Coastal fishes of Rio Grande do Norte, northeastern Brazil, with new records

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Abstract: An updated and reviewed checklist of coastal fishes of the Rio Grande do Norte state, northeastern coast of Brazil, is presented. Between 2003 and 2013 the occurrence of fish species were recorded through collection of specimens, landing records of the artisanal fleet, literature reviews and from specimens deposited in ichthyological collections. A total of 459 species from 2 classes, 26 orders, 102 families and 264 genera is listed, with 83 species (18% of the total number) recorded for the first time in the study area. Additionally, Halichoeres radiatus, Lachnolaimus maximus and Canthigaster jamiestyleri are reported for the first time in the Brazilian coast and nine other species have their geographic distribution extended.

Key words: ichthyofauna, marine biodiversity, Pisces, Brazilian coast

INTRODUCTION

The Rio Grande do Norte state (RN), extreme northeastern Brazil, is located in an important transition area of north-south oriented coastline that abruptly changes its direction to the east-west. In addition to this abrupt change, marked differences can also be seen along the RN shore. On the northern coast, the climate is semi-arid with annual rainfall less than 750 mm and predominance of northeastern winds (Nimer 1989). There are some sparse areas of beachrocks well apart from each other and three large estuarine complexes with numerous channels. The reefs are parallel to the coast and few in number, but with large areas (e.g., 20 km²). Some reefs are poorly known and even not mapped on the Brazilian Navy nautical charts. On the eastern coast, the climate is warm-humid with annual rainfall reaching 1,250 mm and with southeastern winds prevailing (Nimer 1989). The beachrocks are larger and more continuous than northern coast, the three major estuaries are small and without many ramifications, and the reefs are more numerous but smaller and relatively closer to each other than northern coast. The first and only checklist of fish species that occur along the coast of RN was produced in 1988 and comprised 190 species (Soares 1988). This situation improved after 2000 with fish surveys in specific sites of the coast (e.g., Feitoza 2001; Feitosa et al. 2002; Moura 2003; Feitoza et al. 2005; Yokota 2005; Dias 2006; Garcia Jr et al. 2010). Although such investigations have contributed to enhance the information about the local ichthyofauna, it is clear that there is a need to include all records in a single and complete list. Here, we provide an updated checklist of the fishes that occur along the coast of RN based on 10 years of collecting specimens, landing records of artisanal fisheries, examinations of fish collections, and reviewing previous studies of the area.

MATERIALS AND METHODS

Study area

Rio Grande do Norte state has about 400 km of coastline divided into a northern coast from Tibau, at the border with Ceará state, to Cabo Calcanhar, and an eastern coast from Cabo Calcanhar to Baía Formosa, at the border with Paraíba state (Figure 1a). The RN coast is under the influence of the surface circulation of the south Atlantic subtropical gyre, where the southern branch of the South Equatorial Current (SEC) flows westward to the Brazilian coast. The SEC bifurcates between 12° and 14° S, forming the North Brazil Current (NBC) to the north and the Brazil Current to the south (Figure 1b). The NBC, although weak, is constant along the Brazilian coast, where at approximately 04° S, 036° W it joins the central branch of the SEC and increase its speed (Lumpkin and Garzoli 2005).
RESULTS

This study recorded 459 species from two classes, 26 orders, 102 families and 264 genera, with 83 species (18% of the total number) recorded for the first time in the study area. In addition, three new records are presented for Brazilian coast and nine extensions of species geographic distribution. In the following checklist, an asterisk (*) indicates a Brazilian endemic species and a cross (’) indicates an endangered species in Brazil.

Class Chondrichthyes
Order Orectolobiformes
Family Ginglymostomatidae

Ginglymostoma cirratum (Bonnaterre, 1788) ’
Tubarão lixa
Coast: north and east

Ginglymostoma beringianum (Bonnaterre, 1788)
Tubarão lixa
Coast: north and east

Class Chondrichthyes
Order Carcharhiniformes
Family Triakidae

Mustelus canis (Mitchell, 1815) ’
Coast: unknown
Remarks: reported by Soares (1988); there are no posterior records of this species.

Family Carcharhinidae

Carcharhinus acronotus (Poey, 1860)
Caçao focinhudo
Coast: north and east

Class Osteichthyes
Order Perciformes
Family Lutjanidae

Gloosperchus victor (Rafinesque, 1810)
Laranja do mar
Coast: north

Data collection

The records presented here were obtained between 2003 and 2013 through collection of specimens at more than 80 localities along the coast using hook and line, dip nets, trawl nets, gill nets, hand nets and plastic bags while SCUBA and free diving. During the same period, landing records of artisanal fleet were done in the main fishing ports, examining only boats fishing in localities within the limits of RN coast. Whenever possible, specimens with total length less than 60 cm were preserved and deposited in the ichthyological collection of Laboratório de Biologia Pesqueira (LABIPE) of Universidade Federal do Rio Grande do Norte (UFRN), Natal, Brazil. Additionally, literature reviews were made of fish studies carried out on the RN coast and examination of specimens deposited in the ichthyological collection at the Museu do Mar Onofre Lopes (MMOL) and the Museu de Ciências Biológicas, both from UFRN. Coastal fishes are here defined as fishes that inhabit from estuaries to the continental shelf break. On the northern coast, the continental shelf extends for 40–45 km from the beach line and breaks around 40–50 m depth (Amaro and Ferreira 2012), while on the eastern coast, it extends for 14–30 km and breaks in 50–60 m depth (Vital et al. 2010). Species occurrences in the RN are listed at coastal level (records at northern coast and/or eastern coast) and the fish common name used by local fishermen is presented when existing. All species listed were recorded in this study, except those have only been reported in other studies carried out on the RN, which are remarked with “reported by”. The species list is presented according to the phylogenetic arrangement proposed by Nelson (2006) and the taxonomy classification of Eschmeyer (2015), except for the family Ariidae (sensu Marceniuk and Menezes 2007). The genera and species are arranged within families in alphabetical order.

Figure 1. A: Geographical localization of the Rio Grande do Norte state (RN). B: Schematic representation of the northern and eastern coast of RN. NBC: North Brazil Current; cSEC: central branch of the South Equatorial Current.
<table>
<thead>
<tr>
<th><strong>Carcharhinus leucas</strong> (Müller &amp; Henle, 1839)</th>
<th><strong>Carcharhinus limbatus</strong> (Müller &amp; Henle, 1839)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coast: north</td>
<td>Coast: north and east</td>
</tr>
<tr>
<td>Reported by Yokota (2005)</td>
<td></td>
</tr>
</tbody>
</table>

**Carcharhinus obscurus** (Lesueur, 1818) *
- Coast: unknown
- Remarks: reported by Soares (1988); there are no posterior records of this species.

**Carcharhinus perezi** (Poey, 1876) *
- Coast: north and east

**Carcharhinus plumbeus** (Nardo, 1827) *
- Tubarão gaihudo
- Coast: north and east

**Carcharhinus signatus** (Poey, 1868) *
- Caçáo toninha
- Coast: north and east

**Galeocerdo cuvier** (Péron & Lesueur, 1822)
- Tubarão tigre
- Coast: north and east

**Rhizoprionodon lalandii** (Müller & Henle, 1839)
- Caçáo frango
- Coast: north and east

**Rhizoprionodon porosus** (Poey, 1861)
- Caçáo frango
- Coast: north and east

**Family Sphyrnidae**

**Sphyra lewini** (Griffith & Smith, 1834) *
- Tubarão martelo
- Coast: north and east

**Sphyra mokarran** (Rüppel, 1837) *
- Tubarão martelo
- Coast: north and east

**Sphyra tiburo** (Linnaeus, 1758) *
- Coast: unknown
- Remarks: reported by Soares (1988); there are no posterior records of this species.

**Order Lamniformes**

**Family Odontaspididae**

**Odontaspis ferox** (Risso, 1810)
- Coast: unknown
- Remarks: reported by Menni et al. 1995

**Family Alopidae**

**Alopias superciliosus** Lowe, 1841 *
- Tubarão raposa
- Coast: north

**Order Pristiophoriformes**

**Family Pristidae**

**Pristis pectinata** Latham, 1794 *
- Coast: unknown
- Remarks: reported by Soares (1988); the MMOL has a taxidermized specimen with approximately 40 cm total length and a rostrum with approximately 100 cm, both collected on the RN coast; probably old records and there are no posterior records of this species.

