

Seashore stay-at-homes

MANY DIFFERENT types of seashore animals spend their whole lives in one place. Instead of wasting energy swimming around looking for food, they have it delivered to them twice a day by the tide.

ONE REASON for this odd behaviour is that it's safer. When the sea is rough and the waves use boundless energy to pound the rocky shore, any living creature that is not firmly stuck down or well hidden in a crevice is likely to be smashed to pulp. Try swimming in even small waves and you will see what I mean.

Barnacles, tube-worms, mussels, rock oysters, and some sea anemones spend their lives firmly cemented to one spot. Chitons, limpets, pauas, and other types of sea anemone move about very little and are able to cling on to a rock very tightly by muscular contraction if anything tries to dislodge them. Pipis, tuatuas, toheroas, and cockles bury themselves in the sand and let the sea roll harmlessly over them.

These animals have developed several different ways of getting their food.

Chitons, limpets, and pauas creep slowly over the rocks, grazing on algae or seaweed. The bivalve molluscs that live under the sand have long tubes called siphons, which they push up through the sand to the surface. One tube sucks sea water down to the animal, which feeds on the microscopic plankton that lives in the sea; the other tube takes the filtered water and the animal's waste products back to the surface.

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By David Gregorie

"Filter feeders"

Mussels are also "filter feeders". You will find them on rocks and wharf piles in more sheltered water. When the tide is in they open their shells and filter plankton out of the water that surges through them. When the tide is out they shut their shells up tightly and wait for high tide again for their next meal.

Sea anemones are often very colourful and look more like plants than animals. They belong to a group called Coelenterata, which means hollow gutted. They are shaped like an empty sack, open at the top, with a fringe of deadly stinging tentacles around the open end. The closed end is usually stuck firmly to a rock. When they are hungry they open out their tentacles so that they look like the petals of a brilliantly coloured flower. They don't look at all dangerous.

Each of the tentacles is equipped with a tiny barbed sting, rather like a bee sting. If a small fish or a shrimp brushes against one of the tentacles, the sting shoots into it and the barb holds it fast. The more the victim wriggles around the more tentacles it will touch and the more firmly it will be caught. Poison sacs inside the tentacle pump a

paralysing venom into the victim so that it cannot swim away.

When the prey stops wriggling, the other tentacles gradually fold over it and it is drawn down inside the anemone and digested. Any indigestible bits are ejected through the mouth again when the anemone opens for its next meal.

Blob of jelly

The red beadlet sea anemone (*Actinia tenebrosa*) is common all around New Zealand, but it is not always easy to find. When it folds in its tentacles it looks just like a blob of dark-red jelly. There is a picture of a red beadlet anemone in colour on the inside front cover of the November 1982 issue of *Forest and Bird*.

The striped anemone (*Epiactis thompsoni*) is usually larger and has bright orange and white stripes up and down its body. It is common around Wellington and further south.

The wandering anemone (*Phlytenactis tuberculosa*) is much larger—up to 15 cm long—and is covered completely with what look like brown blisters. Its tentacles are creamy white. You will probably find it stuck to seaweed in rock pools, but it can detach itself from the seaweed and float about in the water.

Barnacles are another family of stay-at-homes. The barnacles you are most likely to see are the modest barnacle