



Red List of Marine Bony Fishes of the Eastern Central Atlantic.

B. Polidoro, Gina M. Ralph, Kyle Strongin, Michael Harvey, Kent E. Carpenter, Titus Ayo Adeofe, Rachel Arnold, Paul Bannerman, Jean Noel Bibang Bi Nguema, Jack R. Buchanan, et al.

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Executive Summary

Aim

The Red List of Marine Bony Fishes of the Eastern Central Atlantic (ECA) is a review of the conservation status of all native marine bony fishes in ECA according to the global Categories and Criteria of the IUCN Red List of Threatened Species. It identifies those species that are threatened with extinction at the global level and occur within the ECA region. This comprehensive assessment, which is the first of its kind in the ECA, aims to provide improved knowledge of species presence and extinction risk status for the purposes of guiding conservation actions and improved policies for these species both globally and regionally.

Scope

All currently described marine bony fishes native to the Eastern Central Atlantic (a total of 1,288 species), have been assessed in this Red List. The geographic scope encompasses all marine areas extending from Mauritania to Angola, including the offshore islands of Cape Verde, Saint Helena and Ascension, and Bioko, São Tomé and Príncipe and Annobón in the Gulf of Guinea. Of the 1,288 species assessed, approximately 18% (231 species) are considered endemic to the Eastern Central Atlantic region.

Status assessment

All species were assessed using the IUCN Red List Categories and Criteria, which is the most widely accepted system for measuring extinction risk. Species data were compiled based on data and knowledge from a network of leading regional and international experts on marine fishes. Species assessments were primarily completed and reviewed at three large workshops held in Dakar, Senegal; Accra, Ghana; and Libreville, Gabon; as well as through email correspondence with relevant experts. More than 65 experts participated in the assessment

workshops in the region, and more than 250 experts overall contributed data, expertise, and time to the review process for these fishes. All species global assessments and final results were made available on the IUCN Red List of Threatened Species in November 2015.

Results

Approximately 3% (37 species) of the 1,288 marine bony fishes present in the Eastern Central Atlantic are classified in threatened categories (i.e. Critically Endangered, Endangered or Vulnerable). A further 1.1 % (14 species) are considered Near Threatened. However, for 13% (164 species) there were insufficient data available to evaluate risk of extinction and thus these species were classified as Data Deficient. When more data become available, some of these species may qualify for a threatened category. The major threats to marine bony fish species in the ECA are overfishing, habitat degradation, pollution, climate change, and invasive and problematic species.

Current population trends for the vast majority of species in the ECA are largely unknown, especially as many of the marine fishes present are deep-sea species that are only known from a few specimens or have unresolved taxonomic questions. The majority of species with known population declines are species that are directly targeted by fisheries, or have been indirectly affected as by-catch.

In the ECA, the diversity of marine bony fishes is highest around the Cape Verde Islands and off the coast of Senegal, with a maximum of 757 species of marine fish per 100 km². The diversity of fishes in oceanic waters is substantially lower than that of coastal waters, except for the area surrounding St. Helena and Ascension. The top 10% of endemic species diversity (116-128 species per 100 km²) occurs from Sierra Leone to Gabon, including Bioko (Equatorial Guinea) in the Gulf of Guinea.

Recommendations

Although a number of local, national and regional conservation measures and management bodies exist, this comprehensive Red List assessment of all marine fishes in the ECA has reinforced several recommendations to improve marine resource management and conservation.

- In many countries, limited surveillance and enforcement capacity leads to illegal fishing and overfishing, which imperils national and regional management efforts. Perhaps the greatest need in the region is to strengthen governance, including increased capacity, training and resources, in order to improve management and reduce illegal and unregulated fishing activities.
- Research capacity to conduct stock assessments or assess population trends in much of the region is limited. There is a great need to increase capacity, training and resources for local and national fisheries management agencies to better quantify the impacts of local, national and regional fishery efforts on targeted and non-targeted species.
- Of particular importance is the need to train more key scientists and middle level practitioners on taxonomic identification techniques, and to disaggregate fisheries data reported by family or genus. In many cases, fishes being recorded in landings, fish markets, academic surveys and other instances are incorrectly identified, compounding the difficulties of understanding species distributions and population trends.
- Although a number of marine and coastal protected areas have been established in the region to limit overharvesting of coastal resources and ensure their sustainable utilization, many are in need of increased capacity, funding, infrastructure and governance for effective enforcement and conservation.
- Many nations are still lacking in adequate marine or coastal protected areas. In addition to the creation of more marine and coastal protected areas, there is a need to identify, and include within protected areas, critical habitats and spawning sites.
- As in many regions around the world with a large number of governments, ethnic groups and languages, and management goals, there is a need for improved transboundary collaboration on shared fish stocks, regional data management and the creation of marine protected area networks.
- With increased capacity, training and resources, there is a need to improve collection of fisheries-dependent data of commercial fisheries, in particular data on catch composition, by-catch, landings, discards, and catch per unit effort, and to establish monitoring schemes for the vast number of small scale artisanal fisheries.
- Increased resources need to be directed to increase fisheries-independent data collection and monitoring throughout the region, and to ensure that data are made available to all countries and regional scientific bodies and Regional Fisheries Management Organizations (e.g., ICCAT, FAO, etc.).
- With the completion of this first comprehensive Red List of marine fishes in the ECA, an essential next step is to identify marine Key Biodiversity Areas (KBAs) to more effectively prioritize local conservation action towards the mitigation, regulation, or cessation of threats impacting marine species.

1. Background

1.1 The Eastern Central Atlantic

The Eastern Central Atlantic (ECA), also known as the Eastern Tropical Atlantic, can be biogeographically defined as the marine zone from Mauritania to Angola, including the offshore islands of Ascension, Cape Verde and Saint Helena, and Bioko, São Tomé and Príncipe and Annobón in the Gulf of Guinea (Spalding et al. 2007; Figure 1). The West African coast can be divided into 3 coastal segments: the semi-arid coast from Morocco to Senegal, which is characterized by the cool Canary Current; the humid tropical coast from Cape Verde to the Congo River, which is dominated by the Guinea Current; and the sub-humid coast south to Angola, which is influenced by the cooler Benguela Current and coastal upwelling (Schwartz 2006). Although variable across the region, the continental shelf is generally narrow, extending 15-90 km offshore, and breaking at depths of approximately 100-120 m. It is the smallest tropical shelf area of the 4 tropical regions of the world (Briggs 1974).

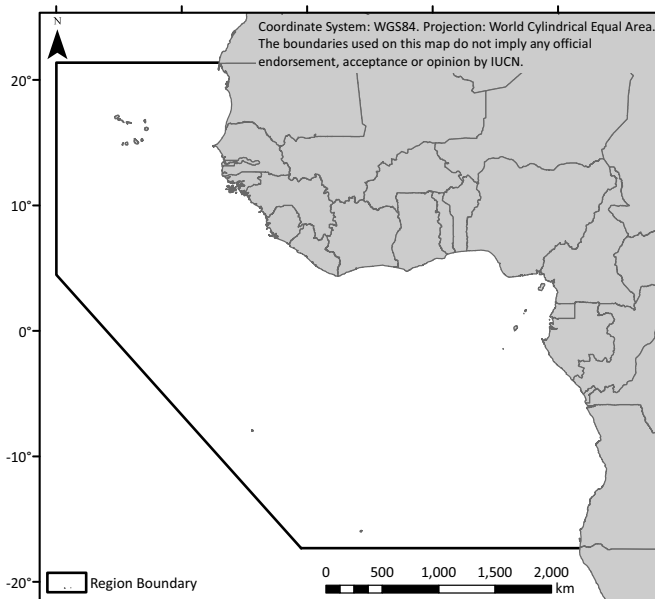


Figure 1: Limits of the Eastern Central Atlantic as defined for this project (following Spalding et al. 2007).

The dominant coastal features in the ECA are the Gulf of Guinea and the influence of the Guinea Current. There are no coral reefs in this region, although some limited coral communities exist in the southern Gulf of Guinea, mixed with rocky reef (Spalding et al. 2001). Mangroves, coastal lagoons and large estuarine areas from the drainage of major rivers, including the Niger, Volta, Gambia and Congo, all serve as important reservoirs for biological diversity (Ajao et al. 2009). Mangrove forests and swamps are the most biologically significant coastal ecosystems in the Gulf of Guinea region and collectively represent 15% of the world's mangrove area (Schwartz 2006). The mangrove regions of the ECA provide critical breeding grounds for many fish and shrimp species, and essential habitats for a variety of other coastal species, including mammals, reptiles and birds. Seven species of mangrove are native to the ECA, though most of the mangrove forests are dominated primarily by stands of *Rhizophora racemosa* (Polidoro et al. 2010).

The most important mangrove stands are the Niger Delta communities in Nigeria and Yawri Bay in Sierra Leone (FAO 2007). Mangrove stands of the Niger Delta are considered to be the largest in Africa, and the third largest in the world (Ukwe et al. 2001).

Mangrove stand in Libreville, Gabon. © B. Polidoro.



About 40% of the region's human populations live in coastal areas and are dependent on the lagoons, estuaries, creeks and inshore waters for their sustenance and socio-economic well-being (GCLME 2008). Although poorly developed, rivers and lagoons are important waterways for the transportation of goods and people. Presently, local fish and shellfish constitute a major source of animal protein in coastal communities. Despite the rich endowment in natural resources and recent improvements in economic growth, the majority of the population lives in conditions of widespread poverty due to huge imbalances in the production and distribution of goods and services and socio-political issues, among other concerns (GCLME 2008).

The status of marine fishes, especially coastal and pelagic fishes, is of great concern in the ECA due to overharvesting of marine resources (unsustainable gathering, fishing and hunting); conversion of mangrove swamps (rice, shrimp, fish culture and salt production); oil exploration, drilling and production; coastal erosion and habitat degradation; urban and tourism development; pollution; sedimentation and

siltation; changes to the hydrological cycle; potential impending changes due to sea-level rise; and inadequate policy responses, legislation and enforcement. Destructive fishing practices include intensive inshore and offshore trawling with associated consequences of unwanted bycatch, the use of explosives and chemicals in inshore areas, and the use of small-sized beach and purse seine nets in offshore regions (GCLME 2008) and in juvenile nursery habitats.

Species diversity and fish size for many important commercial species have markedly declined over the past few decades, and several reviews report that many artisanal and commercial fish stocks are now considered to be overexploited (Ajayi 1994, FAO 2000, Mensah and Quatey 2002, Srinivasan et al. 2012). With the human population in this region expected to double in the next 20-25 years, this first assessment of all marine bony fishes in the ECA aims to provide comprehensive information about species inhabiting this region that will transform the current capacity to identify and enact marine conservation priorities.

Local fishing vessels in Accra, Ghana. © B. Polidoro



1.2 Diversity and Endemism

The 1,288 marine fishes present in this complete assessment of all known bony fishes found in the ECA collectively represent a wide diversity of deep-water, pelagic and near-shore species in 32 orders and more than 200 families (Table 1). This list is currently the most up-to-date, complete taxonomic list of all marine bony fishes in the ECA biogeographic region.

Until now, the most authoritative sources for complete lists of all marine fishes included the *Check-list of the Fishes of the Eastern Tropical Atlantic* (Quéro et al. 1990) and *A Revision of Irvine's Marine Fishes of Tropical West Africa* (Edwards et al. 2001), both of which were, in part, based on the currently out-of-date version of the Food and Agriculture Organization of the United Nations (FAO) *Living Marine Resources of the Eastern Central Atlantic* (Fischer et al. 1981).

The complete list of marine bony fishes presented here is based on the soon to be published and significantly updated version of the FAO *Living Marine Resources of the Eastern Central Atlantic* (Carpenter and De Angelis 2014, Carpenter and De Angelis in press). However, there are some differences in the definitions of the region that impact the species included in this report. The FAO Fishing Areas 34 and 47 are defined by latitude, and include the eastern Atlantic Ocean from the Strait of Gibraltar to the eastern coast of South Africa. The FAO *Living Marine Resources of the Eastern Central Atlantic* defined the ECA as the eastern portion of FAO fishing area 34 and the northern part of fishing area 47. We took a more restrictive, biogeographic definition for this project (Spalding et al. 2007; Figure 2).

Many species present in the ECA have geographic ranges that extend across the Atlantic to the Caribbean Sea (e.g., Joyeux et al. 2001, Floeter et al. 2008), spill northward into Moroccan waters and into the Mediterranean Sea, or extend southward into waters of northern Namibia. A large proportion of the deepwater species included in the assessment have ranges that are thought to be circumglobal, based

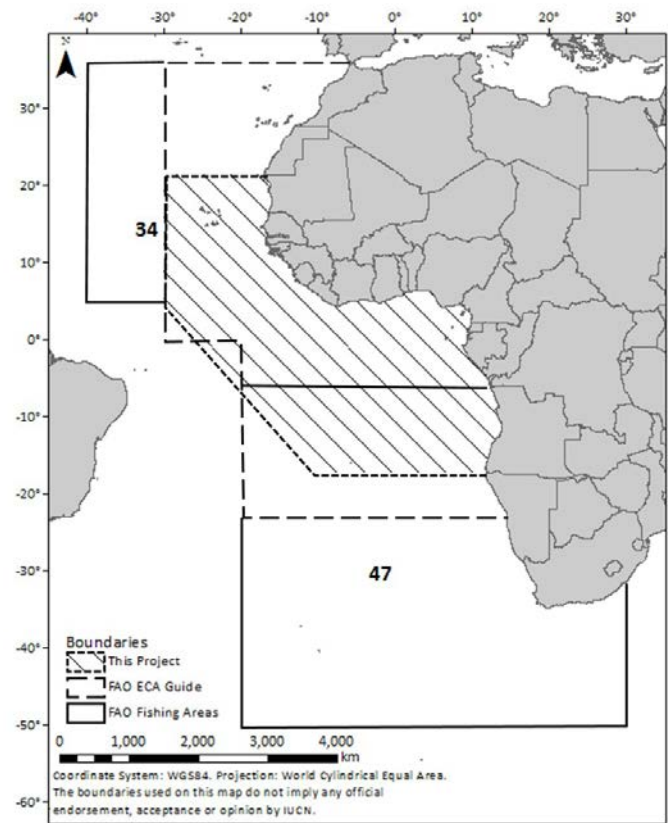


Figure 2: Boundaries of the various political and biogeographic definitions of the Eastern Central Atlantic. The two FAO fishing areas included within the definitions of the ECA are 34 - Eastern Central Atlantic and 47 - Southeast Atlantic.

on currently known taxonomy and relatively few records. For these reasons, endemism in the ECA is relatively low, with less than 20% of all marine bony fishes considered endemic to this biogeographic region.

1.3 Importance of Marine Fishes

Marine resources form the foundation for food security and coastal livelihoods for the nearly 400 million people that inhabit western and central African countries with a marine coastline. The ECA supports some of the most productive fisheries in the world, and industrialized, artisanal and subsistence fisheries are critical to food security, household income and national economies. Unfortunately, marine resources are under immense pressures from various threats, including: overfishing, destructive fishing practices, pollution, coastal and urban development and habitat modification. These threats are compounded by

Table 1: Richness of marine bony fish species present in the Eastern Central Atlantic, including the number of nominal species and families in each order, as well as the number and percentage of endemic species in each order.

| Order | Number of families | Number of species | Number of endemic species | Percentage of endemic species |
|----------------------|---------------------------|--------------------------|----------------------------------|--------------------------------------|
| Albuliformes | 1 | 1 | 0 | 0.0% |
| Anguilliformes | 13 | 100 | 29 | 29.0% |
| Ateleopodiformes | 1 | 2 | 0 | 0.0% |
| Atheriniformes | 1 | 3 | 1 | 33.3% |
| Aulopiformes | 13 | 64 | 4 | 6.3% |
| Batrachoidiformes | 1 | 4 | 1 | 25.0% |
| Beloniformes | 4 | 28 | 1 | 3.6% |
| Beryciformes | 5 | 14 | 1 | 7.1% |
| Cetomimiformes | 3 | 10 | 0 | 0.0% |
| Clupeiformes | 3 | 9 | 4 | 44.4% |
| Elopiformes | 2 | 3 | 2 | 66.7% |
| Gadiformes | 7 | 56 | 7 | 12.5% |
| Gobiesociformes | 1 | 8 | 2 | 25.0% |
| Gonorynchiformes | 1 | 1 | 0 | 0.0% |
| Lampriformes | 6 | 9 | 0 | 0.0% |
| Lophiiformes | 14 | 66 | 5 | 7.6% |
| Mugiliformes | 1 | 10 | 5 | 50.0% |
| Myctophiformes | 2 | 82 | 0 | 0.0% |
| Notacanthiformes | 2 | 11 | 0 | 0.0% |
| Ophidiiformes | 5 | 36 | 5 | 13.9% |
| Osmeriformes | 7 | 68 | 0 | 0.0% |
| Perciformes | 69 | 404 | 118 | 29.2% |
| Pleuronectiformes | 6 | 51 | 19 | 37.3% |
| Polymixiiformes | 1 | 1 | 0 | 0.0% |
| Saccopharyngiformes | 4 | 7 | 2 | 28.6% |
| Scorpaeniformes | 9 | 45 | 12 | 26.7% |
| Siluriformes | 1 | 3 | 3 | 100.0% |
| Stephanoberyciformes | 2 | 18 | 1 | 5.6% |
| Stomiiformes | 4 | 130 | 5 | 3.8% |
| Syngnathiformes | 4 | 11 | 3 | 27.3% |
| Tetraodontiformes | 6 | 25 | 1 | 4.0% |
| Zeiformes | 5 | 8 | 0 | 0.0% |

the challenge of managing shared stocks across a culturally, politically and geographically diverse landscape.

In 2011, nearly 500,000 metric tonnes of seafood was exported from the 21 countries in the region, and these resources were valued at approximately US\$972 million (FAO 2016). Although the largest fishery production reported in 2005 occurred in Nigeria, followed by Senegal, Ghana and Mauritania (Neiland 2006), more recently Mauritania and Angola have surpassed Nigeria (FAO 2016). Throughout the region, the artisanal sector dominates fishing employment and the fishing industry in West Africa with 70% of the total fishery production estimated to come from small-scale artisanal fisheries (GCLME 2008, De Graaf and Garibaldi 2014). However, it is estimated that high levels of illegal and unreported fishing are providing little benefit to national economies, and fisheries are underperforming and overexploited due to poor governance and

unregulated, open-access policies. For example, it is estimated that illegal catches represent more than 40% of the reported legal catch (Pauly and Zeller 2016) in many countries. In some countries, few local fishing companies are in operation, whereas a large number of local agents are engaged in joint ventures with foreign fleets, which results in few fish actually landed locally.

In the ECA, industrial fishing is conducted in the offshore waters of maritime countries. It often relies on non-African trawlers and fleets and has limited direct economic and employment benefit to West African countries. Typically, artisanal fishermen use traditional wooden boats, sometimes motorized, with a variety of gear types, including nets, lines and seines. Aquaculture is rudimentary in most of the region, although it has recently received higher levels of governmental and private support (Davies et al. 2014). Inland fisheries exist in many countries and frequently provide subsistence incomes.

Local fishing vessels in Accra, Ghana. © B. Polidoro



Pagellus bellottii (Red Pandora) from a fish market in Accra, Ghana. © F.K.E. Nunoo



Throughout the region, women are responsible for artisanal processing and assuring transport of fish to urban areas and inland. Traditional processing methods include smoking, drying, and salting and curing. Industrial processing—including canning, filleting and peeling—exists in some countries. In many countries, inaccessibility of cold storage facilities inhibits the growth of a value-added industry.

At a regional scale, fishery management in the ECA is overseen by the FAO Fishery Commission for the Eastern Central Atlantic (CECAF). Composed of members from each of the nations in the region, this regional fishery body is responsible for all living marine resources within the area (which is defined by the FAO as extending from approximately the Straits of Gibraltar and northern Morocco to northern Angola). The CECAF committee produces reports on the status of exploited fish stocks in the region, including small pelagic and demersal fishes. The CECAF commission includes three sub-regional fisheries commissions, the Sub-Regional Fisheries Commission (SRFC) that covers Mauritania to Sierra Leone, including Cape Verde; the Fishery Committee of the West Central Gulf of Guinea (FCWC), which extends from Liberia to Nigeria; and the Regional Fisheries Committee for the Gulf of Guinea (COREP), which covers the area from Cameroon to northern Angola, including the island nation of São Tomé and Príncipe. The International Commission for the Conservation of Atlantic Tunas (ICCAT), a

regional fisheries organization, manages all species of Atlantic tunas and their relatives (<https://www.iccat.int/en/>); most, but not all, of the countries in the ECA as defined herein are contracting parties to ICCAT.

Other sources of regional marine biodiversity data include species catch data from fisheries-independent scientific surveys. The Danish Atlantide expedition (1945-1946) to tropical West Africa took 170 samples along the West African coast from the Canary Islands south to Angola (Bruun 1950). Another vital dataset is the Guinean Trawling Survey (1963-1964); during two phases, each with two French trawlers, eight transects off the West African coast were conducted at depths ranging from about 15-20 m to 400-600 m (Williams 1968). The species collected were identified, including potential commercial fishes, and some samples were preserved for future analyses. More recently, surveys have been conducted by the *RV Dr. Fridtjof Nansen*, in collaboration with the FAO and funded by the Norwegian Agency for Development Cooperation (NORAD). Since the early 1990s, the Nansen Programme has expanded on its original scope of undertaking national and regional marine biodiversity surveys to also include capacity building in fisheries research and management (institutional strengthening in partner countries), and organization of post-survey meetings to provide fisheries administrations with results of surveys. Other sources of marine species information in the region include national fisheries stock assessments and catch data, and independent academic surveys.

Key marine conservation and fisheries management programs in the region include the Programme Régional de Conservation de la Zone Côtière et Marine en Afrique de l'Ouest or PRCM, a joint initiative between IUCN, WWF, Wetlands International and the Fondation Internationale du Banc d'Arguin (FIBA, recently merged with MAVA Fondation pour la Nature), in partnership with the Sub-Regional Fisheries Commission (SRFC). The PRCM covers seven countries: Mauritania,

Senegal, Gambia, Guinea Bissau, Guinea, Sierra Leone and Cape Verde. The goal of the PRCM is to coordinate the efforts of institutions and individuals to strengthen the conservation of the coastline in the coastal countries in the sub-region.

1.4 Assessment of Species Extinction Risk

The conservation status of plants, animals and fungi is one of the most widely used indicators for assessing the condition of ecosystems and their biodiversity. The IUCN Red List Categories and Criteria (IUCN 2001) are the most widely accepted system for classifying extinction risk at the species level (e.g., Butchart et al. 2005, de Grammont and Cuarón 2006, Rodrigues et al. 2006, Hoffmann et al. 2008). The IUCN Red List process consolidates the most current and highest quality data available, and ensures peer-

reviewed scientific consensus on the probability of extinction for each species (Regan et al. 2005). All species data and results of Red List assessments for the ECA were published on the IUCN Red List of Threatened Species in November 2015.

The IUCN Red List Categories (Figure 3) are based on a set of quantitative criteria linked to population trends, size and structure, and species’ geographic ranges. The IUCN Red List Categories are nine different levels of extinction risk: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD) and Not Evaluated (NE). A species qualifies for one of the three threatened categories (CR, EN, or VU) by meeting or exceeding the threshold for that category in one of the five different available criteria (A-E: Table 1). These different criteria are based on extinction risk theory (Mace et al. 2008) and

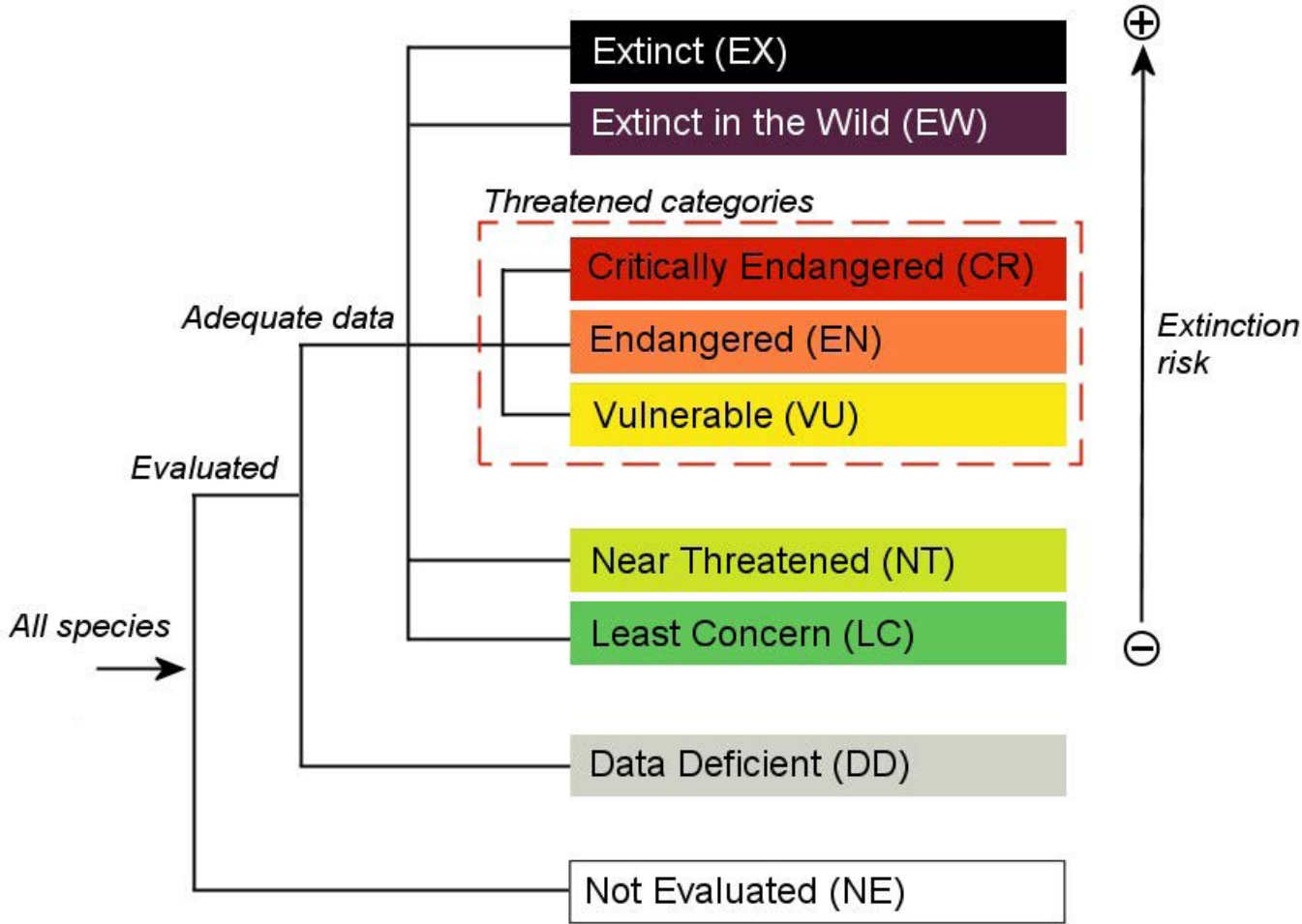


Figure 3: The nine IUCN Red List categories used to classify species based on symptoms of extinction risk (IUCN 2011).

form the real strength of the IUCN Red List as they provide a standardized methodology that is applied consistently to any species from any taxonomic group (e.g., Stuart et al. 2004 , Butchart et al. 2004, Dulvy et al. 2005).

Table 2: Summary of the IUCN criteria for listing a species in a threatened category (Vulnerable, Endangered, or Critically Endangered).

| Criterion | Description |
|-----------|---|
| A | The population has declined, is declining, or will decline over the past three generations. |
| B | The range is small AND two of the three sub-criteria related to (i) fragmentation, small number of threat-based locations, (ii) continuing declines in range or mature individuals, and (iii) extreme fluctuations. |
| C | The number of mature individuals is small and the population has experienced, is experiencing, or will experience a continuing decline. |
| D | The number of mature individuals is very small or the range is very small. |
| E | A quantitative population analysis indicates that the probability of extinction in the wild is high. |

For the ECA Red List Assessment, the marine bony fishes in the ECA were assessed for extinction risk based on their entire global population and range, using the IUCN Red List Global Categories and Criteria. By contrast, many regional or national assessments assess only the status of the species in that region, using the IUCN Red List Regional Guidelines (IUCN 2012a), which include two additional categories: Regionally Extinct (RE) and Not Applicable (NA). Regional assessments also account for species population connectivity outside the region of interest to consider the impact of immigration on the regional population. As the extinction risk of a species can be assessed at global, regional or national levels, one species can have different Red List Categories in the global Red List than in the regional Red List.

