758)	MPEG uncatalogated	C		X	X			X		Western Atlantic	0	1	1	1	1	0	0	0	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
HAEMULIDAE																				
Haemulon parra (Desmarest, 1823)	MPEG 33671	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Haemulon plumieri (Lacepède, 1801)	USNM 398055	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Haemulon sciurus (Shaw, 1803)	CAS 18353	C*			X*			X		Western Atlantic	1	1	1	1	1	0	0	0	N	LC
Haemulon striatum (Linnaeus, 1758)	UF 135072	C*			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Haemulopsis corvinaeformis (Steindachner, 1868)	MPEG 35205	C	X	X	X			X		Western Atlantic	1	0	1	1	1	1	1	0	LC	LC
Orthopristis scapularis Fowler, 1915	MPEG 35163	C	X	X	X			X		Western Atlantic	0	0	1	1	1	0	0	0	N	N
Pomadasys crocro (Cuvier, 1830)	MZUSP 3269	C	X	X				X		Western Atlantic	0	1	1	1	1	1	1	0	LC	DD
LUTJANIDAE																				
Etelis oculatus (Valenciennes, 1828)	Klautau *et al.*, 2020	DW			X	X		X		Western Atlantic	1	1	1	1	1	1	1	0	LC	DD
Lutjanus alexandrei Moura & Lindeman, 2007	Rocha & Rosa 2001	C	X	X	X			X		Western Atlantic	0	0	0	1	1	1	0	0	LC	N
Lutjanus analis (Cuvier, 1828)	Rocha & Rosa 2001	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	NT	NT
Lutjanus buccanella (Cuvier, 1828) *	Fig. 3C	C*		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	DD
Lutjanus campechanus (Poey, 1860) *	AZUSC 5483	C		X	X			X		Western Atlantic	1	1	1	1	0	0	0	0	N	VU
Lutjanus cyanopterus (Cuvier, 1828)	AZUSC 5561	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	VU	VU
Lutjanus jocu (Bloch & Schneider, 1801)	AZUSC 5607	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	NT	DD
Lutjanus mahogoni (Cuvier, 1828)	Leopold, 2004	C*	X	X	X			X		Western Atlantic	1	1	1	1	0	0	0	0	N	VU
Lutjanus purpureus (Cuvier, 1866)	MPEG 35576	C		X	X			X		Western Atlantic	0	0	0	1	1	1	1	0	VU	N
Lutjanus synagris (Linnaeus, 1758)	MPEG 35782	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	NT	NT
Lutjanus vivanus (Cuvier, 1828)	MPEG 35576	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	NT	LC
Ocyurus chrysurus (Bloch, 1791)	MPEG uncatalogated	C		X	X		X			Western Atlantic	1	1	1	1	1	1	1	0	NT	DD
Pristipomoides aquilonaris (Goode & Bean, 1896)	AZUSC 5186	C		X	X		X	X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Pristipomoides freemani Anderson, 1966 *	Fig. 3D	C		X	X		X	X		Western Atlantic	1	0	1	1	1	1	1	1	LC	LC
Pristipomoides macrophthalmus (Müller & Troschel, 1848)	NSMT-P 40305	C			X*		X	X		Western Atlantic	1	1	1	1	0	0	0	0	LC	LC
Rhomboplites aurorubens (Cuvier, 1829)	AZUSC 5368	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	NT	VU
CIRRHITIDAE																				
Amblycirrhitus pinos (Mowbray, 1927)	Rocha & Rosa 2001	C			X*				X	Atlantic	1	1	1	1	1	1	1	0	DD	LC
POLYNEMIDAE																				
Polydactylus oligodon (Günther, 1860)	Fig. 3E	C	X	X	X			X		Western Atlantic	0	1	1	1	1	1	1	1	LC	LC
Polydactylus virginicus (Linnaeus, 1758)	MPEG 35638	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SCORPAENIFORMES																				
SCORPAENIDAE																				
Pontinus helena Eschmeyer, 1965	NSMT-P-40374	DW*			X*				X	Endemic AOP	0	0	0	1	0	0	0	0	N	DD
Pontinus longispinis Goode & Bean, 1896	USNM 185299	DW			X*				X	Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Pontinus nematophthalmus (Günther, 1860)	USNM 185301	DW			X*				X	Western Atlantic	1	0	1	1	1	0	0	0	LC	LC
Pontinus rathbuni Goode & Bean, 1896	USNM 185023	DW		X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	N	LC
Pterois volitans (Linnaeus, 1758) *	Fig. 3F	C			X				X	Exotic species	1	1	1	1	0	0	0	0	LC	LC
Scorpaena agassizi Goode & Bean, 1896	NSMT-P 40377	C			X*				X	Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Scorpaena brasiliensis Cuvier, 1829	AZUSC 5556	C		X	X*				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Scorpaena calcarata Goode & Bean, 1882	UF 212382	C			X*				X	Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Scorpaena dispar Longley & Hildebrand, 1940	UF 212371	C			X*				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Scorpaena inermis Cuvier, 1829	MNHN 2003-0284	C			X*				X	Western Atlantic	1	1	1	1	1	1	0	0	N	LC
Scorpaena isthmensis Meek & Hildebrand, 1928	AZUSC5271	C	X	X	X				X	Western Atlantic	1	0	1	1	1	1	1	0	LC	LC
Scorpaena melasma Eschmeyer, 1965	UF 213330	C			X*				X	Western Atlantic	0	0	1	1	1	0	0	0	LC	N
Scorpaena petricola Eschmeyer, 1965	UF 212311	C			X*				X	Western Atlantic	0	0	0	1	1	0	0	0	DD	N
Scorpaena plumieri Bloch, 1789	GEA 59	C	X	X	X				X	Atlantic	1	1	1	1	1	1	1	1	LC	LC
SETARCHIDAE																				
Ectreposebastes imus Garman, 1899	NSMT-P-40383	DW*		X					X	Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Setarches guentheri Johnson, 1862	CAS 51200	DW		X					X	Circumglobal	1	1	1	1	1	1	1	1	LC	LC
TRIGLIDAE																				
Bellator brachychir (Regan, 1914)	UF 244014	DW		X					X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Bellator egretta (Goode & Bean, 1896)	UF 134727	C*		X					X	Western Atlantic	1	1	1	1	1	0	0	0	N	LC
Bellator militaris (Goode & Bean, 1896)	FMNH 67881	C		X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Bellator ribeiroi Miller, 1965	ANSP 101189	C		X					X	Western Atlantic	0	0	1	1	1	0	0	0	LC	LC
Prionotus beanii Goode, 1896	NSMT-P-40389	DW*		X					X	Western Atlantic	0	1	1	1	1	1	1	1	N	LC
Prionotus ophryas Jordan & Swain, 1885	UF 206703	DW		X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Prionotus paralatus Ginsburg, 1950	FMNH 67502	C*		X					X	Western Atlantic	0	1	0	1	0	0	0	0	N	LC
