



British Ecological Society

**Response to the Foreign and Commonwealth Office  
“Establishing a Marine Protected Area in the British Indian Ocean Territory”**

**The British Ecological Society**  
“advancing ecology and making it count”

**January 2010**

**Introduction to the British Ecological Society**

The British Ecological Society (BES) is the learned society for ecology in the UK. Founded in 1913 and with 4,000 members, the British Ecological Society supports ecologists and promotes ecology; the study of living things and their relationship with the environment in which they live.

The British Ecological Society is a member of the UK Overseas Territories Conservation Forum and, alongside preparing our own response to this consultation, endorses and supports that submitted by the Forum.

**Formal Response**

1. The British Ecological Society welcomes the opportunity to respond to the UK Government consultation on whether to establish a marine protected area (MPA) in the British Indian Ocean Territory (BIOT). We support the proposal to create an MPA in the BIOT, without prejudice to the outcome of current proceedings at the European Court of Human Rights.
2. Of the options outlined in the consultation document we support option (i): to ‘*declare a ‘full no-take marine reserve for the whole of territorial waters and Environmental Preservation and Protection zone (EPPZ)/ Fisheries Conservation and Management Zone (FCMZ)’*’.
3. The BES supports the conclusions and recommendations of the workshop held at the National Oceanography Centre, Southampton, in August 2009<sup>1</sup>. The report of the workshop makes clear that there is a sufficient evidence-base to support the designation of the whole of the Exclusive Economic Zone of the BIOT as a Marine Protected Area. We note that on p9 the FCO states its view that ‘there is sufficient scientific evidence to justify designating *most* of the Territory as a Marine Protected Area’. We note the difference in wording here and urge the FCO to recognise the benefits which would accrue from designating the whole of the EEZ as an MPA, as outlined in the NOC report.

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<sup>1</sup> Marine Conservation in the British Indian Ocean Territory: science issues and opportunities, report of workshop held at National Oceanography Centre, Southampton, 5-6 August 2009

4. The reasons for designating the BIOT as an MPA have been well documented by the Natural Environment Research Council<sup>1</sup> and Chagos Conservation Trust<sup>2</sup>, and are rightly recognised in the consultation document. The BES firmly supports the rationale for creating an MPA in BIOT as outlined in these documents to: safeguard the near-pristine waters of the Chagos archipelago in a region where the majority of coral reefs are in poor condition; provide a refuge for species threatened over much of the Indian Ocean; and provide a reference site for scientific research into the consequences of climate change, ocean acidification and over-exploitation for coral reefs.
5. Establishing a no-take zone across the BIOT will deliver the maximum benefit in terms of the conservation of threatened species and support for fisheries in the wider region, contributing to development objectives. Highly Protected Areas are vital as spawning grounds for fish: exporting larvae and adult and juvenile biomass and so providing insurance against stock collapse in surrounding fisheries. They are likewise vital to our scientific understanding of our seas and for demonstrating how activities in areas without protection are affecting species and ecosystems. The scientific evidence thus far available points to the significant value of highly protected MPAs, over and above MPAs which only offer partial protection from extractive activities (see Annex 1).
6. In preparing this submission the BES received information from the IUCN Shark Specialist Group, which has submitted its own response to the inquiry. Fisheries for tuna and tuna-like fish pose a tremendous threat to sharks and rays, with this threat highest in the Indian Ocean. Nineteen of the 23 species of sharks found in the territorial waters of the BIOT are categorised on the IUCN Red List as 'Vulnerable' or 'Near-Threatened'. Over-exploitation by fisheries is the main threat to sharks within the BIOT: fishing pressures which may be sustainable for tuna and tuna-like fish or coral-reef associated fish are likely to lead to a decline in shark abundance.
7. Longline and purse-seine bycatch of sharks in the existing EPPZ/ FCMZ of the BIOT is substantial. On average 1,200 tonnes of sharks has been landed each year since 2002. Underwater visual census of four island groups in the Chagos Archipelago have shown a decline of 90% in the number of sharks present on coral reefs over the past 30 years<sup>3</sup>. Shark species have limited potential to recover from overfishing due to their life characteristics: slow growth, late maturity and low fecundity, leading to low rates of population growth.
8. Closing the BIOT to tuna fishing would be expected to reduce bycatch of sharks and would create a refuge for shark and ray populations overexploited in the remainder of the Indian Ocean.
9. Through designating the BIOT as a fully-protected MPA, the UK Government has an opportunity to create one of the world's greatest conservation areas, more than doubling the area of the world's oceans currently under such protection and increasing tenfold the

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<sup>2</sup> The Chagos Archipelago: Its Nature and the Future, Chagos Conservation Trust, 2009

<sup>3</sup> Anderson, C., Sheppard, C., Spalding, M. and Crosby, R. 1998. Shortage of sharks at Chagos. *Shark News*, 10: 1-3.

areas held in MPAs in the Indian Ocean. This would also represent a significant, and cost-effective, step towards meeting the UK's commitments under international conventions:

- Convention on Biological Diversity: signatories to protect 10% of their Exclusive Economic Zones by 2010;
- OSPAR: to create an ecologically coherent network of well-managed sites by 2010.
- World Summit on Sustainable Development: signatories to create representative networks of MPAs by 2012;
- World Parks Congress: 20% of the world's oceans to be protected by 2020;

The trajectory that signatories are on currently will mean that countries will complete their CBD commitments by 2047 and commitments under the World Parks Congress by the 2080's.<sup>4</sup> The UK has an opportunity to show leadership with respect to these conventions and to further demonstrate its commitment to marine conservation, as evidenced by the 2009 Marine and Coastal Access Act.

