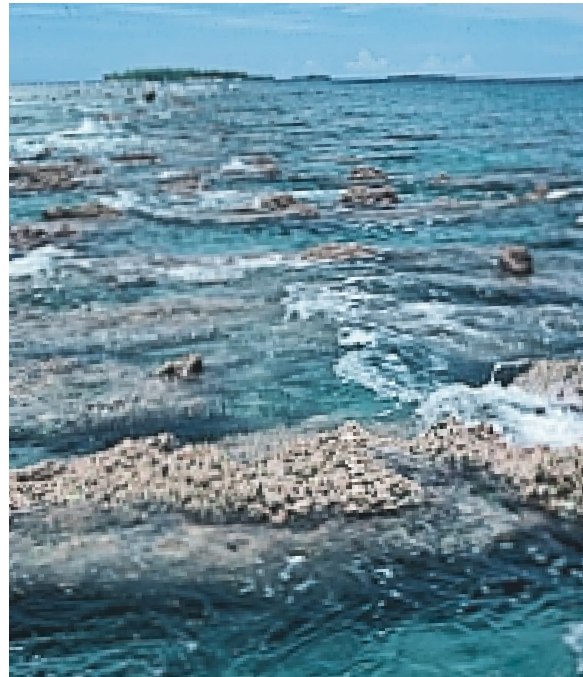


British Indian Ocean Territory

MAP 8e



The British Indian Ocean Territory (BIOT) covers a very large area of reefs and islands, also known as the Chagos Archipelago. There are some 50 islands and islets and, although the total land area is only 60 square kilometers, there is a vast area of reefs. These include five true atolls (Blenheim Reef, Diego Garcia, Egmont, Peros Banhos and Salomon), a mostly submerged atoll (Great Chagos Bank, the largest atoll structure in the world at some 13 000 square kilometers), and a number of submerged banks (including Speakers Bank, Pitt Bank and Centurion Bank). The southernmost atoll, Diego Garcia, is unusual in having a narrow but continuous land rim extending around 90 percent of the atoll's circumference. The northerly atolls, by contrast, have only small islands scattered around them. As with the Maldives, the Chagos Archipelago has grown up over the volcanic trace of the Réunion hotspot, and forms the newest and southernmost extension of the Chagos-Laccadive Ridge. The reefs and islands are highly isolated – the nearest reef structures are those of the Maldives, some 500 kilometers to the north, while the nearest continental land mass is that of Sri Lanka, more than 1 500 kilometers away.

With some 220 scleractinian species, the reefs of the Chagos are among the most diverse known for hermatypic

corals in the Indian Ocean. While recorded fish faunas are currently lower than those for the Maldives, it is likely that many more have yet to be recorded. Like the Maldives, the reefs of the Chagos lie close to the mid-point between the eastern and western faunas of the Indian Ocean. This fact, combined with their high diversity, lends support to their role as an important biogeographic stepping stone in the so-called Chagos stricture. The faunal characteristics of the Chagos have close affinities to both the Indonesian high diversity faunas and the East African faunas. Further interesting biodiversity features, including a small number of endemic or near endemic species, may be associated with the isolation of the Chagos. Undoubtedly the most interesting of these is the coral *Ctenella chagius* which may be unique to the Chagos, although there is one reported observation from Mauritius. This species is the only extant representative of the family Meandrinidae in the entire Indo-Pacific, although this family was widespread in the Cretaceous (and is widespread in the Caribbean). The Chagos goby *Trimmatom offucius* is endemic to the area and the related *T. nanus* was first reported from these reefs. The latter is the smallest fish species in the world, reaching maturity at only 8 millimeters in length.

Prior to 1998, coral cover was high on both seaward

Left: The southernmost atoll of Diego Garcia includes a major US military base. This atoll is also notable for the narrow but nearly continuous island following the atoll rim (STS038-86-105, 1990). Right: Coralline algae, rather than scleractinian corals, dominate the reef crest on many of the reefs in the Central Indian Ocean, such as this on Peros Banhos.

