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Further reading

Hands-On: East Coast Sandy Shore: A field guide. 1991. A. Ashwell. Share-Net: Howick.

The Living Shores of Southern Africa. 1981. G. Branch and M. Branch. Struik: Cape Town.

Enviro Facts: Rocky Shores; Coastal Conservation; Harvesting the Sea

Useful addresses

NPC Sea World Education Centre at uShaka Marine World. 1 King Shaka Avenue, Point, Durban, 4001. Tel (031) 328 8222; E-mail info@seaworld.org.za; Website www.seaworld.org.za

WESSA Treasure Beach EE Centre. PO Box 16126, Brighton Beach, 4036. Tel (031) 467 8507; E-mail tbeach@wessakzn.org.za; Website www.wessa.org.za

WESSA Share-Net. PO Box 394, Howick, 3290. Tel (033) 330 3931 ext 124; E-mail sharenet@wessa.co.za; Website www.wessa.org.za

Bayworld - Port Elizabeth Museum Complex. Beach Road, Humewood, Port Elizabeth, 6013. Tel (041) 584 0650; E-mail pr@bayworld.co.za; Website www.bayworld.co.za

Iziko Museums of Cape Town. 25 Queen Victoria Street, Gardens, Cape Town, 8000. Tel (021) 481 3800; E-mail info@iziko.org.za; Website www.iziko.org.za

Two Oceans Aquarium. PO Box 50603, Waterfront, 8002. Tel (021) 418 3823; E-mail aquarium@aquarium.co.za; Website www.aquarium.co.za

Ezemvelo KZN Wildlife. PO Box 13069, Cascades, 3202. Tel (033) 845 1999; E-mail info@kznwildlife.com; Website www.kznwildlife.com



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

In the quest for living and working more sustainably we have printed this enviro fact using non-toxic ink that is derived from soya, rather than petroleum. We use a wet ink process that requires no metallic toner or energy demanding heat, and solar energy, from current sunlight, rather than a fossil-fuel based, energy source.

We hope you will enjoy reading this fact sheet and join us in seeking to live more sustainably.

Enviro Facts 30

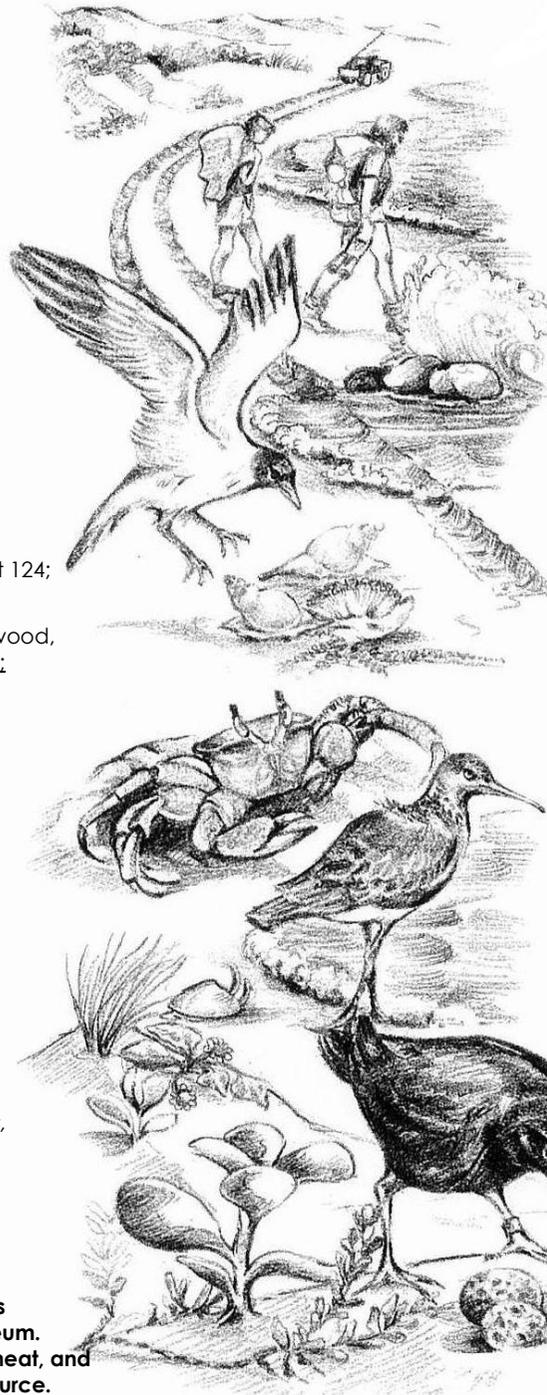
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Sandy Shores

