Tristan da Cunha Marine Management Plan 2021–2026

Ness Smith

Summary

Introduction

Tristan da Cunha (TdC) underwater habitats have rich marine life and Tristanians rely heavily on their waters for food and income. In November 2020, the Island Council announced a Marine Protection Strategy for its entire Exclusive Economic Zone (EEZ) to maintain marine ecosystems in a healthy, productive, and resilient condition so that they can continue to support the Tristan community.

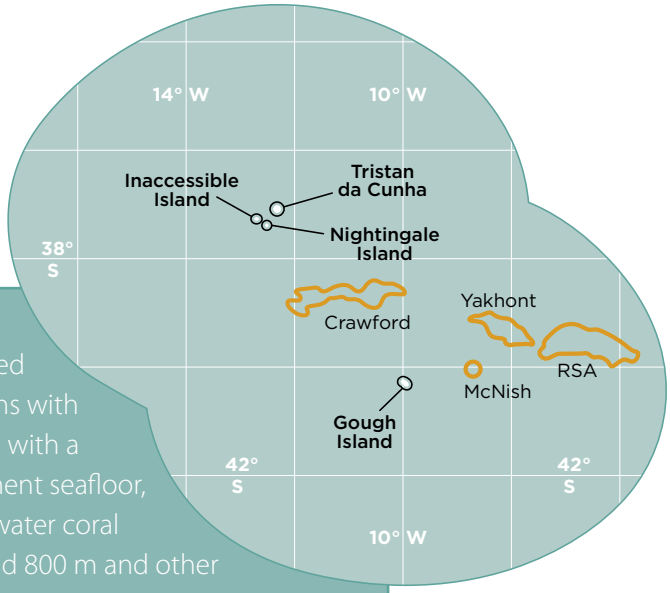
The Marine Protection Strategy includes: a large-scale no-take ***Marine Protection Zone*** covering more than 90% of the EEZ; carefully managed ***Inshore Fishing Zones*** with strengthened fisheries management measures; and ***Recommended Areas To Be Avoided*** for transiting cargo vessels. Summarised here, the Marine Management Plan outlines how the Tristan da Cunha Government (TdCG) will manage its waters in line with the Marine Protection Strategy.

For an island reliant on income from fishing, this important step underlines TdCG's determination to protect its ocean and puts TdC at the forefront of global marine stewardship efforts.

Brian Gratwicke

Status of the Tristan da Cunha Marine Environment

Inshore environments: These are well-studied and healthy nearshore areas with a rocky seafloor and extensive kelp forests covering a narrow shelf before the seafloor drops steeply to over 3,000 m. These habitats support the Tristan lobster (crawfish) and multiple finfish species, of which five finger and yellowtail are the most abundant. Globally important populations of seabirds and seals feed and breed here.



Seamounts: These habitats are flat-topped underwater mountains with steep slopes, covered with a rocky or coarse sediment seafloor, with abundant cold-water coral reefs between 400 and 800 m and other vulnerable marine ecosystems, such as sponge grounds and coral gardens. Four seamounts – Crawford, Yakhont, RSA and McNish – rise to within 500 metres of the surface. Where bottom trawling has occurred on these seamounts, ecosystems have been damaged. There are other, smaller and deeper seamounts in the EEZ, but they are not well known.

Open Ocean (pelagic): More than 80% of the Tristan EEZ is comprised of waters deeper than 3,000 m. Several migratory sharks and tuna species live in Tristan's pelagic waters, which also provide important foraging grounds for several seabird species all year round. There is very little information available on deep seafloor habitats or ecosystems.

