# The Ascension Island Marine Protected Area

Annual Review



2023-2024





#### At a glance

- Effective monitoring of Illegal, Unidentified and Unreported (IUU) fishing and compliance: 31 potential incidents detected
- Prolonged March—May 2024 Marine Heatwave Event visible in satellite and in-situ logger data
- Estimation of baseline values for fisheries and habitats well into development
- Bathymetry, substrate and habitat mapping completed for nearshore (10-300m depth)
- Ongoing biosecurity monitoring constantly improving and becoming an effective early warning system for alien and invasive species
- Inshore fisheries management steadily advancing
- Science output and collaboration growing
- Overall progress on year 3 goals—38% of targets met, 52% in progress, 10% with little/no progress

Ascension Island Marine Protected Area Annual Review for period: January 2023 – December 2024

Ascension Island Government

The Ascension Island Marine Protected Area Management Plan sets out how the area will be managed over the five years between 2021 and 2026. Four years in, this review summarises the progress that has been made so far while highlighting some of our outcomes to date. It is split into three sections:

## What we've done

The MPA management Plan lists 22 actions to be completed by 2026. Each action has a target to be achieved by the end of Year 1 and by Year 5. How we are progressing with these actions?

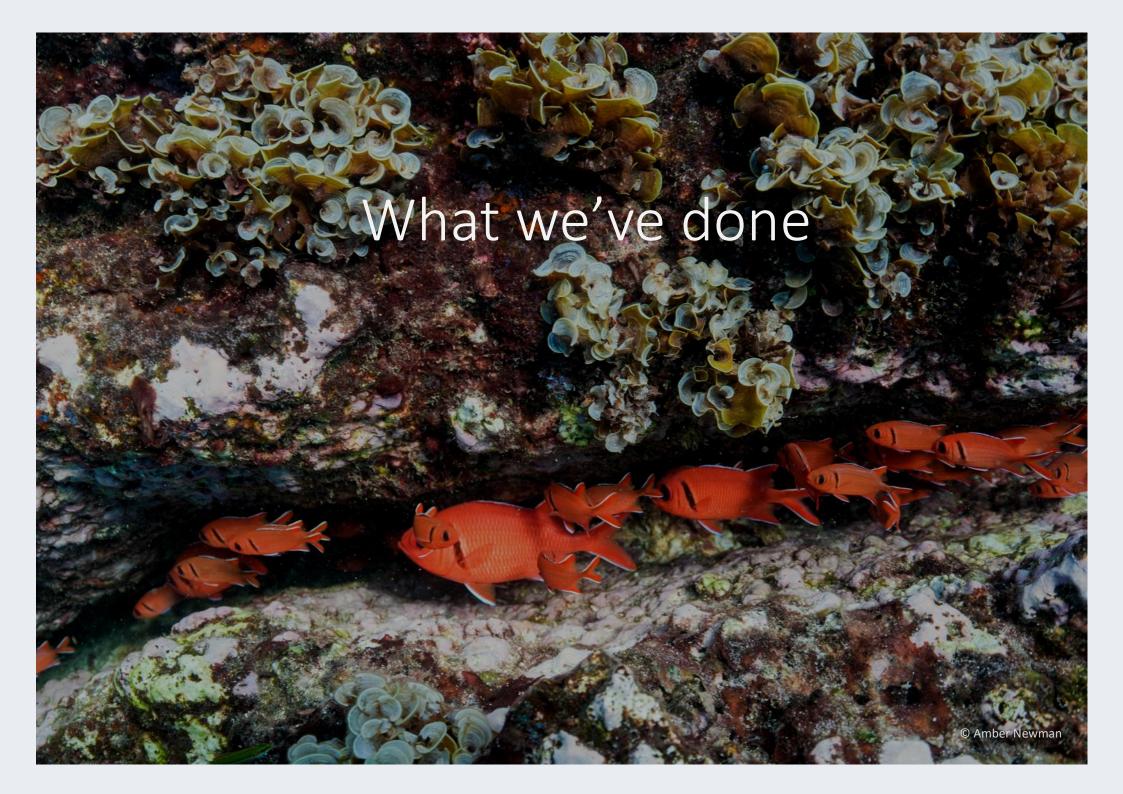
# What we've learnt

There are 16 priority areas for research listed in the MPA Monitoring, Evaluation and Research (MER)

Strategy, and the aim is to publish results from all of them by 2026. What progress have we made by the end of year 4?

# What we've achieved

The ultimate measure of the MPA's success is how well we are achieving its four strategic objectives and the 21 operational objectives that sit beneath them. Progress and achievements are summarised with some project highlights shown in more detail.

