UNESCO environmental DNA (eDNA) Expeditions in marine World Heritage sites

Biodiversity survey for Cocos Island National Park

Interim Results Not for public distribution



Credit: Ana Maria Monge Ortiz / Área de Conservación Marina Coco

About eDNA Expeditions

UNESCO's eDNA Expeditions is a global, citizen science initiative that is conducted with the intention to measure marine biodiversity and predict the impact climate change on marine community composition across UNESCO World Heritage marine sites.

eDNA is a cost effective and minimally invasive method to measure biodiversity in any given area. Marine species continuously shed DNA into the water around them in the form of waste, mucus, or cells. By extracting this DNA from water samples, and subsequently multiplying and sequencing specific regions within these DNA strands, a wide variety of species can be detected without removing any organisms from their environment. The regions in the DNA targeted for sequencing are selected depending on the scope of the study: while some markers are suitable to obtain a broad overview of biodiversity across many groups of species, other markers are particularly suited to get high resolution insight for a more specific taxonomic group such as fish. The UNESCO eDNA Expeditions initiative combines a number of markers tailored for marine vertebrates (fish, mammals, and turtles). A general marker was added to also allow detection of species from other groups such as invertebrates, which can give a broader insight in the marine species diversity in a given area.

Between September 2022 and May 2023, UNESCO organized eDNA sampling campaigns in 21 marine World Heritage sites across 17 countries around the world. At every World Heritage site, about 20 samples were collected from different habitats. Over 250 young people participated in the local sampling expeditions. They were guided by local experts and park management staff, using protocols and eDNA sampling equipment provided by UNESCO.

Biodiversity inventories generated from the samples are being combined with existing species distribution data from public biodiversity databases such as the Ocean Biodiversity Information System (OBIS) in view of obtaining a comprehensive overview of marine life across marine World Heritage sites. Through the use of climate scenarios and species distribution models, an estimate will be made of the impact of climate change, in particular rising temperatures, on local biodiversity and its potential future distribution patterns.

More information about the initiative and a press kit are available on the UNESCO website: https://www.unesco.org/en/edna-expeditions.

Results

Sampling and sample processing

eDNA sampling was conducted in Cocos Island National Park in December 2022. A total of 23 samples were collected at 14 locations in the park covering different habitats: montagne, roca_sucia, juan_bautista, dos_amigos, roca sucia, taza_de_te, manuelita, and pni (Figure 1). Up to 1,620 mL of seawater was filtered through filter cartridges containing a filter with a 0.8 µm pore size. After sampling, the filter cartridges were flushed with preservation liquid and shipped to UNESCO. DNA from the samples was extracted and amplified, and subsequently sent to the sequencing facility at KU Leuven in Belgium, a specialized university eDNA lab contracted by UNESCO for this work. PCR amplification was done using five primer pairs selected to capture as much biodiversity as possible in the target groups of the study: fish, mammals, and turtles.

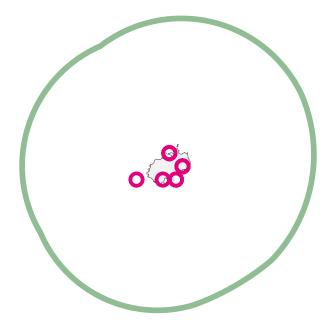


Figure 1: Map of the sampling locations.

DNA sequencing

Sequencing of the DNA from 23 samples resulted in over 43 million sequence reads, from which we collected 33,854 unique sequences or ASVs (Tables 1 and 2).

reads	asvs
43863110	33854

Table 1: Reads, ASVs, and species across all samples.

Species identification

The marker sequences obtained from sequencing were matched with sequence reference databases built using public data available from the National Center for Biotechnology Information (NCBI). This resulted in the identification of 308 species, including 145 fish species, 3 mammalian species, and 3 turtle species (Table 3). Species from other groups, such as cnidarians, copepods, sponges, algae, and echinoderms, were also detected (Figures 2 and 3). This number of species detected represents about 25% of the 1,443 species known from Cocos Island National Park in the OBIS database. Of the 308 species detected, 176 are not among the species

locality	materialSampleID	sampleSize	reads	asvs	species
ISLA DEL COCO MONTAGNE	EE0166	1200	2458273	9377	92
ISLA DEL COCO, roca sucia	EE0186		1700521	10539	111
Isla del Coco Juan Bautista	EE0253	420	1662848	6648	54
Isla del Coco Montagne	EE0165	1200	2416758	10726	115
Isla del Coco, Dos Amigos	EE0168	300	2078335	6398	45
Isla del Coco, Dos Amigos	EE0177	1260	1731066	10518	89
Isla del Coco, Dos Amigos	EE0182	720	2058097	9071	73
Isla del Coco, Dos Amigos	EE0187	1260	2255953	9868	82
Isla del Coco, Juan Bautista	EE0190		2074326	10257	126
Isla del Coco, Juan Bautista	EE0400	1500	2519760	9754	95
Isla del Coco, Mogtagne	EE0179	1200	1428376	9567	90
Isla del Coco, Roca Sucia	EE0167	1620	1733881	11460	125
Isla del Coco, Roca Sucia	EE0183		1549803	10319	121
Isla del Coco, Roca Sucia	EE0185		2111493	10097	114
Isla del Coco, Taza de Te	EE0163	1260	1713367	10139	94
Isla del Coco, Taza de Te	EE0178	1200	1581008	9346	90
Isla del Coco, Taza de Te	EE0188	1200	2243034	8161	71
Isla del Coco,Juan Bautista	EE0189	1380	1885930	9291	72
Isla del coco Montagne	EE0181	1200	1487074	9253	104
Manuelita	EE0175	0	2407552	10827	73
PNI	EE0164	1500	1951845	11118	73
PNI	EE0174	1500	1509327	10723	70
PNI	EE0176	1500	1304483	8930	59

Table 2: Reads, ASVs, and species by sample.

previously reported from Cocos Island National Park to the UNESCO OBIS database. 15 of the detected species are listed as threatened on the IUCN Red List (Table 4). A full list of species is added at the end of this report.

group	eDNA species	total species	fraction
fish	145	576	0.25
mammals	3	10	0.30
turtles	0	3	

Table 3: Number of species in the three target groups, from the OBIS database and from eDNA sampling.

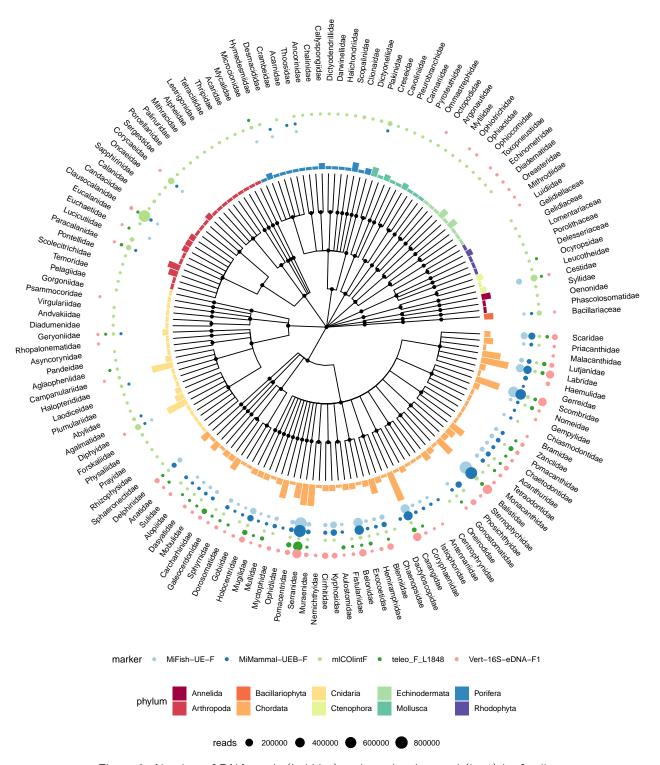


Figure 2: Number of DNA reads (bubbles) and species detected (bars) by family.

category	eDNA species	total species	fraction
CR	1	6	0.17
EN	4	12	0.33
VU	10	52	0.19

Table 4: Number of species by IUCN Red List category, from the OBIS database and from eDNA sampling.

