OLIVE RIDLEY PROJECT

Annual Review 2024

Contents

Hawksbill turtle, Baa Atoll, Maldives.
Photo: Afrah Abdual Sathaar for ORP.

Our Mission

Sea turtles have existed on Earth for over 120 million years, yet only seven species remain today. These remarkable creatures inhabit all the world's oceans except the Arctic.

Oceans are essential to human survival, providing food, freshwater, and oxygen. Protecting them is crucial for the future of our planet.

As keystone species, sea turtles help maintain ocean health by sustaining fish populations, preserving coral reefs, and preventing seagrass meadows from overgrowing and dying.

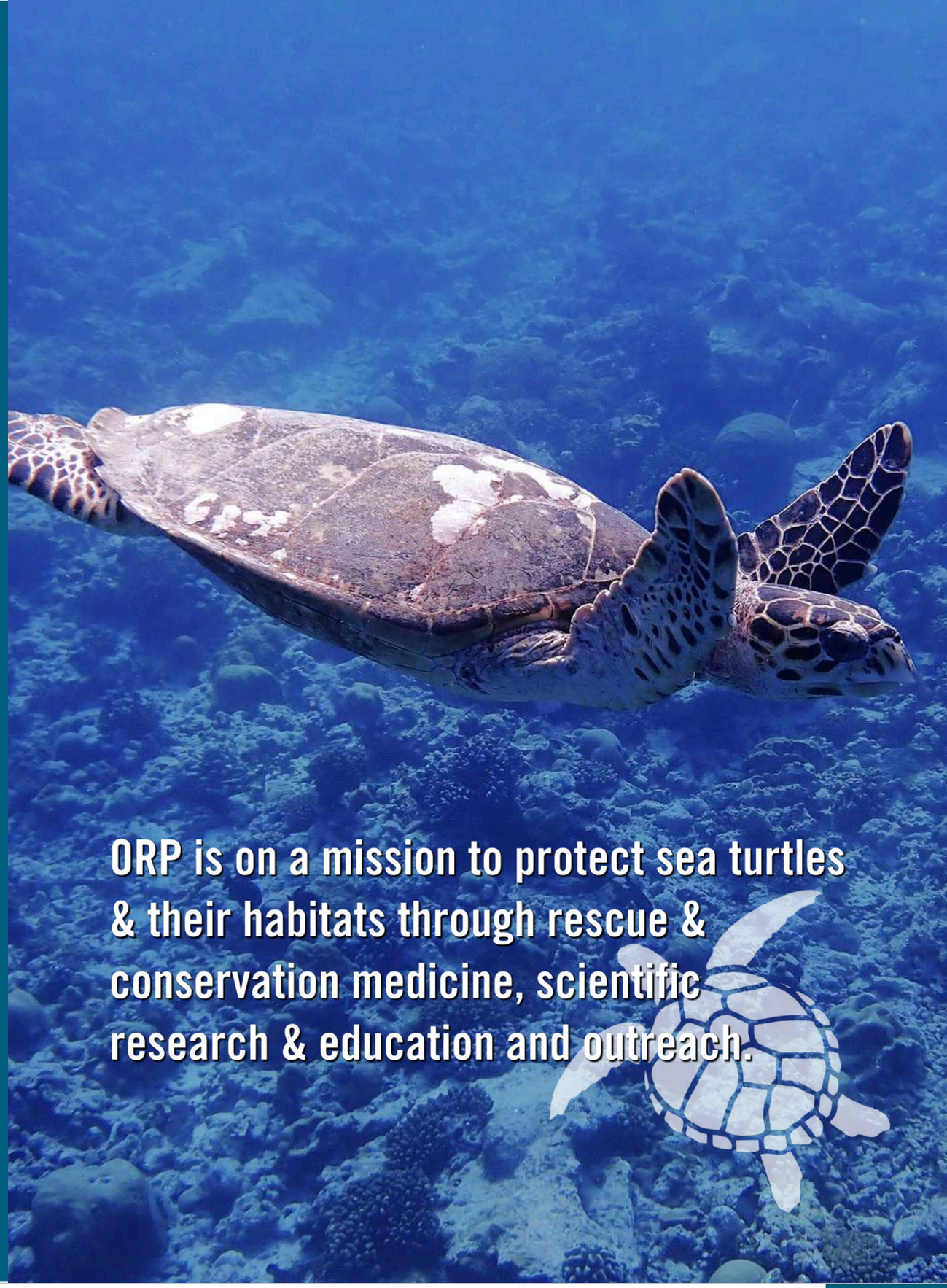
Despite their importance, sea turtles face numerous threats to their survival.

Organisational Note
Olive Ridley Project operates across multiple countries through different legal entities:

- **Olive Ridley Project** (ORP) is a registered charity 1165905 in England & Wales.
- **Olive Ridley Project – Kenya** (ORPK), registered NGO-EPFPJ6 in Kenya, operates as a branch of Olive Ridley Project
- **Olive Ridley Project – Maldives** (ORPM), registered NGO CR/04/2022 in the Republic of Maldives, is an independent entity.

All activities reported here were jointly delivered.

HK5894 Medhufaru, Noonu Atoll, Maldives. Photo: Sarah Patman.



Our Work

Sea Turtle Rescue & Conservation Medicine

We treat injured sea turtles rescued in the Maldives at our Marine Turtle Rescue Centre in Baa Atoll, which features a fully equipped veterinary clinic and an on-site veterinary team. We also operate three Sea Turtle Rehabilitation Centres in Noonu, North Malé and Raa atolls.

Scientific Research

We conduct research on sea turtle populations, distribution, health, and threats to improve scientific knowledge and inform sea turtle conservation policy as well as veterinary treatment.

Environmental Education

Education is a powerful tool to increase awareness, engage people, and stimulate action. We educate school children, communities, divers, fishermen, tourists, resort staff, biologists, and the general public, in person and online. We also offer volunteer and internship programmes.

Collaboration & Community Outreach

To create long lasting change, we ensure that our conservation initiatives are practised from ground-up. We therefore collaborate with affected industries, communities, governments, and local and International NGOs to apply research to practice.

GR1731, green turtle, Lhaviyani Atoll, Maldives.

By the Numbers

Scientific research, rescue and conservation medicine

>48.1K

Sea turtle sightings recorded in the Indian Ocean

8,098

Sea turtles identified in the Indian Ocean

893

Sites w/sea turtles sighted in the Indian Ocean

1,972

Nests recorded in the Indian Ocean

>57,8K

Hatchings counted in the Indian Ocean

248

Turtle patients admitted Maldives

146

Turtle patients released Maldives

94

Turtle patients deceased Maldives

6

Rehabilitated olive ridley turtles satellite tagged Maldives

Environmental education, collaboration and community outreach

14.34K

Kgs of ghost gear removed in the Indian Ocean

58.44K

Square metres of ghost net repurposed in the Indian Ocean

281

Volunteers hosted at the Rescue Centre Maldives

30

Sea Turtle Guardian Programme Graduates

45.3K

Individuals educated

2.4M

YouTube views

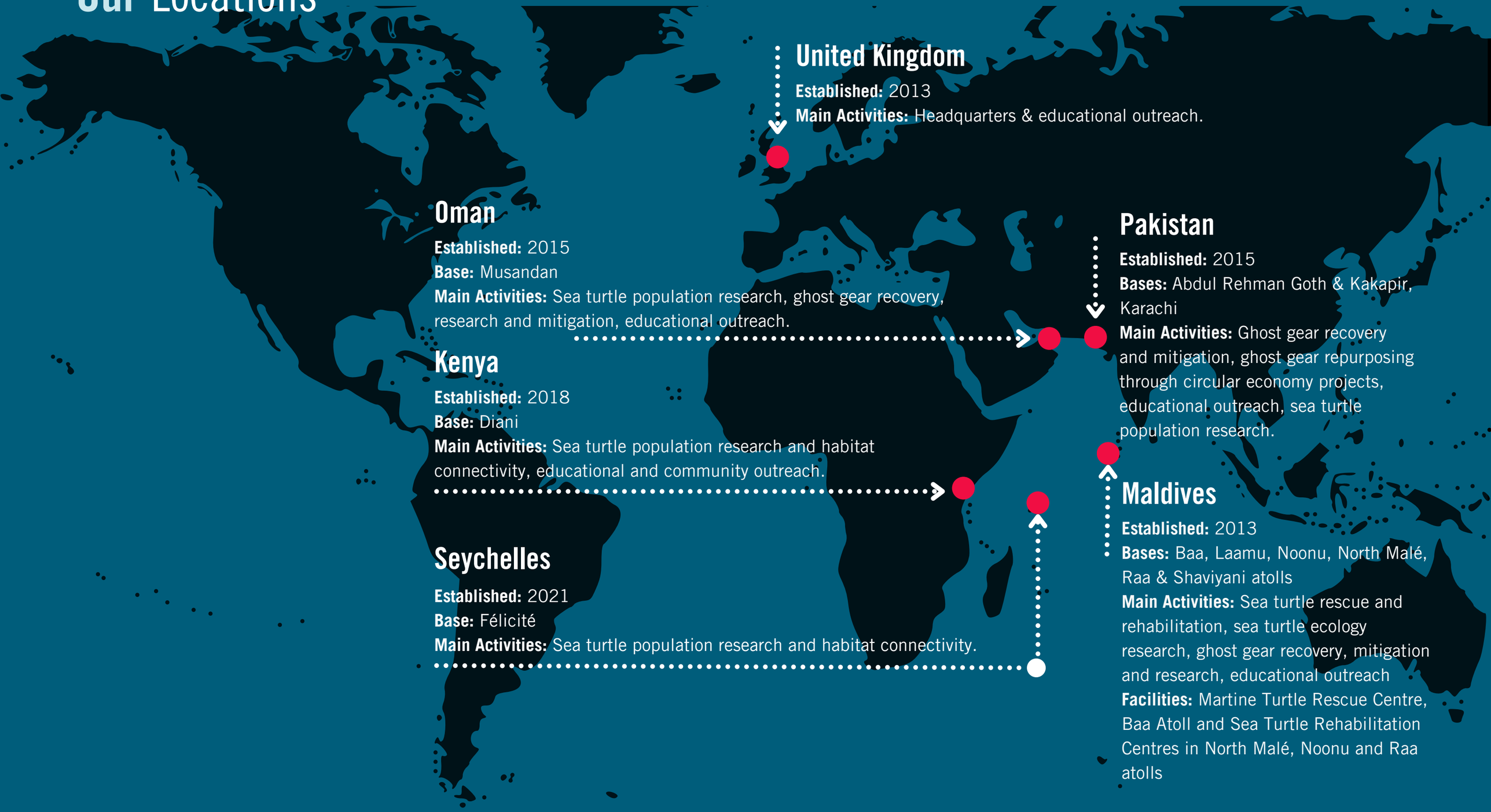
30

Publications

2.1K

Podcast Downloads

Our Locations



United Kingdom

Established: 2013
Main Activities: Headquarters & educational outreach.

Oman

Established: 2015
Base: Musandan
Main Activities: Sea turtle population research, ghost gear recovery, research and mitigation, educational outreach.

Kenya

Established: 2018
Base: Diani
Main Activities: Sea turtle population research and habitat connectivity, educational and community outreach.

Seychelles

Established: 2021
Base: Félicité
Main Activities: Sea turtle population research and habitat connectivity.

Pakistan

Established: 2015
Bases: Abdul Rehman Goth & Kakapir, Karachi
Main Activities: Ghost gear recovery and mitigation, ghost gear repurposing through circular economy projects, educational outreach, sea turtle population research.