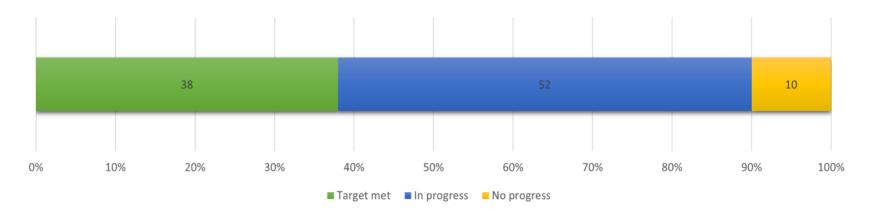




Action	Progress	Year 3 target		Updated target
Prevent illegal offshore fishing	AIS and satellite monitoring of MPA shown to be effective against IUU. Enforcement procedures in development.	Surveillance system shown to effectively detect illegal vessels. Procedures for enforcement action agreed with MMO.	••••	Conduct compliance audit. Include summary of detections in review.
2. Monitor new threats to MPA habitats	Threat monitoring active using multiple approaches: eDNA, DropCam, hull surveys. Annual threat assessment not published.	Threat assessment updated.  Monitoring in place for all major threats.	••••	Published threat assessment in final review with appropriate update in Annual workplan.
3. Regulate and manage inshore fisheries	Inshore Fisheries Strategy published. Legislation and license conditions in review. Management strategy adopted but low uptake. Monitoring in place for most fished species.	Inshore Fisheries management system and legislation introduced.  Monitoring in place for all fished species.		Achieve 30% logbook/tag return compliance. Motivate development for Fishers Association. Distribute information guides.
4. Implement Marine Pollution Control Plan	No progress. Oil spill and emergency response training by Ambipar.	Marine pollution control plan published and pollution response capability assessed by MCA.		Marine pollution response plan drafted. All stakeholders consulted and trained.
5. Review Protected Areas legislation	National Protected Areas Ordinance updated. No progress to updating of Harbours Ordinance.	National Protected Areas Ordinance updated.		Review and update Harbours Ordinance. Review and update Wildlife Protection Ordinance.
6. Determine presence of potentially distinct sub-populations	No progress	Prepare research plan. Secure partners and funding.		Identify partners. Prepare research plan. Secure partners and funding.
7. Control developments in or near the MPA	EIAs routinely carried out for AIG developments and particularly with regard to developments within MPA	EIAs routinely carried out for all AIG developments. EIAs required for all development proposals in MPA.		Receive scoping review to develop policy pertaining to developments within MPA and EIA requirements
8. Non-native species control	Ongoing eradication of non-native flora and rodent control in coastal nature reserves and buffers.	Eradication of non-native shrubs and routine rodent control in coastal nature reserves and buffers.		Ongoing non-native eradications and rodent control in coastal nature reserves and buffer areas.
9. Biosecurity controls	Biannual eDNA sweeps of whole island. Monthly monitoring of settlement plates or pads. Biosecurity declarations and hull inspections routine practice.	Regular eDNA surveillance monitoring. All visiting vessels make biosecurity declaration and 10% inspected.		Regular surveillance monitoring using eDNA and video transects. Hull inspections of 50% visiting vessels.
10. Conduct regular litter clearance	Beach cleans carried out. Data collected and used in plastics report.	Six beach cleans involving a minimum of 100 people. Data on litter levels uploaded to international databases.	••••	Two beach cleans and coastal plastics survey annually.
11. Restoration of turtle nesting beaches	Natural and man-made barriers removed from Long Beach.	All concrete structures and tree roots removed from Long Beach. Plan to remove barriers to migration form one beach in place.		Obstructions at nesting beaches removed or maintained free from barriers.

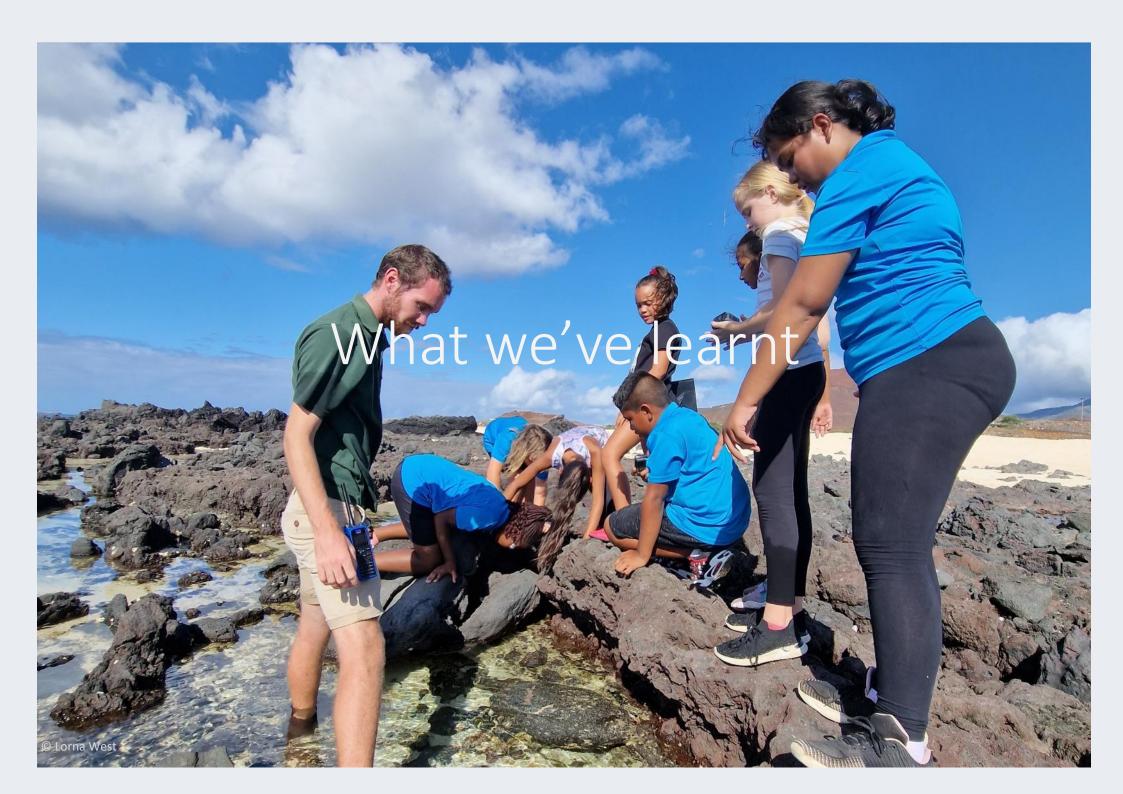
Action	Progress	Year 3 target		Updated target
12. Tourism development strategy	On Hold	On hold pending outcome of Future of Ascension decision.	••••	Tourism restricted on island into foreseeable future. Action unlikely to progress.
13. Guidance and regulations for sports fishing and ecotourism	Inshore fisheries legislation and license conditions drafted and review by Island Council pending.	Inshore Fisheries legislation drafted and enacted. License conditions for sports fishing companies in place.	••••	Inshore fisheries legislation enacted following island council and stakeholder consultation.
14. Develop Ascension as a scientific research hub	Proposal has undergone review with major adjustments. Promotional material drafted.	Promotional package completed.  Market research with academic institutions identify gaps in provision.	••••	Finalise and distribute engagement resources to potential funders. Identify and cost existing buildings for renovation.
15. Ascension Island public engagement campaign	Annual marine festival engages with large proportion of community.  Good interaction with outreach and social media actions. Public  Engagement Strategy not finalised.	All priority actions in the Public Engagement Strategy implemented. At least 200 people engage in MPA events.	••••	Maintain rates of engagement and encourage participation in community in focused events. Finalise Public Engagement Strategy.
16. Global public engagement campaign	Social media posts and shorts reach wide audience with good interaction. Public Engagement Strategy not finalised.	All priority actions in Public Engagement Strategy implemented. At least 100 social media posts produced.	••••	At least 100 social media posts and 20 shorts posted. Finalise Public Engagement Strategy.
17. Sustainable financing strategy	Collaboration has been established but progress has been slow.	Collaborate with BB Finance Hub to identify areas of sustainable finance.	••••	Implement feasible options for reducing reliance on UK Government funding for MPA management costs.
18. Strengthen governance structures	Advisory committees not inputting into workplan reviews but Blue Belt leads actively involved in workplan development	All MPA Advisory Committees established and inputting into workplan reviews.		Internal review of annual workplans with input from territory leads or other experts.
19. Effectively enforce regulations	Offshore monitoring and enforcement effective, inshore lagging and regulations pending	Regulations enacted and being enforced by warranted officers. Effective surveillance of offshore illegal fishing.		Regulations enacted and being enforced by warranted officers. Ongoing surveillance by MMO.
20. Meet International obligations	ICCAT billfish regulations being added to ordinance. Logbooks distributed but poor uptake.	ICCAT minimum landing sizes for billfish enforced. Logbooks returned from at least 20 fishermen.	••••	ICCAT minimum landing sizes enacted and enforced. Logbooks returned by at least 10 fishermen.
21. Data management system	Data management review completed by Marine Biological Association.	Develop plan for new data management system.	••••	Move toward 'hybrid' data management system. Code of conduct produced and followed by all staff.
22. Monitoring and evaluation regime	MER strategy guides workplan and daily activities.	Implementation of the Monitoring, Evaluation and Research Strategy, with monitoring linked to all objectives.	••••	Analyses and communication of monitoring and research findings with community

