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

Biodiversity survey for Aldabra Atoll

Interim Results Based on 50% of Samples Analyzed Not for public distribution

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 collecting this DNA from water samples, and subsequently amplifying and sequencing specific regions within these DNA strands, experts can detect a wide variety of species without removing any organisms from their environment. The amplified regions 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. The UNESCO eDNA Expeditions initiative combines a number of markers tailored for marine vertebrates (fish, mammals, and turtles). A general marker was added to allow to detect also 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 is available on the UNESCO website: https://www.unesco.org/en/edna-expeditions.

Results

Sampling and sample processing

eDNA sampling was conducted in Aldabra Atoll in April 2023. A total of 20 samples were collected at 5 locations in the park: Bras Monsieur Claremont, lle esprit, Polymnie, Settlement beach, and West Grand terre (Figure 1). Up to 1800 mL of seawater was filtered through filter cartridges with a 0.8 µm pore size. After sampling, the filter cartridges were flushed with preservation liquid and shipped to UNESCO. From the 20 samples, 10 have now (December 2023) been processed. A second batch of samples will be processed in January 2024. DNA from these samples was extracted and amplified, and then 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. The results in this preliminary report are based on a first batch of 10 samples that were analyzed covering all locations that were sampled in the World Heritage site.

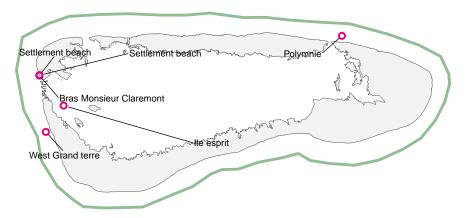


Figure 1: Map of the sampling locations.

DNA sequencing

Sequencing of the DNA from 10 samples resulted in over 20 million sequence reads (Table 2), from which we collected 27478 unique sequences or ASVs. By matching those sequences with reference sequences in public databases, we were able to detect 640 species. Most of these species are vertebrates, but also species from other groups were detected, including algae, molluscs, crustaceans, sponges, and jellyfish (Figure 2). Of the 640 species detected, 362 are not among the 1619 species previously reported from Aldabra Atoll to the UNESCO OBIS database.

reads	asvs
20773852	27478

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

locality	materialSampleID	sampleSize	reads	asvs	species
Bras Monsieur Claremont	EE0475	1500	1536911	8743	198
Bras Monsieur Claremont	EE0480	1560	2318711	8796	218
lle esprit	EE0472	1800	2398657	11901	258
lle esprit	EE0479	1800	1660528	7143	200
Polymnie	EE0487	1500	1272506	6747	208
Polymnie	EE0489	20	1326312	4327	83

Settlement beach	EE0473	1313	3038109	12103	303
Settlement beach	EE0474	1500	3033773	10723	306
Settlement beach	EE0488	1500	2824796	13373	308
West Grand terre	EE0490	1500	1363549	6610	191

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

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 640 species, of which 303 fish species, 2 mammalian species, and 2 turtle species (Table 3). This represents about 35% of the species known from Aldabra Atoll in the OBIS database. 18 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	303	864	0.35
mammals	2	3	0.67
turtles	1	3	0.33

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

category	eDNA species	total species	fraction
CR	1	2	0.50
EN	7	15	0.47
VU	10	85	0.12

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

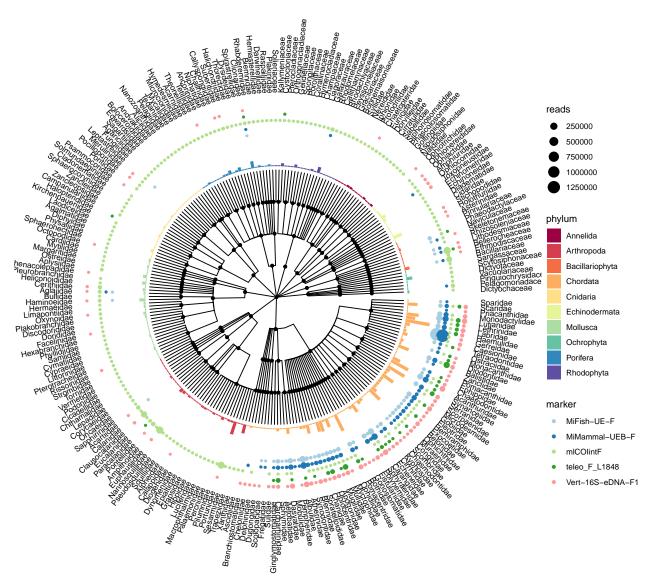


Figure 2: Number of DNA reads (bubbles) and species detected (bars) by family.

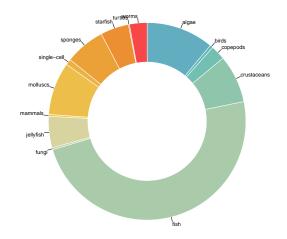


Figure 3: Distribution of detected species across groups.

phylum	class	species	group	category	new	vernacular
Amoebozoa	Discosea	Neoparamoeba aestuarina	single-cell		yes	
Amoebozoa	Discosea	Neoparamoeba pemaquidensis	single-cell		yes	
Annelida	Clitellata	Doliodrilus tener	worms		yes	
Annelida	Clitellata	Heronidrilus fastigatus	worms		yes	
Annelida	Polychaeta	Astomus taenioides	worms		yes	
Annelida	Polychaeta	Bispira manicata	worms		yes	
Annelida	Polychaeta	Chaetopterus variopedatus	worms		yes	parchment worm, grand chétoptère
Annelida	Polychaeta	Ctenodrilus pacificus	worms		yes	,
Annelida	Polychaeta	Eunice afra	worms		yes	
Annelida	Polychaeta	Iphione henshawi	worms		yes	
Annelida	Polychaeta	Leonnates decipiens	worms		yes	
Annelida	Polychaeta	Marphysa mossambica	worms		yes	
Annelida	Polychaeta	Ophryotrocha macrovifera	worms		yes	
Annelida	Polychaeta	Phyllochaetopterus verrilli	worms		yes	
Annelida	Polychaeta	Syllis picta	worms		yes	
Annelida		Aspidosiphon (Akrikos) albus	worms		yes	
Annelida		Phascolosoma (Phascolosoma) nigrescens	worms		yes	
Annelida		Phascolosoma (Phascolosoma) stephensoni	worms		yes	
Annelida		Siphonosoma funafuti	worms		yes	
Annelida		Themiste (Lagenopsis) lageniformis	worms		yes	
Arthropoda	Branchiopoda	Pseudevadne tergestina	WOITIIS		yes	
Arthropoda	Copepoda	Acartia (Acartia) negligens	copepods		yes	
Arthropoda	Copepoda	Acrocalanus gracilis	copepods		yes	
Arthropoda	Copepoda	Calocalanus pavo	copepods		yes	
Arthropoda	Copepoda	Calocalanus plumulosus	copepods			
Arthropoda	Copepoda	Calocalanus styliremis			yes	
		Calocalanus stylireniis Clausocalanus furcatus	copepods		yes	
Arthropoda	Copepoda	Copilia hendorffi	copepods		yes	
Arthropoda	Copepoda		copepods		yes	
Arthropoda	Copepoda	Farranula gibbula	copepods		yes	
Arthropoda	Copepoda	Labidocera detruncata	copepods		yes	
Arthropoda	Copepoda	Labidocera madurae	copepods		yes	
Arthropoda	Copepoda	Oncaea media	copepods		yes	
Arthropoda	Copepoda	Pareucalanus attenuatus	copepods			
Arthropoda	Copepoda	Pontella fera	copepods		yes	
Arthropoda	Copepoda	Sapphirina stellata	copepods		yes	
Arthropoda	Copepoda	Undinula vulgaris	copepods			
Arthropoda	Hexapoda	Macrosteles quadrilineatus			yes	
Arthropoda	Malacostraca	Alima pacifica	crustaceans		yes	
Arthropoda	Malacostraca	Alpheus pacificus	crustaceans		yes	
Arthropoda	Malacostraca	Calappa exanthematosa	crustaceans		yes	
Arthropoda	Malacostraca	Calappa hepatica	crustaceans			smooth box crab
Arthropoda	Malacostraca	Chaenostoma boscii	crustaceans		yes	
Arthropoda	Malacostraca	Chaenostoma sinuspersici	crustaceans		yes	
Arthropoda	Malacostraca	Cycloachelous granulatus	crustaceans		yes	
Arthropoda	Malacostraca	Cyclodius obscurus	crustaceans		yes	
Arthropoda	Malacostraca	Cymadusa filosa	crustaceans		yes	
Arthropoda	Malacostraca	Dardanus deformis	crustaceans			pale anemone hermit
Arthropoda	Malacostraca	Dardanus scutellatus	crustaceans		yes	
Arthropoda .	Malacostraca	Dynomene praedator	crustaceans		yes	
Arthropoda	Malacostraca	Etisus bifrontalis	crustaceans		yes	