**Order Torpediniformes**

**Family Narcinidae**

**Narcine bancrofti** (Griffith & Smith, 1834)
- Treme treme
- Coast: north and east

**Family Myliobatidae**

**Rhinobatos percellens** (Walbaum, 1792) *
- Caçáo viola
- Coast: north and east

**Order Myliobatiformes**

**Family Urotrygonidae**

**Urotrygon microphthalmum** Delsman, 1941
- Raia roliça
- Coast: north and east

**Family Dasyatidae**

**Dasyatis americana** Hildebrand & Schroeder, 1928
- Raia de areia
- Coast: north and east

**Dasyatis centroura** (Mitchill, 1815) *
- Raia de pedra
- Coast: north and east

**Dasyatis guttata** (Bloch & Schneider, 1801)
- Raia pontuda
- Coast: north and east

**Dasyatis marianae** Gomes, Rosa & Gadig, 2000 *
- Raia verde
- Coast: north and east

**Dasyatis say** (Lesueur, 1817)
- Raia
- Coast: north
Dasyatis n. sp.
Raia
Coast: north
Remarks: on 7 March 2006, a specimen (LABIPE 32) of the genus Dasyatis was collected in front of Guamaré, northern coast, on sandy substrate in 12 m depth with trawl net. The female specimen measuring 31 cm disc width and 800 g total weight, was not identified as any Atlantic species described for the genus, being similar to Dasyatis guttata, but with more elongated snout, with pelvic fins projected beyond the posterior margin of the disc and a longer tail (Figure 2a and 2b). This species is under description process.

Family Gymnuridae
Gymnura micrura (Bloch & Schneider, 1801)
Raia manteiga
Coast: north and east

Family Myliobatidae
Aetobatus narinari (Euphrasen, 1790)
Raia pintada
Coast: north and east

Manta birostris (Donndorff, 1798)
Raia manta
Coast: north and east

Mobula hypostoma (Bancroft, 1831)
Coast: north
Remarks: reported by Yokota (2005)

Mobula tarapacana (Philippi, 1892)
Raia manta
Coast: north and east

Rhinoptera bonasus (Mitchill, 1815)
Cara de vaca
Coast: north and east

Class Actinopterygii
Order Elopiformes
Family Rhinopteridae

Elops saurus Linnaeus, 1766
Ubarana
Coast: north and east

Family Megalopidae
Megalops atlanticus Valenciennes, 1847
Camurupim
Coast: north and east

Order Albuliformes
Family Albulidae

Albula nemoptera (Fowler, 1911)
Ubarana fucinho de rato
Coast: north and east

Albula vulpes (Linnaeus, 1758)
Ubarana focinho de rato
Coast: north and east

Order Anguilliformes
Family Chlopsidae

Chilorhinus suensonii Lütken, 1852
Coast: north
Remarks: reported by Moura (2003)
Family Muraenidae

**Channomuraena vittata** (Richardson, 1845)  
Moréia  
Coast: north  
Remarks: reported by Garcia Jr et al. (2010)

**Enchelycore carychroa** Böhlke & Böhlke, 1976  
Coast: north  
Remarks: reported by Moura (2003)

**Enchelycore nigricans** (Bonaterre, 1788)  
Moréia  
Coast: north and east

**Gymnothorax funebris** Ranzani, 1840  
Moréia verde  
Coast: north and east

**Gymnothorax miliaris** (Kaup, 1856)  
Moréia amarela  
Coast: north and east

**Gymnothorax moringa** (Cuvier, 1829)  
Moréia pintada  
Coast: north and east

**Gymnothorax ocellatus** Agassiz, 1831  
Moréia pintada  
Coast: north and east

**Gymnothorax vicinus** (Castelnau, 1855)  
Moréia marrom  
Coast: north and east

**Muraena pavonina** Richardson, 1845  
Moréia amarela  
Coast: north and east

**Uropterygius macularius** (Lesueur, 1825)  
Coast: north  

Family Ophichthidae

**Ahlia egmontis** (Jordan, 1884)  
Muriongo  
Coast: north and east

**Myrichthys breviceps** (Richardson, 1848)  
Mututuca  
Coast: east

**Myrichthys ocellatus** (Lesueur, 1825)  
Mututuca  
Coast: north and east

**Myrophis punctatus** Lütken, 1851  
Mututuca  
Coast: north and east

**Ophichthus cylindroideus** (Ranzani, 1839)  
Muriongo  
Coast: east

**Ophichthus ophis** (Linnaeus, 1758)  
Muriongo  
Coast: north and east

Family Congridae

**Heteroconger camelopardalis** (Lubbock, 1980)  
Muriongo  
Coast: north and east

Order Clupeiformes  
Family Pristigasteridae

**Chirocentrodon bleekerianus** (Poey, 1867)  
Sardinha dentuça  
Coast: north and east

**Pellona harroweri** (Fowler, 1919)  
Sardinha manteiga  
Coast: north and east

Family Engraulidae

**Anchoa filifera** (Fowler, 1915)  
Arenque  
Coast: north and east

**Anchoa januaria** Hildebrand, 1943  
Arenque  
Coast: north

**Anchoa lyolepis** (Evermann & Marsh, 1902)  
Arenque  
Coast: east

**Anchoa spinifer** (Valenciennes, 1848)  
Arenque branco  
Coast: north and east

**Anchoa tricolor** (Agassiz, 1829)  
Arenque  
Coast: north

**Anchovia clupeoides** (Swainson, 1839)  
Arenque  
Coast: north and east

**Anchoviella lepidentostole** (Fowler, 1911)  
Arenque  
Coast: north and east

**Cetengraulis edentulus** (Cuvier, 1829)  
Arenque roliço  
Coast: north and east

**Lycengraulis batesii** (Günther, 1868)  
Arenque  
Coast: north  
Remarks: on 18 April 2013, a specimen (LABIPE
1027) was collected in front of São Cristóvão beach, northern coast, on gravel substrate in 14 m depth with gill net. The specimen measured 24 cm total length and 135 g total weight (Figure 3). The species is found only in the northern region of Brazil (Menezes et al. 2003; Montag et al. 2009) and the present record represents the southernmost occurrence and extension of its geographical distribution. New record for the northeastern Brazil.

*Lycengraulis grossidens* (Agassiz, 1829)
Arenque
Coast: north and east

*Harengula clupeola* (Cuvier, 1829)
Sardinha cascuda
Coast: north and east

*Harengula jaguana* (Poey, 1865)
Sardinha cascuda
Coast: north and east

*Lile piquitinga* (Schreiner & Miranda Ribeiro, 1903)
Pititinga
Coast: north and east

*Odontognathus mucronatus* (Lacepède, 1800)
Arenque branco
Coast: north and east

*Opisthonema oglinum* (Lesueur, 1818)
Sardinha de laje
Coast: north and east

**Rhinosardinia bahiensis** (Steindachner, 1879)
Sardinha cascuda
Coast: north and east

Order Siluriformes
Family Ariidae

**Aspistor lunicutus** (Valenciennes, 1840)
Bagre amarelo
Coast: north and east

**Aspistor parkeri** (Traill, 1832) *
Bagre
Coast: east

**Bagre bagre** (Linnaeus, 1766)
Bagre fita
Coast: north and east

**Bagre marinus** (Mitchill, 1815)
Bagre bandeira
Coast: north and east

**Cathorops agassizii** (Eigenmann & Eigenmann, 1988)
Bagre branco
Coast: north and east

**Cathorops spixii** (Agassiz, 1829)
Bagre amarelo
Coast: north and east

**Genidens barbus** (Lacepède, 1803) *
Bagre ariacú
Coast: north and east

Remarks: on 3 November 2006, 24 specimens (LABIPE 49–72) were collected in Pirangi beach, eastern coast, on sandy substrate in about 1 m depth with hook and line. The specimens measured between 13 and 29 cm total length and 14 and 159 g total weight (Figure 4a and 4b). Additionally, other specimens were also recorded in several localities at northern and eastern coast of RN. According to Marceniuk (2005), the species is found in Brazil from southern Bahia to Rio Grande do Sul states. Therefore, the present records are the northernmost occurrence and extends its geographical distribution.

Figure 3. *Lycengraulis batesii* (photo J. García Jr).