# Summary of action delivery



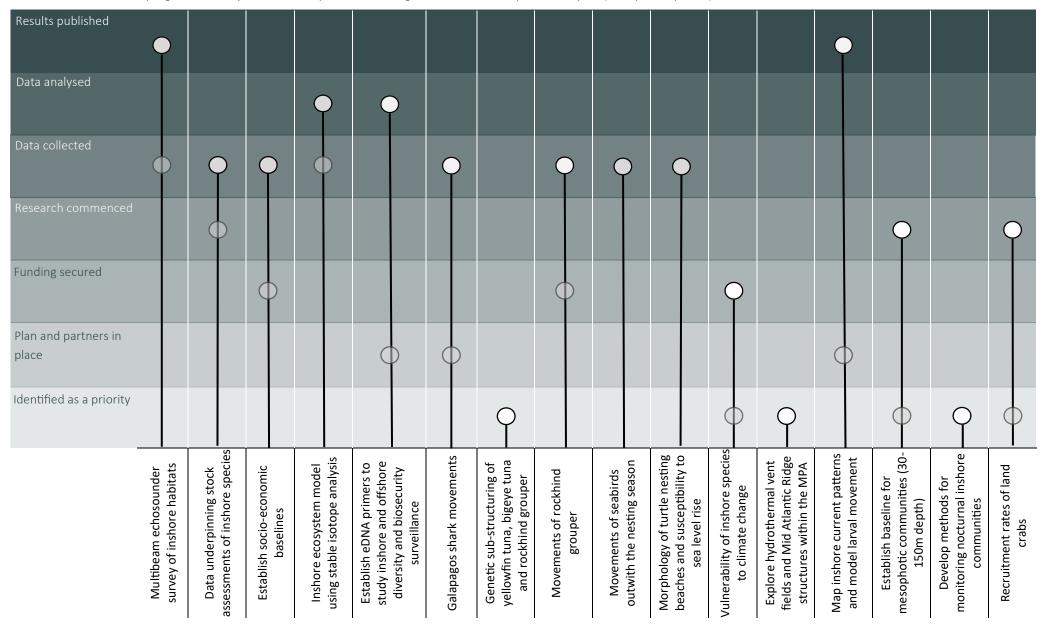
In Year three we have achieved 38% of the action targets and made substantial progress against a further 52%. That leaves 10% (two actions) where little or no progress has been made. In some cases this has been due to factors beyond our control, but where possible we will redouble our efforts to get these actions back on track.

Action	Year 3 target	Barriers	Measure to improve delivery
4. Implement Marine Pollution Control Plan	Marine pollution control plan published and pollution response capability assessed by Maritime and Coastguard Agency (MCA)	Following substantial improvements to AIG waste management processes the draft Marine Pollution Management Plan requires amendments before publishing.	<ul> <li>Finalization of Marine Pollution Management Plan which includes recommendations from Darwin funded South Atlantic Plastics Project (DPLUS176).</li> <li>Develop emergency response plan for oil spills following recommendations by Ambipar.</li> </ul>
6. Determine presence of potentially distinct sub-populations	ldentify potential research partners.	Requires sample collection by partners outside of Ascension, who may not share this priority. Samples of pelagic species will be challenging without ICCAT involvement.	■Target sample collection from Ascension and St Helena first.  ■Build regional relationships by taking part in Mission Atlantic and other ocean-wide projects.



#### Progress on research priorities

16 priorities for research are identified in the MPA Monitoring, Evaluation and Research Strategy. The aim is to make substantial progress toward gathering reliable results before 2026. This section summarizes progress made by Year 3 in comparison with targets achieved in the previous report (transparent points).



# Progress on research priorities—summary

Research topic	Progress
Multibeam echosounder (MBES) survey of inshore habitats	Royal Navy vessel HMS Protector conducted MBES survey in deep water (>200m depth) around Ascension. British Geological Survey conducted shallow water seafloor mapping covering remaining area around the island and into the shallows (typically <10m depth). Video transects were used to classify backscatter intensity to create geomorphology, substrate, and habitat maps up to depths of 300m. Full report and GIS layers are with AIG and this work is being published by BGS in collaboration with the CFD.
Data underpinning stock assessments of inshore species	Collections of otoliths and other biological material is ongoing from recreational and opportunistic catches for various species. Otoliths have been sectioned and aged for rockhind, spotted moray, and wahoo with age-and-growth models being produced. This work is ongoing with continuous refinements being made. Mark-recapture has began for rockhind with aim to inform growth, movement and stock assessments. CPUE data simultaneously being collected from timed fishing events. Gonad assessments need to be carried out to determine maturity and fecundity for all targeted species but rockhind which has previously been carried out.
Establish socio-economic baselines	Baseline assessment on social aspects of MPA completed. Scope remains for evaluation of economic importance.
Inshore ecosystem model using stable isotope analysis	480 isotope samples collected and processed from 52 species. Stomach contents from at least eight fish species have been visually and genetically identified. Further analysis of data required before ecosystem model finalized.
Establish eDNA primers for the study of inshore and offshore diversity and biosecurity surveillance	Darwin Plus project (DPLUS165) developed and finalized processing and techniques for rapid identification of marine species in inshore and offshore waters and is being used as a biosecurity screening tool.
Galapagos shark movements	Acoustic receiver array around island in place since March 2023 with a total of 41 Galapagos sharks acoustically tagged and tracked around the island from March 2023. Galapagos sharks shown to be resident to the island throughout the year, particularly to the south, but periodic shallow water occupation appears to be related to environmental variables. Analyses and report in development.
Genetic sub-structuring of yellowfin tuna, bigeye tuna and rockhind grouper	Yellowfin tuna and rockhind grouper samples being taken and stored from the recreational catch on Ascension. No partners yet identified but international collaborators necessary to gather samples from abroad and carry out the genetic analysis.
Movements of rockhind grouper	Residency and home range size estimates determined using acoustic telemetry (work published). Mark-recapture work in progress to estimate larger scale movements around the island which may be associated with spawning activity and/or replenishment of fished areas.