Marine resource use in Tristan da Cunha waters

The island's main source of income comes from the Marine Stewardship Council (MSC) certified **lobster fishery**. **Finfish, octopus, and lobster for the plate** are caught using hand-lines, trolling and traps, mainly around Tristan Island. The crew of licensed vessels are also allowed to catch fish to eat, using hand-lines or rod-and-line. Since 1997, **a seamount fishery** has licensed longline and trawl vessels targeting fish living on or near the seabed - mainly alfonsino until 2003, and subsequently bluenose warehou. Under TdCG's Marine Protection Strategy, bottom trawling is no longer permitted anywhere in the TdC EEZ. **Tuna fishing** has been licensed in the TdC EEZ from time to time but under the Marine Protection Strategy, large-scale commercial tuna fishing is now banned throughout the TdC EEZ. **Tourist ships** arrive between 5-10 times per year. International transport ships regularly cross through the EEZ, a third of these passing within 50 nm of the islands.

Threats to the health of the Tristan da Cunha marine environment

Without careful fisheries management, fish stocks are vulnerable to **overfishing**. Previous external audits by the Marine Stewardship Council recognise that TdCG is successfully managing its lobster fishery but historic catches of finfish in the seamount fishery have likely been above sustainable levels. **New management measures have been introduced through the Seamount Fishery Management Plan to ensure long-term sustainability of the seamount fishery**.

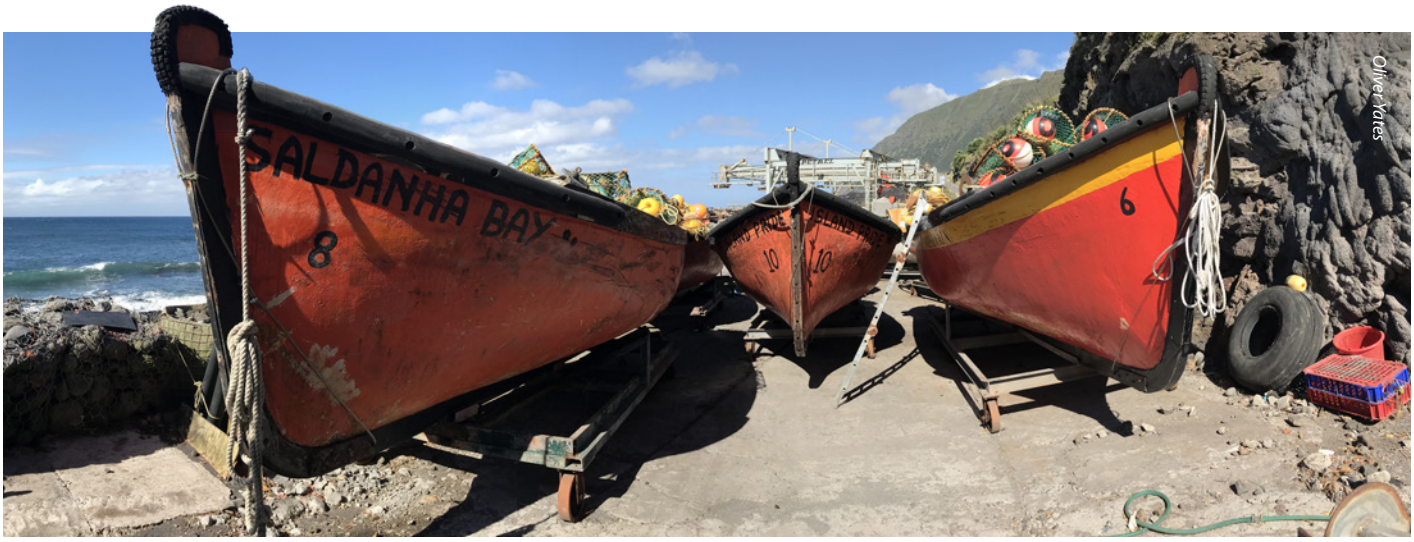
Bottom trawling is considered as one of the most damaging types of fishing in vulnerable areas, and in recent years trawling for bluenose warehou on TdC's seamounts has resulted in **unsustainable catches, and damage to seafloor habitats. Bottom trawling is now banned throughout the EEZ.**

Fishing can also cause **injury or death** to seabirds, sharks and marine mammals. Seabirds can become hooked and drown on longlines before the lines sink to the seabed, as well as being injured during hauling if they get tangled in the lines. Sharks living on or close to the seabed are vulnerable to being caught by longline gear and may die before they can be returned to the sea. **TdCG have introduced several technical measures to reduce the risk of incidental interactions during fishing operations.**

Illegal, unreported, and unregulated (IUU) fishing is a risk for TdC and could undermine TdCG's marine conservation efforts. Ongoing satellite surveillance has shown that at particular times of year, high levels of fishing vessel activity near the outer edges of the EEZ may present a risk for TdC.