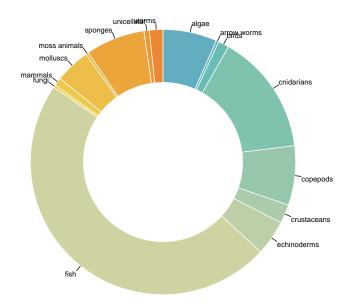


Figure 3: Distribution of detected species across groups.

phylum	class	species	group	category	new	vernacular
Amoebozoa	Myxogastrea	Craterium leucocephalum	unicellular		yes	
Annelida	Polychaeta	Myrianida pachycera	worms		yes	
Annelida	Polychaeta	Odontosyllis phosphorea	worms		yes	
Annelida	Polychaeta	Oenone fulgida	worms			
Annelida	Polychaeta	Syllis ypsiloides	worms		yes	
Annelida		Phascolosoma (Phascolosoma) perlucens	worms			
Arthropoda	Arachnida	Tyrophagus putrescentiae			yes	
Arthropoda	Copepoda	Acrocalanus gracilis	copepods		yes	
Arthropoda	Copepoda	Calanopia minor	copepods		yes	
Arthropoda	Copepoda	Calocalanus minutus	copepods		yes	
Arthropoda	Copepoda	Calocalanus pavo	copepods		yes	
Arthropoda	Copepoda	Candacia catula	copepods		yes	
Arthropoda	Copepoda	Candacia pachydactyla	copepods		yes	
Arthropoda	Copepoda	Clausocalanus furcatus	copepods		yes	
Arthropoda	Copepoda	Clausocalanus jobei	copepods		yes	
Arthropoda	Copepoda	Ditrichocorycaeus andrewsi	copepods		yes	
Arthropoda	Copepoda	Euchaeta marina	copepods		yes	
Arthropoda	Copepoda	Farranula gibbula	copepods		yes	
Arthropoda	Copepoda	Labidocera detruncata	copepods		yes	
Arthropoda	Copepoda	Lucicutia flavicornis	copepods		yes	
Arthropoda	Copepoda	Oncaea scottodicarloi	copepods		-	
Arthropoda	Copepoda	Paracalanus indicus	copepods		yes yes	
Arthropoda	Copepoda	Pareucalanus attenuatus	copepods		yes	
Arthropoda	Copepoda	Pontellina plumata	copepods		-	
Arthropoda	Copepoda	Sapphirina stellata			yes	
	Copepoda	Scolecithrix danae	copepods		yes	
Arthropoda			copepods		yes	
Arthropoda	Copepoda	Subeucalanus subtenuis	copepods		yes	
Arthropoda	Copepoda	Temora discaudata	copepods		yes	
Arthropoda	Copepoda	Undinula vulgaris	copepods		yes	
Arthropoda	Hexapoda	Aptinothrips rufus			yes	
Arthropoda	Malacostraca	Hyperietta vosseleri	crustaceans		yes	
Arthropoda	Malacostraca	Neosergestes edwardsii	crustaceans		yes	
Arthropoda	Malacostraca	Pachycheles biocellatus	crustaceans		yes	
Arthropoda	Malacostraca	Panulirus penicillatus	crustaceans	LC		pronghorn spiny lobster, grosses têtes
Arthropoda	Malacostraca	Synalpheus sanlucasi	crustaceans		yes	
Arthropoda	Malacostraca	Teleophrys cristulipes	crustaceans			
Arthropoda	Thecostraca	Tetraclita squamosa	crustaceans		yes	
Ascomycota	Dothideomycetes	Cladosporium herbarum	fungi		yes	
Bacillariophyta	Bacillariophyceae	Cylindrotheca closterium	algae		yes	
Bacillariophyta	Bacillariophyceae	Pseudo-nitzschia circumpora	algae		yes	
Bacillariophyta	Bacillariophyceae	Pseudo-nitzschia sabit	algae		yes	
Bryozoa	Gymnolaemata	Celleporaria brunnea	moss animals			
Chaetognatha	Sagittoidea	Flaccisagitta enflata	arrow worms		yes	
Chlorophyta	Mamiellophyceae	Micromonas pusilla	algae		yes	
Chlorophyta		Chloroparvula pacifica	algae		yes	
Chlorophyta		Chloropicon laureae	algae		yes	
Chlorophyta		Chloropicon mariensis	algae		yes	
Chlorophyta		Chloropicon roscoffensis	algae		yes	
Chlorophyta		Chloropicon sieburthii	algae		yes	
		•	-	LC	-	

