

URBAN ANTICS!

WE SEE SEA HARES BY THE SEASHORE

Autumn again. The sun rises later and retires to bed earlier. But at this time of the year, the salt-laden atmosphere surrounding that ribbon of rock and sand that is the ocean's edge, seems to warm in the still, soft shafts of autumn light.

Here, a thoughtful person is aware that he or she is standing on the shores of time itself. To look out past the great waves that curl and thunder, is to see into the dim origins of our own creation, and that of every creature on Earth.

As humans, we often dabble at the water's edge, and for some strange reason, feel an urge to turn over a rock, or look into a tidal pool and find something new—or more precisely, something very old. Maybe we are searching for that speck of proof that links us with ancient times and species.

One such phenomenon that occurs from late summer through autumn is the beaching of sea hares—a happening for study and speculation.

The first contact is one of revulsion, as one or more animals are discovered looking like black, grotesque blobs of rotting 'flesh'. It is then that our curiosity causes prodding, poking or even returning them to the water in the hope of revival. But after breeding, a sea-hare, like its cousin the octopus, is spent. It is time for death.

Sea hares belong to the gastropod group of the marine molluscs. Unlike true sea slugs, they have a small thin horny shell that is partly or completely covered by their mantle. There are about 12 species found off the coast of Western Australia.

The animals derive their common name from the two pairs of large



fleshy tentacles that protrude from the head. Each of these has an unusual fold resembling a rabbit's ear.

The species *Aplysia gigantea*, is the largest of the local sea-hares and can grow to 60 cm and weigh about 2 kg. It is this particular beast that we usually find washed up on our beaches, weak and dying or already dead.

Whilst being generally slug-like in appearance, sea hares have a high back along which are large parapodia, or undulating flaps, which are sometimes used in swimming. On their back can also be seen a brush-like gill structure.

The large, bulky *A. gigantea* is often called the black sea-hare, although its colour ranges from black to brown, sometimes with a dark, mottled green pattern. Underwater, the animals are well camouflaged and have an individual, grotesque attractiveness as they graze algae and other plants among the waving offshore weed beds.

Sea hares have no known natural enemies. While they are harmless creatures, they have evolved an effective chemical warfare defence. Each animal has a large opaline gland, which exudes either a toxic purple or white fluid when the animal is harassed.

Like many molluscs, sea hares are

hermaphroditic and live for only about a year. Copulation occurs in late summer. The animals form large 'daisy chains' on the sea floor, with each individual acting simultaneously as a male to the one in front and a female for the one behind.

Following this 'breeding ritual', the sea hares disperse in all directions, some heading shorewards others to the deep. After egg laying, they succumb; the bodies of those close to shore being at the mercy of waves, winds and currents.

BY JOHN HUNTER

DID YOU KNOW?

Charles Darwin, during his voyage on the Beagle, told of encountering a large sea hare, which had an acrid secretion spread over its body, causing a sharp stinging sensation on touch, similar to the Portuguese man-o-war.

A single sea hare can deposit up to 180 million eggs at one time. They appear as long strings of green, brown, yellow and orange colour. Only two eggs need to reach maturity to replace their 'parents' and continue the species.

Like all gastropods, sea hares have one large foot that ends at the tail. Some species do not swim, but simply crawl through life cropping green weed from the sea bed. They were first named by the ancient Greeks and Romans.

LANDSCOPE

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Thanks largely to CALM's fox-control programs, the recovery of the woylie has been so swift that the species has now been taken off the threatened fauna list (see page 10).



This killer whale, photographed at Ningaloo, is one of 36 marine mammals living off the WA coastline. Read about them on page 16.



LANDSCOPE Expeditioners made some interesting discoveries during last year's expedition to Queen Victoria Spring. Read all about them on page 23.



Spring flowers thrive on a moss carpet—one of the range of attractions on offer in the Porongurup National Park (see page 28).



The rose mallee is just one species benefiting from action by recovery teams working together for conservation (see page 36).

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COVER

A new book, Broome and Beyond, takes an in-depth look at the plants, such as this *Pittosporum molluccanum*, people and cultures of the Dampier Peninsula, in Western Australia's Kimberley Region. The story on page 48 takes a brief glimpse into this exciting new book.

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