For example, a species that is common worldwide and classed as Least Concern (LC) in the global Red List could face a high level of threat in a particular region and therefore be listed as Endangered (EN) in the regional Red List. Logically, an endemic species should have the same category at regional and global levels, as it is not present in any other part of the world.

The majority of marine fishes in the ECA that qualified for a threatened category were assessed under Criterion A, which measures the rate of decline over the longer time frame of three generation lengths or ten years. Generation length, defined as the average age of the current cohort of reproducing individuals, can be calculated in several different ways, depending on the data available (IUCN Guidelines 2014). For these analyses, fishes with stock assessments and age class data, including estimates of numbers of individuals and mortality rates in each age class, were used to determine generation length. For fishes without age class data, the average age of reproducing adults was calculated as the median age between age of first reproduction and historical maximum longevity. In some cases, calculation of generation length using both methods for the same species can yield different values, resulting in an overestimation or underestimation of generation length depending on the method chosen.

Mola mola (Ocean Sunfish) assessed as Vulnerable. © A. Hines



In these cases, decline was calculated over the range of generation lengths values, with the final Red List Category classification based on supporting data and information within the range of population decline under Criterion A.

Some marine fishes with relatively small range sizes qualified for a threatened category under Criterion B, which measures extinction risk based on a small geographic range size (extent of occurrence < 20,000 km² or area of occupancy < 2,000 km² to meet the lowest threshold for Vulnerable), combined with a small number of locations, and/or continued decline and habitat fragmentation. The majority of marine fishes assessed under Criterion B, for example, were island endemics with an area of occupancy estimated to be less than 2,000 km² due to very specific habitat requirements. Although not used to assess marine fishes in this study, Criterion C is applied to species with small population sizes estimated to be less than 10,000 mature individuals, Criterion D is applied to species with less than 1,000 mature individuals or those with an area of occupancy of less than 20 km², and Criterion E is applied to species with extensive population information that allows for population declines to be appropriately modelled over time. A category of Near Threatened was assigned to species that come close to, but do not fully meet, all of the thresholds or conditions required for a threatened category under Criterion A, B, C, D or E.

1.5 Objectives of the Assessment

The main objective of the ECA assessment was to assess the global population and conservation status of all marine bony fishes present in the ECA biogeographic region using the IUCN Red List Categories and Criteria. A number of other important objectives and goals were fulfilled, including:

1) development of a network of regional experts to enable species assessments to be continually updated as new information is discovered and to

provide expert opinion on policy and management recommendations in the region;

2) support of regional marine and coastal planning initiatives and policy development in the ECA for the conservation and sustainable management of marine fishes by providing comprehensive reports to inform the current status of species and regions;

3) provisioning of a comprehensive marine fishes species database stored within the IUCN Species Survival Commission's (SSC) data management system, the Species Information Service (SIS), which contains information on distribution, population, habitat preference, major threats, conservation measures and key literature for each marine fish species assessed as a baseline dataset and in a format suitable for use by scientists, stakeholders and decision makers;

4) publication of this information on the IUCN Red List of Threatened Species, in a regional report, and in a peer-reviewed publication, to make the data and analyses widely available throughout the region;

and 5) provision of increased capacity, facilitation and improved species data to complete the much needed revision of the *FAO Living Marine Resources of the Eastern Central Atlantic*.

The main outputs presented in this report are: a comprehensive species list of all native marine bony fishes present in the ECA biogeographic region (not including the vagrant, introduced or diadromous species); an IUCN Red List categorization of each species; a summary of the main threats affecting the threatened fishes; and recommendations for regional conservation of marine fishes and their habitats.

The IUCN Global Species Programme's Marine Biodiversity Unit will facilitate wide dissemination of this document to concerned decision-makers, scientists and non-governmental organizations in order to mobilize marine fish conservation action at the local, national and regional levels.

2. Assessment Methodology

2.1 Geographic Scope

This ECA assessment includes all valid bony marine fishes with a current, known global distribution that overlaps the marine zone from Mauritania to Angola, including the offshore islands of Ascension, Cape Verde and Saint Helena, and Bioko, São Tomé and Príncipe and Annobón in the Gulf of Guinea. The updated version of the FAO *Living Marine Resources of the Eastern Central Atlantic* (Carpenter and De Angelis 2014, Carpenter and De Angelis in press) includes significantly more species than this assessment for several reasons. Firstly, the FAO *Living Marine Resources of the Eastern Central Atlantic* includes most of the FAO Fishing Area 34 and the northern part of Fishing Area 47 (see Figure 2) in the ECA, which is a political rather than biogeographic region. The guide therefore includes species that can be found in Morocco, many of which are primarily known from more temperate zones to the north (including the Mediterranean Sea), and those found in northern Namibia, many of which are primarily found in the southern temperate region around South Africa. Secondly, many deeper-water or poorly-known species reported in the FAO *Living Marine Resources of the Eastern Central Atlantic* are assumed to be circumglobal, but may not yet have published records in the biogeographic ECA region. For the latter group, if a species was reported in the FAO publication, but no reported occurrences could be found as to allow a reasonable distribution map to be drawn that included the ECA biogeographic region, then that species was not included in this assessment.

2.2 Taxonomic Scope

The list of 1,288 marine fishes compiled for this assessment (see Appendix I) is currently the most updated, complete taxonomic list of marine teleost fishes in the ECA biogeographic region, excluding

vagrant, introduced or diadromous species. The taxonomy primarily follows Nelson (2006); however, the Argeniiformes are here included within the Osmeriiformes. In addition, recent molecular analyses suggest that the Girellinae should be elevated to a family within the Perciiformes (Knudsen and Clements 2013), but it is here considered a subfamily of the Kyphosidae. The species-level taxonomy follows the Catalog of Fishes (Eschmeyer et al. 2016).

All described, valid bony marine fishes with a drawn distribution map that overlapped the biogeographic delineation of the ECA were included in this assessment. As a group, the 1,288 marine bony fishes in this region represent a wide diversity of deepwater, pelagic, demersal and near-shore species from 32 orders and more than 200 families. A number of deep water species, such as many of the species of Stomiiformes and Myctophiiformes, were known only from a few individuals from trawl surveys or by-catch in the region, but were still included in the assessment.

The commercially important Orange Roughy (*Hoplostethus atlanticus*) was not included in the assessment, as its distribution is primarily anti-tropical, and no reliable catch records exist for this species in the ECA as defined herein. Additionally, species that were newly described or had reported range extensions into the ECA after the workshop assessment process was completed, such as *Malacoctenus carrowi* (Labrisomidae, newly described from Cape Verde, Wirtz 2014) and *Liopropoma emanueli* (Serranidae, newly described from Cape Verde and Senegal, Wirtz and Schliewen 2012) were not included. Finally, this initiative assessed the global status of currently valid species, so no subspecies assessments were included.

Participants at the first West African regional IUCN Red List assessment workshop in Dakar, Senegal, July 2012. © B. Polidoro and M. Comeros-Raynal



Participants at the second West African regional IUCN Red List assessment workshop in Accra, Ghana, May 2013. © B. Polidoro and M. Comeros-Raynal



Participants at the third West African regional IUCN Red List assessment workshop in Libreville, Gabon, July 2014. © B. Polidoro and M. Comeros-Raynal



2.3 Regional IUCN Red List Assessment Workshops

Of the 1,288 marine bony fishes assessed in the ECA, approximately 250 species were globally assessed during prior IUCN Red List initiatives. These include tunas and billfishes (Collette et al. 2011), surgeonfishes (Comeros-Raynal et al. 2012), groupers (Sadovy et al. 2013) bonefishes (Adams et al. 2014), blennioids (Polidoro et al. 2014), porgies (Comeros-Raynal et al. in review), puffers (Stump et al. in prep), wrasses and eels, among others. The remaining ~1,000 species were assessed during three workshops held in West Africa over the course of three years (January 2012–December 2014) with generous funding from the MAVA Foundation.

IUCN Red List assessment workshops in the ECA involved more than 65 leading scientific experts, including fisheries biologists, ecologists, taxonomists, government officials, and conservation practitioners from 14 countries, including Australia, Benin, Cape Verde, Denmark, France, Gambia, Gabon, Guinea, Ghana, Mauritania, Nigeria, Senegal, South Africa and the United States (see Appendix II for a list of participants at each of the three regional assessment workshops). Approximately 350 marine fishes were assessed during the first workshop in Dakar, Senegal (9–13 July 2012) with logistical support from IUCN MACO, IUCN Senegal Mission, and the Centre de Recherches Océanographiques Dakar (CRODT). Approximately 350 marine fishes were assessed during the second workshop in Accra, Ghana (5–9 May 2013) with logistical support from IUCN MACO, IUCN PACO, IUCN Ghana Office, the Department of Marine & Fisheries Science of the University of Ghana, and the Marine Fisheries Research Division of Ghana's Fisheries Commission. Approximately 300 marine fishes were assessed during the third workshop in Libreville, Gabon (7–11 July 2014) with logistical support from IUCN MACO, Agence Nationale du Parcs Nationaux (ANPN), Gabon Bleu and the Direction Générale de la Pêches et de l'Agriculture (DGPA).

2.4 IUCN Red List Assessment Protocol

2.4.1 Pre-workshop data collection

The IUCN Red List assessments are data driven, and involve initial data collection and compilation of information and range maps for draft assessments, to be used at Red List workshops. During this process, all species data are entered into the IUCN Species Information System (SIS), and draft digital range maps are created for each species. Data collected include information on each species' taxonomy, distribution, population status and trends, habitat, ecology, use and trade, major threats and current conservation measures. Data collection is often conducted with the assistance of the participating West African fish experts. The draft species accounts and maps are made available to the experts for review prior to the workshops.

2.4.2 Expert review and evaluation

Three 5-day IUCN Red List Workshops were conducted in the region between 2012 and 2014. Each workshop hosted leading experts on the relevant West African marine fishes. The workshops were facilitated by IUCN MBU staff in collaboration with representatives from a number of local organizations and regional IUCN programme staff. The first day of each Red List assessment workshop was reserved for the provision of an overview of the project; initial training on the IUCN Red List assessment process and the application of the IUCN Categories and Criteria; and to consolidate a network of marine scientists with IUCN Red List experience for future collaboration and marine conservation activities.

2.4.3 Post-workshop editing, consistency check and external review

Following each workshop, additional scientific consultations continued by e-mail to finalize editing for each species' assessment and digital distribution

map. Each species assessment also went through a peer-review evaluation process by outside reviewers, and an internal consistency check for application of the Red List Criteria before they were considered final and ready to be published on the Red List of Threatened Species.

2.4.4 Submission of the data to the IUCN Red List of Threatened Species

The final peer-reviewed species assessments were submitted to IUCN Red List Unit in Cambridge, UK in August 2015 and published on the IUCN Red List of Threatened Species (IUCN 2015) in November 2015.

2.5 Methodology for Spatial Analyses

Digital generalized distribution maps were generated for each species in ArcGIS 10.1, following accepted IUCN Red List spatial protocols (IUCN 2012b). The maps for coastal species, defined as those species found to depths of less than 200 m, were generated using a basemap that followed either the 200 m bathyline or 100 km from shore, while the maps for pelagic and deep sea species were digitized by hand, following known and inferred occurrences. Regardless of the ecological preferences, the maps for species known from very few localities (typically less than 10) were created by adding a 50 km buffer to each known point of occurrence.

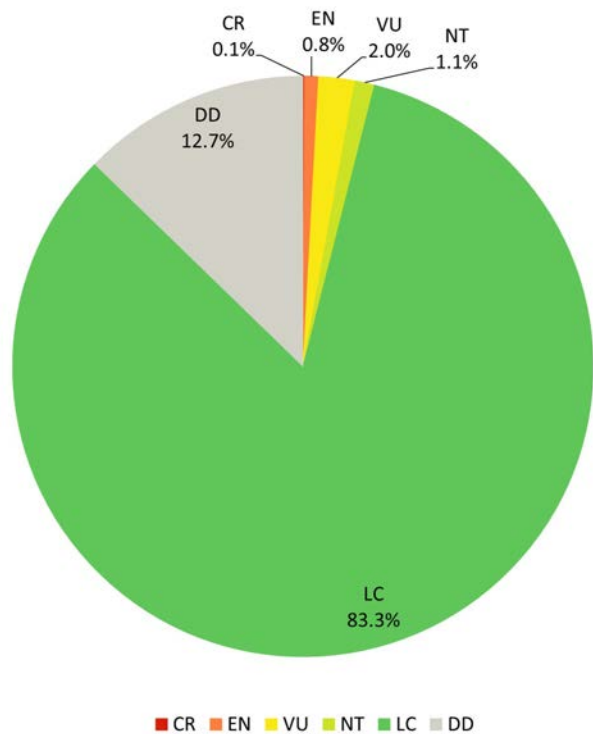
For all richness analyses, the species' distributions were restricted to the ECA region as defined for this project (Figure 2). Individual species' polygons were converted to 10 km by 10 km raster grids by assigning a value of "1" to cells that overlapped with the species polygon and a value of "0" to all other cells. The number of species in each cell was then calculated by adding the raster grids together. This was completed for all species as well as for specific subsets of species, including the endemic species, threatened species and Data Deficient species.

3. Results

3.1 Threat Status

Overall, 37 of the 1,288 ECA marine bony fish species assessed against the IUCN Red List Categories and Criteria were listed as threatened (Table 3, Figure 4): 1 Critically Endangered, 10 Endangered and 26 Vulnerable; the species assessed as globally

Figure 4: Proportion of Eastern Central Atlantic marine bony fish species assessed in the IUCN Red List Categories: CR - Critically Endangered; EN - Endangered; VU - Vulnerable; NT - Near Threatened; LC - Least Concern; DD - Data Deficient.



threatened are listed in Table 4. Approximately 50%, 22 species, were listed based on population declines (Criterion A), while 35% (13 species) and 5% (2 species) were listed based on small geographic ranges (Criterion B and D2, respectively). Another 14 were listed as Near Threatened; these species were close to meeting, but did not quite meet, the thresholds for inclusion in a threatened category. To date, no species in the ECA are known to be Extinct or Extinct in the Wild.

The vast majority of marine bony fish species, 83.3%, were listed as Least Concern. This category encompasses species that are: widespread and abundant; currently stable; or declining at a rate unlikely to lead to extinction in the near future. For example, Damselfish (*Chromis chromis*) is widely distributed in the eastern Atlantic Ocean, and can be common in parts of its range.

Chromis chromis (Linnaeus, 1758) assessed as Least Concern. © Albert Kok.



Table 3: Summary of the number of Eastern Central Atlantic species listed in each of the IUCN Red List global categories for all species and endemic species only. No species were assessed as Extinct (EX) or Extinct in the Wild (EW).

| Red List Category | Number of species | Proportion of species | Number of endemic species | Proportion of endemic species |
|----------------------------|-------------------|-----------------------|---------------------------|-------------------------------|
| Critically Endangered (CR) | 1 | 0.1% | 0 | 0.0% |
| Endangered (EN) | 10 | 0.8% | 5 | 2.2% |
| Vulnerable (VU) | 26 | 2.0% | 10 | 4.3% |
| Near Threatened (NT) | 14 | 1.1% | 2 | 0.9% |
| Least Concern (LC) | 1073 | 83.3% | 145 | 62.8% |
| Data Deficient (DD) | 164 | 12.7% | 69 | 29.9% |
| TOTAL | 1288 | | 231 | |

Table 4: Eastern Central Atlantic marine bony fish species assessed as threatened (Critically Endangered - CR, Endangered - EN, or Vulnerable - VU) based on the IUCN Red List methodology. *Recent molecular analyses suggest that the Girellinae should be elevated to a family (Knudsen and Clements 2013), but it is here considered a subfamily of the Kyphosidae.

| Order | Family | Species | RL Category |
|-------------------|---------------|------------------------------------|-------------|
| Perciformes | Epinephelidae | <i>Epinephelus itajara</i> | CR |
| Gadiformes | Merlucciidae | <i>Merluccius senegalensis</i> | EN |
| Perciformes | Cirrhitidae | <i>Amblycirrhitus earnshawii</i> | EN |
| Perciformes | Epinephelidae | <i>Epinephelus marginatus</i> | EN |
| Perciformes | Epinephelidae | <i>Mycteroperca fusca</i> | EN |
| Perciformes | Gobiidae | <i>Bathygobius burtoni</i> | EN |
| Perciformes | Gobiidae | <i>Priolepis ascensionis</i> | EN |
| Perciformes | Sciaenidae | <i>Pseudotolithus senegalensis</i> | EN |
| Perciformes | Scombridae | <i>Thunnus thynnus</i> | EN |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena ascensionis</i> | EN |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena mellissii</i> | EN |
| Clupeiformes | Clupeidae | <i>Sardinella maderensis</i> | VU |
| Elopiformes | Megalopidae | <i>Megalops atlanticus</i> | VU |
| Gobiesociformes | Gobiesocidae | <i>Apletodon barbatus</i> | VU |
| Perciformes | Blenniidae | <i>Scartella nuchifilis</i> | VU |
| Perciformes | Blenniidae | <i>Scartella springeri</i> | VU |
| Perciformes | Carangidae | <i>Trachurus trachurus</i> | VU |
| Perciformes | Gobiidae | <i>Corcyrogobius lubbocki</i> | VU |
| Perciformes | Gobiidae | <i>Didogobius amicuscaridis</i> | VU |
| Perciformes | Gobiidae | <i>Gobius tetrophthalmus</i> | VU |
| Perciformes | Gobiidae | <i>Gorogobius stevcici</i> | VU |
| Perciformes | Istiophoridae | <i>Kajikia albida</i> | VU |
| Perciformes | Istiophoridae | <i>Makaira nigricans</i> | VU |
| Perciformes | Kyphosidae* | <i>Girella zonata</i> | VU |
| Perciformes | Labridae | <i>Bodianus scrofa</i> | VU |
| Perciformes | Mullidae | <i>Pseudupeneus prayensis</i> | VU |
| Perciformes | Polynemidae | <i>Pentanemus quinquarius</i> | VU |
| Perciformes | Pomatomidae | <i>Pomatomus saltatrix</i> | VU |
| Perciformes | Sciaenidae | <i>Atractoscion aequidens</i> | VU |
| Perciformes | Sciaenidae | <i>Pseudotolithus senegallus</i> | VU |
| Perciformes | Scombridae | <i>Thunnus obesus</i> | VU |
| Perciformes | Sparidae | <i>Dentex dentex</i> | VU |
| Perciformes | Sparidae | <i>Rhabdosargus globiceps</i> | VU |
| Syngnathiformes | Syngnathidae | <i>Hippocampus algiricus</i> | VU |
| Tetraodontiformes | Balistidae | <i>Balistes capriscus</i> | VU |
| Tetraodontiformes | Balistidae | <i>Balistes punctatus</i> | VU |
| Tetraodontiformes | Molidae | <i>Mola mola</i> | VU |



Approximately 13%, 164 species, were listed as Data Deficient. Species were assessed as Data Deficient for two main reasons. Some species, such as Young Whalefish (*Danacetichthys galathenus*), are known from very few museum specimens, which creates uncertainty as to the true distribution and population size of the species. Other species, such as Silver Scabbardfish (*Lepidopus caudatus*), were assessed as Data Deficient because there were indications of population declines caused by overfishing, but the data were insufficient to calculate population declines over three generation lengths.

The best estimate of the percentage of threatened marine bony fishes in the ECA is the mid-point, 3.3%, which assumes that the Data Deficient species are equally as threatened as the species for which sufficient data were available to assess. Accounting for the uncertainty surrounding the Data Deficient species results in estimates of the percentage threatened ranging from 2.9%, if none of the Data Deficient species are threatened, to 15.6%, if all the Data Deficient species are threatened (Table 5).

Table 5: Range of percentage of threatened marine bony fishes in the Eastern Central Atlantic, using the estimators recommended in IUCN (2011).

| Estimator | Percentage Threatened |
|--|-----------------------|
| Lower bound (CR+EN+VU)/(assessed-EX) | 2.90% |
| Mid-point (CR+EN+VU)/(assessed-EX-DD) | 3.30% |
| Upper bound (CR+EN+VU+DD)/(assessed-EX) | 15.60% |

Of the 1,288 species that occur in the ECA, the best available data suggest that 231 (~18%) are endemic. A larger percentage of endemic species were assessed as threatened (6.5-36.4%, with a midpoint of 9.2%) than the pandemic species (2.1-11.1%, with a midpoint of 2.3%). The threatened endemic species were primarily restricted-range species, such as White Hawkfish (*Amblycirrhitus earnshawii*), known only from Ascension Island; 13 of the 15 threatened endemics were listed based on small geographic ranges (Criterion B), and only two were listed based on population declines.

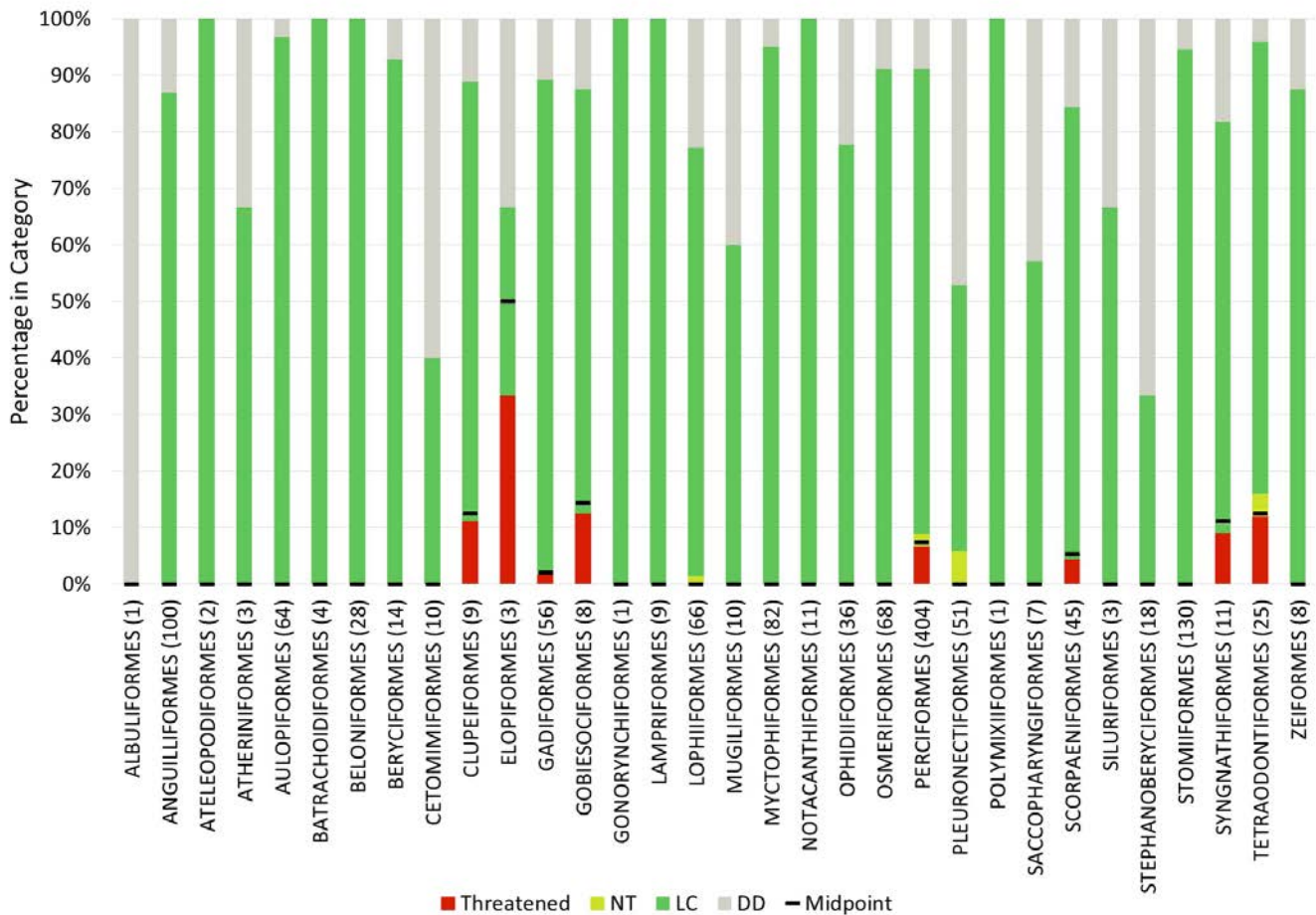


Figure 5: Percentage of species in each order assessed as threatened (CR, EN or VU), Near Threatened (NT), Least Concern (LC) and Data Deficient, with the number of species in each order in parentheses. The midpoint represents the best estimate for the percentage threatened, and was calculated as: threatened species/(all species - DD species).

3.2 Status by Taxonomic Group

The marine bony fishes of the ECA represent 32 orders and over 200 families, with a maximum species richness of 404 (in the order Perciformes) and 92 (in the family Stomiidae). Three orders are currently represented by only one species in the ECA, including the shallow-water bonefishes (order Albuliformes), as well as the milkfishes (order Gonorynchiformes) and the deep-water beardfish (order Polymixiiformes).

The majority of the orders contained species assessed as either LC or DD, while all of the threatened bony fish species occurred in 8 of the orders (Figure 5). The midpoint estimate for the percentage of threatened species in each order ranged from 2 to 50%. The largest number of threatened species occurs in the

Perciformes, representing approximately 7% of this diverse order.

Euthynnus alletteratus (Little Tunny) assessed as Least Concern. © F.K.E. Nunoo



Sardines in the Eastern Central Atlantic

The family Clupeidae consists of many important commercial species. Sardines, sometimes called pilchards, depending on size, are typically caught in both artisanal and commercial fisheries within the ECA with the use of purse or beach seines, and gill nets. Sardines also provide a staple food source, typically being marketed fresh, frozen, smoked, canned or dried (Whitehead 1985) and are often used as bait in fisheries.

Seven common species of sardine are found in the ECA: *Ethmalosa fimbriata*, *Pellonula leonensis*, *P. vorax*, *Sardina pilchardus*, *Sardinella aurita*, *Sardinella maderensis* and *Sardinella rouxi*. *Ethmalosa fimbriata*, *Sardina pilchardus* and *Sardinella maderensis* are the three most important clupeid commercial species in the region. Their schooling nature and relative proximity to shore during certain periods allow for easy harvesting.

Pellonula leonensis and *Ethmalosa fimbriata* occur in fresh and estuarine waters within their ranges. *Pellonula leonensis* is known from the Congo system (Gourène and Teugels 1991), where its preferred habitats make it common in artisanal fisheries. A small population of *E. fimbriata* occurs in large concentrations in lagoons and estuaries, and is also known from Lake Nokoué, Benin.

ECA sardine populations are wide ranging and, depending on the species, can be found from Iceland south to the Democratic Republic of Congo. However, the exact geographic extent of these species is not clear because reported landings of sardines are often contain multiple species and therefore under-reported for a particular species.

Overfishing has caused many previous stock collapses (Worm et. al 2009), and the recent collapses of Pacific sardine (*Sardinops sagax*) stocks emphasize the importance of monitoring population size and structure (Zwolinski and Demer 2012). This project has highlighted the need for additional population

assessments in the region. *Ethmalosa fimbriata*, *Sardinella maderensis* and *Sardina pilchardus* are all considered overfished within the ECA. Landings reported to the FAO have gradually increased for sardine species over the last 60 years (FAO 2011). However, the effect of the increased effort on stocks is difficult to estimate due to the mixed landings. Clupeids are dependent on high levels of recruitment to maintain current stock levels and climate variability increases recruitment uncertainty (Failler 2014). Since these species are commonly found in mixed catches, it is difficult to estimate true population size, or overall effect of exploitation on individual species. These mixed landings have created a knowledge gap regarding the population of *Sardinella rouxi*. This species is currently thought to be the least abundant sardine species in the region, but more research is necessary to better define its current population status.

Mixed sardine landings. © D. Ventura



The population status of these clupeids is further complicated by the overlapping Mediterranean and European ranges of many similar commercial species, in addition to the ECA sardine populations. Fishing pressure from European and Mediterranean fleets along with inconsistent reporting of mixed landings between the two regions have complicated

efforts to clearly define the current population status and larger effects of fishing pressures.

