



PRIORITISING MARINE CLIMATE CHANGE ISSUES IN THE UK OVERSEAS TERRITORIES

In this article, the UK Marine Climate Change Impacts Partnership outlines some of its work in the UK Overseas Territories which are the location of some of the most vulnerable marine climates in the world.

Overview

The 14 UK Overseas Territories (UKOTs) collectively represent the 5th largest marine estate in the world, and almost 90% of the sea area for which the UK is responsible. The UKOTs contain 94% of the UK's unique biodiversity, much of it in their seas. Given the extent and richness of their marine and coastal environments, it is little wonder the territories are key for delivering the UK government's targets and ambitions for the ocean. This includes the Global Ocean Alliance 30by30 initiative, which is being led by the UK. Its aim is to protect at least 30% of the global ocean as Marine Protected Areas (MPAs) and Other Effective area-based Conservation Measures (OECMs) by 2030.

These unique territories, and their associated communities, are under threat from climate change. The UK Marine Climate Change Impacts Partnership (MCCIP), working closely with the UK Overseas Territories Association (UKOTA), the UK's Department for Environment, Food and Rural Affairs (DEFRA) and the Foreign, Commonwealth and Development Office (FCDO), and Great British Oceans, has carried out the first ever comprehensive assessment of climate change impacts across all UK Overseas Territories. Adopting MCCIP core principles of community engagement and scientific integrity, the key climate change issues facing the UKOTs have been identified, independently reviewed, and summarised for a policy audience.

Around 100 scientific experts and UKOT representatives across six geographic regions (Polar, Pacific, South Atlantic, Mediterranean, Caribbean and Mid Atlantic, and Indian Ocean) were brought together to identify key climate change issues for the 14 UKOTs.

UKOT REGIONS: PRIORITY CLIMATE CHANGE ISSUES

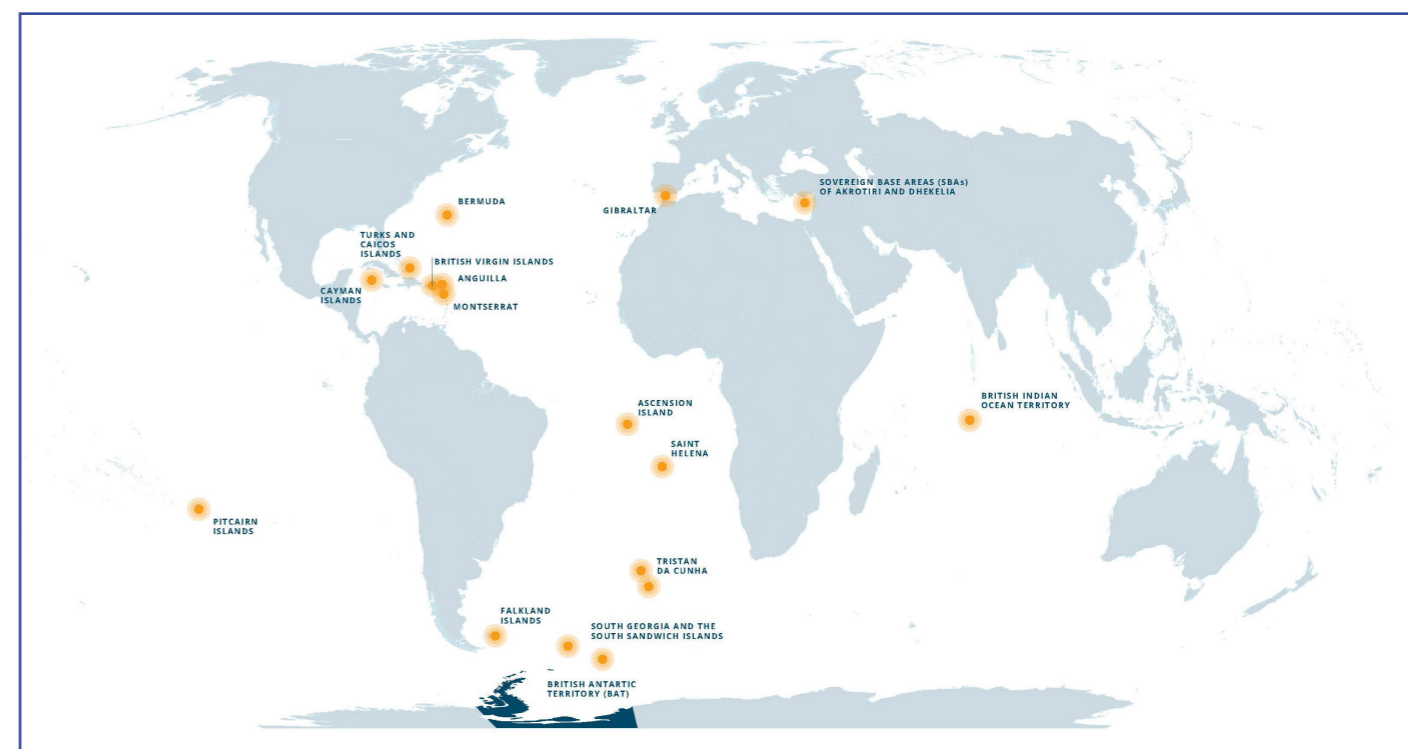
PACIFIC (PITCAIRN ISLANDS)

