

BARNACLES

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SCIENTIFIC CLASSIFICATION

COMMON NAME:	barnacles
KINGDOM:	Animalia
PHYLUM:	Arthropoda
SUBPHYLUM:	Crustacea
CLASS:	Maxillopoda
SUBCLASS:	Theocostraca
INFRACLASS:	Cirripedia
SUPERORDER:	<ul style="list-style-type: none">• Acrothoracica – Boring barnacles• Rhizocephala – Parasitic barnacles<ul style="list-style-type: none">▪ Two orders<ul style="list-style-type: none">• Kentrogonida• Akentrogonida• Thoracica – True barnacles<ul style="list-style-type: none">▪ Two orders<ul style="list-style-type: none">• Pedunculata – stalked barnacles• Sessilia – stalkless barnacles
GENUS SPECIES:	About 1,285 species

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FAST FACTS

DESCRIPTION: In general, barnacles are small, shrimplike crustaceans that live in volcano-shaped shells, which are composed of calcareous plates. Their body is positioned upside-down so that feathery filter feeding appendages protrude from the top of the shell. The two main groups of barnacles are the stalked and stalkless barnacles.

- Stalked barnacles, also called gooseneck or goose barnacles, have a muscular, flexible stalk (peduncle) that attaches to the substrate at one end. The other end bears the major part of the body, the capitulum. The peduncle contains the

remnants of the larval first antennae and the cement glands.

- Stalkless barnacles, also called acorn barnacles, are permanently attached to a substrate. A vertical wall of plates completely covers the animal. Within this wall is an operculum to cover the animal. The plates composing the wall are made of either living tissue, interlocking teeth, or may actually be fused to some extent.

Barnacles are usually white, pink, or purple.

SIZE:	<ul style="list-style-type: none">• Stalked barnacles – up to 75 cm (29.5 in.) in length• Stalkless barnacles – up to 23 cm (9.1 in.) high and 8 cm (3.1 in.) in diameter
LOCOMOTION:	The larval stages are capable of swimming or crawling until they settle onto the substrate.
DIET:	Minute planktonic organisms and particles of detritus
FEEDING:	Barnacles extend and retract their feathery appendages to filter feed. Small food particles are trapped by the fine bristles of the appendages.
REPRODUCTION:	<p>Parasitic and boring barnacles are either male or female. Most barnacles are hermaphroditic and self-fertilization is possible in some. For others, one barnacle will act as a “male” and fertilize another nearby barnacle acting as the “female.”</p> <p>There is a free-swimming larval stage and a settling stage. In the settling stage, the animal attaches to a suitable substrate and eventually cements itself in place.</p>
RESPIRATION:	Barnacle lack gills. The mantle and cirri are the principal sites of gas exchange.
LIFE SPAN:	1 to 10 years
RANGE:	Temperate waters worldwide, from the intertidal zone to the deep sea
HABITAT:	Free-living attached to rocks, shells, coral, or other objects. Commensal on whales, turtles, fish and other animals.

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FUN FACTS

1. Because of their unusual body plan, barnacles were thought to be molluscs until 1830. The free-living larval stage is what defined them as crustaceans.
2. The grunt sculpin (*Rhamphocottus richardsonii*) found along the Northwest coast camouflages itself by mimicking barnacles. It will sit and wait inside empty barnacle shell and its odd-shaped head mimics the opercular plates.
3. A group of barnacles, saculine barnacles, parasitize crabs. They fool the crab into caring for the barnacles eggs as if they were its own. If the barnacle ends up

parasitizing a male crab, it changes its sex into a female crab so it can care for the barnacle's eggs.

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7. For more information, please visit the Tide Pool Info book.

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ECOLOGY AND CONSERVATION

Barnacles encrust on ship bottoms, buoys, and pier pilings and can create many problems. For instance, the speed of a badly encrusted ship may be reduced as much as 30%, increasing fuel consumption. Also, many species of barnacles have become "invasive." It is believed that larvae settle on ships at sea or are contained in ballast water allowing them to be transported all over the world.

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