phylum	class	species	group	category	new	vernacular
Arthropoda	Malacostraca	Euphausia diomedeae	crustaceans	·	yes	
Arthropoda	Malacostraca	Euphausia tenera	crustaceans		yes	
Arthropoda	Malacostraca	Gaillardiellus rueppelli	crustaceans		yes	
Arthropoda	Malacostraca	Gonioinfradens paucidentatus	crustaceans			
Arthropoda	Malacostraca	Hippa adactyla	crustaceans		yes	
Arthropoda	Malacostraca	Kraussia rugulosa	crustaceans		yes	
Arthropoda	Malacostraca	Leptodius gracilis	crustaceans		yes	
Arthropoda	Malacostraca	Liomera bella	crustaceans		yes	pretty liomera
Arthropoda	Malacostraca	Lucifer typus	crustaceans		yes	standard lucifer prawn, gamba des monts sous-marins
Arthropoda	Malacostraca	Lybia tessellata	crustaceans		yes	carrying crab
Arthropoda	Malacostraca	Macrophthalmus (Macrophthalmus) milloti	crustaceans		yes	, ,
Arthropoda	Malacostraca	Menaethius monoceros	crustaceans		yes	
Arthropoda	Malacostraca	Metopograpsus thukuhar	crustaceans		yes	
Arthropoda	Malacostraca	Pachygrapsus minutus	crustaceans		yes	
Arthropoda	Malacostraca	Palaemonella aliska	crustaceans		yes	
Arthropoda	Malacostraca	Parasesarma samawati	crustaceans		yes	
Arthropoda	Malacostraca	Percnon abbreviatum	crustaceans		yes	
Arthropoda	Malacostraca	Percnon guinotae	crustaceans		yes	
Arthropoda	Malacostraca	Pilodius areolatus	crustaceans		yes	areolated xanthid crab
Arthropoda	Malacostraca	Pilumnus tahitensis	crustaceans			arcolated Xantinia Clab
Arthropoda	Malacostraca	Pilumnus vespertilio	crustaceans		yes	
Arthropoda	Malacostraca	Pseudosquilla ciliata	crustaceans		yes	
Arthropoda	Malacostraca	Pullosquilla litoralis	crustaceans		yes	
•	Malacostraca	Thalamita admete			yes	
Arthropoda			crustaceans		yes	
Arthropoda	Malacostraca	Thalamita chaptalii	crustaceans		yes	
Arthropoda	Malacostraca	Thalamita coeruleipes	crustaceans		yes	and the second control of the second
Arthropoda	Malacostraca	Thalamita crenata	crustaceans			crenate swimming crab
Arthropoda	Malacostraca	Thalamita gatavakensis	crustaceans		yes	
Arthropoda	Malacostraca	Thalamita gloriensis	crustaceans		yes	
Arthropoda	Malacostraca	Thalamita integra	crustaceans		yes	
Arthropoda	Malacostraca	Thalamita parvidens	crustaceans		yes	
Arthropoda	Malacostraca	Thalamita seurati	crustaceans		yes	
Arthropoda	Malacostraca	Thalamita stephensoni	crustaceans		yes	
Arthropoda	Malacostraca	Trapezia lutea	crustaceans		yes	
Arthropoda	Malacostraca	Xiphonectes iranjae	crustaceans		yes	
Arthropoda	Malacostraca	Zosimus aeneus	crustaceans			
Arthropoda	Thecostraca	Lepas (Lepas) anserifera			yes	goose barnacle
Arthropoda	Thecostraca	Tetrachthamalus oblitteratus			yes	
Ascomycota	Dothideomycetes	Cladosporium herbarum	fungi		yes	
Ascomycota	Eurotiomycetes	Penicillium digitatum	fungi		yes	
Bacillariophyta	Bacillariophyceae	Bellerochea polymorpha	algae		yes	
Bacillariophyta	Bacillariophyceae	Cylindrotheca closterium	algae		yes	
Bacillariophyta	Bacillariophyceae	Ethmodiscus punctiger	algae		yes	
Bacillariophyta	Bacillariophyceae	Haslea pseudostrearia	algae		yes	
Bacillariophyta	Bacillariophyceae	Lithodesmioides polymorpha	algae		yes	
Bacillariophyta	Bacillariophyceae	Navicula minima	algae		yes	
Bacillariophyta	Bacillariophyceae	Phaeodactylum tricornutum	algae		yes	
Bacillariophyta	Bacillariophyceae	Pinnularia acrosphaeria	algae		yes	
Bacillariophyta	Bacillariophyceae	Pseudo-nitzschia abrensis	algae		yes	
Bacillariophyta	Bacillariophyceae	Pseudo-nitzschia caciantha	algae		yes	