Plastics from international and local sources are also a threat, but the impact of this is unclear.

Oliver Yates

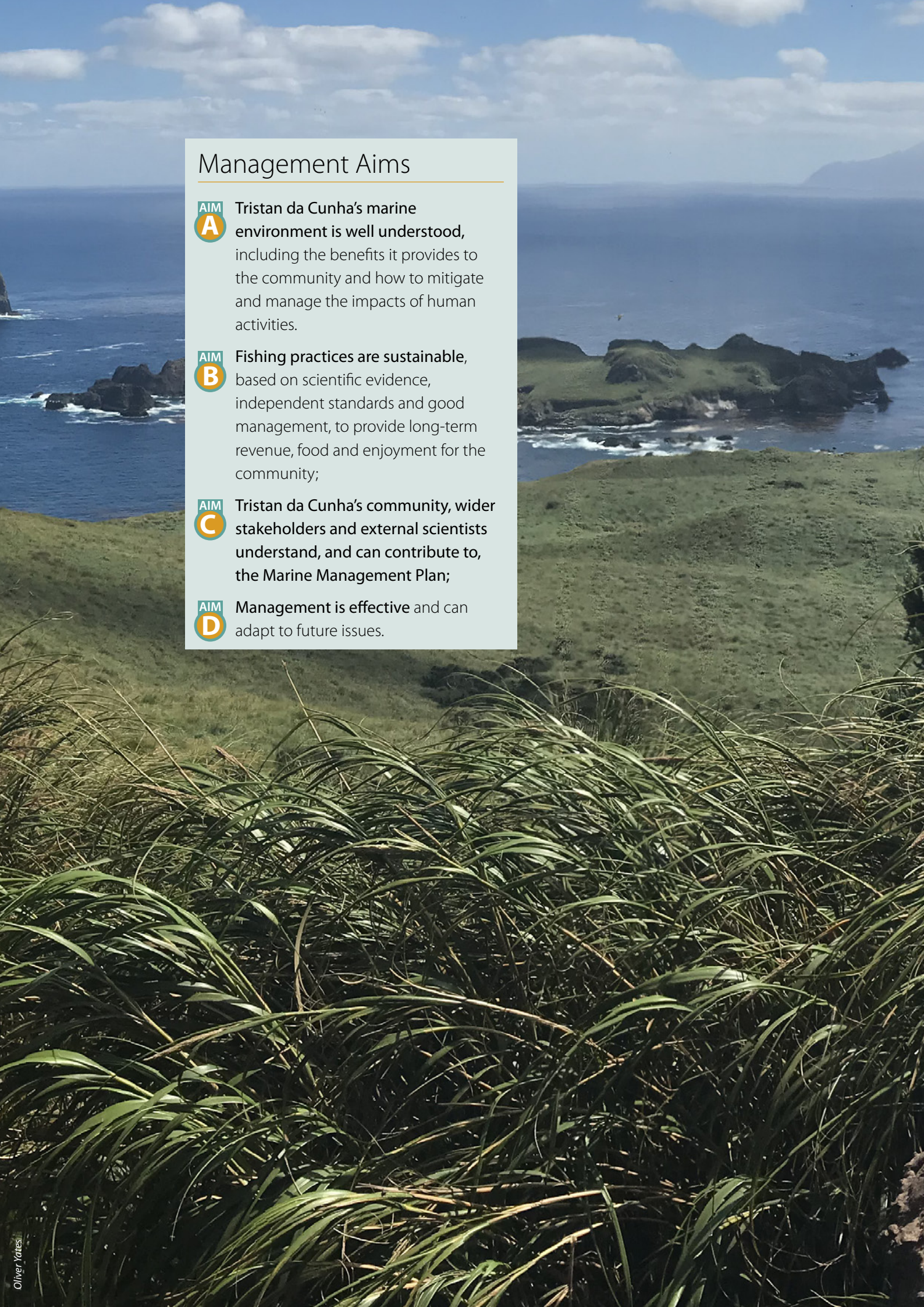


The cargo vessel *Oliva* ran aground on Nightingale Island in 2011, causing **marine pollution,** which had a significant impact on TdC's environment and revenue. The fishing vessel *Geo Searcher* sank off Gough Island in October 2020 and there remains a potential threat from pollution to the local economy and wildlife. In April 2020, two ***Recommended Areas To Be Avoided*** (ATBAs) for cargo vessels were established within the TdC EEZ to reduce the risk of marine incidents and associated pollution events. Satellite surveillance of these ATBAs and vessel activity in the TdC EEZ is underway; see the Compliance and Enforcement Strategy for more information.

Invasive non-native (or 'alien') species can damage ecosystems, endanger native species and harm economic activities. Through ships exchanging their ballast water at sea or ocean currents, 14 known alien marine species have been introduced to TdC waters. A biosecurity action plan exists to address the risk of introducing non-native species to TdC via tourist vessels.

Managing and regulating the Tristan da Cunha EEZ

- The TdCG Fisheries Department manages marine resource use, while the TdCG Conservation Department is responsible for terrestrial and marine conservation initiatives.
- TdC Territorial Waters, from the 'low-tide line' out to 12nm, have been established under the *St Helena and Dependencies (Territorial Sea) Order 1989* and the EEZ was established from the 'low-tide line' out to 200nm in July 2017.
- All Management Zones are set out in TdCG's fisheries legislation and regulatory framework, except for the *Recommended Areas To Be Avoided*, which are designated as voluntary management zones by TdCG.