Chordata Aves Sula dactylatra birds LC bibue-faced booky, Fou masque fundata Aves Sula leucogaster birds LC brown booky, Fou masque fundata Aves Sula sula Sula Sula Sula Sula Sula Sula Sula S	phylum	class	species	group	category	new	vernacular
Chordata Basmobranchii Alopias pelagicus fish ELC red-footed booby, fou à piede rouges frondata Basmobranchii Carcharhinus faiclformis fish VU yes silly shark all samobranchii Carcharhinus faiclformis fish VU yes silly shark all shark, requin-bouledogue disky, shark bendata Basmobranchii Galeocerdo cuvier fish EN yes chordata Basmobranchii Galeocerdo cuvier fish EN yes chordata Basmobranchii Galeocerdo cuvier fish EN yes chordata Basmobranchii Mobula birostris fish EN yes chordata Basmobranchii Peteroplatytrygon violacea fish LC chordata Basmobranchii Fish EN yes shortanchii Fish EN yes chordata Basmobranchii Taeniurops meyeni fish CR scalloped hammerkead Chordata Basmobranchii Taeniurops meyeni fish VU whitetip reef shark Chordata Basmobranchii Taeniurops meyeni fish VU whitetip reef shark Stenella coercileosiba mammals NT yes false kilier while, fauc-orque strained all mammalia Pseudora crassidens mammals LC whitetia Mammalia Tursiops truncatus mammals LC whordata Teleostei Acanthurus nigricans fish LC whordata Teleostei Acanthurus nigricans fish LC chordata Teleostei Acanthurus nigricans fish LC chordata Teleostei Acanthurus nigricans fish LC chordata Teleostei Acanthurus scapularis fish LC chordata Teleostei Aluterus monoceros fish LC unicor leathering chordata Teleostei Anisotremus scapularis fish LC unicor leathering chordata Teleostei Anisotremus scapularis fish LC unicor leathering chordata Teleostei Anisotremus sunnamensis fish LC unicor leathering chordata Teleostei Anisotremus sunnamensis fish LC unicor leathering chordata Teleostei Anisotremus sunnamensis fish LC chordata Teleostei Anisotremus sunnamensis fish LC unicor leathering chordata Teleostei Anisotremus sunnamensis fish LC chordata Teleostei Caram serfasciatus fish LC chordata Teleostei Caram serfasciatus fish LC chordata Teleostei Caram serfasciatus fish LC chordata Teleostei Caram serfasci	Chordata	Aves	Sula dactylatra	birds	LC		blue-faced booby, Fou masqué
Chordata Elasmobranchii Carcharhimus falciformis fish EN VU silky shark (renard pélagique Chordata Elasmobranchii Carcharhimus falciformis fish VU yes bull shark, renard pélagique d'Achordata Elasmobranchii Carcharhimus elocurus fish EN yes bull shark, requin-bouledogue d'Austy shark (Chordata Elasmobranchii Caleocerdo cuvier fish NT yes tiger shark (Chordata Elasmobranchii Mobula birostris fish EN yes Chordata Elasmobranchii Mobula birostris fish EN yes Chordata Elasmobranchii Peteroplatytrygon violacea fish EN CR pelagic stirgray scalloped hammerhead (Chordata Elasmobranchii Sphyrna lewini fish CR yes pelagic stirgray scalloped hammerhead (Chordata Elasmobranchii Triaenodon obesus fish VU Chordata Elasmobranchii Triaenodon obesus fish VU Whitetip reef shark (Chordata Mammalia Stenella coeruleoalba mammals LC burdata Mammalia Stenella coeruleoalba mammals LC burdata Mammalia Tursiops truncatus mammals LC burdata Teleostei Abantemarius coccineus fish LC wahoo (Chordata Teleostei Acanthurus nigricans fish LC wahoo (Chordata Teleostei Acanthurus nigricans fish LC convict surgeonfish (Chordata Teleostei Acanthurus surinotegus fish LC convict surgeonfish (Chordata Teleostei Acanthurus surinotegus fish LC convict surgeonfish (Chordata Teleostei Acanthurus surinoteros fish LC yellowin surgeonfish (Chordata Teleostei Acanthurus surinotegus fish LC convict surgeonfish (Chordata Teleostei Aluterus scriptus fish LC yellowin surgeonfish (Chordata Teleostei Anisotremus surinamensis fish LC Giunecrow (Fish LC Giunecrow) (Fish LC Hordata Teleostei Argvoropelecus lychnus fish LC Giunecrow) (Fish LC Hordata Teleostei Canthigaster jactator fish LC yes potted purfer burdata Teleostei Canthigaste	Chordata	Aves	Sula leucogaster	birds			brown booby, fou brun
Chordata Elasmobranchii Carcharhimus falciformis fish VU yes bull shark, requiri-bouledogue Chordata Elasmobranchii Carcharhimus elucas fish EN yes Chordata Elasmobranchii Caleccerde fish NT yes Uger shark Chordata Elasmobranchii Mobula birostris fish EN yes Chordata Elasmobranchii Mobula birostris fish EN yes Chordata Elasmobranchii Pteroplatytrygon violacea fish LC yes calloped hammerhead Chordata Elasmobranchii Taeniurops meyeni fish CR scalloped hammerhead Chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark Chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark Chordata Elasmobranchii Triaenodon obesus fish VU whitetip reef shark fish VU who whitetip reef shark fish VU whitetip reef s	Chordata	Aves	Sula sula	birds	LC		red-footed booby, fou à pieds rouges
Chordata Elasmobranchii Carcharhinus leucas fish VU yes bull shark, requin-bouledogue dechordata Elasmobranchii Galeocardo cuvier fish NT yes tours shark (Chordata Elasmobranchii Mobula birostris fish NT yes Chordata Elasmobranchii Mobula birostris fish EN yes Chordata Elasmobranchii Mobula thurstoni fish EN yes characteria elasmobranchii Percoplatytryon violacea fish LC pelagic stingray scalloped hammerhead Chordata Elasmobranchii Triaenodon obesus fish VU Chordata Elasmobranchii Triaenodon obesus fish VU Wittelip reef shark (Chordata Mammalia Stenella coeruleoalba mammals LC brodata Mammalia Stenella coeruleoalba mammals LC brodata Mammalia Stenella coeruleoalba mammals LC brodata Teleostei Abantennarius coccineus fish LC wahoo Chordata Teleostei Acanthoryobim solandri fish LC wahoo Chordata Teleostei Acanthurus nigricans fish LC wahoo Chordata Teleostei Acanthurus singicans fish LC convict surgeonfish Chordata Teleostei Acanthurus santhopterus fish LC convict surgeonfish Chordata Teleostei Aluterus scriptus fish LC unicon leatherjacket Scrawled filefish Chordata Teleostei Aluterus scriptus fish LC unicon leatherjacket Scrawled filefish Chordata Teleostei Anisotremus surinamensis fish DD yes black margate black margate fish LC convict surgeonfish LC convict s	Chordata	Elasmobranchii	Alopias pelagicus	fish	EN		thresher shark, renard pélagique
Chordata Elasmobranchii Galeccerdo cuvier fish NT yes chordata Elasmobranchii Galeccerdo cuvier fish EN yes chordata Elasmobranchii Mobula birostris fish EN yes chordata Elasmobranchii Mobula birostris fish EN yes smoothtail mobula pelagic stingray chordata Elasmobranchii Pteroplatytrygon violacea fish LC yes callegobranchii Pteroplatytrygon violacea fish LC chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark chordata Mammalia Pseudorca crassidens mammals NT yes false killer whale, fatux-orque striped oldphin, dauphin bleu et blanc bottlenose dolphin,	Chordata	Elasmobranchii	Carcharhinus falciformis	fish	VU		silky shark
Chordata Elasmobranchii Galeoceredo cuvier fish NT yes topershark Chordata Elasmobranchii Mobula birostris fish EN yes chordata Elasmobranchii Mobula birostris fish EN yes moothtail mobula perlaquication fish EN yes moothtail mobula perlaquication fish LC yes white fish LC yes policidata Elasmobranchii Taieniurogs meyeni fish VU whitetip reef shark faturoria elasmobranchii Taieniurogs meyeni fish VU whitetip reef shark faturoria elasmobranchii Taieniurogs meyeni fish VU whitetip reef shark faturoria elasmobranchii Taieniurogs meyeni fish VU whitetip reef shark faturoria elasmobranchii Taieniurogs meyeni fish VU whitetip reef shark faturoria elasmobranchii Taieniurogs meyeni fish VU whitetip reef shark faturoria elasmobranchii Taieniurogs meyeni fish VU whitetip reef shark faturoria elasmobranchii Taieniurogs meyeni fish VU whitetip reef shark faturoria elasmobranchii Taieniurogs meyeni fish VU whitetip reef shark faturoria elasmobranchii Taieniurogs meyeni fish LC bottlenose dolphin, dauphin bleu et blanc bottlenos	Chordata	Elasmobranchii	Carcharhinus leucas	fish	VU	ves	bull shark, requin-bouledogue
Chordata Elasmobranchii Mobula birostris fish NT yes tiger shark Chordata Elasmobranchii Mobula birostris fish EN yes smoothali mobula fish EN yes smoothali mobula fish EN the EN yes smoothali mobula fish EN the EN yes smoothali mobula pelagic stingray scalloped hammerhead the Elasmobranchii Taeiuros meyeni fish CR Chordata Elasmobranchii Taeiuros meyeni fish VU whitetip reef shark Chordata Elasmobranchii Taeiuros meyeni fish VU whitetip reef shark Chordata Mammalia Stenella coeruleoalba mammals NT yes false killer whale, faux-orque striped dolphin, dauphin bleu et blanc bottlenose dolphin, grand dauphin Chordata Teleostei Abantemarius coccineus fish LC wahoo Chordata Teleostei Acanthrus ingricans fish LC wahoo Chordata Teleostei Acanthrus ingricans fish LC wahoo Chordata Teleostei Acanthrus triostegus fish LC wahoo Chordata Teleostei Acanthrus striptus fish LC wahoo Chordata Teleostei Acanthrus striptus fish LC wahoo Chordata Teleostei Acanthrus striptus fish LC wahoo Chordata Teleostei Aluterus monoceros fish LC willowing surgeonfish Chordata Teleostei Aluterus scriptus fish LC wahoo Scrawled fleirish Chordata Teleostei Aluterus scriptus fish LC wahoo Scrawled fleirish Chordata Teleostei Aluterus willow fish LC wahoo Scrawled fleirish Chordata Teleostei Aluterus willow fish LC wahoo Scrawled fleirish Chordata Teleostei Ausistraard fish LC wahoo Waloo Waloo David Waloo Waloo Waloo David Waloo Waloo David Waloo	Chordata	Elasmobranchii	Carcharhinus obscurus	fish	EN	-	· · ·
Chordata Elasmobranchii Mobula birostris fish EN yes moothtail mobula chordata Elasmobranchii Mobula thurstoni fish LC pelagic stingray scalloped hammerhead Elasmobranchii Sphyma lewini fish LC pelagic stingray scalloped hammerhead Chordata Elasmobranchii Tareinurops meyeni fish VU whitetip reef shark Chordata Elasmobranchii Tareinurops meyeni fish VU whitetip reef shark Chordata Elasmobranchii Tareinurops meyeni fish VU whitetip reef shark Chordata Elasmobranchii Tareinurops meyeni fish VU whitetip reef shark false killer whale, faux-orque false false fisher to votata Mammalia Stenela coeruleoalba mammals LC sterile dolphin, dauphin bleu et blanc bottlenose dolphin, grand dauphin Chordata Teleostei Abantennarius cocineus fish LC wahoo Chordata Teleostei Acanthrus signicans fish LC wahoo Chordata Teleostei Acanthrus triostegus fish LC wahoo Chordata Teleostei Acanthrus triostegus fish LC convict surgeonfish Chordata Teleostei Aluterus monoceros fish LC unicorn leatherjacket Chordata Teleostei Aluterus scriptus fish LC unicorn leatherjacket Schordata Teleostei Aluterus monoceros fish LC unicorn leatherjacket Schordata Teleostei Anisotremus scapularis fish LC unicorn leatherjacket Schordata Teleostei Anisotremus scapularis fish LC scrawdef filefish Chordata Teleostei Anisotremus surinamensis fish LC scrawdef filefish Chordata Teleostei Anisotremus surinamensis fish LC Guineafowl puffer Chordata Teleostei Autorn meleagris fish LC Guineafowl puffer Chordata Teleostei Autorn meleagris fish LC Guineafowl puffer Chordata Teleostei Ausis thazard fish LC Guineafowl puffer Gundata Teleostei Balistes polylepis fish LC Guineafowl puffer Chordata Teleostei Balistes polylepis fish LC Guineafowl puffer Gundata Teleostei Canthigaster jactator fish LC west fis		Elasmobranchii	Galeocerdo cuvier			-	
Chordata Elasmobranchii Peroplatyrygon violacea fish EN yes smoothtail mobula (Chordata Elasmobranchii Peroplatyrygon violacea fish LC pelagic stingray scalloped hammerhead (Chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark (Chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark (Chordata Mammalia Peeudoca crassidens mammals NT yes false filler whale, fauc-orque striped dolphin, dauphin bleu et blanc (Chordata Mammalia Stenella coeruleoalba mammals LC striped dolphin, dauphin bleu et blanc (Chordata Mammalia Tursiops truncatus mammals LC striped dolphin, dauphin bleu et blanc (Chordata Teleostei Acanthorophium solandri fish LC who (Chordata Teleostei Acanthurus singricans fish LC backsurgeonfish (Chordata Teleostei Acanthurus triostegus fish LC yellowifus surgeonfish (Chordata Teleostei Acanthurus triostegus fish LC yellowifus surgeonfish (Chordata Teleostei Aluterus monoceros fish LC yellowifus surgeonfish (Chordata Teleostei Aluterus scriptus fish LC unicorn leatherjacket (Chordata Teleostei Aluterus scriptus fish LC unicorn leatherjacket Teleostei Anisotremus scapilaris fish LC scrawled filefish (Chordata Teleostei Anisotremus surinamensis fish LC silvery hatchetish (Chordata Teleostei Argyropelecus lychnus fish LC silvery hatchetish (Chordata Teleostei Ausis rochei fish LC Gilineafowl pulfer (Chordata Teleostei Ausis rochei fish LC Gilineafowl pulfer (Chordata Teleostei Balistes polylepis fish LC Gilineafowl pulfer (Chordata Teleostei Balistes polylepis fish LC Bonito, bonite (Triped Teleostei Balistes polylepis fish LC ges polylepis fish LC	Chordata	Elasmobranchii	Mobula birostris			-	· 3 · · ·
Chordata Elasmobranchii Sphyrna lewini fish CR scalloped hammerhead Chordata Elasmobranchii Sphyrna lewini fish CR scalloped hammerhead Chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark Chordata Elasmobranchii Triaenodon obesus fish VU whitetip reef shark Chordata Mammalia Pseudorca crassidens mammals NT yes false killer whale, faux-orque striped dolphin, dauphin bleu et blanc Chordata Mammalia Tursiops truncatus mammals LC bottlenose dolphin, grand dauphin Chordata Teleostei Abantennarius coccineus fish LC Chordata Teleostei Acanthurus ingricans fish LC wahoo backsurgeonfish Chordata Teleostei Acanthurus triostegus fish LC chordata Teleostei Acanthurus striostegus fish LC convict surgeonfish Chordata Teleostei Alutrus sociptus fish LC unicorn leatherjacket Chordata Teleostei Alutrus sociptus fish LC unicorn leatherjacket Scrawled filefish Chordata Teleostei Alutrus sociptus fish LC unicorn leatherjacket Scrawled filefish Chordata Teleostei Anisotremus scapularis fish LC chordata Teleostei Anisotremus scapularis fish LC unicorn leatherjacket Scrawled filefish Chordata Teleostei Anisotremus surinamensis fish DD yes black margate Schordata Teleostei Austrom meleagris fish LC convict surgeonfish Chordata Teleostei Austrom meleagris fish LC selection fish LC convict surgeonfish Chordata Teleostei Austrom surinamensis fish LC Guineafowl puffer Chordata Teleostei Austrom meleagris fish LC Guineafowl puffer Chordata Teleostei Austrom meleagris fish LC Guineafowl puffer Chordata Teleostei Bodianus diplotaenia fish LC fish LC Guineafowl puffer Chordata Teleostei Canthugaster jactator fish LC Guineafowl puffer Chordata Teleostei Canthugaster jactator fish LC Guineafowl puffer Diudentia Teleostei Canthugaster jactator fish LC Guineafow							smoothtail mobula
Chordata Elasmobranchii Sphyrna lewini fish CR Chordata Elasmobranchii Taeniurops meyeni fish VU whitetip reef shark Chordata Elasmobranchii Triaenodon obesus fish VU whitetip reef shark Chordata Mammalia Steella coeruleoalba mammals LC striped dolphin, dauphin bleu et blanc Chordata Mammalia Steella coeruleoalba mammals LC striped dolphin, dauphin bleu et blanc Chordata Teleostei Abantenarius coccineus fish LC wahoo Chordata Teleostei Acanthocybium solandri fish LC backsurgeonfish Chordata Teleostei Acanthurus ingicans fish LC backsurgeonfish Chordata Teleostei Acanthurus singicans fish LC backsurgeonfish Chordata Teleostei Acanthurus samphoterus fish LC yellowfin surgeonfish Chordata Teleostei Aluterus monoceros fish LC yellowfin surgeonfish Chordata Teleostei Aluterus scriptus fish LC yellowfin surgeonfish Chordata Teleostei Aluterus scriptus fish LC convict surgeonfish Chordata Teleostei Aluterus scriptus fish LC scrawled filefish Chordata Teleostei Anisotremus scapularis fish LC scrawled filefish Chordata Teleostei Anisotremus scapularis fish LC silvery hatchetfish Chordata Teleostei Argyropelecus lychinus fish LC silvery hatchetfish Chordata Teleostei Argyropelecus lychinus fish LC Guineafowl puffer Chordata Teleostei Aubis rochei fish LC Guineafowl puffer Chordata Teleostei Aubis rochei fish LC Guineafowl puffer Chordata Teleostei Aubis rochei fish LC Guineafowl puffer Chordata Teleostei Balistes polylepis fish LC Guineafowl puffer Chordata Teleostei Balistes polylepis fish LC Guineafowl puffer Chordata Teleostei Balistes polylepis fish LC Guineafowl puffer Chordata Teleostei Granti macustata fish LC Guineafowl puffer Chordata Teleostei Canthidernis macustata fish LC west chordata						,	
Chordata Elasmobranchii Tiaenodon obesus fish VU Chordata Elasmobranchii Tiaenodon obesus fish VU Chordata Mammalia Steula coeruleoalba mammals NT Chordata Mammalia Steula coeruleoalba mammals LC Chordata Mammalia Tursiops truncatus mammals LC Chordata Teleostei Abantennarius coccineus fish LC Chordata Teleostei Acanthrus migricans fish LC Chordata Teleostei Acanthrus singicans fish LC Chordata Teleostei Acanthrus trisesus fish LC Chordata Teleostei Acanthrus santhopterus fish LC Chordata Teleostei Aluterus sonoceros fish LC Chordata Teleostei Aluterus sonoceros fish LC Chordata Teleostei Aluterus sonoceros fish LC Chordata Teleostei Anisotremus scapularis fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Auustomus chinensis fish LC Chordata Teleostei Auustomus chinensis fish LC Chordata Teleostei Auust rochei fish LC Chordata Teleostei Auust rochei fish LC Chordata Teleostei Balistes polylepis fish LC Chordata Teleostei Bodianus diplotaenia fish LC Chordata Teleostei Bodianus diplotaenia fish LC Chordata Teleostei Canthigaster jactator fish LC Chordata Teleostei Canthigaster ja			. , , , ,				
Chordata Blasmobranchii Triaenodon obesus mammals NT yes false killer value, whitetip reef shark Chordata Mammalia Pseudorca crassidens mammals LC striped dolphin, dauphin bleu et blanc bottlenose dolphin, grand dauphin Chordata Teleostei Abantenarius coccineus fish LC chordata Teleostei Acanthrous bingicans fish LC wahoo Chordata Teleostei Acanthrus nigricans fish LC bottlenose dolphin, grand dauphin Chordata Teleostei Acanthrus nigricans fish LC wahoo Chordata Teleostei Acanthrus nigricans fish LC wahoo Chordata Teleostei Acanthrus triostegus fish LC wellowing surgeonfish Chordata Teleostei Acanthrus scriptus fish LC wellowing surgeonfish Chordata Teleostei Aluterus monoceros fish LC wellowing scrawled filefish LC willowing scrawled filefish LC willowing scrawled filefish LC willowing scrawled filefish LC wellowing scrawled filefish LC willowing scrawled filefish LC wellowing scrawled filefish LC wellowing scrawled filefish LC wellowing scrawled filefish LC willowing scrawled filefish LC wellowing scrawled							Scanoped Hammerhead
Chordata Mammalia Pseudorca crassidens mammals NT yes false killer whale, faux-orque Chordata Mammalia Stenella coeruleoalba mammals LC bordata Mammalia Tursiops truncatus mammals LC bottlenose dolphin, dauphin bleu et blanc bottlenose dolphin, grand dauphin Chordata Teleostei Abantennarius coccineus fish LC wahoo Chordata Teleostei Acanthrurus nigricans fish LC backsurgeonfish Chordata Teleostei Acanthrurus nigricans fish LC convict surgeonfish Chordata Teleostei Acanthrurus xanthopterus fish LC convict surgeonfish Chordata Teleostei Aluterus scriptus fish LC unicor neatherjacket Scrawled filefish LC chordata Teleostei Aluterus scriptus fish LC convict surgeonfish Chordata Teleostei Aluterus scriptus fish LC scrawled filefish LC chordata Teleostei Anisotremus scrapularis fish LC silvery hatchetfish Chordata Teleostei Anisotremus surinamensis fish DD yes black margate Chordata Teleostei Argyropelecus lychnus fish LC Gluineafowl puffer Chordata Teleostei Argyropelecus lychnus fish LC Gluineafowl puffer Chordata Teleostei Aulostomus chinensis fish LC Gluineafowl puffer Chordata Teleostei Ausir sochei fish LC Gluineafowl puffer Chordata Teleostei Auxir sochei fish LC Gluineafowl puffer Chordata Teleostei Auxir sochei fish LC Bonito, bonite figate tuna, auxide Teleostei Balistes polylepis fish LC Mexican hogfish Chordata Teleostei Bodianus diplotaenia fish LC wordata Teleostei Bodianus diplotaenia fish LC wordata Teleostei Canthidermis maculata fish LC yes Chordata Teleostei Canthidermis maculata fish LC yes potted puffer bluefir trevally bigeye trevally Chordata Teleostei Canthidermis maculata fish LC yes productata Teleostei Canthidermis maculata fish LC yes productata Teleostei Canthidermis maculata fish LC yes productata Teleostei Canthidermis maculat							whitetin reef shark
Chordata Mammalia Stenella coeruleoalba mammals LC bottlenose dolphin, dauphin bleu et blanc Chordata Mammalia Tursiops truncatus mammals LC bottlenose dolphin, grand dauphin Chordata Teleostei Abantennarius coccineus fish LC wahoo Chordata Teleostei Acanthurus ingircans fish LC backsurgeonfish LC backsurgeonfish LC convict surgeonfish LC Chordata Teleostei Acanthurus triostegus fish LC convict surgeonfish LC						VAC	