phylum	class	species	group	category	new	vernacular
Bacillariophyta	Bacillariophyceae	Pseudo-nitzschia pseudodelicatissima	algae		yes	
3acillariophyta	Bacillariophyceae	Pseudo-nitzschia sabit	algae		yes	
3acillariophyta	Bacillariophyceae	Skeletonema menzelii	algae		yes	
Bacillariophyta	Bacillariophyceae	Sundstroemia setigera	algae		yes	
3igyra	Bicoecea	Caecitellus parvulus			yes	
Cercozoa	Chlorarachnea	Bigelowiella natans	single-cell		yes	
Cercozoa	Chlorarachnea	Chlorarachnion reptans	single-cell		yes	
Chaetognatha	Sagittoidea	Aidanosagitta neglecta	3		yes	
Chaetognatha	Sagittoidea	Ferosagitta robusta			yes	
Chaetognatha	Sagittoidea	Krohnitta subtilis			yes	
Chlorophyta	Mamiellophyceae	Dolichomastix tenuilepis	algae		yes	
Chlorophyta	Mamiellophyceae	Mantoniella squamata	algae		yes	
Chlorophyta	Mamiellophyceae	Micromonas pusilla	algae		yes	
Chlorophyta	iviaimenopriyeeae	Chloroparvula pacifica	algae		yes	
Chlorophyta		Chloropicon laureae	algae		-	
		·	9		yes	
Chlorophyta		Chloropicon mariensis	algae		yes	
Chlorophyta		Chloropicon primus	algae		yes	
Chlorophyta		Chloropicon roscoffensis	algae		yes	
Chlorophyta		Chloropicon sieburthii	algae		yes	
Chordata	Ascidiacea	Ascidia ahodori			yes	
Chordata	Aves	Arenaria interpres	birds	LC		ruddy turnstone, tournepierre à collier
Chordata	Aves	Fregata minor	birds	LC		great frigatebird, frégate du Pacifique
Chordata	Aves	Sula sula	birds	LC		red-footed booby, fou à pieds rouges
Chordata	Elasmobranchii	Aetobatus narinari	fish	EN	yes	spotted eagle ray
Chordata	Elasmobranchii	Carcharhinus amblyrhynchos	fish	EN		grey reef shark
Chordata	Elasmobranchii	Carcharhinus melanopterus	fish	VU		blacktip reef shark
Chordata	Elasmobranchii	Himantura leoparda	fish	VU	yes	
Chordata	Elasmobranchii	Himantura uarnak	fish	EN	yes	honeycomb stingray
Chordata	Elasmobranchii	Mobula birostris	fish	EN	yes	, , ,
Chordata	Elasmobranchii	Nebrius ferrugineus	fish	VU	J	tawny nurse shark, requin nourrice fauve
Chordata	Elasmobranchii	Negaprion acutidens	fish	EN		sicklefin lemon shark
Chordata	Elasmobranchii	Pateobatis fai	fish	VU		Signatur Grant
Chordata	Elasmobranchii	Pateobatis hortlei	fish	ŇŤ	yes	
Chordata	Elasmobranchii	Sphyrna lewini	fish	CR	yes	scalloped hammerhead
Chordata	Elasmobranchii	Taeniurops meyeni	fish	VU		Scanoped Hammernead
Chordata	Elasmobranchii	Urogymnus asperrimus	fish	VU	VOC	porcupine ray
Chordata	Leptocardii	Asymmetron lucayanum	11511	VO	yes	рогсирине тау
		,			yes	
Chordata	Leptocardii	Epigonichthys maldivensis		\	yes	4
Chordata	Mammalia	Dugong dugon	mammals	VU	yes	dugong
Chordata	Mammalia	Stenella longirostris	mammals	LC	yes	long-snouted spinner dolphin, dauphin longirostre
Chordata	Teleostei	Abudefduf sexfasciatus	fish	LC		scissortail sergeant
Chordata	Teleostei	Abudefduf vaigiensis	fish	LC		Indo-Pacific sergeant
Chordata	Teleostei	Acanthurus blochii	fish	LC		ringtail surgeonfish
Chordata	Teleostei	Acanthurus leucosternon	fish	LC		powder-blue surgeonfish
Chordata	Teleostei	Acanthurus lineatus	fish	LC		lined surgeonfish
Chordata	Teleostei	Acanthurus mata	fish	LC		blue-lined surgeonfish
Chordata	Teleostei	Acanthurus nigricauda	fish	LC		epaulette surgeonfish
Chordata	Teleostei	Acanthurus nigrofuscus	fish	LC		brown surgeonfish
Chordata	Teleostei	Acanthurus tennentii	fish	LC		-
Chordata	Teleostei	Acanthurus triostegus	fish	LC		convict surgeonfish

phylum	class	species	group	category	new	vernacular
Chordata	Teleostei	Acanthurus xanthopterus	fish	LC		yellowfin surgeonfish
Chordata	Teleostei	Acentrogobius nebulosus	fish		yes	
Chordata	Teleostei	Aethaloperca rogaa	fish			redmouth grouper
Chordata	Teleostei	Albula glossodonta	fish	VU	yes	roundjaw bonefish
Chordata	Teleostei	Amblycirrhitus bimacula	fish	LC	-	
Chordata	Teleostei	Amblygobius phalaena	fish	LC		
Chordata	Teleostei	Anampses caeruleopunctatus	fish	LC		bluespotted wrasse
Chordata	Teleostei	Apogon semiornatus	fish	LC		obliquebanded cardinalfish
Chordata	Teleostei	Apogonichthys perdix	fish		yes	perdix cardinalfish
Chordata	Teleostei	Aprion virescens	fish	LC	, ,	green jobfish
Chordata	Teleostei	Arothron hispidus	fish	LC		bristly puffer
Chordata	Teleostei	Arothron meleagris	fish	LC		Guineafowl puffer
Chordata	Teleostei	Arothron nigropunctatus	fish	LC		blackspotted puffer
Chordata	Teleostei	Aspidontus taeniatus	fish	LC		mimic blenny
Chordata	Teleostei	Asterropteryx semipunctata	fish	LC		y
Chordata	Teleostei	Atherinomorus lacunosus	fish	LC	ves	robust silverside
Chordata	Teleostei	Balistapus undulatus	fish	LC	ycs	orangestriped
Chordata	Teleostei	Balistoides viridescens	fish	LC		titan triggerfish
Chordata	Teleostei	Blenniella chrysospilos	fish	LC		titali tilggeriisii
Chordata	Teleostei	Blenniella periophthalmus	fish	LC		blue-dashed rockskipper
Chordata	Teleostei	Bothus pantherinus	fish	LC		panther flounder
Chordata	Teleostei	Brotula multibarbata	fish	LC		goatsbeard brotula
Chordata	Teleostei	Caesio caerulaurea	fish	LC		9
						blue and gold fusilier
Chordata	Teleostei	Callechelys catostoma	fish	LC LC		and the description and
Chordata	Teleostei	Callechelys marmorata	fish			marbled snake eel
Chordata	Teleostei	Calotomus carolinus	fish	LC		Carolines parrotfish
Chordata	Teleostei	Calotomus spinidens	fish	LC		spinytooth parrotfish
Chordata	Teleostei	Cantherhines dumerilii	fish	LC		barred filefish
Chordata	Teleostei	Cantherhines pardalis	fish	LC		wier-net filefish
Chordata	Teleostei	Canthigaster bennetti	fish	LC		Bennett's sharpnose puffer
Chordata	Teleostei	Caracanthus maculatus	fish	LC	yes	spotted coral croucher
Chordata	Teleostei	Carangoides ferdau	fish	LC		blue trevally
Chordata	Teleostei	Caranx ignobilis	fish	LC		giant trevally
Chordata	Teleostei	Caranx melampygus	fish	LC		bluefin trevally
Chordata	Teleostei	Caranx sexfasciatus	fish	LC		bigeye trevally
Chordata	Teleostei	Centropyge multispinis	fish	LC		dusky angelfish
Chordata	Teleostei	Cephalopholis argus	fish	LC		peacock grouper
Chordata	Teleostei	Cephalopholis miniata	fish	LC		coral grouper
Chordata	Teleostei	Cephalopholis sexmaculata	fish	LC		sixspot grouper
Chordata	Teleostei	Cephalopholis sonnerati	fish	LC		tomato hind
Chordata	Teleostei	Cephalopholis urodeta	fish	LC		darkfin hind
Chordata	Teleostei	Cetoscarus bicolor	fish	LC		bicolour parrotfish
Chordata	Teleostei	Chaetodon auriga	fish	LC		threadfin butterflyfish
Chordata	Teleostei	Chaetodon austriacus	fish	LC	yes	exquisite butterflyfish
Chordata	Teleostei	Chaetodon guttatissimus	fish	LC	-	peppered butterflyfish
Chordata	Teleostei	Chaetodon kleinii	fish	LC		sunburst butterflyfish
Chordata	Teleostei	Chaetodon melannotus	fish	LC		blackback butterflyfish
Chordata	Teleostei	Chaetodon meyeri	fish	LC		scrawled butterflyfish
Chordata	Teleostei	Chanos chanos	fish	LC		milkfish, chano
Chordata	Teleostei	Cheilinus trilobatus	fish	LC		tripletail wrasse