Several conservation measures have been put into place in an attempt to conserve populations, following the management advice provided by the permanent FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa (FAO 2013). These measures include catch limits, freezing investments in canning factories and fishing, and recommendations of a reduction in fishing effort. This latter item was suggested because fishing efforts in the region have steadily increased and juveniles of *Sardinella maderensis* are currently being harvested,

while observed adult size is decreasing (FAO 2013). These data, combined with an estimated minimum 30% decline in population over the last 10 years, have resulted in *Sardinella maderensis* being listed as Vulnerable. Moving forward, it will be necessary to monitor these populations individually. The data gaps created by mixed landings of sardine species have made it difficult to fully understand the effects of increased fishing pressure on each of these species. Although *Ethmalosa fimbriata*, *Sardina pilchardus* and *Sardinella maderensis* face the greatest commercial pressure, *Sardinella rouxi* was listed as Data Deficient partially due to lack of separate catch statistics.

School of sardines. © A. Duci



Status of Croakers (Sciaenidae) in the Eastern Central Atlantic

Throughout much of the ECA, sciaenids are highly sought during seasonal occurrences inshore or in estuaries. Many species are found in schools or spawning aggregations, making them easy targets for both artisanal and commercial fisheries. Geographic ranges for these species extend from off the coast of Norway in the north to off the coast of Namibia in the south. Many species also occur in the Mediterranean Sea.

Croakers or drums get their name from the characteristic “croaking” sound they produce. The sound, which is produced by specialized muscles vibrating against the swim bladder, is used as a means of communication either for mates, warnings or understanding surroundings in turbid water (Ramcharitar et al 2006). Depending on the species, males and females are both capable of producing sounds, though some species are only able to do so on a seasonal basis.

Many West African countries are considered traditional fishing countries, and fish provide a large portion of the dietary intake of protein. In addition to being a staple food item for local populations, many countries also depend on these fishes as an important economic resource. The largest West African combined commercial and artisanal fishing fleets occur in Nigeria, Senegal, Cameroon, and Ghana. Stocks in these areas are easily overfished because near-shore trawlers and traditional artisanal fisheries are occurring in similar geographic areas. The recent increase in recreational fishing in the region has further exacerbated the problem of overfishing on these stocks (Belhabib et al. 2014).

Reported landings for numerous species have shown a steady increase over the last several decades (FAO 2006), though the stocks of several species including *Atractoscion aequidens*, *Pseudotolithus mbizi*, and *Pseudotolithus senegalensis* are in decline

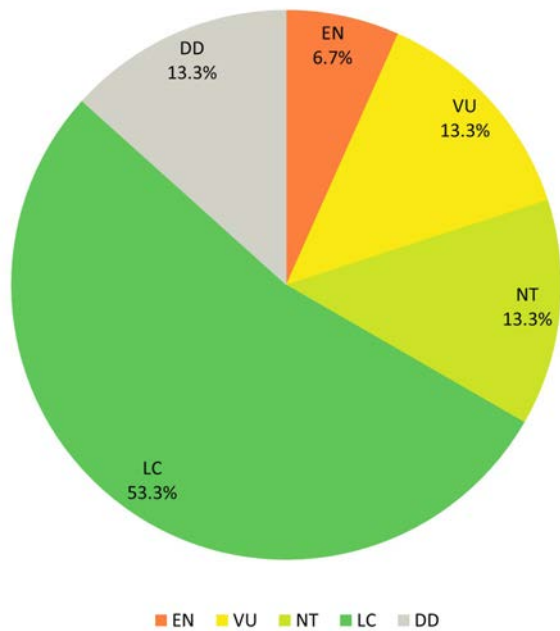
Sciaena umbra Linnaeus 1758 assessed as Near Threatened. © A. Abadie



(Hutton et al. 2001, Gaffer 1994). Increases in landings can most likely be attributed to changes in gear. Many fishermen have switched from gill nets to trawling. This, in conjunction with increased issuance of permits, has resulted in increased fishing effort in the region. *RV Nansen* sciaenid surveys conducted from 2000-2006 show an overall estimated reduction in biomass from 1,046 tonnes to 664 tonnes, representing a 37% decline in stocks. The increase in landings and decrease in population size has also led to an observed decrease in mean body size. This decline in body size is most likely due to the use of smaller mesh sizes in many fisheries, which results subsequently in an increase in catches of juveniles.

These declines have resulted in one species, *Pseudotolithus senegalensis*, to be listed as Endangered, two species, *Atractoscion aequidens* and *Pseudotolithus senegallus*, to be listed as Vulnerable, and two species, *Pentheroscion mbizi* and *Sciaena umbra*, to be listed as Near Threatened. Each of these species has experienced significant declines in population size in the last few decades, which can be directly attributed to the increased fishing pressure and overfishing currently seen in the ECA region.

Figure 6: IUCN Red List status of the 15 sciaenid species in the Eastern Central Atlantic.



The overall decline in sciaenid stocks highlights the importance of further conservation actions focused on this group. Currently, there are few conservation measures in place for sciaenids (*Argyrosomus regius*, *Atractoscion aequidens*, *Miracorvina angolensis*, *Pentheroscion mbizi*, *Pseudotolithus elongatus*, *Pseudotolithus epipercus*, *Pseudotolithus moorii*, *Pseudotolithus senegalensis*, *Pseudotolithus senegallus*, *Pseudotolithus typus*, *Pteroscion peli*, *Sciaena umbra*, *Umbrina canariensis*, *Umbrina ronchus* and *Umbrina steindachneri*) in the ECA. Several species' ranges may overlap with marine protected areas (MPAs). However, it is unknown if these are effective in stabilizing or increasing local sciaenid populations because regulations in the region are lax regarding demersal and pelagic fisheries. Catch and size limits for *A. aequidens* have been enforced in South Africa for both recreational and commercial fisheries. Recent South African surveys have shown that to address declining stocks, a 70% reduction in commercial effort, in addition to recreational regulations, will be needed in order to allow stocks to recover.

As is common with many species, more research is necessary to better understand the life history of sciaenid species. The effect of increased fishing pressure, especially on juveniles, is not fully understood. While improvements in gear types continue and fishing regulations are slow to catch up, these species, and others like them, are more likely to face declines in stock size. It is important to emphasize that this group of fishes is especially important to near-shore, artisanal fishers, who will be most negatively affected by stock declines. With improved research and regulations, such as those seen in South Africa, it may be possible to see long term improvements in sciaenid stocks in the ECA.

Mudskippers and Mangroves in the Eastern Central Atlantic

In the ECA, only a single species of mudskipper (Family Gobiidae, subfamily Oxudercinae) is present: *Periophthalmus barbarus*. Although heavily exploited in parts of its range, and also subject to habitat threat and pollution, this species is listed as Least Concern as it is widespread and considered to be relatively common. It can be found in fresh, marine and brackish waters in exposed intertidal mudflats of mangrove swamps, coastal lagoons and estuaries from Senegal to Angola, including São Tomé and Príncipe Islands (Stiassny et al. 2007).

In the Niger Delta region, *P. barbarus* is harvested in subsistence fisheries and targeted for the commercial aquarium trade. Although little data are available on the volume and value of ornamental fish traded in Nigeria, *P. barbarus* was exported at approximately US\$1 per fish in 2006-2007 (Ukaonu et al. 2011). In the Imo River Estuary, in southeast Nigeria, the stock

of *P. barbarus* is now considered to be over-exploited, with 79% of the available stock being fished annually (Udoh et al. 2013). In general, mudskipper fisheries, along with other tropical artisanal fisheries in the region, are considered to be poorly-managed (Udoh et al. 2013).

Mangrove habitat across Africa has on average declined by about 14% since 1980 (FAO 2007), with the highest losses occurring in western central Africa, where more than 60% of mangrove habitat has been lost along the coasts of the Congo, Cote d'Ivoire, and Liberia. In West Africa, a 35% decline in overall mangrove coverage was observed by remote sensing between 1986 and 2010 (Carney et al. 2014). In western central Africa, mangrove areas are very important for fisheries and as a source of timber and fuelwood (Feka 2015, Feka and Ajonina 2011).

Widespread mangrove losses have also occurred due to conversion to urban or agricultural lands. Oil and gas extraction in the Bight of Biafra, which extends from the Niger River Delta to Gabon, has severely degraded mangrove areas, drinking water and fish stocks. Oil exploration and extraction activities in this area, including dredging of channels, digging new canals, clearance for platforms, pipelines and seismic surveys have severally changed water flows, salinities and siltation rates (Spalding et al. 2010). Direct pollution incidents from oil spills are a regular occurrence, with more than 2000 incidents recorded from 1997-2001 (Nwilo and Badejo 2006). In the Niger Delta region, total hydrocarbons measured in sediment, surface water and mudskippers exceeded the national permissible limit for inland waters and seafood (Clinton et al. 2009).

Local fishermen utilizing mangrove habitats in Libreville, Gabon. © B. Polidoro



3.3 Spatial Distribution of Species

3.3.1 Species richness

In the ECA, the maximum species richness is 757 species per 100 km². Diversity of marine bony fishes is highest around the Cape Verde Islands and off the coast of Senegal (Figure 7). The remaining coast of West Africa, including the offshore islands in the Gulf of Guinea (Bioko, São Tomé and Príncipe and

Annobón), is also home to a large diversity of bony fishes. As expected, the diversity of fishes in oceanic waters is substantially lower than that of coastal waters, except for the area surrounding the islands of St. Helena and Ascension.

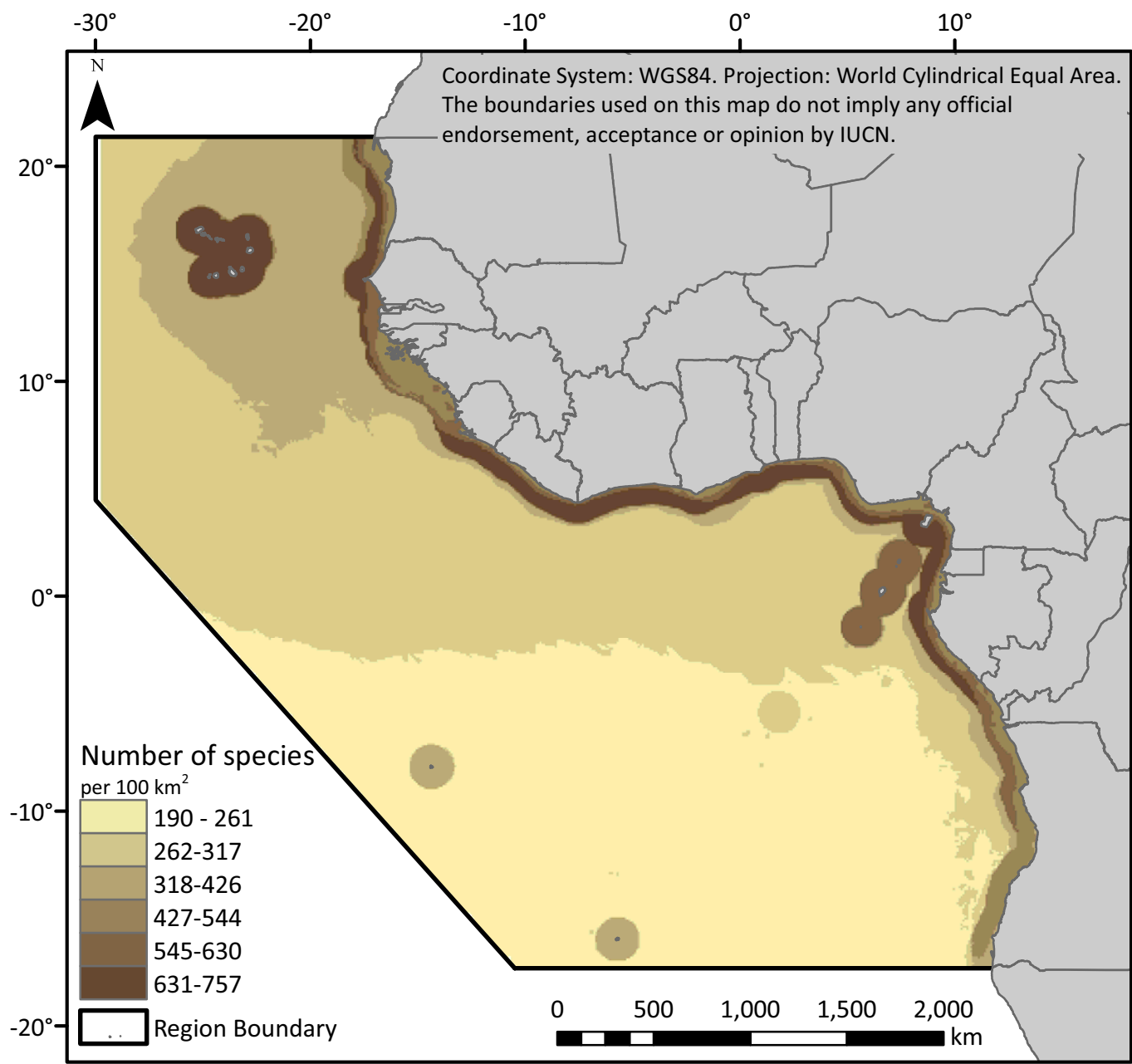


Figure 7: Distribution of the 1,288 marine bony fish species in the Eastern Central Atlantic.

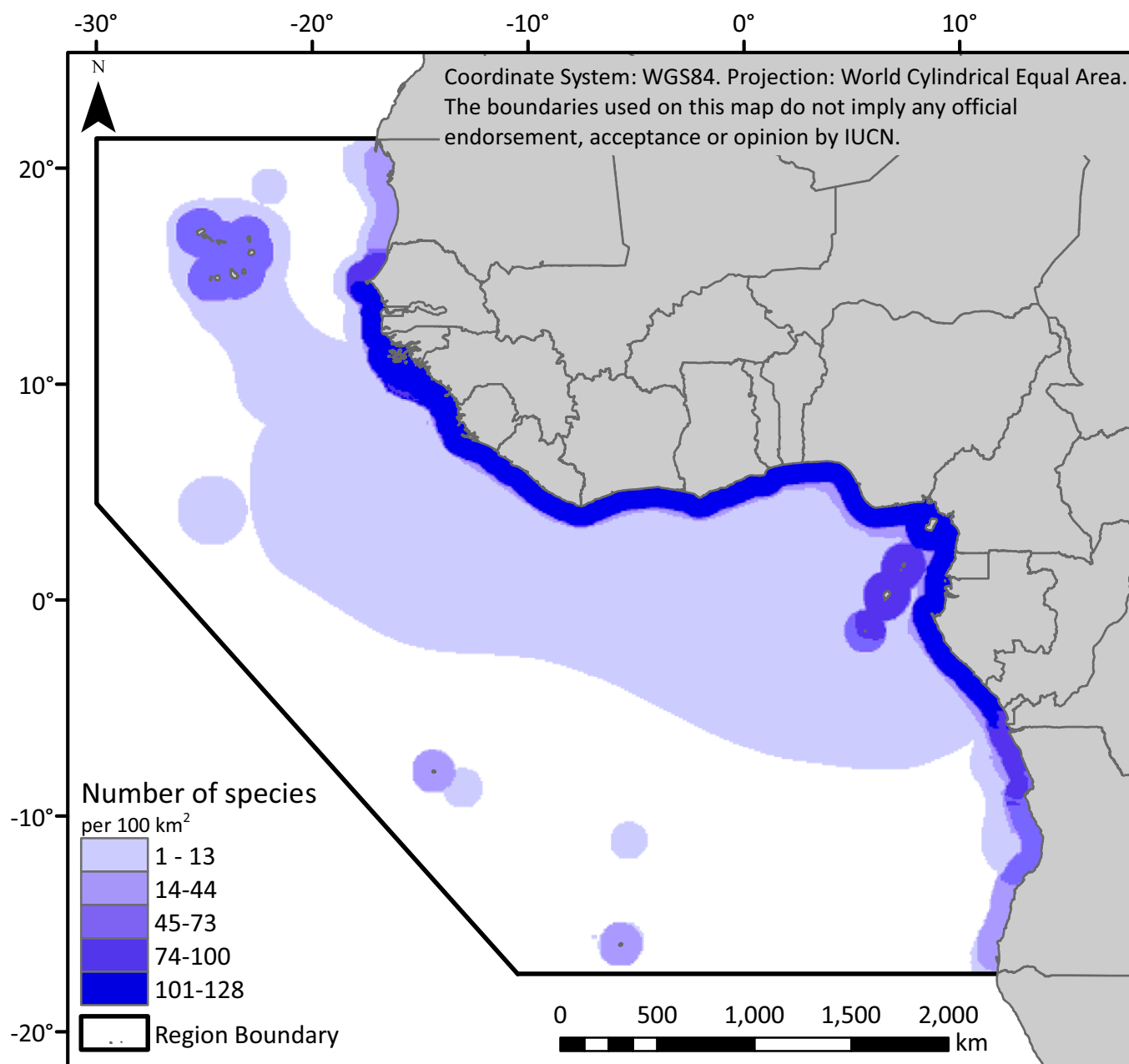


Figure 8: Distribution of the 231 endemic marine bony fish species in the Eastern Central Atlantic.

3.3.2 Endemic species richness

In general, the highest density of endemic species occurs along the African coast from Senegal to Angola (Figure 8). The top 10% of endemic species diversity (116-128 species per 100 km²) occurs from Sierra Leone to Gabon, including Bioko (Equatorial Guinea) in the Gulf of Guinea. The offshore islands of Cape Verde and São Tomé and Príncipe are also home to substantial numbers of endemic species.

Very few endemic species are found offshore, except when associated with the oceanic islands of St. Helena and Ascension.

3.3.3 Distribution of threatened species

The distribution of threatened species primarily follows that of the overall species richness, with the highest numbers of threatened species (16-18 species per 100 km²) occurring around the islands of Cape Verde, Bioko (Equatorial Guinea) and Sao Tome, as well as along the coasts of Senegal and eastern Gabon (Figure 9). The remaining coast of West Africa and offshore islands have fewer threatened species (8-15 species per 100 km²). Low numbers of

threatened species occur in the offshore waters, less than 4 species per 100 km².

The relatively low variability in richness of threatened species along the coast appears to be driven by the overexploited species that are distributed along much of West Africa. For example, *Epinephelus itajara*, the Atlantic Goliath Grouper, is found from Senegal to Gabon in the east Atlantic, and was assessed as Critically Endangered due to estimated declines of >80% over the past three generation

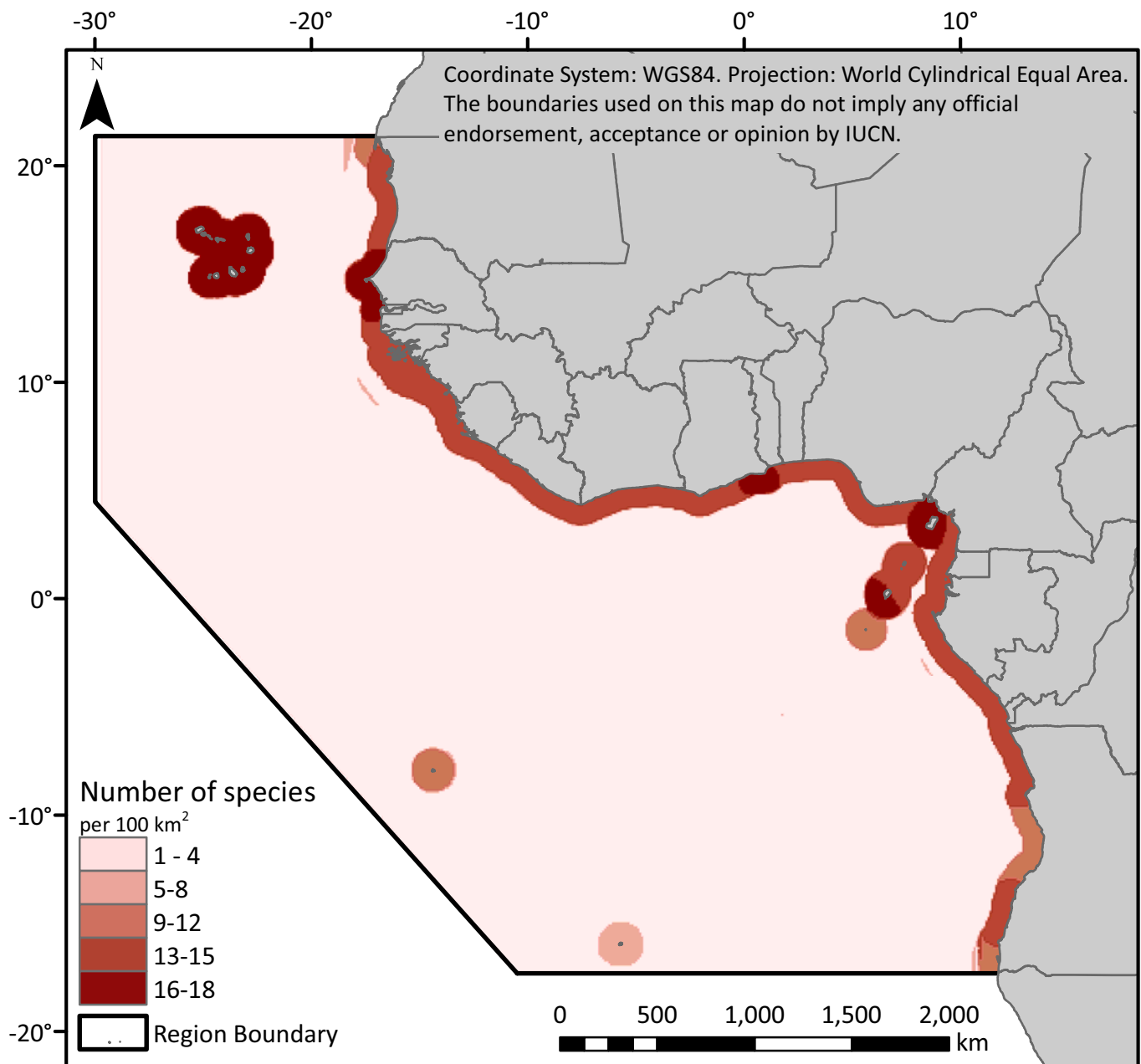


Figure 9: Distribution of the 37 threatened marine bony fish species in the Eastern Central Atlantic (i.e., those assessed as Critically Endangered, Endangered, or Vulnerable)..

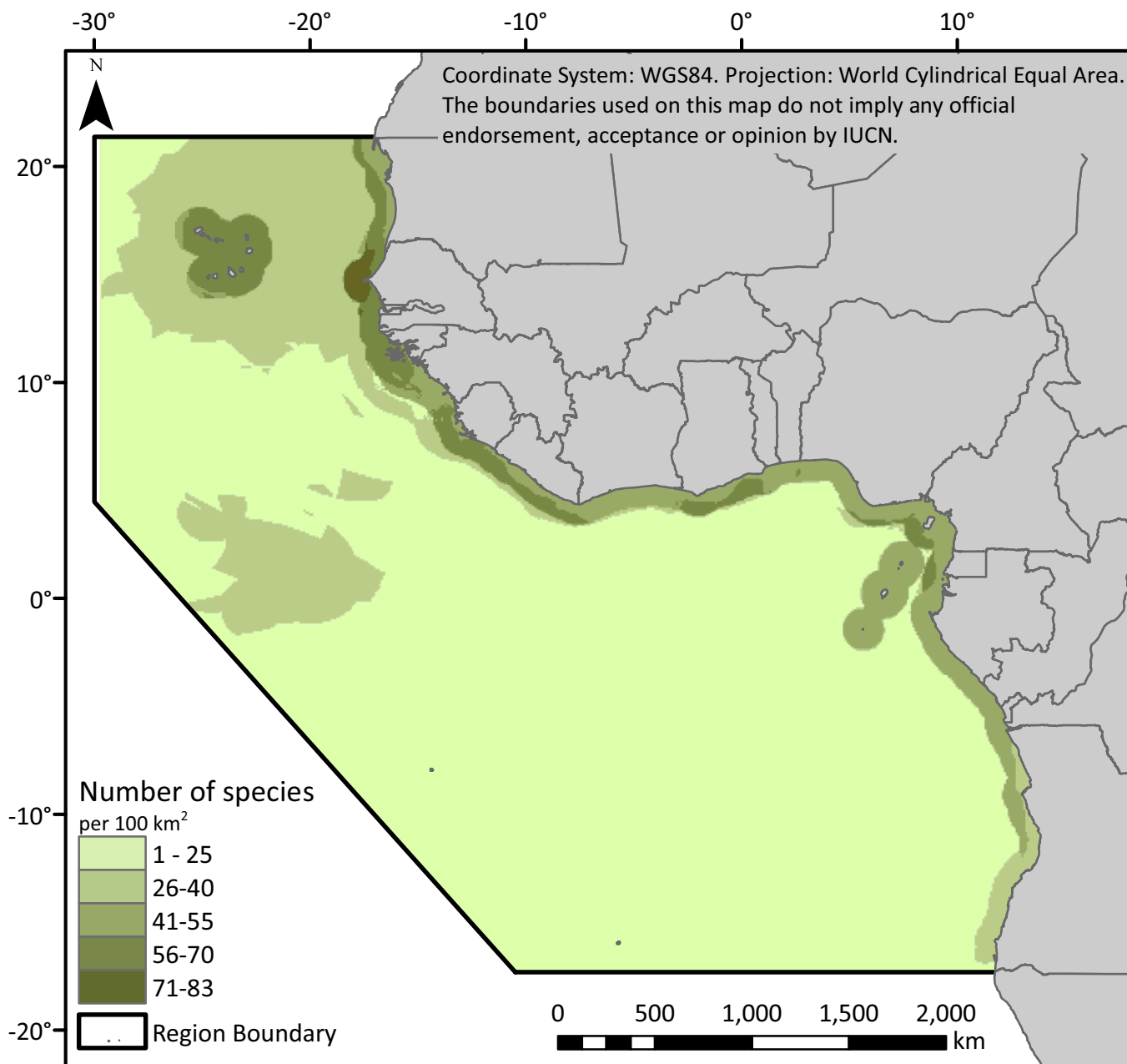


Figure 10: Distribution of the 164 marine bony fish species in the Eastern Central Atlantic assessed as Data Deficient.

lengths (Craig 2011). However, the richness around the offshore islands is more a function of restricted range endemics, such as *Priolepis ascensionis*, an endangered goby known only from St. Helena and Ascension islands (Carpenter et al. 2015).

3.3.4 Distribution of Data Deficient species

The concentration of species assessed as Data Deficient is highest off Dakar, Senegal, representing the top 10% of species richness, 75-83 species per 100 km² (Figure 10). Another large region of high

richness of Data Deficient species is at the Cape Verde Islands, with up to 64 species per 100 km². The offshore zone along parts of West Africa, especially from Mauritania to Liberia and Ghana, also stand out as having a relatively high richness of species assessed as Data Deficient.

3.4 Major Threats to Marine Fishes in the ECA

Major threats were reviewed for the 51 species assessed as threatened (Critically Endangered, Endangered or Vulnerable) and Near Threatened. The major threats to marine bony fish species in the ECA were overfishing , habitat degradation, pollution, climate change and invasive and problematic species (Figure 11). Almost 40% (19 species) of species assessed as threatened or Near Threatened are negatively affected by more than one major threat.

3.4.1 Overfishing

The biggest threat facing marine fishes, globally, is overfishing (Roberts and Hawkins 1999, Dulvy et al. 2009, Harnick et al. 2012), and prolonged overfishing renders recovery improbable for the majority of the world’s depleted stocks (Neubauer et al. 2013). Overfishing is also a major threat in the ECA as well, with 39 of the 51 threatened and Near Threatened species negatively affected by overfishing, including both direct and indirect effects.