- Two Regional Fisheries Management Organisations manage the tuna fisheries in the waters in which TdC is situated: the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). Large-scale commercial tuna fishing is now banned throughout the TdC EEZ.



Management Aims

AIM A **Tristan da Cunha's marine environment is well understood,** including the benefits it provides to the community and how to mitigate and manage the impacts of human activities.

AIM B **Fishing practices are sustainable**, based on scientific evidence, independent standards and good management, to provide long-term revenue, food and enjoyment for the community;

AIM C **Tristan da Cunha's community, wider stakeholders and external scientists understand, and can contribute to, the Marine Management Plan;**

AIM D **Management is effective** and can adapt to future issues.

Oliver Yates

Management Zones within the Marine Protection Strategy

The Tristan da Cunha EEZ has several different management zones designed to achieve effective marine conservation and resource use (Figure 8). This section describes each of these management zones[25] and the rationale for the activities permitted or restricted in each zone.

Marine Protection Zone

687,000 km^2 of Tristan's marine environment (91% of the EEZ, which is all waters not within Inshore or Seamount Fishing Zones) has been established as a *Marine Protection Zone* with **no extractive activities permitted**.

Recommended Areas To Be Avoided

Areas within 25 nm of the Tristan da Cunha islands have been established as *Recommended Areas To Be Avoided* (ATBAs) for cargo vessels over 400 gross tonnage, **to encourage shipping traffic away from inshore habitats**.