Figure 4. A: Lateral view of *Genidens barbus*. B: Dorsal view of *Genidens barbus* (photos J. García Jr.).
**Notarius grandicassis** (Valenciennes, 1840)
Bagre ariaçú
Coast: north and east

**Sciades herzbergii** (Bloch, 1794)
Bagre mandim
Coast: north and east

**Sciades proops** (Valenciennes, 1840)
Bagre mandim
Coast: north and east

*Order Aulopiformes*
*Family Synodontidae*

**Synodus foetens** (Linnaeus, 1766)
Peixe lagarto
Coast: north and east

**Synodus intermedius** (Spix & Agassiz, 1829)
Peixe lagarto
Coast: north and east

**Synodus poeyi** Jordan, 1887
Peixe lagarto
Coast: north and east

**Trachinocephalus myops** (Forster, 1801)
Peixe lagarto
Coast: north and east

*Order Polymixiiformes*
*Family Polymixiidae*

**Polymixia lowei** Günther, 1859
Barbudo olhão
Coast: east

*Order Ophidiiformes*
*Family Ophidiidae*

**Lepophidium** *cf. brevibarbe* (Cuvier, 1829)
Coast: north
Remarks: reported by Garcia Jr et al. (2010)

**Ophidion** *cf. holbrookii* (Putnam, 1874) *
Coast: north
Remarks: reported by Garcia Jr et al. (2010)

*Order Batrachoidiformes*
*Family Batrachoididae*

**Amphichthys cryptocentrus** (Valenciennes, 1837)
Pacamão
Coast: north and east

**Porichthys plectrodon** Goode & Bean, 1882
Mangangá
Coast: north and east

**Thalassophryne nattereri** Steindachner, 1876
Anequim
Coast: north and east

**Thalassophryne punctata** Steindachner, 1876 *
Anequim
Coast: north

*Order Lophiiformes*
*Family Antennariidae*

**Antennarius multiocellatus** (Valenciennes, 1837)
Antenarius
Coast: north and east

**Antennarius striatus** (Shaw & Nodder, 1794)
Antenarius
Coast: north and east

**Histrio histrio** (Linnaeus, 1758)
Peixe sargaço
Coast: east

*Family Ophococephalidae*

**Ophococephalus vespertilio** (Linnaeus, 1758)
Peixe morcego
Coast: north and east

*Order Mugiliformes*
*Family Mugilidae*

**Mugil brevirostris** (Ribeiro, 1915)
Tamatarâna
Coast: north and east

**Mugil curema** Valenciennes, 1836
Tainha
Coast: north and east

**Mugil curvidens** Valenciennes, 1836
Tainha
Coast: east

**Mugil liza** Valenciennes, 1836
Cacetão
Coast: north and east

**Mugil rubriculis** Harrison, Nirschio, Oliveira, Ron & Gaviria, 2007
Tainha roliça
Coast: north and east

*Order Atheriniformes*
*Family Atherinopsidae*

**Atherinella blackburni** (Schultz, 1949)
Ginga
Coast: north and east
Remarks: on 1 January 2007, a specimen (LABIPE 146) was collected in Grossos, northern coast, in an estuary channel in 0.5 m depth with hand net, together with several specimens of *Atherinella brasiliensis*. The specimen measured 9 cm in total length and 7 g total weight (Figure 5). Additionally, other specimens were also recorded in several localities at northern and eastern coast of RN. According to Mattox et al. (2008), the species
is discontinuously found in western Atlantic Ocean in localities of Costa Rica, Panama, Venezuela and in Brazil at Alagoas, Bahia, Rio de Janeiro and São Paulo states. Thus, the occurrence on the RN coast extends the geographic distribution of this species in Brazil and may indicate that the discontinuity of records is possibly caused by misidentifications of *A. brasiliensis*, a very similar species.

*Atherinella brasiliensis* (Quoy & Gaimard, 1824)
Ginga
Coast: north and east

Order Beloniformes
Family Exocoetidae

*Cheilopogon cyanopterus* (Valenciennes, 1847)
Voador holandês
Coast: north and east

*Cheilopogon melanurus* (Valenciennes, 1847)
Voador
Coast: north and east

*Cheilopogon pinnatibarbatus* (Bennet, 1831)
Voador
Coast: east

*Exocoetus volitans* Linnaeus, 1758
Voador
Coast: north and east

*Hirundichthys affinis* ( Günther, 1866)
Voador
Coast: north and east

Family Hemiramphidae

*Euleptorhamphus velox* Poey, 1868
Agulha padá
Coast: north and east

*Hemiramphus balao* Lesueur, 1821
Agulha vermelha
Coast: north and east

*Hemiramphus brasiliensis* (Linnaeus, 1758)
Agulha preta
Coast: north and east

*Hyporhamphus roberti* (Valenciennes, 1846)
Agulha branca
Coast: north and east

*Hyporhamphus unifasciatus* (Ranzani, 1842)
Agulha verde
Coast: north and east

Family Belonidae

*Ablennes hians* (Valenciennes, 1846)
Agulhão listrado
Coast: north and east

*Strongylura marina* (Walbaum, 1792)
Agulhão catarro
Coast: north and east

*Strongylura timucu* (Walbaum, 1792)
Agulhão azul
Coast: north and east

*Tylosurus acus* (Lacepède, 1803)
Agulhão zambaio
Coast: north and east

*Tylosurus crocodilus* (Péron & Lesueur, 1821)
Agulhão surrupeio
Coast: north and east

Order Cyprinodontiformes
Family Anablepidae

*Anableps anableps* (Linnaeus, 1758)
Tralhoto
Coast: north and east

*Anableps microlepis* Müller & Troschel, 1844
Tralhoto
Coast: north

Remarks: on 3 January 2007, two specimens (LABIPE 119 and 120) were collected in São Cristóvão beach, northern coast, on sandy substrate in 0.2 m depth with hand net. The specimens measured 13 and 16 cm total length and 13 and 16 g total weight (Figure 6). Additionally, other specimens were also recorded in some localities at northern coast of RN. The species is recorded in Brazil only in the northern region, in Amapá, Pará and Maranhão states (Martins-Juras et al. 1987; Carvalho-Filho 1999; Camargo and Isaac 2001). Thus, present records are the southernmost occurrence and extends its geographical distribution. New record for the northeastern Brazil.
Family Poeciliidae

**Poecilia vivipara** Bloch & Schneider, 1801
Barrigudinho
  Coast: north and east

Order Beryciformes
Family Holocentridae

**Holocentrus adscensionis** (Osbeck, 1765)
Mariquita
  Coast: north and east

**Myripristis jacobus** Cuvier, 1829
Mariquita bolão
  Coast: north and east

**Plectrypops retrospinis** (Guichenot, 1853)
  Coast: east
  Remarks: reported by Feitoza (2001)

Order Gasterosteiformes
Family Syngnathidae

**Hippocampus erectus** Perry, 1810 +
Cavalo marinho
  Coast: north and east

**Hippocampus reidi** Ginsburg, 1933 +
Cavalo marinho
  Coast: north and east

**Micrognathus crinitus** (Jenyns, 1842)
Peixe cachimbo
  Coast: east

**Micrognathus erugatus** Herald & Dawson, 1974 *
Peixe cachimbo
  Coast: north

Family Aulostomidae

**Aulostomus strigosus** Wheeler, 1955
Peixe trombeta
  Coast: north and east

Family Fistularidae

**Fistularia tabacaria** Linnaeus, 1758
Peixe trombeta
  Coast: north and east

Order Scorpaeniformes
Family Dactylopteridae

**Dactylopterus volitans** (Linnaeus, 1758)
Coió
  Coast: north and east

Family Scorpaenidae

**Scorpaena brasiliensis** Cuvier, 1829
Mangangá vermelho
  Coast: north and east

**Scorpaena dispar** Longley & Hildebrand, 1940
Mangangá
  Coast: north

**Scorpaena inermis** Cuvier, 1829
Mangangá
  Coast: north

**Scorpaena isthmensis** Meek & Hildebrand, 1928
Mangangá
  Coast: north and east

**Scorpaena melasma** Eschmeyer, 1965
Mangangá
  Coast: north
  Remarks: on 4 September 2004, a specimen (LABIPE 17) was collected in front of Upanema beach, northern coast, on gravel substrate in 15 m depth with trawl net. The specimen measured 10 cm total length and 37 g total weight (Figure 7). The species is found in Brazil only in the northern region (Menezes et al. 2003) and the present record is the southernmost occurrence and extends its geographical distribution. New record for the northeastern Brazil.

**Scorpaena plumieri** Bloch, 1789
Beatriz
  Coast: north and east

**Scorpaena n. sp.**
Mangangá
  Coast: north
  Remarks: on 24 June 2004, a specimen (LABIPE 12) of the genus *Scorpaena* was collected in front of Porto do Mangue, northern coast, on gravel substrate in 9 m depth with trawl net. The specimen measuring 18 cm total length and 230 g total weight was not identified as any Atlantic species described for the genus, due the presence of a conspicuous backturned V-shaped mark on the nape (Figure 8a and 8b). This species is under description process.

