URBAN ANTICS!

Mysterious millstones

Intergalactic interlopers, like our astronauts, probably know Earth as 'the blue planet'. In the blackness of space, the globe appears as no other in the solar system. A biological gondola, three-quarters covered in ocean, which reflects an eerie blue and which, at any one time, is half-shrouded in vortices of white cloud.

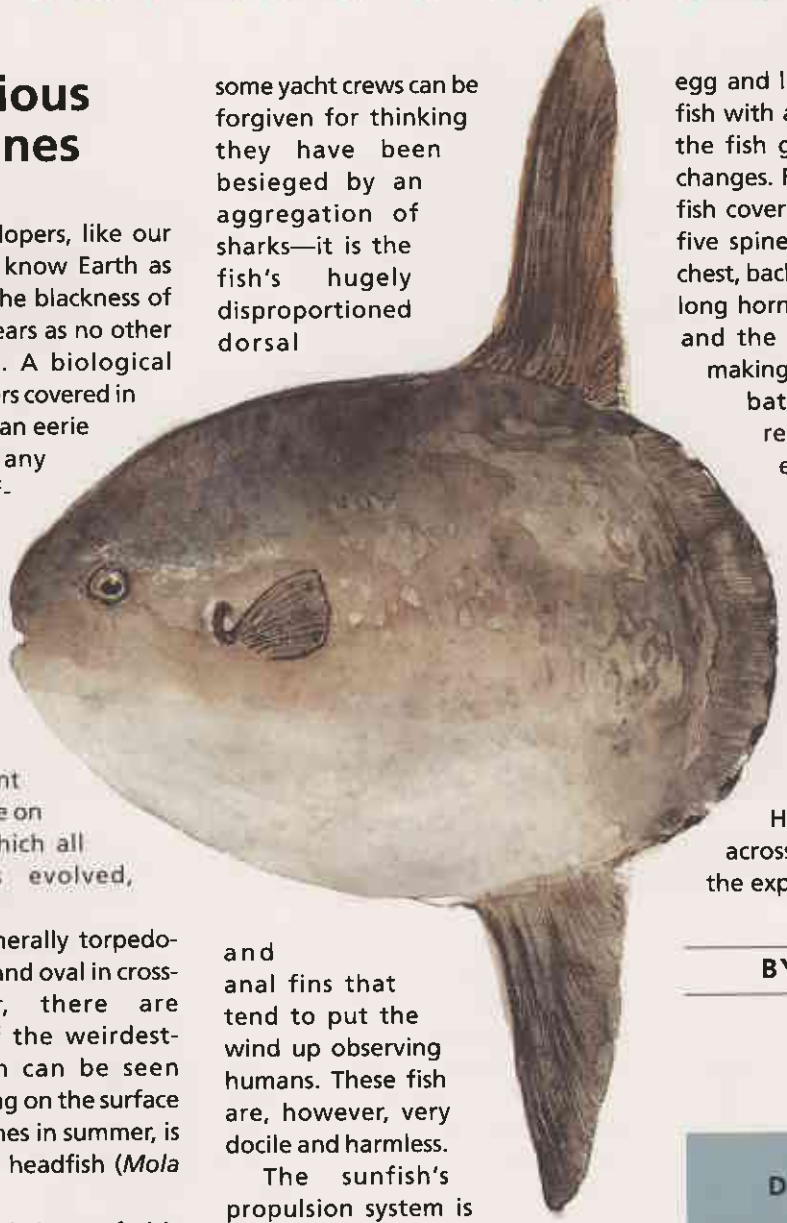
Within the dominant aquatic environment are a a myriad life forms. The most obvious are the fish. They are also the most ancient form of vertebrate life on the planet, from which all other vertebrates evolved, including humans.

Most fish are generally torpedo-shaped, or fusiform, and oval in cross-section. However, there are exceptions. One of the weirdest-shaped fish, which can be seen occasionally wallowing on the surface near our urban beaches in summer, is the ocean sunfish or headfish (*Mola mola*).

Occasionally, sightings of this fascinating fish have been made from whale-watching vessels, where sun-drenched passengers with a brew or two under their belt have had the macaroni scared out of them as a half-metre-long fin pops out of the water near their feet.

