*Exuma Cays Land and Sea Park, Bahamas*

The Exuma Cays Land and Sea Park was declared a marine reserve in 1985, making it one of the first marine reserves in the Caribbean. After decades of widespread overfishing in the region, populations of top predators like large groupers were extremely low. In their absence, numbers of their prey, such as mid-level predators like graysbys, increased. However, large groupers rebounded in dramatic fashion when they were protected from fishing inside this reserve, eventually reducing the numbers of graysbys. Similarly, studies have shown that the reserve also benefits herbivorous fishes, which increased in number, ate more algae, and cleared space for coral to settle and begin rebuilding these coral reefs. Additional data from:[Mumby et al (2006) Science](http://www.sciencemag.org/content/311/5757/98.short)

*South El Ghargana, Egypt*

South El Ghargana is a no-take zone in the Nabq Protected Area, a multi-use MPA in the South Sinai area of Egypt. The Nabq Protected Area includes a network of no-take reserves, which are protected from extraction, as well as areas where the local Bedouin community can fish using traditional methods. Studies have demonstrated that commercially valuable species such as snapper, grouper, and emperors have rebounded inside the marine reserves. This increase has in turn led to documented spillover as adult fishes leave the no-take area to supplement the fisheries outside the reserves.

*Soufriere Marine Management Area, St. Lucia*

The Soufriere marine reserves were established in 1995 and protect over 12 kilometres of St. Lucia's considerable marine resources. Since the management area was established, many parrotfish species have increased both in number and in biomass. Repeated monitoring by a team of multinational scientists has demonstrated similar increases in surgeonfish, snapper, and grunts. The success of St. Lucia's first marine reserve led to the creation of additional reserves, such as those in the Canaries/Anse la Marine Management Area.

Malindi Marine National Park, Kenya

Founded in 1968, extractive practices are forbidden inside the Malindi Park marine reserve while the areas outside the park are open to a managed, traditional fishery. This protection has allowed the recovery of many fish populations. A study of 17 local fish species demonstrated that despite species-specific responses to the reserve’s creation, average density of fishes increased by over four times and average size increased by 18% when compared to the areas outside the park. While more study is needed, there is substantial evidence of spillover in many species, especially those moving from fringing reefs. Given the protection afforded to many of Kenya’s most commercially valuable species, the Malindi Marine National Park may prove to be a key part of protecting Kenya’s fish stocks.

Cape Rodney-Okakari Point Marine Reserve, New Zealand

Created in 1975 and covering 547 hectares of waters from Cape Rodney to Okakari Point, New Zealand’s oldest marine reserve highlights the benefits of ocean protection. Prior to 1975, fishing pressure on the larger predators in the ecosystem led to extremely low numbers of commercially valuable New Zealand snapper and southern rock lobster. Furthermore, heavy fishing on these species had the indirect effect of allowing their sea urchin prey to proliferate, leading to an decrease in the cover of algae as the urchins grazed down this important habitat structure. With protection inside the marine reserve, however, data show that the numbers of snappers and lobsters have grown steadily. As snapper and lobster populations have recovered, their urchin prey have stabilized and promoted the return of algal habitats.

San Diego-La Jolla Ecological Preserve, California, USA

This marine reserve illustrates how a reserve can be beneficial to the ecological community, even if the reserve’s small size limits its effectiveness with highly mobile species. Created in 1971 as a no-take zone in the larger La Jolla Underwater Park, the Ecological Reserve covers 2.2 square kilometers and a variety of habitats. As a result of its relatively small size, however, studies have shown that more mobile species benefit less than species that are relatively sedentary. Slow-moving rock scallops, spiny lobster, and especially red sea urchins have grown in density compared to areas outside the reserve while far-ranging fish like kelp bass, which can move in and out of the reserve, exhibited a small decline. However, the reserve protects typically overharvested green abalone and vermilion rockfish, which produce offspring that can be critical for replenishing fished areas outside the reserve.

Arquipélago, Abrohlos Reefs, Brazil

Brazil’s coral reefs have many endemic species – species found nowhere else in the world – leading some scientists to believe that this coastal region should be considered its own biogeographic province. Brazil manages these unique coastal resources using both fully protected marine reserves and partially protected areas. The Arquipélago marine reserve is a large no-take reserve many miles off Brazil’s coast that has successfully protected many of the region’s major commercial fish species since 1983. Data from many of Brazil’s marine protected areas showed that not only were grouper populations healthier inside these protected areas, but also that the size of groupers increased significantly. Although most of the groupers found in fully fished areas were 10-30 centimeter in length, 70% of the groupers inside Arquipélago marine reserve were 30 centimeters or greater. Since a larger fish produces more offspring than a smaller one, the greater numbers and sizes of grouper inside these protected areas produce a larger larval supply every time they spawn.

Glover’s Reef, Belize

This reserve, part of the Belize Barrier Reef Reserve System, was founded in 1993 to protect lobster and conch. Data show that this protection has successfully led to increased biomass of lobsters and conch. While one might expect that the reserve also protects fish stocks, studies have shown varying results from species to species. Like many other reserves, species that are predators higher in the good chain benefit most, while many other fish that are prey species have declined or remained the same in number. Some scientists have suggested that high fishing pressure just outside the Glover’s Reef no-take zone has driven numbers downward for some species.