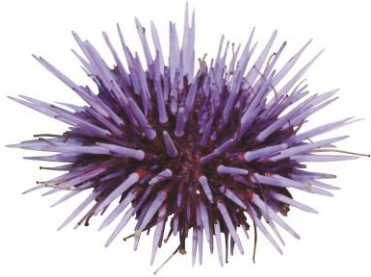


Purple Sea Urchin

(*Arbacia punctulata*)



Relatives

Member of the Phylum Echinodermata which includes sand dollars, sea cucumbers and sea stars. Member of the Class Echinoidea which includes all sea urchins, sand dollars and heart urchins.

Description

Spines are usually gray-brown, but purple to red specimens are sometimes seen

Size

2in (5cm)

Habitat

Live in intertidal and subtidal zones. Prefers to live in shallow water on hard substrates like jetties or pilings.

Predators

Eaten by fish, sea stars, oyster catchers, gulls and crabs.

Diet/Prey

Feed on seaweed and algae, sponges, coral polyps, dead animals (including dead urchins).

Reproduction

Have 5 gonads. Eggs and sperm are released into the water and fertilization takes place externally. A planktonic larvae forms and can swim and feed as plankton for several months. It then metamorphoses before attaching to a hard substrate. Metamorphosis may only take an hour.

Adaptations

- Purple sea urchins have numerous, thin spines on their bodies that they use to protect themselves from predators.
- Purple sea urchins have hundreds of tiny feet called tube feet. Each tube foot has a small suction cup at its end and the entire structure resembles a small bathroom plunger. Sea urchins use their tube feet to hold onto food items, to secure themselves in a particular location (and thus avoid being washed inshore) and for movement.
- When shadows pass over an urchin, it points its spines toward the shadow. This behavioral adaptation protects it from predators.
- Sea urchins have five bone-like plates that resemble small teeth in their mouths. These plates are used in "chewing" food.