

HERMIT CRAB (MARINE)

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SCIENTIFIC CLASSIFICATION

COMMON NAME: hermit crab

KINGDOM: Animalia

PHYLUM: Arthropoda

SUBPHYLUM: Crustacea

CLASS: Malacostraca

ORDER: Decapodia

INFRAORDER: Anomura

SUPERFAMILY: Paguroidea

FAMILY:

GENUS SPECIES:

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FAST FACTS

DESCRIPTION: Hermit crabs protect their soft abdomen in a gastropod shell. The abdomen curls to fit the spiral of the shell. The shell is held by modified uropods that grasp. The longitudinal abdominal muscles are contracted to press against the inner walls of the shell. The last two pairs of legs are pressed against the wall of the shell opening. Tiny scales cover the legs and uropods to provide traction to grip the shell. Like true crabs, hermit crabs have chelipeds; one is usually larger than the other and is used to capture prey and also to block the entrance of the shell.

SIZE: The largest hermit crab is the Giant hermit crab, *Petrochirus diogenes*. The carapace can reach up to 8 cm (3.25 in.) in length.

LOCOMOTION: Hermit crabs use 4 pairs of thoracic limbs (walking legs) for locomotion or clinging. The last pair of limbs is specialized for cleaning gills or brooding eggs.

DIET:	Detritus and small plankton
FEEDING:	Filter feeders and scavengers
REPRODUCTION:	Crabs are either male or female. Mating typically occurs after a female has molted and courtship is typical. Hermit crabs partially emerge from their shells. Fertilization is internal and eggs are brooded attached to the pleopods.
RESPIRATION:	Gills are used for gas exchange.
RANGE:	Temperate or tropical oceans; from the deep sea to the intertidal zones. There are also many species of terrestrial hermit crabs.
HABITAT:	Rocky or sandy areas, including tide pools

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FUN FACTS

1. The order decapoda contains about one-fourth of the species of crustaceans. All decapods share the following features:
 - The first three pairs of thoracic appendages are modified as maxillipeds, leaving five pairs of legs.
 - The first pair of legs is modified as large claws, or chelipeds.
 - Most decapods are adapted for crawling. The legs are heavy and the pleopods are used for reproductive functions rather than swimming, as seen in shrimp.
 - The body is somewhat flattened and the exoskeleton is rigid.
2. Hermit crabs always use empty shells and do not kill the original occupant of the shell. When the crabs grows too large for its shell, it looks for another one but will not leave the current shell until a new one has been found. The crab will inspect the shell and even try on the new one. They check the fit, weight, and mobility. If it is not suitable, they will return to their old shell. Hermit crabs will even steal shells from each other if suitable empty shells are not readily available.
3. Coral, stones, tooth shells, wood, and other structures have been used as shelters by hermit crabs.
4. Some species of hermit crabs live commensally with *Calliactis*, a species of sea anemone. The hermit crab gently releases the anemone from its substrate and transfers it to its own shell. *Calliactis parasitica* transfers to the shell without the help of the crab.
5. In some areas, hermit crab growth and reproduction can be limited by a short shell supply.
6. For more information, please visit the Tide Pool Infobook.

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ECOLOGY AND CONSERVATION

Since hermit crabs rely on discarded gastropod shells for shelter, it is best to leave empty snail shells where they are if you encounter them in tide pools or along the shoreline.

Beachcombers, tidepoolers, and divers must remember not to disturb or collect any specimens that they may encounter. The removal of animals from an ecosystem may disrupt ecological processes and decrease the diversity in areas that are frequently visited. Because of their specific nutritional and physiological needs, certain animals, such as hermit crabs have a much better chance for survival in their natural environment than in an unregulated home aquarium.

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