Many West African nations rely heavily on fish and fishing as a source of food, income and employment to varying degrees. Traditionally, fishers manually propelled dugout canoes with simple fishing gears such as hook and line, gill nets and beach seines. Over the past 50 years, these labor-intensive methods were replaced by larger, fuel-propelled vessels and more sophisticated gears, increasing the efficiency and expanding fishing ranges of the fishers (see Atta-Mills et al. 2004 for a history of West African fisheries). A number of African countries have commercial vessels that fish all year round with huge trawls and purse seine gears that are non-selective resulting in capture of juveniles, breeding fishes, as well as remarkable amounts of discards. However, some West African countries have lacked the monetary means to acquire and operate commercial-capacity fishing vessels, and have often sold licenses to European Union (EU) and other non-African countries so that these countries can harvest fish in the EEZs of the licensing countries. These licenses are often purchased at prices well below the monetary value of the marine resources exploited by licensed fishing vessels, which, in turn, exacerbates and

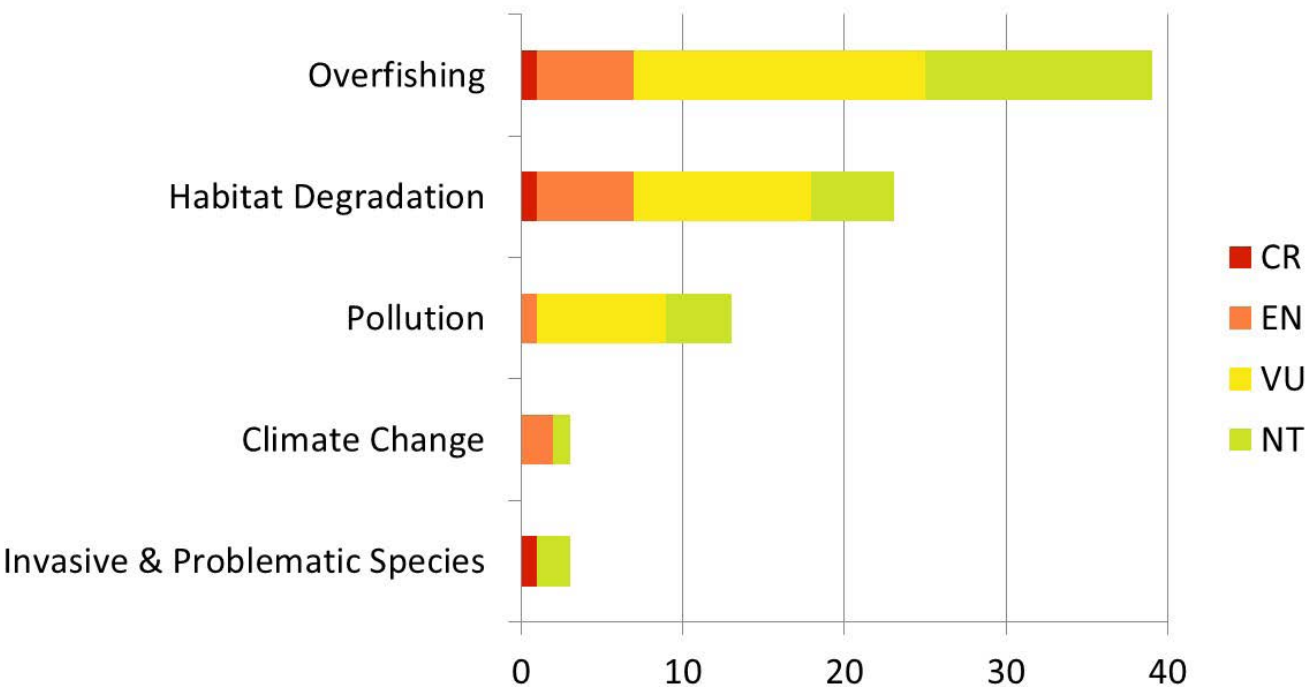


Figure 11: Major threats to marine bony fishes assessed globally as threatened (Critically Endangered – CR, Endangered – EN, or Vulnerable – VU) and Near Threatened (NT) in the Eastern Central Atlantic (n=51), listed in order of the number of species impacted.



perpetuates the financial instability of the region and destabilizes the economic and nutritional sovereignty of West Africa countries.

With these increases in capacity in both the artisanal and commercial sector, as well as illegal, unreported and unregulated (IUU) fishing, effort has risen sharply, concomitant with declining fish catches in many West African nations. Species diversity and fish size for many important species have also markedly declined over the past few decades, and many stocks are characterized as overexploited (Ajayi 1994, Mensah and Quatey 2002).

3.4.2 Habitat degradation

Habitat degradation is another major threat facing marine species globally. In the ECA, almost half (23 species) of the threatened and Near Threatened species were negatively affected by habitat degradation.

Some species are affected by the destruction of juvenile habitats, such as mangroves and seagrasses. For example, juveniles of the Critically Endangered *Epinephelus itajara* may rely on mangrove areas (Sadovy and Eklund 1999), which have declined by 35% or more in some locations along the West African coast (Carney et al. 2014).

Fishing vessels in Accra, Ghana © F.K.E. Nunoo



3.4.3 Pollution

Local declines in water quality resulting from land and sea based pollution are another major concern in the ECA (Ukwe et al. 2006). Industries and populations of large coastal cities are often limited in waste-water treatment capabilities, causing widespread eutrophication, dead zones and contamination of sediments and organisms (Ukwe et al. 2006). Pollution from oil and gas exploration and extraction, including tar balls, can be a major issue in oil producing countries such as Nigeria (Ukwe and Ibe 2010). Another issue of increasing concern is marine debris, including plastic waste from anthropogenic sources, which has been found in all marine habitats (Wang et al. 2016). However, the direct and indirect impacts, such as smothering sessile species and hindering essential life processes (e.g., feeding, respiration and reproduction) of mobile species, on marine bony fishes are often hard to quantify at the population level. Pollution was indicated as a major threat for only 13 of the 51 threatened and Near Threatened species.

3.4.4 Climate change

Although global climate change has and will continue to affect marine fishes and fisheries, the long-term changes to the extinction risk of marine

fishes are uncertain. Northward distributional shifts and relative changes in abundance are expected in response to increasing seawater temperatures (Perry et al. 2005, Pinsky et al. 2013, Rutterford et al. 2015). When physical barriers prevent individuals from migrating to preferred temperature regimes, marine species may be driven towards extinction (e.g., in the Mediterranean Sea: Ben Rais Lasram et al. 2010). The open nature of the ECA marine zone may limit effects of climate change on the ichthyofauna, at least in the near future, as physical barriers to the expected poleward migration are lacking. However, other intrinsic and extrinsic factors, such as the pelagic larval duration, population density and swimming ability, will likely also impact which species can successfully migrate poleward in response to climate change (e.g., Feary et al. 2014). Further, the long term effects of climate change and ocean acidification on the ecology of marine systems, including changes in predation rates (e.g., Ferrari et al. 2015), have not been well studied to date. The long-term implications of these changes for the extinction risk of marine bony fishes is poorly understood. Thus, climate change is only indicated as a major threat for three of the 51 threatened and Near Threatened species: *Pagellus bogaraveo* and *Merluccius senegalensis* are thought to be negatively impacted by changes to atmospheric oscillations (Meiners et al. 2010, Báez et al. 2014) and *Pseudotolithus senegalensis* by increased sea

Marine debris washed onshore at a fishing beach in Dakar, Senegal. © B. Polidoro



surface temperatures and reduced upwelling (Nunoo and Nascimento 2015).

3.4.5 Invasive and problematic species

The negative effects of invasive and problematic species are currently limited in the ECA, with this category of threats being indicated for only three species. Two species listed as Near Threatened globally are impacted by invasive species. Although the primary threat to *Balistes vetula*, the Queen Triggerfish, is overfishing, it has also been found in the diet of the invasive lionfish (*Pterois volitans*) in the western Atlantic (Bejarano et al. 2015). While the impact to *B. vetula* is currently thought to be limited, the introduction of *P. volitans* and *P. miles* to the Caribbean has caused dramatic adverse impacts on fisheries and conservation efforts (Schofield 2009, Bejarano et al. 2015). Fortunately, to date, lionfishes have yet to spread into the eastern Atlantic. Replacement of native mangroves by an exotic palm (*Nypa fruticans*) in Nigeria may be affecting the juveniles of *Galeoides decadactylus*, which rely on the three-dimensional structure provided by native

Nypa fruticans stand © B. Dupont



mangroves (Moses 2000). Unlike most mangroves, the trunk of *N. fruticans* grows underground, limiting the available structural refuge for juveniles.

Harmful algal blooms (HABs) have been implicated in fish kills of *Epinephelus itajara* (e.g., in the Gulf of Mexico: Smith 1976). HABs can produce large fish kills and short term recruitment declines, but the long-term impacts on populations are currently unknown. In the ECA, harmful algal species have been documented in the upwelling systems in both the Benguela and Canary current regions; of the 29 common algal species responsible for HABs, 20 occur in high-biomass blooms in the Benguela Current region and 11 in the Canary Current region (Trainer et al. 2010). Further, algal species known to cause marine mortalities, including *Heterosigma akashiwo*, *Karlodinium micrum* and *Karenia cristata*, occur in high-density blooms in the Benguela Current region (Trainer et al. 2010).

3.5 Population Trends

In the ECA, the current population trend for the vast majority of species is unknown (Figure 12). Many of these are poorly known deep-sea species with ongoing taxonomic problems. For example, it was recently determined that different life history stages of the flabby whalefishes, family Cetomimidae, had been described as belonging to three different deep-sea families (Johnson et al. 2009); the six species in the family Cetomimidae found in the region were assessed as Data Deficient with unknown current population trends. However, this large proportion of species in the ECA with unknown population status reflects the relatively poor state of knowledge, in general, regarding the living marine resources of the region.

Currently, the populations of 36 species are decreasing, including 27 of the 51 species listed as threatened or Near Threatened. The majority of these are exploited species. For example, populations of the four heavily exploited *Thunnus* species present

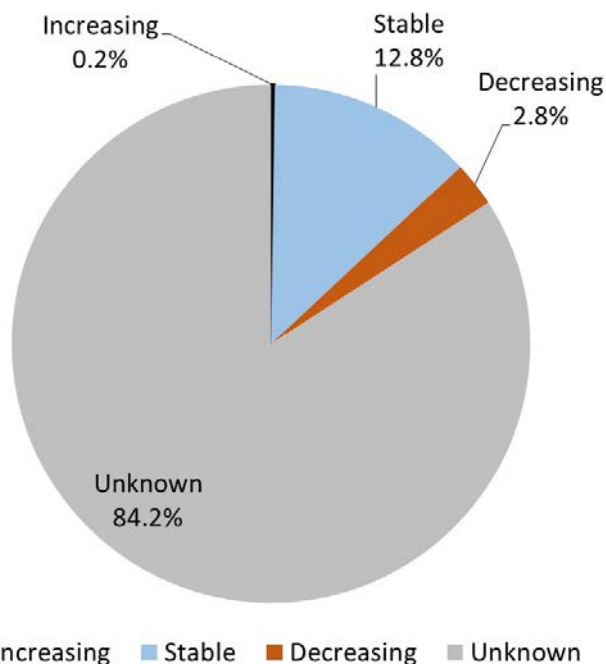


Figure 12: Current population trend of the 1,288 marine bony fish species of the Eastern Central Atlantic.

in the ECA (*T. alalunga*, *T. albacares*, *T. obesus* and *T. thunnus*) are decreasing and the majority of the stocks are overfished (ISSF 2015).

3.6 Gaps in Knowledge

Overall, aspects of the taxonomy, ecology, life history and population dynamics of the marine fish fauna of the ECA are poorly known, despite the long history of marine resource exploitation in the region. Taxonomy of the marine bony fishes remains a major challenge. Taxonomic training and identification are sorely lacking by regional scientists, resulting in limited species-specific data for nearly all species in the region. This lack of taxonomic resolution hampers effective conservation of the marine resources, as landings data are often grouped at the genus or even family level. In addition, it results in an underestimate of the true biodiversity in the region. For example, the commercially and recreationally important *Caranx hippos* complex was recently found to include two species in the eastern Atlantic: *C. hippos* and *C. fischeri* (Smith-Vaniz and Carpenter 2007).

Additionally, there is a lack of support for the development and maintenance of scientific collections of specimens. Very few, if any, institutional natural history collections exist in West African countries. The collection of specimens assembled by Dr. J. Cadenat of l'Institut Francais d'Afrique Noire in Goree, Senegal, has been neglected for decades and many of the specimens have since been damaged, destroyed or lost. Rigorous natural history collections provide essential information for a variety of research and conservation needs, including IUCN Red List assessments (Rocha et al. 2014). Given the potential of this collection to serve vital research and training needs of the regional scientific community, immediate priority should be given to the curation and improvement of this collection before this valuable research resource is lost.

Collection of specimens assembled by Dr. J. Cadenat of l'Institut Francais d'Afrique Noire in Goree, Senegal. © B. Polidoro.



4. Conservation Measures

4.1 Conservation of Marine Fish

Countries in West Africa increasingly rely on marine resources for economic, social and nutritional stability. Recently, there have been significant efforts, independently as well as cooperatively in regional agreements, to more actively pursue an agenda for the reclamation of the marine resources within West African EEZs, as well as to formulate and execute sustainable fishing practices and management of the fisheries in the ECA. However, most legislation and regulation in the region relates to elasmobranchs rather than bony fishes.

Hippocampus hippocampus (Short-snouted Seahorse) assessed as Data Deficient. © L. Roodman-Guylian



4.1.1 International conservation measures

Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)

CITES is an international trade treaty signed in 1963 at a meeting of members of the International Union for Conservation of Nature (IUCN) aimed at ensuring that the international trade of wild biota is not conducted in a fashion that threatens the survival of the species in the wild. Species considered at risk are listed in one of three appendices.

Appendix I lists species threatened with extinction; wild-caught species listed in this appendix are banned from international trade. Appendix II lists species that have not yet been formally declared endangered, but are threatened to the degree that necessitates control of trade in wild individuals in order to ensure the sustained survival of the species in question. Appendix III is reserved for species in which one member country requests other member countries to assist in the control of trade of a species, mostly of which may be locally threatened but not necessarily globally threatened (CITES 1973). Only two marine bony fishes in the region (*Hippocampus algiricus* and *H. hippocampus*) are listed in CITES Appendix II, though two sharks (*Cetorhinus maximus* and *Rhincodon typus*) are also listed (Table 6).

Table 6: Marine fishes occurring the Eastern Central Atlantic that are listed in CITES Appendix II.

| Species | Common Name | Red List Status |
|--------------------------------|------------------------|-----------------|
| <i>Hippocampus algiricus</i> | West African seahorse | VU |
| <i>Hippocampus hippocampus</i> | Short snouted seahorse | DD |
| <i>Cetorhinus maximus</i> | Basking shark | VU |
| <i>Rhincodon typus</i> | Whale shark | VU |

United Nations Convention on the Law of the Sea (UNCLOS)

Since 1994, UNCLOS has provided a framework for establishing environmental and managerial responsibilities of nations regarding the equitable use and conservation of marine natural resources. The convention sets standards for responsible management of fisheries in both international waters and those within the Exclusive Economic Zones (EEZs) of independent nation states. UNCLOS balances the rights of nations to exploit marine environments and biota of the oceans and seas with the responsibilities to preserve them by resolving continental shelf jurisdiction disputes, regulating deep seabed mining operations and identifying key scientific research initiatives (Kimball 2003). The UN recently completed The First Global Integrated Marine Assessment, providing a global framework for the assessment of the status of the marine environment, with the intention of periodic status reevaluations (<http://www.worldoceanassessment.org/>).

International Commission for the Conservation of Atlantic Tunas (ICCAT)

ICCAT is an inter-governmental organization designed to protect and conserve approximately 30 species of tuna and tuna-like species in the Atlantic Ocean and adjacent water bodies, of which 16 occur in the ECA (Table 7). Its primary concern is to monitor the status of tunas by compiling fisheries statistics from its members, coordinating research on the conservation status of the species and the development of scientifically sound management advice on the exploitation of tunas, derived from conducting stock assessments and other relevant studies.

Thunnus thynnus (Atlantic Bluefin Tuna) assessed as Endangered. © OCEANA/K. Ellenbogen.



Table 7: Tunas and relatives managed by the International Commission for the Conservation of Atlantic Tunas (ICCAT) present in the Eastern Central Atlantic, with common names and Red List status.

| Family | Species | Common Name | RL Status |
|---------------|--------------------------------|-------------------------------|-----------|
| Scombridae | <i>Acanthocybium solandri</i> | Wahoo | LC |
| Scombridae | <i>Auxis rochei</i> | Bullet Tuna | LC |
| Scombridae | <i>Auxis thazard</i> | Frigate Tuna | LC |
| Scombridae | <i>Euthynnus alletteratus</i> | Little Tunny | LC |
| Scombridae | <i>Katsuwonus pelamis</i> | Skipjack Tuna | LC |
| Scombridae | <i>Orcynopsis unicolor</i> | Plain Bonito | LC |
| Scombridae | <i>Sarda sarda</i> | Atlantic Bonito | LC |
| Scombridae | <i>Scomber colias</i> | Atlantic Chub Mackerel | LC |
| Scombridae | <i>Scomberomorus tritor</i> | West African Spanish Mackerel | LC |
| Scombridae | <i>Thunnus alalunga</i> | Albacore | NT |
| Scombridae | <i>Thunnus albacares</i> | Yellowfin Tuna | NT |
| Scombridae | <i>Thunnus obesus</i> | Bigeye Tuna | VU |
| Scombridae | <i>Thunnus thynnus</i> | Atlantic Bluefin Tuna | EN |
| Istiophoridae | <i>Istiophorus platypterus</i> | Sailfish | LC |
| Istiophoridae | <i>Makaira nigricans</i> | Blue Marlin | VU |
| Xiphiidae | <i>Xiphias gladius</i> | Swordfish | LC |



In addition, ICCAT is also deeply involved in reducing bycatch in tuna fisheries, particularly of sharks. The diversity of non-teleost bycatch species caught and reported is vast: 12 skates and rays, 57 sharks, 37 seabirds, 5 sea turtles and 26 marine mammals. Low rates of bycatch can have disproportionate impacts on these species, as they typically have slow replacement rates.

Fishery Committee for the Eastern Central Atlantic (CECAF)

CECAF, the FAO regional fishery body responsible for Fishing Area 34, promotes a more sustainable utilization of marine resources by managing and developing fisheries within its jurisdiction, as well as directing research efforts that will promote the conservation of living marine organisms. The CECAF is responsible for providing advice for controlling surveillance measures, an important responsibility in combating IUU fishing practices that are prevalent in the region. The CECAF also attempts to encourage and facilitate the communication and exchange of information regarding fishing restrictions, rules and

regulations between the sovereign nations of West Africa. Specifically, it guides the member countries in the selection of appropriate fishing gear and vessels for specific species and populations of fishes, as well as in selecting seasonal closures of fishing for certain species, including the provision of regulations for adopting and implementing regulatory measures as is necessary.

4.1.2 Local and regional conservation measures

Convention for Co-Operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention 1981)

This convention addresses the protection and management of the marine environment, coastal zones and inland waters of western Africa, from Mauritania to Namibia, and protects these areas from the deleterious effect of pollution to marine resources occurring within the geographic confines of the participating countries. This convention aims

to reduce anthropogenic impacts to marine resources and activities, focusing on pollution and overfishing.

New Partnership for Africa's Development (NEPAD)

In 2001, a group of African country leaders established the NEPAD to address concerns about mutual accountability and coherence to policy decisions regarding the economic development of the continent. In 2005 at the Fish for All summit in Abuja, Nigeria, the NEPAD introduced the "NEPAD Action Plan for the Development of African Fisheries and Aquaculture" (NEPAD 2005a). This plan seeks to promote the reduction of poverty and increase food security and environmental sustainability of Africa's marine resources (as declared by the Abuja Declaration at the Fish for All Summit: NEPAD 2005b) by identifying, defining and supporting policies that will strengthen Africa's potential to implement responsible and functioning amendments in the governance and execution of fisheries reforms and international trade practices. One of the main ways the NEPAD deploys these implementations is by engaging with and including local fishing communities and private sector, non-governmental organization agencies (NGOs) in the policy inception and implementation phases of restructuring the fisheries and trade policies of localities, states and regions. The NEPAD also recognizes the need for long-term consideration and regulation regarding the licensure of foreign fishing vessels and fleets, as African fish stocks are finite and are undergoing rapid depletion due to over-fishing and IUU practices. The NEPAD has successfully begun to change the way the licenses to foreign vessels are sold and distributed by including the prohibition of fishing at certain times of the year, by limiting overall catch and by instituting mandatory compliance with surveillance and enforcement programs (NEPAD 2005a).

Partnership for African Fisheries (PAF)

Born of the NEPAD, the Partnership for African Fisheries (PAF) working groups (composed of African

citizens from fishing communities, industry analysts, technology experts and educational and governmental institutions) utilize a "think-tank" approach to encourage the transparent exchange of ideas and solutions for economic and environmentally-sound growth of African fisheries and international trade policies. Partnered with the World Bank's Global Program on Fisheries (PROFISH), the PAF is actively fostering the "Currents of Change" program in order to define comprehensive reform policies regarding African fisheries that reduces licensing of foreign fishing vessels in African EEZs and increases access to grants and loans for African countries to exploit ECA marine resources responsibly and sustainably.

Ministerial Conference on Fisheries Cooperation among African States Bordering the Atlantic (COMHAFAT-ATLAFCO)

ATLAFCO, better known by its French acronym COMHAFAT, is an inter-governmental organization founded in 1989. The coastal countries from Morocco to Namibia, excluding Western Sahara, form the 22 Member States. The principal purpose of this organization is to improve the conservation and sustainable development of fisheries in the region by encouraging cooperation between Member States. In particular, focus is on training, research and regulations to promote responsible fishing.

Sub-regional Fisheries Commission (SRFC)

The SRFC is an inter-governmental organization created in 1985, consisting of the countries: Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania, Senegal and Sierra Leone. The main objective of the SRFC is to facilitate and reinforce communication and cooperation between the member States regarding the exploitation and conservation of marine resources in the sub-region, to adopt scientifically sound and enforceable management practices of these resources, to increase the prevalence and effectiveness of tracing, controls and surveillance of IUU fishing vessels in the sub-region and to direct the development of fisheries research at the sub-regional



level. The SRFC strives to incorporate stakeholder involvement by strengthening and homogenizing fisheries policies and legislation at the sub-region level. The SRFC also provides leadership in program development and policy construction in the areas of access to fishing zones and traditional fishing grounds and the management of marine resource utilization in the sub-regional area. The SRFC strives to promote and require coherence to sectoral fisheries policies aimed at sustainable development and management of fisheries, as well as policies concerning trade, economic development and environmental protection. The SRFC also ensures that sub-regional adherence to international policies and conventions concerning safety at sea and resource utilization is kept to the best degree possible.

Fishery Committee of the West Central Gulf of Guinea (FCWC)

The Fishery Committee for the West Central Gulf of Guinea (FCWC) is comprised of the member states of Benin, Cote D'Ivoire, Ghana, Liberia, Nigeria and Togo. As in other sub-regional committees, the FCWC provides a forum for member states for discussion on all fishery initiatives, including the harmonization of legislation and regulations;

cooperation in monitoring, control, surveillance and enforcement; and development of research capabilities and data standards. The FCWC is especially committed to the development of small-scale fishers capacity and management frameworks that ensure sustainable harvest of all living marine resources.

Regional Fisheries Commission of the Gulf of Guinea (COREP)

COREP is another inter-governmental organization established in 1984 aimed at improving cooperative management of marine (Gulf of Guinea) and inland waters of parties. In 2008 COREP was designed as a specialized agency of the Economic Community of Central African States (ECCAS). There are five Member States (Cameroon, Congo, Democratic Republic of the Congo, Gabon and São Tomé and Príncipe) and two Observer States (Angola and Equatorial Guinea). The overall objective is to assist Member States to protect and develop, sustainable, fisheries resources and to promote the development of aquaculture, with a view to maximize the use of the potentialities of aquatic environments and ensure the welfare of the greatest number of people.

4.2 Marine Protected Areas (MPAs) in West Africa

4.2.1 Regional MPAs

As of 2007, the Regional Network of MPAs in West Africa (RAMPAO) consists of 23 MPAs in six countries, including ten national parks and four reserves. RAMPAO serves to conserve representative samples of critical habitat while protecting threatened and endangered species by working in conjunction with fisheries and resource managers in the region to responsibly and coherently utilize the abundant resources of the region, while simultaneously preserving the vast and exquisite biodiversity in the ECA (Wells et al. 2008).

The Western Africa Regional Seas Programme (WARSP) has 22 participating States, of which the SRFC countries were selected in 2002 for the development of a regional strategy to put together a system of connected marine protected areas (MPAs) in the region (Wells et al. 2008). With the support of the IUCN, the Fondation Internationale du Banc d'Arguin (FIBA), the World Wildlife Fund (WWF) and Wetlands International, a system of interconnected, ecologically representative MPAs were designed in accordance with the WWF West

Africa Ecoregion's (WAMER) mission of building "an effective network of MPAs in West Africa with participatory management, led by strong institutions contributing to the sustainable development of the region by enhancing natural and cultural diversity." The three main ecosystems targeted for protection were upwelling areas off Senegal and Mauritania, rocky island coastlines of Cape Verde and estuarine-mangrove areas in Guinea and Guinea-Bissau.

With the help of 53 governmental and nongovernmental organizations and agencies, including the IUCN, WWF, FIBA, UNESCO and SRFC/CSRP, a five-year, Regional Conservation Programme for the Coastal and Marine Zone of West Africa (PRCM) strategy for the implementation of the MPA network was designed and initiated. The EU funded a project called Coherence of Conservation and Development Policies on Coastal and Marine Protected Areas (CONSDEV), which worked closely with SRFC countries to integrate local, State and regional policies with international policies to better improve the integration and connectivity of the MPAs, incorporated a means by which stakeholders could apply for the right to responsibly use resources within some of the protected areas and encouraging ecotourism that minimized damage to the MPAs.

4.2.2 National MPAs

In addition to the regional strategies for instituting MPAs in West Africa, nationally established MPAs, devised and implemented by individual countries in the ECA, are critical to the local conservation of vital marine resources. They augment existing fisheries regulations through the establishment of no-take zones and the enforcement of seasonal fishing closures activities, and they shelter vital marine habitats, such as nurseries, migration routes, spawning areas and coral reefs, amongst others. National MPAs help bolster cultural and social values in the communities around them, as the protection of natural marine resources is crucial to the livelihoods of many of the inhabitants of West Africa (PRCM 2005).

Elmira fish market, Accra, Ghana. © C. Linardich



Mauritania:

The Cap Blanc Satellite Reserve was initially conceived to protect the endangered monk seals that are found there, but it is also home to a diverse collection of marine flora and cetaceans. Post-breeding migration and nesting of sea birds, especially *Sterna* spp. and *Chlidonias* spp. occurs in the reserve, and there is a high density of *Mugil* spp. and *Morone* spp. Cap Blanc Satellite Reserve has a terrestrial and marine component; the marine extent of this reserve is 4.2 km along the coast, situated between Porta Ilia in the west and Cap Blanc beach in the east.

The Banc d'Arguin National Park is 1.17 million ha, of which roughly 6,245 km² is marine. It includes 450 km² of intertidal mudflats consisting of *Zostera noltii* and *Cymodocea nodosa* seagrass beds and an abundance of marine fauna, including over 140 temperate and tropical fish species, crustaceans, molluscs, *Tursiops truncatus*, *Sousa teuszii* and *Orcinus orca*, several species of sea turtles. It is also home to one of the world's largest concentration of wintering waders, approximately 2.5 million birds. The key objectives of the Banc d'Arguin National Park are: to protect critical habitats, such as fish nurseries and spawning grounds; to preserve biological and cultural heritage and diversity; and to protect major scientific and archeological sites.

In order to protect and restore the lower Mauritanian delta ecosystems, Mauritania set up the Diawling National Park and the Chat T'Boul Reserve. This park and reserve hosts a variety of freshwater and estuarine fish species and protects vast areas of marine nursery areas and estuaries.

Senegal:

Langue de Barbarie National Park is a 2,000 ha area, located 25 km south of the town of Saint-Louis and stretching to the mouth of the Senegal River. It is composed of a barrier spit and a marine zone with fixed sand dunes on the seaward side. The Park

functions mainly as a nesting site for populations of colonial birds, but it is also a nesting site for sea turtles. In a few areas of the park, there are small stands of *Avicennia* mangroves.

The Magdalen Islands National Park is found in the uninhabited islands a few km west of Dakar, with a surface area of 15 ha. It has rocky volcanic islets and steep cliffs along the shores of the islands and boasts a diverse collection of marine life. Demersal species, such as groupers (*Epinephelus* spp.), and pelagic species of barracuda proliferate the waters, and nesting birds, such as the very rare *Phaeton aethereus*, as well as *Corvus albus*, *Milvus migrans* and *Euplectes* spp. are found on the islands.

Poponguine Nature Reserve is mostly a terrestrial reserve, but it also contains a strip of marine habitat approximately one nautical mile wide. Where the terrestrial and marine areas converge, a rocky, shallow-water area provides breeding habitat for numerous marine species. Migratory marine birds also frequent the reserve between November and February.

The Saloum Delta National Park (59,934 ha) and Biosphere Reserve (222,062 ha) were initiated to protect the delta systems, restore ecosystems and preserve biological diversity. The area consists of a coastal and marine fringe, which includes sand bars and several small islands. Near the continent are tannes and mangrove stands. Between the Park and Reserve, 114 fish species from 52 families reside there, in addition to crustaceans and molluscs. Sea turtles are also present, as well as manatees, dolphins and the African clawless otter. The dominant vegetation type is mangroves.