Chordata Mammalia Tursiops truncatus fish LC bottlenose dolphin, grand dauphin Chordata Teleostei Abantenarius coccineus fish LC wahoo Chordata Teleostei Acanthocybium solandri fish LC backsurgeonfish Chordata Teleostei Acanthurus ingircans fish LC convict surgeonfish Chordata Teleostei Acanthurus triostegus fish LC convict surgeonfish Chordata Teleostei Acanthurus xonthopterus fish LC yellowfin surgeonfish Chordata Teleostei Aluterus monoceros fish LC unicorn leatherjacket Chordata Teleostei Aluterus scriptus fish LC scrawled filefish Chordata Teleostei Aluterus scriptus fish LC scrawled filefish Chordata Teleostei Anisotremus scapularis fish LC silvery hatchetish Chordata Teleostei Anisotremus surinamensis fish LC silvery hatchetish Chordata Teleostei Arostron meleagris fish LC glüneafowl puffer Chordata Teleostei Arostron meleagris fish LC Glüneafowl puffer Chordata Teleostei Auusis rochei fish LC Glüneafowl puffer Chordata Teleostei Auxis rochei fish LC Glüneafowl puffer Chordata Teleostei Auxis rochei fish LC Bonito, bonite Chordata Teleostei Auxis rochei fish LC Bonito, bonite Chordata Teleostei Auxis rochei fish LC Glüneafowl puffer Chordata Teleostei Auxis rochei fish LC Glüneafowl puffer Chordata Teleostei Auxis rochei fish LC Bonito, bonite Chordata Teleostei Balistes polylepis fish LC Glüneafowl puffer Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster jactator fish LC yes Spotted puffer Chordata Teleostei Canthigaster jactator fish LC yes Spotted puffer Chordata Teleostei Canthigaster jactator fish LC yes Spotted puffer Chordata Teleostei Canthigaster jactator fish LC yes Spotted puffer Chordata Teleostei Canthigaster jactator fish LC yes Spotted puffer bluefin trevally bigeye trevally Chordata Teleostei Cephalopholis pranamensis fish LC yes Spotted puffer Chordata Teleostei Cephalopholis pranamensis fish LC yes Spotted puffer Spottada Teleostei Cephalopholis pranamensis fish LC yes Spotted puffer Chord						ycs	•
Chordata Teleostei Abantennarius coccineus fish LC Chordata Teleostei Acanthocybium solandri fish LC Chordata Teleostei Acanthurus nigricans fish LC Chordata Teleostei Acanthurus riostegus fish LC Chordata Teleostei Acanthurus surinostegus fish LC Chordata Teleostei Acanthurus sunthopterus fish LC Chordata Teleostei Aluterus monoceros fish LC Chordata Teleostei Aluterus scriptus fish LC Chordata Teleostei Aluterus scriptus fish LC Chordata Teleostei Anisotremus surinamensis fish LC Chordata Teleostei Anisotremus surinamensis fish LC Chordata Teleostei Anisotremus surinamensis fish DD yes black margate Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Ausis rochei fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Boliaus diplotaenia fish Chordata Teleostei Boliaus diplotaenia fish LC Chordata Teleostei Boliaus diplotaenia fish LC Chordata Teleostei Boliaus diplotaenia fish LC Chordata Teleostei Canthigaster jactator fish LC Chordata Teleostei Canthigaster pianthinoptera fish LC Chordata Teleostei Canthigaster jactator fish LC Chordata Teleostei Canthigaster fish LC Chordata Teleostei Canthigaster fish LC Chordata Teleostei Cephalopholis panamensis							
Chordata Teleostei Acanthurus ingricans fish LC backsurgeonfish Chordata Teleostei Acanthurus triostegus fish LC convict surgeonfish Chordata Teleostei Acanthurus santhopterus fish LC yellowfin surgeonfish Chordata Teleostei Acanthurus xanthopterus fish LC unicorn leatherjacket Chordata Teleostei Aluterus monoceros fish LC unicorn leatherjacket Chordata Teleostei Aluterus scriptus fish LC scrawled filefish Chordata Teleostei Anisotremus scapularis fish LC Chordata Teleostei Anisotremus surinamensis fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Aulostomus chinensis fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Auxis polylepis Chordata Teleostei Balistes polylepis Chordata Teleostei Bodianus diplotaenia fish Chordata Teleostei Bodianus diplotaenia fish LC Chordata Teleostei Bodianus diplotaenia fish LC Chordata Teleostei Canthidermis maculata fish LC Chordata Teleostei Carnx sexfasciatus fish LC Chordata Teleostei Carnx sexfasciatus fish LC Chordata Teleostei Cephalopholis cruentata fish LC Chordata Teleostei Cephalopholis panamensis fish LC Chordata Teleostei Cephalopholis panamensis fish LC Chordata Teleoste			·				bottlenose dolphin, grand dauphin
Chordata Teleostei Acanthurus nigricans fish LC convict surgeonfish Chordata Teleostei Acanthurus xanthopterus fish LC convict surgeonfish surgeonfish LC convict surgeonfish surgeonfi							alaaa
Chordata Teleostei Acanthurus triostegus fish LC yellowfin surgeonfish Teleostei Acanthurus xanthopterus fish LC yellowfin surgeonfish Chordata Teleostei Aluterus monoceros fish LC unicorn leatherjacket Individual Teleostei Aluterus scriptus fish LC unicorn leatherjacket Individual Teleostei Aluterus scriptus fish LC Scrawled filefish Individual Teleostei Anisotremus scapularis fish LC Individual Teleostei Anisotremus surinamensis fish LC Scrawled filefish Individual Teleostei Argyropelecus lychnus fish LC Guineafowl puffer Individual Teleostei Alusis tochei fish LC Guineafowl puffer Individual Teleostei Alusis trochei fish LC Bonito, bonite Individual Teleostei Aluxis thazard fish LC Firigate tuna, auxide Individual Teleostei Balistes polylepis fish LC finescale triggerfish Individual Teleostei Bodianus diplotaenia fish LC Individual Teleostei Bodianus diplotaenia fish LC Individual Teleostei Ganthidermis maculata fish LC Individual Teleostei Canthigaster jactator fish LC Individual Teleostei Canthigaster jactator fish LC yes Schordata Teleostei Caranx melampygus fish LC yes Grayby Chordata Teleostei Cephalopholis cruentata fish LC yes Grayby Chordata Teleostei Cephalopholis panamensis fish LC yes Grayby Chordata Teleostei Cephalopholis panamensis fish LC yes Grayby Panama grayby Chordata Teleostei Cirrhitus fivulatus fish LC pixy hawkfish giant hawkfish			3				
Chordata Teleostei Acanthurus xanthopterus fish LC unicorn leatherjacket Chordata Teleostei Aluterus monoceros fish LC unicorn leatherjacket Chordata Teleostei Aluterus scriptus fish LC Chordata Teleostei Anisotremus scapularis fish LC Chordata Teleostei Anisotremus surinamensis fish DD yes black margate Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Arothron meleagris fish LC Chordata Teleostei Audistormus chinensis fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Auxis thazard fish Chordata Teleostei Balistes polylepis fish LC Chordata Teleostei Balistes polylepis fish LC Chordata Teleostei Bodianus diplotaenia fish Chordata Teleostei Bodianus diplotaenia fish LC Chordata Teleostei Canthidermis maculata fish LC Chordata Teleostei Canthidermis fish LC Chordata Teleostei Canthidermis fish LC Chordata Teleostei Canthigaster jactator fish LC Chordata Teleostei Canthigaster janthinoptera fish LC Chordata Teleostei Canthigaster janthinoptera fish LC Chordata Teleostei Canthigaster janthinoptera fish LC Chordata Teleostei Cephalopholis cruentata fish LC Chordata Teleostei Cephalopholis panamensis fish LC Chordata Teleostei Cirrhitus fish LC Chordata Teleostei Cirrhitus fish LC Chordata Teleostei Cirr					LC		
Chordata Teleostei Aluterus monoceros fish LC unicorn leatherjacket Scrawled filefish Chordata Teleostei Aluterus scriptus fish LC scrawled filefish Chordata Teleostei Anisotremus scapularis fish LC Chordata Teleostei Anisotremus surinamensis fish DD yes black margate Chordata Teleostei Argyropelecus lychnus fish LC silvery hatchetfish Chordata Teleostei Arothron meleagris fish LC Guineafowl puffer Chordata Teleostei Arothron meleagris fish LC Guineafowl puffer Chordata Teleostei Aulostomus chinensis fish LC Chinese trumpetfish Chordata Teleostei Auxis rochei fish LC Bonito, bonite Chordata Teleostei Auxis thazard fish LC frigate tuna, auxide Chordata Teleostei Azurina atrilobata fish Chordata Teleostei Balistes polylepis fish LC finescale triggerfish Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Borama dussumieri fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC rought triggerfish Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Caranx melampygus fish LC yes spotted puffer Chordata Teleostei Caranx melampygus fish LC yes Chordata Teleostei Caranx melampygus fish LC yes Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes graysby Chordata Teleostei Cirrittichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrittichthys oxycephalus fish LC giant hawkfish					LC		
Chordata Teleostei Aluterus scriptus fish LC Chordata Teleostei Anisotremus scapularis fish LC Chordata Teleostei Anisotremus scapularis fish LC Chordata Teleostei Anisotremus surinamensis fish DD yes black margate Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Arothron meleagris fish LC Chordata Teleostei Aulostomus chinensis fish LC Chordata Teleostei Aulostomus chinensis fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Azurina atrilobata fish Chordata Teleostei Balistes polylepis fish LC Chordata Teleostei Bodianus diplotaenia fish LC Chordata Teleostei Brama dussumieri fish LC Chordata Teleostei Canthidermis maculata fish LC Chordata Teleostei Canthigaster jactator fish LC Chordata Teleostei Caranx melampygus fish LC Chordata Teleostei Caranx sexfasciatus fish LC Chordata Teleostei Caranx sexfasciatus fish LC Chordata Teleostei Caranx sexfasciatus fish LC Chordata Teleostei Cephalopholis panamensis fish LC Chordata Teleostei Cephalopholis panamensis fish LC Chordata Teleostei Cephalopholis cruentata fish LC Chordata Teleostei Cephalopholis panamensis fish LC Chordata Teleostei Cirrhittichtys oxycephalus fish LC							
Chordata Teleostei Anisotremus scapularis fish LC Chordata Teleostei Anisotremus surinamensis fish DD yes black margate Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Argyropelecus lychnus fish LC Chordata Teleostei Arothron meleagris fish LC Chordata Teleostei Aulostomus chinensis fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Auxis rochei fish LC Chordata Teleostei Auxis thazard fish LC Chordata Teleostei Auxis thazard fish Chordata Teleostei Balistes polylepis fish LC Chordata Teleostei Bodianus diplotaenia fish Chordata Teleostei Bodianus diplotaenia fish LC Chordata Teleostei Bodianus diplotaenia fish LC Chordata Teleostei Canthigarter jactator fish LC Chordata Teleostei Canthigaster jactator fish LC Chordata Teleostei Canthigaster jactator fish LC Chordata Teleostei Canthigaster janthinoptera fish LC Chordata Teleostei Caranx melampygus fish LC Chordata Teleostei Caranx sexfasciatus fish LC Chordata Teleostei Cephalopholis cruentata fish LC Chordata Teleostei Cephalopholis panamensis fish LC Chordata Teleostei Cirrhittoritys oxycephalus fish LC Chordata Teleostei Cirrhittoritys oxycephalus fish LC Chordata Teleostei Cirrhittoritys oxycephalus fish LC Chordata Teleostei Cirrhittoritys fish LC Chordata Teleostei							
Chordata Teleostei Anisotremus surinamensis fish DD yes black margate Chordata Teleostei Argyropelecus lychnus fish LC silvery hatchetfish Chordata Teleostei Arothron meleagris fish LC Guineafowl puffer Chordata Teleostei Aulostomus chinensis fish LC Chinese trumpetfish Chordata Teleostei Auxis rochei fish LC Bonito, bonite Chordata Teleostei Auxis thazard fish LC frigate tuna, auxide Chordata Teleostei Auxis thazard fish Chordata Teleostei Balistes polylepis fish LC finescale triggerfish Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Bodianus diplotaenia fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC uoyes Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC yes Chordata Teleostei Caranx sexfasciatus fish LC bluefin trevally Chordata Teleostei Cephalopholis panamensis fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC planama graysby Chordata Teleostei Cephalopholis panamensis fish LC planama graysby Chordata Teleostei Cirrhitus rivulatus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus			•				scrawled filetish
Chordata Teleostei Argyropelecus lychnus fish LC Guineafowl puffer Chordata Teleostei Arothron meleagris fish LC Guineafowl puffer Chordata Teleostei Aulostomus chinensis fish LC Chinese trumpetfish Chordata Teleostei Auxis rochei fish LC Bonito, bonite Chordata Teleostei Auxis rochei fish LC Bonito, bonite Chordata Teleostei Auxis thazard fish LC frigate tuna, auxide Chordata Teleostei Balistes polylepis fish LC finescale triggerfish Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Brama dussumieri fish LC lowfin pomfret Chordata Teleostei Brama dussumieri fish LC rough triggerfish Chordata Teleostei Canthidermis maculata fish LC rough triggerfish Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC yes Chordata Teleostei Caranx sexfasciatus fish LC yes Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes Chordata Teleostei Cirrhitichtys oxycephalus fish LC yes Chordata Teleostei Cirrhitichtys oxycephalus fish LC yes yanama graysby Chordata Teleostei Cirrhitius rivulatus fish LC yes qiant hawkfish			•				
Chordata Teleostei Arothron meleagris fish LC Guineafowl puffer Chordata Teleostei Aulostomus chinensis fish LC Chinese trumpetfish Chordata Teleostei Auxis rochei fish LC Bonito, bonite Chordata Teleostei Auxis thazard fish LC frigate tuna, auxide Chordata Teleostei Azurina atrilobata fish Chordata Teleostei Balistes polylepis fish LC finescale triggerfish Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Brama dussumieri fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC lowfin pomfret Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Caranx sexfasciatus fish LC yes Chordata Teleostei Caranx melampygus fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes Chordata Teleostei Cirrhittus fish LC pixy hawkfish Chordata Teleostei Cirrhittus fish LC pixy hawkfish Chordata Teleostei Cirrhittus fish LC pixy hawkfish Chordata Teleostei Cirrhittus fish LC giant hawkfish						yes	3
Chordata Teleostei Aulostomus chinensis fish LC Chinese trumpetfish Chordata Teleostei Auxis rochei fish LC Bonito, bonite Chordata Teleostei Auxis thazard fish LC frigate tuna, auxide Chordata Teleostei Azurina atrilobata fish Chordata Teleostei Balistes polylepis fish LC finescale triggerfish Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Brama dussumieri fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC rough triggerfish Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Caranx sexfasciatus fish LC yes Chordata Teleostei Caranx sexfasciatus fish LC yes Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis ruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC panama graysby Chordata Teleostei Cephalopholis dialepta fish LC pixy hawkfish Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish							
Chordata Teleostei Auxis rochei fish LC frigate tuna, auxide Chordata Teleostei Auxis thazard fish LC frigate tuna, auxide Chordata Teleostei Azurina atrilobata fish Chordata Teleostei Balistes polylepis fish LC finescale triggerfish Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Brama dussumieri fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC rough triggerfish Chordata Teleostei Canthidermis maculata fish LC yes Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes Chordata Teleostei Caranx melampygus fish LC biuefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigey trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC panama graysby Chordata Teleostei Cirrhittor ivvulatus fish LC pixy hawkfish Chordata Teleostei Cirrhittor rivulatus fish LC pixy hawkfish Chordata Teleostei Cirrhittor rivulatus fish LC pixy hawkfish Chordata Teleostei Cirrhittor rivulatus fish LC pixy hawkfish			3				·
Chordata Teleostei Auxis thazard fish LC frigate tuna, auxide Chordata Teleostei Azurina atrilobata fish Chordata Teleostei Balistes polylepis fish LC finescale triggerfish Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Brama dussumieri fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC rough triggerfish Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes spotted puffer Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bluefin trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC pixy hawkfish							· ·
Chordata Teleostei Azurina atrilobata fish Chordata Teleostei Balistes polylepis fish LC finescale triggerfish Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Brama dussumieri fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC rough triggerfish Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes spotted puffer Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish							
Chordata Teleostei Balistes polylepis fish LC Mexican hogfish Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Brama dussumieri fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC rough triggerfish Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx melampygus fish LC bigeye trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus riyulatus fish LC pixy hawkfish					LC		frigate tuna, auxide
Chordata Teleostei Bodianus diplotaenia fish LC Mexican hogfish Chordata Teleostei Brama dussumieri fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC yes Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes spotted puffer Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish							
Chordata Teleostei Brama dussumieri fish LC lowfin pomfret Chordata Teleostei Canthidermis maculata fish LC yes Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes spotted puffer Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC yes panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish			, , ,				33
Chordata Teleostei Canthidermis maculata fish LC yes Chordata Teleostei Canthigaster jactator fish LC yes Chordata Teleostei Canthigaster janthinoptera fish LC yes spotted puffer Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes Chordata Teleostei Cephalopholis panamensis fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish			•				5
Chordata Teleostei Canthigaster jactator fish LC yes spotted puffer Chordata Teleostei Canthigaster janthinoptera fish LC yes spotted puffer Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish					LC		
Chordata Teleostei Canthigaster janthinoptera fish LC yes spotted puffer Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish	Chordata	Teleostei	Canthidermis maculata	fish			rough triggerfish
Chordata Teleostei Caranx melampygus fish LC bluefin trevally Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC Panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish	Chordata	Teleostei	Canthigaster jactator	fish	LC	yes	
Chordata Teleostei Caranx sexfasciatus fish LC bigeye trevally Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC Panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish	Chordata	Teleostei	Canthigaster janthinoptera	fish		yes	spotted puffer
Chordata Teleostei Centrophryne spinulosa fish LC yes Chordata Teleostei Cephalopholis cruentata fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC Panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish	Chordata	Teleostei	Caranx melampygus	fish			bluefin trevally
Chordata Teleostei Cephalopholis cruentata fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC Panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish	Chordata	Teleostei	Caranx sexfasciatus	fish	LC		bigeye trevally
Chordata Teleostei Cephalopholis cruentata fish LC yes graysby Chordata Teleostei Cephalopholis panamensis fish LC Panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish	Chordata	Teleostei	Centrophryne spinulosa	fish		yes	
Chordata Teleostei Cephalopholis panamensis fish LC Panama graysby Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish	Chordata	Teleostei		fish	LC	yes	graysby
Chordata Teleostei Chriolepis dialepta fish VU Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish	Chordata	Teleostei	Cephalopholis panamensis	fish	LC	-	Panama graysby
Chordata Teleostei Cirrhitichthys oxycephalus fish LC pixy hawkfish Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish					VU		
Chordata Teleostei Cirrhitus rivulatus fish LC giant hawkfish	Chordata	Teleostei		fish			pixy hawkfish
Chardeta Talacetai Caskaskus innonisus fish LC					LC		, ,
Chordata releoster Cookeoius japonicus tish LC pulleve	Chordata	Teleostei	Cookeolus japonicus	fish	LC		bulleye
Chordata Teleostei Coryphaena equiselis fish LC pompano dolphin			3 1		LČ		•
Chordata Teleostei Ctenochaetus marginatus fish LC			3				· · · · · · · · · · · · · · · ·
Chordata Teleostei Cubiceps whiteleggii fish yes			9		-	ves	

