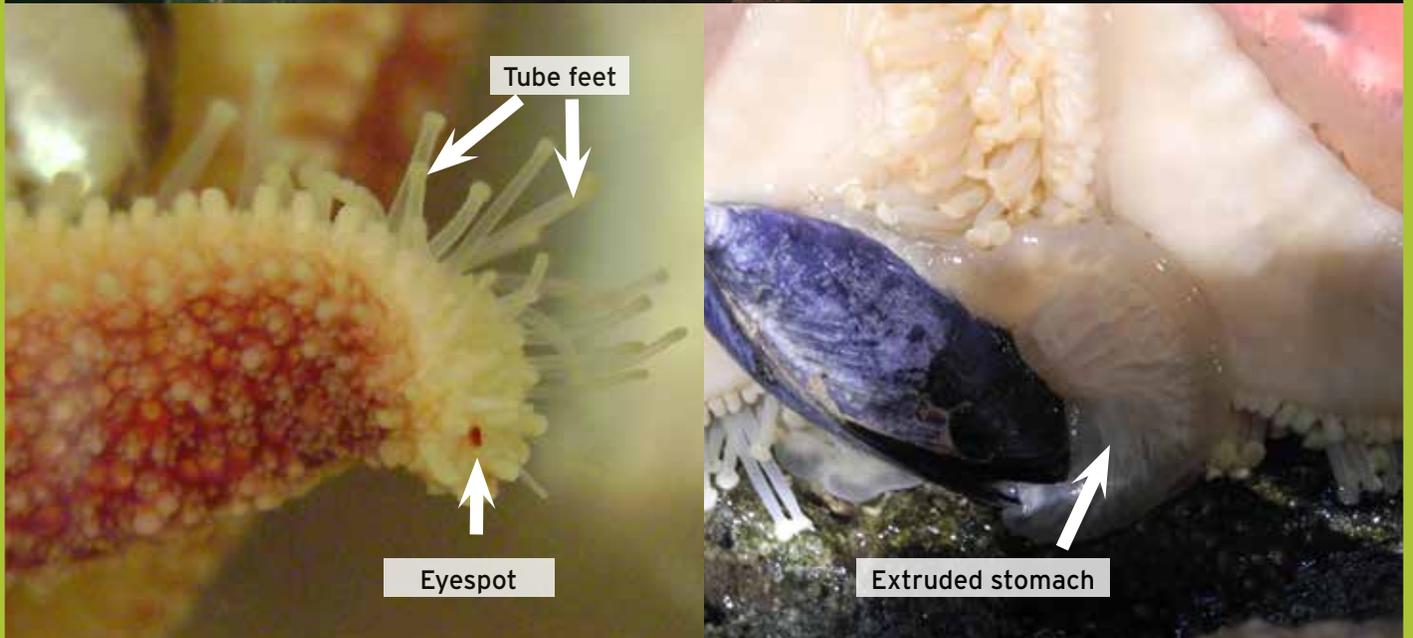
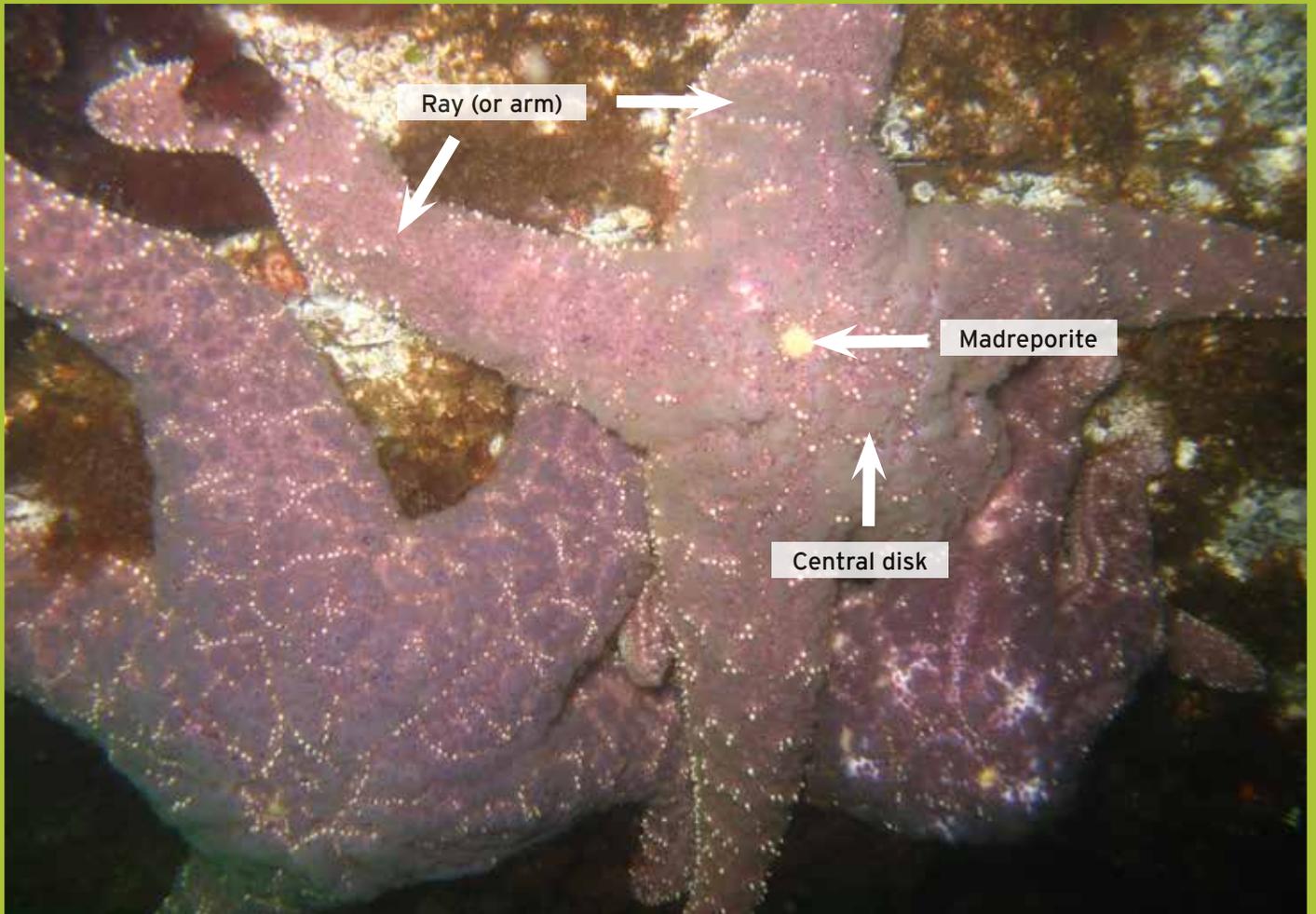