# Progress on research priorities—summary

Research topic	Progress
Movements of seabirds outwith the nesting season	The Darwin funded Protecting Seabirds Across Borders Project (DPLUS195) is underway to understand the year-round distribution of adult and juvenile seabirds and their interaction with fisheries beyond the MPA boundaries.
Morphology of turtle nesting beaches and susceptibility to sea level rise	Routine aerial drone surveys being undertaken to monitor rates of erosion and deposition.
Vulnerability of inshore species to climate change	Climate change container lab has been procured and is on island. Experiments to understand the thermal tolerance of various marine organisms expected to take place beginning 2026.
Explore hydrothermal vent fields and Mid Atlantic Ridge structures within the MPA	An application has been submitted by the University of the Azores in collaboration with AIGCFD and other project partners to the Schmidt Oceans Institute for a research cruise on the RV Falkor in 2027. The aims of the cruise would include exploration and characterization of the hydrothermal vent communities along the southern Mid-Atlantic Ridge and linking them to their northern counterparts.
Map inshore current patterns and model larval movement	Inshore current and particle distribution models created by University of Plymouth and the Coastal Marine Applied Research Lab. Dispersal patterns of simulated crab larvae and plastics already completed with reports available.
Establish baseline for mesophotic communities (30-200m depth)	The Darwin funded Mesophotic Project (DPLUS213) is underway and aims to investigate species and habitat compositions in mesophotic waters from 30 to 200m depth.
Develop methods for monitoring nocturnal inshore communities	No progress. The monitoring of nocturnal communities is considered unsafe although remote monitoring techniques will continue to be investigated.
Recruitment rates of land crabs	While there is no progress investigating the recruitment rate of land crabs onto land, the long-term monitoring of spawners has begun. Alternative methods for estimating recruitment need to be assessed.



# Summary of Progress Toward Strategic Objectives (2022-2024)

Strategic Objective	Progress since year 1
To conserve Ascension Island's marine biodiversity, habitats and ecological function for long-term ecosystem health	Monitoring capacity has expanded since Year 1. eDNA sampling is being carried out biannually around the island and is informing a growing species inventory—particularly for cryptic taxa. Remote Underwater Video (RUVs) surveys are also conducted every six months, while acoustic telemetry was introduced in 2023 to monitor shark movements. Analysis of rockhind movements using acoustic telemetry has been completed, providing estimates of home range and site fidelity.  A comprehensive climate change review was completed, highlighting the environmental changes expected to occur over the next century. Combined monitoring using hydrophones, dropcams, and RUVs is underway to detect community shifts from potential environmental stressors, including invasive species monitoring. Multibeam echosounder surveys were completed across inshore areas (10–300 m), supported by ground-truthing with camera transects. Habitat classification and mapping are complete, with GIS layers available.  Offshore protection remains effective thanks to the Marine Management Organisation's surveillance system which continues to detect and deter illegal, unreported, and unregulated (IUU) fishing activity. Rapid communication with flag states has led to vessels withdrawing quickly after entering the MPA boundary.
2. To support the sustainable development of social and economic activities in the MPA that are compatible with protection of the marine environment	The Inshore Fisheries Strategy has been developed and published, outlining management objectives and proposed licensing, logbook, and enforcement mechanisms. However, associated regulations are still under development and have not yet been enacted into law. Logbooks continue to be distributed, but uptake has been minimal, with no returns to date.  Environmental screening and EIAs are regularly carried out for any proposed activity in or near to protected areas although the necessary policy is yet to be completed.  A shark barrier feasibility study is nearing submission for review by the island administration and local Island Council, as a response to community concerns about ocean safety and access.  Finally, a baseline community use and perception assessment has been completed, alongside qualitative data collection as part of the shark barrier project. These datasets provide insights into how residents interact with the MPA and perceive the state of environment and species like sharks.

# Summary of Progress Toward Strategic Objectives (2022-2024)

Strategic Objective	Progress since year 1
3. To promote scientific research and share knowledge about Ascension Island's marine biodiversity in order to encourage support for marine conservation locally and internationally	Scientific research under the MPA has continued to expand, with at least 10 peer-reviewed publications produced between 2021 and 2024. Ongoing partnerships with institutions such as the Zoological Society of London, University of Exeter, CEFAS, Plymouth Marine Laboratory, and the MMO have supported collaborative projects across multiple disciplines—from fish ecology and oceanography to climate and particle dispersal modelling.  Field-based research is ongoing, with 6-monthly deployments of RUVs, dropcams, and eDNA sampling, providing vital biodiversity and habitat data across both inshore and deeper habitats. This is in addition to regular monitoring of plankton, ocean variables, recreational fishers catches and biological data collection.  Public engagement has remained a key focus, with an active MPA Youth Committee regularly engaging with local students, and public events hosted by visiting researchers in fields such as shark ecology, marine geology, and oceanography. The annual Ascension Island MPA Marine Festival was successfully delivered engaging with local fishers and the community at large.  The local DNA laboratory has supported training for staff and educational activities for school students. Fish dissections have also been carried out for local school children. Datasets on fish kills, fish abundance trends, and ocean climate have been shared with scientific partners and are feeding into both research outputs and local management.
4. To achieve effective governance and management of the MPA that is transparent and underpinned by sustainable financial and human resources	The governance structure for the MPA has seen some changes. While the MPA Steering Group does not actively contribute to governance, key documents and legislative proposals are reviewed by the Island Council, whose approval remains essential for implementation.  Staff turnover since Year 1 has produced challenges, although temporary staff, from Darwin-funded projects, have enabled the expansion of research and monitoring capacity on a project-by-project basis.  Core funding for four staff members has been secured for the next five years, ensuring some continuity in management of the MPA. The team has also successfully secured external grants, which have supported critical projects such as shark ecology, habitat mapping, and fisheries assessments.  The Monitoring, Evaluation and Research (MER) Strategy is mostly implemented, with work actively underway to establish ecological baselines and monitoring thresholds. There remains scope for internal assessments on the performance of the team and the management activities.  Progress has been made on the legal and regulatory front, with several pieces of draft legislation in development, including species protection, fisheries management, and adoption of ICCAT recommendations related to pelagic species such as billfish.