Ocean sunfish are pelagic (middle depth to surface) relatives of the leatherjacket, puffer and porcupine fish. Their peculiar shape, all head and practically no tail, accounts for the name 'headfish', while the habit of lying almost motionless, partially on their side on the surface, results in the more popular description of 'sunfish'.

While large individual fish are usually seen, groups of smaller fish can often be seen in the open ocean, and some yacht crews can be forgiven for thinking they have been besieged by an aggregation of sharks—it is the fish's hugely disproportioned dorsal and anal fins that tend to put the wind up observing humans. These fish are, however, very docile and harmless.



The sunfish's propulsion system is equally unusual. Mounted at the rear end of its body, the two large fins move in unison from side to side, each describing a figure-of-eight and counteracted by the large tail surface. While large individuals do take some time to gain momentum, they have been seen to take tremendous, explosive leaps into the air.

Served by a tiny mouth and bony ridged jaw (similar to blowfish) sunfish have been observed to feed on salps (zooplankton), jellyfish and small fish. A stomach analysis of one sunfish found the remains of starfish, seaweed and sea grass, but one can imagine that the strong jaw and plate teeth would also enable the crushing of shellfish and crustacea.

Sunfish hatch from a planktonic egg and look much like an ordinary fish with a proper tail. As a juvenile, the fish goes through many shape changes. First it looks like a 'normal' fish covered with large spines. Then five spines, one each on the snout, chest, back and each side, change into long horns. The body then deepens, and the horns and spines reduce, making the fish look like a medieval battle mace. Lastly, the tail reduces to fuse around the end and the fish takes on its basic adult form.

Sunfish are normally denizens of the high seas, but often come in to shore to enjoy our temperate warm summer sea and perhaps a seafood salad or two. Remember though, individual 'fish can be HUGE . . . , so if you come across one, don't panic, just enjoy the experience.

BY JOHN HUNTER

DID YOU KNOW?

- *In 1910 near Sydney, a giant sunfish jammed the port propeller of an ocean steamer. When removed and placed on a weighbridge, the fish came in at just over two tonnes, and measured three metres from nose to tail, a little over four metres from fin-tip to fin-tip and almost two metres in breadth.*
- *The skin of a large specimen is tough and gristly, several inches thick and has been described as being like fossilised towelling.*
- *The scientific name* Mola *is, appropriately, Greek for millstone.*

LANDSCOPE

VOLUME TWELVE NUMBER 2, SUMMER 1996–97

Shannon National Park is the home of the Great Forest Trees Drive, another nature-based tourist attraction for the south-west. Read the story on page 17.

The rugged Kimberley coast was the location of the first maritime LANDSCOPE *Expedition. Read all about it on page 10.*

A huge volunteer effort has helped with the renewal of the Montebello Islands and the eradication of feral animals. (See page 47.)

Science has long-known the relationship between plants and habitats. Now we are 'Prospecting for Plants' using landforms as a guide. (See page 23.)

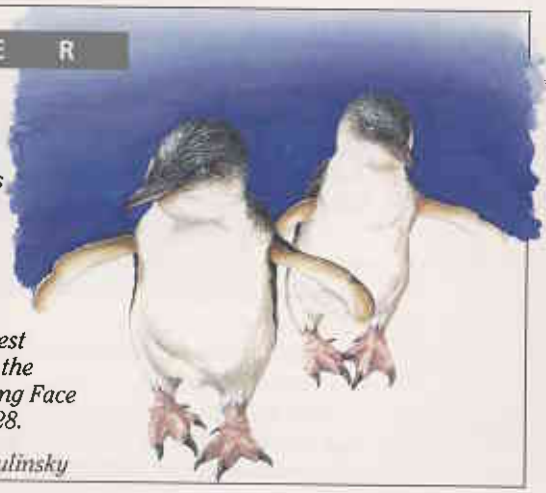
One hundred years ago, two members of an expedition to the Great Sandy Desert became lost. Read what happened to them in 'Land of the Lost' on page 36.

FEATURES

REGULARS

COVER

*The scientific name of the little penguin (*Eudyptula minor*) means 'little diver'. The wings of these flightless seabirds have evolved into flippers for underwater propulsion. The little penguin is the smallest of the 17 penguin species. Penguin Island has the largest colony of little penguins on the west coast. See 'The Changing Face of Penguin Island' on page 28.*



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