



# Impact Report 2022

A summary of the Manta Trust's charitable research and conservation work in 2022.





# CONSERVATION

through Research, Education & Collaboration

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### Maldives

Our flagship project in the Maldives became an official NGO and continued to strive in it's research and education initiatives.

# Introduction and Welcome



**Despite the many challenges which remain, the Manta Trust is more committed than ever.**

After a pause in field activities in 2020 and 2021 due to the global pandemic, in 2022 we have been able to slowly resume our work in the field. This has been an important morale booster for our teams and getting back in the water with the gentle giants has provided hope to continue collecting important data to improve our understanding of these beautiful and enigmatic creatures. In some places though, recovery of tourism is still slow and many of our resort partners where we carry our work are operating at limited capacity. Our team members are our most invaluable asset and thanks to their dedication and efforts we have been able to continue producing important results and carrying out the work that will allow us to drive positive actions for mobulids.

All manta and devil rays are now listed as 'Vulnerable' or 'Endangered' on the IUCN's Red List of Threatened Species, due primarily to the devastating impact of target and bycatch fisheries around the world. Our research and conservation efforts are therefore more vital than ever before. In 2022 the Manta Trust continued to drive progress on the enforcement of policies and management plans for mobulid rays, conducting critical field research, publishing our findings in peer-reviewed, open-access journals, developing our educational outreach, and growing our global network of collaborators.

Dr. Guy Stevens  
Chief Executive & Co-founder

# 2022 Highlights

**MAY** Team Manta ran, walked, kayaked, and cycled a collective 5,294km in the annual Cross The Oceans sporting event, to raise funds for manta ray conservation.



**APRIL** Featured on BBC's 'Our Changing Planet', a colossal project documenting how the Earth's most vulnerable habitats, and the animals living there, will evolve in the coming years.



**MARCH** Launched a successful new research and outreach project in Makunudhoo, a remote atoll in the north of the Maldives.

**FEBRUARY** Supported the Fish Free February campaign. Asking our supporters who have the choice, to reduce their seafood consumption and try more plant-based dishes. Bycatch fisheries are one of the greatest threats to manta and devil rays.



**JANUARY** Made our free [Ocean Education](#) booklet available in Spanish! This collection of 17 innovative lesson plans on ocean and climate issues is now available in English, French, and Spanish.



**SEPTEMBER** Hosted multiple global events for World Manta Day, which had the theme of Education in 2022.



**AUGUST** Presented five research topics and were the winners of two awards at the Maldives Marine Science Symposium - the best scientific abstract and best presentation.



**JULY** Mantas de Costa Rica joined our global network of mobulid experts by becoming an official Affiliate Project of the Manta Trust. Proyecto Manta Pacific Mexico and AMMCO also became Affiliates in 2022 in June and October respectively.



**JUNE** The Manta Trust team were invited to Cameroon to work alongside the African Marine Mammal Conservation Organisation (AMMCO). We surveyed numerous fish markets and trained the AMMCO team in data collection methodologies and shark and ray dissections.

**NOVEMBER** Released a publication identifying a distinct population of oceanic manta rays off the coast of Ecuador, estimated to be over 22,000 individuals, making this the world's largest known population of oceanic manta rays.



**OCTOBER** Presentations from our affiliate projects in Sri Lanka, New Zealand, Mexico and the Seychelles were held at the Sharks International Conference in Valencia.

**DECEMBER** Launched the Ocean Women scoping expedition in the Maldives and Indonesia.





# BETTY LAGLBAUER

*That manta ray and I shared a moment that I can't express with words, and I will be forever grateful for the inspiration that it brought me.*

## Interview with the Fisheries and Policy Manager

After founding our affiliate project Mobula Project Indonesia, Betty Laglbauer re-established the role as Fisheries and Policy Manager for the Manta Trust.

What is your role within the Manta Trust core team?

**Betty:** In my role as the Fisheries and Policy Manager, I help to develop our conservation strategy and foster ways that we can reduce fishing mortality and the trade of mobulid rays globally. I also help to develop research that will provide science-based fisheries and trade management recommendations and options. I love my role because it is interdisciplinary; I am constantly learning, and I get to work and connect with incredible people who are contributing to conservation in so many different ways. Despite the dire state of shark and ray populations worldwide, I am inspired to take collaborative action, because our future depends on us and our behaviour as a society.

How did you end up working in mobulid conservation?

**Betty:** I graduated with an Erasmus Mundus Masters in Biodiversity and Conservation (IMBRSea), where I studied in Portugal and Spain. During that time, I travelled to Peru to investigate a fishery for manta rays, devil rays, and sharks. While there, I witnessed the large amounts of devil rays being landed daily and decided I would work towards their conservation, and after graduating and bringing my daughter into the world, we moved to Indonesia and set up a conservation project in East Java.

What was a memorable manta or devil ray encounter that you had?

**Betty:** It was my first encounter with an oceanic manta ray, in Peru. After spending a month recording sharks and rays at a fishing terminal in Chiclayo, I travelled further North and was offered an opportunity to board a fishing boat early on Christmas day, to try to find manta rays with three friendly fishers. When we found the first one gliding near the surface, I was ready to jump in but the captain told me to wait and so I did, and got the same answer multiple

times until the manta ray was gone! Wondering what the issue had been, I asked why I was not allowed to jump in, assuming it was a boat issue. The captain said it was too dangerous, as the manta ray could have hurt me. Realising I should have explained earlier that manta rays are harmless, we spoke about it, searched, and waited. When the next manta ray appeared, I was off the boat in the blink of an eye. Needless to say, it was quite an event for the fishers. That manta ray and I shared a moment that I can't express with words, and I will be forever grateful for the inspiration that it brought me.

What's your favourite fact about mobulid rays?

**Betty:** That many species can dive to depths over 1000 meters. How incredible is it that they can withstand the extreme pressure, and temperature down there? I am fascinated with the thought of how they navigate to these depths, and how they perceive their environment down there. It must be quite a show, in total darkness scattered with bioluminescent prey!

What can the public do to contribute to mobulid protection?

**Betty:** I think one important step we can take is to be mindful of the seafood we consume and the fisheries we support. Mobulid rays are caught as bycatch in many industrial fisheries worldwide, and so you may be unknowingly contributing to their demise by eating tuna harvested unsustainably. You could reduce your seafood intake altogether or choose sustainable options. If you do choose to eat tuna, choose one-by-one pole and line caught. Additionally, keep in mind that our huge consumption of industrially caught seafood is depleting our ocean resources, and this puts coastal communities at risk, in areas where the ocean is important for food security, which can also increase fishing pressure on threatened species. If you have the luxury to choose what you eat, choose wisely!



# Manta and Devil Rays



Manta rays are some of the largest and most intelligent animals in the sea. Their complex social behaviours set them apart from many other fish, but much of their lives remain a mystery.

Manta and devil rays, known collectively as mobulids, are some of the most beautiful, fascinating and enigmatic creatures in the oceans.

Close relatives of all sharks and rays, these cartilaginous filter feeding fishes range throughout the tropical and sub-tropical oceans of the world. Born into a life of perpetual motion, they can never stop moving as they must keep water flowing over their gills to respire. Their daily and seasonal movements are tuned to the ebb and flow of the ocean currents that breathe life into their world, bearing the planktonic food upon which they depend.

Manta rays are giants of their kind, with the largest individuals reaching seven metres in width and weighing up to two tonnes. Despite their colossal presence, mantas are gentle creatures. They have the largest brain of all fish, and their intelligence and curiosity make encounters with manta rays a truly magical experience. It is little wonder that for many years they have been well known and loved by the scuba diving community. More recently, they have also found mainstream popularity with a wider, global audience, featuring in ground-breaking wildlife

documentaries such as the BBC's Blue Planet II. Their obvious intellect and complex social interactions set manta rays apart from other fishes, but as they have only been scientifically studied in detail for around a decade, much of their life history remains a mystery.