**Scorpaenodes caribbaeus** Meek & Hildebrand, 1928
  Coast: north and east

**Scorpaenodes tredecimspinosus** Metzelaar, 1919
  Coast: north and east
Family Triglidae

**Prionotus punctatus** (Bloch, 1793)
Cabrinha
Coast: north and east

Order Perciformes
Family Centropomidae

**Centropomus ensiferus** Poey, 1860
Camurim suvela
Coast: north and east

**Centropomus mexicanus** Bocourt, 1868
Camurim
Coast: east

**Centropomus parallelus** Poey, 1860
Camurim corcunda
Coast: north and east

**Centropomus pectinatus** Poey, 1860
Camurim de espinho
Coast: north and east

**Centropomus undecimalis** (Bloch, 1796)
Camurim açú
Coast: north and east

Family Serranidae

**Alphestes afer** (Bloch, 1793)
Guacapé
Coast: north and east

**Cephalopholis fulva** (Linnaeus, 1758)
Piraúna
Coast: north and east

**Dermatolepis inermis** (Valenciennes, 1833)
Gostosa
Coast: north and east

**Diplectrum formosum** (Linnaeus, 1766)
Jacundá
Coast: north and east

**Diplectrum radiale** (Quoy & Gaimard, 1824)
Jacundá
Coast: north

**Epinephelus adscensionis** (Osbeck, 1765)
Peixe gato
Coast: north and east

**Epinephelus itajara** (Lichtenstein, 1822)
Mero
Coast: north and east

**Epinephelus morio** (Valenciennes, 1828)
Garoupa verdadeira
Coast: north and east

**Epinephelus nigritus** (Holbrook, 1855)
Garoupa
Coast: east

**Epinephelus niveatus** (Valenciennes, 1828)
Garoupa pintada
Coast: east

**Gonioplectrus hispanus** (Cuvier, 1828)
Coast: north
Remarks: on 17 June 2009, a specimen was collected in front of Caiçara do Norte beach, northern coast, on rocky substrate in about 40 m depth by a boat fishing with gill nets. The specimen measured 29 cm total length and 380 g total weight (Figure 9). In Brazil, the species is recorded only in Trindade Island, 1160 km distant from the coast of Espírito Santo state (Gasparini and Floeter 2001) and in Pernambuco state (Oliveira and Barbosa 2010). The present record is the northernmost occurrence and extends its geographical distribution.

**Mycteroperca bonaci** (Poey, 1860)
Serigado
Coast: north and east

**Mycteroperca interstitialis** (Poey, 1860)
Coast: east
Remarks: reported by Feitoza (2001)
Mycteroperca tigris (Valenciennes, 1833)
Coast: north
Remarks: reported by Moura (2003)

Mycteroperca venenosa (Linnaeus, 1758)
Serigado
Coast: east

Paralabrax dewegeri (Metzelaar, 1919)
Badejo mirim
Coast: north
Remarks: reported by Garcia Jr et al. (2010)

Paranthias furcifer (Valenciennes, 1828)
Guaiúba açú
Coast: north and east

Rypticus bistrispinus (Mitchill, 1818)
Sabão
Coast: north and east

Rypticus randalli Courtenay, 1967
Sabão
Coast: east

Rypticus saponaceus (Bloch & Schneider, 1801)
Sabão
Coast: north and east

Rypticus subbifrenatus Gill, 1861
Sabão
Coast: north and east

Serranus annularis (Günther, 1880)
Badejo mirim
Coast: north and east

Serranus baldwini (Evermann & Marsh, 1900)
Coast: north and east

Serranus flaviventris (Cuvier, 1829)
Badejo mirim
Coast: north and east

Family Grammatidae

Gramma brasiliensis Sazima, Gasparini & Moura, 1998 *
Grama
Coast: north and east

Family Opistognathidae

Opistognathus aff. aurifrons (Jordan & Thompson, 1905)
Coast: east
Remarks: reported by Feitoza et al. (2005)

Opistognathus sp.
Coast: north and east

Family Priacanthidae

Cookeolus japonicus (Cuvier, 1829)
Olho de boi
Coast: north and east

Heteropriacanthus cruentatus (Lacepède, 1801)
Olho de vidro
Coast: north and east

Priacanthus arenatus Cuvier, 1829
Olho de cão
Coast: north and east

Pristygenys alta (Gill, 1862)
Olho de vidro
Coast: north and east

Family Apogonidae

Apogon americanus Castelnau, 1855 *
Apogon
Coast: north and east

Apogon planifrons Longley & Hildebrand, 1940
Apogon
Coast: north and east

Apogon pseudomaculatus Longley, 1932
Apogon
Coast: north and east

Apogon quadrisquamatus Longley, 1934
Apogon
Coast: north and east

Astrapogon puncticulatus (Poey, 1867)
Apogon
Coast: north and east

Phaeoptyx pigmentaria (Poey, 1860)
Apogon
Coast: north and east

Family Malacanthidae

Malacanthus plumieri (Bloch, 1786)
Pirá
Coast: north and east
Family Pomatomidae

**Pomatomus saltatrix** (Linnaeus, 1766)
Enchova
Coast: east

Family Rachycentridae

**Rachycentron canadum** (Linnaeus, 1766)
Bijupirá
Coast: north and east

Family Echeneidae

**Echeneis naucrates** Linnaeus, 1758
Peixe piolho
Coast: north and east

**Echeneis neucratoides** Zuiév, 1789
Peixe piolho
Coast: east
Remarks: on 18 April 2013, a specimen (LABIPE 1028) was collected in front of São Cristóvão beach, northern coast, on gravel substrate in 14 m depth with gill net. The species measured 45 cm total length and 370 g total weight (Figure 10). The species is found in Brazil only in the northern region (Carvalho-Filho 1999) and the present record is the southernmost occurrence and extends its geographical distribution. New record for the northeastern Brazil.

**Remora osteochir** (Cuvier, 1829)
Piolho de agulhão
Coast: east

Family Coryphaenidae

**Coryphaena equiselis** Linnaeus, 1758
Azedinho
Coast: north and east

**Coryphaena hippurus** Linnaeus, 1758
Dourado
Coast: north and east

Family Carangidae

**Alectis ciliaris** (Bloch, 1787)
Galo do alto
Coast: north and east

**Carangoides bartholomaei** (Cuvier, 1833)
Guarajuba amarela
Coast: north and east

**Carangoides ruber** (Bloch, 1793)
Guarajuba azul
Coast: north and east

**Caranx crysos** (Mitchell, 1815)
Guaraxumba
Coast: north and east

**Caranx hippos** (Linnaeus, 1766)
Xaréu amarelo
Coast: north and east

**Caranx latus** Agassiz, 1831
Garacimbora
Coast: north and east

**Caranx lugubris** Poey, 1860
Pargo ferreiro
Coast: north and east

**Chloroscombrus chrysurus** (Linnaeus, 1766)
Palombeta
Coast: north and east

**Decapterus macarellus** (Cuvier, 1833)
Carapau verde
Coast: north and east

**Decapterus punctatus** (Cuvier, 1829)
Carapau
Coast: north and east

**Decapterus tabl** Berry, 1968
Carapau cavalinha
Coast: north and east

Figure 10. A: Lateral view of *Echeneis neucratoides*, B: Dorsal view of *Echeneis neucratoides* (photos J. Garcia Jr).
**Elagatis bipinnulata** (Quoy & Gaimard, 1825)
Peixe rei
Coast: north and east

