Antarctica’s land is protected… Now for her oceans

Be part of the legacy

Break out box:
“By creating a network of Southern Ocean marine reserves, we could establish a network of no take areas, an order of magnitude greater than anything that has been achieved before,” Stephen Campbell, Antarctic Ocean Alliance.

Break out box:
While progress has been made to protect Antarctica’s land mass, the tools under international agreements have not yet been applied to protect the region’s magnificent marine environment.

Break out box:
About 70 percent of our Earth’s surface is ocean, yet less than 1 percent of it is fully protected from human development.

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The oceans around Antarctica are some of the most pristine in the world – and the last place on Earth still relatively untouched by human activity. This beautiful, icy ocean environment is home to nearly 10,000 highly adapted species, many of which can be found nowhere else on the planet. Adélie and emperor penguins, Antarctic petrels and minke whales, Ross Sea killer whales, colossal squid and weddell seals all thrive in this inhospitable climate. Global ocean circulation is largely driven by the deep water around Antarctica, transporting essential nutrients to the rest of the world's oceans, supporting life systems thousands of kilometers away.

One of the crown jewels of the Antarctic is the Ross Sea. While marine ecosystems in other parts of the globe are threatened and devastated by development, pollution, mining, oil drilling and overfishing, Antarctica's Ross Sea – the ocean equivalent of Africa's great plains because of its richness of marine life – remains the most intact marine ecosystem on the planet, with large populations of all its top predators still present.

Going, going gone?

As the world's oceans continue to run out of fish due to decades of overfishing, more and more fishing vessels are travelling to remote areas such as Antarctica's Southern Ocean to fill their holds. With 85% per cent of the world's fisheries classified as over exploited, fully exploited, depleted, or recovering from depletion according to the FAO, even this region's slow-growing, deep sea species are sought by legal and illegal fishing interests.

While Antarctica's oceans teem with life, its species are now under increasing pressure from industrial fishing for the slow-growing and long-lived Antarctic and Patagonian toothfish, (known in some countries as Chilean sea bass). Toothfish is an expensive delicacy sold in high-end restaurants as well as speciality seafood markets primarily in the United States, Japan and Europe.

Fishing in the Ross Sea began in 1996, when vessels from New Zealand headed to the area, and it has since become a fishing ground for longline vessels in search of Antarctic toothfish. Twelve countries have legally sent vessels to this 'exploratory' fishery since 2000. In 2010 alone, 18 vessels from seven countries were catching toothfish in this largely untouched ocean wilderness.

Illegal fishing, often by IUU vessels using "flags of convenience" is on the rise in some Antarctic areas as is the use of unsustainable fishing methods such as deep sea gillnets. Gillnets can reach more than 100 kilometres in length and are a threat to almost all marine life including marine mammals and birds and non-targeted fish species such as rays.

Krill, a small crustacean which grows to 6cm, thrives in the oceans around Antarctica and is an essential part of the food chain that supports the region's whales, penguins, seals, fish and birdlife. There is a growing demand for krill in health supplements and as food for fish farms. Climate change has already been linked to a significant decline in krill numbers – up to 80 percent in one region around the Scotia Sea (Atkinson et al 2004) – where the ice that is home to the algae and plankton they feed on decreased. Both the region's krill and the entire ecosystem that depends on it are at risk from climate change and large-scale commercial harvesting.

Poor management and the large-scale removal of toothfish and species like krill will threaten the very balance of Antarctica's unique and fragile ocean ecosystems.

Antarctica: Climate change laboratory
Antarctica is a critical laboratory for the study of climate change as global impacts increase. Antarctic ice cores provide an essential history of greenhouse gas levels and global temperatures.

Already, some parts of Antarctica have experienced significant ice retreat and collapse of ice shelves along the Antarctic Peninsula, the direct result of regional climate change. Average temperatures in this area have risen 2.5C in the last 50 years and temperature variations are impacting the ocean environment as well. Ongoing and uninterrupted climate change and ocean acidification research here is critical to understanding its impact on the region and the earth as a whole.

Protecting oceans and land
In 1991, through the Madrid Protocol, the international community made a courageous decision to protect the Antarctic region as a natural reserve for peace and science, including implementing a ban on oil and gas development and mining. Through the Protocol, Parties committed themselves to "…the comprehensive protection of the Antarctic environment and dependent and associated ecosystems…". The Protocol entered into force in 1998.

An earlier treaty, the 1982 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), was negotiated with a mandate to conserve and manage Antarctic marine living resources[1]. Unfortunately, while progress has been made to protect Antarctica's land mass, the tools under these agreements have not yet been applied to effectively protect the region's magnificent marine environment.

The Antarctic Ocean Alliance (AOA) is working to establish a network of designated marine protected areas and no-take marine reserves in the Antarctic – the most comprehensive regime of its kind on the planet. With such a network in place, key Antarctic ocean habitats and wildlife would be protected from human interference.

The AOA is a coalition of leading environmental organizations and philanthropists, including WWF, Greenpeace, the Antarctic and Southern Ocean Coalition (ASOC), Mission Blue, Oceana, The Last Ocean, Oceans Five, and other groups worldwide.

Why Antarctica's oceans, why now?
About 70 percent of our Earth's surface is ocean, yet less than 1 percent of it is fully protected from human development. By creating a

[1] Note: Except cetaceans and seals.

network of Southern Ocean marine reserves and marine protected areas, we have the opportunity to establish a network of no take areas an order of magnitude greater than anything that has been achieved before. The preservation of this largely pristine marine ecosystem will not only help restore life in depleted areas but will help build resilience and provide a place for important scientific study, particularly with the impacts of climate change increasing.

As CCAMLR has set a timeframe for establishing an unspecified number of Antarctic marine reserves in 2012, there is an unprecedented window of opportunity to establish the world's largest network of marine reserves and marine protected areas in the oceans around Antarctica as a legacy for future generations.

Be part of the legacy
The Antarctic Ocean Alliance is seeking partner organisations, ambassadors and like-minded activists to join us to call for the protection of Antarctica's wild oceans. With Antarctica's land now protected it's time to create an Antarctic ocean legacy for all time.

For more information and to sign up to take action:
www.antarcticocean.org