The Gambia:

The Nuimi National Park, centered on the north bank of the River Gambia, extends from Barra Point at the mouth of the river north to the boarder and east to the upper limit of the saline intrusion. The park contains the island of Jinack and the Niji Bolon.



The island contains extensive coastal dune areas, saltwater marshes and mangrove stands. The West African manatee (*Trichechus senegalensis*) is found there, as well as the Atlantic humpbacked dolphin, green turtles, and nearly 300 species of birds.

The Bijol Islands (the only offshore islands of Gambia) and Tanji River Bird Reserve have a total area of 612 ha. They are situated along the Atlantic coast and encompass the Tanji River and its estuary, including mangrove stands. Natural marine features include shallow, rocky reef areas and a lagoon system that changes dynamically during rain storms. The cape and lagoons provide vital feeding and roosting grounds for gulls, terns and waders. Additionally, the Bijol Islands provide the only known breeding site in the country for *Sterna caspia*, *Sterna maxima* and gulls at the present time. Monk seals, Atlantic humpbacked dolphins and sea turtles frequent the

islands and reserves. There is a wide variety of habitat types in the protected area for marine, estuarine and freshwater species.

The Tanbi Wetland Complex is 6,000 ha and is located on the southern bank of the River Gambia. It includes wetlands, estuaries and fringe mangrove stands. The entire southern portion of the River Gambia estuary is encompassed by this protected area and serves as a fish breeding ground for a number of species. Mangrove forests dominate the landscape.

Located on the north bank of the River Gambia, the Boa Bolon Wetland Reserve covers approximately 22,000 ha and extends from the River Gambia north to the Senegalese boarder and along the Boa Bolon tributary. The African manatee and the African clawless otter reside there, as well as tilapia and mullets. The high mangroves, permanent saltmarshes

and bare tannes provide suitable habitat for a plethora of marine wildlife.

Guinea-Bissau:

The Rio Cacheu Mangrove Park is an 88,615 ha protected area, of which 68% is covered with mangrove trees. The vast mangrove area is an ideal habitat for large numbers of migratory birds during the winter months, and it provides excellent breeding and nursery grounds for numerous marine animals.

The Bolama Bijagos Archipelago Biosphere Reserve provides protection to 88 islands and islets that have a combined surface area of over 1 million ha. The seaward side is comprised of vast extents of sandy-muddy intertidal flats and channels which are fringed by mangrove forests. The archipelago is home to a wide variety of mammals, reptiles, birds and fish and is the largest nesting site on the Atlantic coast for Green sea turtles (over 7,000 nests annually). Also, the Reserve hosts nearly 800,000 wintering Palearctic waders and other colonial birds.

Orango National Park is located on the southern portion of the Bijagos archipelago, covering over 150,000 ha, including 5 large islands and 3 small ones, and having a maximum depth of 30 m throughout the entire marine area. The Park hosts and extensive mangrove forest exceeding 16,000 ha. It is responsible for a multitude of primary ocean resource production and provided critical breeding areas for numerous fish and shellfish species. Five sea turtle species occur in the park., and it also has a rich fish and invertebrate fauna. The African clawless otter, African manatee, the Atlantic humpbacked dolphin and the Bottlenose dolphin are all found there.

João Vieira-Poilão Islands Marine National Park is a 49,500 ha protected area that mainly consists of 4 main islands and 3 small islands. There are mangrove forests in the intertidal zone, and the island beaches are ideal for nesting sea turtles, such as the green turtle, Atlantic hawksbill turtle and the Olive Ridley

turtle. The fish fauna in the Park is also abundant and diverse, and it is the breeding ground for a large fish-eating bird community.

Nigeria:

Established in 1991 by the Federal Government of Nigeria, the Cross River National Park is a 1,000 km² protected area. It consists primarily of terrestrial rain forests, but the southern portion of the park also protects mangrove swamps and coastal fringes (Ezebilo and Mattsson 2010).

Gabon:

In late 2014, Gabonese President Ali Bongo Ondimba announced that Gabon is in the process of designating 46,000 km² as a marine protected area. This constitutes nearly 25% of Gabon's EEZ within which no commercial fishing will be allowed. This new MPA will protect threatened species such as hammerhead sharks, tiger sharks, manta rays, whale sharks, humpback dolphin, humpback whales and four species of marine turtles.

4.3 IUCN Red List versus Priority for Conservation Action

The results of this IUCN Red List initiative in the ECA should inform future conservation actions in the region, but should not be used in place of a regional conservation prioritization process. IUCN Red List assessments consider only one of a number of important variables for setting conservation priorities: relative extinction risk. How these other variables, including economic, social, political, and cultural factors, are used to supplement the information provided by IUCN Red List assessments to define conservation priorities is for the local and regional management authorities to determine.

5. Recommendations

5.1 Recommendations for Management and Policy

Fishery and marine resource management in West Africa is complicated due to the number of governments, languages and ministries involved. The jurisdictional landscape differs by country, and coordinating management goals and policies is challenging. In many countries, limited surveillance and enforcement capacity leads to illegal fishing and overfishing, which imperils regional management efforts. National management capacities are also constrained by their inability to limit entry of national and international fleets into fisheries and to control the type of fishing gear used. Overall, great needs exist for strengthening governance and increasing capacity, for training and resources for improved management and for the reduction of illegal and unregulated fishing activities.

5.2 Recommendations for Marine Protected Areas and Conservation Action

A number of marine and coastal protected areas have been established in the region to limit harvesting of coastal resources and ensure their sustainable utilization. Many of these sites were established to conserve biodiversity by providing refuge for marine fauna and flora and undisturbed sites for research, monitoring, education and tourism. Many of these protected areas lack capacity, funding, infrastructure and governance for effective enforcement and conservation. A number of Ramsar and World Heritage sites have also been designated or proposed for protection of these resources. However, many regions are still lacking in marine or coastal protected areas. For example, 71 priority biodiversity areas have been identified in the region, many of which have not been formally designated

Ophioblennius atlanticus (Redlip Blenny) assessed as Least Concern. © Q. Muñoz



(Armah 2006). As is increasingly occurring in other regions, the creation of spawning reserves and other spatial tools to protect species with aggregating spawners from highly concentrated overfishing is recommended.

Equally as important as strengthening local and national efforts to improve marine protected area designation and management, is the need for improved transboundary collaboration on shared fish stocks, regional data management and the creation of marine protected area networks.

5.3 Recommendations for Research and Training

Research capacity in much of the region is so limited as to be unable to conduct stock assessments

or report on trends. There is a great research need to better quantify the impacts of local, national and regional fishery efforts on targeted and non-targeted species, including the identification of important spawning aggregations and spawning grounds by enhanced outreach with fishers (e.g., Lindeman et al. 2000, Heyman and Kjerfve 2008). Industrial challenges in West Africa that could benefit from research to implement affordable, culturally-appropriate and sustainable solutions include: the lack of access to credit and financing, weak cold storage infrastructure, poor transportation infrastructure, inefficient and outdated equipment, lack of knowledge about export standards and weak industrial organization. Additionally, taxonomic expertise as well as museums and other educational or scientific depositories of marine biodiversity are very few or non-existent in most countries.

Drying fishes at the Elmina fish market in Accra, Ghana. © C. Lindardich



Of particular importance is the need to train more key scientists and middle level practitioners on taxonomic identification techniques. Although availability of the updated FAO Living Marine Resources of the Eastern Central Atlantic will greatly aid in providing an updated taxonomic identification guide, fishery biologists and practitioners in the region need additional training to be able to use identification keys correctly and understand taxonomic limitations. In many cases, fishes being recorded in landings, fish markets, academic surveys and other instances are incorrectly identified, compounding the difficulties of understanding species distributions and population trends. Similarly, the vast majority of fishery landings are reported by family or genus, which does not easily allow for adequately quantifying the impacts of threats on individual species.

5.4 The future: IUCN Red List Assessments and Key Biodiversity Areas

Our initiative in the ECA is part of a broader program, the Global Marine Species Assessment (<http://sci.odu.edu/gmsa/>), to increase the representation of marine species on the IUCN Red List of Threatened Species. The program's primary goal is to assess 20,000 marine species against the IUCN Red List Categories and Criteria with the objective of substantially improving global marine biodiversity conservation. To date, over 11,000 marine species assessments are publicly available at www.iucnredlist.org, including the nearly 1,300 marine bony fishes present in West Africa.

An essential next step in the ECA is the identification of Key Biodiversity Areas (KBAs). KBAs produce a science-based method of effectively prioritizing spatial conservation action towards the mitigation, regulation, or cessation of threats impacting marine species (Edgar et al. 2008b). Building upon the concepts formalized by BirdLife International to identify site-scale conservation targets as Important

Bird Areas (IBAs), KBAs can be designated as targets needing conservation action to protect biodiversity with a larger taxonomic scope (Eken et al. 2004). The process relies on the ability to quantify the irreplaceability and vulnerability of each species. The IUCN Red List assessments completed during this project would provide essential information for both essential components: the accumulated data on species distributions will inform the irreplaceability and the IUCN Red List category will identify species that are globally threatened (Eken et al. 2004). Despite widespread recognition of increasing threats in the marine realm, very few marine KBA analyses have been conducted to date, specifically in the Philippines (Ambal et al. 2012), Melanesia (Bass et al. 2011) and the Eastern Tropical Pacific (Edgar et al. 2008a); although these KBA analyses represent a wide geographic coverage, there have been limited taxonomic and region-wide coverage in these analyses (Foster et al. 2012). Through the assessment of the diverse bony fishes in the region, data on all marine vertebrates, as well as habitat-forming plants (mangroves and seagrasses), reef-forming corals and important invertebrates (e.g., cephalopods and lobsters) are now available to inform the identification of regional KBAs and enhance marine spatial planning.

Traditional West African cuisine provided during the Red List assessment workshop in Libreville, Gabon. © B. Polidoro



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Appendix 1. Red List status of Eastern Central Atlantic marine fishes

Table A1.1 Red List status of marine fishes (listed alphabetically by Order, Family, and Species). Cat = Red List category and Crit = Red List criteria. Note that Crit is only applicable to species listed as threatened (i.e., Critically Endangered, Endangered, or Vulnerable).

| Order | Family | Species | Cat | Crit | Endemic |
|----------------|------------------|-----------------------------------|-----|------|---------|
| Albuliformes | Albulidae | <i>Pterothrissus belloci</i> | DD | | No |
| Anguilliformes | Chlopsidae | <i>Chlopsis bicolor</i> | LC | | No |
| Anguilliformes | Chlopsidae | <i>Chlopsis olokun</i> | LC | | Yes |
| Anguilliformes | Colocongridae | <i>Coloconger cadenati</i> | LC | | Yes |
| Anguilliformes | Congridae | <i>Ariosoma anale</i> | LC | | No |
| Anguilliformes | Congridae | <i>Ariosoma balearicum</i> | LC | | No |
| Anguilliformes | Congridae | <i>Ariosoma mellissii</i> | DD | | Yes |
| Anguilliformes | Congridae | <i>Bathycongrus bertini</i> | LC | | Yes |
| Anguilliformes | Congridae | <i>Bathyuroconger vicinus</i> | LC | | No |
| Anguilliformes | Congridae | <i>Conger conger</i> | LC | | No |
| Anguilliformes | Congridae | <i>Heteroconger longissimus</i> | LC | | No |
| Anguilliformes | Congridae | <i>Japonoconger africanus</i> | LC | | Yes |
| Anguilliformes | Congridae | <i>Paraconger notialis</i> | LC | | Yes |
| Anguilliformes | Congridae | <i>Promyllantor atlanticus</i> | DD | | Yes |
| Anguilliformes | Congridae | <i>Pseudophichthys splendens</i> | LC | | No |
| Anguilliformes | Congridae | <i>Uroconger drachi</i> | DD | | Yes |
| Anguilliformes | Congridae | <i>Uroconger syringinus</i> | LC | | No |
| Anguilliformes | Congridae | <i>Xenomystax congroides</i> | LC | | No |
| Anguilliformes | Derichthyidae | <i>Derichthys serpentinus</i> | LC | | No |
| Anguilliformes | Derichthyidae | <i>Nessorhamphus danae</i> | LC | | No |
| Anguilliformes | Derichthyidae | <i>Nessorhamphus ingolfianus</i> | LC | | No |
| Anguilliformes | Heterenchelyidae | <i>Panturichthys isognathus</i> | LC | | Yes |
| Anguilliformes | Heterenchelyidae | <i>Panturichthys longus</i> | LC | | Yes |
| Anguilliformes | Heterenchelyidae | <i>Panturichthys mauritanicus</i> | LC | | No |
| Anguilliformes | Muraenesocidae | <i>Cynoponticus ferox</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Anarchias longicauda</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Channomuraena vittata</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Echidna catenata</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Echidna peli</i> | LC | | Yes |
| Anguilliformes | Muraenidae | <i>Enchelycore anatina</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|----------------|-----------------|----------------------------------|-----|------|---------|
| Anguilliformes | Muraenidae | <i>Enchelycore carychroa</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Enchelycore nigricans</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Gymnothorax afer</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Gymnothorax bacalladoi</i> | DD | | No |
| Anguilliformes | Muraenidae | <i>Gymnothorax maderensis</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Gymnothorax mareei</i> | LC | | Yes |
| Anguilliformes | Muraenidae | <i>Gymnothorax miliaris</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Gymnothorax moringa</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Gymnothorax polygonius</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Gymnothorax unicolor</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Gymnothorax vicinus</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Monopenchelys acuta</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Muraena augusti</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Muraena helena</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Muraena melanotis</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Muraena pavonina</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Muraena robusta</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Uropterygius macularius</i> | LC | | No |
| Anguilliformes | Muraenidae | <i>Uropterygius wheeleri</i> | LC | | Yes |
| Anguilliformes | Myrocongridae | <i>Myroconger compressus</i> | DD | | Yes |
| Anguilliformes | Nemichthyidae | <i>Avocettina infans</i> | LC | | No |
| Anguilliformes | Nemichthyidae | <i>Nemichthys curvirostris</i> | LC | | No |
| Anguilliformes | Nemichthyidae | <i>Nemichthys scolopaceus</i> | LC | | No |
| Anguilliformes | Nettastomatidae | <i>Hoplunnis punctata</i> | LC | | No |
| Anguilliformes | Nettastomatidae | <i>Nettastoma melanurum</i> | LC | | No |
| Anguilliformes | Nettastomatidae | <i>Venefica proboscidea</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Apterichtus anguiformis</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Apterichtus caecus</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Apterichtus gracilis</i> | DD | | Yes |
| Anguilliformes | Ophichthidae | <i>Apterichtus kendalli</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Apterichtus monodi</i> | LC | | Yes |
| Anguilliformes | Ophichthidae | <i>Bascanichthys ceciliae</i> | LC | | Yes |
| Anguilliformes | Ophichthidae | <i>Bascanichthys paulensis</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Brachysomophis atlanticus</i> | LC | | Yes |
| Anguilliformes | Ophichthidae | <i>Callechelys bilinearis</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Callechelys guineensis</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Callechelys leucoptera</i> | LC | | Yes |
| Anguilliformes | Ophichthidae | <i>Dalophis boulengeri</i> | LC | | Yes |
| Anguilliformes | Ophichthidae | <i>Dalophis cephalopeltis</i> | LC | | Yes |
| Anguilliformes | Ophichthidae | <i>Dalophis multidentatus</i> | DD | | Yes |
| Anguilliformes | Ophichthidae | <i>Dalophis obtusirostris</i> | DD | | Yes |
| Anguilliformes | Ophichthidae | <i>Echelus myrus</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Echelus pachyrhynchus</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Echiophis punctifer</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Hemerorhinus opici</i> | DD | | Yes |

