



The Southern Ocean

The Southern Ocean is the world's fourth largest ocean, roughly twice the size of the United States, and completely encircling Antarctica. The strongest winds on Earth blow across its waters, and the world's largest ocean current – the Antarctic Circumpolar Current—flows through it, carrying more than a hundred times as much water as all the rivers of the world combined.

Life in the Southern Ocean

The waters of the Southern Ocean teem with life. It is home to around twenty species of whales and dolphins and six types of seal. 120 species of fish live there and they have evolved to avoid freezing in the icy Antarctic waters. Many seabirds live in the region, including 18 of the 21 kinds of albatross. It is also home to the smallest of ocean life – plankton.

Microscopic plankton is eaten by krill, and together they form the basis of the Antarctic food chain. Krill is the staple diet of many of the Southern Ocean's seabirds, fish and mammals. Krill swarms can contain up to 30,000 creatures per cubic metre.

The Southern Ocean is protected by a number of international treaties: a ban on commercial whaling under the International Whaling Commission; a limit to sealing under the Convention for the Conservation of Antarctic Seals; and regulations on fishing under the Convention on the Conservation of Antarctic Marine Living Resources. However, these conventions are poorly policed and routinely breached.

Threats to the Southern Ocean

Fishing

Despite the isolation and harsh conditions of the Southern Ocean, its waters are heavily and unsustainably fished. Two important commercial fisheries of the Southern Ocean, rock-fish and ice-fish, collapsed as early as the 1970's and have not yet recovered. More recently, Patagonian toothfish and southern bluefin tuna have been targeted – by legal and pirate vessels alike – threatening the species and leading to calls for them to be listed and protected under the Convention for International Trade in Endangered Species (CITES). In some areas it is thought up to 80% of the total Patagonian toothfish catch is illegal.

Targeting already threatened Patagonian toothfish and southern bluefin tuna, long-line fishing vessels, using lines up to 200 kilometres in length and armed with thousands of baited hooks, kill a broad range of Southern Ocean life. Attracted to the bait and then snared by the hooks, more than 100,000 albatrosses alone drown on long-lines every year. All eighteen species of albatross found in the Southern Ocean are on the brink of extinction.

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Whaling

Under international law, commercial whaling is banned in the Southern Ocean, but every year under the guise of “scientific research” a whaling fleet from Japan takes hundreds of minke whales. In 2005, the Japan Fisheries Agency announced they would double the take and add 50 fin and 50 humpback whales, taking the total annual Southern Ocean ‘scientific slaughter’ to around 1,000. Overall, 90% of Antarctic whales have been lost since whaling began. Despite 40 years of protection, the number of Southern Ocean blue whales is still only a fraction of the pre-whaling population.

Climate Change

The Antarctic Peninsula is warming at a rate 2-3 times faster than the rest of the world. Temperatures have jumped by about 2.5°C over the past 50 years, causing the collapse of two major ice shelves in the last decade alone. Warming of the Antarctic Peninsula has been linked to a dramatic decline in krill populations, the basis of the area’s food chain. This may be one reason for the recent decline in penguin populations, and could also contribute to the failure in the recovery of some whale populations. In 1997, a Greenpeace expedition to Antarctica reported a large crack in the Larsen B Ice Shelf and warned of its imminent collapse. The 200 meter thick ice shelf, covering ten thousand square kilometres, collapsed into the sea in 2002.

World Park Antarctica

Since the 1980s, Greenpeace has campaigned for the protection of Antarctica, establishing the Greenpeace World Park Base on Ross Island. For five years, the base was the centre of Greenpeace campaigns in Antarctica, maintained by annual re-supply voyages. It operated until a significant victory was achieved in 1992 when the Protocol on Environmental Protection was signed, designating Antarctica as a “natural reserve devoted to peace and science”.

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