Mobulids first appear in fossil records around 28 million years ago; evolving from bottom dwelling rays, they adapted to life in the water column. They are defined by their specially modified gill plates, which they use to strain zooplankton from the water column. Mobulid rays have a conservative life history strategy; they take a long time to reach sexual maturity, are slow to reproduce, and give birth to a single pup every two to five years following a nine to twelve month pregnancy. This strategy may have served them well for millions of years but unfortunately these traits, paired with their highly migratory nature, now leave mobulids extremely vulnerable to overexploitation by humans.



**Oceanic Manta Ray**  
*Mobula birostris*  
IUCN Red List Population Trend  
↓ DECREASING



**Reef Manta Ray**  
*Mobula alfredi*  
IUCN Red List Population Trend  
↓ DECREASING



**Atlantic Manta Ray**  
*Mobula cf. birostris*  
Not currently recognised by the IUCN Red List



**Sicklefin Devil Ray**  
*Mobula tarapacana*  
IUCN Red List Population Trend  
↓ DECREASING



**Spinetail Devil Ray**  
*Mobula mobular*  
IUCN Red List Population Trend  
↓ DECREASING



**Bentfin Devil Ray**  
*Mobula thurstoni*  
IUCN Red List Population Trend  
↓ DECREASING



**Shorthorned Pygmy Devil Ray**  
*Mobula kuhlii*  
IUCN Red List Population Trend  
↓ DECREASING



**Longhorned Pygmy Devil Ray**  
*Mobula eregoodoo*  
IUCN Red List Population Trend  
↓ DECREASING



**Munk's Pygmy Devil Ray**  
*Mobula munkiana*  
IUCN Red List Population Trend  
↓ DECREASING



**West Atlantic Pygmy Devil Ray**  
*Mobula hypostoma*  
IUCN Red List Population Trend  
↓ DECREASING



**East Atlantic Pygmy Devil Ray**  
*Mobula rochebrunei*  
Not currently recognised by the IUCN Red List

Key: Endangered Vulnerable

# The Manta Trust



## Research

By conducting long-term, robust scientific studies, we aim to build the solid foundations upon which governments, NGOs and conservationists can make informed and effective marine management decisions.



## Education

As charismatic megafauna, manta rays act as a flagship species, helping to motivate and engage people with the wider message of marine ecosystem conservation. Through this top down approach, the manta ray becomes the catalyst for change, educating people about the solutions needed to ensure the long-term survival of these animals and the underwater world we rely upon.



## Collaboration

With a network of over 25 projects worldwide, we specialise in collaborating with multiple parties to drive conservation as a collective; from businesses and governments, to individuals and local communities.



**Formed in 2011, the Manta Trust is a UK registered charity that coordinates global mobulid research and conservation efforts.**

### Our Approach

The Manta Trust takes a unique, multifaceted approach to mobulid conservation, which sets us apart from others in the field.

### Stronger Together

Our team is comprised of a diverse group of researchers, scientists, conservationists, educators and media experts; working together to share and promote knowledge and expertise.

### Our Impact

- Instrumental in helping gain protection for Hanifaru Bay and assisting the creation of the site's management plan.
- Contributed critical data and expertise for the status re-assessment of all mobulid species on the IUCN's Red List of Threatened Species.

- 'Concerted Actions' proposal submitted by the Manta Trust to the CMS CoP12 was accepted.
- Launched a multi-media initiative, "How to Swim with Manta Rays", to support and increase sustainable manta tourism.
- Published "MANTA Secret Life of Devil Rays", the world's first ever book on manta rays.
- Collaborative efforts resulted in the listing of both species of manta under Appendix II of the CITES.
- Similarly, efforts resulted in the later listing of devil rays under Appendix II of the CITES.
- Aided in the successful adoption of all mobulid species under the CMS Appendix I & II.
- Helped gain national protection in regions with some of the world's largest mobulid fisheries including the Maldives, Mexico, Indonesia, Peru, and Thailand.
- Created a Global Strategy & Action Plan outlining what actions need to be taken to ensure the long-term survival of mobulid rays.



## Mission

Our mission is to conserve mobulid rays, their relatives, and their habitats, through a combination of research, education and collaboration.



## Vision

Our goal is a sustainable future for the oceans, where manta rays and their relatives thrive in healthy, diverse marine ecosystems.

*"In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we are taught."*

- Baba Dioum

# Research Highlights



The Manta Trust and our global team of Affiliate Projects are conducting long-term, robust scientific studies, to build the solid foundations upon which governments, NGOs and conservationists can make informed and effective marine management decisions.

Our Maldivian Manta Ray Project has been examining thousands of photo-ID sightings to show that although mantas in the Maldives are protected nationally, fishing gear entanglement and boat strikes pose a significant threat to these animals, especially in busier atolls with more tourism and fishing activities. Similarly, in Bahia de Banderas, our affiliate Proyecto Manta Pacific Mexico had found that about 20% of mantas sighted are injured by boats or fishing gear. The fitness cost of these sublethal injuries to individuals, and populations, is currently unclear but it could impair mobility or reduce feeding efficiency. Identifying and understanding these associated impacts has been noted as an important focus of future monitoring efforts, with the hope of assessing extent and rates of recovery with repeat sightings.





### Shark and Ray Fisheries

Cameroon

In June, Manta Trust researchers visited Cameroon to spend a month working with the African Marine Mammal Conservation Organisation (AMMCO) to learn about shark and ray fisheries in Cameroon and hold a knowledge-exchange and training workshop in data collection and methodologies. During this visit we were able to study two specimens believed to be the Endangered East Atlantic pygmy devil ray (*M. rochebrunei*) of which no verified records exist since 1960. We have taken morphometrics and genetic samples to confirm this significant discovery. In October, AMMCO became an official Affiliate Project of the Manta Trust.



# Groundbreaking Research Across the Globe



*Faced with a changing climate that threatens to decrease zooplankton biomass at alarming rates, it is more important than ever to address questions that expand our understanding of sites like Hanifaru Bay.*

### Zooplankton Studies

Maldives

In the Maldives, we are conducting research into the oceanographic drivers, water properties and zooplankton dynamics that drive huge feeding aggregations of reef manta rays in Hanifaru Bay, Baa Atoll. We have begun collecting zooplankton samples to assess prey composition and fluctuations as well as physical oceanography data to better understand feeding behaviour. Faced with a changing climate that threatens to decrease zooplankton biomass at alarming rates, it is more important than ever to address questions that expand our understanding of sites like Hanifaru Bay to help protect the ecosystems and food sources of significance to manta rays and other planktivores.

### Devil Ray Genetics

Mexico

The 2022 Cyclone Grant was awarded to the Mobula Conservation Project (based in Baja California, Mexico) as voted for by our Cyclone members. The funding, raised through our membership platform The Cyclone, supported a student using genetics to determine if devil rays are being illegally sold under the general term 'ray' in fish markets and stores. During the expedition in July, a ban on selling cartilaginous fishes, which includes sharks and rays, was introduced in Mexico, however, 'mantarraya' was still sold in the markets. The team took some samples from the market for genetic sequencing back in the lab in Santa Cruz to determine the mobulid species originating from these samples.





# Animal Telemetry

Animal telemetry is the science of gathering information on the movement and behaviour of organisms using animal-borne sensors, or tags, and is a critical tool for researchers and conservationists. Telemetry studies have been used on a vast range of species from tiny insects to mountain lions, to albatrosses, great white sharks, and many more in between. Telemetry studies have provided vital insight into the movement and behavioural ecology of manta and devil rays. This knowledge has been used to design effective conservation strategies for these vulnerable animals where these studies have taken place.



**Manta and devil rays often undertake seasonal migrations, travelling tens, hundreds, and sometimes thousands of kilometres. This means that their habitat can encompass large areas, sometimes crossing national boundaries, where conservation management is often more challenging. Therefore, to effectively protect these animals, we must first understand what habitats they are using, when they are there, and what they are doing within it.**

Photo identification (photo-ID) is one of the primary research methods favoured by Manta Trust scientists around the world and, over the last 15 years, it has provided great insight into the movements, size, and demographics of manta ray populations globally. It is a cheap and non-invasive data-collection technique that both trained researchers and members of the public can use. However, it alone cannot tell us everything that we need to know to adequately protect manta rays and their relatives around the world.

