

Feather Duster Worms

Scientific Name: Sabellidae

Class: Polychaeta

Order: Sabellida

Family: Sabellida



Feather-duster worms live in long tubes constructed of mud or sand cemented by mucus. Feather-duster worms have a crown of feeding appendages or radioles in two fan-shaped clusters projecting from their tubes when under water. Each radiole has a paired side branch making a two-edged comb for filter feeding. Most species have a narrow collar below the head. The body segments are smooth and lack parapodia. The usually eight thoracic segments bear capillaries dorsally and hooked chaetae (bristles) ventrally. The abdominal segments are similar, but with the position of capillaries and chaetae reversed. The posterior few abdominal segments may form a spoon-shaped hollow on the ventral side. Size varies between tiny and over 2.5 inches long. Some small species can bend over and extend their tentacles to the sea floor to collect detritus. The oldest fossils of feather duster worms are known from Early Jurassic.

Range

Sabellidae tends to be found in the intertidal zones around the world.

Habitat

Feather duster worms live in the ocean, often along the rocky shores, on coral reefs or on the pilings of piers. They inhabit a wide range and can be found in the shallow, intertidal areas where they are out of the water at low tide or living at a depth of almost 150 feet, or anywhere in between. These worms do well in turbulent areas, since the wave action tends to stir up plankton, offering the stationary worms more opportunities to catch food.

Gestation

It has been known for the feather duster to spawn in captivity. Sometimes 'smoke' has been seen leaving the head usually in the morning. Following this the head of the feather duster could be ejected. This is normal, thought that this is to stop the head from catching its own spawn. Two or three weeks could pass before a small head reappears, this head will grow. Another occasion when the head could be lost is when the head is aggressively disturbed by a predator. This event with the removal of the head does not mean the worm is dead. Within the next few weeks a new head will grow on the tube.

Litter

There is no literature found as to how many spawn are ejected during the smoke from the head.

Behavior

The worm extends the tentacles for feeding and breathing but quickly retracts them at the first sign of danger.

Reproduction

The life cycle includes a free-living, microscopic larval stage that disperses from the parental site and metamorphoses into adult form. The worm can regenerate tentacles that are eaten or bitten off by fish. This is a temporary problem as the tentacles are used to take in oxygen and release carbon dioxide, so the ability is used to help keep the worm breathing.

Wild Diet

The appendages that give this worm its name are finely divided tentacles that act as plankton filters. The worm spreads its plumes as widely as possible, catching whatever types of plankton happen to come by. They also wave their tentacles to move the water around them, increasing the odds of catching food. The food is then conveyed from the tentacles to the worm's mouth. These tentacles have long grooves that get progressively smaller, so that only plankton small enough to eat reaches their mouths. Another tube runs up from the inside of the worms' bodies to carry away waste.