

What is a Mollusk?

Groups you know are mollusks

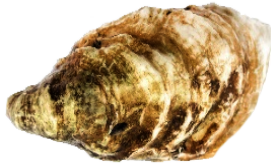
Class **Bivalvia**: [7,868 species]

Bivalves, clams, mussels, oysters, scallops

Habitat: marine, brackish & freshwater



Clam



Oyster



Mussel

Class **Gastropoda**: [43,480 species]

Snails, slugs, abalone, limpets, conch, sea hares

Habitat: marine, brackish, freshwater & terrestrial



Snail



Limpet



Slug



Nudibranch

Groups you may recognize as a mollusk

Class **Polyplacophora** [972 species]

Chitons, coat of mail

Habitat: marine



Chitons



Class **Cephalopoda**: [814 species]

Cephalopods, squid, octopus, nautilus, spirula

Habitat: marine



Squid



Nautilus



Octopus

You probably have never heard of these mollusks

Class **Aplacophora** [404 species]

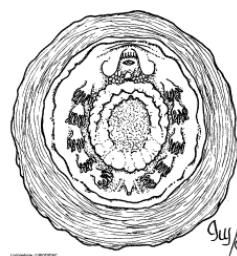
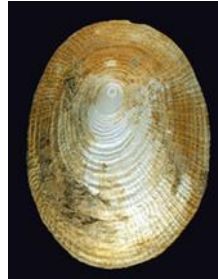
Caudofoveata, Solenogasters

Habitat: marine



Class **Monoplacophora** [31 species]

Habitat: marine



Class **Scaphopoda**: 573 species]

Tusk Shells

Habitat: marine



Quick Facts about Mollusks

Origin:

Cambrian 500-450 Million years ago

Characters:

Mantle: encases the body and secretes the shell

Radula: rasping tongue like structure made up of chitinous teeth

Open circulatory system with a heart and an aorta

Nervous system with a circum-esophageal ring, ganglia and paired nerve chords.

Many groups have eyes.

Size:

Microscopic to 45 feet in length

Weight:

Up to 1,650 pounds

Age:

Up to 500 years

Uses:

Food

Jewelry, pearls

Buttons

Inlay work

Currency

Tyrian purple dye

Pets

Potential source of new medicines [Conidae] and used in many vitamins

Benefits:

Food for other animals (including humans), substrate for other invertebrates, filtration of water, excellence ecological indicators, create homes for other animals, help to understand humans better (by studying their complex nervous system-cephalopods)

Economic benefits:

Aquaculture and harvesting: including scallops, clams, mussels, oysters, abalone, conchs

Problems:

Agricultural crop pests [some land snails]

Aquatic invasive pests [Apple Snails, Asian clams, Zebra and Quagga Mussels]

Intermediate hosts for parasites that attack humans, such as *Shistosomiasis* [hosts include freshwater gastropods such as members of Pomatiopsidae, Planorbidae]

Ectoparasites that suck blood from others, endoparasites in echinoderms, and some live in the guts of others feeding off their predigested food of host

Some bore into wooden boats and ships, damaging the hulls

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