One of the limitations of photo-ID research is that images can only be collected in locations (and at depths) that scuba divers and snorkellers can access; primarily restricting data collection to shallow reef systems. This means we have learnt a lot more about the spatial and behavioural ecology of the

reef manta ray than their larger cousins, which live a more oceanic lifestyle. Photo-ID is further limited because most of the data is primarily collected from only a few aggregation sites where researchers know the rays regularly frequent to feed or clean, often for just a few minutes or hours at a time. Therefore, once the rays leave these sites, we have no idea where they are going, or what they are doing; knowledge which is critical if we are to effectively protect these species.

The Manta Trust utilises a wide range of research methods to gather knowledge on mobulid rays globally, which we then use to make informed management recommendations to governments and other stakeholders. These methods often include tagging studies. However, as tagging is an invasive technique, we only use it when it is required to fill vital knowledge gaps.

Telemetry studies are helping us to learn more about fine and large-scale movements of mobulids, habitat use, behaviour, social interactions, feeding ecology at depth and mortality rates of mobulids released after being caught as bycatch. Our Affiliate Projects in the Seychelles, Costa Rica, Chagos, New Zealand, Micronesia, Indonesia and the Eastern Tropical Pacific have been utilising various methods of animal telemetry over 2022, with a total of 212 tags deployed.

Visit our [Animal Telemetry page](#) to view our FAQs about tagging, learn more about the different types of tags and trackers used and view the available scientific literature on mobulid telemetry studies.



Acoustic Tagging



Satellite Tagging



Animal-Borne Cameras





# Policy and Legislative Action

Overfishing from targeted and bycatch fisheries is the greatest immediate threat to manta and devil rays. The Manta Trust is working to coordinate global fisheries management policy measures for mobulids.

## Global Mobulid Fisheries and Policy Review

Mobulid rays have historically evaded commercial fishing, but in recent decades a new market has opened, and they are now heavily sought after for their gill plates for use in some Asian Medicine. Gill plates, or branchial filaments, are thin cartilage filaments that enable manta and devil rays to filter zooplankton out of the water column. Retailers claim that just as mobulids use gill plates to filter plankton from the water, they can aid in the detoxification and purification of the consumer by filtering disease and toxins from the body. However, there is no scientific evidence to support these claims. Additionally, a few countries and regions around the world have actively targeted mobulid rays for consumption. Although these artisanal fisheries are small in scale, they can still have a significant impact on populations due to the mobulid rays' conservative life history.

Of increasing concern is the threat posed by incidental bycatch fisheries. Manta and devil ray

species often have overlapping habitat ranges with commercially more desirable species, like tuna. Indiscriminate fishing methods like long-lining, gill-netting and purse seine netting capture an alarming number of mobulids annually.

In 2022 we created the new position of a full-time Fisheries and Policy Manager within the Manta Trust core team, which has been taken on by Betty Laglbauer (read her interview on page 8 and 9). Betty is now coordinating a global mobulid fisheries and policy review; bringing together a group of experts to assess the current state of mobulid fisheries and policy globally. This project will highlight major policy and enforcement gaps that are obstructing effective mobulid conservation and provide a clear list of recommendations for each fishery's context, building on previous efforts.

The first draft of a review paper is ready to be shared with colleagues and stakeholders involved in international shark and ray fisheries to get in-depth insight from experts at various levels on potential solutions for improving mobulid conservation.



# New Initiative Ocean Women

This action-focused research project aims to empower more women in tropical and ocean-dependent nations to access the ocean for recreation for years to come, with the long-term aims of involving more women in locally driven marine conservation efforts.

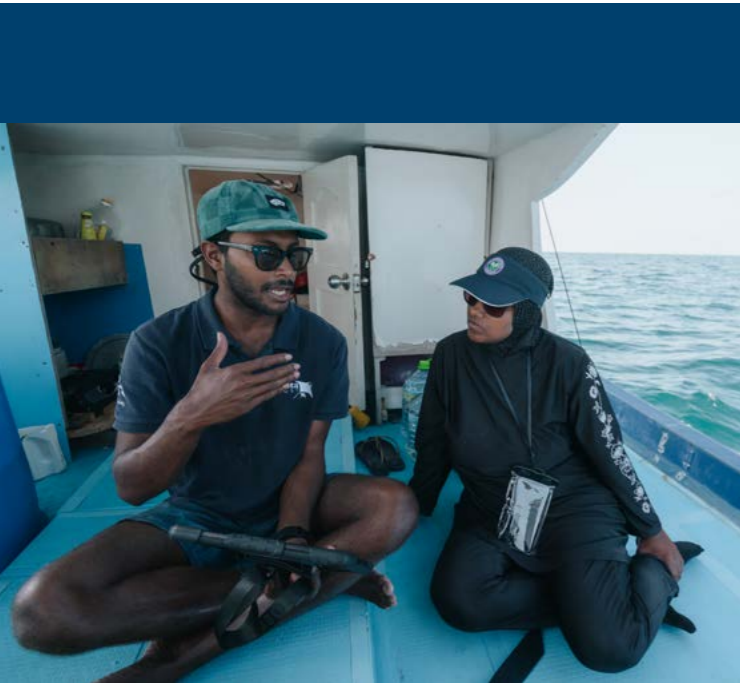


In April 2022, Flossy Barraud started her PhD and moved from the role of Education Manager to that of Education and Diversity Collaborator for the Manta Trust. The Manta Trust is supporting her [Ocean Women](#) initiative which has become an integral part of our education portfolio and local capacity building approach.

- Developed the backbone of the project through in-depth reading and discussions with 64 people from 24 organisations across 19 countries.
- Conducted in-depth interviews in the Maldives to gain a rich understanding of local perspectives and needs. In five weeks, we conducted 36 ~one-hour interviews with government Ministers, NGO leaders, female diving pioneers, swimming instructors, and community members.
- Alongside our local partner, Aminath Zuna of Salted Ventures Swimmers, we consulted with 160 people from 43 groups across 13 islands, including Island Councils, Womens Development Committees, NGOs, schools, and Parent Teacher Associations.
- We built key collaborations with the Ministry of Youth, Sports & Community Empowerment, Ministry of Education, Swimming Association of Maldives, and Six Senses Laamu resort.
- We used our collaborative learnings to inform the design of the pilot phase of the swimming instructor training programme: training 10 instructors from five islands in mid-late 2023.



# New Initiative RahVeshi Fund



In 2022 the Manta Trust launched the RahVeshi Fund, which is the Dhivehi name for the Local Island Fund for the Environment (LIFE). It has the aim of establishing long-term research and education projects which will help protect the natural resources of the Maldives and build local capacity for conservation efforts in remote parts of this island nation.

Tourism is the largest industry in the Maldives, with over 1.6 million visitors in 2022. Resorts and businesses that benefit from this tourism offer an important source of income for NGOs and scientists working to protect the vulnerable marine life and ecosystems of this biodiversity hotspot. For example, to date most of our Maldives team have been based at luxury resorts in areas that are popular with tourists. These resort partnerships are invaluable to the Manta Trust, supporting us financially and providing our staff with accommodation, salaries, access to the field and to labs, and the opportunity to engage tourists with marine issues. However, as a result, our research and education activities are often restricted to areas close to these resorts, our staff have limited contact with local islands, and it is hard to ensure that Maldivians play an active role in the design and implementation of our conservation initiatives.

The aim of the RahVeshi Fund is to drive mobilised conservation in the Maldives at the local level by building a portfolio of projects that are based on local islands, are designed to benefit local communities and benefit from vital local knowledge, provide training and resources to enable local people to participate in mobilised conservation initiatives, and offer internship and employment opportunities for locals. We currently have two projects based on local islands that will be part of the RahVeshi Fund going forwards:

- The [Maldives Oceanic Manta Ray Project](#) is based in Fuvahmulah in the far south Maldives. In 2022 the project hired four locals to assist with the six-week research season over March and April, and four local marine science students gained mentorship and assisted with data collection. The project also ran workshops for local dive centres to train their staff in research techniques.
- The Makunudhoo Project, in the far north Maldives, was launched in December 2022 following a short pilot project in March. Preliminary findings include an incredible estimated 1726 sightings of manta rays across 32 different survey sites. The team hosted regular educational workshops for the community with 30-60 community member attending every talk.