10. It is vital that any MPA established in BIOT is properly enforced and illegal activity effectively punished. The BES note the concerns raised in the NOC report<sup>1</sup> that closing the tuna fishery could result in a higher frequency of illegal fishing in the region because legal tuna boats currently play a role in enforcement and deterrence (p9). Maintaining the BIOT MPA over an area larger than that currently patrolled by the single BIOT patrol vessel, with the same resources, will be a challenge but this vessel could be effective for conservation given the likely behaviour of the fishers when a no-take MPA is declared: with fishing activity re-directed to the edges of the reserve and any infringements occurring for a short amount of time, and on the borders. However, to avoid the BIOT MPA becoming a 'paper park' it is vital that fines for illegal activity are sufficiently high to act as a significant deterrent. A comprehensive management plan should be prepared upon designation of BIOT as a protected area.
11. Enforcing the closure of the fishery, and facilitating the research and monitoring activity necessary for the BIOT to fulfil its potential as a scientific reference site will require additional resources. Engaging communities surrounding the Chagos Archipelago in the conservation and management of the BIOT reserve would be one means of providing this resource: involving local communities in conservation, rather than excluding or divorcing them from a protected area, has been shown to enhance the effectiveness of conservation projects.<sup>5</sup> Demonstrating the importance of the BIOT to the wider Indian Ocean would be one means of achieving community buy-in.
12. In supporting a no-take marine reserve for the Chagos, the BES recognises that protected areas on their own are unlikely to prevent peripheral intrusion or secure the sustainable management of the 'protected area' without internationally enforced measures that put the value of the Earth's natural capital and the services it provides at the heart of spatial and economic planning.<sup>6,7</sup> The BES is a partner in the Natural Capital Initiative (NCI),

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<sup>4</sup> Prof. Carl Lundin. Presentation at a meeting of the Chagos Conservation Trust, 24 November 2009

<sup>5</sup> Russo, G. 2009. Biodiversity's Bright Spot. *Nature*, 462: 266-269

<sup>6</sup> Hindmarch, C. 2010. Protected areas: a new economic context and a sustainable future.

together with the Centre for Ecology and Hydrology and the Society of Biology. Launched in early 2009, the NCI works with Government, business and others to identify ways in which an 'ecosystem approach', taking a holistic view of the environment and the services it provides, together with economic valuation of these services, can be incorporated into policy and decision-making.<sup>8</sup> Delivery of the benefits which a BIOT marine protected area can be expected to bring will be enhanced by efforts made to reduce environmental stressors across the wider Indian Ocean and managing the BIOT in its context as part of a wider ecosystem.

13. It is likely that the habitat of the Chagos, prior to the establishment of plantations by settlers, was characterised by open, lightly vegetated spaces. Indigenous vegetation was then largely cleared on most islands, with the establishment of coconut palms, creating a denser canopy, and some weeds. With the settlers came non-native invasive species; rats and cats. The BIOT is recognised as an area of global importance for seabirds, with the designation of ten International Bird Areas by Birdlife International. Populations of ground-nesting birds are densest in open areas on rat-free islands. Action to eradicate non-native invasive mammals and restore the native vegetation structure would enhance the BIOT's status as a sanctuary in the central Indian Ocean for ground nesting seabirds in a biome being diminished by man's intrusion throughout the periphery.
14. The British Ecological Society is pleased for this response to be made publicly available and will be publishing it on our website: [www.britishecologicalsociety.org](http://www.britishecologicalsociety.org). Should the FCO have any questions regarding this submission, please contact Ceri Margerison, Policy Officer, British Ecological Society, Charles Darwin House, 12 Roger Street, London WC1N 2JU; E-mail: [Ceri@BritishEcologicalSociety.org](mailto:Ceri@BritishEcologicalSociety.org); Tel: 020 8685 2500.

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pp 186-194 in *Making the Right Connections: a conference on conservation in UK Overseas Territories, Crown Dependencies and other small island communities, Grand Cayman 30th May to 5th June 2009* (ed. by M. Pienkowski, O. Cheesman, C. Quick & A. Pienkowski). UK Overseas Territories Conservation Forum, [www.ukotcf.org](http://www.ukotcf.org).

<sup>7</sup> Hindmarch, C., Harris, J., Morris, J. 2006. Growth and sustainability: integrating ecosystem services into economics. *Biologist*, 53 (3): 135 - 142

<sup>8</sup> [www.naturalcapitalinitiative.org.uk](http://www.naturalcapitalinitiative.org.uk). Accessed 8 February 2010