**Strategic Objective 1.** To conserve Ascension Island's marine biodiversity, habitats and ecological functions for long-term ecosystem health—Overview of methods

Monthly plankton sampling identifies species and abundances over time and tracks seasonal trends

eDNA metabarcoding of water samples reveals the species present and seasonal trends

Encrusting species establish on settlement panels and can be identified by metabarcoding

Hydrophones record soundscape of inshore habitats and identify some individual species

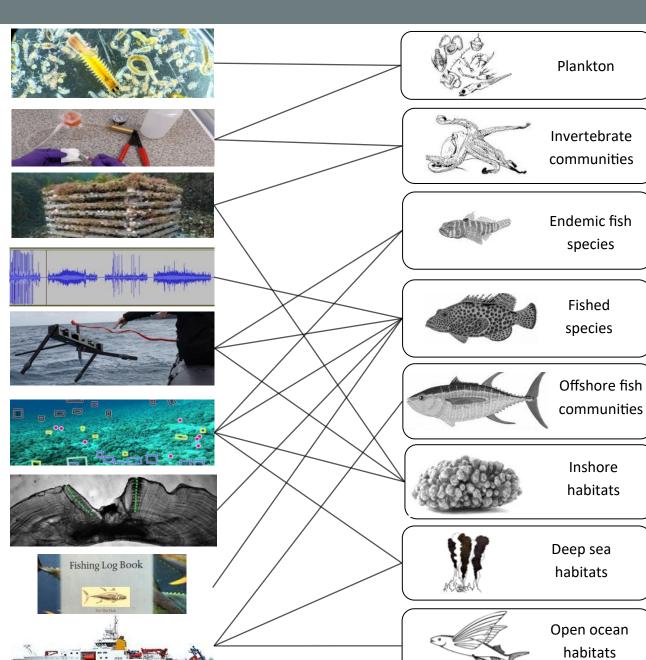
Remote cameras capture images of active species in inshore and offshore habitats

Shallow and deep-water dropcams record communities and benthic habitats

Otolith analysis determines age and growth of fished species

Logbooks capture fishing data allowing catch per unit effort estimates

Offshore cruise deploying mid-water trawls, towed cameras and benthic grabs



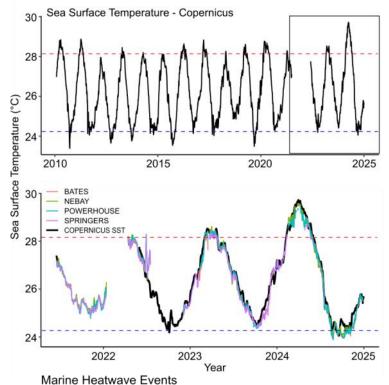
1c. No loss of species and no reduction of species abundance or ecosystem complexity in offshore areas

#### 1g. No reduction in the extent or condition of key habitats

#### Climate change—ongoing monitoring of marine environment

Sea temperature is a master driver of the marine environment. By pairing satellite sea-surface temperature with in-situ loggers at local inshore sites, we get both the big picture and local, small-scale insights. This gives us a reliable baseline for normal seasonal change and variability, an early-warning system for marine heatwaves, and crucial context for everything else we measure from RUV fish communities and eDNA detections to inshore catch rates and occasional fish-kill reports. In short, temperature underpins our MER indicators and helps explain when and why the ecosystem shifts.

Long-term satellite data shows a strong, predictable seasonal cycle, but with warm anomalies increasing in frequency in recent years culminating in a notable 2024 marine heatwave. Our loggers closely track the satellite series, so we can be confident the warming we see is real inshore, not just offshore. That 2024 event is concerning because prolonged thermal stress can destabilize ecosystems, result in disease, low-oxygen events, and community re-shuffling favoring heat-tolerant or opportunistic species and altering predator-prey dynamics. For management, this means two things: (1) we should treat "heatwave periods" as triggers for intensified post-event surveys (dropcams, habitat checks, invasive watch, and fisheries sampling), and (2) we should continue maintaining both satellite and logger series to track recovery or further change. Keeping this climate context front-and-center helps us interpret other indicators and implement strategies to promote resilience if ecosystems begin to change.



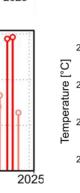
2015

2020

2010

perature since 2010 at Ascension Island (data from Copernicus.eu), boxed in section shows corresponding period for in-situ measurements, averaged seasonal minimum and maximum shown by broken blue and red lines. Middle-left figure shows insitu data from shallow marine environment around Ascension overlayed on top of satellite data. Bottom-left figure identifies the frequency and intensity of Marine Heatwave Events; intensity describes how much warmer conditions are than expected. Bottomright shows prolonged Heatwave Event peaking in April 2024 where recorded Temperature exceeds Threshold values.

Upper-left figure showing Sea Surface Tem-



#### Marine Heatwave Events (SST)

Temperature Climatology 29 Threshold 28 26 Jan 2024 Apr 2024 Jul 2024

1a. No loss of species or reduction in species abundance or ecosystem complexity in offshore areas

1c. No loss of species or reduction in species abundance or ecosystem complexity in inshore areas

1d. Proxy objective: Monitoring, regulation and management regime effectively tackles all known threats to inshore ecosystems

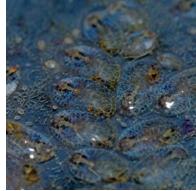
#### Non-native species—biosecurity surveillance

Our biosecurity surveillance and monitoring techniques are continuously undergoing improvements and being refined for more rapid throughput of samples. We routinely carry out hullinspections on visiting vessels, deploy and recover settlement plates and pads, and perform 6-monthly island wide eDNA marine surveys.

The development of DNA barcoding techniques to identify marine species has greatly improved the ability to identify nonnatives, monitor and respond to biosecurity threats using DNAbased tools.