## Makunudhoo Atoll



We were delighted to welcome Secret Paradise Maldives as our first RahVeshi Fund Partner at the end of 2022, who will be contributing financial support for this important work. Finding more sponsorship of the LIFE Programme will be a priority for us in 2023.

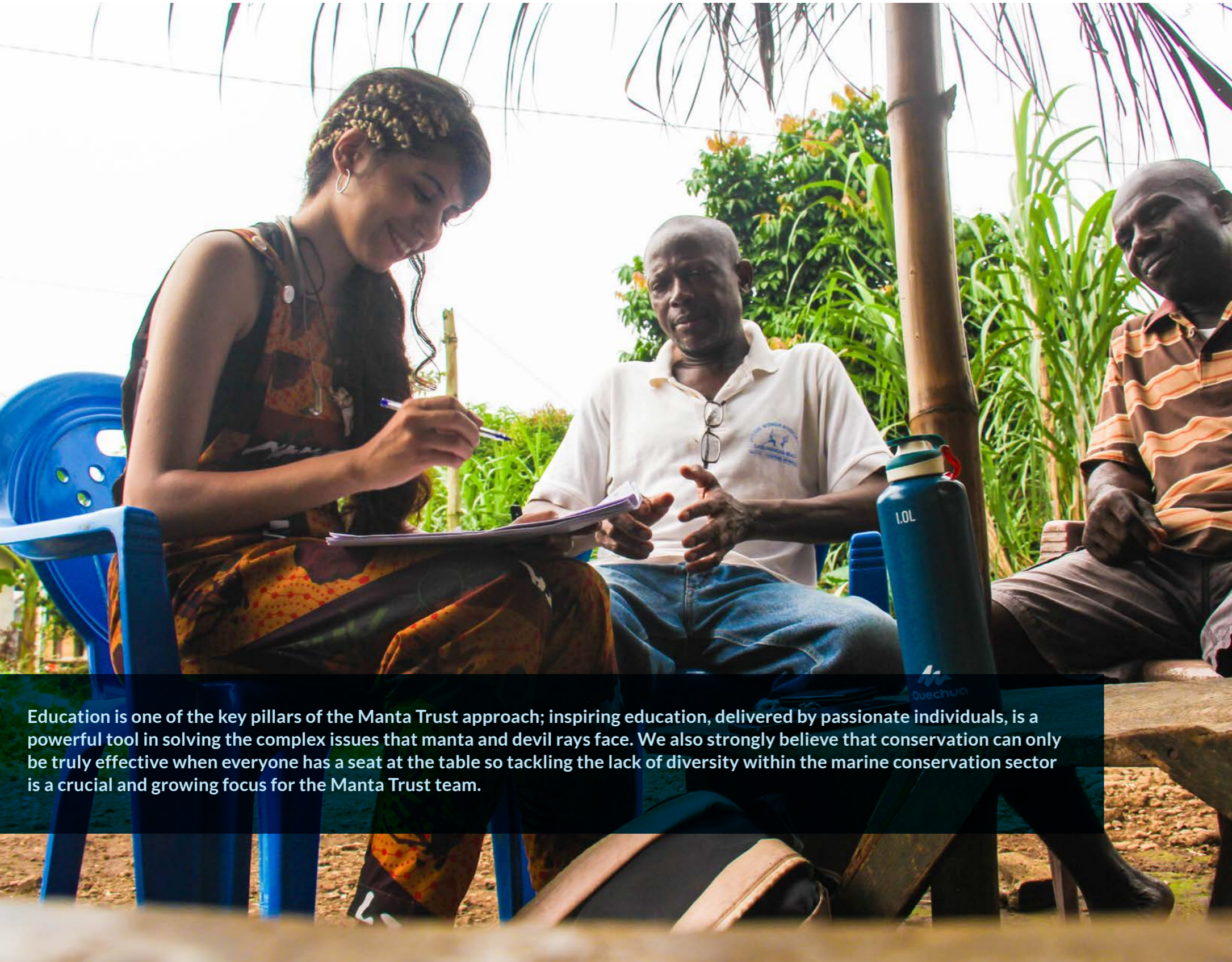


LIFE Programme Project  
Bases: Makunudhoo and  
Fuvahmulah Atolls.



## Fuvahmulah Atoll

# Education and Capacity Building



"The presentation was so lovely and I was amazed by how many questions you got from the girls! I just wanted to tell you how much they loved your talk and how much they loved you. I think you're such a wonderful role model for them. When they see that another woman can reach the level of being a scientist who is doing meaningful research, and who is having fun and is passionate about it, it helps them to see themselves in that role too."



*Dr. Olga Navros  
St. Catherine's School Virginia*

## Education and Diversity Strategy

In April we welcomed Jennifer Spacagna to the core operations team when she took on the role of Education Manager. Since then, she has been working hard to expand our outreach here in the UK, whilst offering training, guidance and support to educators from our global network of Affiliate Projects. Jen has found new platforms to promote our free teaching resources, resulting in over 500 downloads by educators around the world. You can find these free lesson plans, video resources and activities available in multiple languages on the Manta Trust [Education Portal](#). On this portal you can also sign up to our new quarterly Education Newsletter which was launched in November, designed with teachers and other education professionals in mind. The first issue had a focus on careers, complementing the first international virtual Careers Q&A session we held that same month.

In 2022, Jen and Bex (Director of Operations) conducted extensive research into the barriers to inclusion in the marine conservation sector and sought advice from members of our global network, as well as external expertise, on what changes we can make to break down these barriers. We are proud to say that this journey has culminated in the creation of the Manta Trust's first [Education and Diversity Strategy for Manta & Devil Ray Conservation](#). This document will be used in tandem with our [Global Strategy and Action Plan for Mobulid Conservation](#), guiding the development of new and ongoing Manta Trust projects, in a way that champions a diversity of backgrounds, perspectives and experiences of the world. It will also be used to help direct the efforts of our global network of Affiliate Projects. Our vision is to see a diverse and inclusive global network of ocean guardians taking positive action for mobulid rays and their habitats.

Education is one of the key pillars of the Manta Trust approach; inspiring education, delivered by passionate individuals, is a powerful tool in solving the complex issues that manta and devil rays face. We also strongly believe that conservation can only be truly effective when everyone has a seat at the table so tackling the lack of diversity within the marine conservation sector is a crucial and growing focus for the Manta Trust team.

**130** children in rural villages in Mexico took part in educational talks with the Mobula Conservation Project. They also ran an art competition and took the four winners swimming with mobulas (devil rays), conducted ten talks about mobula rays and best practices for responsible diving and snorkelling in Baja California Sur reaching >300 attendees, gave nine academic presentations at universities and conferences and hosted five workshops with purse seine tuna fishers and crew in Mexico.

**67** people attended a workshop in Mexico in collaboration with the Rufford Foundation and a workshop for the Global Ghost Gear Initiative & Ministry of International Affairs, organised by the Manta Caribbean Project.

**2500** children and young people in the UK via a combination of virtual and in-person outreach from the Manta Trust. We also delivered virtual outreach sessions to a small number of schools overseas in locations such as Tanzania, Japan and the USA.

# Education Highlights Around the Globe

**320** children between the ages of 6 and 12, from 6 different primary schools in West and Southwest Rote, took part in a marine conservation education program hosted by The Indonesia Manta Project.



**491** divers and manta enthusiasts attended the Caribbean Islands Manta Conservation Program's presentations on Bonaire.

**320** students joined our Marine Education Programme in the Maldives. One full 6-month Moodhu Madharusaa program in Baa Atoll was completed and further education sessions were held in Makunudhoo, Noonu, Laamu and North Male. The Oceanic Manta Ray Project conducted workshops with local diver centres in Fuvahmulah Atoll to train their staff in research techniques.

**20** children participated in an intense 4-week field school; The Marine Island Ecology Course, hosted by The Micronesian Conservation Coalition, where students learnt to snorkel, conduct underwater surveys, take wind, depth, and salinity readings, and plankton tows.