Prionotus punctatus (Bloch, 1793)	MPEG 35041	C	X	X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Prionotus roseus Jordan & Evermann, 1887	UF 239872	C		X					X	Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Prionotus stearnsi Jordan & Swain, 1885	NSMT-P-40388	DW*		X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
PERISTEDIIDAE																				
Peristedion ecuadorense Teague, 1961	FMNH 66522	DW		X					X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Peristedion gracile Goode & Bean, 1896	NSMT-P-40393	DW*		X					X	Western Atlantic	1	1	1	1	1	1	0	0	N	LC
Peristedion miniatum Goode, 1880	NSMT 45116	DW*		X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Peristedion truncatum (Günther, 1880)	NSMT-P-40391	DW*		X					X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
MORONIFORMES																				
EPHIPPIDAE																				
Chaetodipterus faber (Broussonet, 1782)	MPEG 35040	C	X	X	X	X	X	X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
ACANTHURIFORMES																				
SCIAENIDAE																				
Bairdiella goeldi Marceniuk *et al.*, 2019	MPEG 33627	C	X*					X		Western Atlantic	0	0	0	1	1	1	1	0	N	N
Corvula sanctaeluciae Jordan, 1890	INHS 49021	C*	X*					X		Western Atlantic	1	1	1	1	0	0	0	0	LC	LC
Ctenosciaena gracilicirrhus (Metzelaar, 1919)	MPEG 35102	C	X	X				X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Cynoscion acoupa (Lacepède, 1801)	MPEG 35059	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	0	NT	LC
Cynoscion jamaicensis (Vaillant & Bocourt, 1883)	MPEG 35059	C	X	X				X		Western Atlantic	1	0	1	1	1	1	1	1	LC	LC
Cynoscion leiarchus (Cuvier, 1830)	MPEG 35229	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Cynoscion microlepidotus (Cuvier, 1830)	MPEG 32970	C	X	X				X		Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Cynoscion similis Randall & Cervigón, 1968	MPEG 35042	C	X	X				X		Endemic AOP	0	0	0	1	0	0	0	0	NA	LC
Cynoscion steindachneri (Jordan, 1889)	MPEG 33352	C	X	X				X		Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Cynoscion virescens (Cuvier, 1830)	AZUSC 5492	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Eques lanceolatus (Linnaeus, 1758)	Rocha & Rosa, 2001	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Eques punctatus Bloch & Schneider, 1801	Leopold, 2004	C*			X*			X		Western Atlantic	0	1	1	1	1	1	0	0	NA	LC
Isopisthus parvipinnis (Cuvier, 1830)	MPEG 35051	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Larimus breviceps Cuvier, 1830	MPEG 35128	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Lonchurus elegans Boeseman, 1948	USNM 367743	C	X	X				X		Endemic AOP	0	0	0	1	0	0	0	0	DD	DD
Lonchurus lanceolatus (Bloch, 1788)	MPEG 32898	C	X	X				X		Endemic AOP	0	0	0	1	0	0	0	0	LC	LC
Macrodon ancylodon (Bloch & Schneider, 1801)	MPEG 35635	C	X	X				X		Western Atlantic	0	1	1	1	1	1	0	0	LC	LC
Menticirrhus cuiaranensis Marceniuk *et al.*, 2020	MPEG 33244	C	X	X				X		Western Atlantic	0	0	0	1	1	1	0	0	N	N
Menticirrhus martinicensis (Cuvier, 1830)	MPEG 35037	C	X	X	X			X		Western Atlantic	0	0	1	1	1	1	1	1	N	N
Micropogonias furnieri (Desmarest, 1823)	MPEG 35200	C	X	X				X		Western Atlantic	0	1	1	1	1	1	1	1	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SCIAENIDAE																				
Nebris microps Cuvier, 1830	MPEG 35050	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Odontoscion dentex (Cuvier, 1830)	KU 10569	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Paralonchurus brasiliensis (Steindachner, 1875)	MPEG 35061	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Pareques acuminatus (Bloch & Schneider, 1801)	Rocha & Rosa 2001	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Pareques iwamotoi Miller & Woods, 1988 *	MPEG uncatalogated	C			X*			X		Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Stellifer brasiliensis (Schultz, 1945)	MPEG 33284	C	X	X				X		Western Atlantic	0	0	0	1	1	1	1	1	LC	LC
Stellifer cervigoni Chao *et al.*, 2021	Chao *et al.*, 2021	C	X	X				X		Western Atlantic	0	0	1	1	0	0	0	0	N	N
Stellifer collettei Chao *et al.*, 2021	Chao *et al.*, 2021	C	X	X				X		Western Atlantic	0	0	0	1	1	1	1	0	N	N
Stellifer gomezi Chao *et al.*, 2021	Chao *et al.*, 2021	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	0	N	N
Stellifer microps (Steindachner, 1864)	GEA 12408	C	X	X				X		Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Stellifer musicki Chao *et al.*, 2021	Chao *et al.*, 2021	C	X	X				X		Endemic AOP	0	0	0	1	0	0	0	0	N	N
Stellifer naso (Jordan, 1889)	GEA 12414	C	X	X				X		Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Stellifer punctatissimus (Meek & Hildebrand, 1925)	AZUSC 5178	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	0	DD	LC
Stellifer rastrifer (Jordan, 1889)	MPEG 33040	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	1	LC	LC
Stellifer stellifer (Bloch, 1790)	MPEG 32910	C	X	X				X		Western Atlantic	0	0	1	1	1	1	1	0	LC	DD
Umbrina coroides Cuvier, 1830	GEA 12421	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
ACANTHURIDAE																				
Acanthurus bahianus Castelnau, 1855	Rocha & Rosa 2001	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Acanthurus chirurgus (Bloch, 1787)	MPEG 35178	C			X*			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Acanthurus coeruleus Bloch & Schneider, 1801	MPEG uncatalogated	C			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
SPARIFORMES																				
LOBOTIDAE																				
Lobotes surinamensis (Bloch, 1790)	MPEG 32749	C	X	X	X	X	X	X		Circumglobal	1	1	1	1	1	1	1	1	LC	LC
SPARIDAE					X															
