

fact sheet

The Benefits Of Marine National Parks ... and success stories from across the globe!

Date: 20/8/09. Document Version: 1.2. More information: www.oceanplanet.org.au

Networks of fully protected marine national parks have been shown to have a profoundly positive effect on the health of marine ecosystems, and all that rely on them.

So, why are marine national parks so beneficial?

- They protect the full range of marine flora and fauna
- They act as buffer zones against invasive pests
- They are maternity wards for species to reproduce at a greater rate compared to areas where extraction continues
- They promote species recovery to ensure ongoing viability of commercial and recreational fisheries
- Marine national parks are economic opportunities for surrounding communities
- They may be the medicine cabinet that hold the essential ingredients for medical breakthroughs
- Provide important scientific study areas researching the impacts of fishing and climate change, and enable sound fisheries management for future generations
- Restore species composition and community structure following over-fishing or one-off destructive events such as storms or oil spills
- Marine national parks protect and restore ecosystem health.

The benefits of marine national parks are more significant when the area is afforded full protection. Below are three examples from across the globe that show just how beneficial MNPs can be.

Maria Island Marine Protected Area

Established in 1991 to protect local biodiversity, this reserve covers seven kilometres of coast, (half is fully protected and half is open to fishing). Research has been conducted in the fully protected area for over a decade providing excellent information on long-term trends and changes. The heavily fished rock lobster species experienced a three-fold increase in total abundance and a five-fold increase in biomass of mature individuals, compared to lobsters outside the reserve.



Rock Lobster. Maria Island. G.Edgar

Ecosystem and habitat benefits have also shown a decrease in urchin abundance of 40%, believed to be due to presence of large lobster and fish predators. This decrease in urchin abundance leads to an increase in kelp and algal coverage, which in turn provides food and habitat to other species as well.

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Leigh Marine Reserve NZ

On the rocky coast of New Zealand's North Island, this small reserve covers just 5.2 square kilometers extending 800m from the shore. Leigh Marine Reserve was established in 1977 as one of the world's first fully protected marine national parks. Originally the reserve received fierce opposition. However, within ten years research began to show that populations of commercially important species were bouncing back, so public sentiment changed.

By the mid-80s rock lobster populations were rebounding and fishers began to choose to fish close to the boundaries and report illegal poaching. Research also showed Snapper fish abundance increasing by almost nine times, and spiny lobsters increasing by almost four times. This in turn kept the urchin populations in check and allowed kelp forests to regenerate. Kelp has recovered almost completely within the reserve (50%) compared to fully fished areas that are dominated by urchin barren (40%).

By 1984, the reserve received 14,000 visitors per year, and 100,000 after 17 years of the reserve's establishment (1994), which led to enhanced local amenities, including new dive shops, camping facilities, glass-bottom boat operations and a marine education centre.

The Phoenix Islands Protected Area

In 2006 the Republic of Kiribati declared the Phoenix Islands Protected Area (PIPA), then doubled it in 2008 to secure the largest marine reserve in the world! Comprised of eight coral atolls and two submerged reef systems over 410,500 square kilometres, PIPA is the sanctuary of 120 species of coral and 520 species of fish, some of which have never been studied by science before.

The establishment of this reserve is not only an ecological boon, but also a valuable exercise in recalibrating the small island's economy away from the money that would have been received for international fishing permits in the area that is now a conservation zone.

Kisite Marine Reserve, Kenya

Established in 1973, this coral reef wasn't fully protected until the 1990's. In 1996, the nearby Tanzanian government created the Mtang'ata Collaborative Management Area in a similar coral reef ecosystem, but only restricted the most damaging fishing activities such as dynamite fishing, beach seining, fish poisoning and dragging nets.

Studies done on the fish, coral and seaweeds there compared the two areas with each other and with unprotected reefs. Overall both areas had more fish and biodiversity than unprotected areas, however the effectiveness of the Mtang'ata Collaborative Management Area was less than the fully protected Kisite marine reserve. At Kisite, fish abundance (biomass) was almost three times higher than the fished management area and almost twelve times greater than the unprotected areas. Species diversity was also substantially higher in the fully protected area.

To read more, including a list of references, please go to:
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This project is supported by Ocean Planet Tasmania, through funding from the Australian Government's Caring for our Country.

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