**500** local schoolchildren reached by The French Polynesia Manta Project with their outreach during the Science Fair in Tahiti.

**120** people attended workshops for local communities about mobulid conservation initiatives, conducted by The Peru Mobulid Project.

# Events



## World Oceans Day

National Maritime Museum  
London, United Kingdom

**We used our stall to provide connections with the ocean realm for those that live in cities.**

We held a stall and gave a presentation at the World Oceans Day event at the National Maritime Museum in London. We used our stall to virtually immerse people of all ages into the water with manta rays, using our virtual reality videos, and engaged with 150 people throughout the day.

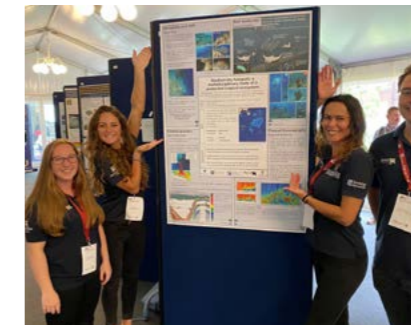
By sharing engaging imagery and videos of our research and conservation work, we can provide connections with the ocean realm for those that live in cities, which in the long run encourages pro-environmental behaviour change.

## Other Events



**International Dive Shows**  
Paris, France  
Bologna, Italy

The Manta Trust and Manta Expeditions had stalls at the International Dive Show in Paris and the European Dive Show in Bologna. These events were a great opportunity to meet fellow manta ray enthusiasts, promote the Manta Expeditions on offer, and present about our research.



**Challenger Society Conference**  
London, United Kingdom

Joanna Harris presented her research findings as part of the Chagos Manta Ray Project at the Challenger Society Conference held in the Natural History Museum in London for its 150th anniversary, which celebrated the birth of international, multi-disciplinary oceanography.



**Sharks International**  
Valencia, Spain

Presentations from our affiliate projects in Sri Lanka, New Zealand, Mexico and the Seychelles were held at the Sharks International Conference in Valencia. Blue Resources Trust's bid was accepted to host the next Sharks International conference in Sri Lanka in 2026.



**Street Whale**   
Kribi, Cameroon



We attended and presented at the annual Street Whale event in Cameroon, which was initiated by our affiliate project African Marine Mammal Conservation Organization in 2021. The event combines art and science to raise awareness on marine issues in Cameroon.



# Other Events



## Maldive Marine Science Symposium

Male, Maldives

The Maldivian Manta Ray Project presented five research abstracts at the fourth Maldives Marine Science Symposium. To top off an incredible event, full of inspiring and innovative research topics, two out of three awards were awarded to our team members:

- Best scientific abstract: Elspeth Strike - Sublethal injuries and physical abnormalities in Maldives manta rays.
- Best speaker: Jessica Haines - The importance of a key aggregation site in Raa Atoll for juvenile manta rays.



*This year's theme was education, which is a huge focus for projects around the world, who work hard to raise awareness of the threats that manta and devil rays face, and to empower a variety of stakeholders with the knowledge and skills that they need to make a positive difference for these threatened rays.*



## World Manta Day

Global

Our projects celebrated World Manta Day in style, with special activities organised across the globe. The teams in the Maldives had a whole week of celebrations, including manta-themed cocktail parties, naming competitions, educational talks, manta dress-up, dive trips, island clean-ups and even VR experiences. Our affiliate projects across the world conducted outreach events to share their love for manta rays in the local community. Our teams joined students at local schools to hold stalls and activities to teach their peers about these incredible ocean giants. Silent auctions and raffles were used to bring in donations to research efforts for many of our projects. The celebrations were fantastic, and everyone had an incredible time celebrating manta rays!



# Peer-Reviewed Publications

The Manta Trust core team and affiliate project network has continued to work hard turning years of data collection into peer-reviewed publications which advance science and conservation.



12

## Published Papers

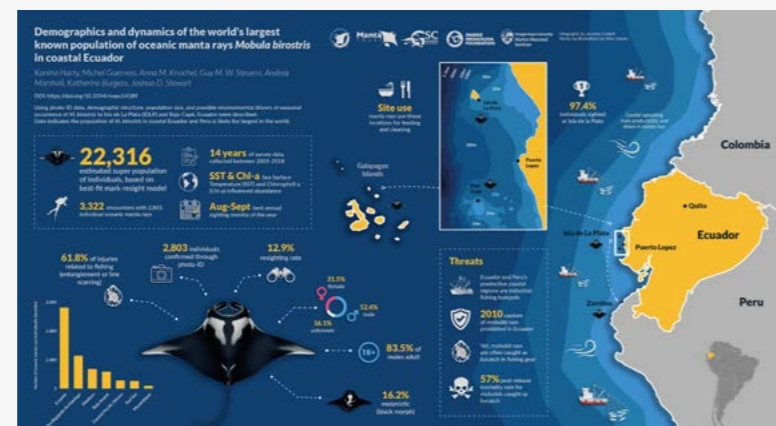
Manta Trust core staff and affiliate project researchers were lead or co-authors on 12 peer-reviewed publications this year.

>300

## Downloads

Each paper was download over 300 times on average. The number of citations will be a true indication of impact but this will not be known for a while.

## Papers to Highlight



## Largest Oceanic Manta Ray Population

Researchers have identified a distinct population of oceanic manta rays off the coast of Ecuador, estimated to be over 22,000 individuals making it the World's largest population. This study marked a huge collaborative effort between Proyecto Mantas Ecuador, the Manta Trust, Galapagos Science Centre, Marine Megafauna Foundation and the Oregon State University. It was led by Kanina Harty (Manta Trust) and Michel Guerrero (Proyecto Mantas Ecuador) and took 14 years of data from coastal Ecuador to show that this population of oceanic manta rays is ten times larger than any other known population.

Harty K, Guerrero M, Knochel AM, Stevens GMW, Marshall A, Burgess K, Stewart JD, 2022. Demographics and dynamics of the world's largest known population of oceanic manta rays *Mobula birostris* in coastal Ecuador.

## List of peer reviewed publications from 2022

The Manta Trust is committed to breaking down barriers in science communication. One such barrier is the cost of accessing publications. The Manta Trust is committed to making all papers open access where the lead author's primary affiliation is to our charity. This costs between 3-5,000 USD per paper.

	Publication title	Journal	Authors
1.	Sublethal Injuries and Physical Abnormalities in Maldives Manta Rays, <i>Mobula alfredi</i> and <i>Mobula birostris</i> .	Frontiers in Marine Science	Elspeth M. Strike, Joanna L. Harris, Kirsty L. Ballard, Julie P. Hawkins, Jennifer Crockett and Guy M. W. Stevens
2.	Manta and devil ray species occurrence and distribution in Venezuela, assessed through fishery landings and citizen science data.	Journal of Fish Biology	L Nicolás Ehemann, Edilia Acosta-Rodríguez, Alejandro Tagliafico, Nicole Pelletier, Guy M. W. Stevens
3.	The distribution of manta rays in the western North Atlantic Ocean off the eastern United States.	Scientific Reports	Nicholas A. Farmer, et. al
4.	Diving into the vertical dimension of elasmobranch movement ecology.	Science Advances	Samantha Andrzejczek et. al
5.	First photographic evidence of oceanic manta rays ( <i>Mobula birostris</i> ) at two locations in the Fiji islands.	Peer J	Luke Gordon, Tom Vierus
6.	Crowdsourced data reveal multinational connectivity, population demographics, and possible nursery ground of endangered oceanic manta rays in the Red Sea.	Aquatic Conservation	Anna M. Knochel, Jesse E. M. Cochran, Alexander Kattan, Guy M. W. Stevens, Elke Bojanowski, Michael L. Berumen
7.	Exploring the genetic diversity and population structure of <i>Mobula birostris</i> in two key aggregation zones in the Eastern Tropical Pacific.	Marine Ecology Progress Series	Karla E. Rojas López, Juan José Guadalupe, Milton Gordillo-Romero, Andrea Montero-Oleas, Diana A. Pazmiño, Michel Guerrero, Maria de Lourdes Torres
8.	Harnessing stakeholder knowledge for the collaborative development of <i>Mobulid</i> bycatch mitigation strategies in tuna fisheries.	ICES Journal of Marine Science	Melissa R Cronin, Donald A Croll, Martin A Hall, Nerea Lezama-Ochoa, Jon Lopez, Hilario Murua, Jefferson Murua, Victor Restrepo, Stefany Rojas-Perea, Joshua D Stewart, Jennifer L Waldo, Gala Moreno
9.	Policy and transparency gaps for oceanic shark and rays in high seas tuna fisheries.	Fish and Fisheries	Melissa R. Cronin, Julia E. Amaral, Alexis M. Jackson, Jennifer Jacquet, Katherine L. Seto, Donald A. Croll
10.	Demographics and dynamics of the world's largest known population of oceanic manta rays <i>Mobula birostris</i> in coastal Ecuador.	Marine Ecology Progress Series	Kanina Harty, Michel Guerrero, Anna M. Knochel, Guy M. W. Stevens, Andrea Marshall, Katherine Burgess, Joshua D. Stewart
11.	The influence of El Niño Southern Oscillation on the population dynamics of oceanic manta rays in the Mexican Pacific	Hydrobiologia	Madalena Mesquitela Pereira Cabral, Joshua D. Stewart, Tiago A. Marques, James T. Ketchum, Arturo Ayala Bocos, Edgar Mauricio
12.	Distribution of the reef manta ray <i>Mobula alfredi</i> and the oceanic manta ray <i>Mobula birostris</i> in the Philippines: A collaborative effort for conservation.	Journal of Fish Biology	Joshua Rambahinisonet. al