| Order | Family | Species | Cat | Crit | Endemic |
|------------------|-------------------|----------------------------------|-----|------|---------|
| Anguilliformes | Ophichthidae | <i>Herpetoichthys regius</i> | DD | | No |
| Anguilliformes | Ophichthidae | <i>Ichthyapus insularis</i> | DD | | Yes |
| Anguilliformes | Ophichthidae | <i>Ichthyapus ophioneus</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Myrichthys pardalis</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Myrophis plumbeus</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Mystriophis crosnieri</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Mystriophis rostellatus</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Ophichthus leonensis</i> | DD | | Yes |
| Anguilliformes | Ophichthidae | <i>Ophichthus ophis</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Ophichthus pullus</i> | LC | | Yes |
| Anguilliformes | Ophichthidae | <i>Ophisurus serpens</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Phaenomonas longissima</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Pisodonophis semicinctus</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Pseudomyrophis atlanticus</i> | LC | | Yes |
| Anguilliformes | Ophichthidae | <i>Pseudomyrophis nimius</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Quassiremus ascensionis</i> | LC | | No |
| Anguilliformes | Ophichthidae | <i>Xyrias guineensis</i> | DD | | Yes |
| Anguilliformes | Serrivomeridae | <i>Serrivomer beanii</i> | LC | | No |
| Anguilliformes | Serrivomeridae | <i>Serrivomer lanceolatoides</i> | LC | | No |
| Anguilliformes | Serrivomeridae | <i>Stemonidium hypomelas</i> | LC | | No |
| Anguilliformes | Synaphobranchidae | <i>Dysomma brevirostre</i> | LC | | No |
| Anguilliformes | Synaphobranchidae | <i>Haptenchelys texis</i> | LC | | No |
| Anguilliformes | Synaphobranchidae | <i>Ilyophis brunneus</i> | LC | | No |
| Anguilliformes | Synaphobranchidae | <i>Simenchelys parasitica</i> | LC | | No |
| Anguilliformes | Synaphobranchidae | <i>Synaphobranchus affinis</i> | LC | | No |
| Anguilliformes | Synaphobranchidae | <i>Synaphobranchus kaupii</i> | LC | | No |
| Ateleopodiformes | Ateleopodidae | <i>Guentherus altivela</i> | LC | | No |
| Ateleopodiformes | Ateleopodidae | <i>Ijimaia loppei</i> | LC | | No |
| Atheriniformes | Atherinidae | <i>Atherina boyeri</i> | LC | | No |
| Atheriniformes | Atherinidae | <i>Atherina lopeziana</i> | DD | | Yes |
| Atheriniformes | Atherinidae | <i>Atherina presbyter</i> | LC | | No |
| Aulopiformes | Alepisauridae | <i>Alepisaurus brevirostris</i> | LC | | No |
| Aulopiformes | Alepisauridae | <i>Alepisaurus ferox</i> | LC | | No |
| Aulopiformes | Anotopteridae | <i>Anotopterus pharao</i> | LC | | No |
| Aulopiformes | Aulopidae | <i>Aulopus cadenati</i> | LC | | Yes |
| Aulopiformes | Aulopidae | <i>Aulopus filamentosus</i> | LC | | No |
| Aulopiformes | Bathysauridae | <i>Bathysaurus ferox</i> | LC | | No |
| Aulopiformes | Bathysauridae | <i>Bathysaurus mollis</i> | LC | | No |
| Aulopiformes | Chlorophthalmidae | <i>Chlorophthalmus agassizi</i> | LC | | No |
| Aulopiformes | Chlorophthalmidae | <i>Parasudis fraserbrunneri</i> | LC | | No |
| Aulopiformes | Evermannellidae | <i>Coccorella atlantica</i> | LC | | No |
| Aulopiformes | Evermannellidae | <i>Evermannella balbo</i> | LC | | No |
| Aulopiformes | Evermannellidae | <i>Evermannella melanoderma</i> | LC | | No |
| Aulopiformes | Evermannellidae | <i>Odontostomops normalops</i> | LC | | No |
| Aulopiformes | Giganturidae | <i>Gigantura chuni</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|--------------|----------------|-----------------------------------|-----|------|---------|
| Aulopiformes | Giganturidae | <i>Gigantura indica</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Bathymicrops regis</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Bathypterois atricolor</i> | LC | | Yes |
| Aulopiformes | Ipnopidae | <i>Bathypterois dubius</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Bathypterois grallator</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Bathypterois longipes</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Bathypterois phenax</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Bathypterois quadrifilis</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Bathypterois viridensis</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Bathytyphlops marionae</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Bathytyphlops sewelli</i> | LC | | No |
| Aulopiformes | Ipnopidae | <i>Ipnops agassizii</i> | LC | | No |
| Aulopiformes | Notosudidae | <i>Ahliesaurus berryi</i> | LC | | No |
| Aulopiformes | Notosudidae | <i>Luciosudis normani</i> | LC | | No |
| Aulopiformes | Notosudidae | <i>Scopelosaurus argenteus</i> | LC | | No |
| Aulopiformes | Notosudidae | <i>Scopelosaurus lepidus</i> | LC | | No |
| Aulopiformes | Notosudidae | <i>Scopelosaurus meadi</i> | LC | | No |
| Aulopiformes | Notosudidae | <i>Scopelosaurus smithii</i> | LC | | No |
| Aulopiformes | Omosudidae | <i>Omosudis lowii</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Arctozenus risso</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Dolichosudis fuliginosa</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Lestidiops affinis</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Lestidiops cadenati</i> | LC | | Yes |
| Aulopiformes | Paralepididae | <i>Lestidiops distans</i> | LC | | Yes |
| Aulopiformes | Paralepididae | <i>Lestidiops jayakari</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Lestidiops similis</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Lestidiops sphyrenoides</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Lestidium atlanticum</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Lestrolepis intermedia</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Macroparalepis affinis</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Macroparalepis brevis</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Magnisudis atlantica</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Paralepis elongata</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Stemonosudis gracilis</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Stemonosudis intermedia</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Stemonosudis siliquiventer</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Sudis atrox</i> | LC | | No |
| Aulopiformes | Paralepididae | <i>Sudis hyalina</i> | DD | | No |
| Aulopiformes | Paralepididae | <i>Uncisudis longirostra</i> | DD | | No |
| Aulopiformes | Paralepididae | <i>Uncisudis quadrimaculata</i> | LC | | No |
| Aulopiformes | Scopelarchidae | <i>Benthalbella infans</i> | LC | | No |
| Aulopiformes | Scopelarchidae | <i>Rosenblattichthys hubbsi</i> | LC | | No |
| Aulopiformes | Scopelarchidae | <i>Scopelarchoides danae</i> | LC | | No |
| Aulopiformes | Scopelarchidae | <i>Scopelarchus analis</i> | LC | | No |
| Aulopiformes | Scopelarchidae | <i>Scopelarchus guentheri</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------------|-----------------|------------------------------------|-----|------|---------|
| Aulopiformes | Scopelarchidae | <i>Scopelarchus michaelisarsis</i> | LC | | No |
| Aulopiformes | Synodontidae | <i>Saurida brasiliensis</i> | LC | | No |
| Aulopiformes | Synodontidae | <i>Synodus saurus</i> | LC | | No |
| Aulopiformes | Synodontidae | <i>Synodus synodus</i> | LC | | No |
| Aulopiformes | Synodontidae | <i>Trachinocephalus myops</i> | LC | | No |
| Batrachoidiformes | Batrachoididae | <i>Batrachoides liberiensis</i> | LC | | Yes |
| Batrachoidiformes | Batrachoididae | <i>Halobatrachus didactylus</i> | LC | | No |
| Batrachoidiformes | Batrachoididae | <i>Perulibatrachus elminensis</i> | LC | | No |
| Batrachoidiformes | Batrachoididae | <i>Perulibatrachus rossignoli</i> | LC | | No |
| Beloniformes | Belonidae | <i>Ablennes hians</i> | LC | | No |
| Beloniformes | Belonidae | <i>Belone belone</i> | LC | | No |
| Beloniformes | Belonidae | <i>Platybelone argalus</i> | LC | | No |
| Beloniformes | Belonidae | <i>Strongylura senegalensis</i> | LC | | Yes |
| Beloniformes | Belonidae | <i>Tylosurus acus</i> | LC | | No |
| Beloniformes | Belonidae | <i>Tylosurus crocodilus</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Cheilopogon cyanopterus</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Cheilopogon exsiliens</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Cheilopogon furcatus</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Cheilopogon heterurus</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Cheilopogon melanurus</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Cheilopogon milleri</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Cheilopogon nigricans</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Cheilopogon pinnatibarbus</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Exocoetus obtusirostris</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Exocoetus volitans</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Fodiator acutus</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Hirundichthys affinis</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Hirundichthys speculiger</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Parexocoetus hillianus</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Prognichthys gibbifrons</i> | LC | | No |
| Beloniformes | Exocoetidae | <i>Prognichthys glaphyrae</i> | LC | | No |
| Beloniformes | Hemiramphidae | <i>Euleptorhamphus velox</i> | LC | | No |
| Beloniformes | Hemiramphidae | <i>Hemiramphus balao</i> | LC | | No |
| Beloniformes | Hemiramphidae | <i>Hemiramphus brasiliensis</i> | LC | | No |
| Beloniformes | Hemiramphidae | <i>Hyporhamphus picarti</i> | LC | | No |
| Beloniformes | Hemiramphidae | <i>Oxyporhamphus similis</i> | LC | | No |
| Beloniformes | Scomberesocidae | <i>Scomberesox simulans</i> | LC | | No |
| Beryciformes | Anoplogastridae | <i>Anoplogaster cornuta</i> | LC | | No |
| Beryciformes | Berycidae | <i>Beryx decadactylus</i> | LC | | No |
| Beryciformes | Berycidae | <i>Beryx splendens</i> | LC | | No |
| Beryciformes | Diretmidae | <i>Diretmichthys parini</i> | LC | | No |
| Beryciformes | Diretmidae | <i>Diretmoides pauciradiatus</i> | LC | | No |
| Beryciformes | Diretmidae | <i>Diretmus argenteus</i> | LC | | No |
| Beryciformes | Holocentridae | <i>Corniger spinosus</i> | LC | | No |
| Beryciformes | Holocentridae | <i>Holocentrus adscensionis</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|----------------|------------------|-------------------------------------|-----|------|---------|
| Beryciformes | Holocentridae | <i>Myripristis jacobus</i> | LC | | No |
| Beryciformes | Holocentridae | <i>Sargocentron hastatum</i> | LC | | No |
| Beryciformes | Trachichthyidae | <i>Gephyroberyx darwinii</i> | LC | | No |
| Beryciformes | Trachichthyidae | <i>Hoplostethus cadenati</i> | LC | | No |
| Beryciformes | Trachichthyidae | <i>Hoplostethus mediterraneus</i> | LC | | No |
| Beryciformes | Trachichthyidae | <i>Hoplostethus vniro</i> | DD | | Yes |
| Cetomimiformes | Barbourisiidae | <i>Barbourisia rufa</i> | LC | | No |
| Cetomimiformes | Cetomimidae | <i>Cetomimus compunctus</i> | DD | | No |
| Cetomimiformes | Cetomimidae | <i>Cetomimus gillii</i> | DD | | No |
| Cetomimiformes | Cetomimidae | <i>Cetostoma regani</i> | DD | | No |
| Cetomimiformes | Cetomimidae | <i>Danacetichthys galathenus</i> | DD | | No |
| Cetomimiformes | Cetomimidae | <i>Ditropichthys storeri</i> | DD | | No |
| Cetomimiformes | Cetomimidae | <i>Gyrinomimus myersi</i> | DD | | No |
| Cetomimiformes | Cetomimidae | <i>Rhamphocetichthys savagei</i> | LC | | No |
| Cetomimiformes | Rondeletiidae | <i>Rondeletia bicolor</i> | LC | | No |
| Cetomimiformes | Rondeletiidae | <i>Rondeletia loricata</i> | LC | | No |
| Clupeiformes | Clupeidae | <i>Ethmalosa fimbriata</i> | LC | | No |
| Clupeiformes | Clupeidae | <i>Pellonula leonensis</i> | LC | | Yes |
| Clupeiformes | Clupeidae | <i>Pellonula vorax</i> | LC | | Yes |
| Clupeiformes | Clupeidae | <i>Sardina pilchardus</i> | LC | | No |
| Clupeiformes | Clupeidae | <i>Sardinella aurita</i> | LC | | No |
| Clupeiformes | Clupeidae | <i>Sardinella maderensis</i> | VU | A2d | No |
| Clupeiformes | Clupeidae | <i>Sardinella rouxi</i> | DD | | Yes |
| Clupeiformes | Engraulidae | <i>Engraulis encrasicolus</i> | LC | | No |
| Clupeiformes | Pristigasteridae | <i>Ilisha africana</i> | LC | | Yes |
| Elopiformes | Elopidae | <i>Elops lacerta</i> | LC | | Yes |
| Elopiformes | Elopidae | <i>Elops senegalensis</i> | DD | | Yes |
| Elopiformes | Megalopidae | <i>Megalops atlanticus</i> | VU | A2bd | No |
| Gadiformes | Bregmacerotidae | <i>Bregmaceros atlanticus</i> | LC | | No |
| Gadiformes | Bregmacerotidae | <i>Bregmaceros nectabanus</i> | LC | | No |
| Gadiformes | Lotidae | <i>Enchelyopus cimbrius</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Bathygadus favosus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Bathygadus macrops</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Bathygadus melanobranchus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Cetonurus globiceps</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Coelorinchus caelorhincus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Coelorinchus geronimo</i> | LC | | Yes |
| Gadiformes | Macrouridae | <i>Coelorinchus labiatus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Coelorinchus polli</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Coryphaenoides armatus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Coryphaenoides guentheri</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Coryphaenoides leptolepis</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Coryphaenoides marshalli</i> | LC | | Yes |
| Gadiformes | Macrouridae | <i>Coryphaenoides mediterraneus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Coryphaenoides paramarshalli</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-----------------|--------------|------------------------------------|-----|-----------|---------|
| Gadiformes | Macrouridae | <i>Coryphaenoides rudis</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Coryphaenoides zaniophorus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Gadomus arcuatus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Gadomus longifilis</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Hymenocephalus italicus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Hymenogadus gracilis</i> | DD | | No |
| Gadiformes | Macrouridae | <i>Macrouroides inflaticeps</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Malacocephalus laevis</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Malacocephalus occidentalis</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Mesobius berryi</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Nezumia aequalis</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Nezumia africana</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Nezumia duodecim</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Nezumia micronychodon</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Nezumia milleri</i> | LC | | Yes |
| Gadiformes | Macrouridae | <i>Nezumia sclerorhynchus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Odontomacrus murrayi</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Sphagemacrus hirundo</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Squalogadus modificatus</i> | LC | | No |
| Gadiformes | Macrouridae | <i>Trachyrincus scabrurus</i> | LC | | No |
| Gadiformes | Melanonidae | <i>Melanonus zugmayeri</i> | LC | | No |
| Gadiformes | Merlucciidae | <i>Merluccius capensis</i> | LC | | No |
| Gadiformes | Merlucciidae | <i>Merluccius merluccius</i> | LC | | No |
| Gadiformes | Merlucciidae | <i>Merluccius polli</i> | LC | | No |
| Gadiformes | Merlucciidae | <i>Merluccius senegalensis</i> | EN | A2bd | No |
| Gadiformes | Moridae | <i>Antimora rostrata</i> | LC | | No |
| Gadiformes | Moridae | <i>Gadella imberbis</i> | LC | | No |
| Gadiformes | Moridae | <i>Laemonema laureysi</i> | LC | | No |
| Gadiformes | Moridae | <i>Laemonema robustum</i> | DD | | No |
| Gadiformes | Moridae | <i>Laemonema yarrellii</i> | LC | | No |
| Gadiformes | Moridae | <i>Mora moro</i> | LC | | No |
| Gadiformes | Moridae | <i>Physiculus cyanostrophus</i> | LC | | Yes |
| Gadiformes | Moridae | <i>Physiculus dalwigki</i> | LC | | No |
| Gadiformes | Moridae | <i>Physiculus helenensis</i> | DD | | Yes |
| Gadiformes | Moridae | <i>Physiculus huloti</i> | LC | | Yes |
| Gadiformes | Moridae | <i>Physiculus karrerae</i> | DD | | No |
| Gadiformes | Moridae | <i>Physiculus maslowskii</i> | DD | | No |
| Gadiformes | Moridae | <i>Physiculus microbarbata</i> | DD | | Yes |
| Gadiformes | Phycidae | <i>Phycis phycis</i> | LC | | No |
| Gobiesociformes | Gobiesocidae | <i>Apletodon barbatus</i> | VU | B2ab(iii) | Yes |
| Gobiesociformes | Gobiesocidae | <i>Apletodon pellegrini</i> | LC | | No |
| Gobiesociformes | Gobiesocidae | <i>Apletodon wirtzi</i> | LC | | Yes |
| Gobiesociformes | Gobiesocidae | <i>Diplecogaster bimaculata</i> | LC | | No |
| Gobiesociformes | Gobiesocidae | <i>Diplecogaster ctenocrypta</i> | LC | | No |
| Gobiesociformes | Gobiesocidae | <i>Lecanogaster chrysea</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|------------------|-----------------|--------------------------------------|-----|------|---------|
| Gobiesociformes | Gobiesocidae | <i>Lepadogaster purpurea</i> | LC | | No |
| Gobiesociformes | Gobiesocidae | <i>Opeatogenys cadenati</i> | DD | | No |
| Gonorynchiformes | Gonorynchidae | <i>Gonorynchus gonorynchus</i> | LC | | No |
| Lampriformes | Lampridae | <i>Lampris guttatus</i> | LC | | No |
| Lampriformes | Lophotidae | <i>Eumecichthys fiski</i> | LC | | No |
| Lampriformes | Radiicephalidae | <i>Radiicephalus elongatus</i> | LC | | No |
| Lampriformes | Regalecidae | <i>Regalecus glesne</i> | LC | | No |
| Lampriformes | Regalecidae | <i>Regalecus russelii</i> | LC | | No |
| Lampriformes | Stylephoridae | <i>Stylephorus chordatus</i> | LC | | No |
| Lampriformes | Trachipteridae | <i>Desmodema polystictum</i> | LC | | No |
| Lampriformes | Trachipteridae | <i>Trachipterus trachipterus</i> | LC | | No |
| Lampriformes | Trachipteridae | <i>Zu cristatus</i> | LC | | No |
| Lophiiformes | Antennariidae | <i>Antennarius pardalis</i> | LC | | No |
| Lophiiformes | Antennariidae | <i>Antennarius striatus</i> | LC | | No |
| Lophiiformes | Antennariidae | <i>Antennatus nummifer</i> | LC | | No |
| Lophiiformes | Antennariidae | <i>Fowlerichthys senegalensis</i> | LC | | No |
| Lophiiformes | Antennariidae | <i>Histrion histrio</i> | LC | | No |
| Lophiiformes | Caulophrynidae | <i>Caulophryne jordani</i> | LC | | No |
| Lophiiformes | Caulophrynidae | <i>Caulophryne pelagica</i> | DD | | No |
| Lophiiformes | Caulophrynidae | <i>Caulophryne polynema</i> | LC | | No |
| Lophiiformes | Centrophrynidae | <i>Centrophryne spinulosa</i> | LC | | No |
| Lophiiformes | Ceratiidae | <i>Ceratias holboelli</i> | LC | | No |
| Lophiiformes | Ceratiidae | <i>Ceratias uranoscopus</i> | LC | | No |
| Lophiiformes | Ceratiidae | <i>Cryptopsaras couesii</i> | LC | | No |
| Lophiiformes | Chaunacidae | <i>Chaunax pictus</i> | LC | | No |
| Lophiiformes | Chaunacidae | <i>Chaunax suttkusi</i> | LC | | No |
| Lophiiformes | Diceratiidae | <i>Bufoceratias wedli</i> | LC | | No |
| Lophiiformes | Diceratiidae | <i>Diceratias pileatus</i> | LC | | No |
| Lophiiformes | Gigantactinidae | <i>Gigantactis elsmanni</i> | LC | | No |
| Lophiiformes | Gigantactinidae | <i>Gigantactis gibbsi</i> | LC | | No |
| Lophiiformes | Gigantactinidae | <i>Gigantactis golovani</i> | LC | | No |
| Lophiiformes | Gigantactinidae | <i>Gigantactis gracilicauda</i> | DD | | No |
| Lophiiformes | Gigantactinidae | <i>Gigantactis longicirra</i> | LC | | No |
| Lophiiformes | Gigantactinidae | <i>Gigantactis vanhoeffeni</i> | DD | | No |
| Lophiiformes | Gigantactinidae | <i>Gigantactis watermani</i> | DD | | No |
| Lophiiformes | Gigantactinidae | <i>Rhynchactis macrothrix</i> | DD | | No |
| Lophiiformes | Himantolophidae | <i>Himantolophus albinus</i> | DD | | No |
| Lophiiformes | Himantolophidae | <i>Himantolophus brevirostris</i> | DD | | No |
| Lophiiformes | Himantolophidae | <i>Himantolophus cornifer</i> | LC | | No |
| Lophiiformes | Himantolophidae | <i>Himantolophus crinitus</i> | LC | | Yes |
| Lophiiformes | Himantolophidae | <i>Himantolophus groenlandicus</i> | LC | | No |
| Lophiiformes | Himantolophidae | <i>Himantolophus macroceras</i> | DD | | No |
| Lophiiformes | Himantolophidae | <i>Himantolophus macroceratoides</i> | DD | | No |
| Lophiiformes | Himantolophidae | <i>Himantolophus multifurcatus</i> | DD | | Yes |
| Lophiiformes | Himantolophidae | <i>Himantolophus paucifilosus</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|----------------|-------------------|-------------------------------------|-----|------|---------|
| Lophiiformes | Himantolophidae | <i>Himantolophus rostratus</i> | DD | | No |
| Lophiiformes | Linophryidae | <i>Haplophryne mollis</i> | LC | | No |
| Lophiiformes | Linophryidae | <i>Linophryne arborifera</i> | LC | | No |
| Lophiiformes | Linophryidae | <i>Linophryne pennibarbata</i> | LC | | No |
| Lophiiformes | Linophryidae | <i>Photocorynus spiniceps</i> | LC | | No |
| Lophiiformes | Lophiidae | <i>Lophiodes kemp</i> | DD | | Yes |
| Lophiiformes | Lophiidae | <i>Lophius budegassa</i> | DD | | No |
| Lophiiformes | Lophiidae | <i>Lophius piscatorius</i> | LC | | No |
| Lophiiformes | Lophiidae | <i>Lophius vomerinus</i> | NT | | No |
| Lophiiformes | Melanocetidae | <i>Melanocetus johnsonii</i> | LC | | No |
| Lophiiformes | Melanocetidae | <i>Melanocetus murrayi</i> | LC | | No |
| Lophiiformes | Neoceratiidae | <i>Neoceratias spinifer</i> | LC | | No |
| Lophiiformes | Ogcocephalidae | <i>Dibranchius atlanticus</i> | LC | | No |
| Lophiiformes | Ogcocephalidae | <i>Dibranchius tremendus</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Chaenophryne draco</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Chaenophryne longiceps</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Chaenophryne ramifera</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Dolopichthys allector</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Dolopichthys danae</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Dolopichthys dinema</i> | LC | | Yes |
| Lophiiformes | Oneirodidae | <i>Dolopichthys jubatus</i> | DD | | No |
| Lophiiformes | Oneirodidae | <i>Dolopichthys longicornis</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Dolopichthys pullatus</i> | DD | | No |
| Lophiiformes | Oneirodidae | <i>Lophodolos acanthognathus</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Lophodolos indicus</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Microlophichthys microlophus</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Oneirodes carlsbergi</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Oneirodes eschrichtii</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Oneirodes macrosteus</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Oneirodes theodoritissieri</i> | LC | | Yes |
| Lophiiformes | Oneirodidae | <i>Pentherichthys atratus</i> | LC | | No |
| Lophiiformes | Oneirodidae | <i>Spiniphryne gladisfenae</i> | LC | | No |
| Lophiiformes | Thaumatichthyidae | <i>Lasiognathus saccostoma</i> | LC | | No |
| Mugiliformes | Mugilidae | <i>Chelon bispinosus</i> | LC | | Yes |
| Mugiliformes | Mugilidae | <i>Chelon labrosus</i> | LC | | No |
| Mugiliformes | Mugilidae | <i>Liza bandialensis</i> | DD | | Yes |
| Mugiliformes | Mugilidae | <i>Liza dumerili</i> | DD | | No |
| Mugiliformes | Mugilidae | <i>Liza falcipinnis</i> | DD | | Yes |
| Mugiliformes | Mugilidae | <i>Liza grandisquamis</i> | DD | | Yes |
| Mugiliformes | Mugilidae | <i>Mugil bananensis</i> | LC | | Yes |
| Mugiliformes | Mugilidae | <i>Mugil capurrii</i> | LC | | No |
| Mugiliformes | Mugilidae | <i>Mugil cephalus</i> | LC | | No |
| Mugiliformes | Mugilidae | <i>Mugil curema</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Benthoosema glaciale</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Benthoosema suborbitale</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|----------------|-------------|--------------------------------------|-----|------|---------|
| Myctophiformes | Myctophidae | <i>Bolinichthys distofax</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Bolinichthys indicus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Bolinichthys photothorax</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Bolinichthys supralateralis</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Centrobranchus nigroocellatus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Ceratoscopelus maderensis</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Ceratoscopelus warmingii</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus anderseni</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus bertelseni</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus brachycephalus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus dumerilii</i> | DD | | No |
| Myctophiformes | Myctophidae | <i>Diaphus effulgens</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus fragilis</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus garmani</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus holti</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus lucidus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus luetkeni</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus metopoclampus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus mollis</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus perspicillatus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus problematicus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus rafinesquii</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus splendidus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus subtilis</i> | DD | | No |
| Myctophiformes | Myctophidae | <i>Diaphus taaningi</i> | DD | | No |
| Myctophiformes | Myctophidae | <i>Diaphus termophilus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diaphus vanhoeffeni</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Diogenichthys atlanticus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Electrona risso</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Gonichthys cocco</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Hygophum benoiti</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Hygophum hygomii</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Hygophum macrochir</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Hygophum reinhardtii</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Hygophum taaningi</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampadena anomala</i> | DD | | No |
| Myctophiformes | Myctophidae | <i>Lampadena chavesi</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampadena luminosa</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampadena pontifex</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampadena speculigera</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus alatus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus australis</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus crocodilus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus festivus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus intricarius</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|------------------|---------------|------------------------------------|-----|------|---------|
| Myctophiformes | Myctophidae | <i>Lampanyctus macdonaldi</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus nobilis</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus photonotus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus pusillus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus tenuiformis</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lampanyctus vadulus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lepidophanes gaussi</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lepidophanes guentheri</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lobianchia dofleini</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Lobianchia gemellarii</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Loweina rara</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Myctophum affine</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Myctophum asperum</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Myctophum nitidulum</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Myctophum obtusirostre</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Myctophum phengodes</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Myctophum punctatum</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Myctophum selenops</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Nannobrachium atrum</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Nannobrachium cuprarium</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Nannobrachium isaacsi</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Nannobrachium lineatum</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Notolychnus valdiviae</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Notoscopelus bolini</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Notoscopelus caudispinosus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Notoscopelus resplendens</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Scopelopsis multipunctatus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Symbolophorus krefftii</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Symbolophorus rufinus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Symbolophorus veranyi</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Taaningichthys bathyphilus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Taaningichthys minimus</i> | LC | | No |
| Myctophiformes | Myctophidae | <i>Taaningichthys paurolychnus</i> | LC | | No |
| Myctophiformes | Neoscopelidae | <i>Neoscopelus macrolepidotus</i> | LC | | No |
| Myctophiformes | Neoscopelidae | <i>Scopelengys tristis</i> | LC | | No |
| Notacanthiformes | Halosauridae | <i>Aldrovandia gracilis</i> | LC | | No |
| Notacanthiformes | Halosauridae | <i>Aldrovandia oleosa</i> | LC | | No |
| Notacanthiformes | Halosauridae | <i>Aldrovandia phalacra</i> | LC | | No |
| Notacanthiformes | Halosauridae | <i>Aldrovandia rostrata</i> | LC | | No |
| Notacanthiformes | Halosauridae | <i>Halosauropsis macrochir</i> | LC | | No |
| Notacanthiformes | Halosauridae | <i>Halosaurus attenuatus</i> | LC | | No |
| Notacanthiformes | Halosauridae | <i>Halosaurus guentheri</i> | LC | | No |
| Notacanthiformes | Halosauridae | <i>Halosaurus johnsonianus</i> | LC | | No |
| Notacanthiformes | Halosauridae | <i>Halosaurus ovenii</i> | LC | | No |
| Notacanthiformes | Notacanthidae | <i>Notacanthus chemnitzii</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|------------------|-----------------|--------------------------------------|-----|------|---------|
| Notacanthiformes | Notacanthidae | <i>Polyacanthonotus challengerii</i> | LC | | No |
| Ophidiiformes | Aphyonidae | <i>Aphyonus rassi</i> | DD | | No |
| Ophidiiformes | Aphyonidae | <i>Nybelinella erikssoni</i> | DD | | No |
| Ophidiiformes | Aphyonidae | <i>Sciadonus jonassoni</i> | DD | | No |
| Ophidiiformes | Bythitidae | <i>Cataetyx bruuni</i> | LC | | Yes |
| Ophidiiformes | Bythitidae | <i>Cataetyx laticeps</i> | LC | | No |
| Ophidiiformes | Bythitidae | <i>Grammonus longhursti</i> | LC | | Yes |
| Ophidiiformes | Carapidae | <i>Carapus acus</i> | LC | | No |
| Ophidiiformes | Carapidae | <i>Echiodon dentatus</i> | LC | | No |
| Ophidiiformes | Carapidae | <i>Snyderidia canina</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Abyssobrotula galathea</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Acanthonus armatus</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Apagesoma delosommatus</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Barathrites iris</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Bassozetus compressus</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Bassozetus levistomatus</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Bassozetus normalis</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Bassozetus oncercephalus</i> | DD | | Yes |
| Ophidiiformes | Ophidiidae | <i>Bassozetus taenia</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Bathyonus laticeps</i> | DD | | No |
| Ophidiiformes | Ophidiidae | <i>Brotula barbata</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Dicrolene introniger</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Holcomycteronus squamosus</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Lamprogrammus brunswigi</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Lamprogrammus exutus</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Lamprogrammus niger</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Luciobrotula corethromycter</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Luciobrotula nolfi</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Monomitopus metriostoma</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Penopus microphthalmus</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Porogadus abyssalis</i> | DD | | No |
| Ophidiiformes | Ophidiidae | <i>Porogadus miles</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Porogadus nudus</i> | DD | | Yes |
| Ophidiiformes | Ophidiidae | <i>Porogadus subarmatus</i> | DD | | Yes |
| Ophidiiformes | Ophidiidae | <i>Selachophidium guentheri</i> | LC | | No |
| Ophidiiformes | Ophidiidae | <i>Spectrunculus grandis</i> | LC | | No |
| Ophidiiformes | Parabrotulidae | <i>Parabrotula plagiophthalma</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Alepocephalus agassizii</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Alepocephalus australis</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Alepocephalus bairdii</i> | DD | | No |
| Osmeriformes | Alepocephalidae | <i>Alepocephalus rostratus</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Asquamiceps caeruleus</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Asquamiceps hjorti</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Bajacalifornia arcylepis</i> | DD | | No |
| Osmeriformes | Alepocephalidae | <i>Bajacalifornia calcarata</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|--------------|------------------|-------------------------------------|-----|------|---------|
| Osmeriformes | Alepocephalidae | <i>Bajacalifornia megalops</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Bathylaco nigricans</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Bathytroctes macrolepis</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Bathytroctes michaelisarsii</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Bathytroctes microlepis</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Bathytroctes squamosus</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Conocara macropteron</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Conocara salmoneum</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Einara edentula</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Einara macrolepis</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Herwigia krefftii</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Leptoderma macrops</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Narcetes erimelas</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Narcetes stomias</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Photostylus pycnopterus</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Rinoctes nasutus</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Rouleina attrita</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Rouleina maderensis</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Talismania antillarum</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Talismania homoptera</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Talismania longifilis</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Talismania mekistoneuma</i> | LC | | No |
| Osmeriformes | Alepocephalidae | <i>Xenodermichthys copei</i> | LC | | No |
| Osmeriformes | Argentinidae | <i>Glossanodon leioglossus</i> | LC | | No |
| Osmeriformes | Argentinidae | <i>Glossanodon polli</i> | LC | | No |
| Osmeriformes | Bathylagidae | <i>Bathylagichthys greyae</i> | LC | | No |
| Osmeriformes | Bathylagidae | <i>Bathylagoides argyrogaster</i> | LC | | No |
| Osmeriformes | Bathylagidae | <i>Dolicholagus longirostris</i> | LC | | No |
| Osmeriformes | Bathylagidae | <i>Melanolagus bericoides</i> | LC | | No |
| Osmeriformes | Leptoichthyidae | <i>Leptoichthys agassizii</i> | LC | | No |
| Osmeriformes | Microstomatidae | <i>Microstoma microstoma</i> | LC | | No |
| Osmeriformes | Microstomatidae | <i>Nansenia atlantica</i> | LC | | No |
| Osmeriformes | Microstomatidae | <i>Nansenia megalopa</i> | DD | | No |
| Osmeriformes | Microstomatidae | <i>Nansenia pelagica</i> | DD | | No |
| Osmeriformes | Microstomatidae | <i>Xenophthalmichthys danae</i> | LC | | No |
| Osmeriformes | Opisthoproctidae | <i>Bathylchnops brachyrhynchus</i> | DD | | No |
| Osmeriformes | Opisthoproctidae | <i>Dolichopteroides binocularis</i> | LC | | No |
| Osmeriformes | Opisthoproctidae | <i>Dolichopteryx longipes</i> | LC | | No |
| Osmeriformes | Opisthoproctidae | <i>Opisthoproctus grimaldii</i> | LC | | No |
| Osmeriformes | Opisthoproctidae | <i>Opisthoproctus soleatus</i> | LC | | No |
| Osmeriformes | Opisthoproctidae | <i>Rhynchohyalus natalensis</i> | LC | | No |
| Osmeriformes | Opisthoproctidae | <i>Winteria telescopa</i> | LC | | No |
| Osmeriformes | Platytrichidae | <i>Barbantus curvifrons</i> | LC | | No |
| Osmeriformes | Platytrichidae | <i>Barbantus elongatus</i> | DD | | No |
| Osmeriformes | Platytrichidae | <i>Holtbyrnia anomala</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|--------------|----------------|-------------------------------------|-----|------|---------|
| Osmeriformes | Platytroutidae | <i>Holtbyrnia cyanocephala</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Holtbyrnia innesi</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Holtbyrnia macrops</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Maulisia argipalla</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Maulisia maui</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Maulisia microlepis</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Mentodus facilis</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Mentodus longirostris</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Mentodus mesalirus</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Mentodus perforatus</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Mentodus rostratus</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Normichthys operosus</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Platytroutes apus</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Sagamichthys schnakenbecki</i> | LC | | No |
| Osmeriformes | Platytroutidae | <i>Searsia koefoedi</i> | LC | | No |
| Perciformes | Acanthuridae | <i>Acanthurus bahianus</i> | LC | | No |
| Perciformes | Acanthuridae | <i>Acanthurus chirurgus</i> | LC | | No |
| Perciformes | Acanthuridae | <i>Acanthurus coeruleus</i> | LC | | No |
| Perciformes | Acanthuridae | <i>Acanthurus monroviae</i> | LC | | No |
| Perciformes | Acanthuridae | <i>Prionurus biafraensis</i> | LC | | Yes |
| Perciformes | Acropomatidae | <i>Synagrops japonicus</i> | LC | | No |
| Perciformes | Acropomatidae | <i>Synagrops microlepis</i> | LC | | No |
| Perciformes | Ammodytidae | <i>Gymnammodytes capensis</i> | LC | | No |
| Perciformes | Ammodytidae | <i>Gymnammodytes ciccerelus</i> | LC | | No |
| Perciformes | Apogonidae | <i>Apogon axillaris</i> | LC | | No |
| Perciformes | Apogonidae | <i>Apogon imberbis</i> | LC | | No |
| Perciformes | Apogonidae | <i>Apogon pseudomaculatus</i> | LC | | No |
| Perciformes | Apogonidae | <i>Paroncheilus affinis</i> | LC | | No |
| Perciformes | Apogonidae | <i>Phaeoptyx pigmentaria</i> | LC | | No |
| Perciformes | Ariommatidae | <i>Ariomma bondi</i> | LC | | No |
| Perciformes | Ariommatidae | <i>Ariomma melanum</i> | LC | | No |
| Perciformes | Blenniidae | <i>Bathyblennius antholops</i> | DD | | Yes |
| Perciformes | Blenniidae | <i>Blennius normani</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Entomacrodus cadenati</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Entomacrodus textilis</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Hypoleurochilus aequipinnis</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Hypoleurochilus bananensis</i> | LC | | No |
| Perciformes | Blenniidae | <i>Hypoleurochilus langi</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Lipophrys pholis</i> | LC | | No |
| Perciformes | Blenniidae | <i>Microlipophrys bauchotae</i> | DD | | Yes |
| Perciformes | Blenniidae | <i>Microlipophrys caboverdensis</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Microlipophrys velifer</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Ophioblennius atlanticus</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Parablennius dialloi</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Parablennius goreensis</i> | LC | | Yes |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------|---------------|-----------------------------------|-----|------|---------|
| Perciformes | Blenniidae | <i>Parablennius incognitus</i> | LC | | No |
| Perciformes | Blenniidae | <i>Parablennius parvicornis</i> | LC | | No |
| Perciformes | Blenniidae | <i>Parablennius pilicornis</i> | LC | | No |
| Perciformes | Blenniidae | <i>Parablennius salensis</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Parablennius sierraensis</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Parablennius tentacularis</i> | LC | | No |
| Perciformes | Blenniidae | <i>Parablennius verrikeni</i> | DD | | Yes |
| Perciformes | Blenniidae | <i>Scartella caboverdiana</i> | LC | | Yes |
| Perciformes | Blenniidae | <i>Scartella cristata</i> | LC | | No |
| Perciformes | Blenniidae | <i>Scartella nuchifilis</i> | VU | D2 | Yes |
| Perciformes | Blenniidae | <i>Scartella springeri</i> | VU | D2 | Yes |
| Perciformes | Blenniidae | <i>Spaniblennius clandestinus</i> | DD | | Yes |
| Perciformes | Blenniidae | <i>Spaniblennius rioudouensis</i> | DD | | No |
| Perciformes | Bramidae | <i>Brama brama</i> | LC | | No |
| Perciformes | Bramidae | <i>Brama dussumieri</i> | LC | | No |
| Perciformes | Bramidae | <i>Pterycombus brama</i> | LC | | No |
| Perciformes | Bramidae | <i>Taractes rubescens</i> | LC | | No |
| Perciformes | Bramidae | <i>Taractichthys longipinnis</i> | LC | | No |
| Perciformes | Callanthiidae | <i>Callanthias ruber</i> | LC | | No |
| Perciformes | Callionymidae | <i>Callionymus bairdi</i> | LC | | No |
| Perciformes | Callionymidae | <i>Callionymus lyra</i> | LC | | No |
| Perciformes | Callionymidae | <i>Callionymus maculatus</i> | LC | | No |
| Perciformes | Callionymidae | <i>Draculo shango</i> | LC | | Yes |
| Perciformes | Callionymidae | <i>Synchiropus phaeton</i> | LC | | No |
| Perciformes | Caproidae | <i>Antigonia capros</i> | LC | | No |
| Perciformes | Caproidae | <i>Capros aper</i> | LC | | No |
| Perciformes | Carangidae | <i>Alectis alexandrina</i> | LC | | No |
| Perciformes | Carangidae | <i>Alectis ciliaris</i> | LC | | No |
| Perciformes | Carangidae | <i>Campogramma glycos</i> | LC | | No |
| Perciformes | Carangidae | <i>Caranx bartholomaei</i> | LC | | No |
| Perciformes | Carangidae | <i>Caranx crysos</i> | LC | | No |
| Perciformes | Carangidae | <i>Caranx fischeri</i> | LC | | No |
| Perciformes | Carangidae | <i>Caranx hippos</i> | LC | | No |
| Perciformes | Carangidae | <i>Caranx latus</i> | LC | | No |
| Perciformes | Carangidae | <i>Caranx lugubris</i> | LC | | No |
| Perciformes | Carangidae | <i>Caranx rhonchus</i> | LC | | No |
| Perciformes | Carangidae | <i>Caranx ruber</i> | LC | | No |
| Perciformes | Carangidae | <i>Caranx senegallus</i> | LC | | No |
| Perciformes | Carangidae | <i>Chloroscombrus chrysurus</i> | LC | | No |
| Perciformes | Carangidae | <i>Decapterus macarellus</i> | LC | | No |
| Perciformes | Carangidae | <i>Decapterus muroadsi</i> | LC | | No |
| Perciformes | Carangidae | <i>Decapterus punctatus</i> | LC | | No |
| Perciformes | Carangidae | <i>Decapterus tabl</i> | LC | | No |
| Perciformes | Carangidae | <i>Elagatis bipinnulata</i> | LC | | No |
| Perciformes | Carangidae | <i>Hemicaranx bicolor</i> | LC | | Yes |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------|-----------------|---------------------------------|-----|------|---------|
| Perciformes | Carangidae | <i>Lichia amia</i> | LC | | No |
| Perciformes | Carangidae | <i>Naucrates ductor</i> | LC | | No |
| Perciformes | Carangidae | <i>Pseudocaranx dentex</i> | LC | | No |
| Perciformes | Carangidae | <i>Selar crumenophthalmus</i> | LC | | No |
| Perciformes | Carangidae | <i>Selene dorsalis</i> | LC | | No |
| Perciformes | Carangidae | <i>Seriola carpenteri</i> | LC | | No |
| Perciformes | Carangidae | <i>Seriola dumerili</i> | LC | | No |
| Perciformes | Carangidae | <i>Seriola fasciata</i> | LC | | No |
| Perciformes | Carangidae | <i>Seriola lalandi</i> | LC | | No |
| Perciformes | Carangidae | <i>Seriola rivoliana</i> | LC | | No |
| Perciformes | Carangidae | <i>Trachinotus goreensis</i> | LC | | Yes |
| Perciformes | Carangidae | <i>Trachinotus maxilloso</i> | LC | | No |
| Perciformes | Carangidae | <i>Trachinotus ovatus</i> | LC | | No |
| Perciformes | Carangidae | <i>Trachinotus teraia</i> | LC | | No |
| Perciformes | Carangidae | <i>Trachurus mediterraneus</i> | LC | | No |
| Perciformes | Carangidae | <i>Trachurus picturatus</i> | LC | | No |
| Perciformes | Carangidae | <i>Trachurus trachurus</i> | VU | A2bd | No |
| Perciformes | Carangidae | <i>Trachurus trecae</i> | LC | | No |
| Perciformes | Carangidae | <i>Uraspis helvola</i> | LC | | No |
| Perciformes | Carangidae | <i>Uraspis secunda</i> | LC | | No |
| Perciformes | Caristiidae | <i>Paracaristius aquilus</i> | LC | | No |
| Perciformes | Caristiidae | <i>Paracaristius nemorosus</i> | LC | | Yes |
| Perciformes | Caristiidae | <i>Paracaristius nudarcus</i> | DD | | Yes |
| Perciformes | Caristiidae | <i>Platyberyx andriashevi</i> | DD | | No |
| Perciformes | Caristiidae | <i>Platyberyx opalescens</i> | LC | | No |
| Perciformes | Centracanthidae | <i>Centracanthus cirrus</i> | LC | | No |
| Perciformes | Centracanthidae | <i>Spicara alta</i> | LC | | Yes |
| Perciformes | Centracanthidae | <i>Spicara melanurus</i> | LC | | No |
| Perciformes | Centrolophidae | <i>Centrolophus niger</i> | LC | | No |
| Perciformes | Centrolophidae | <i>Schedophilus pamarco</i> | LC | | No |
| Perciformes | Centrolophidae | <i>Schedophilus velaini</i> | LC | | No |
| Perciformes | Cepolidae | <i>Cepola macrophthalma</i> | LC | | No |
| Perciformes | Cepolidae | <i>Cepola pauciradiata</i> | DD | | Yes |
| Perciformes | Chaetodontidae | <i>Chaetodon hoeferi</i> | LC | | No |
| Perciformes | Chaetodontidae | <i>Chaetodon robustus</i> | LC | | Yes |
| Perciformes | Chaetodontidae | <i>Chaetodon sanctaehelenae</i> | LC | | Yes |
| Perciformes | Chaetodontidae | <i>Prognathodes dichrous</i> | LC | | Yes |
| Perciformes | Chaetodontidae | <i>Prognathodes marcellae</i> | LC | | Yes |
| Perciformes | Chiasmodontidae | <i>Chiasmodon braueri</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Chiasmodon niger</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Dysalotus alcocki</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Dysalotus oligoscolus</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Kali indica</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Kali kerberti</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Kali macrodon</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------|-----------------|----------------------------------|-----|-----------|---------|
| Perciformes | Chiasmodontidae | <i>Kali macrura</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Kali parri</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Pseudoscopelus altipinnis</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Pseudoscopelus scriptus</i> | LC | | No |
| Perciformes | Chiasmodontidae | <i>Pseudoscopelus scutatus</i> | LC | | No |
| Perciformes | Cirrhitidae | <i>Amblycirrhitus earnshawi</i> | EN | B2ab(iii) | Yes |
| Perciformes | Cirrhitidae | <i>Amblycirrhitus pinos</i> | LC | | No |
| Perciformes | Cirrhitidae | <i>Cirrhitus atlanticus</i> | LC | | Yes |
| Perciformes | Coryphaenidae | <i>Coryphaena equiselis</i> | LC | | No |
| Perciformes | Coryphaenidae | <i>Coryphaena hippurus</i> | LC | | No |
| Perciformes | Dinopercidae | <i>Centrarchops chapini</i> | LC | | Yes |
| Perciformes | Drepaneidae | <i>Drepane africana</i> | LC | | Yes |
| Perciformes | Echeneidae | <i>Echeneis naucrates</i> | LC | | No |
| Perciformes | Echeneidae | <i>Phtheirichthys lineatus</i> | LC | | No |
| Perciformes | Echeneidae | <i>Remora albescens</i> | LC | | No |
| Perciformes | Echeneidae | <i>Remora australis</i> | LC | | No |
| Perciformes | Echeneidae | <i>Remora brachyptera</i> | LC | | No |
| Perciformes | Echeneidae | <i>Remora osteochir</i> | LC | | No |
| Perciformes | Echeneidae | <i>Remora remora</i> | LC | | No |
| Perciformes | Eleotridae | <i>Eleotris vittata</i> | LC | | No |
| Perciformes | Emmelichthyidae | <i>Emmelichthys ruber</i> | LC | | No |
| Perciformes | Emmelichthyidae | <i>Erythrocles monodi</i> | LC | | No |
| Perciformes | Ephippidae | <i>Chaetodipterus lippei</i> | LC | | No |
| Perciformes | Ephippidae | <i>Ephippus goreensis</i> | LC | | Yes |
| Perciformes | Epigonidae | <i>Epigonus affinis</i> | LC | | Yes |
| Perciformes | Epigonidae | <i>Epigonus constanciae</i> | LC | | No |
| Perciformes | Epigonidae | <i>Epigonus denticulatus</i> | LC | | No |
| Perciformes | Epigonidae | <i>Epigonus pandionis</i> | LC | | No |
| Perciformes | Epigonidae | <i>Epigonus telescopus</i> | LC | | No |
| Perciformes | Epinephelidae | <i>Alphestes afer</i> | LC | | No |
| Perciformes | Epinephelidae | <i>Cephalopholis nigri</i> | LC | | No |
| Perciformes | Epinephelidae | <i>Cephalopholis taeniops</i> | DD | | No |
| Perciformes | Epinephelidae | <i>Epinephelus adscensionis</i> | LC | | No |
| Perciformes | Epinephelidae | <i>Epinephelus aeneus</i> | NT | | No |
| Perciformes | Epinephelidae | <i>Epinephelus caninus</i> | DD | | No |
| Perciformes | Epinephelidae | <i>Epinephelus costae</i> | DD | | No |
| Perciformes | Epinephelidae | <i>Epinephelus goreensis</i> | DD | | Yes |
| Perciformes | Epinephelidae | <i>Epinephelus itajara</i> | CR | A2d | No |
| Perciformes | Epinephelidae | <i>Epinephelus marginatus</i> | EN | A2d | No |
| Perciformes | Epinephelidae | <i>Hyporthodus haifensis</i> | DD | | No |
| Perciformes | Epinephelidae | <i>Mycteroperca fusca</i> | EN | B1ab(v) | No |
| Perciformes | Epinephelidae | <i>Mycteroperca rubra</i> | LC | | No |
| Perciformes | Epinephelidae | <i>Paranthias furcifer</i> | LC | | No |
| Perciformes | Gempylidae | <i>Diplospinus multistriatus</i> | LC | | No |
| Perciformes | Gempylidae | <i>Gempylus serpens</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------|------------|------------------------------------|-----|-----------|---------|
| Perciformes | Gempylidae | <i>Lepidocybium flavobrunneum</i> | LC | | No |
| Perciformes | Gempylidae | <i>Nealotus tripes</i> | LC | | No |
| Perciformes | Gempylidae | <i>Nesiarchus nasutus</i> | LC | | No |
| Perciformes | Gempylidae | <i>Promethichthys prometheus</i> | LC | | No |
| Perciformes | Gempylidae | <i>Ruvettus pretiosus</i> | LC | | No |
| Perciformes | Gerreidae | <i>Eucinostomus melanopterus</i> | LC | | No |
| Perciformes | Gerreidae | <i>Gerres nigri</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Bathygobius burtoni</i> | EN | B2ab(iii) | Yes |
| Perciformes | Gobiidae | <i>Bathygobius casamancus</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Bathygobius soporator</i> | LC | | No |
| Perciformes | Gobiidae | <i>Corcyrogobius lubbocki</i> | VU | B2ab(iii) | Yes |
| Perciformes | Gobiidae | <i>Ctenogobius lepturus</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Didogobius amicuscaridis</i> | VU | B2ab(iii) | Yes |
| Perciformes | Gobiidae | <i>Didogobius kochi</i> | LC | | No |
| Perciformes | Gobiidae | <i>Didogobius wirtzi</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Gnatholepis thompsoni</i> | LC | | No |
| Perciformes | Gobiidae | <i>Gobioides africanus</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Gobioides sagitta</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Gobionellus occidentalis</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Gobius ateriformis</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Gobius cruentatus</i> | LC | | No |
| Perciformes | Gobiidae | <i>Gobius niger</i> | LC | | No |
| Perciformes | Gobiidae | <i>Gobius paganellus</i> | LC | | No |
| Perciformes | Gobiidae | <i>Gobius rubropunctatus</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Gobius senegambiensis</i> | LC | | No |
| Perciformes | Gobiidae | <i>Gobius tetraphthalmus</i> | VU | B2ab(iii) | Yes |
| Perciformes | Gobiidae | <i>Gorogobius nigrincinctus</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Gorogobius stevcici</i> | VU | B2ab(iii) | Yes |
| Perciformes | Gobiidae | <i>Lesueurigobius friesii</i> | LC | | No |
| Perciformes | Gobiidae | <i>Lesueurigobius koumansi</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Lesueurigobius sanzi</i> | LC | | No |
| Perciformes | Gobiidae | <i>Mauligobius nigri</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Nematogobius brachynemus</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Pomatoschistus microps</i> | LC | | No |
| Perciformes | Gobiidae | <i>Priolepis ascensionis</i> | EN | B2ab(iii) | Yes |
| Perciformes | Gobiidae | <i>Thorogobius angolensis</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Thorogobius rofeni</i> | LC | | No |
| Perciformes | Gobiidae | <i>Vanneaugobius canariensis</i> | LC | | No |
| Perciformes | Gobiidae | <i>Wheelerigobius maltzani</i> | LC | | Yes |
| Perciformes | Gobiidae | <i>Wheelerigobius wirtzi</i> | LC | | Yes |
| Perciformes | Haemulidae | <i>Brachydeuterus auritus</i> | NT | | No |
| Perciformes | Haemulidae | <i>Parakuhlia macrophthalmus</i> | DD | | Yes |
| Perciformes | Haemulidae | <i>Parapristipoma humile</i> | LC | | No |
| Perciformes | Haemulidae | <i>Parapristipoma octolineatum</i> | LC | | No |
| Perciformes | Haemulidae | <i>Plectorhinchus macrolepis</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------|---------------|-------------------------------------|-----|------------|---------|
| Perciformes | Haemulidae | <i>Plectorhinchus mediterraneus</i> | DD | | No |
| Perciformes | Haemulidae | <i>Pomadasys incisus</i> | LC | | No |
| Perciformes | Haemulidae | <i>Pomadasys jubelini</i> | LC | | Yes |
| Perciformes | Haemulidae | <i>Pomadasys perotaei</i> | LC | | Yes |
| Perciformes | Haemulidae | <i>Pomadasys rogerii</i> | LC | | Yes |
| Perciformes | Howellidae | <i>Howella atlantica</i> | LC | | No |
| Perciformes | Istiophoridae | <i>Istiophorus platypterus</i> | LC | | No |
| Perciformes | Istiophoridae | <i>Kajikia albida</i> | VU | A2bd | No |
| Perciformes | Istiophoridae | <i>Makaira nigricans</i> | VU | A2bd | No |
| Perciformes | Istiophoridae | <i>Tetrapturus georgii</i> | DD | | No |
| Perciformes | Istiophoridae | <i>Tetrapturus pfluegeri</i> | LC | | No |
| Perciformes | Kyphosidae | <i>Girella zonata</i> | VU | B2ab(iii) | Yes |
| Perciformes | Kyphosidae | <i>Kyphosus sectatrix</i> | LC | | No |
| Perciformes | Kyphosidae | <i>Kyphosus vaigiensis</i> | LC | | No |
| Perciformes | Labridae | <i>Acantholabrus palloni</i> | LC | | No |
| Perciformes | Labridae | <i>Bodianus insularis</i> | LC | | No |
| Perciformes | Labridae | <i>Bodianus scrofa</i> | VU | B2ab(iv,v) | No |
| Perciformes | Labridae | <i>Bodianus speciosus</i> | DD | | No |
| Perciformes | Labridae | <i>Coris atlantica</i> | LC | | No |
| Perciformes | Labridae | <i>Doratonotus megalepis</i> | LC | | No |
| Perciformes | Labridae | <i>Labrus mixtus</i> | LC | | No |
| Perciformes | Labridae | <i>Lappanella guineensis</i> | DD | | Yes |
| Perciformes | Labridae | <i>Nicholsina collettei</i> | LC | | Yes |
| Perciformes | Labridae | <i>Scarus hoefleri</i> | LC | | Yes |
| Perciformes | Labridae | <i>Sparisoma cretense</i> | LC | | No |
| Perciformes | Labridae | <i>Symphodus bailloni</i> | LC | | No |
| Perciformes | Labridae | <i>Thalassoma pavo</i> | LC | | No |
| Perciformes | Labridae | <i>Xyrichtys novacula</i> | LC | | No |
| Perciformes | Labrisomidae | <i>Malacoctenus africanus</i> | DD | | Yes |
| Perciformes | Lethrinidae | <i>Lethrinus atlanticus</i> | LC | | Yes |
| Perciformes | Lobotidae | <i>Lobotes surinamensis</i> | LC | | No |
| Perciformes | Lutjanidae | <i>Apsilus fuscus</i> | LC | | No |
| Perciformes | Lutjanidae | <i>Lutjanus agennes</i> | DD | | Yes |
| Perciformes | Lutjanidae | <i>Lutjanus dentatus</i> | DD | | Yes |
| Perciformes | Lutjanidae | <i>Lutjanus endecacanthus</i> | DD | | Yes |
| Perciformes | Lutjanidae | <i>Lutjanus fulgens</i> | LC | | Yes |
| Perciformes | Lutjanidae | <i>Lutjanus goreensis</i> | DD | | Yes |
| Perciformes | Luvaridae | <i>Luvarus imperialis</i> | LC | | No |
| Perciformes | Malacanthidae | <i>Branchiostegus semifasciatus</i> | LC | | No |
| Perciformes | Malacanthidae | <i>Malacanthus plumieri</i> | LC | | No |
| Perciformes | Microdesmidae | <i>Microdesmus aethiopicus</i> | LC | | Yes |
| Perciformes | Microdesmidae | <i>Microdesmus africanus</i> | DD | | Yes |
| Perciformes | Moronidae | <i>Dicentrarchus labrax</i> | LC | | No |
| Perciformes | Moronidae | <i>Dicentrarchus punctatus</i> | LC | | No |
| Perciformes | Mullidae | <i>Mulloidichthys martinicus</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------|----------------|-------------------------------------|-----|------|---------|
| Perciformes | Mullidae | <i>Mullus barbatus</i> | LC | | No |
| Perciformes | Mullidae | <i>Mullus surmuletus</i> | LC | | No |
| Perciformes | Mullidae | <i>Pseudupeneus prayensis</i> | VU | A2ad | No |
| Perciformes | Nomeidae | <i>Cubiceps caeruleus</i> | LC | | No |
| Perciformes | Nomeidae | <i>Cubiceps capensis</i> | LC | | No |
| Perciformes | Nomeidae | <i>Cubiceps gracilis</i> | LC | | No |
| Perciformes | Nomeidae | <i>Cubiceps pauciradiatus</i> | LC | | No |
| Perciformes | Nomeidae | <i>Nomeus gronovii</i> | LC | | No |
| Perciformes | Nomeidae | <i>Psenes arafurensis</i> | LC | | No |
| Perciformes | Nomeidae | <i>Psenes cyanophrys</i> | LC | | No |
| Perciformes | Nomeidae | <i>Psenes pellucidus</i> | LC | | No |
| Perciformes | Percophidae | <i>Bembrops cadenati</i> | LC | | Yes |
| Perciformes | Percophidae | <i>Bembrops greyi</i> | LC | | Yes |
| Perciformes | Percophidae | <i>Bembrops heterurus</i> | LC | | No |
| Perciformes | Pinguipedidae | <i>Parapercis atlantica</i> | DD | | Yes |
| Perciformes | Polynemidae | <i>Galeoides decadactylus</i> | NT | | No |
| Perciformes | Polynemidae | <i>Pentanemus quinquarius</i> | VU | A2bd | Yes |
| Perciformes | Polynemidae | <i>Polydactylus quadrifilis</i> | LC | | Yes |
| Perciformes | Polyprionidae | <i>Polyprion americanus</i> | DD | | No |
| Perciformes | Pomacanthidae | <i>Centropyge resplendens</i> | LC | | Yes |
| Perciformes | Pomacanthidae | <i>Holacanthus africanus</i> | LC | | Yes |
| Perciformes | Pomacanthidae | <i>Pomacanthus paru</i> | LC | | No |
| Perciformes | Pomacentridae | <i>Abudefduf hoefleri</i> | DD | | Yes |
| Perciformes | Pomacentridae | <i>Abudefduf luridus</i> | LC | | No |
| Perciformes | Pomacentridae | <i>Abudefduf saxatilis</i> | LC | | No |
| Perciformes | Pomacentridae | <i>Abudefduf taurus</i> | LC | | No |
| Perciformes | Pomacentridae | <i>Chromis cadenati</i> | LC | | Yes |
| Perciformes | Pomacentridae | <i>Chromis chromis</i> | LC | | No |
| Perciformes | Pomacentridae | <i>Chromis limbata</i> | LC | | No |
| Perciformes | Pomacentridae | <i>Chromis lubbocki</i> | LC | | Yes |
| Perciformes | Pomacentridae | <i>Chromis multilineata</i> | LC | | No |
| Perciformes | Pomacentridae | <i>Chromis sanctaehelenae</i> | LC | | Yes |
| Perciformes | Pomacentridae | <i>Chrysiptera unimaculata</i> | LC | | No |
| Perciformes | Pomacentridae | <i>Microspathodon frontatus</i> | LC | | Yes |
| Perciformes | Pomacentridae | <i>Stegastes imbricatus</i> | LC | | Yes |
| Perciformes | Pomacentridae | <i>Stegastes lubbocki</i> | LC | | Yes |
| Perciformes | Pomacentridae | <i>Stegastes sanctaehelenae</i> | LC | | Yes |
| Perciformes | Pomatomidae | <i>Pomatomus saltatrix</i> | VU | A2bd | No |
| Perciformes | Priacanthidae | <i>Heteropriacanthus cruentatus</i> | LC | | No |
| Perciformes | Priacanthidae | <i>Priacanthus arenatus</i> | LC | | No |
| Perciformes | Rachycentridae | <i>Rachycentron canadum</i> | LC | | No |
| Perciformes | Sciaenidae | <i>Argyrosomus regius</i> | LC | | No |
| Perciformes | Sciaenidae | <i>Atractoscion aequidens</i> | VU | A2bd | No |
| Perciformes | Sciaenidae | <i>Miracorvina angolensis</i> | LC | | Yes |
| Perciformes | Sciaenidae | <i>Pentheroscion mbizi</i> | NT | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------|-------------------|------------------------------------|-----|------|---------|
| Perciformes | Sciaenidae | <i>Pseudotolithus elongatus</i> | LC | | No |
| Perciformes | Sciaenidae | <i>Pseudotolithus epipercus</i> | LC | | Yes |
| Perciformes | Sciaenidae | <i>Pseudotolithus moorii</i> | LC | | Yes |
| Perciformes | Sciaenidae | <i>Pseudotolithus senegalensis</i> | EN | A2bd | No |
| Perciformes | Sciaenidae | <i>Pseudotolithus senegallus</i> | VU | A2bd | No |
| Perciformes | Sciaenidae | <i>Pseudotolithus typus</i> | LC | | Yes |
| Perciformes | Sciaenidae | <i>Pteroscion peli</i> | LC | | Yes |
| Perciformes | Sciaenidae | <i>Sciaena umbra</i> | NT | | No |
| Perciformes | Sciaenidae | <i>Umbrina canariensis</i> | LC | | No |
| Perciformes | Sciaenidae | <i>Umbrina ronchus</i> | DD | | No |
| Perciformes | Sciaenidae | <i>Umbrina steindachneri</i> | DD | | Yes |
| Perciformes | Scombridae | <i>Acanthocybium solandri</i> | LC | | No |
| Perciformes | Scombridae | <i>Auxis rochei</i> | LC | | No |
| Perciformes | Scombridae | <i>Auxis thazard</i> | LC | | No |
| Perciformes | Scombridae | <i>Euthynnus alletteratus</i> | LC | | No |
| Perciformes | Scombridae | <i>Katsuwonus pelamis</i> | LC | | No |
| Perciformes | Scombridae | <i>Orcynopsis unicolor</i> | LC | | No |
| Perciformes | Scombridae | <i>Sarda sarda</i> | LC | | No |
| Perciformes | Scombridae | <i>Scomber colias</i> | LC | | No |
| Perciformes | Scombridae | <i>Scomberomorus tritor</i> | LC | | No |
| Perciformes | Scombridae | <i>Thunnus alalunga</i> | NT | | No |
| Perciformes | Scombridae | <i>Thunnus albacares</i> | NT | | No |
| Perciformes | Scombridae | <i>Thunnus obesus</i> | VU | A2bd | No |
| Perciformes | Scombridae | <i>Thunnus thynnus</i> | EN | A2bd | No |
| Perciformes | Scombrolabracidae | <i>Scombrolabrax heterolepis</i> | LC | | No |
| Perciformes | Serranidae | <i>Anthias anthias</i> | LC | | No |
| Perciformes | Serranidae | <i>Anthias cyprinoides</i> | DD | | Yes |
| Perciformes | Serranidae | <i>Anthias helenensis</i> | DD | | Yes |
| Perciformes | Serranidae | <i>Holanthias caudalis</i> | DD | | Yes |
| Perciformes | Serranidae | <i>Holanthias fronticinctus</i> | DD | | Yes |
| Perciformes | Serranidae | <i>Meganthias carpeni</i> | DD | | Yes |
| Perciformes | Serranidae | <i>Pseudogramma gregoryi</i> | LC | | No |
| Perciformes | Serranidae | <i>Pseudogramma guineensis</i> | LC | | Yes |
| Perciformes | Serranidae | <i>Rypticus saponaceus</i> | LC | | No |
| Perciformes | Serranidae | <i>Rypticus subbifrenatus</i> | LC | | No |
| Perciformes | Serranidae | <i>Serranus accraensis</i> | LC | | Yes |
| Perciformes | Serranidae | <i>Serranus africanus</i> | LC | | Yes |
| Perciformes | Serranidae | <i>Serranus cabrilla</i> | LC | | No |
| Perciformes | Serranidae | <i>Serranus hepatus</i> | LC | | No |
| Perciformes | Serranidae | <i>Serranus heterurus</i> | LC | | Yes |
| Perciformes | Serranidae | <i>Serranus sanctaehelenae</i> | LC | | No |
| Perciformes | Serranidae | <i>Serranus scriba</i> | LC | | No |
| Perciformes | Sparidae | <i>Boops boops</i> | LC | | No |
| Perciformes | Sparidae | <i>Dentex angolensis</i> | NT | | No |
| Perciformes | Sparidae | <i>Dentex barnardi</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------|--------------------|---------------------------------|-----|------|---------|
| Perciformes | Sparidae | <i>Dentex canariensis</i> | LC | | No |
| Perciformes | Sparidae | <i>Dentex congoensis</i> | LC | | Yes |
| Perciformes | Sparidae | <i>Dentex dentex</i> | VU | A2bd | No |
| Perciformes | Sparidae | <i>Dentex gibbosus</i> | LC | | No |
| Perciformes | Sparidae | <i>Dentex macrophthalmus</i> | LC | | No |
| Perciformes | Sparidae | <i>Dentex maroccanus</i> | LC | | No |
| Perciformes | Sparidae | <i>Diplodus bellottii</i> | LC | | No |
| Perciformes | Sparidae | <i>Diplodus cervinus</i> | LC | | No |
| Perciformes | Sparidae | <i>Diplodus fasciatus</i> | LC | | Yes |
| Perciformes | Sparidae | <i>Diplodus prayensis</i> | LC | | Yes |
| Perciformes | Sparidae | <i>Diplodus puntazzo</i> | LC | | No |
| Perciformes | Sparidae | <i>Diplodus sargus</i> | LC | | No |
| Perciformes | Sparidae | <i>Diplodus vulgaris</i> | LC | | No |
| Perciformes | Sparidae | <i>Lithognathus mormyrus</i> | LC | | No |
| Perciformes | Sparidae | <i>Oblada melanura</i> | LC | | No |
| Perciformes | Sparidae | <i>Pachymetopon blochii</i> | LC | | No |
| Perciformes | Sparidae | <i>Pagellus acarne</i> | LC | | No |
| Perciformes | Sparidae | <i>Pagellus bellottii</i> | LC | | No |
| Perciformes | Sparidae | <i>Pagellus bogaraveo</i> | NT | | No |
| Perciformes | Sparidae | <i>Pagellus erythrinus</i> | LC | | No |
| Perciformes | Sparidae | <i>Pagrus auriga</i> | LC | | No |
| Perciformes | Sparidae | <i>Pagrus caeruleostictus</i> | LC | | No |
| Perciformes | Sparidae | <i>Rhabdosargus globiceps</i> | VU | A2bd | No |
| Perciformes | Sparidae | <i>Sarpa salpa</i> | LC | | No |
| Perciformes | Sparidae | <i>Sparus aurata</i> | LC | | No |
| Perciformes | Sparidae | <i>Spondylisoma cantharus</i> | LC | | No |
| Perciformes | Sparidae | <i>Virididentex acromegalus</i> | LC | | Yes |
| Perciformes | Sphyraenidae | <i>Sphyraena afra</i> | LC | | No |
| Perciformes | Sphyraenidae | <i>Sphyraena barracuda</i> | LC | | No |
| Perciformes | Sphyraenidae | <i>Sphyraena guachancho</i> | LC | | No |
| Perciformes | Sphyraenidae | <i>Sphyraena sphyraena</i> | LC | | No |
| Perciformes | Sphyraenidae | <i>Sphyraena viridensis</i> | LC | | No |
| Perciformes | Stromateidae | <i>Stromateus fiatola</i> | LC | | No |
| Perciformes | Symphysanodontidae | <i>Symphysanodon berryi</i> | LC | | No |
| Perciformes | Tetragonuridae | <i>Tetragonurus atlanticus</i> | LC | | No |
| Perciformes | Tetragonuridae | <i>Tetragonurus cuvieri</i> | LC | | No |
| Perciformes | Trachinidae | <i>Trachinus araneus</i> | LC | | No |
| Perciformes | Trachinidae | <i>Trachinus armatus</i> | LC | | No |
| Perciformes | Trachinidae | <i>Trachinus collignoni</i> | DD | | Yes |
| Perciformes | Trachinidae | <i>Trachinus draco</i> | LC | | No |
| Perciformes | Trachinidae | <i>Trachinus lineolatus</i> | LC | | No |
| Perciformes | Trachinidae | <i>Trachinus pellegrini</i> | LC | | No |
| Perciformes | Trachinidae | <i>Trachinus radiatus</i> | LC | | No |
| Perciformes | Trichiuridae | <i>Aphanopus intermedius</i> | LC | | No |
| Perciformes | Trichiuridae | <i>Benthodesmus tenuis</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------------|-----------------|---------------------------------|-----|------|---------|
| Perciformes | Trichiuridae | <i>Lepidopus caudatus</i> | DD | | No |
| Perciformes | Trichiuridae | <i>Lepidopus dubius</i> | LC | | Yes |
| Perciformes | Trichiuridae | <i>Trichiurus lepturus</i> | LC | | No |
| Perciformes | Tripterygiidae | <i>Helcogramma ascensionis</i> | LC | | Yes |
| Perciformes | Tripterygiidae | <i>Tripterygion delaisi</i> | LC | | No |
| Perciformes | Uranoscopidae | <i>Uranoscopus albesca</i> | LC | | Yes |
| Perciformes | Uranoscopidae | <i>Uranoscopus cadenati</i> | LC | | Yes |
| Perciformes | Uranoscopidae | <i>Uranoscopus polli</i> | LC | | Yes |
| Perciformes | Uranoscopidae | <i>Uranoscopus scaber</i> | LC | | No |
| Perciformes | Xiphiidae | <i>Xiphias gladius</i> | LC | | No |
| Perciformes | Zoarcidae | <i>Melanostigma atlanticum</i> | LC | | No |
| Perciformes | Zoarcidae | <i>Pachycara bulbiceps</i> | LC | | No |
| Perciformes | Zoarcidae | <i>Pachycara crassiceps</i> | LC | | No |
| Perciformes | Zoarcidae | <i>Pachycara crossacanthum</i> | LC | | Yes |
| Pleuronectiformes | Bothidae | <i>Arnoglossus capensis</i> | LC | | No |
| Pleuronectiformes | Bothidae | <i>Arnoglossus imperialis</i> | LC | | No |
| Pleuronectiformes | Bothidae | <i>Arnoglossus laterna</i> | LC | | No |
| Pleuronectiformes | Bothidae | <i>Arnoglossus thori</i> | DD | | No |
| Pleuronectiformes | Bothidae | <i>Bothus guibei</i> | DD | | Yes |
| Pleuronectiformes | Bothidae | <i>Bothus lunatus</i> | LC | | No |
| Pleuronectiformes | Bothidae | <i>Bothus mellissi</i> | LC | | Yes |
| Pleuronectiformes | Bothidae | <i>Bothus podas</i> | LC | | No |
| Pleuronectiformes | Bothidae | <i>Chascanopsetta lugubris</i> | LC | | No |
| Pleuronectiformes | Bothidae | <i>Monolene helenensis</i> | DD | | Yes |
| Pleuronectiformes | Bothidae | <i>Monolene mertensi</i> | LC | | Yes |
| Pleuronectiformes | Bothidae | <i>Monolene microstoma</i> | LC | | No |
| Pleuronectiformes | Citharidae | <i>Citharus linguatula</i> | LC | | No |
| Pleuronectiformes | Cynoglossidae | <i>Cynoglossus browni</i> | DD | | Yes |
| Pleuronectiformes | Cynoglossidae | <i>Cynoglossus cadenati</i> | DD | | Yes |
| Pleuronectiformes | Cynoglossidae | <i>Cynoglossus canariensis</i> | NT | | No |
| Pleuronectiformes | Cynoglossidae | <i>Cynoglossus monodi</i> | NT | | Yes |
| Pleuronectiformes | Cynoglossidae | <i>Cynoglossus senegalensis</i> | NT | | Yes |
| Pleuronectiformes | Cynoglossidae | <i>Symphurus insularis</i> | LC | | No |
| Pleuronectiformes | Cynoglossidae | <i>Symphurus ligulatus</i> | LC | | No |
| Pleuronectiformes | Cynoglossidae | <i>Symphurus lubbocki</i> | DD | | Yes |
| Pleuronectiformes | Cynoglossidae | <i>Symphurus nigrescens</i> | LC | | No |
| Pleuronectiformes | Cynoglossidae | <i>Symphurus normani</i> | LC | | Yes |
| Pleuronectiformes | Cynoglossidae | <i>Symphurus reticulatus</i> | DD | | Yes |
| Pleuronectiformes | Cynoglossidae | <i>Symphurus vanmelleae</i> | LC | | Yes |
| Pleuronectiformes | Paralichthyidae | <i>Citharichthys stampflii</i> | LC | | Yes |
| Pleuronectiformes | Paralichthyidae | <i>Syacium guineensis</i> | LC | | No |
| Pleuronectiformes | Psettodidae | <i>Psettodes belcheri</i> | DD | | No |
| Pleuronectiformes | Psettodidae | <i>Psettodes bennettii</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Bathysolea lactea</i> | DD | | Yes |
| Pleuronectiformes | Soleidae | <i>Bathysolea polli</i> | LC | | Yes |

