

ECHINODERMS

# Crinoids

485 MYA – PRESENT

Crinoids are marine animals related to sea stars, sea cucumbers, and sea urchins. All crinoids have a cup shaped calyx, which has a mouth at the top and is surrounded by a ring of feather-like arms, called

brachia, used for feeding. Crinoids can be sedentary, like the sea lily which is attached to the ocean floor by a stem, or free-living in the water column, like the feather star which lacks a stem.

Domain	Eukaryota
Kingdom	Animalia
Phylum	Echinodermata
Class	Crinoidea

## Fossil Record

Crinoids first appear in the fossil record in rocks of early Ordovician, diversified during the Ordovician and thrived until the Permian-Triassic extinction event 252 million years ago. A few species survived this event and soon re-diversified but never became as common as they were in the Paleozoic.

## Habitat and Lifestyle

Crinoids with a stem were most common in the Paleozoic, while most modern crinoids lack a stem and are free-living. They have been observed pulling themselves along the sea floor with their brachia. Crinoids filter food out of the water using their feather-like brachia and pass it along grooves to their mouth. They live in water depths from a few meters to around 6000 m.

## Fossilisation

Crinoids are most commonly found as fossilised stem fragments. These appear by themselves as small, segmented cylinders or within rocks as little circles or in short, segmented lengths.



Crinoid on the reef of Batu Moncho Island, Indonesia. Image from Alexander Vasenin, Wikimedia Commons.



Crinoid fossil, Silurian (about 425 million years old), England. Image from Jim Frazier.

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**? DID YOU KNOW**



There are crinoids in Parliament House in Canberra. The early Carboniferous (about 345 million years ago) Belgian black marble in the foyer contains many fossil crinoid stem fragments.