British Indian Ocean Territory

GENERAL DATA

Population*	0
GDP (million US\$)	0
Land area (km ²)	72
Marine area (thousand km ²)	554
Per capita fish consumption (kg/year)	0

STATUS AND THREATS

Reefs at risk (%)	3
Recorded coral diseases	0

BIODIVERSITY

Reef area (km ²)	3 770
Coral diversity	172 / 329
Mangrove area (km ²)	na
No. of mangrove species	2
No. of seagrass species	1

* There is a non-resident population of some 3 000 military and civilian personnel on Diego Garcia

and lagoonal reef slopes, typically 50-80 percent of the substrate down to a depth of about 40 meters. Unfortunately this area was heavily damaged during the 1998 coral bleaching event and, although no records of bleaching intensity were made at the time, coral loss has been estimated as averaging 80-85 percent on seaward

slopes, and was close to 100 percent in some areas. In addition to its important marine fauna, the Chagos is home to the most diverse and one of the largest populations of breeding seabirds in the Indian Ocean. In 1996, 167 000 breeding pairs of 17 species were observed, including critical populations of the red-footed booby *Sula sula*.

A number of the islands in the Chagos Archipelago, inhabited from the late 18th century, were transformed by the development of coconut plantations and the introduction of rats and other animals. However, it is unlikely that this had a major influence on the marine environment as there was no major export fishery. There was a forced evacuation of the islands in the early 1970s when the military base on the southernmost island of Diego Garcia was established. This has some 3 000 personnel and large vessels permanently at anchor in the lagoon. The impacts of this base have included dredging in the lagoon and some mining of the reef flat, as well as a substantial recreational fishery. There are, however, strict environmental controls on many activities. Personnel are not permitted to dive, and snorkelling is also forbidden on the outer reef slopes. The remaining islands are now uninhabited, although there are a number of visiting yachts and other vessels (commercial tourist-carrying vessels are not permitted). These may be causing localized impacts through anchor damage and sewage pollution, notably in the enclosed lagoon of Salomon Atoll.



Left: A red-footed booby at rest in a palm tree. The northern atolls of the Chagos are a major stronghold for this species in the Indian Ocean. Right, above: A coconut or robber crab *Birgus latro*. This land crab can reach 4 kilos in weight, and is found on remote Indo-Pacific islands where it has not been hunted. Right, below: A black-spotted pufferfish *Arothron nigropunctatus*.



There is a large offshore tuna fishery as well as a small licensed inshore fishery operated by Mauritian fishermen who visit the reefs for a few months each year. There have also been reports of illegal fishing, notably for sharks and sea cucumbers, although the BIOT Administration has run a fisheries protection vessel for part or all of the year over recent years. A number of the islands and their associated reefs have been declared

protected areas. These cover substantial areas of reef. They are occasionally patrolled by military personnel, although the licensed fishing vessels are allowed to operate within their borders. Overall, partly as a result of their history and continuing isolation, but further supported by current management measures, the reefs of the Chagos probably represent some of the most pristine and best protected in the Indian Ocean.

Protected areas with coral reefs

Site name	Designation	Abbreviation	IUCN cat.	Size (km ²)	Year
British Indian Ocean Territory					
Cow Island	Strict Nature Reserve	SNR	II	na	1998
Danger Island	Strict Nature Reserve	SNR	II	na	1998
Diego Garcia	Restricted Area	RestA	V	na	1994
Eastern Peros Banhos Atoll	Strict Nature Reserve	SNR	II	na	1998
Nelson Island	Strict Nature Reserve	SNR	II	na	1998
Three Brothers and Resurgent Islands	Strict Nature Reserve	SNR	II	na	1998

A shallow lagoon scene in Salomon Atoll in 1996. These reefs were devastated by the coral bleaching and mortality which occurred in 1998.