| Order | Family | Species | Cat | Crit | Endemic |
|---------------------|------------------|------------------------------------|-----|-----------|---------|
| Pleuronectiformes | Soleidae | <i>Bathysolea profundicola</i> | LC | | No |
| Pleuronectiformes | Soleidae | <i>Dagetichthys lusitanica</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Dicologlossa cuneata</i> | LC | | No |
| Pleuronectiformes | Soleidae | <i>Dicologlossa hexophthalma</i> | LC | | No |
| Pleuronectiformes | Soleidae | <i>Heteromycteris proboscideus</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Microchirus azevia</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Microchirus boscanion</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Microchirus frechkopi</i> | DD | | Yes |
| Pleuronectiformes | Soleidae | <i>Microchirus ocellatus</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Microchirus theophila</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Microchirus variegatus</i> | LC | | No |
| Pleuronectiformes | Soleidae | <i>Microchirus wittei</i> | LC | | No |
| Pleuronectiformes | Soleidae | <i>Monochirus atlanticus</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Pegusa cadenati</i> | DD | | Yes |
| Pleuronectiformes | Soleidae | <i>Pegusa lascaris</i> | LC | | No |
| Pleuronectiformes | Soleidae | <i>Solea senegalensis</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Solea solea</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Solea triophthalma</i> | DD | | Yes |
| Pleuronectiformes | Soleidae | <i>Synapturichthys kleinii</i> | DD | | No |
| Pleuronectiformes | Soleidae | <i>Vanstraelenia chirophthalma</i> | DD | | Yes |
| Polymixiiformes | Polymixiidae | <i>Polymixia nobilis</i> | LC | | No |
| Saccopharyngiformes | Cyematidae | <i>Cyema atrum</i> | LC | | No |
| Saccopharyngiformes | Eurypharyngidae | <i>Eurypharynx pelecانoides</i> | LC | | No |
| Saccopharyngiformes | Monognathidae | <i>Monognathus jespersenii</i> | DD | | Yes |
| Saccopharyngiformes | Monognathidae | <i>Monognathus nigeli</i> | DD | | No |
| Saccopharyngiformes | Monognathidae | <i>Monognathus taningi</i> | DD | | Yes |
| Saccopharyngiformes | Saccopharyngidae | <i>Saccopharynx ampullaceus</i> | LC | | No |
| Saccopharyngiformes | Saccopharyngidae | <i>Saccopharynx ramosus</i> | LC | | No |
| Scorpaeniformes | Dactylopteridae | <i>Dactylopterus volitans</i> | LC | | No |
| Scorpaeniformes | Liparidae | <i>Careproctus albescens</i> | LC | | No |
| Scorpaeniformes | Liparidae | <i>Paraliparis copei</i> | DD | | No |
| Scorpaeniformes | Peristediidae | <i>Peristedion cataphractum</i> | LC | | No |
| Scorpaeniformes | Platycephalidae | <i>Solitas gruveli</i> | LC | | Yes |
| Scorpaeniformes | Psychrolutidae | <i>Cottunculus thomsonii</i> | LC | | No |
| Scorpaeniformes | Psychrolutidae | <i>Ebinania costaecanariae</i> | LC | | No |
| Scorpaeniformes | Psychrolutidae | <i>Psychrolutes inermis</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Idiastion kyphos</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Neomerinthe folgori</i> | DD | | No |
| Scorpaeniformes | Scorpaenidae | <i>Pontinus accraensis</i> | LC | | Yes |
| Scorpaeniformes | Scorpaenidae | <i>Pontinus kuhlii</i> | DD | | No |
| Scorpaeniformes | Scorpaenidae | <i>Pontinus leda</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Pontinus nigropunctatus</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena angolensis</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena annobonae</i> | DD | | Yes |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena ascensionis</i> | EN | B2ab(iii) | Yes |