**Hemicaranx amblyrhinchus** (Cuvier, 1833)
Vento leste
Coast: north and east

**Naucrates ductor** (Linnaeus, 1758)
Peixe piloto
Coast: north and east

**Oligoplites palometa** (Cuvier, 1832)
Tibiro
Coast: north and east

**Oligoplites saurus** (Bloch, 1793)
Tibiro
Coast: north and east

**Pseudocaranx dentex** (Bloch & Schneider, 1801)
Garapoá
Coast: north and east

**Selar crumenophthalbus** (Bloch, 1793)
Carapau olhudo
Coast: north and east

**Selene brownii** (Cuvier, 1816)
Peixe galo
Coast: north and east

**Selene setapinnis** (Mitchill, 1815)
Peixe galo
Coast: north and east

**Selene vomer** (Linnaeus, 1758)
Peixe galo
Coast: north and east

**Seriola dumerili** (Risso, 1810)
Arabaiana
Coast: north and east

**Seriola rivoliana** Valenciennes, 1833
Arabaiana
Coast: north and east

**Trachinotus carolinus** (Linnaeus, 1766)
Pampo
Coast: north and east

**Trachinotus falcatus** (Linnaeus, 1758)
Carabebêu
Coast: north and east

**Trachinotus goodei** Jordan & Evermann, 1896
Aracanguira
Coast: north and east

**Uraspis secunda** (Poey, 1860)
Cara de gato
Coast: east

**Family Lutjanidae**

**Etelis oculatus** (Valenciennes, in Cuvier & Valenciennes, 1828)
Mariquitão
Coast: north and east

**Lutjanus alexandri** Moura & Lindeman, 2007 *
Vermelho
Coast: north and east

**Lutjanus analis** (Cuvier, 1828)
Cioba
Coast: north and east

**Lutjanus buccanella** (Cuvier, 1828)
Boca negra
Coast: north and east

**Lutjanus cyanopterus** (Cuvier, 1828) *
Caranha
Coast: north and east

**Lutjanus jocu** (Bloch & Schneider, 1801)
Dentão
Coast: north and east

**Lutjanus purpureus** (Cuvier, 1828) *
Pargo cachucho
Coast: north and east

**Lutjanus synagris** (Linnaeus, 1758)
Ariocó
Coast: north and east

**Lutjanus vivanus** (Cuvier, 1828)
Pargo olho de vidro
Coast: north and east

**Ocyurus chrysurus** (Bloch, 1791)
Guaiûba
Coast: north and east

**Rhomboplites aurorubens** (Cuvier, 1828)
Pirapiranga
Coast: north and east

**Family Lobotidae**

**Lobotes surinamensis** (Bloch, 1790)
Dorminhoco
Coast: north and east

**Family Gerreidae**

**Diapterus auratus** Ranzani, 1840
Carapeba branca
Coast: north and east

**Diapterus rhombeus** (Valenciennes, 1830)
Carapeba branca
Coast: north and east
**Eucinostomus argenteus** Baird & Girard, 1855  
Carapicú  
Coast: north and east

**Eucinostomus gula** (Quoy & Gaimard, 1824)  
Carapicú  
Coast: north and east

**Eucinostomus harengulus** Baird & Girard, 1855  
Carapicú  
Coast: north

**Eucinostomus havana** (Nichols, 1912)  
Carapicú  
Coast: north

**Eucinostomus jonesii** ( Günther, 1879)  
Carapicú  
Coast: north  
Remarks: on 20 January 2007, a specimen (LABIPE 214) was collected in Diogo Lopes, northern coast, in an estuary channel in 0.5 m depth with hand net. The specimen measured 10 cm total length and 24 g total weight (Figure 11). In the western Atlantic Ocean, the species is described to occur from Florida and Bermudas to Brazil (Menezes et al. 2003), but without specifying sites at Brazilian coast in which it has been registered. This record confirms its occurrence in northeastern Brazil.

**Eucinostomus lefroyi** (Goode, 1874)  
Carapicú pintado  
Coast: north and east

**Eucinostomus melanopterus** (Bleeker, 1863)  
Carapicú  
Coast: north and east

**Eugerres brasilianus** ( Valenciennes, 1830)  
Carapeba listrada  
Coast: north and east

**Gerres cinereus** (Walbaum, 1792)  
Carapicú açú  
Coast: north and east

**Remarks:**

**Eucinostomus jonesii** ( Günther, 1879)  
Carapicú  
Coast: north  
Remarks: on 20 January 2007, a specimen (LABIPE 214) was collected in Diogo Lopes, northern coast, in an estuary channel in 0.5 m depth with hand net. The specimen measured 10 cm total length and 24 g total weight (Figure 11). In the western Atlantic Ocean, the species is described to occur from Florida and Bermudas to Brazil (Menezes et al. 2003), but without specifying sites at Brazilian coast in which it has been registered. This record confirms its occurrence in northeastern Brazil.

**Family Haemulidae**

**Anisotremus moricandi** Ranzani, 1842  
Zumbi  
Coast: north and east

**Anisotremus surinamensis** (Bloch, 1791)  
Pirambú  
Coast: north and east

**Anisotremus virginicus** (Linnaeus, 1758)  
Mercador amarelo  
Coast: north and east

**Conodon nobilis** (Linnaeus, 1758)  
Coró amarelo  
Coast: north and east

**Genyatremus luteus** (Bloch, 1795)  
Sanhoá  
Coast: north and east

**Haemulon aurolineatum** (Cuvier, 1830)  
Xira branca  
Coast: north and east

**Haemulon melanurum** (Linnaeus, 1758)  
Xirão  
Coast: north and east

**Haemulon parra** (Desmarest, 1823)  
Cambuba  
Coast: north and east

**Haemulon plumieri** (Lacepède, 1802)  
Biquara  
Coast: north and east

**Haemulon sciurus** (Shaw, 1803)  
Coast: unknown  
Remarks: reported by Soares (1988); there are no posterior records of this species.

**Haemulon squamipinna** Rocha & Rosa, 1999 *  
Xira listrada  
Coast: north and east

**Haemulon steindachneri** (Jordan & Gilbert, 1882)  
Sapuruna  
Coast: north and east

**Haemulon striatum** (Linnaeus, 1758)  
Coast: unknown  
Remarks: reported by Soares (1988); there are no posterior records of this species.

**Orthopristis ruber** (Cuvier, 1830)  
Canguito  
Coast: north and east

**Pomadasys corvinaeformis** (Steindachner, 1868)  
Coró branco  
Coast: north and east

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Figure 11. **Eucinostomus jonesii** (photo J. Garcia Jr.).
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Pomadasys crocro (Cuvier, 1830)
Espinho duro
Coast: east

Family Sparidae

Archosargus probatocephalus (Walbaum, 1792)
Sargo de dente
Coast: north and east

Archosargus rhomboidalis (Linnaeus, 1758)
Salema
Coast: north and east

Calamus calamus (Valenciennes, 1830)
Pena
Coast: north and east

Calamus penna (Valenciennes, 1830)
Pena
Coast: north and east

Calamus pennatula Guichenot, 1868
Pena
Coast: north and east

Family Polynemidae

Polydactylus oligodon (Günther, 1860)
Barbudo preto
Coast: north and east

Polydactylus virginicus (Linnaeus, 1758)
Barbudo amarelo
Coast: north and east

Family Sciaenidae

Bairdiella ronchus (Cuvier, 1830)
Pescada espinho duro
Coast: north and east

Cynoscion acoupa (Lacepède, 1801)
Pescada amarela
Coast: north and east

Cynoscion leiarchus (Cuvier, 1830)
Pescada branca
Coast: north and east

Cynoscion microlepidotus (Cuvier, 1830)
Pescadinhá
Coast: north and east

Cynoscion virescens (Cuvier, 1830)
Pescada traíra
Coast: east

Equetus lanceolatus (Linnaeus, 1758)
Coast: north

Isopisthus parvipinnis (Cuvier, 1830)
Pescada de dente
Coast: north and east

Larimus breviceps Cuvier, 1830
Boca mole
Coast: north and east

Macrodon ancytodon (Bloch & Schneider, 1801)
Pescada foguete
Coast: north and east

Menticirrhus americanus (Linnaeus, 1758)
Judeu
Coast: north and east

Menticirrhus littoralis (Holbrook, 1847)
Judeu
Coast: north and east

Micropogonias furnieri (Desmarest, 1823)
Cururuca
Coast: north and east

Nebris microps Cuvier, 1830
Pesca banana
Coast: north and east

Odontoscion dentex (Cuvier, 1830)
Pescada de pedra
Coast: north and east

Ophioscion punctatissimus Meek & Hildebrand, 1925
Pescada cabeça dura
Coast: north and east

Paralonturinus brasiliensis (Steindachner, 1875)
Maria mole
Coast: north and east

Pareques acuminatus (Bloch & Schneider, 1801)
Canivete
Coast: north and east

Stellifer brasiliensis (Schultz, 1945) *
Cangoá
Coast: east
Remarks: on 8 August 2006, a specimen (LABIPE 38) was collected in Tabatinga beach, eastern coast, on sandy substrate in about 0.5 m depth with hand net. The specimen measured 9 cm total length and 7 g total weight (Figure 12). The species is found in Brazil from Pernambuco to São Paulo states (Vasconselos-Filho and Oliveira 1999; Menezes et al. 2003) and the present

Figure 12. Stellifer brasiliensis (photo J. Garcia Jr.).
record is the northernmost occurrence and extends its geographical distribution.

