

BRITTLE STARS

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SCIENTIFIC CLASSIFICATION

COMMON NAME:	Brittle stars
KINGDOM:	Animalia
PHYLUM:	Echinodermata
CLASS:	Ophiuroidea
ORDER:	<ul style="list-style-type: none">• Oegophiurida• Phrynophiurida• Ophiurida
FAMILY:	
GENUS SPECIES:	About 2,000 species

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FAST FACTS

DESCRIPTION:	A brittle star has five unbranched or branched arms, set off from a central disc. The arms appear to be jointed because of four longitudinal rows of shields. There are two rows of lateral shields with 2 to 15 spines arranged in rows. Spines vary in shape and size depending on the species. A variety of colors is seen among brittle stars and they are often mottled or banded.
SIZE:	The central disc of most species ranges from 1 to 3 cm (0.39–1.2 in.) in diameter.
LOCOMOTION:	Brittle stars are the most mobile echinoderms. Flexible arms are used for crawling or clinging. The lateral arm spines provide traction.
DIET:	Dependent upon feeding method; plankton, detritus, polychaetes, molluscs, and small crustaceans.
FEEDING:	Brittle stars can be predators, deposit feeders, scavengers, or suspension feeders. Some species are capable of more than one method of feeding.

REPRODUCTION:	Some brittle stars are capable of asexual reproduction in which the disc divides into two pieces. Most brittle stars are either male or female. Fertilization and development mainly take place in the water but some species are brood eggs. A few species are hermaphroditic.
RESPIRATION:	Gas exchange takes place across the tube feet and through 10 internal sacs called "bursae." Bursae are folds of the oral surface of the disc.
LIFE SPAN:	11 to 20 years
RANGE:	All oceans worldwide
HABITAT:	All types of marine habitats; abundant on soft bottoms in shallow water, tide pools, and the deep sea.

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FUN FACTS

1. Echinoderm is a Greek word meaning "spiny-skinned". Animals in the phylum Echinodermata all share a few common characteristics:
 - Endoskeleton (internal skeleton) – made up of ossicles, a type of calcareous structure
 - Tube feet
 - Radial symmetry in adults – the adult body symmetry radiates around a central axis. The pattern of symmetry is pentamerous—it occurs in five or multiples of fives.
2. The spiny brittle star is named for the distinct thorn-like spines on its disc and arms. To feed, the brittle star uses the spines of at least one arm to anchor into a crevice and then extends its other arms into the water to entrap food particles on a sticky substance emitted by the spines and tube feet. The tube feet along each arm then coordinate to transfer food particles to the brittle star's mouth.
3. Many brittle stars can cast off one or more arms if disturbed or caught by a predator. Breaks can occur anywhere beyond the disc and the lost portions will be regenerated.
4. For more information visit the Tide Pool Infobook.

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ECOLOGY AND CONSERVATION

Beachcombers, tidepoolers, and divers must remember not to disturb or collect any specimens that they may encounter. The removal of animals from an ecosystem may disrupt ecological processes and decrease the diversity in areas that are frequently visited. Because of their specific nutritional and physiological needs, certain animals, such as brittle stars have a much better chance for survival in their natural environment than in an unregulated home aquarium.

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