

Polar Marine Reserves: Building on the success of the Antarctic Treaty System

John Hocevar and Allison Kole, Greenpeace
jhocevar@greenpeace.org

Background: Greenpeace in Antarctica

Greenpeace has campaigned for Antarctica to be permanently and legally protected from exploitation since the early 1980s. Greenpeace, along with other environmental groups promoted the idea of a World Park for Antarctica as an alternative to the heavily politicized management regime.

In pursuit of this aim, Greenpeace campaigned in countries around the world and conducted a series of expeditions to Antarctica providing an independent source of information about governmental activities on the ice. On the second of these expeditions, World Park Base was established as a small, year-round base on Ross Island, close to the United States' enormous McMurdo station. For the following five years, Greenpeace conducted inspections of other stations in both the Ross Sea and Antarctic Peninsula regions and carried out protests against the French construction of an airstrip at Dumont d'Urville and against Japanese whaling.

In January 1992, after five years of operation, Greenpeace dismantled and completely removed World Park Base. The base's primary purpose, to defend against environmental degradation in Antarctica, was achieved when Treaty nations agreed to the Protocol on Environmental Protection. Not only did it provide a framework for sound management of Antarctica as a natural reserve, devoted to peace and science, but it also bans mining in Antarctica for at least 50 years.



Current Threats to Antarctica

Climate change is driving major changes in Antarctica and surrounding waters. The most dramatic changes are happening around the Antarctic Peninsula, which is one of the most rapidly warming regions on Earth. A recent review showed that over the last 61 years, 87% of the glaciers on the Antarctic Peninsula have retreated.

There has also been a significant reduction in duration and extent of winter sea ice west of the Antarctic Peninsula. Krill, the basis of the Antarctic food web, use winter sea ice as a nursery and its loss leads to a fall in krill numbers the following summer. In turn, the fall in krill numbers has consequences for the whales, seals and penguins that feed on them.

With an increase in shipping traffic in recent years comes increased risk of oil spills and the release of other toxic chemicals into the sensitive environment. Polar waters are less able to recover from spills due to short seasons for growth and reproduction, harsh temperatures, and limited sunlight.

Overfishing, including the targeting of toothfish, a long-lived, slow-maturing species, occurs in the Ross Sea by both legal and illegal vessels. The most pristine shallow sea on our planet, the Ross Sea has a biological and evolutionary significance comparable to that of the Galapagos Islands. To preserve this unique ocean ecosystem, with its entire food chain and top predators intact, the Ross Sea must be protected as a marine reserve. This will also provide us a 'living laboratory' to help us further understand the impacts of climate change and how undisturbed ocean ecosystems function.



Parallels in the Arctic

Polar history is repeating itself in the Arctic, with powerful nations and corporations once again maneuvering for access to natural resources and seeking new territorial claims. Unlike Antarctica, there is no single overarching treaty governing activities in the Arctic. With only a patchwork of different rules and regulations in place, most of which are not legally binding, the Arctic environment and its marine life are currently wide open to exploitation.

As natural resources in temperate waters dwindle, industrial nations look to the Poles for new stores to exploit. In the Arctic, they have their eyes on the fish, petroleum, and mineral resources that have historically been protected in a 'de-facto' marine reserve underneath the Arctic sea ice. Climate change is rapidly bringing longer periods and larger areas of open water, leaving the once protected Arctic Ocean open to industrial extraction. As in the example above, activities in the Arctic show industry and the governing body taking advantage of the melting ice instead of taking the action required to protect the already stressed ecosystem.



Conclusion

There is a compelling body of scientific evidence that demonstrates that setting aside large areas of the ocean from industrial activities provides protection for valuable species and habitats, maintains important ecosystem functions, and allows degraded areas to recover. This is particularly important for the Polar Oceans, which are warming faster than the rest of the globe and are under increased stress. Creating marine reserves in the Polar Oceans will make them both more resilient to the impacts of climate change and, by keeping petroleum reserves in place, will help prevent further, catastrophic climate change.