The Mediterranean blue mussel has been identified from the hull of a visiting cargo vessel. This species has been classified as one of the '100 worst invasive species' by the IUCN known to compete with local species and alter natural habitats by forming dense beds. While this species does not appear to have settled at Ascension Island, monitoring efforts are ongoing.

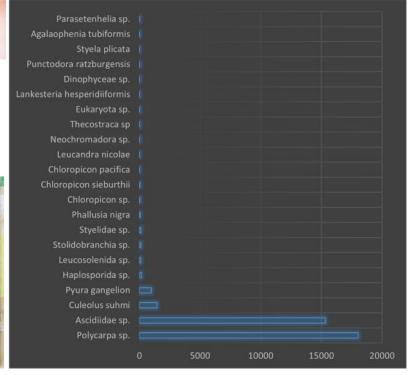






Left photo showing *in-situ* settlement plates. Bottom-left series showing settlement panels during identification and quantification. Bottom-right table showing example of species list and their counts from a 2023 sample.





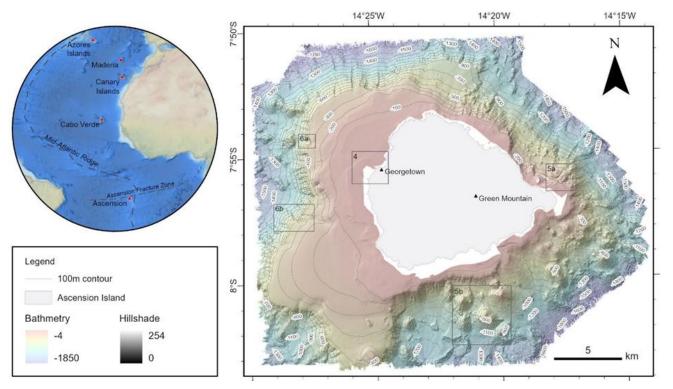
1c. No loss of species and no reduction of species abundance or ecosystem complexity in offshore areas

1g. No reduction in the extent or condition of key habitats

#### Mapping of bathymetry, seabed substrate and nearshore habitats

Nearshore habitats are a key component of the MPA as they comprise high biodiversity and are also the area's most at risk to a changing climate and development. To establish extent and distribution of nearshore habitat types, an approach using multibeam echosounder bathymetry, backscatter intensity and video transects has been used to map these areas. These high resolution maps (1m-10m) will produce high quality habitat maps which can be used for species distribution mapping and extrapolation of species density data to estimate abundance and contribute to stock assessments. Additionally, some of these habitats, such as rhodolith beds, are considered important areas for carbon sequestration making them globally relevant for protection and study.

The outputs of this project have included a series of GIS layers which can be used going forward for spatial area planning and community analyses. Two manuscripts have also been submitted for publication in peer-reviewed journals by project partners at the British Geological Survey (BGS)



Left figure shows location of Ascension Island and other Atlantic Ocean islands relative to the Mid-Atlantic Ridge. Map shows high resolution bathymetry around Ascension Island with multibeam data collected by the HMS Protector. Backscatter from multibeam surveys will be combined with dropcam data to create habitat maps.

1c. No loss of species and no reduction of species abundance or ecosystem complexity in inshore areas.

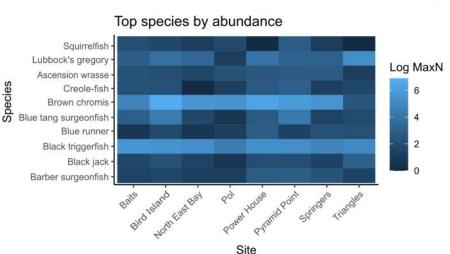
#### 1g. No reduction in the extent or condition of key habitats

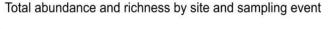
#### Remote Underwater Video Surveys (RUVS)

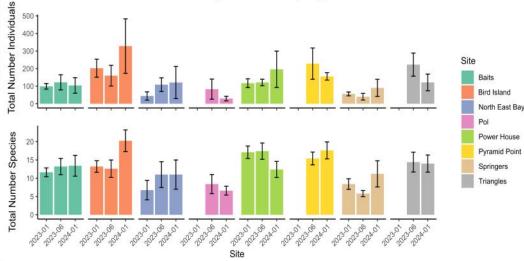
RUVS are a non-destructive, standardised method to monitor marine communities across sites and seasons. We sample every six months at 8 fixed stations. This data can be analysed alongside other methods (e.g. dropcams and eDNA) to validate presence, seasonality and community shifts and can be linked to habitat maps to interpret patterns by substrate and complexity.

Since 2023 this program has recorded 16 415 individuals from 67 taxa (33 families) across three events. Indicators reported here use the maximum number of individuals ( $\Sigma$ MaxN) per deployment (relative abundance), species richness, functional composition, and community ordination.

This work fits the MER and MPA Plan by delivering SO1 (biodiversity and ecosystem function) with repeatable indicators, feeds SO3 (research sharing) with datasets and underpins adaptive management thresholds.

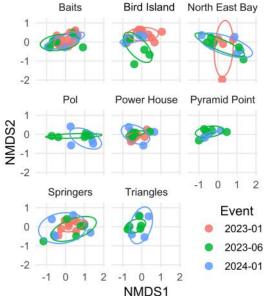






Above figure shows total number of individuals recorded and total number of species recorded below by site and sampling event. Left figure shows ten most abundant species by site. Right figure shows community composition over sampling event with high overlap over time.

Consistent metrics across time indicate stable communities and spatial structure and site differences appear to be stable and repeatable. A small set of species account for most of the individuals supporting their use as indicator species. No systematic declines or change is evident but continued timeseries will confirm these patterns.



1c. No loss of species and no reduction of species abundance or ecosystem complexity in inshore areas.

2b. Fishing pressure is adaptively managed to prevent decline

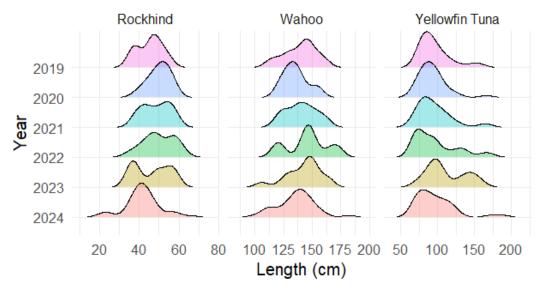
#### Pierhead sampling

Monthly pierhead sampling events allows for recording of species, size, weight and effort of catches from recreational fishers. This information is valuable as it provides a low-cost index of inshore fish abundance and community use. It tracks the relative abundance and size-distribution of priority species which is used for baseline data and can be used to inform adaptive management decisions.