Archosargus probatocephalus (Walbaum, 1792)	OBIS BR 152	C	X		X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Archosargus rhomboidalis (Linnaeus, 1758)	OBIS BR 172	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Calamus bajonado (Bloch & Schneider, 1801)	USNM 388823	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Calamus calamus (Valenciennes, 1830)	Fig. 3G	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Calamus penna (Valenciennes, 1830)	MPEG 35709	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Calamus pennatula Guichenot, 1868	Fig. 3H	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
CAPROIFORMES																				
CAPROIDAE																				
Antigonia capros Lowe, 1843	Klautau *et al.*, 2020	DW		X	X			X		Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Antigonia combatia Berry & Rathjen, 1959	Klautau *et al.*, 2020	DW		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
LOPHIIFORMES																				
LOPHIIDAE																				
Lophiodes reticulatus Caruso & Suttkus, 1979	NSMT-P-40204	DW*		X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Lophius gastrophysus Miranda Ribeiro, 1915	Klautau *et al.*, 2020	DW		X					X	Western Atlantic	1	1	1	1	1	1	1	1	NT	LC
Sladenia shaefersi Caruso & Bullis, 1976	Klautau *et al.*, 2020	DW		X	X				X	Western Atlantic	1	0	1	1	0	0	0	0	LC	LC
ANTENNARIIDAE																				
Antennarius multiocellatus (Valenciennes, 1837)	FMNH 69440	C		X	X				X	Circumglobal	1	1	1	1	1	1	1	1	DD	LC
Antennarius striatus (Shaw, 1794)	MPEG 35593	C	X	X	X				X	Circumglobal	1	1	1	1	1	1	1	1	DD	LC
Fowlerichthys radiosus (Garman, 1896)	NSMT-P-40209	C*		X	X*				X	Atlantic	1	1	1	1	0	0	0	0	LC	LC
Histrio histrio (Linnaeus, 1758)	MCZ 11636	C		X	X				X	Circumglobal	1	0	0	1	1	1	1	1		
CHAUNACIDAE																				
Chaunax suttkusi Caruso, 1989	Klautau *et al.*, 2020	DW		X					X	Atlantic	1	1	1	1	1	0	0	0	LC	LC
OGCOCEPHALIDAE																				
Dibranchus atlanticus Peters, 1876	CAS 42694	DW		X					X	Atlantic	1	1	1	1	1	1	1	1	LC	LC
Halieutichthys aculeatus (Mitchill, 1818)	MPEG 35851	C		X	X				X	Western Atlantic	1	1	1	1	1	1	0	0	DD	LC
Ogcocephalus cubifrons (Richardson, 1836)	MPEG 35167	C		X	X				X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Ogcocephalus nasutus (Cuvier, 1829)	AZUSC 5372	C		X	X				X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Ogcocephalus notatus (Valenciennes, 1837)	AZUSC 5335	C		X					X	Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Ogcocephalus parvus Longley & Hildebrand, 1940	MCZ 45076	C*		X	X				X	Western Atlantic	1	1	1	1	1	1	0	0	DD	LC
Ogcocephalus pumilus Bradbury, 1980	MPEG uncatalogated	C		X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
Ogcocephalus rostellum Bradbury, 1980	CAS 62123	DW*		X	X				X	Western Atlantic	1	0	1	1	0	0	0	0	N	LC
Ogcocephalus vespertilio (Linnaeus, 1758)	MPEG 32999	C	X	X	X				X	Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Zalieutes mcgintyi (Fowler, 1952)	NSMT-P-40213	DW*		X					X	Western Atlantic	1	1	1	1	0	0	0	0	N	LC
CAULOPHRYNIDAE																				
Caulophryne jordani Goode & Bean, 1896	NSMT-P-40218	DW*				X	X			Circumglobal	1	0	0	1	0	0	0	0	N	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
MELANOCETIDAE																				
Melanocetus johnsonii Günther, 1864	NSMT-P-40219	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
HIMANTOLOPHIDAE																				
Himantolophus albinares Maul, 1961	NSMT-P-40222	DW*				X	X			Atlantic, E Pacific	1	1	1	1	0	0	0	0	N	DD
HIMANTOLOPHIDAE																				
Himantolophus groenlandicus Reinhardt, 1837	NSMT-P-40223	DW*				X	X			Circumglobal	1	1	0	1	1	0	0	0	N	LC
Himantolophus paucifilosus Bertelsen & Krefft, 1988	UF 23790	DW*				X	X			Atlantic	0	0	0	1	1	0	0	0	N	LC
DICERATIIDAE																				
Bufoceratias wedli (Pietschmann, 1926)	NSMT-P-40221	DW*				X	X			Circumglobal	1	1	1	1	1	0	0	0	LC	LC
Diceratias pileatus Uwate, 1979	NSMT-P-40220	DW*				X	X			Circumglobal	0	0	1	1	0	0	0	0	N	LC
ONEIRODIDAE																				
Chaenophryne ramifera Regan & Trewavas, 1932	UF 23793	DW*				X	X			Circumglobal	0	0	1	1	0	0	0	0	N	LC
Oneirodes carlsbergi (Regan & Trewavas, 1932)	UF 23792	DW*				X	X			Circumglobal	0	0	0	1	0	0	0	0	N	LC
Oneirodes eschrichtii Lütken, 1871	UF 23794	DW*				X	X			Circumglobal	1	1	0	1	0	0	0	0	N	LC
CERATIIDAE																				
Cryptopsaras couesii Gill, 1883	NSMT-P-40226	DW*				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	LC
GIGANTACTINIDAE																				
Gigantactis macronema Regan 1925	NSMT-P-40225	DW*				X	X			Atlantic, E Pacific	1	0	0	1	0	0	0	0	N	LC
Gigantactis vanhoeffeni Brauer, 1902	NSMT-P-40224	DW*				X	X			Circumglobal	1	1	1	1	1	0	0	1	LC	DD
TETRAODONTIFORMES																				
TRIACANTHODIDAE																				
Hollardia hollardi Poey, 1861	NSMT-P-40409	DW*		X	X			X		Western Atlantic	1	1	1	1	1	1	0	0	N	LC
OSTRACIIDAE																				
Acanthostracion polygonius Poey, 1876	AZUSC 5329	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Acanthostracion quadricornis (Linnaeus, 1758)	AZUSC 5454	C		X	X			X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Lactophrys trigonus (Linnaeus, 1758) *	AZUSC 5188	C		X	X			X		Western Atlantic	1	1	1	1	1	1	1	1	LC	LC
Lactophrys triqueter (Linnaeus, 1758)	Leopold, 2004	C*			X*			X		Western Atlantic	1	1	1	1	1	1	1	0	N	LC
BALISTIDAE																				
Balistes capriscus Gmelin, 1789	AZUSC 5504	C	X	X	X	X	X			Atlantic	0	1	1	1	1	1	1	1	NT	VU
Balistes vetula Linnaeus, 1758	MPEG uncatalogated	C		X	X	X	X			Atlantic	1	1	1	1	1	1	1	1	NT	NT