**Stellifer microps** (Steindachner, 1864)
Cangoá  
Coast: east

**Stellifer naso** (Jordan, 1889)
Cangoá  
Coast: north and east

**Stellifer rastrifer** (Jordan, 1889)
Cangoá  
Coast: north and east

**Stellifer stellifer** (Bloch, 1790)
Cangoá  
Coast: north and east

**Stellifer sp.** (according to Menezes and Figueiredo, 1980)
Cangoá  
Coast: north and east

**Umbrina coroides** Cuvier, 1830  
Coast: north  
Remarks: reported by Dias (2006)

Family Mullidae

**Mulloidichthys martinicus** (Cuvier, 1829)
Saramunete listrado  
Coast: north and east

**Pseudupeneus maculatus** (Bloch, 1793)
Saramunete  
Coast: north and east

Family Pempheridae

**Pempheris schomburgki** Müller & Troschel, 1848  
Sardinha ouro  
Coast: north and east

Family Kyphosidae

**Kyphosus sectatrix** (Linnaeus, 1758)
Salema açú  
Coast: north and east

**Kyphosus vaigiensis** (Quoy & Gaimard, 1825)
Salema açú  
Coast: north and east

Family Pomacanthidae

**Centropyge aurantonotus** Burgess, 1974  
Coast: north and east

**Holacanthus ciliaris** (Linnaeus, 1758)
Paru verde  
Coast: north and east

**Holacanthus tricolor** (Bloch, 1795)
Paru soldado  
Coast: north and east

**Pomacanthus arcuatus** (Linnaeus, 1758)
Paru cagão  
Coast: north and east

**Pomacanthus paru** (Bloch, 1787)
Paru frade  
Coast: north and east

Family Cirrhitidae

**Amblycirrhitus pinos** (Mowbray, 1927)
Sarampinho  
Coast: north and east

Family Pomacentridae

**Abudefduf saxatilis** (Linnaeus, 1758)
Sargentinho  
Coast: north and east

**Chromis flavicauda** (Günther, 1880)
Coast: east  
Remarks: reported by Floeter et al. (2003)

**Chromis jubauna** Moura, 1995  
Tesourinha  
Coast: north and east

**Chromis multilineata** (Guichenot, 1853)
Tesourinha  
Coast: north and east

**Chromis scotti** Emery, 1968  
Tesourinha  
Coast: north and east

**Microspathodon chrysurus** (Cuvier, 1830) *  
Donzela azul  
Coast: north and east

**Stegastes fuscus** (Cuvier, 1830) *  
Donzela marrom  
Coast: north and east

**Stegastes pictus** (Castelnau, 1855)
Donzela bicolor  
Coast: north and east

**Stegastes uenfi** Noveli, Nunan & Lima, 2000 *  
Donzela marrom  
Coast: north and east
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**Stegastes variabilis** (Castelnau, 1855) *
Donzela amarela
- Coast: north and east

**Bodianus pulchellus** (Poey, 1860)
Budião banana
- Coast: north and east

**Bodianus rufus** (Linnaeus, 1758)
Budião banana
- Coast: north and east

**Clepticus brasiliensis** Heiser, Moura & Robertson, 2000 *
Budião vermelho
- Coast: north and east

**Doratonotus megalepis** Günther, 1862
- Coast: north and east

**Halichoeres bivittatus** (Bloch, 1791)
Budião bispo
- Coast: north and east

**Halichoeres brasiliensis** (Bloch, 1791) *
Budião bispo
- Coast: north and east

**Halichoeres dimidiatus** (Agassiz in Spix & Agassiz, 1831)
Budião bispo
- Coast: north and east

**Halichoeres penrosei** Starks, 1913 *
Budião bispo
- Coast: north and east

**Halichoeres poeyi** (Steindachner, 1867)
Budião bispo
- Coast: north and east

**Halichoeres radiatus** (Linnaeus, 1758)
Budião bispo
- Coast: north

Remarks: on 17 May 2005, a specimen (LABIPE 25) was collected in João da Cunha reefs, northern coast, on reef substrate in about 30 m depth with fish trap. The specimen measured 23 cm total length and 62 g total weight (Figure 13). In the western Atlantic Ocean, the species is described to occur in Florida, Carolinas, Bermudas and Caribbean Sea and in Brazil on oceanic islands of Fernando de Noronha, Atol das Rocos and São Pedro e São Paulo (Menezes et al. 2003). Additionally, Rocha et al. (2005) reported the collect of two individuals of this species on the northeastern coast of Brazil, but without specifying the occurrence site or fish data. Thus, present record confirms the occurrence of this species on the Brazilian coast.

**Lachnolaimus maximus** (Walbaum, 1792)
- Coast: east

Remarks: on 28 December 2010, a spear gun sport fishermen collected a specimen in front of Muriú beach, eastern coast, on rocky substrate in about 30 m depth. The specimen measured 56 cm total length and 5600 g total weight (Figure 14) and unfortunately, it was not possible to preserve it. Luiz et al. (2013) reported the presence of this species on the northeastern coast of Brazil, but without specifying the occurrence site or fish data. Thus, present record confirms the occurrence of this species on the Brazilian coast.

**Thalassoma noronhanum** (Boulenger, 1890) *
Peixe limpador
- Coast: north and east

**Xyrichtys incandescens** Edwards & Lubbock, 1981 *
- Coast: north

Remarks: reported by Moura (2003)

**Xyrichtys martinicensis** Valenciennes *in* Cuvier & Valenciennes, 1840
- Coast: east

Remarks: reported by Feitoza et al. (2005)

**Xyrichtys novacula** (Linnaeus, 1758)
Budião de areia
- Coast: north and east

**Xyrichtys splendens** Castelnau, 1855
Budião de areia
- Coast: north and east

Family Scaridae

**Cryptotomus roseus** Cope, 1871
Budião de alga
- Coast: north and east
Nicholsina usta  Valenciennes, 1840  
Budião verde  
Coast: north

Scarus cf. guacamaia Cuvier, 1829  
Coast: east  
Remarks: reported by Floeter et al. (2003)

Scarus trispinosus (Valenciennes, 1840) *  
Budião azul  
Coast: north and east

Scarus zelindae Moura, Figueiredo & Sazima, 2001 *  
Budião papaio  
Coast: north and east

Sparisoma amplum (Ranzani, 1842)  
Budião jandaia  
Coast: north and east

Sparisoma axillare (Steindachner, 1878)  
Budião batata  
Coast: north and east

Sparisoma frondosum (Agassiz, 1831)  
Budião batata  
Coast: north and east

Sparisoma radians (Valenciennes, 1840)  
Budião de alga  
Coast: north and east  
Family Uranoscopidae

Astroscopus ygraecum (Steindachner, 1876)  
Anequim  
Coast: north  
Family Tripterygiidae

Emmeanectes altivelis Rosenblatt, 1960  
Coast: north and east  
Family Dactyloscopidae

Dactyloscopus crosstosus Starks, 1913  
Coast: east  
Remarks: reported by Feitoza (2001)

Dactyloscopus tridigitatus Gill, 1859  
Coast: north and east

Platygillielus brasiliensis Feitoza, 2002 *  
Coast: north and east

Entomacrodus vomerinus (Valenciennes, 1836) *  
Coast: north and east

Hypleurochilus pseudoequipinnis Bath, 1994  
Coast: north and east  

Omobranthus punctatus (Valenciennes, in Cuvier & Valenciennes, 1836)  
Coast: north and east  
Remarks: exotic species recorded around shrimp farms; found in others areas of Brazilian coast (Soares et al. 2011)

Ophioblennius trinitatis Miranda Ribeiro, 1919 *  
Macaco  
Coast: north and east

Scartella cristata (Linnaeus, 1758)  
Maria da toca  
Coast: north and east

Family Labrisomidae

Labrisomus cricota Sazima, Gasparini & Moura, 2002 *  
Moré quatro olho  
Coast: north and east

Labrisomus nuchipinnis (Quoy & Gaimard, 1824)  
Moré quatro olho  
Coast: north and east

Malacoctenus delalandii (Valenciennes, 1836)  
Macaquinho  
Coast: north and east

Malacoctenus triangulatus Springer, 1959  
Macaquinho  
Coast: north and east

Paraclinus rubicundus Guimarães & Bacellar, 2002 *  
Coast: east

Starksia brasiliensis (Gilbert, 1900) *  
Coast: north and east

Starksia sp. (cited as Starksia sp. 2 in Moura, 2003)  
Coast: north  
Remarks: reported by Moura (2003)

Family Chaenopsidae

Emblemariopsis signifera (Ginsburg, 1942)  
Coast: north  
Remarks: reported by Moura (2003)