Maldives

Established: 2013
Bases: Baa, Laamu, Noonu, North Malé, Raa & Shaviyani atolls
Main Activities: Sea turtle rescue and rehabilitation, sea turtle ecology research, ghost gear recovery, mitigation and research, educational outreach
Facilities: Martine Turtle Rescue Centre, Baa Atoll and Sea Turtle Rehabilitation Centres in North Malé, Noonu and Raa atolls

Meet the Team

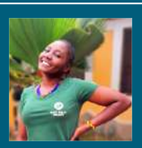
ORP Kenya

JENNI CHOMA
PROJECT MANAGER

LEAH MAINYE
PROJECT COORDINATOR

DR JOANA HANCOCK
RESEARCH COORDINATOR

JUMA GWERENYA
COMMUNITY EDUCATION & OUTREACH OFFICER



DIANA KERUBO NYAKUNDI
SEA TURTLE MONITORING ASSISTANT

FRANCISCA ANDATI MATENDECHERE
INTERN

KELVIN SIFA NGONYO
INTERN

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CHAIRPERSON

SAHYA HARIA
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DANIEL OSEMBE
TRUSTEE

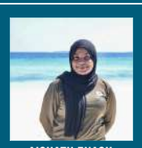
AMANDA COSTAIN
TRUSTEE

LEE CANNAN
TRUSTEE/TREASURER

ORP Maldives

ISHA AFEEF
PROGRAMME MANAGER

SARAH IBRAHIM
PROJECT ASSISTANT



AISHATH ENASH
ADMINISTRATOR & VOLUNTEER COORDINATOR

IBRAHIM INAAN
SEA TURTLE RANGER LAAMU ATOLL

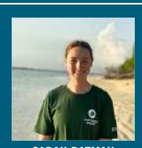
MALSA NAEEM
ASSISTANT SEA TURTLE RANGER, LAAMU ATOLL

IBAADH HUSSAIN
SEA TURTLE CONSERVATION OFFICER LAAMU AOLL

JULIAN GERVOLINO
SEA TURTLE BIOLOGIST LAAMU ATOLL

MIKAELA DIBBLE-KAHN
SEA TURTLE BIOLOGIST LAAMU ATOLL

MARÍA ANTONIA IZURIETA
SEA TURTLE BIOLOGIST LHAVIYANI ATOLL



SARAH PATMAN
SEA TURTLE BIOLOGIST NOONU ATOLL

NEUS SEGURA
SEA TURTLE BIOLOGIST NOONU/SHAVIYANI ATOLL

PHILIPPA DARBYSHIRE-JENKINS
SEA TURTLE BIOLOGIST NORTH MALÉ ATOLL

LAUREN STORER
SEA TURTLE BIOLOGIST NORTH MALÉ ATOLL

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SEA TURTLE BIOLOGIST RAA ATOLL

ABDULLA HAMEEDH
SEA TURTLE BIOLOGIST RAA ATOLL

AFRAH ABDUL SATHAAR
SEA TURTLE BIOLOGIST SHAVIYANI ATOLL

DR MARIANA FRAGOSO
VETERINARY SURGEON

DR HASNAULHUSNA
VETERINARY SURGEON

TRISTAN NETO
VETERINARY NURSE

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INTERN

MOHMED ZIYAN
INTERN

ALWAN IBRAHIM
INTERN

HUSSAIN FARISH
INTERN

NAWHA IBRAHIM
INTERN

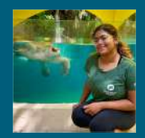
MANAAL MOHAMED
INTERN

AMINATH ANVI
INTERN

AHMED ZORAN RIYAZ
INTERN

HADIN MUSAD
INTERN

AISHATH INSHA RAMEEZ
INTERN



AISHA ZAINA HAFEEZ
INTERN

ORP Maldives Executive Committee

SHAMEEL IBRAHIM
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AIMON LATHEEF
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MUHAMMED HANIF
FIELD COORDINATOR

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LEAD VETERINARY SURGEON

JUNHO YU
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LAUREN KING
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CHARITY ADMINISTRATOR

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RISHA ALI RASHEED
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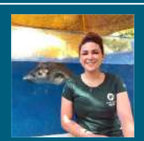
AMANDA COSTAIN
TRUSTEE

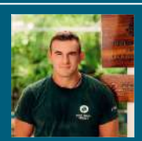
CLIONA KIRBY
TRUSTEE

Volunteers

DR MINNIE LIDDELL
PODCAST HOST, EDUCATOR & AMBASSADOR



LAUREN VALENTINE
EDUCATOR & AMBASSADOR



JOE RIGBY
RESEARCHER

LARA KALISCH
RESEARCHER

UMNA AFEEF
COMMUNICATIONS ASSISTANT

BERT LANG
IT SPECIALIST

Scientific Advisors

DR JILLIAN HUDGES
SCIENTIFIC ADVISOR

DR CLAIRE PETROS
SCIENTIFIC ADVISOR

Ambassadors

ANDY TORBET
AMBASSADOR

MATT SORUM
AMBASSADOR

Executive Summary

Sea turtles, ancient creatures facing modern threats, are at the heart of the Olive Ridley Project's (ORP) mission. Our holistic approach considers the entire ecosystem and its interdependent elements. By recognising their interplay, we promote healthier ecosystems that benefit sea turtles, their habitats, and people.

In 2024, we strengthened our conservation efforts across Kenya, the Maldives, Oman, Pakistan, and Seychelles through community-led programmes, cutting-edge technology, and strategic partnerships. The official registration of ORP - Kenya as an NGO reinforced our long-term commitment to conservation in the region. We also developed a comprehensive five-year strategy to ensure our organisations's continued sustainability and growth.

A key component of this strategy is our Theory of Change (ToC), aligning activities with measurable outcomes to create lasting impact. It not only supports our immediate goals but also strengthens ORP's resilience for future challenges and opportunities. The ToC is built around three primary goals:

- Protecting sea turtles from growing threats posed by human activity and climate change.
- Advancing our understanding of sea turtle health through conservation medicine and clinical research to reduce suffering and improve species-wide health.
- Empowering individuals, communities, and stakeholders to lead sea turtle conservation efforts.

Achieving these goals requires a deeper understanding of sea turtle ecology, population health, threats, and social perspectives. Progress in scientific and clinical research provides a vital foundation for equipping the global sea turtle community with advanced methodologies and innovative approaches to strengthen conservation efforts, improve health, and protect habitats.

Long-term sea turtle population monitoring using Photo-Identification (Photo-ID) remains an essential tool for assessing sea turtle population trends, which then guide effective conservation management. In 2024, ORP's Photo-ID database grew to over 8,000 identified sea turtles and 50,000 encounters, making it one of the world's largest datasets. This data is integrated into the Internet of Turtles (IoT), enhancing global monitoring efforts. This milestone reflects our commitment to collaboration and data-driven conservation. We thank our citizen scientists for their contributions.

In Kenya, drone surveys and Photo-ID provided critical data on habitat use, threats, and disease prevalence in sea turtle populations. In the Maldives, we have identified over 5,000 hawksbills, and utilised drone monitoring to help deter illegal take from nesting beaches in Laamu. In Oman, our research has confirmed Zighy Bay as a key developmental habitat for juvenile green turtles, although threats from ghost gear and bycatch persist.

Our nest monitoring project in the Maldives is also contributing data to a nationwide genetic study and a collaborative study with MEDASSET on microplastic contamination in nesting sands. Running Out of Sand: Sea Turtle Nesting Activity on Félicité Island, Seychelles, our study examining nest activity and challenges like beach erosion and human-related threats, was published in the Marine Turtle Newsletter (2024).

In 2024, two expeditions helped strengthen the foundation for sea turtle research in the Maldives, including our Sea Turtle Health Database – the region's first comprehensive repository of clinical indices – designed to inform future therapeutic approaches. These expeditions also provide valuable capacity-building opportunities for students and citizen scientists participants, while also promoting environmental stewardship and community engagement.

Over the past two years, we have transitioned from a traditional rescue and release approach to a more advanced conservation medicine model in our veterinary practices, incorporating new therapies, innovative technologies, and research-driven treatment. These advancements have improved diagnostic accuracy, treatment outcomes, and patient recovery. We also expanded our rescue and rehabilitation network to increase capacity for injured sea turtles. Since we opened our first Marine Turtle Rescue Centre in the Maldives in 2017, we have maintained a 61% release success rate – a significant achievement in wildlife veterinary conservation.

But conservation isn't just about data and technology. It's about people. Our community-led initiatives are empowering local communities to become stewards of their marine environments. From fisher outreach programmes in Kenya to beach guardian initiatives in the Maldives, we are fostering a sense of community ownership and responsibility. In Pakistan, we're building bridges between conservation and economic empowerment, ensuring that protecting sea turtles benefits both wildlife and local communities.

Education is paramount. We've reached thousands of people through workshops, site visits, educational festivals, online courses, social media channels, and our podcast (launched in 2024), inspiring the next generation of conservationists. Our veterinary training, internships, and volunteer programmes build capacity, extending our impact beyond our direct interventions.

In 2024, ORP also focused on securing the financial resources necessary to sustain its mission and drive long-term growth. A key priority was strengthening our fundraising strategy to build a resilient financial foundation by diversifying income streams and reducing reliance on any single source. This included identifying new funding opportunities and exploring alternative revenue models to support the charity's expanding operations and impact. Investing in fundraising is essential not only for sustaining ORP's ongoing programmes but also for ensuring the necessary infrastructure is in place to support local offices and teams effectively.

As we reflect on our achievements and progress in 2024, we extend our heartfelt gratitude to our donors, supporters, partners, collaborators, and data contributors. Your generosity and commitment enable us to continue this vital work. We look forward to achieving even greater success together in the years ahead.

Dr Martin Stelfox
CEO & Founder,
Olive Ridley Project

ORP- Kenya

Identified Sea Turtles Kenya

Green Turtles

703

Since 2018

72

2024

Hawksbills

89

Since 2018

6

2024

792

Total sea turtles identified

41

Sites w/sea turtles sighted

5,699

Sea turtle sightings

We began monitoring sea turtles in the Diani-Chale Marine National Reserve in 2018, never imagining how much our project in Kenya would evolve. What started as a one-person initiative has now grown into a dedicated five-member team, leading a range of impactful programmes including in-water Photo-ID, drone monitoring, BMU Fisher Outreach, an Internship Programme, and a Sea Turtle Festival.

All of this progress culminated into a significant milestone in 2024 with the registration of ORP - Kenya as a Non-Governmental Organisation, solidifying our commitment to sea turtle conservation in the country.

Reflecting on over six years of monitoring through Photo-ID, we've catalogued nearly 1,000 sea turtles, the majority of which are juveniles, underscoring the importance of the Diani-Chale Reserve as a vital developmental habitat. In 2024 alone, we added 72 green turtles and six hawksbills to our database, all the while continuing to track the progression and regression of Fibropapillomatosis (FP) in green turtles. Excitingly, we also documented our first loggerhead near Chale Island.

Our monitoring efforts aim to deepen our understanding of sea turtle foraging, developmental habitats, and migratory patterns along the coastline. Through partnerships with organisations like Bahari Hai, who are expanding Photo-ID initiatives in other Marine National Parks and Reserves, we are broadening our study area. The research we're conducting in the Diani-Chale region will provide a valuable blueprint for assessing sea turtle populations and the threats they face, enabling us to work closely with authorities and local communities to develop effective conservation strategies.

This year, however, the marine ecosystem of Diani faced a significant setback with the worst coral bleaching event we've witnessed since beginning in-water monitoring. While cooler waters have helped some corals recover, many have been lost. As green and hawksbill turtles rely on reefs for foraging and resting, prolonged bleaching events like these pose a direct threat to their survival.

Despite this challenge, our in-water monitoring continues, supported by drone surveys led by Leah Mainye, our licensed drone pilot. Leah conducted 81 surveys in the Diani-Chale Reserve in 2024, capturing nearly 2,000 minutes of footage and over 200 sea turtle sightings. A curious observation from these surveys is the lack of green turtles feeding in the seagrass-filled lagoon, unlike similar spots along the Kenyan coast. This mystery will remain a focus as we continue our surveys to better understand these vital habitats.

Last year we also focused on improving citizen science participation in our Photo-ID initiative. Not only will this help increase sea turtle sighting data, but make conservation work more participatory and inclusive. We held workshops for seven dive centers, engaging around 50 staff members who pledged to collect sea turtle photos and data while promoting the initiative to their diving guests.

The insights from our field work is regularly shared with local communities and authorities, enabling a common knowledge pool for stakeholders to collaborate over. This led to the launch of our dedicated BMU fisher programme (next page) in 2022. And while working with the fishing community is a major focus area for our team, we also actively engage with local schools and students.

We hosted 450 students and teachers in 18 workshops with Camps International and welcomed 100 from Nairobi schools through Infinity Outdoors, both in collaboration with the Conservation Education Society (CES).