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
BALISTIDAE																				
Canthidermis maculata (Bloch, 1786) *	MPEG uncatalogated	C			X	X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Canthidermis sufflamen (Mitchill, 1815)	Rocha & Rosa 2001	DW-O			X	X		X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Xanthichthys ringens (Linnaeus, 1758) *	MPEG uncatalogated	C			X	X		X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
MONACANTHIDAE																				
Aluterus heudelotii Hollard, 1855 *	AZUSC 5494	C			X	X		X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Aluterus monoceros (Linnaeus, 1758)	MPEG 35756	C			X	X		X		Circumglobal	1	1	1	1	1	1	1	1	NT	LC
Aluterus schoepfii (Walbaum, 1792)	NSMT-P-40416	C*			X	X		X		Atlantic	1	1	1	1	1	1	1	0	LC	N
Aluterus scriptus (Osbeck, 1765) *	MPEG uncatalogated	C			X	X		X		Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Cantherhines macrocerus (Hollard, 1853) *	MPEG uncatalogated	C		X	X			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Cantherhines pullus (Ranzani, 1842)	USNM 399034	C	X	X	X			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Monacanthus ciliatus (Mitchill, 1818)	UF 212313	C		X	X			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Stephanolepis hispidus (Linnaeus, 1766)	ANSP 100089	C	X	X	X			X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Stephanolepis setifer (Bennett, 1831)	UF 211547	C*		X	X			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
MOLIDAE																				
Mola mola (Linnaeus, 1758)	Asano-Filho, 2004	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	1	LC	VU
TETRAODONTIDAE																				
Canthigaster figueiredoi Moura & Castro, 2002	ANSP 100132	C			X*			X		Western Atlantic	0	0	0	1	1	1	1	0	LC	LC
Colomesus asellus (Müller & Troschel, 1848)	FMNH 114396	C	X*					X		Endemic AOP	0	0	0	1	0	0	0	0	LC	N
Colomesus psittacus (Bloch & Schneider, 1801)	MPEG 35033	C	X	X				X		Western Atlantic	0	0	0	1	1	0	0	0	LC	LC
Lagocephalus laevigatus (Linnaeus, 1766)	MPEG 35150	C	X		X	X	X	X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Lagocephalus lagocephalus (Linnaeus, 1758)	Fig. 3I	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Sphoeroides dorsalis Longley, 1934	CAS 51189	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	LC	LC
Sphoeroides greeleyi Gilbert, 1900	CIUFES 2287	C	X	X	X			X		Western Atlantic	0	0	1	1	1	1	1	0	LC	LC
Sphoeroides nephelus (Goode & Bean, 1882)	INPA 023853	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	N	LC
Sphoeroides pachygaster (Müller & Troschel, 1848)	NSMT-P-40421	DW*		X	X			X		Circumglobal	1	1	1	1	1	1	1	1	LC	LC
Sphoeroides spengleri (Bloch, 1785)	MCZ 12129	C		X	X			X		Atlantic	1	1	1	1	1	1	1	0	LC	LC
Sphoeroides testudineus (Linnaeus, 1758)	MPEG 35112	C	X	X	X			X		Western Atlantic	1	1	1	1	1	1	1	0	DD	LC
Sphoeroides tyleri Shipp, 1974	ANSP 101361	C		X	X			X		Western Atlantic	0	0	1	1	1	1	1	0	LC	LC