## Manta Ray Sub-lethal Injuries

A summary of the sublethal injuries and physical abnormalities from nearly 73,000 photo-ID sightings from 1987-2019 was published. The study looked at the relationship between the type/frequency of anthropogenic/natural injuries and sex, maturity status, spatial and temporal variables. This publication is a result of many years of data collection in the Maldives including countless citizen scientist submissions from tour operators and divers. It's also fantastic to see published literature stemming from the work of MSc students we support.

Strike EM, Harris JL, Ballard KL, Hawkins JP, Crockett J, Stevens GMW, 2022. Sublethal Injuries and Physical Abnormalities in Maldives Manta Rays, *Mobula alfredi* and *Mobula birostris*

# Studentships

Over the years, the Manta Trust has supported a number of students pursuing a research career in mobulid ecology, fisheries and conservation. The support provided by the charity has come in the form of financial support, access to, and support in field locations, as well as mentoring and academic support.



## 2022 External Supervision

**8** PhD students

We have provided continual support and supervision for a number of doctoral candidates.

**7** MSc students

Through long-term collaborations with Universities, we have supported a number of masters thesis projects.

**3** MRes students

We collaborate with and support students on their journeys to develop research skills.

**2** BSc students

Our studentship support extends to the earliest levels of higher education.

## Ocean Giants Programme



OCEAN GIANTS PROGRAMME

### Collaboration

We have continued to work in collaboration with the University of Plymouth School of Biological and Marine Sciences to run the [Ocean Giants Programme for Conservationist Development](#) (OGP), having designed a new and improved curriculum for it. In May 2022, six new Apprentices were selected to take part in the programme and have been paired up with three partner NGOs: The Manta Caribbean Project, LAMAVE and Sea Search.

### The Programme

The students are spending their first year on the OGP building a relationship with their Partner NGO remotely, whilst undertaking training on charity operations (fundraising, media and communications, strategy) with the Manta Trust, before carrying out an in-situ placement with their Partner NGO during their second year. At the end of 2022 the Apprentices created an OGP Fundraising Strategy and are currently coordinating a series of activities and events to raise donations for their Partner NGOs.

## Students of 2022

2022 presented a record year of research students around the world, that began, continued, or completed a doctorate, masters or bachelor of science or conservation through the Manta Trust.

Student	Project Title	University
<b>PhDs</b>		
1. Niv Froman	The reproductive ecology of the manta ray: life history factors limiting population growth.	University of Cambridge
2. Rachel Newsome	Activity and energetics of reef manta rays ( <i>Mobula alfredi</i> ) in contrasting seascapes.	Murdoch University
3. Joanna Harris	Investigating the movement and foraging ecology of reef manta rays ( <i>Mobula alfredi</i> ) in the British Indian Ocean Territory (BIOT).	University of Plymouth
4. Ana Sobral	Filling the gap: study of the ecology of data-poor pelagic elasmobranchs in oceanic islands in the Atlantic.	University of the Azores
5. Betty Laglbauer	Mobulid ray feeding ecology and sensory biology.	University of the Azores
6. Calvin Beale	Movement ecology of oceanic manta rays ( <i>Mobula birostris</i> ).	Murdoch University
7. Hannah Moloney	Oceanographic drivers of manta ray feeding ecology and behaviour.	University of Sunshine Coast
8. Flossy Barraud	Exploring women's access to the ocean.	University of Plymouth
<b>MSc</b>		
1. Henry Gould	Using remote cameras at cleaning stations to understand the seasonality and behaviour of the reef manta rays ( <i>Mobula alfredi</i> ) of Baa atoll, Maldives.	University of Exeter
2. Annabel Kemp	Variation in visitation patterns and habitat use of adult and juvenile <i>Mobula alfredi</i> (reef manta rays) at key aggregation sites in Raa Atoll, Maldives.	University of Exeter
3. Darcy Brady	Influences of reef manta ray ( <i>M. alfredi</i> ) visitation patterns to a remote cleaning station and the implications for conservation.	University of Plymouth
4. Christopher Wenham	Eyes on the Reef - Using remote cameras at cleaning stations to understand the seasonality and behaviour of the reef manta rays ( <i>Mobula alfredi</i> ) of Laamu Atoll, Maldives.	University of Exeter
5. Hannah Cocks	The Use of Fishers' Local Ecological Knowledge (LEK) in Mobulid Conservation,	University of Exeter
6. Beth Faulkner	Detecting physiological changes in the reef manta ray ( <i>Mobula alfredi</i> ) using skin mucus as indicators of sexual maturity and mating activity.	University of Plymouth
7. Kaitlyn Zerr	Eyes on the Reef: Using remote cameras to reveal the hidden habits of marine megafauna in a newly designated UNESCO Biosphere Reserve.	University of Victoria
<b>MRes</b>		
1. Genevieve Alexander	Investigating the feeding ecology of the reef manta ray ( <i>Mobula alfredi</i> ) from the Chagos Archipelago through stable isotope analysis.	University of Plymouth
2. Kathryn Thibaut	Intra-annual variations of reef manta ray visitation patterns to a remote cleaning station.	University of Plymouth
3. Jessica Haines	The importance of a key aggregation site for juvenile reef manta rays ( <i>Mobula alfredi</i> ) in the Maldives, and the impacts of tourism activities at this location.	University of Exeter
<b>BSc</b>		
1. Lena Pollett	Analysing association rates of reef manta rays ( <i>Mobula alfredi</i> ) situated in Chagos Archipelago.	University of Plymouth
2. Iru Zareer	Assessment of Oceanic Manta Ray ( <i>Mobula birostris</i> ) and Whale Shark ( <i>Rhincodon typus</i> ) sightings in Fuvahmulah using Local Ecological Knowledge (LEK).	Maldives National University

Left: MSc - Eyes on the Reef - Using remote cameras at cleaning stations to understand the seasonality and behaviour of the reef manta rays (*Mobula alfredi*) of Laamu Atoll, Maldives.

Right: Researchers deploying acoustic Doppler current profiler unit for PhD project - Oceanographic drivers of manta ray feeding ecology and behaviour.





## Online Articles

The Manta Trust team and affiliate network were featured in multiple magazines and online articles, such as Forbes, National Geographic, The Times, Travel and Leisure, and Duiken.



## On Television

The Manta Trust research and conservation efforts were showcased in several high-end productions throughout 2022, including documentaries by the BBC and ITV, and were featured on French national news.



