

CRUSTACEANS

FACTS ABOUT CRUSTACEANS

- Crustaceans are members of a massive category of animals known as arthropods. Arthropods are categorized by their exoskeletons and jointed limbs. Crustaceans are also some of the oldest animals on Earth, with evidence of their exoskeletons existing all the way back in the Cambrian Period nearly 540 million years ago.²²⁰
- There are over 50,000 known species of crustaceans. These species are divided into a number of major groups; the Branchiopods, the Mixillopods, the Ostracods, and the Malacostraca. Crustaceans are found in a diverse range of habitats some live in freshwater, others in salt. Some crustaceans are even terrestrial and some, like the barnacle, do not move.²²¹
- Crustaceans range in size from the Japanese spider crab with a leg span of 4.3 meters to a parasite of copepods, which is only 0.1 millimeters long.²²²
- Decapod crustaceans communicate by flapping their pincers or drumming their claws. They will also use their pincers or claws to fight for the best hiding spots, provide food for their young, and to protect themselves.²²³
- There is a direct correlation between the health of reefs and the population of crustacean species. The decline of reefs because of human actions could cause a decrease in the biodiversity of crustaceans.²²⁴



WHY WE NEED TO PROTECT CRUSTACEANS

Role in the Ecosystem: Crustaceans have an important role in the ecosystem as they serve as vital food sources for both marine animals and humans. Small crustaceans can recycle nutrients as filter feeders, and larger crustaceans can act as a food source for large aquatic mammals. Terrestrial crustaceans also have ecological importance as decomposers of dead organisms.²²⁵ Small crustaceans eat substantial amounts of algae which keeps the plants in check, making for clearer waters which, in turn, give seagrass beds access to light and oxygen.²²⁶

Economic Contributions: Many Crustaceans are considered economically important to humans because of their large role in marine and terrestrial food chains. Crustaceans provide jobs and revenue in coastal areas like the Chesapeake Bay Area. In 2009, the dockside value of the blue crab harvest bay-wide was an estimated \$78 million. However, since the decline of crabs in the bay, there has been a cumulative loss of about \$640 million in Maryland and Virginia.²²⁷

Uniqueness: While most crustaceans reproduce sexually with a separate male and female barnacle, which are a type of crustacean, are hermaphrodites that reproduce asexually. This means that a single barnacle produces eggs and sperm.²²⁸

THREATS TO CRUSTACEANS

Ocean acidification: Changes in the chemical makeup of oceans caused by climate change is making it difficult for crustaceans like lobsters and crabs to grow their shells. This can disrupt marine food chains by making crustaceans more vulnerable to predators.²²⁹

Coral Reef Loss: Crustaceans depend on coral reef communities for vital shelter. As coral reef populations decline, crustaceans will also suffer.²³⁰



Over-fishing: Overfishing of krill has increased in the Antarctic Ocean in recent years and has placed pressure on sensitive ecosystems in the ocean. Krill, a small crustacean, plays an important role in the food chain in the Antarctic ocean feeding penguins, seals, whales, fish, and birds.²³¹

Plastic Pollution: Microplastics that are causing water pollution are ingested by crustaceans and take six times longer to leave the body compared with standard digestion. Due to the fact that these microplastics are retained longer within the crustacean, there is more risk of [biomagnification](#) through the food chain.²³²

HOW TO HELP CRUSTACEANS

Support Sustainable Fisheries: Overfishing can deplete the population of crustaceans past the point of recovery. By buying crustaceans from certified sustainable sources, you can help ensure that these marine creatures and their ecosystems continue to thrive. To learn more about the different types of [eco-labeling](#), click [here](#).

What Others are Doing: Read [here](#) to learn about how the United States National Ocean Service is working to protect coral reefs, and in turn, crustaceans.

Take personal steps to [end plastic pollution](#).

ADDITIONAL RESOURCES

ARTICLES/BLOGS/READINGS

Biggest krill companies limit fishing in Antarctic waters – CNN

<https://cnn.it/2BluD6M>

Antarctic krill fishing companies have announced that they will voluntarily stop operating in key areas around the Antarctic Peninsula. They are a vital food source for animals including whales, seals and penguins. They also help sequester carbon from the atmosphere, which can help to mitigate the effects of climate change.

VIDEOS

One Hundred Million Crabs | The Trials of Life – BBC

https://www.youtube.com/watch?v=Yo7Rpr_xyOU

On Christmas Island, red crabs migrate en masse in order to spawn a new generation into the Indian Ocean.

STORYTELLING

Amazing Crabs Shells Exchange | Life Story – BBC Earth

<https://www.youtube.com/watch?v=fldnocPQXDQ>

As a hermit crab grows its shell becomes a tighter fit so eventually the crabs need to move into a bigger one, leading to an amazing exchange.

OTHERS WORKING ON THIS ISSUE

Oceana

<https://oceana.org/>

Oceana is an international organization focused solely on oceans, dedicated to achieving measurable change by conducting specific, science-based policy campaigns with fixed deadlines and articulated goals. Much of their work focuses on protecting and conserving crustaceans worldwide.

REPORTS

Diversity and Exploitation Status Of Crustacean Fishery Resources in India –

Central Marine Fisheries Research Institute

<http://bit.ly/2EOGhKM>

This report summarizes the various species of crustaceans along the many coastlines of India, focusing on their biodiversity and the status of their exploitation.