Table 1. Continuation.

Táxon	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
DIODONTIDAE																				
Chilomycterus antillarum Jordan & Rutter, 1897	MPEG 35562	C		X	X			X		Western Atlantic	1	1	1	1	1	1	0	0	LC	LC
Chilomycterus reticulatus (Linnaeus, 1758)	MPEG 35614	C		X	X			X		Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Chilomycterus spinosus (Linnaeus, 1758)	AZUSC 5382	C	X	X	X			X		Atlantic	1	1	1	1	1	1	1	1	LC	LC
Diodon eydouxii Brisout de Barneville, 1846	ACF PML Pers. Obs	C-O				X	X			Circumglobal	1	1	1	1	1	1	1	0	LC	LC
Diodon holacanthus Linnaeus, 1758 *	Fig. 3J	O-DW			X	X				Circumglobal	0	1	1	1	1	1	1	0	N	LC
Diodon hystrix Linnaeus, 1758	Rocha & Rosa 2001	O-DW			X	X		X		Circumglobal	1	1	1	1	1	1	1	0	LC	LC

ords that need confirmation and differentiated from those recorded to Brazil by an asterisk in Table 1 column B.

Habitat use was adapted from Gaither *et al.* (2016), being and divided into four basic categories: (i) species associated with estuaries, including those found in areas with freshwater influence (Table 1 column C), (ii) marine species associated with soft, sandy, muddy, or gravelly substrates (Table 1 column D), (iii) species found over coral reefs or rocky bottoms (Table 1 column E), and (iv) species that inhabit the water column (Table 1 column F). Habitat preferences were obtained from recent publications on each species, based on Fricke *et al.* (2019). Habitat use was recognized as (i) pelagic (upper portion of the water column, Table 1 column G), (ii) benthic (sea floor, Table 1 column H), and (iii) demersal (lower portion of the water column, Table 1 column I). This classification and the shoaling habits of the species were derived from the data available in the FishBase online database (http://www.fishbase.org/search.php).

Results

A total of 787 species of the Teleostei were recorded off the North Coast of Brazil and adjacent waters, representing 156 families and 45 orders (Table 1). Most (531) of these species are coastal, 256 inhabit deeper water, and 31 pelagic (oceanic) species are common to both the internal and external continental shelf, of which 54 represent new records (Table 1).

The most species-diverse order was the Perciformes (131 spp., 16.7% of the total), followed by the Anguilliformes (52 spp., 6.6%), Gobiiformes (42 spp., 5.3%), Pleuronectiformes (41 spp., 5.2%), Tetraodontiformes (38 spp., 4.8%), and the Acanthuriformes and Carangiformes, each with 35 species or 4.5% of the total (Table 1). Families with the largest numbers of species are Serranidae, with 40 species (5.1%), followed by the Sciaenidae (36 spp., 4.6%), Carangidae (28 species, 3.6%), Gobiidae (22 spp., 2.8%), Ophidiidae (19 spp., 2.4%), and the Engraulidae and Myctophidae, each with 18 species, or 2.3% of the total (Table 1).