## Our Own Media

We have shared research and conservation stories around mobulid rays throughout the year through impactful imagery and insightful infographics. The media and communications team also created multiple educational videos, including 'Mantas of Makunudhoo' which showcased the Manta Trust's latest project in the Maldives, and received over 14,000 views on Youtube, and the 11-part animated 'Species Spotlight' series, disseminating key facts about every mobulid species. A series of 5 educational videos from the Maldives northern atoll research expedition were filmed and produced, with one of the episodes making it to the Smiley Charity Film Award finals.

# In the Media



*Engaging media is an incredibly powerful tool in conservation. It can connect people with biodiversity and inspire them to become stewards of the environment.*

## Our Changing Planet

BBC's Our Changing Planet, an ambitious seven-year series hosted by Steve Backshall documenting six of the planet's most threatened ecosystems, aired in 2022. The Manta Trust team were featured during the Maldives northern atolls expedition, which Steve Backshall joined onto, with a focus on our reproductive ecology and plankton research.

## A Year on Planet Earth

The Maldives Manta Conservation Programme research and conservation work in Baa Atoll was featured in an ITVx series highlighting the fascinating seasonal fluctuations of species and environments around the globe.



### Social Media Following

Our social media following, with whom we share research and conservation news, grew to over 128,000 followers.



### The Cyclone

We continued to share exclusive articles and video content with our passionate supporters through 'The Cyclone' platform.



### Media Campaigns

Supported marine education and awareness campaigns like 'Stop Funding Overfishing', and 'Fish Free February'.



# Affiliate Projects



## Our affiliate project network operates in 28 regions.

Collaboration is one of the key pillars of the Manta Trust conservation approach. We work to bring together new and established projects from around the world, that drive the research and conservation of mobulid rays as a collective.

The Manta Trust was founded in 2011 in order to create a global network of mobulid scientists and other experts in realms as diverse as education, advocacy, policy, and media, who would work together specifically to conserve manta rays, their relatives and their habitats. At the heart of this global network, our core operational team works to coordinate activities for, provide expert guidance to, fundraise for, and encourage collaboration between all of our affiliate projects. View [Our Strategy](#) to learn more about how we direct global efforts and priorities for mobulid conservation.



### Proyecto Manta Pacific Mexico (PMPM)

PMPM was established in 2014 to engage local fishers and marine biology students from the bay and Baja California Sur with the implementation of an intensive manta ray monitoring program on the southern coast of Banderas Bay. Manta rays in the region are vulnerable to human impacts, such as collisions with boats and entanglement in floating fishing gear. PMPM supports marine conservation with an emphasis on the protection and sustainable tourism use of the oceanic mantas ray through research, capacity building, citizen science and stakeholder engagement.

### Mantas de Costa Rica

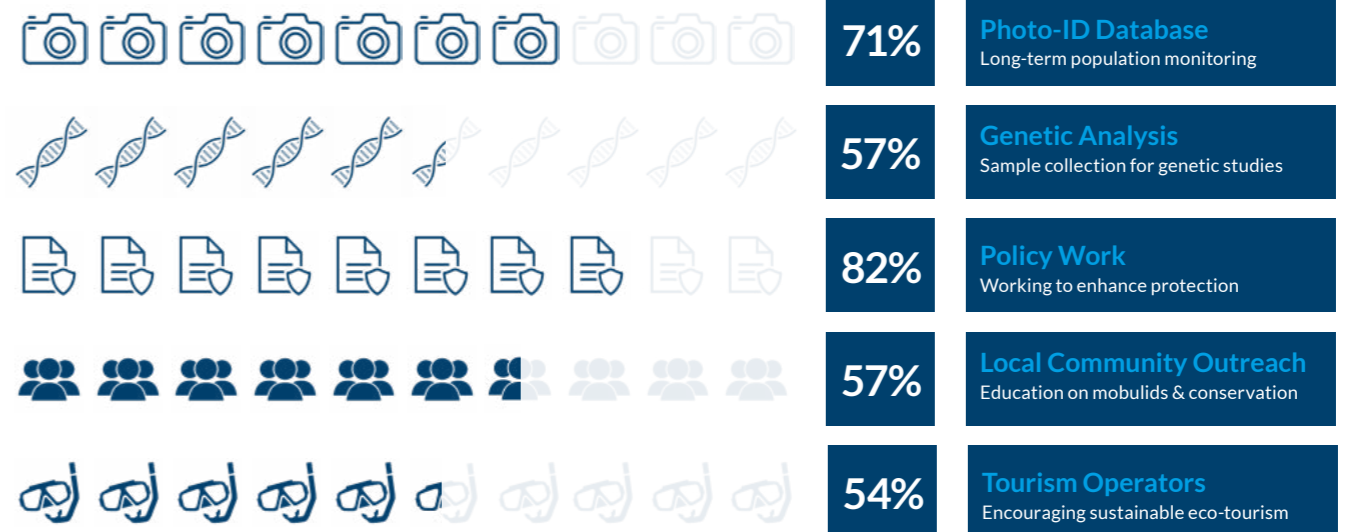
Mantas de Costa Rica aims to identify the abundance of oceanic manta rays, highlight the temporal and spatial distribution, as well as migratory patterns of manta rays and analyse manta ray ecology and population structure in Costa Rica. The project is located along the entire Pacific coast of Costa Rica, with a specific focus on the Reserva Natural Absoluta Cabo Blanco (RNACB). Their proposed methodology consists of acoustic telemetry, photo identification, underwater videos and tissue samples.



### African Marine Mammal Conservation Organization

African Marine Mammal Conservation Organization (AMMCO) is based in Cameroon in West Africa and is working to conserve marine megafauna, including mobulid species, in their waters by developing synergies to improve scientific knowledge, the livelihoods of fishing communities and law enforcement. To monitor fisheries, the AMMCO team have developed a citizen science application called the SIREN app, which enables fishers or other citizens to upload photos of sharks and rays they capture as retained bycatch in non-selective gear. AMMCO is also working with fishers and various organizations to better understand the socio-economic context of these fisheries to support the transition towards more sustainable fishing practices.

### Affiliate project focus species, regions and methods





1 Pilot project Launched – Makunudhoo Atoll



2 New research studies initiated: Physical oceanographic research in Baa Atoll and Long term Zooplankton Assessment



1 Full Moodhu Madharusaa program completed in Baa Atoll and additional education sessions carried out in Noonu, Makunudhoo, Laamu and North Malé Atoll



4 MSc student projects supervised, supported, hosted and facilitated in studies designed by the Manta Trust



1 Application for MPA designation and 2 applications for OECM (Other Effective Area-based Conservation Measures) Management (Hurawalhi & Maamunagau)



3 Presentations and 2 Posters selected and presented at the Biannual Maldives Marine Science Symposium

Project Bases: Raa, Baa, Lhaviyani, Laamu, Makunudhoo and Fuvahmulah Atolls.



## MALDIVES MANTA CONSERVATION PROGRAMME

In 2022 our Maldivian Manta Ray Project was registered as a Maldivian NGO and it has now been renamed the Maldives Manta Conservation Programme (MMCP). This is an important step in ensuring Maldivians have ownership of conservation efforts and that initiatives are driven at the local level. The MMCP is now governed by a fully Maldivian board with the ongoing support and guidance of the Manta Trust.

This is the founding project of the Manta Trust and it has been collecting data on the country's manta population since 2005. The long-term data it has collected has not only allowed us to inform the on-going management and protection of the world's largest population of reef manta rays, but has also played a significant role in gaining protection for populations in other corners of our ocean.

Bases

6

Staff/  
Interns

28

Surveys

>5,000

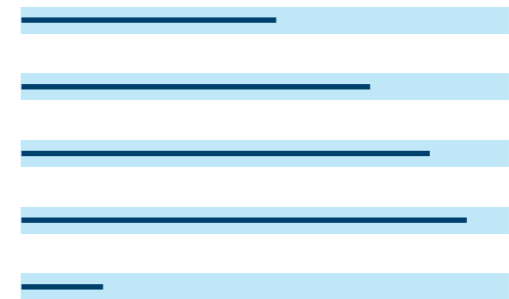
Ultrasonography

Photogrammetry

Plankton Trawls

Eyes on the Reef

3D Reef Modelling



# Financial Report

We are very grateful to all the grant giving bodies, sponsors, and donors who continue to provide a lifeline for the Manta Trust and vicariously for our global network of research and conservation projects.