Although we can see that length distributions for 2024 tend toward smaller fish, when compared with 2023, there is considerable annual variation when looking across multiple years and statistical tests don't show any concerning patterns in catches with year-to-year shifts equally likely to be greater than or less than average distributions.

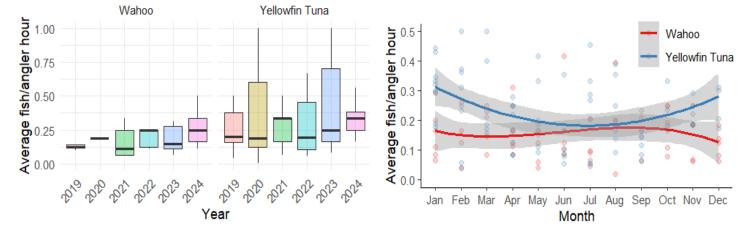
There is a clear need for greater sampling effort and consistency as data quality is crucial and varying standards of data collection reduce confidence. Nevertheless, this data provides repeatable Catch Per Unit Effort and size indicators along with a baseline with which to evaluate change in line with monitoring and evaluation strategies.

### Ridgeline density by species and year



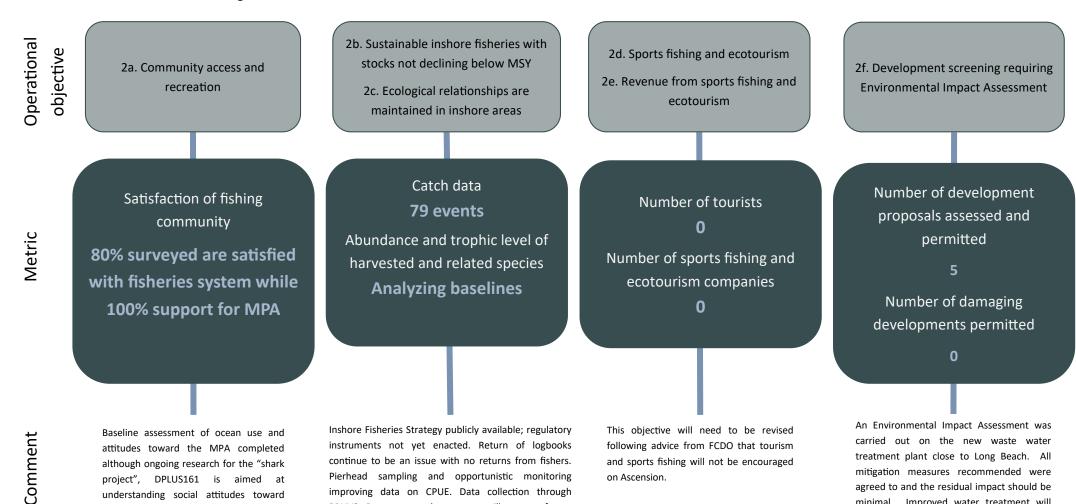
Left figure shows size distribution over years for catches of the three most commonly caught species from 2019—2024.

Bottom-left figure shows averaged number of fish per angler hour over years for wahoo and yellowfin tuna. Bottom figure shows monthly averaged number of fish caught per angler hour for wahoo and tuna.



## Strategic Objective 2. To support the sustainable development of social and economic activities in the MPA that are compatible with protection of the marine environment

In 2022 a clear steer was received from the UK Government's Foreign, Commonwealth and Development Office that tourism, including sports fishing, would not form part of the future of Ascension. This will shift the focus of MPA development towards ensuring people living on Ascension can access the health and wellbeing benefits of the marine environment and establishing Ascension as a centre for scientific research.



and sports fishing will not be encouraged

on Ascension.

continue to be an issue with no returns from fishers.

Pierhead sampling and opportunistic monitoring

improving data on CPUE. Data collection through

BRUVS, Dropcam, mark-recapture will support future

stock and ecosystem indicators.

although ongoing research for the "shark

project", DPLUS161 is aimed at

understanding social attitudes toward

MPA and fisheries. Feasibility for a shark

barrier is in development.

treatment plant close to Long Beach. All

mitigation measures recommended were

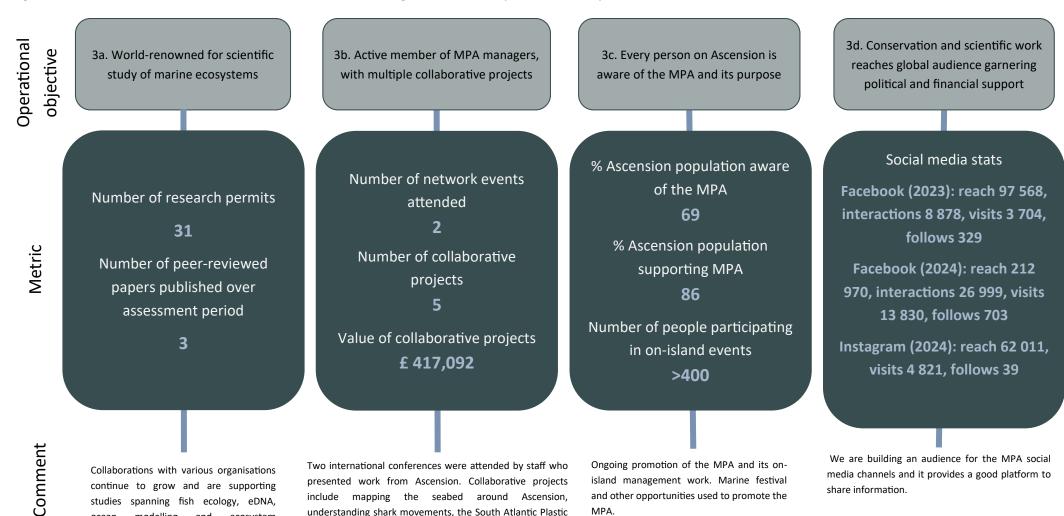
agreed to and the residual impact should be

minimal. Improved water treatment will

reduce pollution risk to the MPA.