Inshore Fishing Zones

The area from the shore to 50 nm around the Tristan da Cunha islands and to 40 nm around Gough Island (covering 59,000 km^2 and 8% of the EEZ) has been established as *Inshore Fishing Zones*, which:

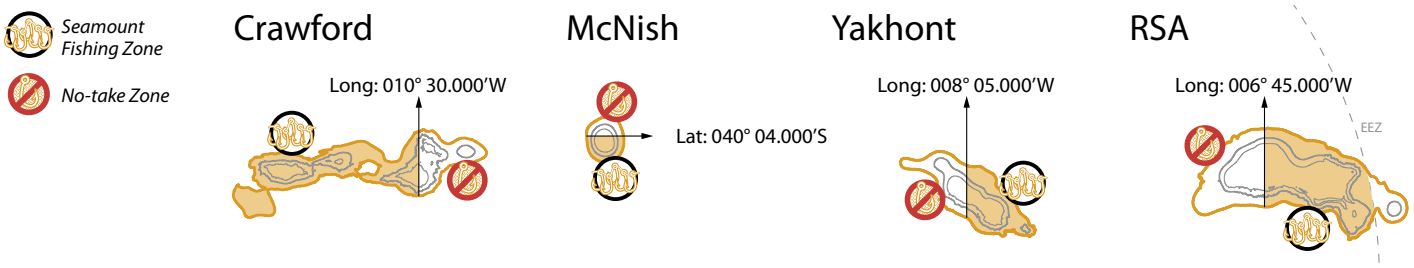
- **Permit sustainable commercial lobster fishing (as at present)**
- **Permit subsistence fishing by the local community**
- **Permit future sustainable small-scale commercial fisheries**
- **Prohibit bottom trawling**

Seamount Fishing Zones

Across parts of each previously fished seamount, *Seamount Fishing Zones* have been established from the surface down to 3,000 m (covering 11,000 km^2 in total and over 85% of fishable areas), which:

- **Permit sustainable demersal longline fishing**
- **Prohibit bottom trawling**