phylum	class	species	group	category	new	vernacular
Chordata	Teleostei	Cheilinus undulatus	fish	EN		humphead wrasse
Chordata	Teleostei	Cheilopogon cyanopterus	fish	LC	yes	margined flyingfish
Chordata	Teleostei	Cheilopogon spilonotopterus	fish		yes	stained flyingfish
Chordata	Teleostei	Chlorurus sordidus	fish	LC		
Chordata	Teleostei	Chromis viridis	fish	LC		blue-green damselfish
Chordata	Teleostei	Chromis xanthochira	fish	LC	yes	
Chordata	Teleostei	Chrysiptera biocellata	fish	LC	-	twinspot damselfish
Chordata	Teleostei	Chrysiptera brownriggii	fish	LC		•
Chordata	Teleostei	Chrysiptera unimaculata	fish	LC		onespot damselfish
Chordata	Teleostei	Cirrhitichthys oxycephalus	fish	LČ		pixy hawkfish
Chordata	Teleostei	Cirripectes castaneus	fish	LC		chestnut blenny
Chordata	Teleostei	Cirripectes polyzona	fish	LC		barred blenny
Chordata	Teleostei	Cirripectes quagga	fish	LC		squiqqly blenny
Chordata	Teleostei	Cirripectes quagga Cirripectes stigmaticus	fish	LC	ves	red-streaked blenny
Chordata	Teleostei	Conger cinereus	fish	LC	ycs	mustache conger
Chordata	Teleostei	Coris aygula	fish	LC		clown wrasse
Chordata	Teleostei	Coris aygula Coris caudimacula	fish	LC		spottail coris
						Spottali coris
Chordata	Teleostei	Coris dorsomacula	fish	LC	yes	6.1
Chordata	Teleostei	Crenimugil crenilabis	fish	LC		fringelip mullet
Chordata	Teleostei	Crenimugil seheli	fish	LC	yes	
Chordata	Teleostei	Ctenochaetus binotatus	fish	LC		twospot surgeonfish
Chordata	Teleostei	Ctenochaetus flavicauda	fish	LC	yes	
Chordata	Teleostei	Ctenochaetus striatus	fish	LC		lined bristletooth
Chordata	Teleostei	Ctenogobiops feroculus	fish	LC	yes	
Chordata	Teleostei	Cyclothone pseudopallida	fish	LC	yes	slender bristlemouth, cyclothone mince
Chordata	Teleostei	Cymolutes praetextatus	fish	LC		
Chordata	Teleostei	Dascyllus trimaculatus	fish	LC		domino
Chordata	Teleostei	Dasyscopelus spinosus	fish		yes	
Chordata	Teleostei	Diagramma pictum	fish		yes	grunt
Chordata	Teleostei	Diodon hystrix	fish	LC	yes	spot-fin porcupinefish
Chordata	Teleostei	Diodon liturosus	fish		,	black-blotched porcupinefish
Chordata	Teleostei	Diplodus kotschyi	fish		yes	•
Chordata	Teleostei	Dysalotus alcocki	fish	LC	yes	
Chordata	Teleostei	Echeneis naucrates	fish	LC	,	sharksucker
Chordata	Teleostei	Echidna nebulosa	fish	LC		snowflake moray
Chordata	Teleostei	Echidna polyzona	fish	LC		barred moray
Chordata	Teleostei	Eleotris fusca	fish	LC	ves	dusky sleeper
Chordata	Teleostei	Eleotris melanosoma	fish	LC	ves	dusky sicepei
Chordata	Teleostei	Epinephelus coeruleopunctatus	fish	LC	yes	
Chordata	Teleostei	Epinephelus corallicola	fish	LC	ves	
Chordata	Teleostei	Epinephelus fasciatus	fish	LC	yes	blacktip grouper, mérou oriflamme
Chordata	Teleostei	Epinephelus rasciatus Epinephelus hexagonatus	fish	LC		starspotted grouper
				LC		
Chordata	Teleostei Teleostei	Epinephelus malabaricus	fish fish	LC LC		Malabar grouper
Chordata		Epinephelus merra				honeycomb grouper
Chordata	Teleostei	Epinephelus spilotoceps	fish	LC		foursaddle grouper
Chordata	Teleostei	Eviota prasina	fish	LC		green bubble goby
Chordata	Teleostei	Eviota punctulata	fish	LC	yes	finespot eviota
Chordata	Teleostei	Exocoetus volitans	fish	LC	yes	flying fish, poisson volant
Chordata	Teleostei	Ferdauia orthogrammus	fish			
Chordata	Teleostei	Fibramia amboinensis	fish		yes	

phylum	class	species	group	category	new	vernacular
Chordata	Teleostei	Fibramia lateralis	fish			
Chordata	Teleostei	Fistularia commersonii	fish	LC		cornetfish
Chordata	Teleostei	Foa brachygramma	fish	LC		weed cardinalfish
Chordata	Teleostei	Forcipiger flavissimus	fish	LC		forcepsfish
Chordata	Teleostei	Fowleria variegata	fish	LC		variegated cardinalfish
Chordata	Teleostei	Gerres longirostris	fish	LC		
Chordata	Teleostei	Gerres oblongus	fish	LC		slender silver-biddy
Chordata	Teleostei	Gnathanodon speciosus	fish	LC		golden trevally
Chordata	Teleostei	Gnatholepis anjerensis	fish	LC.		goldon trovany
Chordata	Teleostei	Gnatholepis cauerensis	fish	ĹĊ		eyebar goby
Chordata	Teleostei	Gomphosus caeruleus	fish	LC		Red Sea bird wrasse
Chordata	Teleostei	Grammistes sexlineatus	fish	LC		goldenstriped soapfish
Chordata	Teleostei	Gunnellichthys monostigma	fish	LC		goldenstriped souprism
Chordata	Teleostei	Gymnothorax breedeni	fish	LC		blackcheek moray
Chordata	Teleostei	Gymnothorax biredenii Gymnothorax buroensis	fish	LC		vagrant moray
Chordata	Teleostei	Gymnothorax chilospilus	fish	LC		lipspot moray
Chordata	Teleostei	Gymnothorax Chilosphus Gymnothorax flavimarginatus	fish	LC		yellowmargin moray
Chordata	Teleostei		fish	LC		
Chordata	Teleostei	Gymnothorax margaritophorus Gymnothorax miliaris	fish	LC		blotched-neck moray
	Teleostei	•	fish	LC	yes	goldentail moray
Chordata		Gymnothorax pictus		LC		
Chordata	Teleostei	Gymnothorax richardsonii	fish	LC LC		handad manus.
Chordata	Teleostei	Gymnothorax rueppelliae	fish			banded moray
Chordata	Teleostei	Gymnothorax undulatus	fish	LC		undulated moray
Chordata	Teleostei	Halichoeres hortulanus	fish	LC		checkerboard wrasse
Chordata	Teleostei	Halichoeres nebulosus	fish	LC		nebulous wrasse
Chordata	Teleostei	Halichoeres scapularis	fish	LC		zigzag wrasse
Chordata	Teleostei	Halichoeres trimaculatus	fish	LC	yes	
Chordata	Teleostei	Hemiramphus far	fish		yes	spotted halfbeak
Chordata	Teleostei	Heniochus monoceros	fish	LC		masked bannerfish
Chordata	Teleostei	Heteropriacanthus cruentatus	fish	LC		glasseye snapper
Chordata	Teleostei	Hipposcarus harid	fish	LC		longnose parrotfish
Chordata	Teleostei	Hypoatherina barnesi	fish			Barnes' silverside
Chordata	Teleostei	Hypoatherina temminckii	fish			Samoan silverside
Chordata	Teleostei	Hyporhamphus affinis	fish			tropical halfbeak
Chordata	Teleostei	Kyphosus cinerascens	fish	LC		snubnose chub
Chordata	Teleostei	Kyphosus elegans	fish	LC	yes	Cortez sea chub
Chordata	Teleostei	Kyphosus vaigiensis	fish	LC	yes	brassy chub
Chordata	Teleostei	Lactoria cornuta	fish			longhorn cowfish
Chordata	Teleostei	Lepidozygus tapeinosoma	fish	LC		fusilier damselfish
Chordata	Teleostei	Lethrinus atkinsoni	fish	LC	yes	
Chordata	Teleostei	Lethrinus genivittatus	fish	LC	yes	longspine emperor
Chordata	Teleostei	Lethrinus harak	fish	LC		blackspot emperor
Chordata	Teleostei	Lethrinus miniatus	fish	LC	yes	trumpet emperor
Chordata	Teleostei	Lethrinus nebulosus	fish	LC	-	spangled emperor
Chordata	Teleostei	Lethrinus obsoletus	fish	LC		orange-striped emperor
Chordata	Teleostei	Lethrinus rubrioperculatus	fish	LC		spotcheek emperor
Chordata	Teleostei	Lethrinus xanthochilus	fish	LC		yellowlip emperor
Chordata	Teleostei	Lutjanus argentimaculatus	fish	LC		river snapper
Chordata	Teleostei	Lutjanus bohar	fish	LC		twinspot snapper
Chordata	Teleostei	Lutjanus ehrenbergii	fish	LC		blackspot snapper