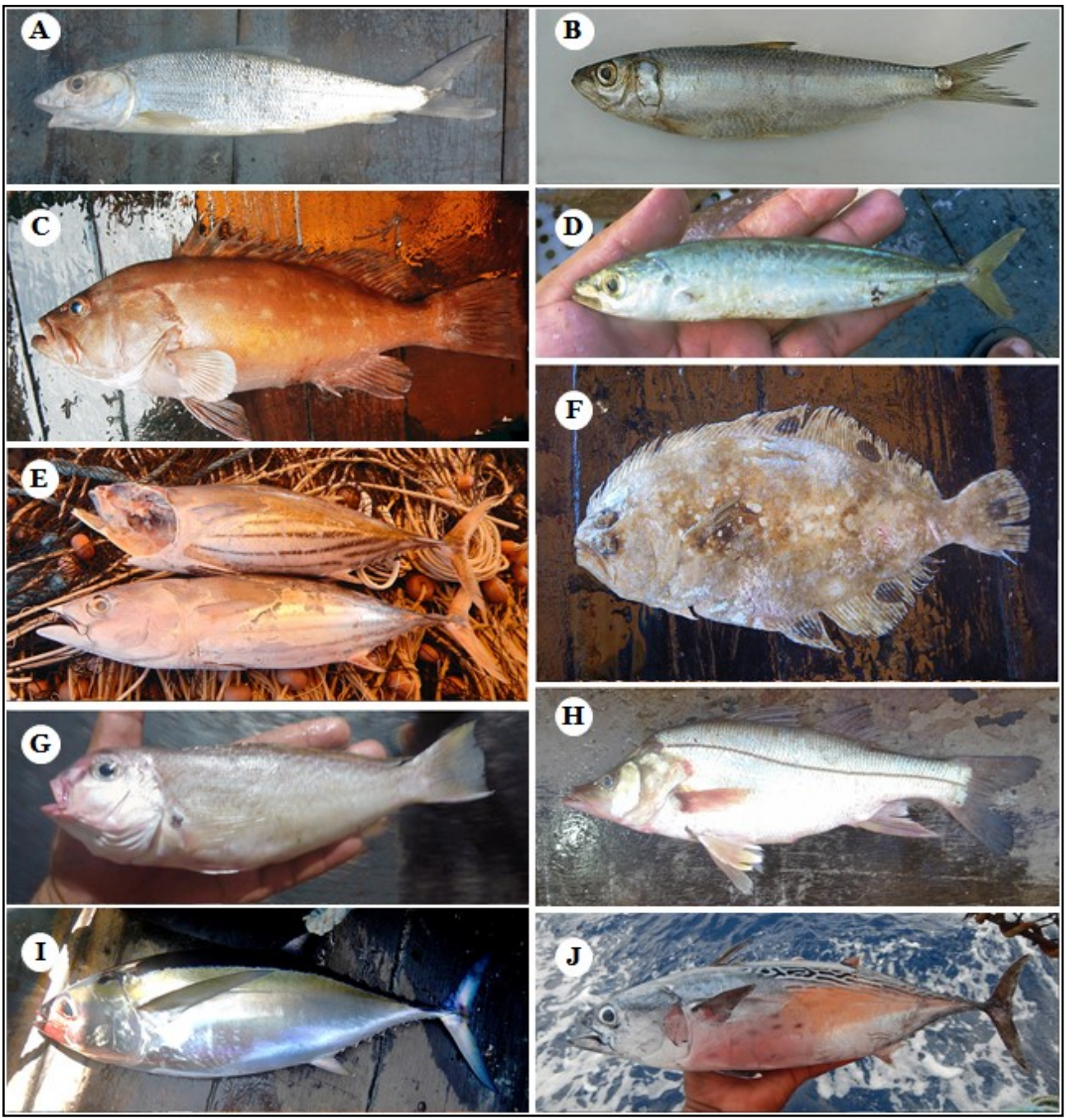

Figure 2. Species without vouchers, but with photographic records of onboard observer. (A) *Albula goreensis*, CEPNOR; (B) *Sardinella brasiliensis*, REVIZEE Score-Norte; (C) *Hyporthodus flavolimbatus*, CEPNOR; (D) *Decapterus macarellus*, CEPNOR; (E) *Katsuwonus pelamis*, CEPNOR; (F) *Cyclopsetta fimbriata*, CEPNOR; (G) *Caulolatilus guppyi*, CEPNOR; (H) *Centropomus pectinatus*, REVIZEE Score-Norte; (I) *Thunnus obesus*, CEPNOR; (J) *Euthynnus alletteratus*, CEPNOR.

Four hundred and five species (51.5%) occur in reef environments, including 129 (16.4%) that are found exclusively in these environments (Table 1 column E). Three hundred and thirty-nine species (43.1%) are associated with unconsolidated substrates, such as sand, muddy, or gravel (Table 1column D), whereas 287 species (36.5%) inhabit the water column (Table 1 column F). A total of 257 (32.7%) species, in turn, are found in estuaries, and 162 (20.6%) can also be found in reef environments (Table 1 column C and E). Overall, 282 (35.8%) of the species are pelagic, 336 (42.7%) are demersal, swimming near the bottom, and 189 (24.0%) are benthic, that is, live on or in contact with the bottom substrate. At least 262

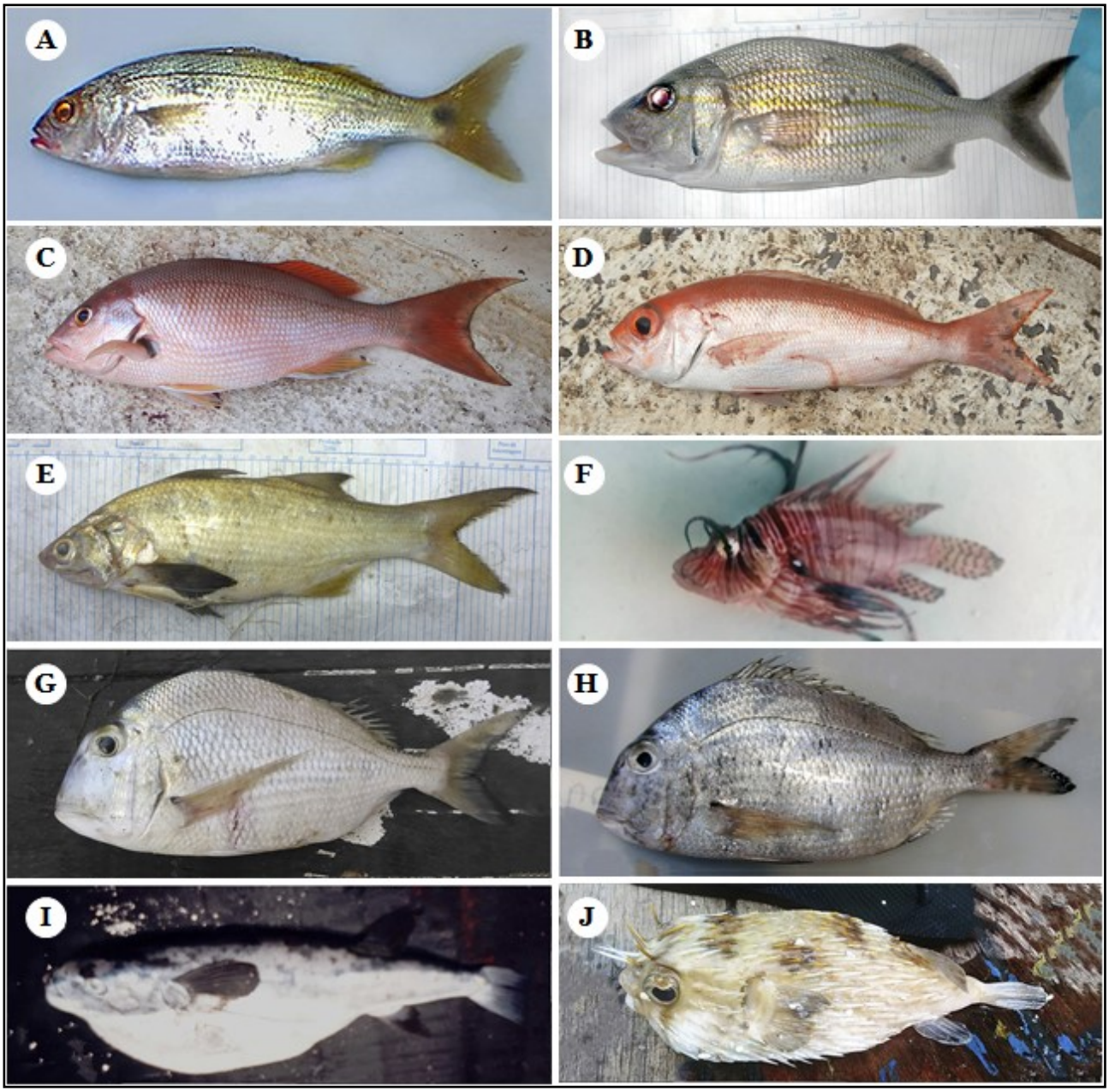

Figure 3. Species without vouchers, but with photographic records of onboard observer. (A) *Haemulon boschmae*, REVIZEE Score-Norte; (B) *Haemulon carbonarium*, CEPNOR; (C) *Lutjanus buccanella*, CEPNOR; (D) *Pristipomoides freeman*, CEPNOR; (E) *Polydactylus oligodon*, CEPNOR; (F) Pterois volitans, CEPNOR; (G) *Calamus calamus*, CEPNOR; (H) *Calamus pennatula*, CEPNOR; (I) *Lagocephalus lagocephalus*, REVIZEE Score-Norte; (J) *Diodon holacanthus*, CEPNOR.

species can be found in more than one environment, while at least 18 have more than one life trait.