Seamount management zone boundaries



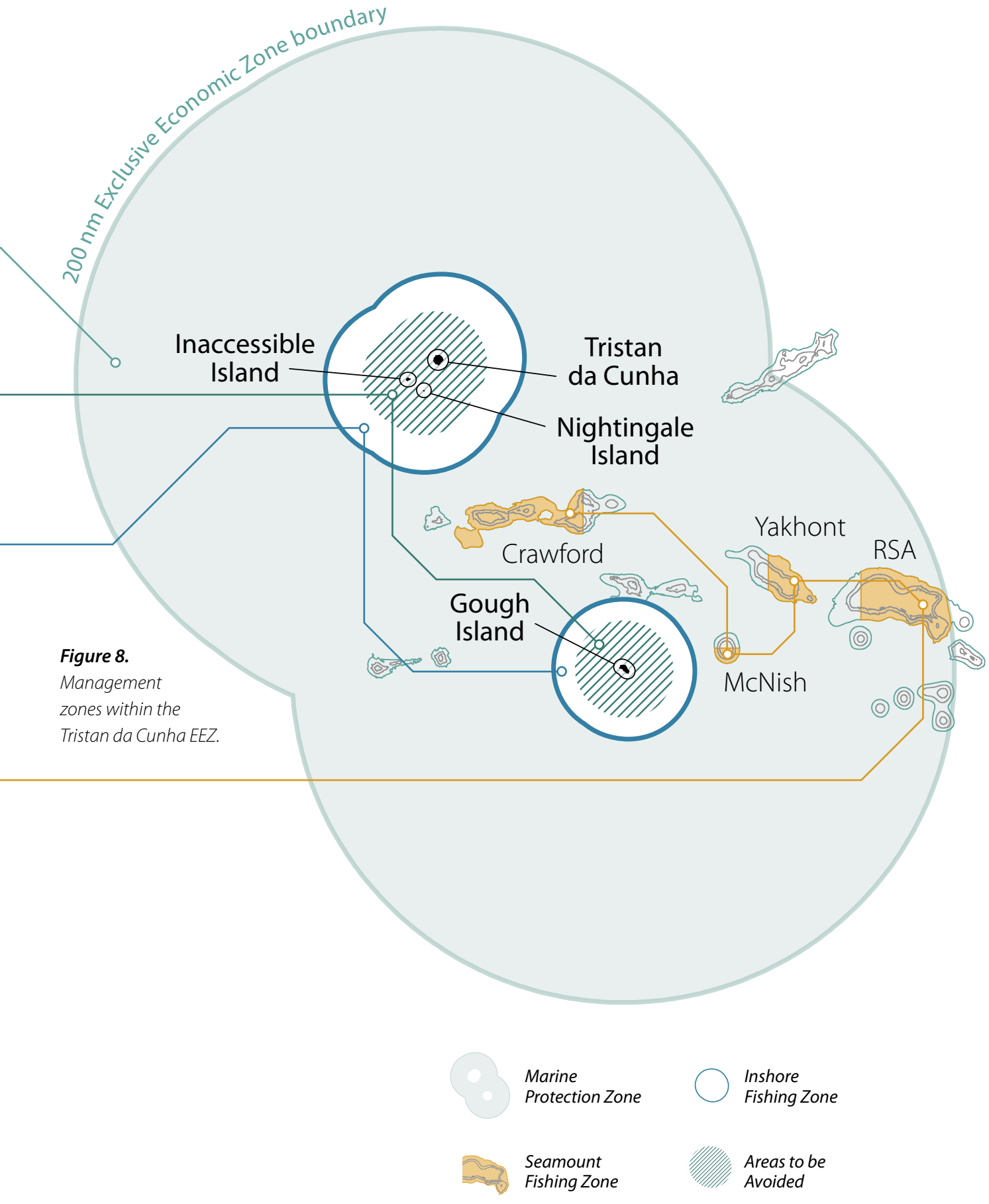


Figure 8.
Management zones within the Tristan da Cunha EEZ.

Scott Hamilton

Management aims, objectives and actions

The **Aims** of the Marine Management Plan are achieved through **Objectives**, which in turn are achieved by a series of specific **Actions.**

Tristan da Cunha's marine environment is well understood, including the benefit[1] it provides to the community and how to mitigate and manage the impacts of human activities;

Objective A1. Research and monitoring are conducted to support ongoing management

i. Establish a scientific research and monitoring plan that ensures that external scientists and stakeholders contribute directly or indirectly to enhancing knowledge and improving management

ii. Conduct scientific research surveys to establish baseline and monitoring information

iii. Initialise inshore surveys to monitor health of biodiversity and key habitats

iv. Monitor populations of key species (seabirds, sharks, marine mammals, lobster, kelp)

v. Monitor species living on seabed of previously trawled seamounts to track habitat recovery

vi. Identify the potential risk of current and predicted impacts of climate change on marine resources, habitats and ecosystems

vii. Identify, and where possible value, the benefits the marine environment provides for the community

Objective A2. Risks from marine emergency incidents and pollution are kept to a minimum

i. Adopt and implement measures within the Compliance and Enforcement Strategy to monitor and manage ATBA compliance by transiting cargo ships

ii. Adopt a clear safety standards policy for cruise and expedition vessels to minimise risks

iii. Ensure all fishing vessels follow relevant safety obligations and regulations

iv. Develop a plan to deal with marine pollution emergencies and identify equipment and training needs

v. Collect and record marine litter to better understand sources, minimise damage and increase awareness

vi. Develop a solid waste management strategy for Tristan Island to minimise local sources of marine litter and plastics entering the sea

vii. Develop and implement long-term monitoring protocols for MV Geo Searcher wreck site

Objective A3. Risks of invasive non-native species introduction are kept to a minimum

i. Sample for marine alien species and take action to control new threats if possible

ii. Develop and adopt clear biosecurity policies for cruise and expedition vessels visiting TdC

iii. Assess the level of risk posed by ballast water exchange from vessels visiting TdC's EEZ and take recommended measures if medium, high or very high-risk vessels are identified

1 Marine environments provide food and jobs (fish and fishing), transport (shipping), enjoyment (pleasure fishing) and the sea may be an important part of human culture and identity (seafaring nations or fishing communities). The sea also provides important benefits that are not so obvious, such as helping to regulate the global climate by storing vast amounts of carbon. These benefits are often referred to as 'ecosystem services'. Alongside habitats and species, ecosystem services are important to identify and protect to ensure everyone can benefit from them in the future.