SEA STAR fact sheet



Kingdom: *Animalia*

Phylum: *Echinodermata*

Class: *Asteroidea*



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- **Classification:** Sea stars are all members of the phylum *Echinodermata* and the class *Asteroidea*. Characteristics of these animals include tube feet; a radially symmetrical, star-shaped body with a central disk; and a varying number of arms known as rays. There are over 1,900 species of sea stars.
- **Habitat:** Sea star habitats are highly variable; these animals can be found in all ocean basins of the world and at a large assortment of depths and bottom composition. They are benthic animals, which means that they live on the ocean floor whether they are in deep or shallow water.
- **Size:** Sea stars range in size from a diameter of less than ½ an inch (paddle-spined sea star) to 40 inches across (our local sunflower sea star). Most sea star species have five arms but many have more. The sunflower sea star can have up to 24 arms.
- **Longevity:** Sea stars can live a relatively long time. Some species, including the sunflower sea star, *Pycnopodia helianthoides*, live for more than 30 years.
- **Movement:** Sea stars have hundreds, sometimes thousands, of small suction cup tube feet. Sea stars pump sea water into their bodies through a sieve called the madreporite. They use this water vascular system to propel their tube feet and to grasp onto prey such as clams and other shellfish.
- **Feeding:** Sea stars use their tube feet to handle their prey and bring it to their mouths, which are located on the oral side (or underside) of their bodies. They have the ability to extrude their stomachs through their mouths and engulf their prey. Strong digestive juices liquefy the prey and allow it to be absorbed by the sea star's stomach. Once digestion is complete, the sea star swallows its stomach back into its body. This adaptation allows sea stars to eat larger prey that otherwise would not fit inside their flat bodies.
- **Reproduction:** Sea stars are broadcast spawners. Males release sperm into the water and females release eggs. The fertilized eggs hatch into a larval form that lives as plankton, sometimes for months, before settling on the sea floor in its adult form.
- **Regeneration:** Sea stars have a remarkable ability to regenerate, or regrow, their arms and tube feet. Most species need at least part of their central disk to be intact in order to regenerate arms, but a few tropical species can grow an entire body from just a severed limb. Regeneration of arms is not a fast process; it can take up to a year for larger sea stars.

Sunflower Star

Pycnopodia helianthoides



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Healthy sea star



Healthy sea star
regenerating multiple arms



Sea star suffering from
sea star wasting disease
(SSWD)



Ochre Star

Pisaster ochraceus



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Healthy sea star



Healthy sea star
regenerating two arms



Sea star suffering from
sea star wasting disease
(SSWD)



Mottled Star

Evasterias trocheli

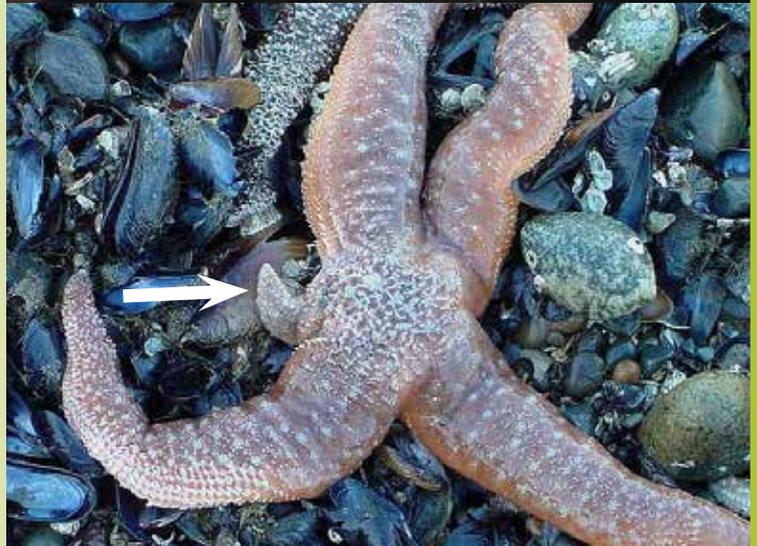


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Healthy sea stars



Healthy sea star
regenerating an arm



Sea star suffering from
sea star wasting disease
(SSWD)

