

HOW ABOUT BARNACLES ?

By Charles Keller, Jr

Have you ever considered barnacles in your marine tank? Neither had I, until one wintry November morning, while beach-combing the shores of the Calvert Cliffs of the Chesapeake Bay, I happened upon a piece of driftwood with several barnacles encrusted on it. Curiosity is the mother of discovery, so I put a small amount of bay water into my one gallon plastic pail (which I always take with me on one of these forays), and placed the driftwood into it.

When I got home, I took my dubious treasure and placed it into my "Bay" tank. In about thirty minutes, I was rewarded with a stirring of life. Two of the barnacles began their characteristic combing of the water for some hopeful goodies in the form of microscopic plankton.

Barnacles belong to the phylum Arthropoda, class Crustacea, order Cirripedia. They begin life from hermaphroditic parents as free-swimming nauplius until they are fortunate enough to find a suitable substrate in the form of floating objects, oyster shells, mussels, rocks, or anything else not already occupied; and sometimes even when it is occupied. Immediately, they attach themselves by means of their antennules and begin the building of their home, which consists of a rounded, very hard, six sided, calcareous shell looking somewhat like an igloo with an open top. The closure to this opening is a trapdoor-like structure consisting of four triangular pieces of shell of the same substance as the main shell called an operculum. The animal itself is a soft bodied creature. It opens and closes its operculum at will. While feeding, it opens the trapdoor and sweeps the water with its "feet" (very delicate appendages looking like curved bird feathers). As it sweeps the surrounding water, it traps microscopic particles of food and literally "kicks" food into its stomach with its feet. It releases waste matter and detritus through the same opening.

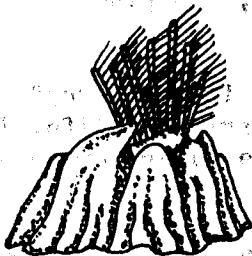
There are numerous species of barnacles ranging from the common Rock Barnacle (*Balanus eburneus*), Goose Barnacle (*Pollicipes polymerus*), which perches on a long, leathery stalk of its own making, to the huge three inch diameter Whale Barnacle (*Coronula diadema*), found growing on the hides of many of the northern sea whales. They are found in nearly all parts of the world and offer no economic asset to mankind. Conversely, they form a very detrimental aspect by fouling the bottoms of sea craft to actually cause as much as a 50% power loss. There have been many attempts to control this obvious problem, but the only sure way is to remove the vessel from the water and scrape it.

My barnacles (*Balanus eburneus*) have been with me for well over six months and have acclimated themselves to taking fine particles of typical flake food and occasional feedings of newly hatched brine shrimp. Temperature is of no consequence since they are found under all temperature ranges. Water salinity apparently is not critical as again they are found in all seas, and are very common in estuaries such as the Chesapeake Bay. However, my barnacles are kept at a temperature of about 74° and a salinity of about 1.010 and a pH of about 8.4. The tank is equipped with an undergravel filter and an outside power filter. Natural Bay water is used as is a three inch layer of natural sand taken from the Chesapeake Bay shores.

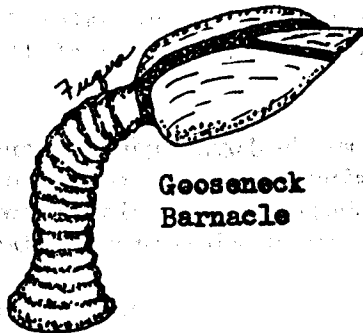
Perhaps one of the most surprising happenings was to see, one morning, that a blessed event must have taken place. Low and behold, there, on the stem of the undergravel filter was the typical igloo-shaped shell of a young barnacle.

One word of caution. Do not put barnacles in the presence of starfish, which happen to take a peculiar liking to the taste of barnacles. Otherwise, no marine decor is complete without its complement of barnacles.

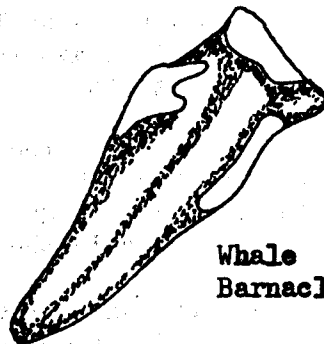
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Rock Barnacle



Geosneck
Barnacle



Whale
Barnacle