After two years of slow-down in field and in-person activities, this year we have been ramping up our conservation initiatives and fundraising efforts. The support we receive from resorts and tourism partners is back to pre-pandemic levels, despite some of them still operating at limited capacity. We have also seen an increase in contributions from corporate partners as social responsibility has become a key strategic component for many businesses after the pandemic. As travel has opened up we have been able to meet with funders, strengthening existing relationships and building new ones. With the cost of living crisis setting in, and the economic uncertainty that this has brought, we are very grateful to all the grant giving bodies, sponsors, and donors who continue to provide a lifeline for the Manta Trust and vicariously for our global network of research and conservation projects.



## Income

£675,005

This year we have raised over 30% of our funds from donations, fundraising and corporate/commercial supporters. This diversity of unrestricted income streams has allowed us to develop our IDtheManta platform and support more PhD/Masters students in their manta studies. Importantly, we have been able to help more of our global Affiliate Projects in carrying out new and innovative manta research and data collection. Again, we would like to thank everyone who donated to us in 2022, however big or small your contribution, for keeping vital mobulid conservation efforts alive.

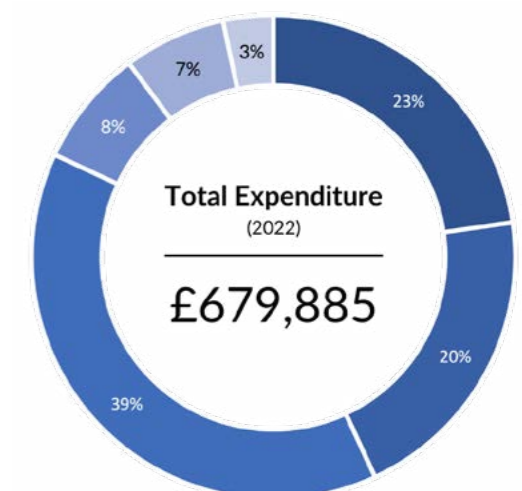
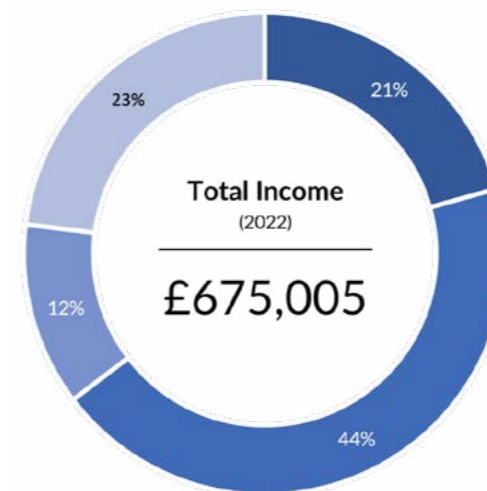
## Expenditure

£679,885

Where our funding is spent is decided by the Core Operations Team, with guidance from our Board of Trustees, and direction from our Global Strategy and Action Plan for Mobulid Conservation.

## Finance Breakdown

Please note that the following figures are unaudited and approximate. For detailed financial information please view our audited [Financial Statement for 2021-22](#). Manta Trust Reserves: To safeguard the core activities of the charity in periods of fluctuating income, the Trustees have established unrestricted reserves to cover six to twelve months operational costs £200,000 to £250,000. In 2022 there were adequate funds to ensure the charity was able to meet all current operational costs and some estimated possible future liabilities. Our unrestricted funds on 30 June 2022 were £513,491.



- Partnership with Maldives Resorts
- Trusts & Research Grants
- Public Donations & Fundraising
- Corporate Social Responsibility Funding

- MMCP (4 bases, 9 staff)
- Operations & Overheads (7 staff)\*
- Research and Conservation Projects
- Education & Outreach Programme
- Studentship Programme
- Research Expeditions

\*Our staff are one of the greatest conservation tools at our disposal. Our core team is only small, but its influence is far reaching; as an umbrella organisation, we not only support our own Maldives Manta Conservation Programme, but also coordinate activities for, provide expert guidance to fundraise for, and encourage collaboration between 28 affiliated projects worldwide. Charities are often criticised for spending funds on their operations and overheads; making it difficult for charities to maintain a highly skilled core operational team and pay them a fair wage ([We highly recommend watching this short but powerful TED Talk on the topic](#)). So, we are especially grateful for the incredible support our core team has received from several progressive sponsors and donors over the years, without whom we could not continue our work.



# Thank You and Summary

The success and achievements of the Manta Trust in 2022 would not have been possible without the incredible support of the following groups:



We would like to give a special mention to our Patrons who have been extremely supportive over 2022, helping us to highlight our special events and using their unique platform to raise awareness of the Manta Trust. Thank you to our Trustees for guiding and supporting the core operational team as we strive to grow and develop our charity, and to the Action for Mantas (our partner registered 501 (c)(3) Board for their continued support of us and our US-based supporters. Thanks to Manta Expeditions for helping us to get our researchers into

the field and raising much needed donations for our charity. We would also like to extend a huge thank you to our cyclone members, commercial supporters, supporters who adopted a manta ray, purchased our merchandise, donated to us directly, or through Action for Mantas, supported our crowdfunding campaigns, or took part in our Cross the Oceans challenge! Without your support, none of this work would have been possible. Our growing number of supporters is incredibly inspiring and we are grateful for everyone of you.



**This united approach fills me with hope, and it is essential if we are to successfully drive global conservation efforts at every level for these vulnerable, migratory species.**



One of the things that I love most about working for the Manta Trust is being part of an ever-growing, collaborative force for good. We are passionate and dedicated individuals with a wealth of varied experience, expertise, and approaches; but as a team we are striving towards the same shared vision: a sustainable future for manta and devil rays, and the habitats on which they depend. This united approach fills me with hope, and it is essential if we are to successfully drive global conservation efforts at every level for these vulnerable, migratory species.

This year we will finalise our new five-year plan for the Manta Trust which will lay out the issues in most need of our attention including an ever-increasing focus on tackling the lack of diversity within the conservation sector. To ensure we are doing all we can to break down barriers to inclusion in marine science, and to support the implementation of the five-year plan, we will be delivering more of the key actions laid out in our 2023 Education & Diversity Strategy and working to bring together experts from across the global south to review the state of mobulid fisheries globally. By making these conversations more inclusive we will highlight the major policy and enforcement gaps that are blocking the path towards effective mobulid conservation.

This type of work can be tricky to find funding for, as it is often less evocative and photogenic than our work in the field with manta rays. However, it is vital if we are to succeed in achieving our vision of a sustainable future for both manta and devil rays and the people that live alongside them. Any support you can give, big or small, to help us in our mission will make a huge difference.

Bex Carter  
Director of Operations





## Impact Report 2022

### Image credits:

Simon Hilbourne: Front and back cover, 3, 12, 16, 21, 24B, 31B, 41, 44, 48

Jasmine Corbett: 4, 6TR, 22, 24T, 25, 29L, 32B, 38

Mantas de Costa Rica: 6M

Fish Free February: 7T

Blue Resources Trust: 7B, 31R

Joao Rodrigues: 8

Danny Copeland: 11,

Hannah Moloney: 14, 17T

Flossy Barraud: 6B, 23

Blanca Idalia Gonzalez: 17B

Guy Stevens: 19, 49

AMMCO: 26

Indonesia Manta Project: 29M

Micronesian Conservation Coalition: 29R

French Polynesia Manta Project: 28L

Mobula Conservation: 28T

Manta Caribbean Project: 28M

Caribbean Islands Manta Conservation Program: 28M

Peru Mobulid Project: 28B

Jennifer Spacagna: 28T, 30

Niv Froman: 31L

Joanna Harris: 31M

Maldives Manta Conservation Programme: 32L, 33

Sophie Owsianka: 39

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