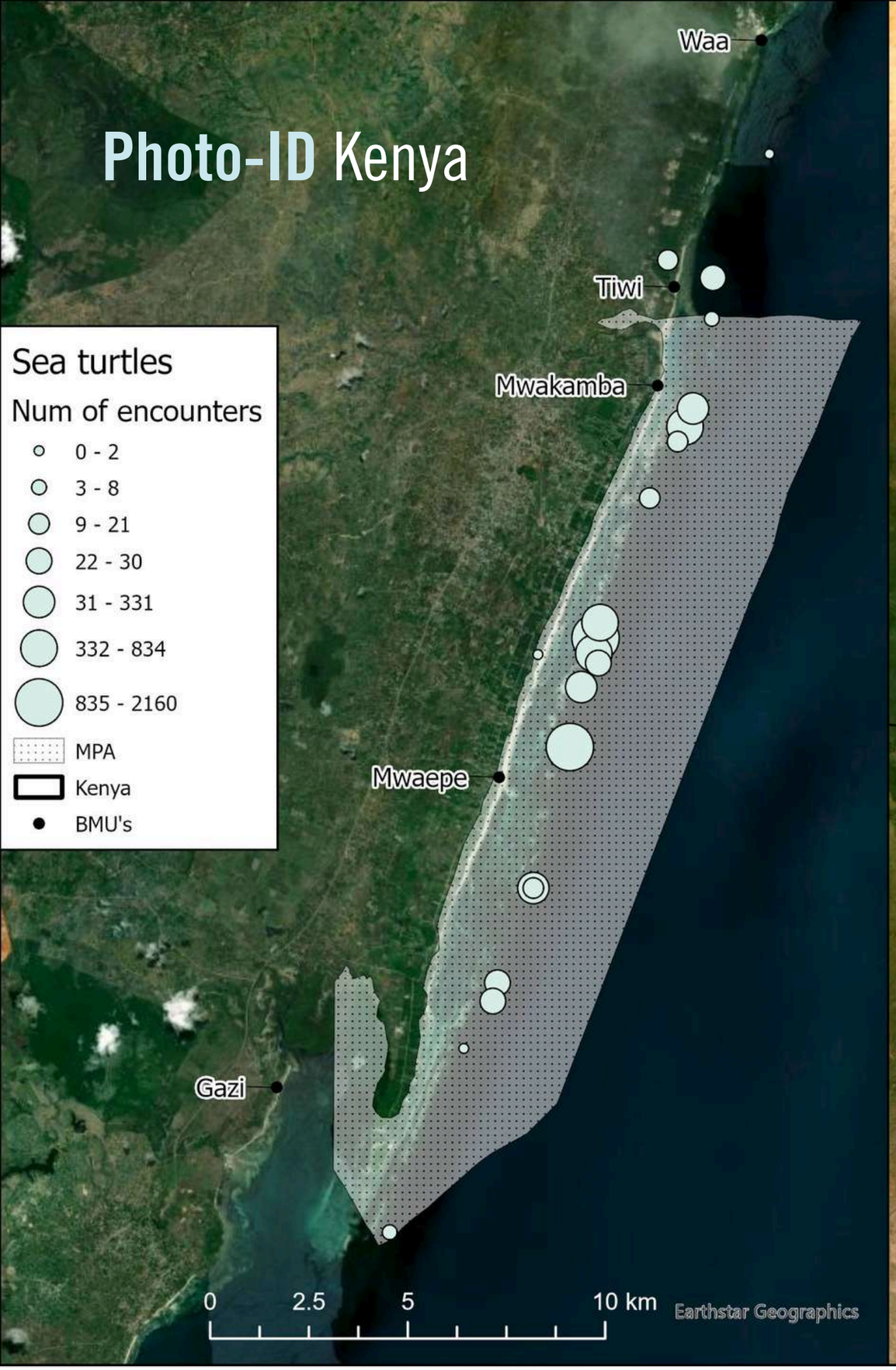
In addition, we co-hosted the fifth Diani Sea Turtle Festival, also with the CES, and raised funds to sponsor the attendance of over 250 students and 50 community members, while offering a platform for 12 marine conservation organisations to showcase their work. The festival featured engaging educational activities. Additionally, we participated in the Zero Plastics Festival and Kenya Wildlife Service's World Wildlife Day celebrations.

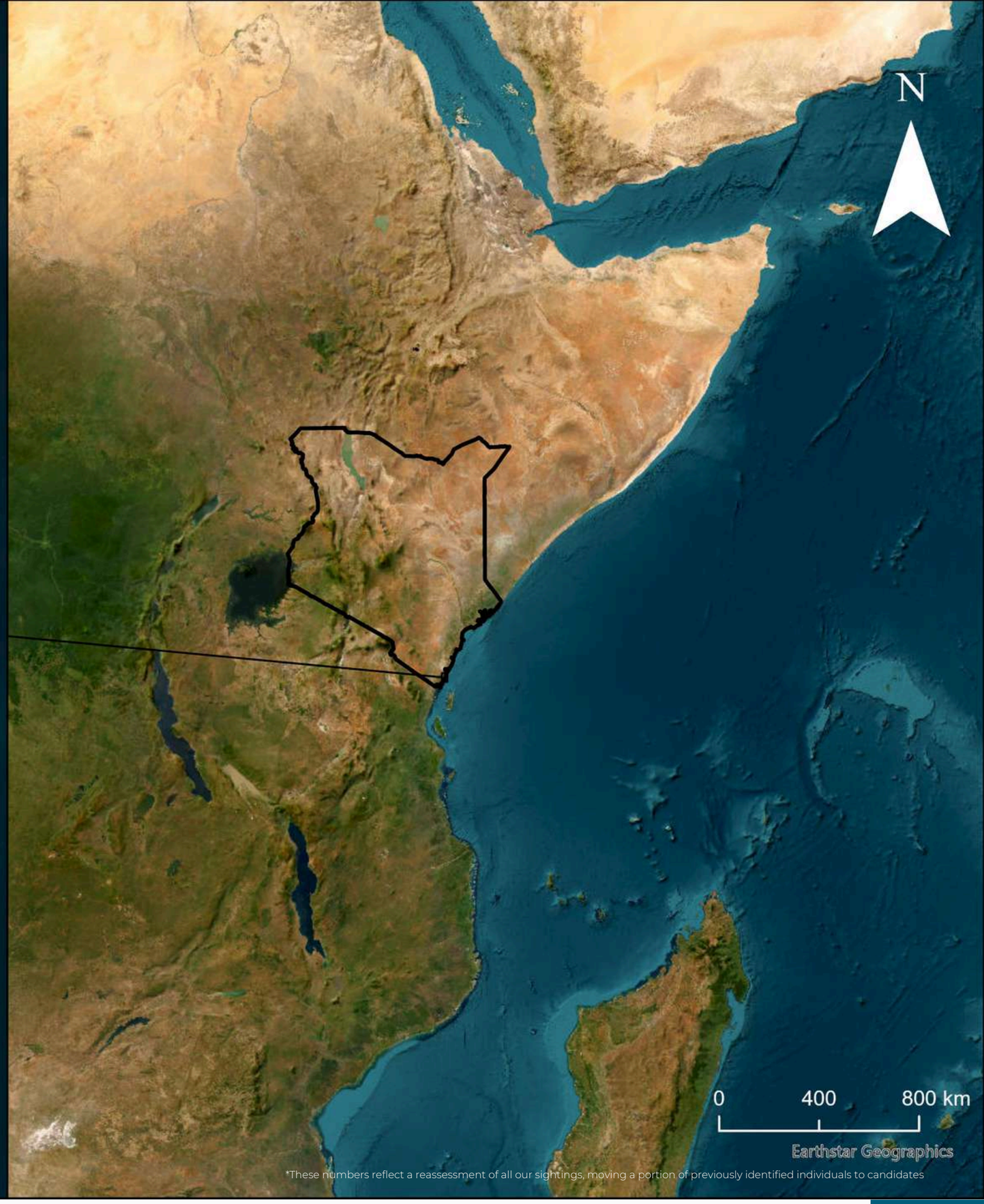
A crucial way we build local capacity for conservation is through internships and student attachments. In 2024, we hosted two interns and four university students who made valuable contributions to our work. They played key roles in the Diani Sea Turtle Festival, conducted thesis projects on our drone surveys and our fisher engagement programme, and one of our interns - Kevin, even led an education pilot study with two local primary schools.

Looking ahead, we will continue to study the size, structure, residency, health, and environmental trends of sea turtle populations. Using this data, we will work with authorities to strengthen protective measures, raise awareness, and enhance the capacity of coastal communities to safeguard sea turtles. By collaborating with organisations and authorities, we aim to create an efficient system that minimises duplication of effort while achieving our conservation goals.

*These numbers reflect a reassessment of all our sightings involving a portion of previously identified individuals to candidates.

Photo-ID Kenya





*These numbers reflect a reassessment of all our sightings, moving a portion of previously identified individuals to candidates

Fisher Outreach

In 2024, our community-led Beach Management Units (BMU) programme expanded to five communities: Waa, Tiwi, Mwakamba, Mwaepe, and Gazi. Along with the four communities from 2023, our programme now covers a continuous 50km stretch of coastline, both north and south of the Diani-Chale Marine National Reserve.

This programme, developed in collaboration with local fishing communities, has been fully established as of 2024. Thanks to the dedicated efforts of our team and the commitment of the BMUs, we have successfully completed two years of this community-forward initiative to protect sea turtles and their habitats.

The 2024 BMU programme began with 65 fisherfolk signing up for training sessions. With a robust monitoring and evaluation system in place, we certified 34 new Ambassadors by the end of the year, while 23 others who passed were made assistants to the new Ambassadors moving forward. We celebrated our new Ambassadors with our end-of-year BMU celebration. The event was a huge success with over 100 attendees, including existing 2023 Ambassadors, local officials, and coastal conservation organisations coming together to celebrate the Ambassadors and community conservation.

The core focus of our BMU Programme is to collaborate with fishing communities to raise awareness about sea turtles, the threats they face, and the importance of protecting them. In 2024, we supported 57 Sea Turtle Ambassador alumni from 2023 in engaging with over 1,000 fellow fisherfolk. Additionally, Ambassadors from the Chale-Jeza, Mwaembe, Munje, and Funzi BMUs formed committees to develop strategies for their groups and to advance sea turtle conservation within their BMUs. They also participated in the Diani Sea Turtle Festival, where they connected with students and learned from other organisations.

Excitingly, a grant from Ocean Culture Life enabled us to work with these four BMUs to showcase their efforts as ocean guardians. Each BMU group chose a community-focused activity, which was documented as part of a short film due for release in early 2025. Two of the activities included a sea turtle disentanglement video and a play on Kenya's sea turtle laws and policies, which will be turned into an educational video.

Two other activities involved a workshop to foster sea turtle awareness among fellow BMU members and a student engagement programme for two local primary schools.

The Mwaembe BMU group too made great strides this year. Thanks to the support of Msambweni Beach House, the BMU group, along with members of the Msambweni Turtle and Marine Conservation Group worked with our team to revamp their marine centre, installed an information sign at the main public beach area, developed new educational materials, prepared student workshops, and hosted an International Coastal Cleanup event.

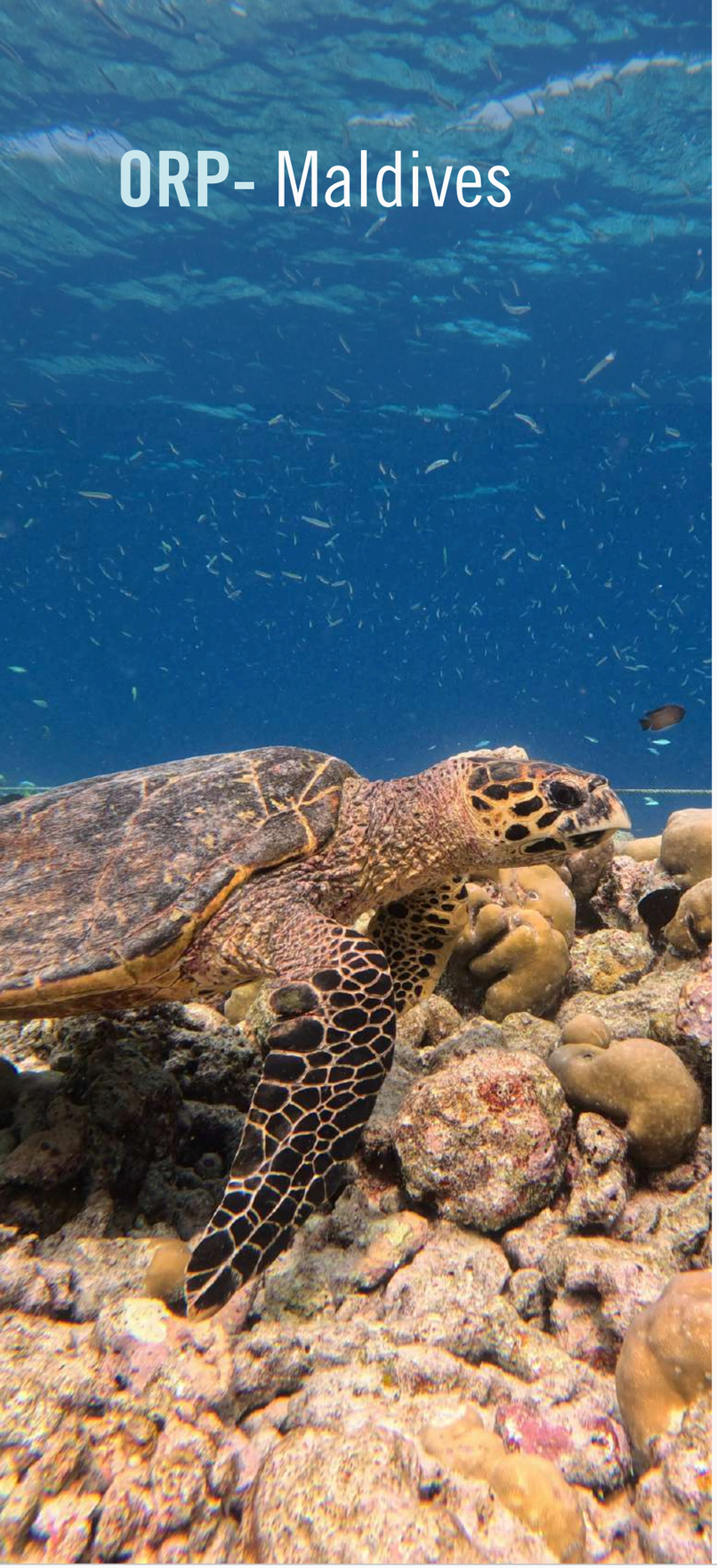
After 2 years of successful work, our BMU fisher programme gained international recognition with invitations at two prestigious conferences: the 7th International Marine Conservation Congress in South Africa and the 4th Africa Congress for Conservation Biology in Tanzania. Our Project Coordinator, Leah Mainye, presented the initiative in Cape Town, while our Community Education and Outreach Officer, Juma Gwerenya, did the same in Moshi. Both received valuable feedback, connected with fellow conservationists, and built relationships that will help strengthen our efforts.

