Oregon Sea Grant Extension
Sustainable Tourism &
Outdoor Recreation Program

Interpretative Fact Sheet
Ochre Sea Star
(*Pisaster ochraceus*)

The following short article is from the *Oregon Coast 101 Species* collection used by the Guide and Outfitter Recognized Professional (GORP) training program. These articles are intended to provide interesting facts you can share with your clientele and add value to your services.

An Interpretive Fact Sheet has been written about each species. We are currently uploading these blogs and creating the links.

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Ochre Sea Star (aka Common Seastar) (Pisaster ochraceus)

tourism.oregonstate.edu/ochre-sea-star-aka-common-seastar-pisaster-ochraceus/

By colliek2 August 28, 2020

Sea Star Royalty free Unsplash by Pedro Lastra

Tide pools offer an amazing opportunity to learn about ocean wildlife. One of the most recognizable animals is the Ochre Sea Star. Many people call Sea Stars a Starfish, even though these animals are not fish.

The Ochre Sea Star are related to sea urchins, sea cucumbers, brittle stars, and basket stars. There are approximately 1,500 known species in this animal grouping that inhabit artic, temperate, and tropical waters.

Habitat

Ochre Sea Stars prefer cold salt water and can be found in many Oregon all year round. They can be found on wave-washed rocky shores, tidepools, and amazingly out of water for limited times. *Pisaster ochraceus* can tolerate a loss of 30 percent of its body fluids for short periods, huge temperature changes, wave surges, and rain diluting salt water.

Identification

These animals come in more than just ochre colors of yellow, orange, curry, and brown. This heavy echinoderm can also be reddish or purple in color. The radius of an adult Sea Star with five stout arms may be up to 18-inches in diameter. The size of the Sea Star is dependent on the food supply.

Prey

The underside has short, white spines in a pentagonal pattern. In addition, they have tube feet which help them find and capture prey.

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Sea Stars are carnivores and feed on mussels, chitons, limpets, snail, barnacles, echinoid, and crustacea. They also eat zooplankton and phytoplanton. If they are so lucky to trap a prey that is too large to swallow whole, they are able to evert their stomach over the prey and digest it before swallowing.

Predators

Sea Stars have few predators such as sea otters, sea gulls, and human visitors to tide pools and collectors.

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If I only had a brain

Sea Stars are a simple organism that does not have a brain. Nerves coordinate activities through nerves that extend around the mouth and through each arm. Each arm has light sensitive cells which help support visual perception. Other perception channels used to communicate include tactile (touch) and chemical.

More than just a pretty face

Sea Stars serve as a keystone species in some communities as a keystone species. They help control mussel populations which will expand to quickly exclude other species.

Sea Stars, through their predation of mussels, balance structure and species diversity in specific communities. Not all communities are affected by Sea Stars.

Next time you see a Sea Star in a tidepool you will know that it is more than just a beautiful unique animal, but also a hard working one as well.

REFERENCES

–National Oceanic and Atmospheric Administration (https://www.omao.noaa.gov/topic/general/sea-star-starfish)
–Animal diversity Web (https://animaldiversity.org/Pisaster ochraceus)
–Wikipedia, Sea Stars (https://en.wikipedia.org/wiki/Pisaster_ochraceus)
–Keystone species (*https://www.britannica.com/science/keystone-species#ref1111359)*