phylum	class	species	group	category	new	vernacular
Chordata	Teleostei	Cyclothone atraria	fish	LC	yes	Deep-water bristlemouth
Chordata	Teleostei	Cyclothone signata	fish	LC	yes	showy bristlemouth, cyclothone prétentieuse
Chordata	Teleostei	Decapterus macarellus	fish	LC		mackerel scad
Chordata	Teleostei	Dermatolepis dermatolepis	fish	LC		leather bass
Chordata	Teleostei	Diaphus fulgens	fish	LC	yes	
Chordata	Teleostei	Dicrolene introniger	fish	LC	yes	
Chordata	Teleostei	Diogenichthys laternatus	fish	LC	,	Diogenes lanternfish
Chordata	Teleostei	Diplophos taenia	fish	LC		Pacific portholefish
Chordata	Teleostei	Echidna nebulosa	fish	LC		snowflake moray
Chordata	Teleostei	Elagatis bipinnulata	fish	LC		rainbow runner
Chordata	Teleostei	Emblemaria nivipes	fish	DD		Tumbow Tumbo
Chordata	Teleostei	Enchelycore nigricans	fish	LC	yes	viper moray
Chordata	Teleostei	Enchelynassa canina	fish	LC	ves	viper moray
Chordata	Teleostei	Entomacrodus chiostictus	fish	LC	yes	notchfin blenny
Chordata	Teleostei	Entomacrodus enlosticius	fish	LC	1/06	noternin blenny
Chordata	Teleostei		fish	LC	yes	Inner, marianta
		Eucinostomus gula			yes	Jenny mojarra
Chordata	Teleostei	Euthynnus affinis	fish	LC	yes	kawakawa, thonine orientale
Chordata	Teleostei	Euthynnus lineatus	fish	LC		black skipjack, thonine noire
Chordata	Teleostei	Exocoetus monocirrhus	fish			barbel flyingfish
Chordata	Teleostei	Ferdauia orthogrammus	fish			
Chordata	Teleostei	Fistularia commersonii	fish	LC		cornetfish
Chordata	Teleostei	Fistularia corneta	fish	LC		deepwater cornetfish
Chordata	Teleostei	Gillellus greyae	fish	LC	yes	arrow stargazer
Chordata	Teleostei	Gonichthys tenuiculus	fish	LC		
Chordata	Teleostei	Gymnothorax flavimarginatus	fish	LC		yellowmargin moray
Chordata	Teleostei	Gymnothorax monostigma	fish	LC	yes	
Chordata	Teleostei	Halichoeres discolor	fish	VU		
Chordata	Teleostei	Halichoeres melanotis	fish	LC		golden wrasse
Chordata	Teleostei	Halichoeres salmofasciatus	fish	VU		
Chordata	Teleostei	Harengula humeralis	fish	LC	yes	pilchard
Chordata	Teleostei	Harengula jaguana	fish	LC	ves	scaled sardine
Chordata	Teleostei	Hemiramphus balao	fish	LC	ves	balao
Chordata	Teleostei	Heteropriacanthus cruentatus	fish	LC	,	glasseye snapper
Chordata	Teleostei	Holacanthus passer	fish	LC		king angelfish
Chordata	Teleostei	Hypsoblennius brevipinnis	fish	LC		barnaclebill blenny
Chordata	Teleostei	Iniistius pavo	fish	LC		peacock razorfish
Chordata	Teleostei	Istiophorus platypterus	fish	VÜ		Indo-Pacific sailfish, voilier indo-pacifique
Chordata	Teleostei	Johnrandallia nigrirostris	fish	LC		barberfish
Chordata	Teleostei	Kyphosus elegans	fish	LC		Cortez sea chub
Chordata	Teleostei	Kyphosus vaigiensis	fish	LC		brassy chub
Chordata	Teleostei	Lepidocybium flavobrunneum	fish	LC		escolar, escolier noir
Chordata	Teleostei	Lutjanus aratus	fish	LC		mullet snapper
Chordata	Teleostei	Lutjanus aratus Lutjanus argentiventris	fish	LC		amarillo snapper
Chordata	Teleostei	Lutjanus campechanus	fish	VU	yes	northern red snapper
Chordata	Teleostei	Lutjanus jocu	fish	DD	yes	dog snapper
Chordata	Teleostei	Lutjanus kasmira	fish	LC		common bluestripe snapper
Chordata	Teleostei		fish	LC	yes	Pacific red snapper
		Lutjanus peru		LC	yes	
Chordata	Teleostei	Lythrypnus dalli	fish	LC		bluebanded goby
Chordata	Teleostei	Malacanthus brevirostris	fish	1.0		quakerfish
Chordata	Teleostei	Melichthys niger	fish	LC		black durgon