For the Pitcairn Island group, coral reefs and the intricate food webs they support, including commercial fish species, are increasingly at risk from the combined effects of warming and ocean acidification. Offshore, decreasing dissolved oxygen could make Pitcairn's waters less suitable for some tuna species.

Pitcairn Island relies heavily on imports for food, fuel, clothing, medicines and most other goods and materials, which could become more disrupted by extreme weather. Island shorelines may be affected by accelerating sea level rise.

INDIAN OCEAN (BRITISH INDIAN OCEAN TERRITORY (BIOT))

Severe warming is already having a significant effect on shallow reef habitats, and the communities they support, including fish. The effects of warming on BIOT's corals, with an increase in heat stress and bleaching events, are being exacerbated by ocean acidification. Coral reefs also supply sediment to BIOT's sandy beaches and provide coastal protection to the islands. Coastal change could threaten internationally important nesting sites for seabirds and turtles.



Above: A map showing the 14 UK Overseas Territories across the world.

SOUTH ATLANTIC (ASCENSION ISLAND, FALKLAND ISLANDS, ST HELENA AND TRISTAN DA CUNHA)

Marine food webs are at risk from changes in the growth and productivity of marine plants, including plankton, which form the basis of the food web, and help which provides critical habitat for many species.

Many iconic species could be affected by climate change including the Green Turtles on Ascension or Rock lobster in Tristan da Cunha, the latter having important economic value as a major fishery. Climate change is impacting on other commercially exploited species such as tuna and squid, with implications for food security and GDP in the Falkland Islands and Tristan da Cunha.

Sea-level rise and changes in storms and waves could increase coastal flooding and erosion, threaten the 'islander' way of life, and disrupt the flow of essential imports to these remote islands.

CARIBBEAN AND MID ATLANTIC (ANGUILLA, BERMUDA, THE BRITISH VIRGIN ISLANDS, THE CAYMAN ISLANDS, MONTSERRAT, AND THE TURKS AND CAICOS)

Sea-level rise and changes in extreme weather events (heatwaves, heavy rainfall, tropical cyclones and storm surges) constitute the biggest climate change risks to these UKOTs. Hurricanes Irma and Maria in 2017 (two of the most intense storms to hit the Caribbean), caused widespread devastation in Anguilla, the British Virgin Islands and the Turks and Caicos Islands. Climate change impacts on food security, fish, fishing communities, infrastructure, and operations, are highlighted as a priority issue, with important consequences for the livelihoods of local communities. Sea temperature rise is a major threat to habitats, most notably when marine heatwaves hit coral reefs and their associated communities. These impacts affect ecosystem health and marine food webs, as well as the reefs' appeal for tourism and recreation.



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