Building on the momentum from the international presentations, our team is also set to showcase our Photo-ID and BMU fisher programme at the 43rd International Sea Turtle Symposium in Ghana in 2025. We also plan to present our work at the 13th Western Indian Ocean Marine Science Association Symposium in Mombasa in September 2025.

Our BMU programme will continue to gain strength in 2025, with our Sea Turtle Ambassadors in all nine communities working to expand education and awareness, fulfil their committee agendas, and initiate the collection of valuable sea turtle bycatch data. Through two grants secured from Animal Saviours and the State of the World's Sea Turtles (SWOT) our team will also work with net fishers in two communities to test LED lights as sea turtle bycatch mitigation devices — a first for Kenya's south coast. If successful, this initiative could lead to significant action by local fishers to protect sea turtles in the area.

One of our Mwaembe Sea Turtle Ambassadors engaging students in an educational session during the International Coastal Cleanup event in September, captured as part of our storytelling initiative.

ORP- Maldives



In 2024, ORP – Maldives expanded its presence across key atolls, strengthening long-term collaborations to advance sea turtle conservation. These efforts led to significant milestones, reinforcing our commitment to protecting sea turtles and the marine ecosystems they depend on.

To enhance rescue and rehabilitation efforts in the country, we opened two new sea turtle rehabilitation centres (see page 14) and established a five-year partnership with Naifaru Juvenile and the Atoll Marine Conservation Centre (AMC) in Lhaviyani Atoll. Founded in 2012 in response to the sea turtle pet trade, AMC operates a veterinary facility on Naifaru and collaborates with our team to improve veterinary care, data sharing, and training.

This partnership also extends to research and outreach. We are proud that Adam Athif Mohamed, AMC's sea turtle biologist at Six Senses Kanuhura, is the first graduate of our Sea Turtle Conservation Internship – a nine-month programme equipping young Maldivians with hands-on experience in research, rehabilitation, and outreach. To date, we have offered 36 internship opportunities to Maldivian youths, with several securing full-time roles at ORP and other organisations.

We also participated in AMC's Lhaviyani Sea Turtle Festival, furthering conservation awareness and engagement.

Other major achievements include expanding our Laamu Sea Turtle Beach Guardian Programme (see next page), surpassing 40,000 recorded sea turtle encounters and 5,000 identified hawksbills in the Maldives (see page 15), and collaborating with the Ministry of Environment, Climate Change and Renewable Energy and the Waste Management Corporation (WAMCO) to monitor nesting and prevent illegal take at R. Vandhoo – a historically significant nesting hotspot for hawksbill and green sea turtles in Raa Atoll.

On 12th April, researchers from Maldives Underwater Initiative (MUI) – including ORP, Manta Trust, Maldives Resilient Reefs/Blue Marine Foundation, Six Senses Laamu, and the EPA – oined citizen scientists from Secret Paradise, Maavah, and Mundoo for the exploratory Laamu Hope Spot Expedition. Supported by a Mission Blue Hope Spot grant, the expedition surveyed reefs and islands across Laamu Atoll, gathering critical data on marine biodiversity and engaging local communities.

The team documented sea turtle populations, marine megafauna distribution, illegal take, manta ray habitats, MPA ecosystem health, and coral bleaching severity and more. Surveys revealed severe coral damage from high ocean temperatures and evidence of illegal sea turtle harvesting on three of 16 uninhabited islands. Remains from an estimated 46 turtles were found, mostly on Kashi Guraidhoo, a site known for historic and ongoing illegal sea turtle harvesting. Nesting activity was also recorded on two islands near the Vadinolhu and Munyafushi Channel.

To foster environmental stewardship and community engagement, three Laamu residents joined the expedition and are now equipped to lead citizen science initiatives on their home islands. We also engaged 108 students in interactive marine life lessons across four schools in the atoll.

In August, the second Sea Turtle Research Expedition, co-organised with the EPA, set sail to further investigate genetic diversity and sea turtle health (read more on page 15).

Meanwhile, in Noonu Atoll, we launched the Lhohi Upcycling Workspace – the first upcycling facility outside the capital – in partnership with IPNLF Maldives and Zero Waste Maldives. This circular economy initiative provides a collaborative space for the community to transform ghost gear and waste into new products, with all proceeds directly benefiting the community.

The Vaavoshi Festival 2024 was the year's major educational highlight. Named after the Dhivehi word for olive ridley turtles, the festival is a cornerstone of our efforts to raise awareness about sea turtles and their habitats. In late November, over 2,000 students gathered on Kendhikulhudhoo, Noonu Atoll's "Mangrove Island" for the festival's third edition. Co-hosted by Secret Paradise Maldives and Kendhikulhudhoo Council, this year's event was more than an educational experience – it was a call to action, inspiring individuals to become ocean guardians.

The three-day festival featured educational sessions for Kendhikulhudhoo School students, led by experts from ORP, AMC, and the Maldives National University. Covering topics such as sea turtles, mangroves, and seagrass habitats, these interactive sessions also offered career guidance, inspiring young conservationists. The event included competitions, a debate, and clean-ups. Council President Mohamed Rauf delivered remarks, while conservation presentations, a vibrant parade, traditional performances, and a communal meal brought the festival to a memorable close. Its success was made possible through collaboration with local organisations, schools, and the community, highlighting Kendhikulhudhoo's shared commitment to environmental conservation.

The biennial Maldives Marine Science Symposium remains the country's leading platform for researchers and conservationists to share their latest studies and findings. In 2024, the ORP team attended in great numbers, presenting a diverse range of research and community projects. Additionally, ORP team members participated in the 42nd International Sea Turtle Symposium in Pattaya, Thailand, showcasing research on conservation medicine, Sea Turtle Expeditions, and L. Gaadhoo's nesting beach management in partnership with the EPA.

Looking ahead to 2025, expanding our network of collaborators remains a priority, with new partnerships, events, and educational initiatives. A key focus is scaling up the Ranger Programme into a nationwide initiative, enabling further research into nesting patterns and illegal take frequencies.

Laamu Sea Turtle Beach Guardian Programme

Drone Photography of Laamu Atoll. Photo: Ibrahim Inaan

The Laamu Sea Turtle Beach Guardian Programme is a community-led conservation initiative co-supervised by the Environmental Protection Agency Maldives (EPA) and supported by local councils, AgroNat, Six Senses Laamu, and the GEF Small Grants Programme through UNDP. The programme integrates technological innovation, local expertise, and grassroots collaboration while working closely with the Police to combat the illegal take of sea turtles and their eggs.

In 2024, the programme expanded to L. Maavah, anecdotally known as a hotspot for illegal take and consumption. In partnership with the Maavah Council and EPA, we appointed Ibaadh Hussain as Sea Turtle Conservation Officer, while Assistant Sea Turtle Ranger Aminath Malsa joined Ranger Ibrahim Inaan in L. Gan-Fonadhoo.

The second phase of the programme introduced drone monitoring to our tool kit, providing real-time insights into nesting activity and potential threats on L. Gaadhoo's critical nesting beaches (left). In February, the EPA trained our ranger team and Laamu stakeholders in GIS and remote sensing, enabling us to conduct 19 drone surveys throughout the year. Increased surveillance has likely contributed to a decline in illegal harvesting, with local reports suggesting potential poachers are deterred by the risk of detection.

Beyond deterrence, drones enhance data collection by expanding beach coverage, enabling nighttime thermal imaging during peak nesting months, and surveying seagrass beds to observe foraging sea turtles in their natural habitat. Interestingly, hawksbill turtles – typically sponge and coral feeders – were observed foraging on seagrass. These advancements highlight the increasing role of drone technology in conservation, strengthening efforts to safeguard Gaadhoo's sea turtle population.

Alongside drone and physical monitoring, the ranger team also maps sediment dynamics on Gaadhoo, hosts school awareness sessions, and works closely with the Police to combat illegal take. Over the past year, they co-hosted several community-led initiatives, including conservation campaigns, cleanups, and educational outreach activities.

Residents report a noticeable decline in sea turtle consumption on Maavah since Ibaadh's appointment. Encouragingly, at the end of the year, Ibaadh and the Police responded to a reported case of sea turtle consumption on the island together – a significant step in strengthening enforcement efforts.

In 2024, 69 nesting surveys on L. Gaadhoo's main nesting beach, Velaa Heylhi, recorded 50 suspected nests and 84 false crawls, resulting in a nesting success rate of 37.3%, down from 57.1% in 2023. The high number of false crawls may be linked to ongoing beach erosion and physical obstructions, such as large coral fragments, particularly at both ends of the beach.

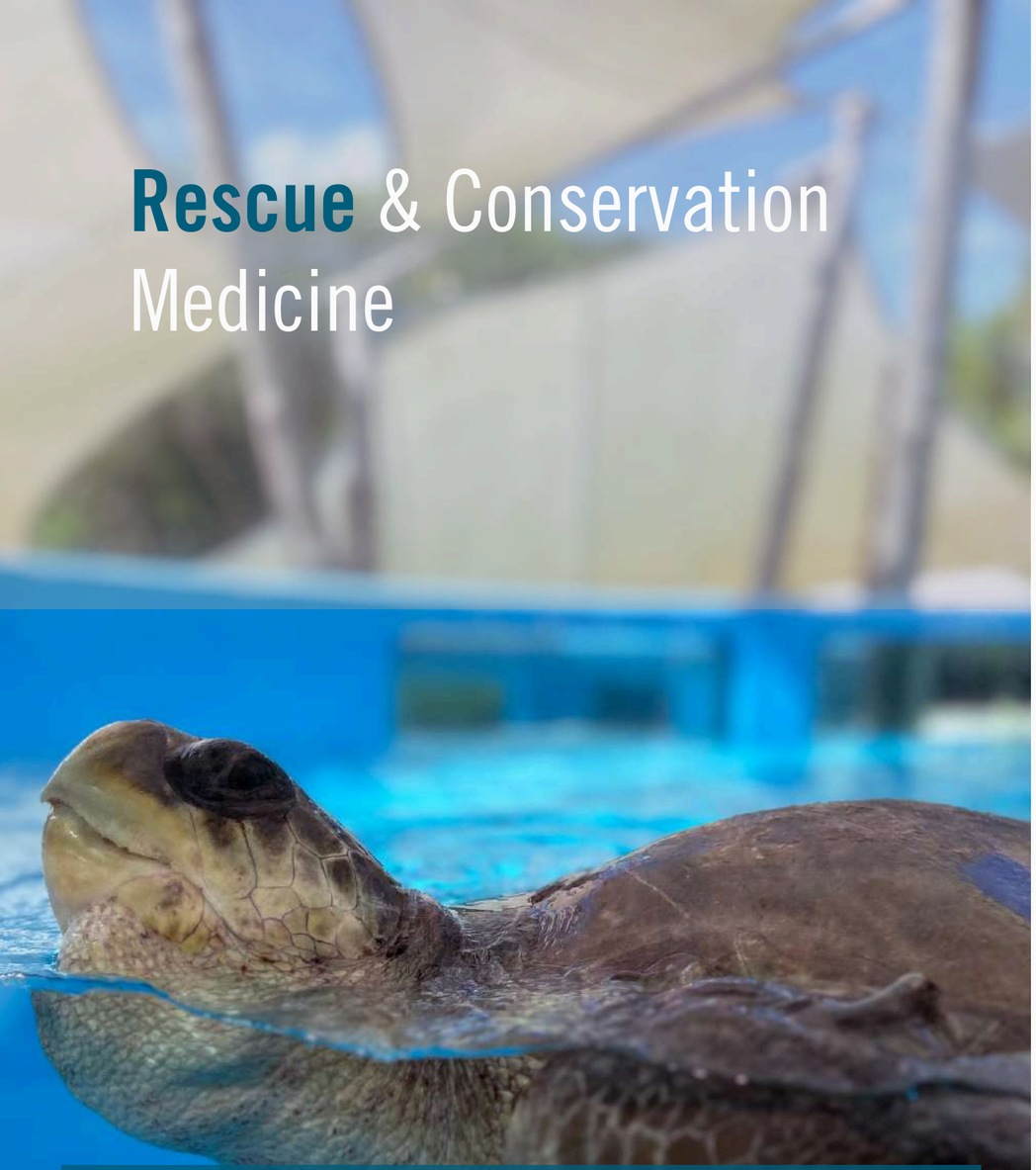
Illegal take activity was observed in 11% of nests in 2024, up from just 2% in 2023. While still well below the historical average of 54%, this slight resurgence is concerning. Most incidents coincided with months when fewer surveys were conducted due to seasonal variations and logistical constraints. However, the absence of illegal harvesting in most months suggests that ongoing beach monitoring by the ranger team and the continued presence of AgroNat staff remain effective deterrents.

