

CLASSIFICATION OF MARINE ORGANISMS

cwh 8/97

KINGDOM	SUBKINGDOM	PHYLUM	CLASS	MARINE EXAMPLES
MONERA	Archaeobacteria	'thermoacidophiles'		thermobacteria (chemobacteria)
	Eubacteria	Schizonta Cyanonta		photobacteria (bioluminescent bacteria) cyanobacteria (blue-green algae)
PROTISTA	Protophyta	Pyrrophyta Chrysophyta		dinoflagellates (incl. zooxanthellae) diatom (golden-brown algae)
	Protozoa	Sarcodina	Actinopodea Rhizopodea	radiolarians foraminiferans
FUNGI	Ascomycota			molds, lichens (symbiosis with algae/cyanobacter)
PLANTAE	'seaweeds'	Chlorophyta Phaeophyta Rhodophyta		green algae brown algae (incl. kelps) red algae (incl. coralline algae)
	Tracheophyta	Anthophyta		flowering plants (incl. sea grass & mangroves)
ANIMALIA	Parazoa	Porifera	Calcispongiae	calcareous sponges
			Hyalospongiae	glass sponges
			Demospongiae	bath sponges
	Metazoa	Cnidaria	Hydrozoa	hydrozoans (incl. man-of-war & siphonophore)
			Scyphozoa	true jellyfishes
			Anthozoa	sea anemones & corals
			Ctenophora	comb jellies
		Platyhelminthes	Turbellaria	planarians
			Cestoda (Trematoda)	tapeworms no marine species (flukes)
Nemertea			ribbon worms	
Nematoda		roundworms		
	Priapulida	priapulid worms		
Mollusca	Polyplacophora	chitons		
	Scaphopoda	tusk shells		
	Gastropoda	snails & nudibranchs		
	Bivalvia	clams, mussels, oysters, scallops, shipworms		
	Cephalopoda	octopuses, squids, cuttlefish, nautilus		
Annelida	Polychaeta (Oligochaeta) (Hirudinea)	polychaetes (incl. feather-duster & tubeworms)		
		no marine species (earthworms)		
		no marine species (leeches)		

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ANIMALIA	Metazoa (continued)	Arthropoda	Merostomata	horseshoe crabs
			Pycnogonida	sea spiders
			Crustacea	crabs, lobsters, shrimps, barnacles
			Insecta	insects (incl. water striders)
			(Arachnida)	no marine species (spiders, scorpions, ticks, mites)
		(Chilopoda)	no marine species (centipedes)	
		(Diplopoda)	no marine species (millipedes)	
		Pogonophora	Riftia worms	
		Brachiopoda	lampshells	
		Echiura	spoon worms	
Sipunculida	peanut worms			
Echinodermata	Crinoidea	sea lilies & feather stars		
	Echinoidea	sea urchins & sand dollars		
	Asteroidea	seastars		
	Ophiuroidea	brittle & basket stars		
	Holothuroidea	sea cucumbers		
Chordata	Subphy. Urochordata	tunicates		
	Subphy. Cephalochordata	lancelets		
	Subphy. Vertebrata	vertebrates (details below)		

SUBPHYLUM	SUPERCLASS	CLASS	ORDER	MARINE EXAMPLES	
VERTEBRATA	Pisces	Agnatha		jawless fishes (hagfishes & lampreys)	
		Chondrichthyes		cartilaginous fishes (shark, ray, skate, ratfish)	
		Osteichthyes		bony fishes (coelacanth, lungfishes, ray-finned)	
	Tetrapoda	(Amphibia)			no marine species (frogs & salamanders)
		Reptilia	Chelonia		sea turtles
			Squamata		sea snakes & marine lizards
			Crocodylia		marine crocodiles
		Aves	Sphenisciformes		penguins
			Procellariiformes		tubenoses (albatrosses, petrels, shearwaters)
			Pelicaniformes		pelicans (incl. cormorants, frigatebirds, boobies)
Charadriiformes			gulls (incl. terns & puffins)		
Mammalia	Cetacea		toothed whales (Suborder Odontoceti)		
			baleen whales (Suborder Mysticeti)		
	Carnivora		seals, sea lions, walruses (Suborder Pinnepedia)		
			sea otters (Suborder Fissipedia)		
Sirenia		manatees			
Primata		humans			