

PRESS REPORT FOR GANSBAAI COURANT

Tel 028 – 384 1473

Fax 028 – 384 2397

courant@itec.co.za

THE AMAZING LIFE OF LIMPETS

The name limpet is used to describe various extremely diverse groups of gastropods that have independently evolved a shell of the same basic shape. When it comes to limpet's Southern Africa is the world's foremost biodiversity and biomass hotspot, with some areas having densities of 2,600 individuals per square meter. Limpets at first glance are static, even boring creatures, but a closer look reveals an evolutionary masterpiece. Most of the marine limpets have gills with a few exceptions whereas all the freshwater limpets have lungs.

The Ducks foot limpet develops and tends gardens of algae fertilising their crop with the limpet's waste products, the Ducks foot limpet prune this algae by eating furrows stimulating growth within a manageable territory.

The Goat's eye limpet's juveniles have a flecked iridescent green in their shells and are usually found under boulders starting life as a male becoming female in the second or third year. As fully grown adult females they are able to aggressively counter attacking predators such as whelks and even spiny starfish by quickly guillotining predator's appendages foolish enough to probe under the shell, the predator soon retreats often mortally wounded, smaller goat's eye limpets will in limpet terms flee on sight of danger.

Kelp limpet's territorially occupy individual kelp fronds, its diet is not the kelp but fern-like epiphytes that attach to the kelps stem, they sense the water pressure change when the kelp breaks loose in storms. Kelp limpets parachute from the canopy before being cast ashore, when on the sea bed the limpet searches for an unoccupied new kelp frond. This search is another vulnerable time and they are often attacked by predatory Whelks that drill holes in the shell of the limpet receiving a protein rich meal; these attacks can be survived unless vital organs are penetrated.

The Pear Limpet's are very slow growing reaching 25 years of age, living in dense aggregations on low exposed shores. The Pear limpet also cultivates coralline algae and faster growing red algae. The shape of the pear limpet has been influenced on islands off the coast by the African Black oystercatcher where this bird flourishes far from human influences. A favourite diet of the Oystercatcher is the pear limpet and by approaching from behind, being the fat end of the pear (out of the limpets vision) the oystercatcher is able to prize the limpet of the rocks before the limpet has time to react, through natural selection a few Pear limpets with a more oval shape shell have been able to survive and reproduce, and become the dominant shape of Pear limpets on the islands.

The Giant limpets, South Africa's largest limpet grows up to 18cm across, using brute force in territorial battles, pushing rivals slowly out of their area. The Cape false-limpets' adhesion is weaker than most and feeds during low tide to avoid detachment by waves, as defense this limpet uses chemical weapons, secreting a milky mucus poison.

The Limpets' shell shape and amazing adhesion has allowed them to become the dominant species on rocky shores exposed to heavy wave action. Each individual limpet has what is called a home scar when the shell grows to fit the particular rock it inhabits, there are some limpets that produce an acidic mucus which softens the rock and with their iron tipped radular (tongs) rasp out the rock creating a tight fit for their shell.

Source reference books: Two oceans a guide to the marine life of southern Africa
Currents of contrast life in southern Africa's two oceans

Written by Jason Stonehewer on behalf of the Pearly Beach Conservancy.

PEARLY BEACH CONSERVANCY

P O Box 564

GANSBAAI

7220

Chairperson: Jason Stonehewer
Tel 028 381 9080
072 890 4317

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