



Illustration: www.juniperblue.com

CHAGOS ENVIRONMENT NETWORK

www.protectchagos.org

MEMBERS

The Chagos Conservation Trust

The Linnean Society of London

Marine Conservation Society

Pew Environment Group

Royal Botanic Gardens, Kew

The Royal Society

Royal Society for the Protection of Birds

The Zoological Society of London

Professor Charles Sheppard, University of Warwick

CHAGOS MARINE RESERVE

Spanning 544,000 square kilometres (210,000 square miles), the Chagos Archipelago is the largest marine reserve in the world in the International Union for Conservation of Nature (IUCN) Category 1 (Strict Nature Reserve). With this designation, Chagos accounts for 32 percent of the world's fully protected marine reserves. The British government's decision in April 2010 to fully protect the Chagos Islands and their surrounding waters is a conservation action that is unrivalled in scale and significance.

Ninety percent of the ocean's largest fish have been killed over the past 50 years due to overfishing, and the hunt for what remains continues unabated. Roughly two-thirds of the world's coral reefs are either damaged or under threat, and around a quarter are already destroyed. The Chagos Marine Reserve will safeguard one of the world's most important and healthy ecosystems, including deep trenches, reefs and islands, from this tide of destruction and provide an essential reference site for future scientific research and study.

Chagos, Jewel of the Indian Ocean

The marine environment surrounding the 55 islands that make up the Chagos Archipelago is largely unspoilt. These islands are a seldom-visited part of the Indian Ocean, which elsewhere is seriously depleted and damaged. The waters of the Chagos contain up to half of the healthy reefs in the Indian Ocean, making them one of the most ecologically sound reef systems on the planet. Teeming with life and serving as an important nursery for fish and corals, they enrich and replenish the whole ocean with the ecological goods and services on which millions of people rely.

The gemstone of the Chagos is its remarkable coral reefs, which host an impressive 220 known species of coral, including the endemic brain coral (*Ctenella chagius*). Remote and relatively undisturbed, Chagos has some of the cleanest waters in the world, fortifying coral with an exceptional resilience to the warming of the seas that elsewhere has killed many tropical reefs. While climate change and ocean acidification will affect all reefs, the absence of pollution, fishing, shoreline construction and direct human impacts has enabled the Chagos' corals to remain highly resilient, recovering quickly from the effects of climate change compared with reefs elsewhere. If coral is to remain the foundation of ocean ecosystems, not only must carbon-dioxide emissions be reduced, but the healthiest remaining reefs, such as those in the Chagos, also must be protected.

In addition to corals, the waters surrounding the Chagos Islands are home to more than 700 species of fish, some of which are endemic, such as the Chagos clownfish (*Amphiprion chagosensis*). At least 76 species on the IUCN Red List of Threatened Species are found here, as are more than 50 species of sharks, skates and rays. Of the 23 species of sharks thought to inhabit these waters, all but one species are considered to be Endangered, Near-Threatened or Vulnerable. The islands also provide important nesting grounds for Critically Endangered hawksbill turtles and Endangered green turtles.

The separation of the Earth's great tectonic plates near the Chagos Archipelago has produced an exceptional diversity of deepwater habitats, including fracture zones, seamounts and ridges, vast



Photos: Anne and Charles Sheppard

deep-sea plains and trenches reaching depths of 6,000 metres (more than 3.5 miles). Although these complex deepwater habitats have not been investigated or mapped in detail, experience has shown that there is a strong relationship between a physically diverse environment and a high diversity of species.

And it is not just the water that is teeming with life. The Chagos Islands provide safe havens for more than 175,000 pairs of breeding seabirds and the world's largest terrestrial arthropod, the coconut crab, which can reach 4 kilograms in weight (approximately 9 pounds) and be found patrolling the beaches.

What Does the Creation of the Chagos Marine Reserve Mean?

Food security and sustainable livelihoods: The Western Indian Ocean is a region with some of the most heavily exploited, poorly understood and badly enforced commercial fisheries in the world. Preliminary research indicates that the Chagos Marine Reserve provides a crucial stepping-stone and reservoir for many species of marine life in the Indian Ocean. Its protection will help mitigate the loss of biodiversity and fisheries productivity in the region, and will also facilitate the dispersal of larval fish and coral species from the islands' ecosystem, replenishing depleted populations elsewhere.

Restoring fish stocks and ecosystem function: The Chagos, despite its remoteness, has not been immune to the effects of commercial tuna fishing. An estimated 59,749 sharks were legally killed in a five-year period (2004/05 to 2008/09) by longline vessels fishing for tuna in Chagos waters. Of these, 31,069 were blue sharks, a near-threatened species. It is estimated that in addition to all the sharks caught, about 60,000 rays were also legally caught, and these two figures do not account for other species discarded as bycatch, mostly dead and dying. On 31 October 2010, all legal commercial fishing came to a halt, enabling the Chagos Islands and their surrounding waters to begin serving as a safe refuge and breeding site for migratory and reef fish, marine mammals, birds, turtles, corals and other marine life. These species can now play their full part in this vibrant ecosystem.