Velaa Eid Ufaa celebrations on L. Fonadhoo

To showcase progress in protecting Gaadhoo's sea turtle population, our partner NGO Fonadhoo Environment and Sustainable Development (FESD), led by former Gaadhoo council president Abdul Azeez, hosted an educational event in L. Fonadhoo during Eid. The celebration highlighted the cultural heritage of former Gaadhoo residents, their role in managing the island's nesting beach, and their involvement in our Sea Turtle Ranger Programme. We extend our thanks to the Maldives Police Service, Fonadhoo Youth Society, and the Maldives Underwater Initiative (MUI) for supporting the event.

The Laamu Sea Turtle Beach Guardian Programme shows that by empowering local communities, embracing innovation, and strengthening collaborations, we can build a future where sea turtles and coastal ecosystems thrive.

Rescue & Conservation Medicine



While veterinary care remains our primary focus, education and outreach are central to our mission. In 2024, we re-launched our Visiting Veterinary Programme as the Veterinary Training Programme, dedicated to training clinicians from countries where sea turtle medicine is a key clinical practice, with particular emphasis on veterinary surgeons from neighbouring nations. We sponsor this training for clinicians from developing countries, partially funded by contributions from their peers in developed nations.

This year, we welcomed seven veterinary surgeon trainees from Kenya, Indonesia, India, Spain, the US, the UK, and Colombia. Three received sponsorships, and three were self-funded. Additionally, Dr Daniela became the first veterinary surgeon to train under our new partnership with the Atoll Marine Centre in Lhaviyani Atoll. Our Internship Programme also continued to thrive with three dedicated interns joining us, and we welcomed 58 volunteers from 18 countries.

2024 was an eventful year for the Marine Turtle Rescue Centre, marked by steady patient admissions, advancements in veterinary care, and clinical successes as we continued our shift from a traditional 'rescue and release' approach to conservation medicine. We expanded our rescue facilities with two new rehabilitation centres and welcomed a new collaboration partner. At the end of the year, team changes marked the beginning of a new chapter, with incoming members eager to contribute and grow within our mission.

Over the year, we treated **28 patients**, including **18 new admissions** – 16 fewer than in 2023. A possible reason for this is that 'entanglement season' started earlier in 2023, with ten patients admitted in the last two months of that year. Typically, our busiest months are December and January, rather than November and December. During early 2024, every sea turtle rescue facility in the Maldives operated at full capacity due to the influx of patients.

Entanglement in ghost gear and marine debris remains the leading cause of admission, affecting **78%** of 2024 patients and around **60%** overall. We also admitted sea turtles found floating and one covered in tar. Unusually, five were small juveniles (one loggerhead, three olive ridleys, and one hawksbill). The flipper injuries observed in 2024 were more severe than in the previous year when most turtles suffered from buoyancy disorders. This resulted in serious bone infections, delaying recovery and release.

Since 2017, we have treated **248 cases**. Despite some heartbreaking losses in 2024, we successfully rehabilitated and **released 15 sea turtles**. Notably, Vaarey became the first male sea turtle to be fitted with a satellite tag, tracking an incredible 3,200 km journey towards Sri Lanka.

- **Olive ridleys: 78.6% of all patients to date (195/248)**
- **Hawksbills: 13.7% of all patients to date (34/248)**
- **Greens: 6.9% of all patients to date (17/248)**
- **Loggerheads: 0.8% of all patients to date (2/248)**
- **Average length of stay (of patients released in 2024): 138 days**
- **Release: 60.8% success rate (146/240)**

All clinical activities are conducted under permits issued by the Environmental Protection Agency of the Maldives.

This year we have implemented new therapies and protocols to improve the care of our patients. One of these, Total Parenteral Nutrition (TPN), is essential for sea turtles that cannot eat or absorb nutrients due to illness or injury. It involves the intravenous administration of a nutrient-rich solution, providing essential vitamins, minerals, amino acids, and fats directly into the bloodstream. This method, developed by our Lead Veterinary Surgeon, delivers vital nutrients to support immune function, promote tissue healing, and prevent malnutrition during rehabilitation. TPN is especially valuable in cases of severe trauma, head injuries, toxicity, or digestive issues, where the sea turtle's ability to feed is compromised. By maintaining the sea turtle's nutritional status while other treatments take effect, TPN can significantly improve recovery outcomes and increase the chances of successful release back into the wild.

We have also adjusted our shell-cleaning practices based on recent, yet-to-be-published microbiome research highlighting the beneficial role of microbes in a sea turtle's skin and shell healing process. We now limit algae removal, promoting better overall well-being and less handling stress. As a result, our patients now have more organic growth on their shells than in the past.

In 2024, we opened two new rehabilitation centres:

- **Raa Atoll Sea Turtle Rehabilitation Centre** at JOALI BEING (opened in May) accommodates one patient at a time.
- **Noonu Atoll Sea Turtle Rehabilitation Centre** at Soneva Jani (opened in September) accommodates up to two patients.

Two long-term patients battling buoyancy syndrome, Kurangi and Nakaiy, were transferred to these fasilities for an intensive dive therapy programme. Kurangi was successfully released after six months at the Raa Atoll facility. Nakaiy continues her rehabilitation at the Noonu Atoll facility.

These expansions, along with our third facility, the North Malé Atoll Sea Turtle Rehabilitation Centre at One&Only Reethi Rah, have alleviated the patient load at the Rescue Centre while providing comprehensive, long-term care for those requiring extended rehabilitation. At all three rehabilitation facilities, patients are cared for by the on-site sea turtle biologist and intern, under the direct daily supervision of the veterinary team.

With new facilities and advancements in veterinary care, we are well-equipped to continue our mission of rescuing, rehabilitating, and releasing injured sea turtles in 2025 and beyond.

Maldives Research

2024 was another successful year for the ORP Research Team in the Maldives. We continued our longstanding monitoring projects, conducted a second research expedition, published new findings, and initiated new collaborations.

Over the past year, we added **3,337 sea turtle encounters** with verified identification to our Photo-ID database, bringing the total to **41,763** and surpassing the 40,000-encounter milestone! Through numerous dive and snorkel surveys, we identified **177 new green turtles** and **335 hawksbills**, increasing our total counts to **1,725** and **5,150**, respectively. Two other remarkable milestones were achieved: the **5,000th hawksbill** turtle in the Maldives was recorded by the ORP expedition team in Vaavu Atoll, and the 1,000th individual in a single atoll was identified in North Malé Atoll by citizen science contributor KG from One&Only Reethi Rah.

To address research questions requiring a more hands-on approach than Photo-ID alone – such as genetic diversity and sea turtle health – we embarked on our second Sea Turtle Research Expedition, co-organised with the Environmental Protection Agency (EPA) Maldives in August 2024. Over 11 days, the team explored the southern central atolls of South Malé, South Ari, Vaavu, and Meemu, expanding the geographic scope of our studies. Together with data and samples collected in 2023, this expedition provides a robust and unique foundation for various aspects of sea turtle science in the Maldives.

Each sea turtle (32 hawksbills and one green) hand-captured during the expedition underwent a comprehensive health evaluation. A small tissue sample was carefully collected for genetic analysis, and each sea turtle was screened for epibionts (photo on the right) to assess the diversity of organisms associated with them.

The expedition also offered an excellent opportunity for capacity development. Students from the Maldives National University (MNU), along with representatives from Atoll Marine Centre (AMC) and Addu Nature Park, joined the team for hands-on training in sea turtle research techniques. In the coming year, we will focus on processing and analysing samples, concluding each of the studies we are conducting. These expeditions were made possible by the generous support of Friends of Frontiers, with additional funding for analysis from OceanCare and the Morris Foundation.

At the end of the year, we were thrilled to publish a new scientific manuscript, Assessing the Socioeconomic Value of Sea Turtles to the Maldives Tourism Industry in 2019 (Pre-Pandemic), in Chelonian Conservation and Biology. Led by Emily Mundy and Julian Gervolino, this pilot study explored the perceived importance and direct revenue generated by sea turtle tours in the Maldives using specially designed social-survey questionnaires.

Our findings show that sea turtle tourism is a year-round activity, with sea turtles ranking among the top four most requested marine species, alongside whale sharks, manta rays, and sharks. Many tour operators highlight sea turtles in their marketing, offering dedicated tours to meet demand. Based on survey data from 21 operators, sea turtle tours generated at least USD 1.08 million in direct revenue in 2019. These results highlight the significant socioeconomic value of sea turtles, reinforcing their role in sustainable ecotourism and local livelihoods.

Our long term nest monitoring project continued across the country. From reports across ORP bases and incidents documented by citizen scientists, we recorded 267 false crawls and 166 true nests 2024. Green turtles accounted for over 88% of nests, followed by hawksbills (9.8%) and the rare olive ridley nests (<1%). More than 5,300 hatchlings made it to the ocean this year, hopefully returning in decades to continue the cycle.

In the latter half of the year, ORP initiated a new partnership with MEDASSET, the Mediterranean Association to Save the Sea Turtles, to pilot a project investigating the presence of microplastics in sea turtle nest sand and their influence on incubation temperatures. Our teams in Noonu and Laamu atolls will collect sand samples from hatched nests for analysis by MEDASSET expert Dr Nikos Simantiris. By comparing these samples with those from the Mediterranean, we aim to assess microplastic loads and incubation conditions across different regions and turtle populations.

In 2024, we received reports of 63 entangled turtles across the Maldives. The vast majority (79.69%) were olive ridley turtles, primarily reported from eastern and western atolls between Noonu and Ari. Entanglement in marine debris was the most common distress factor for olive ridleys, with 41 cases recorded. Additionally, nine olive ridleys were found floating and unable to dive – patterns consistent with previous years' observations.

