

Education Department
Waikīkī Aquarium
University of Hawai‘i-Mānoa



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MARINE LIFE PROFILE: *LINCKIA* SEASTAR

Hawaiian name: pe‘a
Scientific name: *Linckia multifora*
Distribution: Indo-Pacific, including Hawai‘i
Size: variable, to 4-5 inches (10-13 cm)
Diet: organic matter, detritus

This slender-armed seastar is found in crevices on shallow reefs and under rocks on the reef flat. A detritus feeder, it picks up fine organic debris from the bottom. The small, weak tube feet that line the grooves on the undersides of the arms transfer food to the mouth in the center of the disc. Color is variable in *Linckia*, with reddish speckles on a background that may range from greenish or bluish-gray to red, purple, or tan. The scattered spots account for the alternate common name of "freckled" seastar

Linckia seastars usually have five arms, but specimens with four, six, or even one are also found. This variability is a result of this species exceptional ability to regenerate damaged arms and/or to shed individual arms as a means of asexual reproduction. It is not unusual to find *Linckia* in all stages of arm replacement. Individuals with one long and four short arms are sometimes called "comets" because of their resemblance to a shooting star. While seastars are well known for their regenerative abilities, most need part of the central disc to survive. *Linckia* species are among just a few seastars that can regenerate an entire star from a single arm. Researchers suggest *Linckia* may absorb dissolved organic molecules, even without a complete digestive system, to fuel the regrowth of tissue.

Because *Linckia* is slow-moving and has weak tube feet, its predators may easily dislodge it from the bottom and feed on its tube feet and arms. *Linckia* may lose part or even whole arms to predators like the harlequin shrimp. *Linckia* may also be infected by parasitic snails which attach to or embed in the seastar's arms and draw on the body fluids of their host.

Classification:

Kingdom Animalia
Phylum Echinodermata
Class Asteroidea
Order Phanerozonia
Family Ophidiasteridae
Genus Linckia
Species multifora

LINCKIA OR FRECKLED SEASTAR
pe‘a
Linckia multifora



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