

The Chagos Islands

OK – we realise the Chagos Islands are a Territory, not a Country, but they have been in the news because of their political and social history and their environmental wealth.

The Chagos has the world's largest coral atoll containing some of the world's healthiest coral reefs, with 55 tiny islands in quarter of a million square miles of the world's cleanest seas. It is by far Britain's greatest area of marine biodiversity.

For more information, see www.chagos-trust.org

On 1st April, the Foreign Secretary reversed the course of history, at least from the point of view of the fishes.

After millennia in which humans successively fished out rivers, coastlines and oceans, eating about 90% of the stocks of top predators just in the past half-century, David Miliband created the planet's largest no-fishing marine reserve around the Chagos Islands, a group of five semi-submerged coral atolls in the middle of the Indian Ocean. All but one – Diego Garcia, home to a military base – are uninhabited and they are fringed by some of the most exquisitely intact coral reefs in the world.

At 540,000km², the reserve is about twice the size of the UK, overtaking the previous record-holder, the Northwestern Hawaiian Islands. Designated a National Marine Monument by President George Bush in 2006, that reserve became a no-take zone in January of this year. But ending fishing in the Chagos is much more important than doing so in the Hawaiian Islands, experts say.

The latter are north of the so-called tuna belt, the planet's plankton-rich waistline where much of the world's tuna come from. In fact, the Northwestern Hawaiian Islands were only being fished by a half-dozen rickety bottom-fish boats out of Honolulu. In the Chagos waters, more than 50 purse seiners from Europe scoop up entire schools of tuna in each set of their nets. These vessels have been taking out up to 23,000 tons a year for the canning industry, some of it juvenile fish killed before they had a chance to reproduce, according to a report on the Chagos by the Zoological Society of London.

The implications of ending this fishery are huge, says Bruce

fishermen. "Once their numbers are allowed to grow naturally, they will reach a density not seen on Earth in many decades," he said.

The designation, according to marine biologist Charles Sheppard of the University of Warwick, the leading expert on the islands, is the third to be created in part as a result of efforts by the Pew Environment Group. "They saw that reefs are declining to an amazing extent, so they embarked on their Global Ocean Legacy project," he said. The goal was to identify close-to-intact large swathes of ocean that could be turned into no-take reserves, and persuade governments to do so.

The first goal was to end the stalemate on the Northwestern Hawaiian Islands, which two US presidents had tried to protect over ten years. The second involved the northernmost of the Northern Marianas Islands and the Marianas Trench. Though the total area designated (again by Bush) was huge, only in 16,000km² was commercial fishing, close to non-existent anyway, prohibited. Put together with the Chagos, these three areas constitute 70% of the world's marine no-take areas.

Works in progress involve creating reserves in the Coral Sea off Australia and around the Kermadec Islands off New Zealand. Both are even bigger than the Chagos reserve, but not located in the tuna belt.

"Enforcement is a huge challenge in managing marine reserves," said Jay Nelson, director of

Global Ocean Legacy, who has led Pew's efforts to secure protection for these areas. "What makes the Chagos unique is that there is a base from which to anchor the enforcement effort. That will make it much easier to prevent illegal fishing."

According to Sheppard, the Pew Environment Group was the prime mover in a coalition called the Chagos Conservation Network, which he joined as the senior scientific expert on the islands. The Network commissioned the Zoological Society report that compiled the scientific arguments to create the reserve. Other members include the Royal Society, the Chagos Conservation Trust (which had been pushing for protection of the islands for 20 years), the Linnean Society of London, the Marine Conservation Society, the Royal Botanic Gardens Kew, and the Royal Society for the Protection of Birds. All urged Mr Miliband to end commercial fishing in the entire Exclusive Economic Zone.

According to Alan Friedlander, a fisheries biologist at the University of Hawaii, the Chagos will always stand out. "This is the first time a complete marine ecosystem that was under serious fishing pressure has been fully protected, from beach to abyss." As the density of the tuna rises, he predicted, they will attract the very top predators whose ranks have been decimated over the past half-century – marlins, swordfish and big sharks. These ocean-crossing fish would be likely to stay inside the well-stocked reserve, protecting them in turn from fishermen. "Even the birds that nest on these islands will benefit. They depend on the tuna driving small fishes to the surface so they can pick them off, so the more tuna, the more seabirds." And the virtuous circle continues: little reef sharks feed on seabirds, so the increase in seabird numbers will help the shark population rebound.

By all accounts, the coral reefs are already among the most pristine in the world, comparable to those in the Pacific's Line or Phoenix Islands, which are also now protected. "The water is the cleanest in the world," says Sheppard, who has been studying the Chagos since the 1970s. He reports that since then, things haven't changed much – and that is in itself remarkable.

"Most of the coral reefs around the world have been heavily damaged in the past two decades," he explains. When ocean water temperatures spiked in 1998, killing coral reefs all over the tropical oceans, many of the deeper reefs of the Chagos were unaffected. Because the water is so clear, the light penetrates further, allowing corals to grow in the deep, cool waters.

"The shallow reefs were wiped out, but they have almost completely recovered, which is to say much better than pretty much anywhere else." Diego Garcia, the island with the biggest land mass, is "the least contaminated inhabited atoll in the world," despite a population of several thousand, he says.

The reefs' pristine condition is in part because the rest of the archipelago has been uninhabited for four decades. Unlike the West Indies, which were populated by Taino and Carib Indians when Christopher Columbus showed up, the Chagos had only birds and giant coconut crabs when they were first sighted by European ships in the 18th century. The islands were colonized by France, which brought in slaves from Africa and Sri Lanka to work on coconut plantations. Ceded to Britain after Waterloo, the Chagos were evacuated in 1968 and the plantations were closed as demand for coprah fell and the US built a military base.

The Chagossians, British citizens, were sent to Mauritius and the Seychelles and about 2,000 settled in Britain, many in Crawley near London's Gatwick

Airport. They have tried several times to force the government to let them return, without success. Mr Miliband has said that the Foreign Office's designation of the archipelago and its waters as a reserve is "without prejudice" to the question of their eventual return. The latest lawsuit, before the European Court of Human Rights, has not been decided. Still, some Chagossian groups have attacked the designation as infringing on their future right to fish. Others, such as the Diego Garcia Society, have praised it. "Without protection," wrote its chairman Allen Vincatassin, "Diego Garcia and the outer islands would have continued to be vulnerable to the effects of commercial fishing and the island's natural resources would be threatened." The curtailing of commercial fishing, he continued, "not only will benefit Diego Garcians and other islanders should we win the right to return, but it will help us maintain our cultural and ancestral heritage, as well as benefiting millions of people who rely on the western Indian Ocean for their daily needs."

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Middlebroisland © Charles Sheppard

Collette, a senior scientist at the National Museum of Natural History in Washington, DC. Three species of tuna – skipjack, bigeye and yellowfin – usually live out their lives within an 800km radius, so quite a number of them are expected to remain inside the reserve their entire lives, beyond the reach of



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