Sea Turtles & Nesting Maldives

Green Turtles
1,725
Since 2018

Hawksbills
5,150
Since 2018

New nests laid
168
2024

177
2024

335
2024

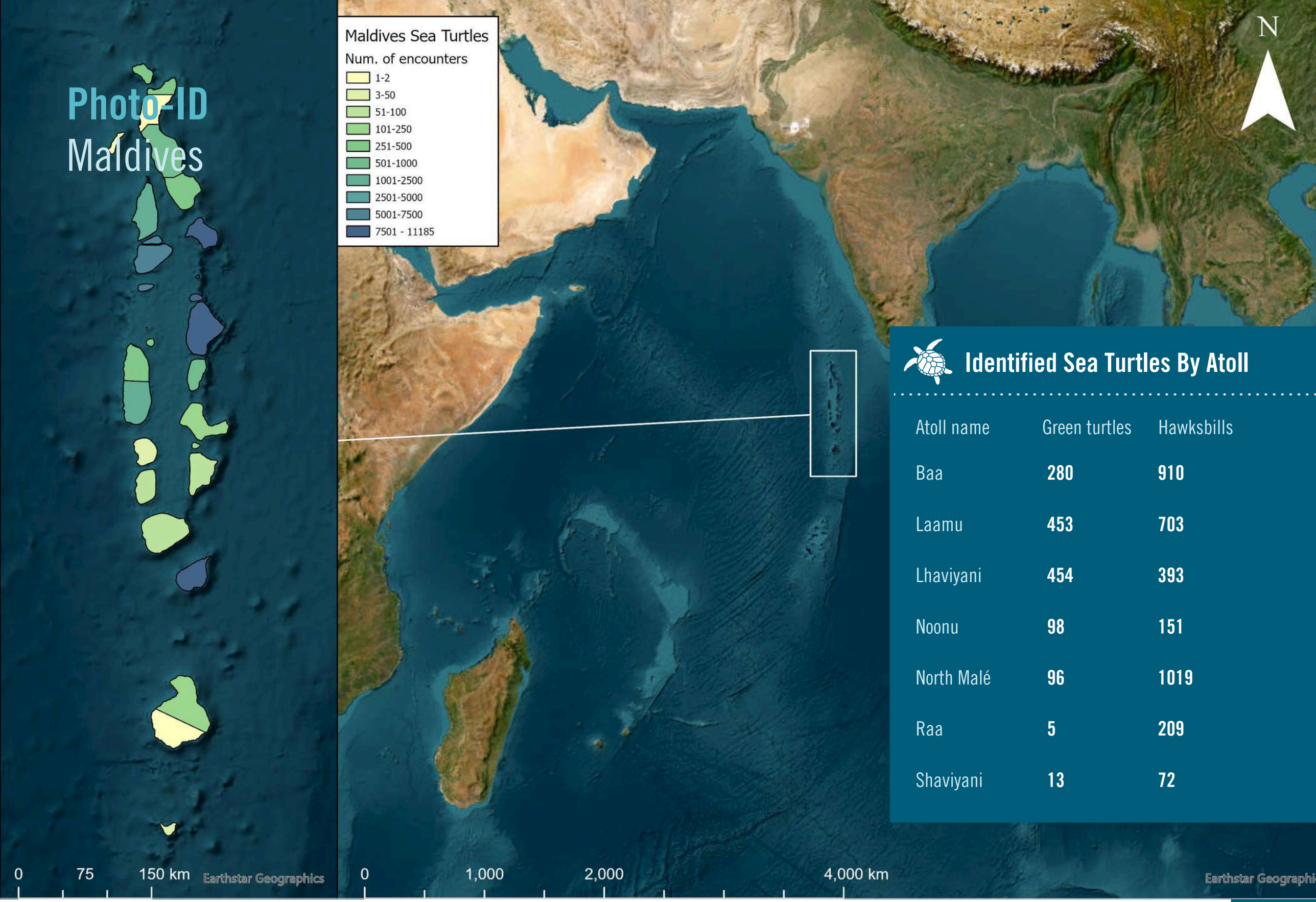
5,264
Hatchings counted 2024

794
Sites w/sea turtles sighted

6,875
Total sea turtles identified

All research activities are conducted under permits issued by the Environmental Protection Agency of the Maldives.

Photo-ID Maldives



Identified Sea Turtles By Atoll

Atoll name	Green turtles	Hawksbills
Baa	**280**	**910**
Laamu	**453**	**703**
Lhaviyani	**454**	**393**
Noonu	**98**	**151**
North Malé	**96**	**1019**
Raa	**5**	**209**
Shaviyani	**13**	**72**

Photo-ID Contributors

Another year has passed and we have some new numbers for you!

In 2024 our Photo-ID numbers continued at a steady pace in the Maldives thanks to the help of our collaborators and citizen scientists.

We would like to highlight our most prolific contributors to date:

Most Sea Turtle Encounters Shared

- Lauren / Coco Bodu Hithi, North Malé
- Silvia / Coco Bodu Hithi, North Malé
- Jasper / Cocoon Maldives, Lhaviyani
- Núria / OZEN Life Maadhoo, South Malé
- Amy / Deep Blue Divers Kanuhura, Lhaviyani

Highest Number of New Sea Turtles Identified

- Núria / OZEN Life Maadhoo, South Malé
- Nicole / Nika Island Resort, North Ari
- Lauren / Coco Bodu Hithi, North Malé
- Olivia / Ritz-Carlton, North Malé
- Jasper / Cocoon Maldives, Lhaviyani

Honorary Mentions

Thank you to everyone at Atoll Marine Centre, MantaTrust, and the enthusiastic guests of Six Senses Laamu and Coco Palm Dhuni Kolhu, who together contributed immensely to our project!

Our Collaborators

Special thanks to everyone sharing their photos at Maldives Underwater Initiative, Coco Palm Dhuni Kolhu, Sirru Fen Fushi, Deep Blue Divers, Soleni Dive, SubOceanic, Soneva Jani, JOALI BEING and One&Only Reethi Rah!

Turtle sightings

3,337

New sea turtle IDs

512

If you would like to know more and support our Photo-ID project as a Citizen Scientist, contact: **seaturtleid@oliveridleyproject.org**

#ORPTrack

Movement Statistics of Vaarey

Total days SUM	Total dist Km SUM	Max dive depth (m)	Av. speed km/h
93	3210	276-300	1.43

Direction of travel	Total Tags Deployed	Total Days Tracked	Total Distance Tracked (km)
E	6	514	15,880

#ORPTrack, our satellite tagging research project, tracks rehabilitated olive ridley turtle patients as they return to the wild, aiming to identify key foraging areas for this species in the Northern Indian Ocean. In 2024, one further tag was deployed on Vaarey, our first adult male turtle included in the study. We tracked Vaarey's journey from July to October 2024, during which he travelled over 3,200 km northeast into the Bay of Bengal (red track below). He typically swam at an average depth of 22.5m but also reached the tag's maximum detection limit of 275 to 300m.

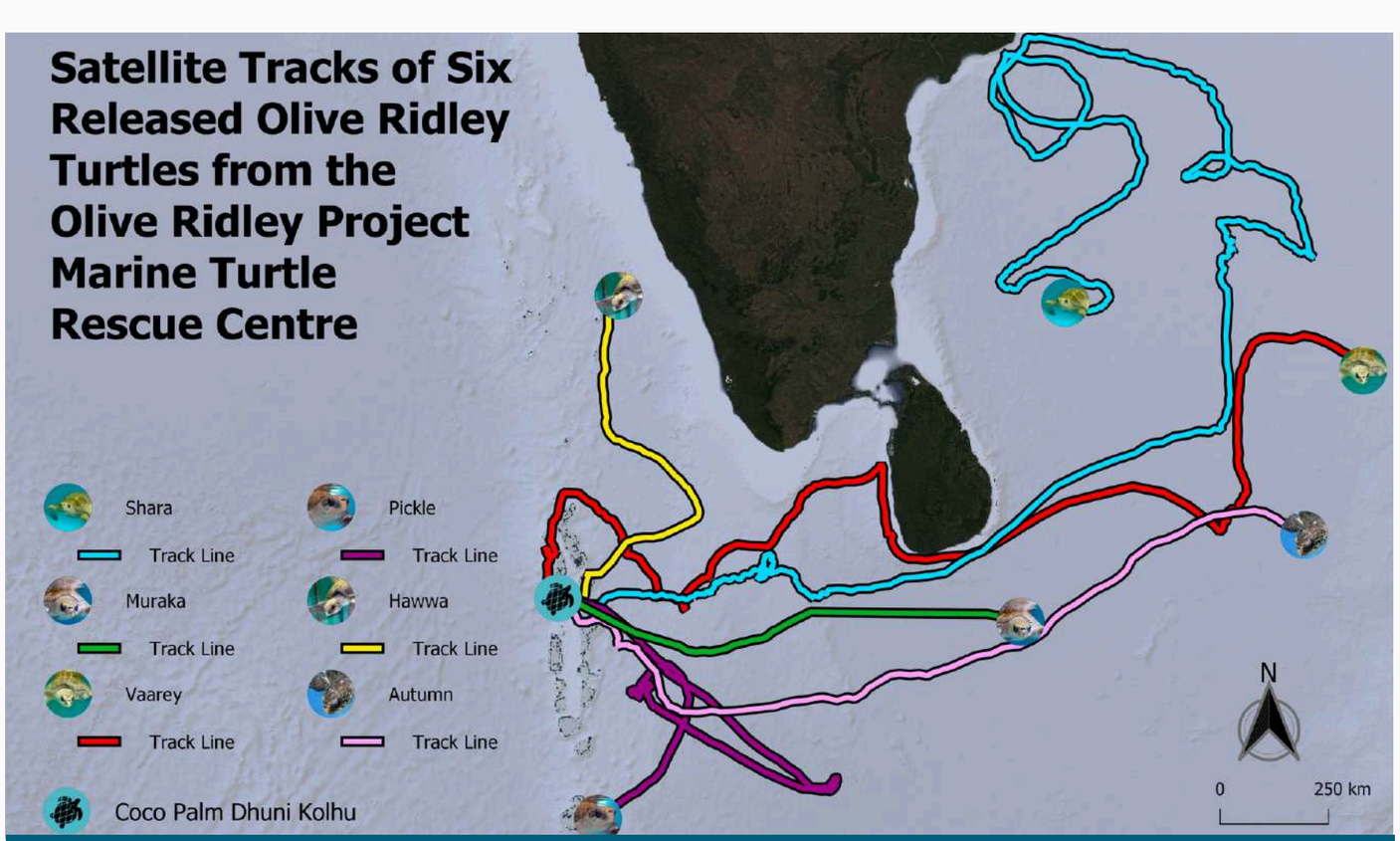
As a significant milestone for this project, the first analysis of satellite tracking data collected from five turtles tagged in 2022–2023 was conducted in 2024. The results from this pilot study are currently being prepared as a manuscript for submission to a scientific journal, with peer review expected in the first quarter of 2025.

Treated and released olive ridley turtles were tracked for an average of 86.0 days (±74.6 days), with durations ranging from as few as 28.5 days (Muraka) to as long as 230.7 days (Shara), displaying varied movement patterns across the Indian Ocean.

Four of the five turtles in this study spent a significant portion of their time travelling between foraging areas rather than actively foraging. While five olive ridleys have been tagged so far, future plans aim to increase the sample size to assess potential habitat preferences and suitability.

These results represent the first documented study of its kind in the northern Indian Ocean, particularly in terms of tracking and quantifying the movement patterns and spatial use of rehabilitated olive ridley turtles released from the Maldives. While the sample size is small, the value in these five individuals is that they possibly returned to their original foraging grounds prior to being entangled in ghost gear and drifting into the Maldives.

Further tagging efforts could help pinpoint these high-risk areas. With a larger sample size and more intensive ecological studies, predictive distribution models could identify key aggregation sites for olive ridleys. These insights would be instrumental in shaping ocean-scale conservation initiatives.



Map of movements of satellite tagged rehabilitated olive ridley turtles released from Maldives.

ORP Oman

2024 was a year of significant progress for our team in Oman, highlighted by key conservation achievements that underscored the importance of Zighy Bay as a sea turtle sanctuary. While we expanded our Photo-ID initiative with more juvenile green turtles added to the database, we also focused on actively addressing threats to sea turtles in the region. Additionally, we strengthened our collaborations with local schools and Oman's Environmental Authority, aiming to engage more effectively with local stakeholders.

Our continued monitoring of the sea turtle population in the region resulted in 392 turtle sightings across Musandam, with Zighy Bay alone accounting for 362. The peak observation period was in November, when we documented a record-breaking 93 sightings, highlighting the seasonal variation in sea turtle activity. The sightings yielded 59 new individuals. GM067, nicknamed Kai, was the most frequently sighted, appearing 20 times, closely followed by GM120, or Gorgi, with 17 sightings.

Notably, we saw an increase in juvenile green turtles, reinforcing the idea that Zighy Bay serves as a critical developmental habitat. The turtles we encountered most frequently, typically range from 30 to 50 cm in shell length. Juvenile sea turtles at this size usually spend their first years in coastal habitats with rich foraging grounds where they can focus on two things - foraging and resting, which matches our observations from Zighy Bay. These observations suggest that Zighy Bay may be a key recruitment area – a safe haven where young sea turtles can grow before reaching maturity.

But even in this refuge, threats persist. Marine debris like ghost nets remain a serious danger, and we documented two entanglement incidents last year. In Sanat Bay, a net caught on coral had trapped three green turtles. Another, a massive 25 kg ghost net, was retrieved from Zighy Bay with three juvenile turtles still ensnared. We were able to quickly intervene and release all of them but these incidents serve as a stark reminder of the risks posed by ghost fishing gear.