Family Gobiesocidae

Gobiesox barbatulus Starks, 1913  
Pregador  
Coast: east

Family Callionymidae

Para diplogramus bairdi (Jordan, 1888)  
Dragãozinho  
Coast: north
<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Author/Year</th>
<th>Remarks</th>
<th>Coast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eleotridae</td>
<td><em>Dormitator maculatus</em> (Bloch, 1792)</td>
<td>Moré</td>
<td>Coast: north and east</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Eleotris pisonis</em> (Gmelin, 1789)</td>
<td>Moré de rio</td>
<td>Coast: north and east</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Erotelis smaragdus</em> (Valenciennes, 1837)</td>
<td>Moré</td>
<td>Coast: north and east</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Guavina guavina</em> (Valenciennes, 1837)</td>
<td>Moré</td>
<td>Coast: north and east</td>
<td></td>
</tr>
<tr>
<td>Gobiidae</td>
<td><em>Awaous tajasica</em> (Lichtenstein, 1822)</td>
<td>Moré de rio</td>
<td>Coast: north and east</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Bathygobius mystacium</em> Ginsburg, 1947</td>
<td>Chupa areia</td>
<td>Coast: north and east</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Bathygobius soporator</em> (Valenciennes, 1837)</td>
<td>Chupa areia</td>
<td>Coast: north and east</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Coryphopterus dicrus</em> Böhlke &amp; Robins, 1960</td>
<td>Moré de vidro</td>
<td>Coast: north</td>
<td></td>
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<tr>
<td></td>
<td><em>Coryphopterus eidolon</em> Böhlke &amp; Robins, 1960</td>
<td>Moré de vidro</td>
<td>Coast: east</td>
<td></td>
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<tr>
<td></td>
<td><em>Coryphopterus glaucofraenum</em> Gill, 1863</td>
<td>Moré de vidro</td>
<td>Coast: north</td>
<td></td>
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<tr>
<td></td>
<td><em>Coryphopterus thrix</em> Böhlke &amp; Robins, 1960</td>
<td>Moré de vidro</td>
<td>Coast: north</td>
<td></td>
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<tr>
<td></td>
<td><em>Ctenogobius boleosoma</em> (Jordan &amp; Gilbert, 1882)</td>
<td>Moré de vidro</td>
<td>Coast: north and east</td>
<td></td>
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<tr>
<td></td>
<td><em>Ctenogobius saepepallens</em> (Gilbert &amp; Randall, 1968)</td>
<td>Moré de vidro</td>
<td>Coast: north and east</td>
<td></td>
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<tr>
<td></td>
<td><em>Ctenogobius shufeldti</em> (Jordan &amp; Eigenmann, 1887)</td>
<td>Moré de vidro</td>
<td>Coast: north and east</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Ctenogobius smaragdus</em> (Valenciennes, 1837)</td>
<td>Moré de vidro</td>
<td>Coast: east</td>
<td></td>
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<tr>
<td></td>
<td><em>Elacatinus figaro</em> Sazima, Moura &amp; Rosa, 1997 *</td>
<td>Neon</td>
<td>Coast: north and east</td>
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<tr>
<td></td>
<td><em>Evorthodus lyricus</em> (Girard, 1858)</td>
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<td>Coast: east</td>
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<td></td>
<td><em>Gnatholepis cauerensis</em> (Bleeker, 1853)</td>
<td></td>
<td>Coast: north and east</td>
<td></td>
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<tr>
<td></td>
<td><em>Gobionellus oceanicus</em> (Pallas, 1770)</td>
<td></td>
<td>Corongo</td>
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<tr>
<td></td>
<td><em>Gobionellus stomatus</em> Starks, 1913 *</td>
<td></td>
<td>Coast: east</td>
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<tr>
<td></td>
<td><em>Lythrypnus brasiliensis</em> Greenfield, 1988 *</td>
<td></td>
<td>Coast: north and east</td>
<td></td>
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<tr>
<td></td>
<td><em>Microgobius meeki</em> Evermann &amp; Marsh, 1899</td>
<td>Moré de vidro</td>
<td>Coast: north and east</td>
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<tr>
<td></td>
<td><em>Priolepis dawsoni</em> Greenfield, 1989</td>
<td></td>
<td>Coast: north</td>
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<tr>
<td></td>
<td><em>Psilotris celsa</em> Böhlke, 1963</td>
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<td>Coast: north</td>
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<tr>
<td></td>
<td><em>Risor ruber</em> (Rosén, 1911)</td>
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<td>Coast: north</td>
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<tr>
<td>Ptereleotridae</td>
<td><em>Ptereleotris randalli</em> Gasparini, Rocha &amp; Floeter, 2001</td>
<td></td>
<td>Coast: north</td>
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<tr>
<td>Ephippidae</td>
<td><em>Chaetodipterus faber</em> (Broussonet, 1782)</td>
<td></td>
<td>Enxada</td>
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<tr>
<td>Acanthuridae</td>
<td><em>Acanthurus bahianus</em> Castelnau, 1855</td>
<td>Caraúna</td>
<td>Coast: north</td>
<td></td>
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<tr>
<td></td>
<td><em>Acanthurus chirurgus</em> (Bloch, 1787)</td>
<td>Caraúna preta</td>
<td>Coast: north</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Acanthurus coeruleus</em> Bloch &amp; Schneider, 1801</td>
<td>Caraúna azul</td>
<td>Coast: north</td>
<td></td>
</tr>
</tbody>
</table>
Family Sphyraenidae

*Sphyraena barracuda* (Walbaum, 1792)
Bicuda
Coast: north and east

*Sphyraena guachancho* Cuvier, 1829
Bicuda guaraná
Coast: north and east

*Sphyraena picudilla* Poey, 1860
Bicudinha
Coast: north and east

Family Trichiuridae

*Trichiurus lepturus* Linnaeus, 1758
Peixe espada
Coast: north and east

Family Scombridae

*Acanthocybium solandri* (Cuvier, 1832)
Cavala preta
Coast: north and east

*Auxis thazard* (Lacepède, 1800)
Bonito
Coast: north and east

*Euthynnus alleteratus* (Rafinesque, 1810)
Bonito pintado
Coast: north and east

*Katsuwonus pelamis* (Linnaeus, 1758)
Bonito listrado
Coast: north and east

*Scomberomorus brasiliensis* Collete, Russo & Zavala-Camin, 1978
Serra
Coast: north and east

*Scomberomorus cavalla* (Cuvier, 1829)
Cavala branca
Coast: north and east

*Scomberomorus regalis* (Bloch, 1793)
Serra pininxa
Coast: north and east

*Thunnus atlanticus* (Lesson, 1831)
Albacorinha
Coast: east

Family Stromateidae

*Peprilus paru* Linnaeus, 1758
Parú roliço
Coast: north and east

Family Pleuronectiformes

Order Pleuronectiformes

Family Paralichthydae

*Citharichthys cornutus* (Günther, 1880)
Solha
Coast: north and east

*Citharichthys macrops* Dresel, 1885
Solha
Coast: north and east

*Citharichthys spilopterus* Günther, 1862
Solha dente de velho
Coast: north

*Cyclopterus fimbriata* (Goode & Bean, 1885)
Linguado
Coast: north and east

*Etropus crossoptus* Jordan & Evermann, 1882
Solha
Coast: north and east

*Paralichthys brasiliensis* (Ranzani, 1842)
Linguado
Coast: north and east

*Paralichthys isosceles* Jordan, 1891
Remarks: reported by Dias (2006)
Coast: north

*Syacium micrurum* Ranzani, 1842
Linguado
Coast: north and east

*Syacium papillosum* (Linnaeus, 1758)
Linguado
Coast: north and east

Family Bothidae

*Bothus lunatus* (Linnaeus, 1758)
Solha
Coast: north and east

*Bothus ocellatus* (Agassiz, 1831)
Solha
Coast: north and east

*Bothus robinsi* Topp & Hoff, 1972
Solha
Coast: north and east

Family Achiridae

*Achirus achirus* (Linnaeus, 1758)
Remarks: reported by Dias (2006)
Coast: north

*Achirus lineatus* (Linnaeus, 1758)
Solha
Coast: north and east
**Gymnachirus nudus** Kaup, 1858  
Solha  
Coast: north