A total of 181 (23.0%) species are widely distributed in most of the world's oceans, 130 (16.5%) are found only in the eastern and western Atlantic Ocean, two (0.3%) occur in the Atlantic and the eastern Pacific, 432 (54.9%) are restricted to the western Atlantic, and seven (0.9%) species are found in the western Atlantic and the eastern Pacific (Table 1). Thirty-three (4.2%) species are endemic to the area of influence of the Amazon-Orinoco Plume (AOP), while three, *Butis koilomatodon*, *Omobranchus punctatus* and *Pterois volitans*, are exotic (Table 1). Forty species (5.1%) are listed as threatened at national level, while thirty species are listed as threatened at the global level (Table 1, column R and S).

The species endemic to the AOP belong

to families Ariidae (8 spp.), Sciaenidae (4 spp.), Engraulidae and Gobiidae (2 spp. each), Ophididae (2 spp.), and 13 additional families, each represented by a single endemic species (Table 1 column N). There is a strong correlation between endemic species and the Amazon-Orinoco Plume and the mangroves, a condition corroborated by the large number of endemic species with estuarine life habits and/or associated with areas with freshwater influence, such as those of the families Ariidae, Engraulidae, Gobiidae, Sciaenidae, Achiridae, Anablepidae, Batrachoididae, Carangidae, Centropomidae, Clupeidae, and Tetraodontidae, represented by 25 endemic species. This situation contrasts with the case of endemic species exclusively marine of the families Congridae, Cynoglossidae, Draconettidae, Malacanthidae, Moringuidae, and Scorpaenidae, represented by seven endemic species.

The North Coast of Brazil shares a large number of species of the Teleostei with neighboring areas with very different environmental conditions, such as the Greater Caribbean, with 674 shared species (85.6%) (Figure 4, Table 1 column K-R), and the Northeast Coast of Brazil, with 642 shared species (81.6%) (Figure 4, Table 1 column K-R), both characterized by saline and clear waters, and a small number of estuarine areas. The lowest number of shared species was found with the South Coast of Brazil, Uruguay and Argentina, with 249 species (31.6%), and the Southeast Coast of Brazil, with 509 species (64.7%) (Figure 4, Table 1 column K-R), reflecting the occurrence of a distinct fish fauna in the temperate South Atlantic (e.g. Caires, 2014).

Species of the orders Atheriniformes and Siluriformes that occur off the North Coast of Brazil are not present in Gulf of Mexico and the Caribbean (Table 1 column K-R). Species of the orders Labriformes, Kurtiformes, Batrachoidiformes, Moroniformes, Notacanthiformes, and Holocentriformes, in turn, are absent from the South Coast of Brazil, even though their diversity is relatively high as far south as the Southeast Coast (Table 1 column K -R). Species of Lampriformes and Scombrolabraciformes recorded in the North Coast are absent from the Southeast and South Coast of Brazil (Table 1 column K-R). Species of several other orders (Albuliformes, Anguilliformes, Carangiformes, Caproiformes, Tetradontiformes, Beryciformes, Beloniformes, Perciformes, Spariformes, Scorpaeniformes, Trachiniformes, and Pleuronectiformes) are present in the Southern coast of Brazil, but with a greatly reduced diversity (Table 1 column K-R). Surprisingly, these orders are more diverse of the East Coast of the United States, which has a similar temperate climate to that of the South Coast of Brazil. The orders Bleniiformes, Clupeiformes, Mugiliformes, Callionymiformes, and Gobiiformes are characterized by reduced species diversity, both in the East Coast of the United States and the South Coast of Brazil (Table 1column K-R). The Batrachoidiformes is characterized by a high species richness, not only off the North Coast of Brazil, but also in the neighboring regions, such as the Caribbean and the Northeast and East Coasts of Brazil (Table 1 column K-R). Anablepidae (Cyprinodontiformes) occurs only in North Brazil and the neighboring regions, i.e., the Caribbean and Northeast Coast of Brazil (Table 1 column K-R).

Discussion

The fish fauna of the North Coast of Brazil is one of the least surveyed and the most poorly known of the Brazilian Exclusive Economic Zone (Marceniuk *et al.*, 2013). Including records from off French Guiana and Suriname and the Northeast Coast of Brazil, Menezes *et al.* (2003) listed 464 species for the Brazilian North Coast, without any collection and inventory effort (see Marceniuk *et al.*, 2013), a much smaller number than the 787 species recorded in this study. Reliable data on the diversity of the Teleostei in the North Coast of Brazil, in both marine and estuarine environments, are fundamental for the development of adequate public policies for the conservation of this fauna, which will be relevant to guarantee not only the maintenance of the region's biodiversity, but also the rational exploitation of its natural resources. This inventory and the compilation of data on the fish diversity of the North Coast