phylum	class	species	group	category	new	vernacular
Chordata	Teleostei	Lutjanus fulviflamma	fish	LC		dory snapper
Chordata	Teleostei	Lutjanus fulvus	fish	LC		blacktail snapper
Chordata	Teleostei	Lutjanus gibbus	fish	LC		humpback snapper
Chordata	Teleostei	Lutjanus kasmira	fish	LC		common bluestripe snapper
Chordata	Teleostei	Lutjanus monostigma	fish	LC		one-spot snapper
Chordata	Teleostei	Lutjanus quinquelineatus	fish	LC	yes	
Chordata	Teleostei	Lutjanus rivulatus	fish	LC		blubberlip snapper
Chordata	Teleostei	Luzonichthys waitei	fish	LC		Waite's splitfin
Chordata	Teleostei	Macolor niger	fish	LC		black and white snapper
Chordata	Teleostei	Macropharyngodon bipartitus	fish	LC		vermiculate wrasse
Chordata	Teleostei	Melichthys indicus	fish	LC		Indian triggerfish
Chordata	Teleostei	Melichthys niger	fish	LC		black durgon
Chordata	Teleostei	Melichthys vidua	fish	LC	ves	pinktail triggerfish
Chordata	Teleostei	Monodactylus argenteus	fish	LC	,	mono
Chordata	Teleostei	Monotaxis grandoculis	fish	LC		bigeye emperor
Chordata	Teleostei	Mulloidichthys flavolineatus	fish	LC		yellowstripe goatfish
Chordata	Teleostei	Mulloidichthys vanicolensis	fish	LC		yellowfin goatfish
Chordata	Teleostei	Myrichthys colubrinus	fish	LC		harleguin snake-eel
Chordata	Teleostei	Myrichthys maculosus	fish	LC		tiger snake-eel
Chordata	Teleostei	Myripristis adusta	fish	LC		shadowfin soldierfish
Chordata	Teleostei	Myripristis addsta	fish	LC		blotcheye soldierfish
Chordata	Teleostei	Myripristis kuntee	fish	LC		pearly soldierfish
Chordata	Teleostei		fish	LC		scarlet soldierfish
Chordata	Teleostei	Myripristis pralinia	fish	LC	yes	Scariet soldierrish
	Teleostei	Myripristis violacea	fish	LC		anathadiaafiah
Chordata		Naso brevirostris		LC		spotted unicornfish
Chordata	Teleostei	Naso elegans	fish			-ll
Chordata	Teleostei	Naso hexacanthus	fish	LC		sleek unicornfish
Chordata	Teleostei	Naso thynnoides	fish	LC		oneknife unicornfish
Chordata	Teleostei	Naso unicornis	fish	LC		bluespine unicornfish
Chordata	Teleostei	Naso vlamingii	fish	LC		bignose unicornfish
Chordata	Teleostei	Nemanthias carberryi	fish	LC		threadfin anthias
Chordata	Teleostei	Neoniphon sammara	fish	LC		sammara squirrelfish
Chordata	Teleostei	Novaculichthys taeniourus	fish	LC		rockmover wrasse
Chordata	Teleostei	Novaculoides macrolepidotus	fish			seagrass wrasse
Chordata	Teleostei	Odonus niger	fish	LC		red-toothed triggerfish
Chordata	Teleostei	Ophiocara porocephala	fish	LC	yes	northern mud gudgeon
Chordata	Teleostei	Oplopomus oplopomus	fish	LC	yes	spinecheek goby
Chordata	Teleostei	Ostorhinchus apogonoides	fish	LC		
Chordata	Teleostei	Ostorhinchus fleurieu	fish		yes	
Chordata	Teleostei	Oxycheilinus bimaculatus	fish	LC		twospot wrasse
Chordata	Teleostei	Oxyporhamphus micropterus	fish			smallwing flyingfish
Chordata	Teleostei	Paracirrhites arcatus	fish	LC		arc-eye hawkfish
Chordata	Teleostei	Paracirrhites forsteri	fish	LC		blackside hawkfish
Chordata	Teleostei	Parioglossus raoi	fish	LC	yes	
Chordata	Teleostei	Parupeneus barberinus	fish	LC	-	dash-and-dot goatfish
Chordata	Teleostei	Parupeneus cyclostomus	fish	LC		yellowsaddle goatfish
Chordata	Teleostei	Parupeneus insularis	fish	LC	yes	
Chordata	Teleostei	Parupeneus macronemus	fish	LC	J	
Chordata	Teleostei	Parupeneus pleurostigma	fish	LC		sidespot goatfish
Chordata	Teleostei	Parupeneus trifasciatus	fish	LC		, J