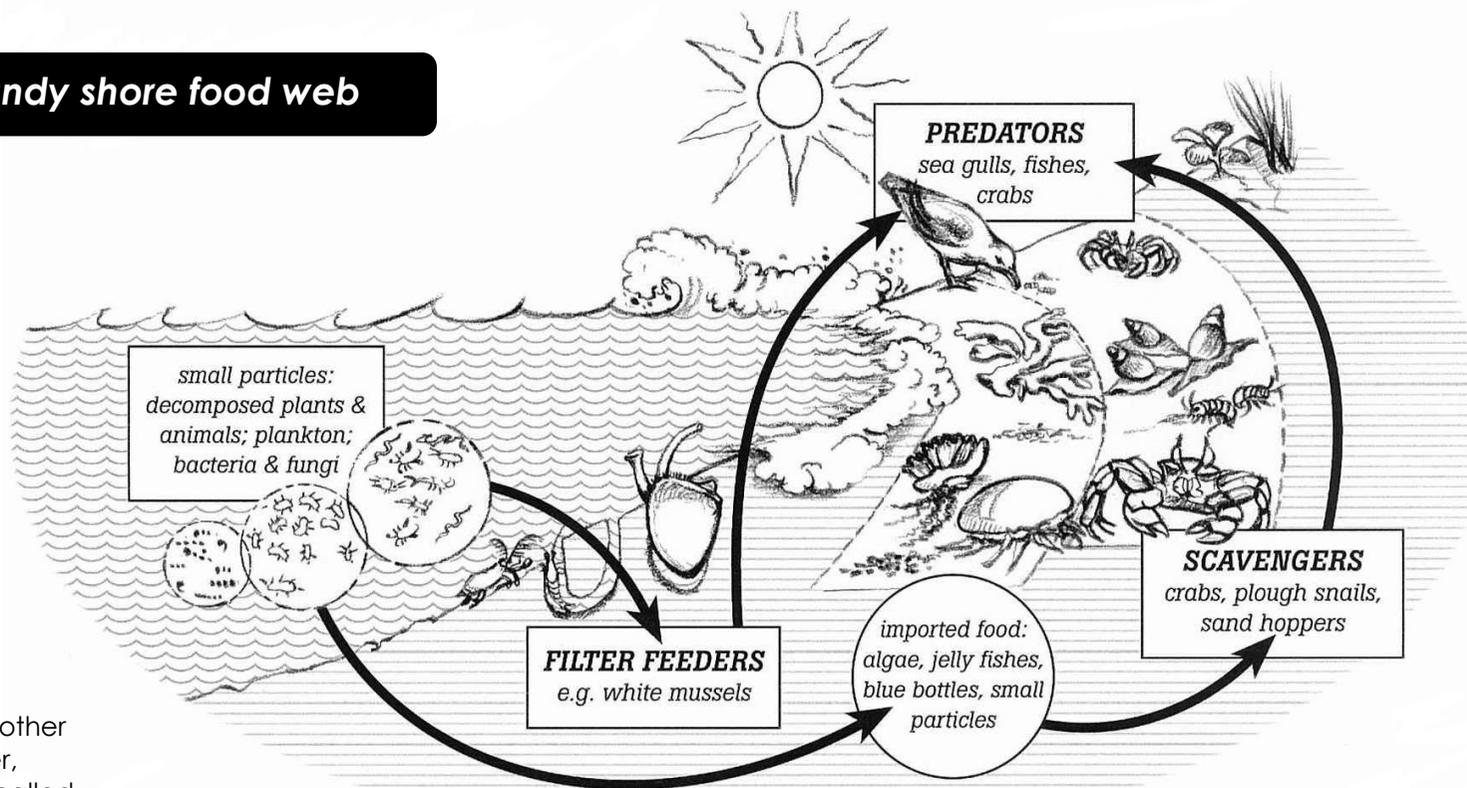
The sandy shore is enjoyed by many people who visit the beach for their holidays. It is, however, a very inhospitable place for plants and animals. The sand particles that make up the beach are always on the move, and are constantly churned up by the waves or blown by wind. There is thus little protection for anything living there. No plants grow on sandy shores and all food has to be imported, either washed ashore by the waves or blown in by the wind.

Although no plants grow on the sandy shore, the sea water washes up the following food sources: seaweed, detritus, plankton and the bodies of floating marine animals. The large pieces of seaweed are usually eaten by air-breathing crustaceans - sand hoppers and pill bugs on the west and south coast. These creatures are nocturnal and during the day burrow into the sand above the high water mark to escape both predators and the heat of the sun. Fine particles in the water, such as detritus and plankton, are used by the filter feeders. These include mole crabs and white mussels, both of which occur lower down the shore, because they obtain food from the water. Floating animals, such as bluebottles and jellyfish, wash onto the shore where they are eaten by plough snails.

Like all other ecosystems, these animals have their predators. On sandy beaches the main predators are crabs and birds (such as gulls, sandpipers and oystercatchers) which feed when the tide is out, and fish (like soles, mullet, sand sharks and skates) which move up onto the beach when the tide is in.



Simplified sandy shore food web



In addition there is another group of much smaller, microscopic animals called meiofauna, which live in the spaces between the sand grains. They include grazers, detritus feeders, predators and scavengers.

Threats to sandy shores

Sandy beaches are harmed by pollution, bait harvesting, off road beach vehicles and development. Pollution includes oil slicks, chemical effluent, sewage and litter from ships at sea, rivers and beach users. Most large, burrowing sand animals, e.g. mole crabs, white mussels and ghost crabs are utilized as food or bait. Vehicles on the beach kill the animals, compact the sand, destroy burrows and bird nests, and at high tide, off road vehicle drivers try to avoid the incoming tide and so damage the dunes. Popular bathing beaches may be so disturbed so that no sign of animal or plant life remains.

Development such as mining and building on beaches or on the dunes ruins sandy beaches. Dunes are vulnerable to trampling, vehicles, dumping of refuse, grazing, and littering. Many of these activities destroy the vegetation which stabilises the dune sand.

What you can do

- Visit the beach after a storm and see what has been washed up. A night visit at low tide will show you many creatures that you do not normally see! Be sure to take a torch and don't go alone.
- Avoid walking over dune vegetation, driving vehicles on the beach, making fires with coastal forest timber and littering.
- Develop and share your awareness and concern by making the sandy shore the topic for your next school, environmental club or guide/scout project.
- Monitor the use of vehicles on your beach.