Another significant threat that sea turtles face in this region is from bycatch – or unintentional capture in active fishing nets. However, through ongoing collaboration with local fishing communities around Zighy Bay, we have been able to monitor fishing nets for bycatch and rescue trapped animals.

In 2024, we successfully rescued ten green turtles that were caught as bycatch. We assessed each turtle for injuries and recorded their Photo-IDs before releasing them back into the ocean. Among these were two familiar faces – GM072 (Squirt) and GM118 – both green turtles previously identified through our Photo-ID research. Their reappearance underscored the value of our Photo-ID initiative in tracking sea turtle populations and assessing the impact of bycatch on the turtles in the region.

We recorded 16 fewer sea turtles caught as bycatch in 2024 when compared to 2023. We suspect that this could be attributed to extreme summer temperatures, with water reaching 34°C and land temperatures hitting 50°C, causing fish to move to deeper, cooler waters. As fishing activity slowed, there were fewer bycatch incidents. We utilised this time to help fishermen with training sessions on bycatch awareness and proper release techniques.

Our rescue efforts extended to assisting the Environment Authority in Oman in assessing the health of an adult green turtle they had found floating during their routine patrols. Upon inspection, we found that the turtle showed no external injuries, but exhibited buoyancy syndrome, preventing it from diving. The turtle was transported by boat to a marine veterinary clinic in Muscat, where it remains under care.

Since community engagement remains central to our work, we also furthered our relationship with a local school in Dibba we had previously visited in 2023. One of the most exciting moments came during an interactive session where the students analysed real turtle tracking data, sparking curiosity and enthusiasm for marine research. By involving youth in conservation, we aim to build long-term stewardship for Zighy Bay's marine ecosystem.

Looking ahead, we aim to strengthen our collaborations with local communities and governmental agencies to build lasting conservation impact. Expanding educational outreach, promoting sustainable fishing practices, and enhancing active monitoring will remain at the heart of our efforts. We also plan to integrate hands-on experiences during awareness outreach at schools, such as guided snorkelling excursions for students that offer firsthand encounters with marine life. By deepening community involvement and continuing rigorous research, we can ensure Zighy Bay remains a sanctuary for sea turtles and a model for sustainable marine stewardship.

Identified Sea Turtles Oman

Green Turtles	Hawksbills
209 Since 2019	**9** Since 2019
42 2024	**0** 2024
13 Sites w/sea turtles sighted	

221 Total sea turtles identified

ORP Pakistan

ORP's Pakistan project began in 2016 with a simple mission of protecting sea turtles from ghost gear. Partnering with fishing communities, we recover lost fishing nets and upcycle them into products like bracelets and pet leashes. This circular economy project not only provides economic support but also strengthens ties with coastal communities.

What began as a small initiative led by two people has evolved into passionate team of five. With this expansion, our work now extends beyond ghost gear recovery – a significant 288 kgs in 2024 – to researching sea turtle populations along Pakistan's coastline and undertaking outreach activities. By combining scientific data with community awareness, we are enhancing sea turtle conservation efforts.

In 2024, the team conducted 66 field surveys, recording 434 sea turtle observations, including 285 green turtle nests and 144 false crawls. A rare loggerhead track was spotted at Sandspit, though nesting couldn't be confirmed due to many overlapping nests in the area. We also documented five green turtle hatching events and gathered Photo-ID for 17 turtles. This data will help us fill research gaps concerning sea turtle populations in Pakistan and guide future conservation efforts.

While we've also identified key sea turtle hotspots off shore, poor visibility and strong currents, likely influenced by El Niño, hindered regular in-water monitoring. We're hopeful for better conditions in 2025.

Our outreach efforts brought conservation into the classroom and to the shore. We took 35 Ivy School kindergarteners and Grade 1 students, along with 17 staff, on a beach excursion. Here they discovered how to identify sea turtle tracks and nests while also learning about plastic pollution. A washed-up juvenile green turtle became a powerful teaching moment on threats sea turtles face. Later, at Ivy School, 48 students explored field footage, ghost net samples, and upcycled products. The highlight was the hatchling videos, which had students cheering as baby turtles made their way to the sea.

A major milestone this year was our first sea turtle awareness workshop in Balochistan, held at Lasbela University of Agriculture, Water and Marine Sciences (LUAWMS). Our team traveled to Uthal to engage 52 participants including students, faculty, and the Dean in discussions on sea turtles, ghost nets and ORP's conservation efforts. The event marked our first collaboration with Pakistan's government, with Balochistan Wildlife officials in attendance. Not only were we able to expand our conservation outreach to a new area, but we even gained local recognition through a feature on the workshop in a regional newspaper.

To address threats to nesting turtles, we held an awareness session in Kakapir with 15 beach hut caretakers (the huts are used by visitors) and community members. We encouraged them to report sea turtle sightings for our Photo-ID programme and educate visitors on reducing human impact by avoiding direct interaction, minimising litter, and limiting white lights that disorient turtles.

We used a unique approach to outreach by supporting the Pakistan Soccer League, a popular tournament in Karachi drawing 5,000 spectators per match. ORP banners were displayed in both English and Urdu throughout the event. After the match, we visited Hyderi Football Club in Ibrahim Hyderi, a historic fishing village in the Indus Delta and Karachi's largest fishing port. At the Football Club, we engaged with 31 local fishers, many of whom are also football players, in a sea turtle awareness session. We discussed the dangers of ghost gear, entanglement, and bycatch, and highlighted the vital role of sea turtles in marine ecosystems. We provided them with guidelines on safe release of entangled sea turtles and encouraged them to report future incidents. Several fishers reported sea turtle sightings in the Indus Delta creeks, encouraging us to consider survey efforts there in 2025.

Looking ahead, we aim to expand our research to Balochistan's beaches – a plan postponed in 2024 due to the region's political uncertainty. We also plan to explore the Indus Delta creeks and record sea turtle activity there, following reports from fishers in Ibrahim Hyderi.

While our circular economy project has successfully provided financial support to communities through the sale of repurposed harmful ghost nets, frequent power outages often disrupt production. To address this, we aim to transition to solar power for our sewing machines in 2025, ensuring a more reliable workflow and reducing our carbon footprint.

ORP Pakistan By The Numbers

Ghost gear recovered

>6.7 kg

Since 2018

288 kg

2024

Ghost gear repurposed

>66.2K sqm

Since 2018

8,150 sqm

2024

Pet leashes made

812

Pet leashes sold

721

158

Fals crawls

412

Nests laid

848,600 PKR

Extra income generated

ORP Seychelles

2024 was a landmark year for our team in Seychelles. Not only did we record our largest hawksbill nest ever, but we also published our first study detailing our nesting research, all while furthering our beach monitoring efforts and Photo-ID initiative.

Adding to the positive news, the Seychelles Government took a significant step forward in protecting endangered species by strengthening penalties for wildlife crimes under the updated Wild Animals and Birds Protection Act. This is a major win for sea turtles, especially the critically endangered hawksbill and the endangered green turtle, both of which nest along Seychelles' coastline and face threats from human activities.

Our efforts in Seychelles complement the country's strategy for conserving its sea turtle populations. We undertake extensive nesting surveys to record and protect sea turtle nests ex-situ, as well as to study the reproductive sea turtle population. In 2024, we successfully identified 32 hawksbills and two green turtles. Excitingly, 18 of these hawksbills and one green turtle were observed nesting on Félicité for the first time! From these nesting events, we recorded a total of 41 nests – 38 hawksbill and three green.

The big news from last year's nesting season was the largest hawksbill nest ever recorded on Félicité, containing an extraordinary 263 eggs – far exceeding the typical 130-160 eggs per nest. This record-breaking nest was laid by HS223, a newly identified female added to our Photo-ID database.

However, significant threats loomed in the form of nest inundation and flooding. During the Northwest monsoon, the northern section of Grand Anse – the primary sea turtle nesting beach on Félicité Island – experiences severe erosion, causing sea turtle nests to wash away. This period coincides with the hawksbill nesting season, necessitating nest relocations.

As a result, we relocated 14 nests – 13 hawksbill and one green. Of the four relocated nests that have hatched and been excavated so far, the average hatching success rate was 38%, with 212 hatchlings successfully rescued. However, predation by ghost crabs posed a serious challenge, with one relocated nest completely lost and others experiencing 46% and 69% predation rates. Without intervention, these nests would have been entirely lost, highlighting the importance of relocation as a conservation strategy.

To further protect nesting sites, we conducted beach profiling and aerial drone surveys, collecting valuable data to track beach morphology, identify high-risk zones, and assess tidal patterns. This information plays a crucial role in refining our conservation strategies to safeguard critical nesting habitats.

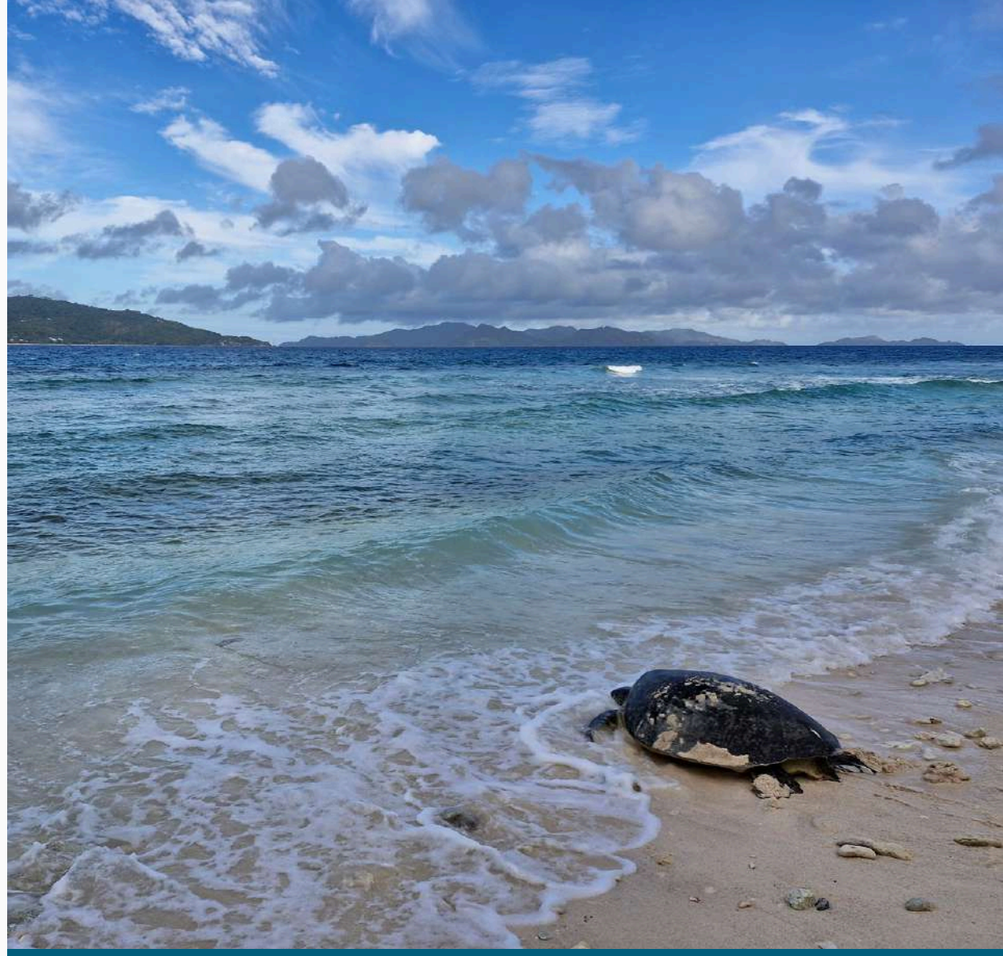
Building on these efforts, our research on nesting was published in 2024 in the Marine Turtle Newsletter under the title "Running Out of Sand: Sea Turtle Nesting Activity on Félicité Island, Seychelles." The paper highlights findings from the 2022–2023 nesting season and sheds light on ongoing conservation challenges on the island.

Beyond nesting surveys, our in-water Photo-ID monitoring extended to 14 dive sites across six islands: Félicité, La Digue, Praslin, Grande Soeur, Petite Soeur, and St. Pierre. Across 156 surveys, we recorded 92 sea turtle sightings – two greens and the rest hawksbills – bringing our Photo-ID database to 247 identified sea turtles.

With outreach remaining a key focus, we engaged 870 guests in activities such as sea turtle snorkelling trips, nesting and hatching events, and educational presentations on sea turtle ecology. These experiences help raise environmental awareness and instil a sense of responsibility.

Last year also marked a transition in our team, as Olivia Forster handed over to Jack Wiggins as our sea turtle biologist for Seychelles. With extensive experience in sea turtle conservation worldwide, Jack is also pursuing a PhD at the University of Exeter, researching sea turtle ecology and conservation within the United Kingdom Overseas Territories.