**Trinectes microphthalmus** (Chabanaud, 1928)  
Solha  
Coast: north and east

**Trinectes paulistanus** (Miranda Ribeiro, 1915)  
Solha  
Coast: north and east  
Family Cynoglossidae

**Symphurus diomedianus** (Goode & Bean, 1885)  
Solha  
Coast: north and east

**Symphurus plagusia** (Bloch & Schneider, 1801)  
Solha  
Coast: north and east

**Symphurus tessellatus** (Quoy & Gaimard, 1824)  
Solha  
Coast: north

Order Tetraodontiformes  
Family Balistidae

**Balistes capriscus** Gmelin, 1789  
Peixe porco  
Coast: north and east

**Balistes vetula** Linnaeus, 1758  
Cangulo verdadeiro  
Coast: north and east

**Canthidermis sufflamen** (Mitchill, 1815)  
Cangulo fernando  
Coast: north and east

**Melichthys niger** (Bloch, 1786)  
Pufa  
Coast: north and east

**Xanthichthys ringens** (Linnaeus, 1758)  
Cangulo guiné  
Coast: east  
Family Monacanthidae

**Aluterus heudelotti** Hollard, 1855  
Cangulo  
Coast: north and east

**Aluterus monoceros** (Linnaeus, 1758)  
Cangulo patriota  
Coast: north and east

**Aluterus schoepfii** (Walbaum, 1792)  
Cangulo  
Coast: north and east

**Aluterus scriptus** (Osbeck, 1765)  
Cangulo  
Coast: north and east

**Cantherhines macrocerus** (Hollard, 1855)  
Cangulo  
Coast: north and east

**Cantherhines pullus** (Ranzani, 1842)  
Cangulo velho  
Coast: north and east

**Monacanthus ciliatus** (Mitchill, 1818)  
Porquinho  
Coast: north and east

**Stephanolepis hispidus** (Linnaeus, 1766)  
Porquinho  
Coast: north and east

**Stephanolepis setifer** (Bennett, 1831)  
Porquinho  
Coast: north

Family Ostraciidae

**Acanthostracion polygonius** Poey, 1876  
Cofre  
Coast: north and east

**Acanthostracion quadricornis** (Linnaeus, 1758)  
Cofre  
Coast: north and east

**Lactophrys bicaudalis** (Linnaeus, 1758)  
Cofre  
Coast: north

**Lactophrys trigonus** (Linnaeus, 1758)  
Cofre  
Coast: north and east  
Family Tetraodontidae

**Canthigaster figueiredoi** Moura & Castro, 2002  
Baiacú mirim  
Coast: north and east

**Canthigaster jamestyleri** Moura & Castro, 2002  
Baiacú mirim  
Coast: north  
Remarks: on 12 August 2005, a specimen (LABIPE 26) was collected in the Urca do Minhoto, northern coast, on reef substrate in about 20 m depth with plastic bag while SCUBA diving. The specimen measured 6 cm total length and 10 g total weight (Figure 15). *Canthigaster jamestyleri* differs from all Atlantic congeners (more similar to *C. figueiredoi*) by the presence of a small irregular dark spot on the dorsal fin base and the absence of dark dorsal and ventral margins on the caudal fin (Moura and Castro 2002). In the western Atlantic Ocean the species is described to occur in the southern USA and Gulf of...
Mexico (Moura and Castro 2002). Thus, present record is the first occurrence of this species on the Brazilian coast.

**Colomesus psittacus** (Bloch & Schneider, 1801)
Baiaçu camisa de meia  
Coast: north and east

**Lagocephalus laevigatus** (Linnaeus, 1766)
Baiaçu guarajuba  
Coast: north and east

**Sphoeroides dorsalis** Longley, 1934
Baiaçu mirim  
Coast: north

**Sphoeroides greeleyi** Gilbert, 1900
Baiaçu mirim  
Coast: north and east

**Sphoeroides pachygaster** (Müller & Troschel, 1848)
Baiaçu mirim  
Coast: north and east

**Sphoeroides spengleri** (Bloch, 1785)
Baiaçu pinima  
Coast: north and east

**Sphoeroides testudineus** (Linnaeus, 1758)
Baiaçu pintado  
Coast: north and east

**Sphoeroides tyleri** Shipp, 1974
Baiaçu pintado  
Coast: north and east

Family Diodontidae

**Chilomycterus antennatus** (Cuvier, 1816)
Baiaçu de espinho  
Coast: north

**Chilomycterus spinosus** (Linnaeus, 1758)
Baiaçu de espinho  
Coast: north and east

**Cyclichthys antillarum** Jordan & Rutter, 1897
Baiaçu de espinho  
Coast: north and east

**Diodon holocanthus** Linnaeus, 1758
Baiaçu de espinho  
Coast: north and east

**Diodon hystrix** Linnaeus, 1758
Baiaçu de espinho  
Coast: north and east

**Family Molidae**

**Mola mola** (Linnaeus, 1758)
Peixe lua  
Coast: north and east

**Ranzania laevis** (Pennant, 1776)
Coast: east

**DISCUSSION**

At present, 459 species of coastal fishes are known from the Rio Grande do Norte state (RN). Soares (1988) recorded the occurrence of *Lycengraulis barbouri* (a synonym of *L. batesii*), *Trachinotus glaucus* (a synonym of *T. ovatus*) and *Ogcocephalus radiatus* in RN coast. By analyzing specimens identified as belonging to these species at MMOL, it was verified that in fact, they are *L. grossidens*, *T. goodei* and *O. vespertilio*, respectively. According to the latest compilation, 1,297 species of marine fishes were found on the Brazilian coast (Menezes et al. 2003), of which about 35% is recorded in the coast of RN. Most species presented here (358) was recorded on both coasts; however, 52 species were exclusively recorded on the northern coast and 42 species exclusively on the eastern coast. These exclusive records may be the result of differences in habitat characteristics between these coasts. As example, estuarine species like *Anchoa januaria*, *A. tricolor*, *Anchoa batesii*, *Achirus achirus* and *Gymnachirus nudus* were recorded only in northern coast, where are the larger estuarine habitats of RN. Otherwise, oceanic species like *Polymixia lowei*, *Thunnus atlanticus*, *Sphoeroides pachygaster* and *Ranzania laevis* were recorded only in the eastern coast, where the continental shelf is narrower. With regard to the number of species, the results demonstrate that the coastline of RN is richer than it was suspected, and that this can be considered reasonably known to date. However, surveys on deeper habitats as well as the use of higher sampling effort may result in additional records. The composition of fish fauna of RN coast is recognized for having high similarity to the fish fauna of the neighbor states of Paraíba and Pernambuco (Floeter et al. 2001; Moura 2003; Feitoza et al. 2005; Freitas and Lotufo 2014). However, this similarity was always tested using the fish fauna of a few localities of RN rather than all species occurring along the coast. Previously zoogeographical
hypothesis based only on small-scale local lists or on few families should be tested using a comprehensive regional checklist, as presented herein. Of the 459 species recorded in RN, 27 are Brazilian endemic fishes and 37 species have recently been included in the National List of Endangered Fauna, under some degree of threat (MMA, 2014). Of these 37 species, 27 are captured by commercial fishing in RN, and now legally prohibited from being caught and marketed. The large number of new records for the RN coast (83) reflects the existence of few local inventories and shows how the lack of studies influences the state of knowledge in a specific area. Ultimately, this can affect the quality and effectiveness of management strategies applied to the fish stocks. As an example, between 2000 and 2005, fishery monitoring sponsored by the government on the RN coast registered a capture of approximately 2,385 tons in the category named “serra”, represented by Scomberomorus brasiliensis (MMA 2006). However, our records show that S. regalis, a morphologically similar species, is also captured simultaneously in the same habitats as S. brasiliensis, and is included in the same category. The same occurs with species of Centropomus spp., Coryphaena spp., Epinephelus spp., Mugil spp., Sparisoma spp., family Ariidae and order Pleuronectiformes. Therefore, only one stock is being evaluated when in fact there are two or more. Only with a better understanding of the local fish fauna and a monitoring designed by species, it will be possible properly to monitor the level of exploitation of local fish stocks. In this sense, this checklist provides a great increment in the knowledge of the coastal fishes of RN and represents the first steps for improve the fishery management of this area.

ACKNOWLEDGEMENTS

This work represents part of the M.Sc. research of J. Garcia Jr. who thanks Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) for financial support. We are grateful to Waldecir S. Costa (in memorian) and Wellington S. Xavier for helping with specimens collections. We thank Ronaldo Barradas for providing his collect data of Lachnolaimus maximus. Cláudio L.S. Sampaio and Bertran M. Feitoza greatly helped with the identification of some specimens.

LITERATURE CITED


Authors’ contribution statement: JGJr, MFN and JELO collected and identified specimens and wrote the text.

Received: August 2014
Accepted: April 2015
Academic editor: Osmar J. Luiz