phylum	class	species	group	category	new	vernacular
Chordata	Teleostei	Pempheris schwenkii	fish		yes	
Chordata	Teleostei	Periophthalmus kalolo	fish	LC	yes	common mudskipper
Chordata	Teleostei	Pervagor janthinosoma	fish	LC		blackbar filefish
Chordata	Teleostei	Petroscirtes mitratus	fish	LC		floral blenny
Chordata	Teleostei	Platax orbicularis	fish	LC		circular spadefish
Chordata	Teleostei	Platybelone argalus	fish	LC		keeltail needlefish
Chordata	Teleostei	Plectorhinchus albovittatus	fish			two-stripe sweetlips
Chordata	Teleostei	Plectorhinchus gibbosus	fish	LC		Harry Hotlips
Chordata	Teleostei	Plectorhinchus plagiodesmus	fish	LC		barred rubberlip
Chordata	Teleostei	Plectorhinchus vittatus	fish	ĹĊ		barred rabberrip
Chordata	Teleostei	Plectroglyphidodon dickii	fish	NT		blackbar devil
Chordata	Teleostei	Plectroglyphidodon fasciolatus	fish	LC		Blackbar devii
Chordata	Teleostei	Plectroglyphidodon johnstonianus	fish	LC		Johnston Island damsel
Chordata	Teleostei	Plectroglyphidodon leucozonus	fish	LC		Johnston Island damser
Chordata	Teleostei	Polydactylus sexfilis	fish	LC		civifinger threadfin barbure à cividaigte
		, ,			yes	sixfinger threadfin, barbure à six doigts
Chordata	Teleostei	Pomacentrus agassizii	fish	1.6	yes	
Chordata	Teleostei	Pristiapogon kallopterus	fish	LC		1. 16: 1
Chordata	Teleostei	Pseudamia gelatinosa	fish	LC		gelatinous cardinalfish
Chordata	Teleostei	Pseudanthias squamipinnis	fish	LC		sea goldie
Chordata	Teleostei	Pseudechidna brummeri	fish	LC		
Chordata	Teleostei	Pseudobalistes flavimarginatus	fish	LC		yellowmargin triggerfish
Chordata	Teleostei	Pseudocheilinus hexataenia	fish	LC		sixstripe wrasse
Chordata	Teleostei	Pseudogramma polyacantha	fish	LC		honeycomb podge
Chordata	Teleostei	Ptereleotris zebra	fish	LC		Chinese zebra goby
Chordata	Teleostei	Pterocaesio marri	fish	LC	yes	Marr's fusilier
Chordata	Teleostei	Pterocaesio tile	fish	LC		dark-banded fusilier
Chordata	Teleostei	Pycnochromis dimidiatus	fish			
Chordata	Teleostei	Pycnochromis nigrurus	fish	LC		
Chordata	Teleostei	Rhinecanthus aculeatus	fish	LC		white-banded triggerfish
Chordata	Teleostei	Rhinecanthus rectangulus	fish	LC		wedge-tail triggerfish
Chordata	Teleostei	Salarias fasciatus	fish	LC		jewelled blenny
Chordata	Teleostei	Sargocentron caudimaculatum	fish	LC		silverspot squirrelfish
Chordata	Teleostei	Sargocentron punctatissimum	fish	ĹĊ		speckled squirrelfish
Chordata	Teleostei	Sargocentron spiniferum	fish	LC		sabre squirrelfish
Chordata	Teleostei	Sargocentron tiere	fish	LC		bluelined squirrelfish
Chordata	Teleostei	Saurida nebulosa	fish	LC		clouded lizardfish
Chordata	Teleostei	Scarus ferrugineus	fish	LC		rusty parrotfish
Chordata	Teleostei	Scarus ghobban	fish	LC		bluechin parrotfish
Chordata	Teleostei	Scarus griobban Scarus psittacus	fish	LC		palenose parrotfish
			fish	LC LC		•
Chordata	Teleostei	Scarus rubroviolaceus				ember parrotfish
Chordata	Teleostei	Scarus tricolor	fish	LC		tricolour parrotfish
Chordata	Teleostei	Schismorhynchus labialis	fish	LC		
Chordata	Teleostei	Scolecenchelys gymnota	fish	1.6		
Chordata	Teleostei	Scomberoides lysan	fish	LC		doublespotted queenfish
Chordata	Teleostei	Scorpaenopsis diabolus	fish	LC		devil scorpionfish
Chordata	Teleostei	Sebastapistes cyanostigma	fish	LC		
Chordata	Teleostei	Sebastapistes mauritiana	fish	LC		spineblotch scorpionfish
Chordata	Teleostei	Sphaeramia orbicularis	fish	LC		orbiculate cardinalfish
Chordata	Teleostei	Sphyraena barracuda	fish	LC		great barracuda
Chordata	Teleostei	Sphyraena helleri	fish		ves	Heller's barracuda

phylum	class	species	group	category	new	vernacular
Chordata	Teleostei	Sphyraena jello	fish		yes	pickhandle barracuda
Chordata	Teleostei	Spratelloides delicatulus	fish	LC		delicate round herring
Chordata	Teleostei	Stegastes lacrymatus	fish			
Chordata	Teleostei	Stegastes nigricans	fish	LC		black damselfish
Chordata	Teleostei	Stethojulis albovittata	fish	LC		bluelined wrasse
Chordata	Teleostei	Stethojulis bandanensis	fish	LC	yes	
Chordata	Teleostei	Stethojulis strigiventer	fish	LC	,	three-ribbon rainbowfish
Chordata	Teleostei	Sufflamen chrysopterum	fish	LC		
Chordata	Teleostei	Synanceia verrucosa	fish	LC		stonefish
Chordata	Teleostei	Synodus dermatogenys	fish	ĹĊ		
Chordata	Teleostei	Synodus variegatus	fish	LC		common lizardfish
Chordata	Teleostei	Thalassoma amblycephalum	fish	LC		bluntheaded wrasse
Chordata	Teleostei	Thalassoma hebraicum	fish	LC		goldbar wrasse
Chordata	Teleostei	Thalassoma lunare	fish	LC		moon wrasse
Chordata	Teleostei	Thalassoma purpureum	fish	LC		surge wrasse
Chordata	Teleostei	Thunnus alalunga	fish	LC	ves	albacore, thon blanc
Chordata	Teleostei	Torquigener hypselogeneion	fish	LC	yes	orange-spotted toadfish
Chordata	Teleostei	Trachinotus baillonii	fish	LC	ycs	smallspotted dart
Chordata	Teleostei	Trachinotus carolinus	fish	LC	yes	pompano
Chordata	Teleostei	Tylosurus acus	fish	LC	yes	agujon needlefish
Chordata	Teleostei	Tylosurus acus Tylosurus crocodilus	fish	LC	yes	houndfish
Chordata	Teleostei	Upeneus taeniopterus	fish	LC		fin-stripe goatfish
Chordata	Teleostei	·	fish	LC		freckleface reef-eel
Chordata	Teleostei	Uropterygius xanthopterus	fish	LC		
		Valenciennea sexguttata		LC		sixspot goby
Chordata	Teleostei	Valenciennea strigata	fish			blueband goby
Chordata	Teleostei	Vanderhorstia ornatissima	fish	LC		ornate prawn-goby
Chordata	Teleostei	Variola louti	fish	LC		lunartail grouper
Chordata	Teleostei	Xanthichthys mento	fish	LC	yes	redtail triggerfish
Chordata	Teleostei	Zanclus cornutus	fish	LC		Moorish idol
Chordata	Teleostei	Zebrasoma velifer	fish			
Chordata		Chelonia mydas	turtles	EN		green turtle, tortue verte
Cnidaria	Anthozoa	Andvakia discipulorum	jellyfish		yes	
Cnidaria	Anthozoa	Boloceroides mcmurrichi	jellyfish		yes	
Cnidaria	Anthozoa	Edwardsia longicornis	jellyfish		yes	
Cnidaria	Anthozoa	Favites pentagona	jellyfish	LC		larger star coral
Cnidaria	Anthozoa	Leptastrea purpurea	jellyfish	LC		crust coral
Cnidaria	Anthozoa	Nanozoanthus harenaceus	jellyfish		yes	
Cnidaria	Anthozoa	Pavona cactus	jellyfish	VU		leaf coral
Cnidaria	Anthozoa	Pocillopora acuta	jellyfish		yes	
Cnidaria	Anthozoa	Porites lutea	jellyfish	LC		hump coral
Cnidaria	Anthozoa	Psammocora nierstraszi	jellyfish	LC		
Cnidaria	Anthozoa	Sagartia lacerata	jellyfish		yes	
Cnidaria	Anthozoa	Sinuorota hexagonalis	jellyfish	LC		
Cnidaria	Anthozoa	Stylaraea punctata	jellyfish	DD		
Cnidaria	Anthozoa	Triactis producta	jellyfish		yes	crab anemone
Cnidaria	Hydrozoa	Antennella secundaria	jellyfish		yes	
Cnidaria	Hydrozoa	Cladonema multiramosum	jellyfish		yes	
Cnidaria	Hydrozoa	Clytia gracilis	jellyfish		yes	
Cnidaria	Hydrozoa	Diphyes bojani	jellyfish		-	
Cnidaria	Hydrozoa	Diphyes dispar	jellyfish		yes	