Looking ahead, we aim to build on our successes by expanding research, strengthening conservation strategies, and broadening educational outreach. Collaboration remains at the heart of our efforts, and we will continue working closely with local organisations, government bodies, and conservation groups to maximise our impact. With the support of Six Senses Zil Pasyon, we remain dedicated to protecting sea turtles and the ecosystems they – and we – depend on in the Seychelles and beyond!



Sea Turtles & Nesting

Green Turtles
11
Since 2021

Hawksbills
237
Since 2021

New nests laid
41

2
2024

32
2024

2,180
Hatchings counted

43
Sites w/sea turtles sighted

248
Total sea turtles identified

Publications

In addition to various reports and reviews, we published two impactful scientific manuscripts in 2024, one documenting the sea turtle nesting activity on Félicité Island in the Seychelles, and a second investigating the socio-economic value of sea turtles for the tourism industry in the Maldives in 2019.

In the first paper, titled "*Running Out of Sand: Sea Turtle Nesting Activity on Félicité Island, Seychelles*", published in the Marine Turtle Newsletter, we document the sea turtle nesting activity on Félicité, as well as factors impacting the successful development of the nests. Suitable nesting habitat is scarce on the mainly granitic island, with the few sandy beaches highly influenced by seasonal changes in wind and current directions. As shown in our paper, that can lead to a marked loss of nests due to inundation and erosion. Read the open access paper online on the MTN website.

Critically endangered hawksbill turtle nesting on Félicité Island, Seychelles.

At the end of the year, our second paper was published in Chelonian Conservation and Biology, summarising our findings from a pilot study of surveys investigating the potential socioeconomic value of sea turtles to the vast tourism industry in the Maldives. Replies to our surveys indicated that sea turtles are perceived as important to tour operators' business by the majority of respondents, and generate a minimum of over USD 1 million in direct revenue every year, without any obvious seasonal restrictions. This study places sea turtles on a similar level as other marine megafauna species regarding their socioeconomic value for the country and provides a sound basis for further more extensive studies encompassing all of the large tourism industry of the Maldives.

Selected Technical Reports

Gervolino J, Afeef I, Köhnk S and Stelfox M 2024. **Laamu Yearly Report 2023**. Olive Ridley Project, p. 1-43.

Patman S, Stelfox M and Köhnk S 2024. **Nesting in Noonu**. Technical Report 2022-2023. Olive Ridley Project, p. 1-23.

Segura N, Stelfox M and Köhnk S 2024. **Nesting in Shaviyani**. Technical Report 2023. Olive Ridley Project, p. 1-20.

Inaan I, Gervolino J, Afeef I, Mohamed Riyaz E and Köhnk S 2024. L. Gaadhoo **Nest Monitoring - Sea Turtle Ranger Programme Annual Report 2023.** Environmental Protection Agency Maldives and Olive Ridley Project, p. 1-17.

Olive Ridley Project Annual Review 2023. Technical Report 2024. Olive Ridley Project, p. 1-24.

Peer-Reviewed Articles & Theses

Kalisch L, Stelfox M and Köhnk S 2024. *Running out of Sand - Sea Turtle Nesting Activity on Félicité Island, Seychelles*. Marine Turtle Newsletter 167: 27-30.

Mundy E, Gervolino J, Forster O, Rigby J, Afeef I, Raheed RA, Köhnk S and Petros C 2024. *Assessing the socio-economic valur of sea turtles to the Maldives' tourism industry in 2019 (prepandemic)*. Chelonian Conservation and Biology 23(2):209-215.

Selected Conference Presentations

Afeef FI *et al*. First health assessment of juvenile hawksbill sea turtles (*Eretmochelys imbricata*) in the Maldives: clinical blood analytes, physical examination, ultrasonic studies and gut microbiome characterisation. **42nd International Sea Turtle Symposium, Pattaya Thailand.**

Inaan I *et al*. A look at the first year of L. Gaadhoo *Velaa Heylhi* monitoring and protection program. **Fifth Maldives Marine Science Symposium, Malé, Maldives.**

Mainye L *et al*. From Bycatch to Protection: How Fishers are taking the lead on sea turtle conservation in Kenya. **7th International Marine Conservation Congress, Cape Town, South Africa.**

Publications

Total Scientific Publications

22

Peer-reviewed articles, theses, official reports

Total Technical Reports

21

2024 Conference Presentations

12

Finances

Summary of Financial Performance

In 2024, ORP maintained a strong financial position, with income totalling £574,350 and expenditure of £669,535 across core charitable activities. The year ended with net assets of £489,133. While income was lower than in 2023, it remained aligned with internal plans and reflected a focus on long-term sustainability through diverse funding streams, including donations, grants, partnerships, and investments.

Key investments included a new CRM system, improving donor management and financial planning, and the introduction of updated governance frameworks, such as an Ethical Fundraising Policy and a Due Diligence Procedure. Capacity building was prioritised in Kenya and the Maldives, with enhanced fundraising, grant development, and donor stewardship, strengthening ORP's ability to deliver on its strategic goals.

Looking ahead, ORP enters 2025 in a strong financial position. With a focus on long-term sustainability, we will continue diversifying income and advancing our five-year fundraising strategy to support our mission well into the future. Securing resources to sustain and grow our impact in sea turtle conservation remains a top priority, ensuring our work stays resilient, effective, and adaptable. ORP's 2024 financial performance reflects successful fundraising and prudent management.

The Trustees are confident these developments have strengthened the charity's ability to achieve its objectives and secure long-term financial sustainability.

Olive Ridley Project – Kenya (ORPK) operates as a branch of the UK-based charity and is included in the consolidated accounts presented here.

Olive Ridley Project – Maldives (ORPM), by contrast, is an independently registered Maldivian entity and maintains separate accounts. As such, restricted funds received directly by ORPM – totalling USD 34,000 in 2024 – are not included in these financial statements. However, the activities funded through these grants were delivered jointly with ORP and are included in this Annual Review.

ORPM's financial accounts are reported to the relevant Maldivian authorities and can be accessed upon request. In future years, a summary of ORPM's financial performance may be included for greater transparency and completeness.

Income

Donations, Grants, and Legacies: £525,858, with unrestricted funds contributing £268,584 and restricted funds adding £257,274.
Charitable Activities: £179,763, an increase from £164,038 in 2023.
Interest Income: £12,375.

Expenditure

Total expenditure for the year amounted to £669,535, up from £617,357 in 2023. The major areas of expenditure were:

Raising Funds: £81,509, up from £50,554 in 2023, supporting the generation of £574,350 in income. This represents a fundraising return on investment (ROI) of approximately 7.05 – meaning that for every £1 spent, ORP raised around £7.05.

Charitable Activities: £588,026, an increase from £566,803 in 2023. This expenditure includes equipment and medical supplies, staff costs, other charitable activities, and donated services and facilities.

Reserves: In line with our Reserves Policy, ORP currently holds a reserve of £100,000, supporting the core operations of the charity for 6 months.

Net Income and Fund Balances

ORP reported a net income of £(94,330) for 2024, a decrease from £77,199 in 2023, after accounting for net gains on investments of £855. The net movement in funds was £(94,330), resulting in a closing fund balance of £489,133, down from £583,463 at the start of the year.

- **Unrestricted Funds:** Decreased to £389,855 from £462,533 last year.
- **Restricted Funds:** Decreased to £99,278 from £120,930 last year.

Financial Position

As of 31 December 2024, ORP's total net assets stood at £489,133. The balance sheet highlights include:

- Fixed Assets: £69,497, including tangible fixed assets and investments.
- Current Assets: £477,128, comprising cash at bank and in hand, and debtors.
- Creditors: £(65,030), representing amounts falling due within one year.

To access the full Audited Accounts, please visit the website of the Charity Commission of England and Wales here.

Looking Ahead to 2025

Building upon our 2024–2028 strategy and Theory of Change, we are dedicated to a future where sea turtles can roam free from human-induced threats. In the coming year, our focus will be on;

Enhancing Impact Measurement and Accountability

- Implementing a robust impact measurement framework, guided by consultation and data collection, to track key metrics and ensure our programmes deliver meaningful, measurable outcomes.
- Publishing our five-year strategy and Theory of Change in 2025 to promote transparency, accountability, and collaboration.

Strengthening Organisational Structure

- Transitioning to a dynamic, matrix-style organisational model, empowering country offices to respond effectively to regional needs and strengthen local ownership.
- Building a global network of advocates and local leaders committed to sea turtle conservation through ambassadorships.
- Strengthening our fundraising strategy by diversifying income streams to ensure long-term financial sustainability.
- Investing in fundraising activities to support growing operations and regional offices, ensuring responsiveness and innovation in sea turtle conservation.

Leveraging Technology and Advancing Scientific Research

- Expanding the use of innovative technologies such as drones and AI for enhanced habitat assessment and strategic surveys.
- Advancing Project SEUSS in collaboration with Purple Transform, integrating AI for real-time nest disturbance detection and hatching prediction, with future enhancements for predator and inundation detection.
- Collaborating with Purple AI to develop an AI-powered tool for complete blood counts (CBC) in sea turtles, streamlining diagnostics and improving patient care.
- Conducting in-depth analysis of existing data and samples related to sea turtle health and genetics.
- Continuing data collection through long-term Capture-Mark-Recapture (CMR) studies using Photo-ID, satellite tagging (ORPTrack), nest monitoring, threat assessments, sea turtle health observations, and socio-historical surveys to inform conservation strategies.
- Publishing key research findings, including a socio-economic study on the value of sea turtles in the Maldives and the first analysis of ORPTrack satellite tagging data – representing a landmark study in the Northern Indian Ocean.
- Presenting research findings and conservation programme successes at the 43rd International Sea Turtle Symposium in Ghana, sharing insights from Photo-ID studies, work with fishing communities, and sea turtle health research.

Young conservationists at Diani Beach, Kenya.

Expanding Conservation Efforts and Community Engagement

- Empowering communities, stakeholders, and individuals with the knowledge and resources to actively contribute to sea turtle conservation through knowledge-sharing initiatives and educational programmes, including internships, student attachments, veterinary and veterinary nurse training, and citizen science and volunteer opportunities.
- Expanding the Sea Turtle Beach Guardian and Ranger Programme in the Maldives to a national scale, furthering research on nesting and illegal take frequencies.
- Continuing to expand our fisher outreach programme in Kenya, initiating sea turtle bycatch data collection.
- Implementing LED light testing as a bycatch mitigation measure in collaboration with local fishers, supported by grants from Animal Saviours and the SWOT programme.
- Opening a second full clinical facility for sea turtles at Jawakara Maldives in Lhaviyani Atoll.

By focusing on these key areas, we will strengthen our conservation impact, advance scientific research, and build a more sustainable future for sea turtles and their habitats.

Thank You

Behind every rescued turtle patient, every field survey, every sea turtle release, and every student reached – there's you. In 2024, we saw what's possible when generosity meets action. We're not just a conservation organisation – we're part of a growing, global community that cares deeply about the ocean and its future. That community includes dedicated donors, citizen scientists, research collaborators, corporate partners, and local leaders working on the frontlines of conservation.

A special thank you goes to Friends of Frontiers and OceanCare. Their continued support over several years has been essential in driving forward our clinical research, expedition work, and the creation of the Sea Turtle Health Database – a first for the region.
We're also deeply grateful to our anonymous major donors, whose quiet yet powerful contributions have expanded our rescue network, strengthened veterinary training, and helped us reach more communities than ever before.

Our corporate, commercial, and resort partners continue to be key allies in conservation, supporting us with facilities, resources, visibility, and engagement. Your guests, staff, and dive teams make vital contributions to our rescue, research, and education programmes. We also thank our institutional and NGO partners for their collaboration and shared vision of a healthier marine future.

To our individual donors – thousands strong – who give what they can, when they can: thank you. Whether through monthly gifts or by adopting a turtle, you are the foundation on which this work stands.

And finally, to our volunteers, interns, veterinary trainees, and citizen scientists – thank you for your time, your energy, and your heart. You've helped us do more, reach further, and stay grounded in the communities we serve.

This movement is growing – not just in numbers, but in depth, in creativity, and in impact.
And it's growing because of you.

From all of us at the Olive Ridley Project – thank you.
We're proud to be in this together.

Partners & Collaborators

OLIVE RIDLEY PROJECT

Registered Charity #1165905
in England & Wales

OLIVE RIDLEY PROJECT-MALDIVES

Registered NGO CR/04/2022

OLIVE RIDLEY PROJECT-KENYA

Registered NGO-EPFPJ6

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