AIM B **Fishing practices are sustainable, based on scientific evidence, independent standards and good management, to provide long-term revenue, food and enjoyment for the Tristan da Cunha community;**

Objective B1. Target species (and other commercial species caught in the process) are managed to ensure long-term sustainability

i. Adopt recommendations from MSC audit and include in the Lobster Management Plan

ii. Implement a management plan for the bluenose warehou fishery

iii. Monitor main inshore fish species caught by islanders for the plate to understand if this is impacting on stocks

Objective B2. Fishing operations are effectively monitored and enforced to ensure compliance with fisheries regulations

i. Licensed fishing activity has surveillance and inspections

ii. Licensed fishing is effectively monitored by onboard observers or suitable technology

iii. Undertake surveillance and enforcement of licensed vessels and to control Illegal, Unreported and Unregulated (IUU) fishing in the EEZ

iv. Ensure that any reporting obligations (e.g. ICCAT, CCSBT, ACAP) are met

Objective B3. Fisheries management and licensing processes are clear, and the relevant information is made accessible

i. Make key fisheries management documents (licence conditions, dispute resolution process etc) publicly available, as practical, to demonstrate good practices are followed

ii. Develop a licence application pack and selection process to ensure applicants understand how and why decisions have been made

Martin Collins


Andy Schofield

Tristan da Cunha's community, wider stakeholders and external scientists understand, and are able to contribute to, the Marine Management Plan;

AIM C

Objective C1. An outreach programme informs collaborative scientific research, improves marine management decisions, builds capacity and informs the community

i. Inform and update the local community and wider public about the TdC Marine Protection Strategy

ii. Produce information for tourists on the Marine Protection Strategy

iii. Promote the Marine Protection Strategy to external stakeholders and the wider international public

Management is effective and can adapt to future issues

AIM D

Objective D1. Appropriate frameworks are in place to ensure effective management

i. Enact MPZ Ordinance and associated secondary legislation, amend Fishery Limits (Tristan da Cunha) Ordinance, 1983 to ensure enforcement of Marine Protection Strategy

ii. Establish a panel to review the Marine Protection Strategy and Management Zones

iii. Conduct a baseline and regular management effectiveness assessments

iv. Revise Marine Management Plan to incorporate review and assessment findings

The review process

To ensure the Marine Management Plan fulfils its objectives, it will be reviewed every five years to assess progress and updated where necessary. The review process will involve an Advisory Committee made up of representatives from TdCG, the wider community and relevant industries, stakeholders and experts. The process will be clearly set out and done openly, using local and international scientific research.


Scott-Hamilton

Further information

The full **Marine Management Plan** contains more detail, including indicators and targets for management actions, and lists of species, relevant legislation, and key stakeholders. Several other plans and strategies complement the Marine Management Plan:

Seamount Fisheries Management Plan
– stock assessment details and more detailed objectives, activities and targets associated with the TdC seamount fishery.

Compliance and Enforcement Strategy
– describes the activities required to ensure fisheries and shipping activities are appropriately managed in accordance with the relevant legislation and policies, including ongoing satellite monitoring of vessel activity and ATBAs within the TdC EEZ. The strategy also describes how the Blue Belt Surveillance and Intelligence Hub (BBSIH) will provide TdCG with assistance in compliance and enforcement activities.

Operational Plan
– describes the management actions that need to be carried out in order to meet objectives within the Marine Management Plan, Seamount Fisheries Management Plan and Compliance and Enforcement Strategy over the course of a financial year.

James Glass

With thanks to the many organisations and individuals who have supported the development and implementation of this plan. Please see the full Marine Management Plan for more details.

For more information, please contact: *tdcenquiries@tdc-gov.com*

Andy Schofield

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