phylum	class	species	group	category	new	vernacular
Chordata	Teleostei	Melichthys vidua	fish	LC		pinktail triggerfish
Chordata	Teleostei	Microlophichthys microlophus	fish	LC	yes	short-rod anglerfish
Chordata	Teleostei	Microspathodon dorsalis	fish	LC		giant damselfish
Chordata	Teleostei	Mugil cephalus	fish	LC		grey mullet, muge
Chordata	Teleostei	Mulloidichthys martinicus	fish	LC	yes	yellow goatfish
Chordata	Teleostei	Mulloidichthys vanicolensis	fish	LC	ves	yellowfin goatfish
Chordata	Teleostei	Myctophum aurolaternatum	fish	LC	,	, ,
Chordata	Teleostei	Myctophum nitidulum	fish	LC		lanternfish
Chordata	Teleostei	Myripristis berndti	fish	LC		blotcheve soldierfish
Chordata	Teleostei	Myripristis leiognathus	fish	LČ		Panamic soldierfish
Chordata	Teleostei	Nemichthys scolopaceus	fish	LC		slender snipe eel, avocette ruban
Chordata	Teleostei	Novaculichthys taeniourus	fish	LC		rockmover wrasse
Chordata	Teleostei	Ophioblennius atlanticus	fish	LC		To diameter with about
Chordata	Teleostei	Ophioblennius steindachneri	fish	LC		Panamic fanged blenny
Chordata	Teleostei	Oxyporhamphus micropterus	fish	LC		smallwing flyingfish
Chordata	Teleostei	Paranthias colonus	fish			Pacific creolefish
Chordata	Teleostei	Prionurus laticlavius	fish	LC		razor surgeonfish
Chordata	Teleostei	Pristigenys serrula	fish	LC		popeye catalufa
Chordata	Teleostei	Pronotogrammus multifasciatus	fish	LC		threadfin bass
Chordata	Teleostei	Psenes cyanophrys	fish	LC		freckled driftfish
Chordata	Teleostei	Pseudoscopelus lavenbergi	fish	LC	V/05	neckied differisit
Chordata	Teleostei	Rypticus saponaceus	fish	LC	yes yes	greater soapfish
Chordata	Teleostei	Scarus ghobban	fish	LC	yes	bluechin parrotfish
Chordata	Teleostei	Scarus gnobban Scarus rubroviolaceus	fish	LC		ember parrotrish
Chordata	Teleostei	Selar crumenophthalmus	fish	LC		bigeve scad
Chordata	Teleostei	Seriola rivoliana	fish	LC		5 7
Chordata	Teleostei	Serranus aeguidens	fish	LC		Almaco jack, sériole limon
				LC		deepwater serrano
Chordata	Teleostei	Stathmonotus culebrai	fish			
Chordata	Teleostei	Stegastes arcifrons	fish	LC		
Chordata	Teleostei	Stegastes flavilatus	fish	LC		beaubrummel
Chordata	Teleostei	Stegastes rectifraenum	fish	LC	yes	Cortez damselfish
Chordata	Teleostei	Sufflamen verres	fish	LC		orangeside triggerfish
Chordata	Teleostei	Symbolophorus reversus	fish	LC		
Chordata	Teleostei	Tetrapturus angustirostris	fish	DD		shortbill spearfish, makaire à rostre court
Chordata	Teleostei	Thalassoma lucasanum	fish	LC		Cortez rainbow wrasse
Chordata	Teleostei	Thalassoma robertsoni	fish	VU	yes	
Chordata	Teleostei	Thunnus alalunga	fish	LC	yes	albacore, thon blanc
Chordata	Teleostei	Thunnus thynnus	fish	LC	yes	tuna, thon rouge de l'Atlantique
Chordata	Teleostei	Thunnus tonggol	fish	DD	yes	longtail tuna, thon mignon
Chordata	Teleostei	Trachinotus rhodopus	fish	LC		gafftopsail pompano
Chordata	Teleostei	Tylosurus acus	fish	LC		agujon needlefish
Chordata	Teleostei	Tylosurus crocodilus	fish	LC		houndfish
Chordata	Teleostei	Uraspis helvola	fish	LC		whitemouth jack
Chordata	Teleostei	Uraspis secunda	fish	LC	yes	cottonmouth jack
Chordata	Teleostei	Uropterygius macrocephalus	fish	LC		largehead moray
Chordata	Teleostei	Uropterygius macularius	fish	LC	yes	marbled moray
Chordata	Teleostei	Vinciguerria lucetia	fish	LC		
Chordata	Teleostei	Vinciguerria nimbaria	fish	LC	yes	oceanic lightfish
Chordata	Teleostei	Xanthichthys mento	fish	LC		redtail triggerfish
Chordata	Teleostei	Xyrichtys novacula	fish	LC	yes	pearly razorfish