Global scientific value: Most attempts at reef restoration elsewhere have failed and continue to fail, partly because people no longer know what a healthy reef system looks like. The Chagos Marine Reserve provides this knowledge.

Coral survival: Corals are likely to become the first global ecosystem to collapse and disappear because of climate change. Maintaining the Chagos' healthy and unpolluted waters will make an important contribution to the survival of coral reefs, give precious extra years for nations to reduce carbon-dioxide emissions and lessen the effects of ocean acidification and warming.

Coral science: In a world where "natural" tropical reef systems have been largely lost, there may be limited time and decreasing opportunities left to understand how such systems "behave." The reefs of the Chagos show the highest densities of rejuvenating corals known anywhere, demonstrating 10 to 100 times more resilience than most locations that suffer pollution and overfishing. Discovering the conditions that allow such resilience is not only crucial to reef conservation throughout the entire tropical world, but is also critical to sustainable development and ecosystem-based management approaches to conserve the world's oceans.

Improved climate monitoring: The Chagos Marine Reserve could help address an enormous gap in global climate monitoring of atmospheric

gases and ocean acidity across the Indian Ocean. This would ultimately assist in separating the impacts of climate change from other alterations in habitats.

Improved oceanic monitoring: Understanding the changes to ocean systems caused by pollution and overexploitation of fisheries is possible only if these effects can be compared with a part of the ocean that is comparatively unaffected by pollution and fishing. Such studies are difficult given the scarcity of unspoiled areas, leading to a loss of perspective on what is normal. The Chagos Marine Reserve shows that fish numbers and size in a near natural system are much higher than is found today in most other (exploited) areas. This provides a vital "control site" on a global scale.

Important UK contributions to global environmental targets: By protecting the Chagos, the UK Government has made a huge step forward on a number of globally agreed targets, such as establishing a representative marine protection network by 2012 and restoring depleted fish stocks by 2015, where possible.

Research and Conservation in Chagos

The goal of the Chagos Marine Reserve is to conserve, and with respect to those islands damaged by past coconut plantations, to restore the native species of the Chagos, thereby making an important contribution to the conservation of global biodiversity. The reserve is managed by British Indian Ocean Territory's Administration, which is putting into place a structure to manage and enforce the reserve. Monitoring of the turtles, seabirds, corals and other marine life will be part of this work, as will deterring and, if necessary, arresting poachers.

In addition, there will be a growing number of scientific and conservation projects undertaken, which are designed to tell us more about these islands as well as to remove invasive species of plants and animals and restore native vegetation.

Support for the Protection of the Chagos Islands

The Chagos Environment Network (CEN) is a collaboration of nine leading conservation and scientific organisations, established to promote the protection of the rich biodiversity of the Chagos Islands and their surrounding waters. CEN members are: the Chagos Conservation Trust; the Linnean Society of London; the Marine Conservation Society; the Pew Environment Group; the Royal Botanic Gardens, Kew; the Royal Society; the Royal Society for the Protection of Birds; the Zoological Society of London; and Professor Charles Sheppard of Warwick University (on behalf of many of the visiting scientists).

In addition to the CEN, more than 275,000 people from over 200 nations and territories signed petitions calling for a Chagos Marine Reserve. Many leading non-governmental organisations, including IUCN, Greenpeace UK and Fauna and Flora International, also wrote letters of support for a highly protected Chagos marine reserve where fishing and other extractive activities are prohibited.

In the absence of tuna license revenues, the Blue Marine Foundation has raised a substantial contribution from the Bertarelli Foundation to support the indispensable operations of an enforcement vessel.



Photo: Anne and Charles Sheppard



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Chagossians

Whilst members of the CEN are fully aware of the legal challenges brought by Chagossian groups against the UK Government, we believe that these islands need conservation now and that this will be beneficial under all future scenarios. We believe that the Chagos Marine Reserve ensures that the islands and their surrounding waters are protected today to secure the well-being of their existing resources and the diversity of marine life. The Chagos Islands and their surrounding waters have been designated as a no-take marine reserve “without prejudice” to the outcome of the legal process. This designation means that the Chagos Islands and their resources will remain healthy no matter what the future holds and that conservation arrangements could be modified if necessary in light of a change in circumstances.

Members of the CEN strongly support the involvement of Chagos Islanders in the conservation of the Chagos Archipelago. We are working closely with the Diego Garcian Society and members of the Chagossian community in the United Kingdom on developing conservation training opportunities both in the Chagos and elsewhere. These opportunities will build and strengthen conservation knowledge and skills, which we hope can be used for the benefit of the Chagos Marine Reserve in the future.



Photos: Anne and Charles Sheppard

How to learn more and support the Chagos Marine Reserve

If you would like more information about the Chagos Marine Reserve, please visit these websites:

Chagos Conservation Trust

www.chagos-trust.org

Chagos Environment Network

www.protectchagos.org

Global Ocean Legacy

www.globaloceanlegacy.org

If you would like to help Chagos conservation efforts, please consider becoming a supporting member of the Chagos Conservation Trust at www.chagos-trust.org/joinus.asp.

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