



Share-Net



- Ensure that the flippers and flukes are kept cool.
- Keep the animal's upper side up (not on its side)
- If dead, photograph and measure the animal and report it to one of the contacts listed. Information from strandings is of vital importance to dolphin research.
- Support dolphin conservation by joining a group such as the Dolphin Action and Protection Group (details below).

### Further reading

**Marine mammals.** 1988. V.G. Cockroft. De Jager Haum Insight Series: Pretoria.

**Whales, dolphins and porpoises.** 1988. R. Harrison and M. Bryden (eds). Timmins Publishers: Cape Town.

**The Greenpeace Book of Dolphins.** 1990. J. May (ed). Struik Timmins: Cape Town.

### Useful addresses

**Dolphin Action and Protection Group.** PO Box 22227, Fish Hoek, 7974. Tel (021) 782 5845; Website [www.dapg.org.za](http://www.dapg.org.za)

**Chief Directorate: Marine and Coastal Management.** Private Bag X2, Roggebaai, 8012. Tel (021) 402 3911; Fax (021) 402 3362.

**Oceanographic Research Institute.** PO Box 10712, Marine Parade, 4056. Tel (031) 328 8222; Fax (031) 328 8188; Website [www.ori.org.za](http://www.ori.org.za)

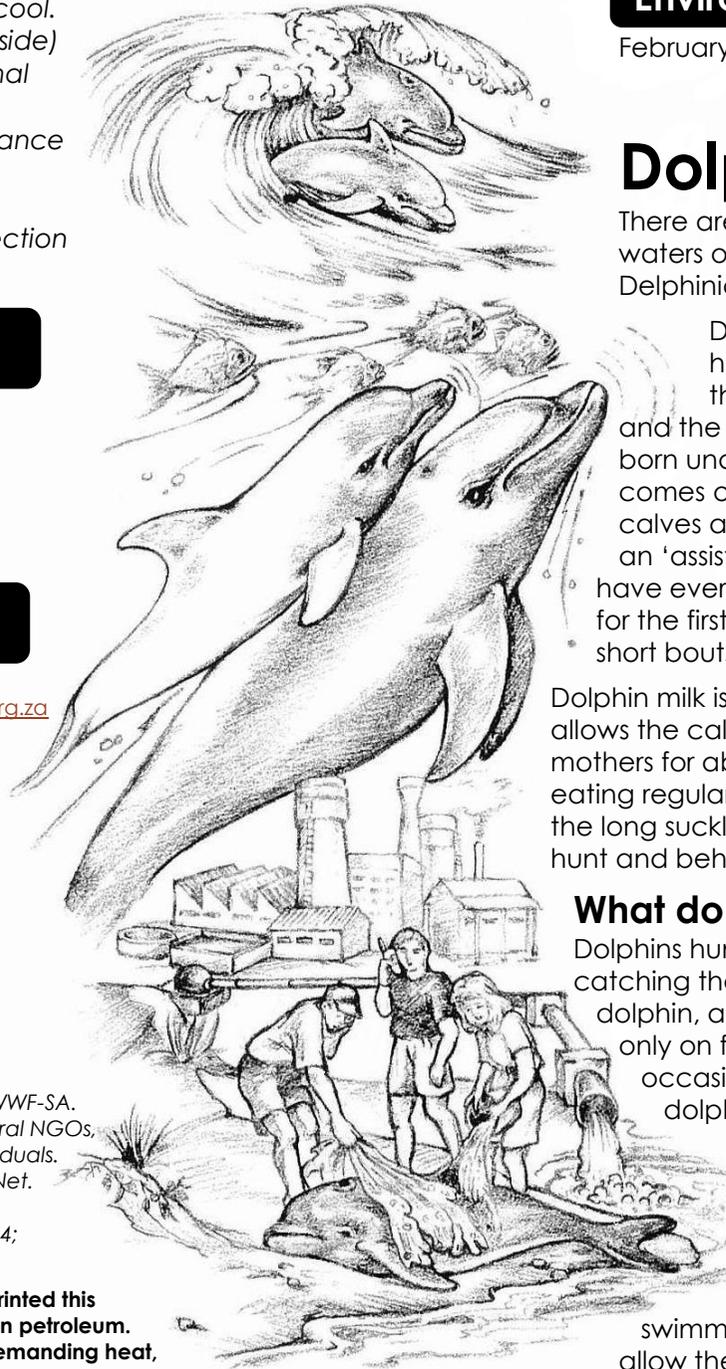
**KwaZulu-Natal Sharks Board.** Private Bag 2, Umhlanga, 4320. Tel (031) 566 0400; Fax (031) 566 0499;

Website [www.shark.co.za](http://www.shark.co.za)



The Enviro Facts Project is sponsored by Pick 'n Pay through WWF-SA. The fact sheets have been developed with the support of several NGOs, government departments, academic institutions, and individuals. A full set of 60 Enviro Fact sheets is available from Share-Net. Please write to: Share-Net, Enviro Facts Project, PO Box 394, Howick, 3290. Tel (033) 330 3931 ext 124/144; Fax (033) 330 4576; e-mail [sharenet@wessa.co.za](mailto:sharenet@wessa.co.za)

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## Enviro Facts 47

February 2010

# Dolphins

There are 28 species of dolphin that can be found in the waters off southern Africa, all members of the family Delphinidae, the small toothed whales.