phylum	class	species	group	category	new	vernacular
Cnidaria	Hydrozoa	Euphysilla pyramidata	jellyfish		yes	
Cnidaria	Hydrozoa	Kirchenpaueria halecioides	jellyfish		yes	
Cnidaria	Hydrozoa	Laodicea undulata	jellyfish		yes	
Cnidaria	Hydrozoa	Lensia campanella	jellyfish		yes	
Cnidaria	Hydrozoa	Nanomia bijuga	jellyfish		yes	
Cnidaria	Hydrozoa	Obelia bidentata	jellyfish		yes	doubletoothed hydroid
Cnidaria	Hydrozoa	Physalia physalis	jellyfish		yes	Portuguese man-of-war, galère portugaise
Cnidaria	Hydrozoa	Solmundella bitentaculata	jellyfish			
Cnidaria	Hydrozoa	Sphaerocoryne bedoti	jellyfish		yes	
Cnidaria	Hydrozoa	Sphaeronectes koellikeri	jellyfish		yes	
Cnidaria	Hydrozoa	Zanclea divergens	jellyfish		yes	
Cnidaria	Hydrozoa	Zancleopsis dichotoma	jellyfish		yes	
Cnidaria	Scyphozoa	Pelagia panopyra	jellyfish		yes	
Cryptophyta	Cryptophyceae	Hemiarma marina	, ,		ves	
Echinodermata	Asteroidea	Aquilonastra anomala	starfish		yes	
Echinodermata	Echinoidea	Echinostrephus molaris	starfish		yes	
Echinodermata	Echinoidea	Echinothrix calamaris	starfish		yes	banded sea urchin
Echinodermata	Echinoidea	Eucidaris metularia	starfish		, 00	bandou bou arcimi
Echinodermata	Echinoidea	Koehleraster abnormalis	starfish		yes	
Echinodermata	Echinoidea	Toxopneustes pileolus	starfish		yes	
Echinodermata	Echinoidea	Tripneustes depressus	starfish		yes	
Echinodermata	Echinoidea	Tripneustes gratilla	starfish		yes	collector urchin
Echinodermata	Holothuroidea	Actinopyga mauritiana	starfish	VU	yes	concetor drenin
Echinodermata	Holothuroidea	Actinopyga mauntiana Actinopyga obesa	starfish	DD	yes	
Echinodermata	Holothuroidea	Bohadschia cousteaui	starfish	LC	yes	
Echinodermata	Holothuroidea	Bohadschia koellikeri	starfish	DD	yes	
Echinodermata	Holothuroidea	Bohadschia vitiensis	starfish	DD	yes	
Echinodermata	Holothuroidea	Holothuria (Lessonothuria) pardalis	starfish	טט	-	
Echinodermata	Holothuroidea	Holothuria (Stauropora) pervicax	starfish		yes	
Echinodermata	Holothuroidea	Holothuria (Stauropora) pervicax Holothuria (Thymiosycia) arenicola	starfish		yes	
Echinodermata	Holothuroidea	Holothuria (Triyinlosycia) arenicola Holothuria atra	starfish	LC	yes	
			starrish	LC	yes	
Echinodermata	Holothuroidea	Stichopus chloronotus		LC		dwarf brittle star
Echinodermata	Ophiuroidea	Amphipholis squamata	starfish			dwarf brittle star
Echinodermata	Ophiuroidea	Amphiura (Amphiura) velox	starfish		yes	
Echinodermata	Ophiuroidea	Breviturma brevipes	starfish			
Echinodermata	Ophiuroidea	Breviturma doederleini	starfish		yes	
Echinodermata	Ophiuroidea	Macrophiothrix longipeda	starfish		yes	
Echinodermata	Ophiuroidea	Ophiactis picteti	starfish		yes	
Echinodermata	Ophiuroidea	Ophiactis savignyi	starfish			
Echinodermata	Ophiuroidea	Ophiocoma erinaceus	starfish			
Echinodermata	Ophiuroidea	Ophiocoma scolopendrina	starfish			
Echinodermata	Ophiuroidea	Ophiocomella valenciae	starfish		yes	
Echinodermata	Ophiuroidea	Ophionereis porrecta	starfish		yes	
Gastrotricha		Urodasys calicostylis			yes	
Haptophyta	Coccolithophyceae	Chrysochromulina tobinii	algae		yes	
Haptophyta	Coccolithophyceae	Emiliania huxleyi	algae		yes	
Haptophyta	Coccolithophyceae	Phaeocystis globosa	algae		yes	
Haptophyta	Coccolithophyceae	Phaeocystis pouchetii	algae		yes	
Hemichordata	Enteropneusta	Ptychodera flava			yes	Hawaiian acorn worm
Mollusca	Bivalvia	Brachidontes variabilis	molluscs		yes	variable mussel

phylum	class	species	group	category	new	vernacular
Mollusca	Bivalvia	Dendostrea sandvichensis	molluscs		yes	
Mollusca	Bivalvia	Leiosolenus hanleyanus	molluscs		yes	
Mollusca	Bivalvia	Pinctada persica	molluscs		yes	
Mollusca	Bivalvia	Tridacna squamosa	molluscs	LR/cd	yes	giant clam
Mollusca	Cephalopoda	Callistoctopus aspilosomatis	molluscs	LC	yes	
Mollusca	Cephalopoda	Octopus cyanea	molluscs	LC		Cyane's octopus
Mollusca	Gastropoda	Aliculastrum parallelum	molluscs		yes	
Mollusca	Gastropoda	Apataxia cerithiiformis	molluscs		yes	
Mollusca	Gastropoda	Atys semistriatus	molluscs		yes	
Mollusca	Gastropoda	Berthellina delicata	molluscs		yes	
Mollusca	Gastropoda	Bulla vernicosa	molluscs		yes	
Mollusca	Gastropoda	Canarium mutabile	molluscs		yes	
Mollusca	Gastropoda	Carminodoris grandiflora	molluscs		yes	
Mollusca	Gastropoda	Cerithium egenum	molluscs		yes	
Mollusca	Gastropoda	Cerithium nesioticum	molluscs		yes	
Mollusca	Gastropoda	Cerithium rostratum	molluscs			
Mollusca	Gastropoda	Chelidonura hirundinina	molluscs		yes	
Mollusca	Gastropoda	Cyerce elegans	molluscs		yes	
Mollusca	Gastropoda	Dendropoma platypus	molluscs		yes	
Mollusca	Gastropoda	Dolabella auricularia	molluscs		yes	wedge sea hare
Mollusca	Gastropoda	Dolabrifera dolabrifera	molluscs		yes	
Mollusca	Gastropoda	Dolabrifera edmundsi	molluscs		yes	
Mollusca	Gastropoda	Doriopsis pecten	molluscs		yes	
Mollusca	Gastropoda	Elysia obtusa	molluscs		yes	
Mollusca	Gastropoda	Elysia ornata	molluscs		yes	lettuce slug
Mollusca	Gastropoda	Elysia pusilla	molluscs		yes	
Mollusca	Gastropoda	Ercolania annelyleorum	molluscs		yes	
Mollusca	Gastropoda	Favorinus japonicus	molluscs		yes	
Mollusca	Gastropoda	Gutturnium muricinum	molluscs		yes	
Mollusca	Gastropoda	Halgerda indotessellata	molluscs		yes	
Mollusca	Gastropoda	Haloa pemphis	molluscs		yes	
Mollusca	Gastropoda	Heliconoides inflatus	molluscs		yes	
Mollusca	Gastropoda	Hexabranchus sanguineus	molluscs		yes	Spanish dancer
Mollusca	Gastropoda	Hyalopatina planata	molluscs		yes	
Mollusca	Gastropoda	Littoraria subvittata	molluscs			
Mollusca	Gastropoda	Lophocochlias parvissimus	molluscs		yes	
Mollusca	Gastropoda	Monoplex mundus	molluscs		yes	
Mollusca	Gastropoda	Naria helvola	molluscs			
Mollusca	Gastropoda	Oxynoe viridis	molluscs		yes	
Mollusca	Gastropoda	Phanerophthalmus lentigines	molluscs		yes	
Mollusca	Gastropoda	Phanerophthalmus minikoiensis	molluscs		yes	
Mollusca	Gastropoda	Phanerophthalmus paulayi	molluscs		yes	
Mollusca	Gastropoda	Philinopsis speciosa	molluscs		yes	
Mollusca	Gastropoda	Phyllidia coelestis	molluscs		yes	
Mollusca	Gastropoda	Placida kevinleei	molluscs		yes	
Mollusca	Gastropoda	Pleurobranchus forskalii	molluscs			Forskal's sidegill slug
Mollusca	Gastropoda	Pleurobranchus peronii	molluscs		yes	
Mollusca	Gastropoda	Pleurobranchus varians	molluscs		yes	
Mollusca	Gastropoda	Polybranchia jensenae	molluscs		yes	
Mollusca	Gastropoda	Pterotrachea hippocampus	molluscs		yes	