phylum	class	species	group	category	new	vernacular
Chordata	Teleostei	Zanclus cornutus	fish	LC		Moorish idol
Cnidaria	Anthozoa	Andvakia discipulorum	cnidarians		yes	
Cnidaria	Anthozoa	Diadumene leucolena	cnidarians		yes	white anemone
Cnidaria	Anthozoa	Leptogorgia alba	cnidarians		-	
Cnidaria	Anthozoa	Psammocora nierstraszi	cnidarians	LC	yes	
Cnidaria	Anthozoa	Stylatula elongata	cnidarians		yes	slender sea pen, pennatule allongée
Cnidaria	Hydrozoa	Abylopsis eschscholtzii	cnidarians		yes	3··
Cnidaria	Hydrozoa	Agalma okenii	cnidarians		yes	
Cnidaria	Hydrozoa	Aglaophenia prominens	cnidarians		yes	
Cnidaria	Hydrozoa	Aglaura hemistoma	cnidarians		yes	American pipit
Cnidaria	Hydrozoa	Asyncoryne ryniensis	cnidarians		yes	
Cnidaria	Hydrozoa	Athorybia rosacea	cnidarians		yes	
Cnidaria	Hydrozoa	Campanularia hincksii	cnidarians		yes	
Cnidaria	Hydrozoa	Ceratocymba sagittata	cnidarians		yes	
Cnidaria	Hydrozoa	Chelophyes appendiculata	cnidarians		yes	
Cnidaria	Hydrozoa	Chelophyes contorta	cnidarians		yes	
Cnidaria	Hydrozoa	Clytia brevithecata	cnidarians		yes	
Cnidaria	Hydrozoa	Clytia brevitnecata Clytia elsaeoswaldae	cnidarians		1,00	
Cnidaria	Hydrozoa	Clytia eisaeoswaidae Clytia gracilis	cnidarians		yes	
Cnidaria	Hydrozoa	Clytia graciis Clytia linearis	cnidarians			
Cnidaria	•	Clytia infears Clytia noliformis	cnidarians			
Cnidaria	Hydrozoa	Diphyes bojani	cnidarians		yes	
	Hydrozoa	. , ,			yes	
Cnidaria	Hydrozoa	Diphyes dispar	cnidarians		yes	
Cnidaria	Hydrozoa	Forskalia tholoides	cnidarians		yes	
Cnidaria	Hydrozoa	Geryonia proboscidalis	cnidarians		yes	trunked jellyfish
Cnidaria	Hydrozoa	Halopteris alternata	cnidarians			
Cnidaria	Hydrozoa	Laodicea undulata	cnidarians		yes	
Cnidaria	Hydrozoa	Larsonia pterophylla	cnidarians		yes	
Cnidaria	Hydrozoa	Lensia campanella	cnidarians		yes	
Cnidaria	Hydrozoa	Lensia conoidea	cnidarians		yes	
Cnidaria	Hydrozoa	Lensia cossack	cnidarians		yes	
Cnidaria	Hydrozoa	Liriope tetraphylla	cnidarians		yes	
Cnidaria	Hydrozoa	Macrorhynchia philippina	cnidarians		yes	stinging hydroid
Cnidaria	Hydrozoa	Nanomia bijuga	cnidarians		yes	
Cnidaria	Hydrozoa	Obelia dichotoma	cnidarians			sea thread hydroid
Cnidaria	Hydrozoa	Physalia physalis	cnidarians		yes	Portuguese man-of-war, galère portugaise
Cnidaria	Hydrozoa	Plumularia setacea	cnidarians		yes	little seabristle
Cnidaria	Hydrozoa	Rhizophysa filiformis	cnidarians		yes	
Cnidaria	Hydrozoa	Rosacea flaccida	cnidarians		yes	
Cnidaria	Hydrozoa	Sphaeronectes koellikeri	cnidarians		yes	
Cnidaria	Scyphozoa	Pelagia panopyra	cnidarians		yes	
Cryptophyta	Cryptophyceae	Hemiarma marina			yes	
Ctenophora	Tentaculata	Cestum veneris	cnidarians		yes	Venus girdle, ceinture de Vénus
Ctenophora	Tentaculata	Leucothea pulchra	cnidarians		yes	
Ctenophora	Tentaculata	Ocyropsis crystallina	cnidarians		yes	ocyroé cristalline
Ctenophora	Tentaculata	Ocyropsis maculata	cnidarians		yes	ocyroé tachée
Ctenophora	Tentaculata	Velamen parallelum	cnidarians		yes	· •
Echinodermata	Asteroidea	Luidia guinaria	echinoderms		yes	Spiny sand seastar
Echinodermata	Asteroidea	Mithrodia clavigera	echinoderms		y 00	Sping same season
Lominouchinata	Asteroidea	Pentaceraster cumingi	echinoderms			