## Strategic Objective 3. To promote scientific research and share knowledge about Ascension Island's marine biodiversity in order to encourage support for marine conservation locally and internationally

At least 10 peer-reviewed articles have been published since 2021 through partnerships with ZSL, University of Exeter, University of Plymouth, MMO, Cefas or other organizations. There are currently 16 research or monitoring projects in the MPA underway and actively being carried out solely by staff at CFD or in collaboration with outside partners. Active public engagement is ongoing with public presentations at the NAAFI attended by over 200 participants, the MPA Youth Committee having regular educational sessions, and the Annual Marine Festival being well attended by the community.



include mapping the seabed around Ascension,

understanding shark movements, the South Atlantic Plastic

studies spanning fish ecology, eDNA,

and

ecosystem

Project, etc.

modelling

monitoring

and other opportunities used to promote the

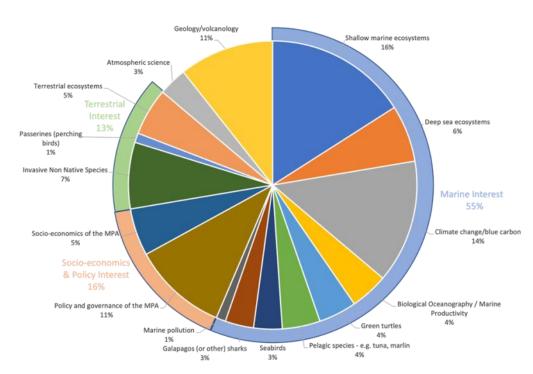
MPA.

# Strategic Objective 3. To promote scientific research and share knowledge about Ascension Island's marine biodiversity in order to encourage support for marine conservation locally and internationally

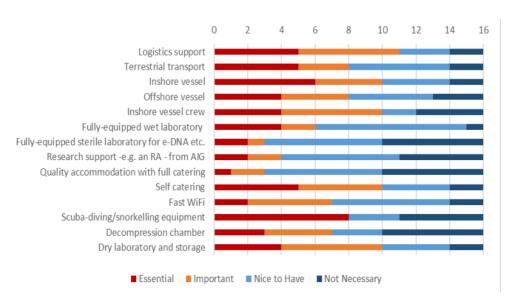
#### Developing Ascension as a scientific research hub

Ascension would make an excellent field site for biological, oceanographic, geological and climate research. Whilst tourism will not be encouraged on Ascension, scientific visitors will be welcomed. This could not only contribute to the growing body of knowledge about the island and improve the evidence-base for local decision making, but also create economic and reputational benefits for Ascension. Attracting researchers to Ascension will, however, require investment in facilities, support and promotion. Before embarking on any investment, we want to be sure there is a market for what Ascension has to offer and to collect detailed information on what facilities would be expected and how much people would be prepared to pay for them.

This year, the Blue Belt Programme has provided funding for us to work with Howell Marine Consulting to assess the feasibility of developing Ascension as a scientific hub. They carried out surveys and in depth interviews with international academics as well as considering established field research centres in other parts of the world. This has allowed us to characterise the size and nature of the potential market and to focus on the facilities that are crucial for attracting them (see below). The recommendations from the study will be worked up into an investment concept we can use to seek external funding for the next phase of the hub development.



Areas of research interest on Ascension reported by 46 survey respondents (respondents could mark down multiple responses)



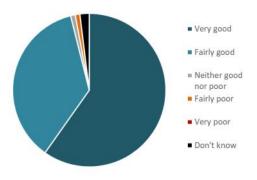
The importance of different facilities being available on Ascension reported by 46 survey respondents

# Strategic Objective 3. To promote scientific research and share knowledge about Ascension Island's marine biodiversity in order to encourage support for marine conservation locally and internationally

#### Community perceptions and attitude survey

As part of the MPA monitoring, we want to evaluate how people on Ascension feel about and value both their marine environment, and the MPA itself. A short questionnaire was developed as a way of collecting information about current perceptions held by communities on Ascension Island about the marine environment and the MPA designation and implementation. Responses were collected at the Marine Festival held in April 2022 and from people waiting to send freezer boxes to St Helena in September and December 2022. The questionnaire was made up of a series of both open and closed questions, and all responses were treated anonymously. The results will act as a baseline against which changes in attitudes can be measured. Some of the results of the survey are shown below:

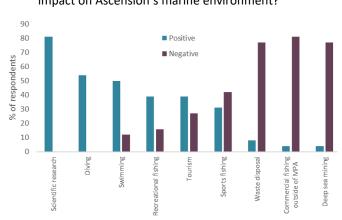
How do you rate your experience of Ascension's marine environment?



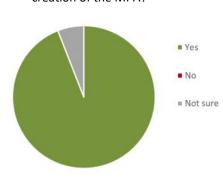
What word comes to mind when you think of Ascension's marine environment?



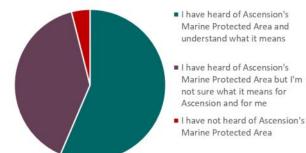
Which activities do you feel have a positive or negative impact on Ascension's marine environment?



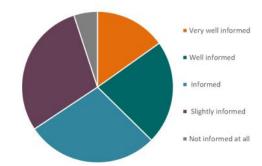
Do you support the creation of the MPA?



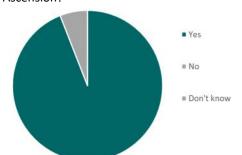
How aware of you of the MPA?



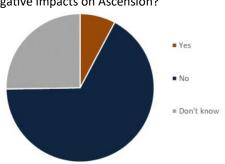
Do you feel well informed about the MPA?



Do you think the MPA will bring benefits to Ascension?



Do you think the MPA will have any negative impacts on Ascension?



### Strategic Objective 4. To achieve effective governance and management of the MPA that is transparent and underpinned by sustainable financial and human resources

Getting the governance and management structures right is crucial to the success of the MPA. Management Plan implementation is now in its fourth year and has benefited from significant and continued support from the UK Government's Blue Belt Programme. Day-to-day management is delivered by a small core team with the MER strategy largely being implemented with baseline assessments in progress. Involving the local community in decision making is an important part of the inshore fisheries proposal, but it has been a struggle more generally and there is still no MPA Steering Group in place. In contrast, the MPA Youth Committee has grown in number and enthusiasm.



Scientific Steering Group would strengthen scientific

oversight.

judge if objectives are being met, but baseline

biological and socio-economic data are now in place

to enable evaluation.

effective at detecting and deterring IUU.

shark ecology. Competitive grant schemes are

continuously being explored to enable us to expand

capacity for priority projects.