Mollusca Gastropoda Rissoina ambigua molluscs yes Mollusca Gastropoda Samla bicolor molluscs yes Mollusca Gastropoda Stylocheilus striatus molluscs yes Myzozoa Dinophyceae Amphidinium massartii single-cell yes Myzozoa Dinophyceae Cytheteodinium cohnii single-cell yes Ochrophyta Dictyochophyceae Octactis octonaria algae yes Ochrophyta Dictyochophyceae Octactis octonaria algae yes Ochrophyta Plagophyceae Pelagomonas calceolata algae yes Ochrophyta Phaeophyceae Dictyota bartayresiana algae yes Ochrophyta Phaeophyceae Dictyota bartayresiana algae yes Ochrophyta Phaeophyceae Dictyota ceylanica algae yes Ochrophyta Phaeophyceae Dictyota friabilis algae yes Ochrophyta Phaeophyceae Padina boergesenii algae yes Ochrophyta Phaeophyceae Pinguiococcus pyrenoidosus algae yes Ochrophyta Pinguiophyceae Pinguiococcus pyrenoidosus algae yes Porifera Demospongiae Acanthotetila celebensis sponges yes Porifera Demospongiae Acanthotetila celebensis sponges yes Porifera Demospongiae Cladochalima pilcifera Demospongiae Cladocroce burapha sponges yes Porifera Demospongiae Cladocroce burapha sponges yes Porifera Demospongiae Cladocroce burapha sponges yes Porifera Demospongiae Clathria (Wilsonella) rugosa sponges yes Porifera Demospongiae Cliona mariae sponges yes Porifera Demospongiae Cliona delitrix sponges yes Porifera Demospongiae Cliona delitrix sponges yes Porifera Demospongiae Cliona delitrix sponges yes Porifera Demospongia	
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Porifera Demospongiae Cliothosa delitrix sponges yes	
Porifera Demospongiae Dysidea arenaria sponges ves crater sponge	
Porifera Demospongiae Ectyoplasia ferox sponges yes	
Porifera Demospongiae Fasciospongia cavernosa sponges yes	
Porifera Demospongiae Galaxia gaviotensis sponges yes	
Porifera Demospongiae Gelliodes wilsoni sponges yes	
Porifera Demospongiae Halichondria (Halichondria) bowerbanki sponges yes Bowerbank's halichondria	
Porifera Demospongiae Halichondria (Halichondria) okadai sponges yes	
Porifera Demospongiae Haliclona (Halichoclona) vansoesti sponges yes	
Porifera Demospongiae Haliclona pigmentifera sponges yes	
Porifera Demospongiae Hymeniacidon chloris sponges yes	
Porifera Demospongiae Hymeniacidon flavia sponges yes	
Porifera Demospongiae Mycale (Carmia) cecilia sponges yes	
Porifera Demospongiae Pachychalina tenera sponges yes	
Porifera Demospongiae Paracornulum dubium sponges yes	
Porifera Demospongiae Phorbas bihamiger sponges yes	
Porifera Demospongiae Pione vastifica sponges yes boring sponge, clione rouge	
Porifera Demospongiae Pione velans sponges yes	

phylum	class	species	group	category	new	vernacular
Porifera	Demospongiae	Rhabderemia sorokinae	sponges		yes	
Porifera	Demospongiae	Sigmaxinella hipposiderus	sponges		yes	
Porifera	Demospongiae	Spirastrella hartmani	sponges		yes	
Porifera	Demospongiae	Stelletta mediterranea	sponges		yes	
Porifera	Demospongiae	Stryphnus mucronatus	sponges		yes	
Porifera	Demospongiae	Tedania (Tedania) tubulifera	sponges		yes	
Porifera	Demospongiae	Terpios gelatinosus	sponges		yes	
Porifera	Demospongiae	Terpios hoshinota	sponges		yes	
Porifera	Demospongiae	Theonella swinhoei	sponges		yes	
Porifera	Homoscleromorpha	Plakortis deweerdtaephila	sponges		yes	
Rhodophyta	Florideophyceae	Acanthophora spicifera	algae		yes	
Rhodophyta	Florideophyceae	Aphanta ligulata	algae		yes	
Rhodophyta	Florideophyceae	Asparagopsis taxiformis	algae		yes	
Rhodophyta	Florideophyceae	Asteromenia pseudocoalescens	algae		yes	
Rhodophyta	Florideophyceae	Calliblepharis jubata	algae		yes	
Rhodophyta	Florideophyceae	Coelothrix irregularis	algae		yes	
Rhodophyta	Florideophyceae	Galaxaura filamentosa	algae		yes	
Rhodophyta	Florideophyceae	Ganonema pinnatiramosa	algae		yes	
Rhodophyta	Florideophyceae	Gelidiella fanii	algae		yes	
Rhodophyta	Florideophyceae	Gracilaria babae	algae		yes	
Rhodophyta	Florideophyceae	Harveylithon munitum	algae		yes	
Rhodophyta	Florideophyceae	Herposiphonia pecten-veneris	algae		yes	
Rhodophyta	Florideophyceae	Hypnea nigrescens	algae		yes	
Rhodophyta	Florideophyceae	Hypnea spinella	algae			
Rhodophyta	Florideophyceae	Jania adhaerens	algae			
Rhodophyta	Florideophyceae	Kapraunia schneideri	algae		yes	
Rhodophyta	Florideophyceae	Laurencia dendroidea	algae		yes	
Rhodophyta	Florideophyceae	Liagora ceranoides	algae			
Rhodophyta	Florideophyceae	Meredithia compaginata	algae		yes	
Rhodophyta	Florideophyceae	Neogoniolithon brassica-florida	algae		yes	
Rhodophyta	Florideophyceae	Neogoniolithon rhizophorae	algae		yes	
Rhodophyta	Florideophyceae	Neogoniolithon trichotomum	algae		yes	
Rhodophyta	Florideophyceae	Palisada parvipapillata	algae		yes	
Rhodophyta	Florideophyceae	Pterocladiella caerulescens	algae		yes	
Rhodophyta	Florideophyceae	Ramicrusta lateralis	algae		yes	
Rhodophyta	Florideophyceae	Rhodachlya madagascarensis	algae		yes	
Rhodophyta	Florideophyceae	Sarconema filiforme	algae		yes	
Rhodophyta	Florideophyceae	Spyridia filamentosa	algae		yes	
Rhodophyta	Florideophyceae	Wilsonosiphonia fujiae	algae		yes	
		Amastigomonas debruynei			yes	