Dolphins are mammals and they breathe air and have a constant body temperature, which is about the same as that of people. Dolphins mate at sea and the female usually bears a single calf at a time. It is born underwater but near to the surface and it normally comes out tail first so that it does not drown. Newly born calves are nudged towards the surface by their mothers or an 'assistant' to take their first breath. Very few wild births have ever been witnessed. Soon after birth, the calf suckles for the first time. This occurs underwater and takes place in short bouts between breaths.

Dolphin milk is about four times richer than human milk, which allows the calf to grow very quickly. Calves suckle from their mothers for about 18 to 24 months, although they may begin eating regular food of fish and squid at about six months. During the long suckling period, the mother teaches the calf how to hunt and behave, much like humans teach their children.

### What do dolphins eat?

Dolphins hunt for fish and squid and often co-operate in catching these prey species. The Killer Whale, actually a big dolphin, also belonging to the family Delphinidae, feeds not only on fish and squid, but also seals, sea birds, turtles and occasionally other marine mammals including other dolphins.

### The senses of dolphins

As with all other cetaceans, dolphins are superbly adapted to life in water, their bodies are streamlined and their necks are short and stiff (fused neck vertebrae) which aids them when swimming at high speeds. Their flippers and tail (or flukes) allow them great agility and forward propulsion. The nostrils (blowhole) have migrated to the top of their head which allows them to breathe more easily at the water's surface.

Some other important adaptations are the dolphin's good eyesight although long-distance vision is reduced under water. Dolphins use a sound "seeing and hearing" system, much like that of bats, called echolocation. Echolocation is as important to dolphins as sight is to most land mammals. It provides information such as water depth and the position of food and rocks. There is even evidence that some dolphins use powerful sound waves to stun their prey, making the prey easier to catch. Dolphins do not have a sense of smell, but they can taste fairly well and their skins are very sensitive. With these senses they are aware of where they are, through feeling different water temperatures or tasting water types. This is useful if sight or echolocation is restricted.

Dolphins are also far more tolerant of carbon dioxide, which aides them in lengthy dives. They are 2 to 3 time more efficient at using inhaled oxygen than land animals, while their rib cages are collapsible for deep diving and the thick layers of fat assist them in maintaining their body temperature.

## Threats to dolphins

Like whales, dolphins are experiencing and having to endure the many environmental and manmade pressures existing today. Some dolphin species are listed as critically endangered while others are either endangered or near-threatened - without immediate conservation efforts, some of these animals could become extinct. The latest extinction is a species of river dolphin from Asia.

**Pollution:** The accumulation of waste, such as plastic and toxic substances in the oceans causes problems for dolphins. In many parts of the world, stranded dolphins are often found to have swallowed plastic bags or have nylon straps wrapped around their tail flukes. Fortunately this is uncommon off the South African coast, but as our human population and the production of plastics and other wastes increases, dolphins may still have to face this problem. Toxic pollutants come from two main sources, agriculture and industry. Agricultural pollutants include DDT (**D**ichloro-**D**iphenyl-**T**richloroethane), Dieldrin and Lindane, all of which are still used in pest control and public health. Dolphins accumulate these pollutants, and levels in dolphins off KwaZulu-Natal are a cause of concern.

The main industrial pollutants are PCBs (**P**oly**c**hlorinated **b**iphenyls), a group of highly toxic substances. High levels of PCBs are found in dolphins off South Africa, and KwaZulu-Natal particularly, and they probably lead to the death of many newborn dolphin calves.

Recent research suggests that dolphins, particularly the males, are unable to rid themselves of toxic pollutants and because of this and the continued accumulation of pollutants in the marine environment, some dolphin populations may become extinct within the next 100 years. Pollution also includes non-toxic effluent such as sewage and waste water which is pumped into rivers and the sea by industry and cities. Bad agricultural practises causing soil erosion result in soil and silt accumulation in the inshore region. Silt and effluent laden water smothers reefs and prevents light from reaching underwater plants, thus limiting their growth and ability to provide food for the animals on which dolphins feed.

**Gill nets:** This is one of the oldest fishing methods, and is used in coastal and deep sea waters. Gill nets, however, are non-selective and trap any animal that comes into contact with them. Thanks to conservation pressure, there is now a United Nations moratorium on the use of all high seas pelagic drift nets and gill nets over the length of 2.5 kilometres. The moratorium became operative at the beginning of 1993 and has markedly cut down on the mortalities of thousands of dolphins and other marine life which were caught in these "walls of death" each year. Fortunately only a few gill nets are used in South Africa's coastal environment, the most notable of these being KwaZulu-Natal's shark nets. Captures of Bottlenose and Humpback Dolphins in these nets have caused concern amongst conservationists as, coupled with habitat destruction, overfishing, pollution, and other man-made hazards, it is thought that net mortalities could be contributing to the depletion of these two species which frequent KwaZulu-Natal's inshore waters.

**Other pressures:** Other pressures dolphins have to endure are, hunting by some nationalities, culling to protect important commercial fish stocks and wild capture for marine parks and zoos.

## What you can do

*If you find a dolphin stranded on the beach:*

- *If alive get help as quickly as possible (see contacts on the next page). While waiting for help be quiet and keep the dolphin cool and wet by covering with a wet blanket or seaweed. Be careful not to get anything into the blowhole (usually on the top of the head) through which the animal breathes.*