| Order | Family | Species | Cat | Crit | Endemic |
|----------------------|--------------|-----------------------------------|-----|-----------|---------|
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena elongata</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena laevis</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena loppei</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena maderensis</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena mellissii</i> | EN | B2ab(iii) | Yes |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena normani</i> | LC | | Yes |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena notata</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena plumieri</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena scrofa</i> | LC | | No |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaena stephanica</i> | LC | | Yes |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaenodes africanus</i> | DD | | Yes |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaenodes elongatus</i> | DD | | Yes |
| Scorpaeniformes | Scorpaenidae | <i>Scorpaenodes insularis</i> | LC | | No |
| Scorpaeniformes | Sebastidae | <i>Helicolenus dactylopterus</i> | LC | | No |
| Scorpaeniformes | Sebastidae | <i>Trachyscorpia cristulata</i> | LC | | No |
| Scorpaeniformes | Setarchidae | <i>Ectreposebastes imus</i> | LC | | No |
| Scorpaeniformes | Setarchidae | <i>Setarches guentheri</i> | LC | | No |
| Scorpaeniformes | Triglidae | <i>Chelidonichthys cuculus</i> | LC | | No |
| Scorpaeniformes | Triglidae | <i>Chelidonichthys gabonensis</i> | LC | | Yes |
| Scorpaeniformes | Triglidae | <i>Chelidonichthys lastoviza</i> | LC | | No |
| Scorpaeniformes | Triglidae | <i>Chelidonichthys lucerna</i> | LC | | No |
| Scorpaeniformes | Triglidae | <i>Chelidonichthys obscurus</i> | LC | | No |
| Scorpaeniformes | Triglidae | <i>Lepidotrigla cadmani</i> | LC | | No |
| Scorpaeniformes | Triglidae | <i>Lepidotrigla carolae</i> | LC | | Yes |
| Scorpaeniformes | Triglidae | <i>Lepidotrigla dieuzeidei</i> | LC | | No |
| Scorpaeniformes | Triglidae | <i>Trigla lyra</i> | LC | | No |
| Scorpaeniformes | Triglidae | <i>Trigla macrodactylus</i> | DD | | Yes |
| Scorpaeniformes | Triglidae | <i>Trigloporus lastoviza</i> | LC | | No |
| Siluriformes | Ariidae | <i>Carlarius heudelotii</i> | LC | | Yes |
| Siluriformes | Ariidae | <i>Carlarius latiscutatus</i> | DD | | Yes |
| Siluriformes | Ariidae | <i>Carlarius parkii</i> | LC | | Yes |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes ebelingi</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes eulepis</i> | LC | | No |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes hubbsi</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes leprus</i> | LC | | Yes |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes longivelis</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes polylepis</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes pumilus</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes simus</i> | LC | | No |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes suborbitalis</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Melamphaes typhlops</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Poromitra capito</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Poromitra crassiceps</i> | LC | | No |
| Stephanoberyciformes | Melamphaidae | <i>Poromitra megalops</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Scopeloberyx opisthopterus</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|----------------------|-------------------|---------------------------------------|-----|------|---------|
| Stephanoberyciformes | Melamphaidae | <i>Scopeloberyx robustus</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Scopelogadus beanii</i> | DD | | No |
| Stephanoberyciformes | Melamphaidae | <i>Scopelogadus mizolepis</i> | LC | | No |
| Stephanoberyciformes | Stephanoberycidae | <i>Abyssoberyx levisquamosus</i> | DD | | No |
| Stomiiformes | Gonostomatidae | <i>Bonapartia pedaliota</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Cyclothone acclinidens</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Cyclothone alba</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Cyclothone braueri</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Cyclothone livida</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Cyclothone microdon</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Cyclothone obscura</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Cyclothone pallida</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Cyclothone parapallida</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Cyclothone pseudopallida</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Diplophos taenia</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Gonostoma atlanticum</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Gonostoma denudatum</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Gonostoma elongatum</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Manducus maderensis</i> | DD | | No |
| Stomiiformes | Gonostomatidae | <i>Sigmops bathyphilus</i> | LC | | No |
| Stomiiformes | Gonostomatidae | <i>Triplophos hemingi</i> | LC | | No |
| Stomiiformes | Phosichthyidae | <i>Ichthyococcus ovatus</i> | LC | | No |
| Stomiiformes | Phosichthyidae | <i>Ichthyococcus polli</i> | LC | | No |
| Stomiiformes | Phosichthyidae | <i>Phosichthys argenteus</i> | LC | | No |
| Stomiiformes | Phosichthyidae | <i>Pollichthys maui</i> | LC | | No |
| Stomiiformes | Phosichthyidae | <i>Polymetme thaeocoryla</i> | LC | | No |
| Stomiiformes | Phosichthyidae | <i>Vinciguerrria attenuata</i> | LC | | No |
| Stomiiformes | Phosichthyidae | <i>Vinciguerrria nimbaria</i> | LC | | No |
| Stomiiformes | Phosichthyidae | <i>Vinciguerrria poweriae</i> | LC | | No |
| Stomiiformes | Phosichthyidae | <i>Yarella blackfordi</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Argyropelecus aculeatus</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Argyropelecus affinis</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Argyropelecus gigas</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Argyropelecus hemigymnus</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Argyropelecus sladeni</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Maurolicus walvisensis</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Maurolicus weitzmani</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Polyipnus polli</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Sternoptyx diaphana</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Sternoptyx pseudobscura</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Sternoptyx pseudodiaphana</i> | LC | | No |
| Stomiiformes | Sternoptychidae | <i>Valenciennellus tripunctulatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Aristostomias lunifer</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Aristostomias polydactylus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Aristostomias tittmanni</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|--------------|-----------|---------------------------------|-----|------|---------|
| Stomiiformes | Stomiidae | <i>Aristostomias xenostoma</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes atlanticus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes caulophorus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes decoratus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes gemmifer</i> | DD | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes haplophos</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes indicus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes karsteni</i> | LC | | Yes |
| Stomiiformes | Stomiidae | <i>Astronesthes leucopogon</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes macropogon</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes micropogon</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes niger</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Astronesthes richardsoni</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Bathophilus brevis</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Bathophilus digitatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Bathophilus longipinnis</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Bathophilus metallicus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Bathophilus nigerrimus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Bathophilus pawneeii</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Bathophilus schizochirus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Bathophilus vaillanti</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Borostomias antarcticus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Borostomias elucens</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Borostomias mononema</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Chauliodus danae</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Chauliodus minimus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Chauliodus schmidtii</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Chauliodus sloani</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Echiostoma barbatum</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias acinosus</i> | DD | | No |
| Stomiiformes | Stomiidae | <i>Eustomias aequatorialis</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias arborifer</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias bigelowi</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias enbarbatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias fissibarbis</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias furcifer</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias insularum</i> | DD | | Yes |
| Stomiiformes | Stomiidae | <i>Eustomias intermedius</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias krefftii</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias lanceolatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias longibarba</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias macrurus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias melanonema</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias melanostigma</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias monoclonoides</i> | DD | | Yes |

| Order | Family | Species | Cat | Crit | Endemic |
|-----------------|--------------|--------------------------------------|-----|------|---------|
| Stomiiformes | Stomiidae | <i>Eustomias obscurus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias patulus</i> | DD | | No |
| Stomiiformes | Stomiidae | <i>Eustomias satterleei</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias simplex</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias spherulifer</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Eustomias tenisoni</i> | DD | | No |
| Stomiiformes | Stomiidae | <i>Eustomias triramis</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Flagellostomias boureei</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Grammatostomias dentatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Heterophotus ophistoma</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Idiacanthus fasciola</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Leptostomias gladiator</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Leptostomias gracilis</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Leptostomias longibarba</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Malacosteus niger</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Melanostomias bartonbeani</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Melanostomias biserialatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Melanostomias melanops</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Melanostomias paucilaternatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Melanostomias spilorhynchus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Melanostomias tentaculatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Melanostomias valdiviae</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Neonesthes capensis</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Neonesthes microcephalus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Odontostomias masticopogon</i> | LC | | Yes |
| Stomiiformes | Stomiidae | <i>Odontostomias micropogon</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Pachystomias microdon</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Photonectes braueri</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Photonectes caerulescens</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Photonectes margarita</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Photonectes mirabilis</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Photonectes parvimanus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Photonectes phyllopon</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Photostomias atrox</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Photostomias goodyeari</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Photostomias guernei</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Rhadinesthes decimus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Stomias affinis</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Stomias boa</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Stomias brevibarbatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Stomias lampropeltis</i> | LC | | Yes |
| Stomiiformes | Stomiidae | <i>Stomias longibarbatus</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Thysanactis dentex</i> | LC | | No |
| Stomiiformes | Stomiidae | <i>Trigonolampa miriceps</i> | LC | | No |
| Syngnathiformes | Aulostomidae | <i>Aulostomus strigosus</i> | LC | | No |

| Order | Family | Species | Cat | Crit | Endemic |
|-------------------|-------------------|------------------------------------|-----|----------|---------|
| Syngnathiformes | Centriscidae | <i>Macroramphosus scolopax</i> | LC | | No |
| Syngnathiformes | Fistulariidae | <i>Fistularia petimba</i> | LC | | No |
| Syngnathiformes | Fistulariidae | <i>Fistularia tabacaria</i> | LC | | No |
| Syngnathiformes | Syngnathidae | <i>Cosmocampus retropinnis</i> | DD | | No |
| Syngnathiformes | Syngnathidae | <i>Enneacampus ansorgii</i> | LC | | No |
| Syngnathiformes | Syngnathidae | <i>Enneacampus kaupi</i> | LC | | Yes |
| Syngnathiformes | Syngnathidae | <i>Hippocampus algiricus</i> | VU | A2cd+4cd | Yes |
| Syngnathiformes | Syngnathidae | <i>Hippocampus hippocampus</i> | DD | | No |
| Syngnathiformes | Syngnathidae | <i>Microphis brachyurus</i> | LC | | Yes |
| Syngnathiformes | Syngnathidae | <i>Syngnathus acus</i> | LC | | No |
| Tetraodontiformes | Balistidae | <i>Balistes capriscus</i> | VU | A2bd | No |
| Tetraodontiformes | Balistidae | <i>Balistes punctatus</i> | VU | A2bd | No |
| Tetraodontiformes | Balistidae | <i>Balistes vetula</i> | NT | | No |
| Tetraodontiformes | Balistidae | <i>Canthidermis maculata</i> | LC | | No |
| Tetraodontiformes | Balistidae | <i>Melichthys niger</i> | LC | | No |
| Tetraodontiformes | Diodontidae | <i>Chilomycterus reticulatus</i> | LC | | No |
| Tetraodontiformes | Diodontidae | <i>Chilomycterus spinosus</i> | LC | | No |
| Tetraodontiformes | Diodontidae | <i>Diodon eydouxi</i> | LC | | No |
| Tetraodontiformes | Diodontidae | <i>Diodon holocanthus</i> | LC | | No |
| Tetraodontiformes | Diodontidae | <i>Diodon hystrix</i> | LC | | No |
| Tetraodontiformes | Molidae | <i>Masturus lanceolatus</i> | LC | | No |
| Tetraodontiformes | Molidae | <i>Mola mola</i> | VU | A4bd | No |
| Tetraodontiformes | Molidae | <i>Ranzania laevis</i> | LC | | No |
| Tetraodontiformes | Monacanthidae | <i>Aluterus monoceros</i> | LC | | No |
| Tetraodontiformes | Monacanthidae | <i>Aluterus schoepfii</i> | LC | | No |
| Tetraodontiformes | Monacanthidae | <i>Aluterus scriptus</i> | LC | | No |
| Tetraodontiformes | Monacanthidae | <i>Cantherhines pullus</i> | LC | | No |
| Tetraodontiformes | Monacanthidae | <i>Stephanolepis hispidus</i> | LC | | No |
| Tetraodontiformes | Ostraciidae | <i>Acanthostracion guineensis</i> | LC | | Yes |
| Tetraodontiformes | Ostraciidae | <i>Acanthostracion notacanthus</i> | DD | | No |
| Tetraodontiformes | Tetraodontidae | <i>Ephippion guttifer</i> | LC | | No |
| Tetraodontiformes | Tetraodontidae | <i>Lagocephalus laevigatus</i> | LC | | No |
| Tetraodontiformes | Tetraodontidae | <i>Lagocephalus lagocephalus</i> | LC | | No |
| Tetraodontiformes | Tetraodontidae | <i>Sphoeroides marmoratus</i> | LC | | No |
| Tetraodontiformes | Tetraodontidae | <i>Sphoeroides pachygaster</i> | LC | | No |
| Zeiformes | Grammicolepididae | <i>Grammicolepis brachiusculus</i> | LC | | No |
| Zeiformes | Grammicolepididae | <i>Xenolepidichthys dalgleishi</i> | LC | | No |
| Zeiformes | Oreosomatidae | <i>Alloctytus guineensis</i> | LC | | No |
| Zeiformes | Oreosomatidae | <i>Alloctytus verrucosus</i> | LC | | No |
| Zeiformes | Parazenidae | <i>Cyttopsis rosea</i> | LC | | No |
| Zeiformes | Zeidae | <i>Zenopsis conchifer</i> | LC | | No |
| Zeiformes | Zeidae | <i>Zeus faber</i> | DD | | No |
| Zeiformes | Zenionidae | <i>Zenion hololepis</i> | LC | | No |

Appendix 2: Workshop Participants

Table A2.1 Participants at the first IUCN Red List workshop in Dakar, Senegal, 9-14 July 2012, with institutional affiliations and country of residence, organized alphabetically by family name.

| Participant Name | Institution | Country |
|---------------------|---|--------------|
| Titus Ayo Adeofe | Department of Fisheries | Nigeria |
| Paul Bannerman | Department of Fisheries | Ghana |
| Khairdine Mahamed | | |
| Abdallahi Camara | Mauritanian Institute of Oceanographic Research and Fisheries (IMROP) | Mauritania |
| Youssef Hawa Camara | Direction Générale du Centre National des Sciences Halieutiques de Bossoua | Guinea |
| Pablo Chavance | IUCN Mauritania Programme Office | Mauritania |
| Kadiatou Cissoko | Direction Générale du CNSHB | Guinea |
| Bruce B. Collette | National Marine Fisheries Service Systematics Laboratory | USA |
| Madeleine Diouf | IUCN Programme Marin et Cotier (MACO) | Senegal |
| Roger Djiman | Department of Fisheries | Benin |
| Mathieu Ducrocq | Gabon National Parks (ANPN) | Gabon |
| Massal Fall | Centre de Recherches Océanographiques de Dakar-Thiaroye (CRODT) | Senegal |
| Ofer Gon | South African Museum | South Africa |
| Heather Harwell | IUCN Marine Biodiversity Unit and Christopher Newport University | USA |
| Andrew Hines | IUCN Marine Biodiversity Unit and National Oceanographic and Atmospheric Administration | USA |
| P. Alexander Hulley | Iziko-South African Museum | South Africa |
| Tomio Iwamoto | California Academy of Science | USA |
| Ebou Mass Mbye | Department of Fisheries | Gambia |
| Thomas Munroe | National Marine Fisheries Service | USA |
| Francis K. E. Nunoo | Department of Marine & Fisheries Science, University of Ghana | Ghana |
| Beth Polidoro | IUCN Marine Biodiversity Unit and Arizona State University | USA |
| Stuart Poss | California Academy of Science | USA |
| Andrew Rodrigues | IUCN Headquarters | Switzerland |
| Barry Russell | Museum & Art Gallery of the Northern Territory | Australia |
| Alphonse Sagna | Centre de Recherches Océanographiques de Dakar-Thiaroye (CRODT) | Senegal |
| Aboubacar Sidibe | Independent Consultant | Senegal |
| Emilie Stump | IUCN Marine Biodiversity Unit and University of British Columbia | Canada |
| Mor Sylla | Centre de Recherches Océanographiques de Dakar-Thiaroye (CRODT) | Senegal |
| Luis Tito De Morais | Institut de Recherche pour le Développement (IRD) | France |
| Philippe Tous | Sub-Regional Fisheries Commission (CSRP) | Senegal |
| Michael Vakily | Sub-Regional Fisheries Commission (CSRP) | Senegal |

Table A2.2 Participants at the second IUCN Red List workshop in Accra, Ghana, 4-9 May 2013, with institutional affiliations and country of residence, organized alphabetically by family name.

| Participant Name | Institution | Country |
|-------------------------|--|----------------|
| Rachel Arnold | Northwest Indian College | USA |
| Jack Buchanan | IUCN Marine Biodiveristy Unit and Old Dominion University | USA |
| Khairdine Mahamed | | |
| Abdallahi Camara | Mauritanian Institute of Oceanographic Research and Fisheries (IMROP) | Mauritania |
| Kent Carpenter | IUCN Marine Biodiveristy Unit and Old Dominion University | USA |
| Mia T. Comeros-Raynal | IUCN Marine Biodiveristy Unit and American Samoa Environmental Protection Agency | USA |
| Roger Djiman | Centre de Recherches Halieutiques et Océanologiques du Bénin | Benin |
| Antony S. Harold | Grice Marine Lab, College of Charleston | USA |
| Tomio Iwamoto | California Academy of Sciences | USA |
| Christi Linardich | IUCN Marine Biodiveristy Unit and Old Dominion University | USA |
| Ken Lindeman | Florida Institute of Technology | USA |
| Vanda Monteiro | Instituto Nacional de Desenvolvimento das Pescas - Cabo Verde | Cape Verde |
| Francis K. E. Nunoo | Department of Marine & Fisheries Science, University of Ghana | Ghana |
| Beth Polidoro | IUCN Marine Biodiversity Unit and Arizona State University | USA |
| Richmond Quartey | Marine Fisheries Research Division | Ghana |
| Alphonse Sagna | Centre de Recherches Océanographiques de Dakar-Thiaroye (CRODT) | Senegal |
| Aboubacar Sidibe | Independent Consultant | Senegal |
| William Smith-Vaniz | Florida Museum of Natural History, University of Florida | USA |
| Emilie Stump | IUCN Marine Biodiversity Unit and University of British Columbia | Canada |
| Mor Sylla | Centre de Recherches Océanographiques de Dakar-Thiaroye (CRODT) | Senegal |
| Luis Tito De Morais | Institut de Recherche pour le Développement (IRD) | France |
| Akanbi Williams | Nigerian Institute for Oceanography and Marine Research | Nigeria |

Table A2.3 Participants at the third IUCN Red List workshop in Libreville, Gabon 7-11 July 2014, with institutional affiliations and country of residence, organized alphabetically by family name.

| Participant Name | Institution | Country |
|----------------------------|---|---------|
| Jean Noel Bibang Po Ngueba | Direction General de la Peches et d l'Agriculture (DGPA) and Centre National de la Recherche Scientifique et Technique (CENAREST) | Gabon |
| Kent Carpenter | IUCN Marine Biodiveristy Unit and Old Dominion University | USA |
| Mia T. Comerors-Raynal | IUCN Marine Biodiveristy Unit and American Samoa Environmental Protection Agency | USA |
| Godefroy de Bruyne | Wildlife Conservation Society (WCS) | France |
| Mathieu Ducrocq | Gabon National Parks (ANPN) | Gabon |
| Antony S. Harold | Grice Marine Lab, College of Charleston | USA |
| Steen Knudsen | Natural History Museum of Denmark, University of Copenhagen | Denmark |
| Jean de Diem Lewembe | Direction General de la Peches et d l'Agriculture (DGPA) | Gabon |
| Jean Edgard Mikolo | Direction General de la Peches et d l'Agriculture (DGPA) | Gabon |
| Jean Bernard Mougoussi | Direction General de la Peches et d l'Agriculture (DGPA) | Gabon |
| Jean Herve Mve Beh | Centre National de la Recherche Scientifique et Technique (CENAREST) | Gabon |
| Alain Nkoghe Nze | Agence Nationale du Parcs Nationaux (ANPN) | Gabon |
| Beth Polidoro | IUCN Marine Biodiversity Unit and Arizona State University | USA |
| William Smith-Vaniz | Florida Museum of Natural History, University of Florida | USA |
| Emilie Stump | IUCN Marine Biodiversity Unit and University of British Columbia | Canada |
| Luis Tito De Morais | Institut de Recherche pour le Développement (IRD) | France |