phylum	class	species	group	category	new	vernacular
Echinodermata	Echinoidea	Diadema mexicanum	echinoderms			
Echinodermata	Echinoidea	Echinometra oblonga	echinoderms		yes	
Echinodermata	Echinoidea	Echinothrix calamaris	echinoderms			banded sea urchin
Echinodermata	Echinoidea	Echinothrix diadema	echinoderms			blue-black urchin
Echinodermata	Echinoidea	Toxopneustes pileolus	echinoderms		yes	
Echinodermata	Echinoidea	Toxopneustes roseus	echinoderms		,	
Echinodermata	Echinoidea	Tripneustes gratilla	echinoderms			collector urchin
Echinodermata	Ophiuroidea	Ophiactis simplex	echinoderms			
Echinodermata	Ophiuroidea	Ophiocoma erinaceus	echinoderms			
Echinodermata	Ophiuroidea	Ophiothela mirabilis	echinoderms			
Haptophyta	Coccolithophyceae	Emiliania huxleyi	algae		yes	
Haptophyta	Coccolithophyceae	Phaeocystis globosa	algae		yes	
Mollusca	Bivalvia	Leiosolenus hanleyanus	molluscs		yes	
Mollusca	Cephalopoda	Argonauta argo	molluscs	LC	yes	paper nautilus, argonaute voilier
Mollusca	Cephalopoda	Dosidicus gigas	molluscs	DD	ves	jumbo flying squid, encornet géant
Mollusca	Cephalopoda	Octopus hubbsorum	molluscs	LC	yes	Jumbo Hymg Squid, encorner geam
Mollusca	Cephalopoda	Pterygioteuthis hoylei	molluscs	DD	yes	
Mollusca	Cephalopoda	Sthenoteuthis oualaniensis	molluscs	LC	ycs	purpleback flying squid
Mollusca	Gastropoda	Cardiapoda placenta	molluscs	LC	V/05	purpleback flyilig squid
Mollusca	Gastropoda	Cavolinia uncinata	molluscs		yes	hooked cavoline
Mollusca		Creseis acicula	molluscs			nooked Cavoline
	Gastropoda Gastropoda					
Mollusca	•	Creseis conica	molluscs		yes	
Mollusca	Gastropoda	Creseis virgula	molluscs		yes	
Mollusca	Gastropoda	Pleurobranchus digueti	molluscs		yes	
Mollusca	Gastropoda	Tomoberthella martensi	molluscs		yes	
Myzozoa	Dinophyceae	Protoceratium reticulatum	unicellular		yes	
Ochrophyta	Dictyochophyceae	Pseudochattonella farcimen	algae		yes	
Ochrophyta	Pelagophyceae	Pelagomonas calceolata	algae		yes	
Ochrophyta	Raphidophyceae	Haramonas dimorpha	algae		yes	
Porifera	Demospongiae	Callyspongia (Callyspongia) fallax	sponges		yes	
Porifera	Demospongiae	Callyspongia (Cladochalina) plicifera	sponges		yes	
Porifera	Demospongiae	Chelonaplysilla erecta	sponges		yes	
Porifera	Demospongiae	Clathria (Clathria) unica	sponges		yes	
Porifera	Demospongiae	Clathria (Wilsonella) rugosa	sponges		yes	
Porifera	Demospongiae	Cliona mariae	sponges		yes	Maria Santana's Cliona
Porifera	Demospongiae	Cliona yorkin	sponges		yes	Yorkin Cliona
Porifera	Demospongiae	Crambe crambe	sponges		yes	orange-red encrusting sponge, éponge encroûtante orange-rouge
Porifera	Demospongiae	Desmapsamma anchorata	sponges		yes	
Porifera	Demospongiae	Dictyonella funicularis	sponges		yes	
Porifera	Demospongiae	Halichondria (Halichondria) coerulea	sponges		yes	
Porifera	Demospongiae	Haliclona pigmentifera	sponges		yes	
Porifera	Demospongiae	Igernella notabilis	sponges		yes	
Porifera	Demospongiae	lophon parvachela	sponges		yes	
Porifera	Demospongiae	Mycale (Carmia) cecilia	sponges		yes	
Porifera	Demospongiae	Phorbas bihamiger	sponges		yes	
Porifera	Demospongiae	Pione vastifica	sponges		yes	boring sponge, clione rouge
Porifera	Demospongiae	Stelletta mediterranea	sponges		yes	
Porifera	Demospongiae	Svenzea cristinae	sponges		yes	
Porifera	Demospongiae	Thoosa purpurea	sponges		yes	
Porifera	Homoscleromorpha	Plakortis deweerdtaephila	sponges		yes	

phylum	class	species	group	category	new	vernacular
Porifera	Homoscleromorpha	Plakortis halichondrioides	sponges		yes	
Rhodophyta	Florideophyceae	Ceratodictyon scoparium	algae		yes	
Rhodophyta	Florideophyceae	Dasya corymbifera	algae		yes	
Rhodophyta	Florideophyceae	Gelidiella ligulata	algae		yes	
Rhodophyta	Florideophyceae	Gelidiorariphycus stipitatus	algae		yes	
Rhodophyta	Florideophyceae	Gelidium sclerophyllum	algae		yes	
Rhodophyta	Florideophyceae	Harveylithon munitum	algae		yes	
Rotifera	Eurotatoria	Adineta vaga	, and the second		yes	