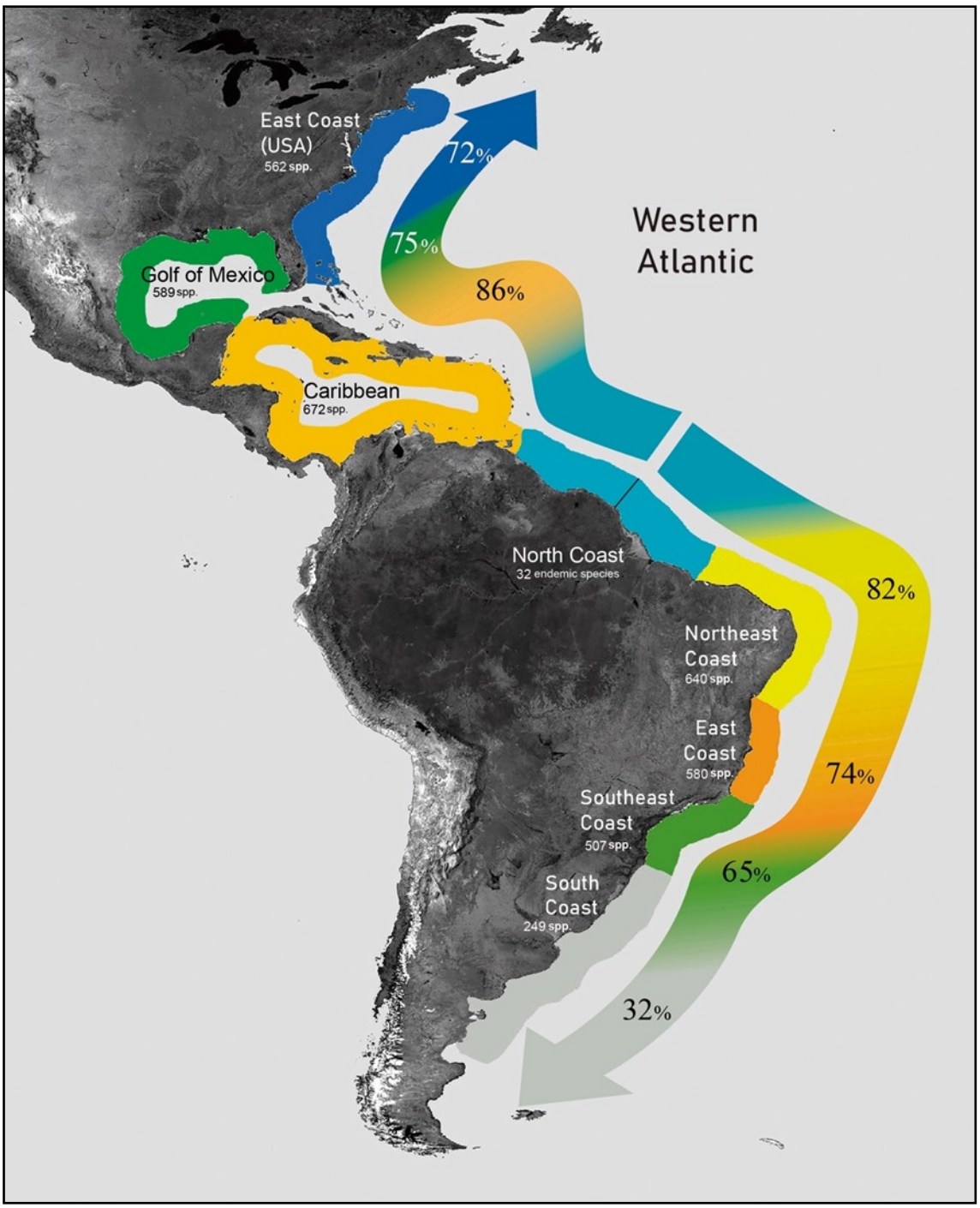

Figure 4. Western Atlantic Ocean showing the different geographic areas that share species of the Teleostei with the North Coast of Brazil (the percentages refer to the species shared with the North Coast of Brazil).

of Brazil will also be relevant to ensure that Brazil honors the international commitments it accepted during the United Nations Conference on the Environment and Development (MMA, 2002). Several challenges nevertheless persist for the understanding of the biological diversity of the North Coast of Brazil, particularly, questions related to conservation biology, such as the identification of isolated populations and endemic species, the development of management strategies, and the Brazilian assessment of the conservation status of species, including data ontogenetic diversity. Spatial or temporal studies of species or populations will also be important to ensure advances in the understanding of the biogeography and evolution of

the Brazilian fauna, providing data on phylogenetic relationships, possible migration routes, and the patterns of species dispersal. This knowledge is also important for the definition of the priority areas for the conservation and management of the stocks of species targeted by commercial fisheries. Special attention is given to recognize species endemic to the region of the Amazon-Orinoco Plume since they are restricted to an area exploited intensively by commercial fisheries (Marceniuk *et al.*, 2019).

In this context, monitoring of fisheries represent an effective strategy for the sampling of aquatic communities, providing data on population parameters and about the impact of the exploitation of natural resources (Marceniuk *et al.*, 2013). Monitoring of fisheries represents, also, a valuable tool for the increase of knowledge of the biological diversity in areas that are poorly sampled, especially due to the limitations of financial resources to marine scientific cruises (Marceniuk *et al.*, 2019).

Invasive species

The inventory of the fish fauna of the North Coast of Brazil is also important for the monitoring of invasive species. The early records of invasive species in this region can collaborate to the implementation of effective measures of control and to minimize possible impacts. Three of the 787 species recorded in the North Coast of Brazil, *Butis koilomatodon*, *Omobranchus punctatus* and *Pterois volitans*, are native to the Indo-Pacific region. The first two were possibly introduced accidentally through the discharge of ballast water by visiting ships (Soares *et al.*, 2011, 2012). This process, together with bio-encrustation, is regarded as the main source of introduction of exotic species in marine environments (Carlton, 1985, Ferreira *et al.*, 2008). Soares *et al.* (2011, 2012) recorded *Butis koilomatodon* and *Omobranchus punctatus* in tide pools on the Amazon coast. Macieira *et al.* (2012) previously recorded *B. koilomadon* in the Brazilian state of Espírito Santo, while O. punctatus has been recorded in the states of Bahia, Rio de Janeiro, and Santa Catarina (Soares *et al.*, 2011). *Pterois volitans* (Figure 3F) is an Indo-Pacific species invasive in the Atlantic, which can cause serious damage to the native fauna of South America, including to species with commercial value, such as snapper and other species associated with coral reefs (Bumbeer *et al.*, 2018, Andradi -Brown, 2019).

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