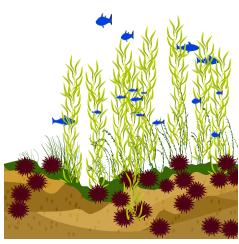
Sunflower Sea Stars are Important for Maintaining a Healthy Marine Ecosystem



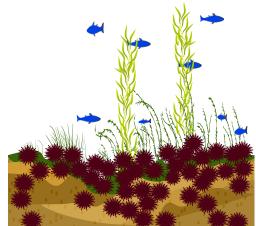
Without sunflower sea stars, and other urchin predators, the community shifts from species-rich kelp forests to urchin barrens.

A balanced ecosystem supports a mixture of sea stars, urchins, kelp, fish, marine mammals, and birds.

Sunflower sea stars are important for maintaining a healthy marine ecosystem as they are natural predators of sea urchins, which consume kelp and other vegetation. Healthy kelp provides habitat and food for a wide variety of species, resulting in a diverse, highly productive ecosystem. Without sea stars, urchin numbers increase, and begin feasting on kelp.



When urchin predators, like sunflower sea stars and sea otters, are lost from an ecosystem, populations of urchins and other kelp consumers may increase. As the kelp forest thins, mobile species seek refuge and prey elsewhere. The result is a reduction in local and regional biodiversity. *If unchecked, eventually the urchins destroy the kelp forest.*



As urchin predator populations continue to decline, urchins consume most, or even all, of the kelp. The result is an urchin barren, and the urchins themselves begin to starve and die. In some places, loss of sunflower sea stars due to Sea Star Wasting Syndrome caused mediumsized sea urchins to increase by over 300 percent, and kelp forest density to decrease by 30 percent (<u>Burt et al. 2018</u>).