



OLIVE RIDLEY PROJECT

Protecting Sea Turtles and Their Habitats

**NEWS FROM THE FIELD:
JANUARY-MARCH 2022**

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ABOUT THE OLIVE RIDLEY PROJECT



The Olive Ridley Project (ORP) is on a mission to protect sea turtles and their habitats through:

- Rescue and Rehabilitation
- Scientific Research
- Education and Outreach

OUR RESEARCH

Our research areas include:

- Biogeography (population dynamics)
 - Reproductive biology
 - Population ecology
 - Threats to sea turtles
- Sea turtle conservation
- Sea turtle veterinary science



OUR PARTNERS

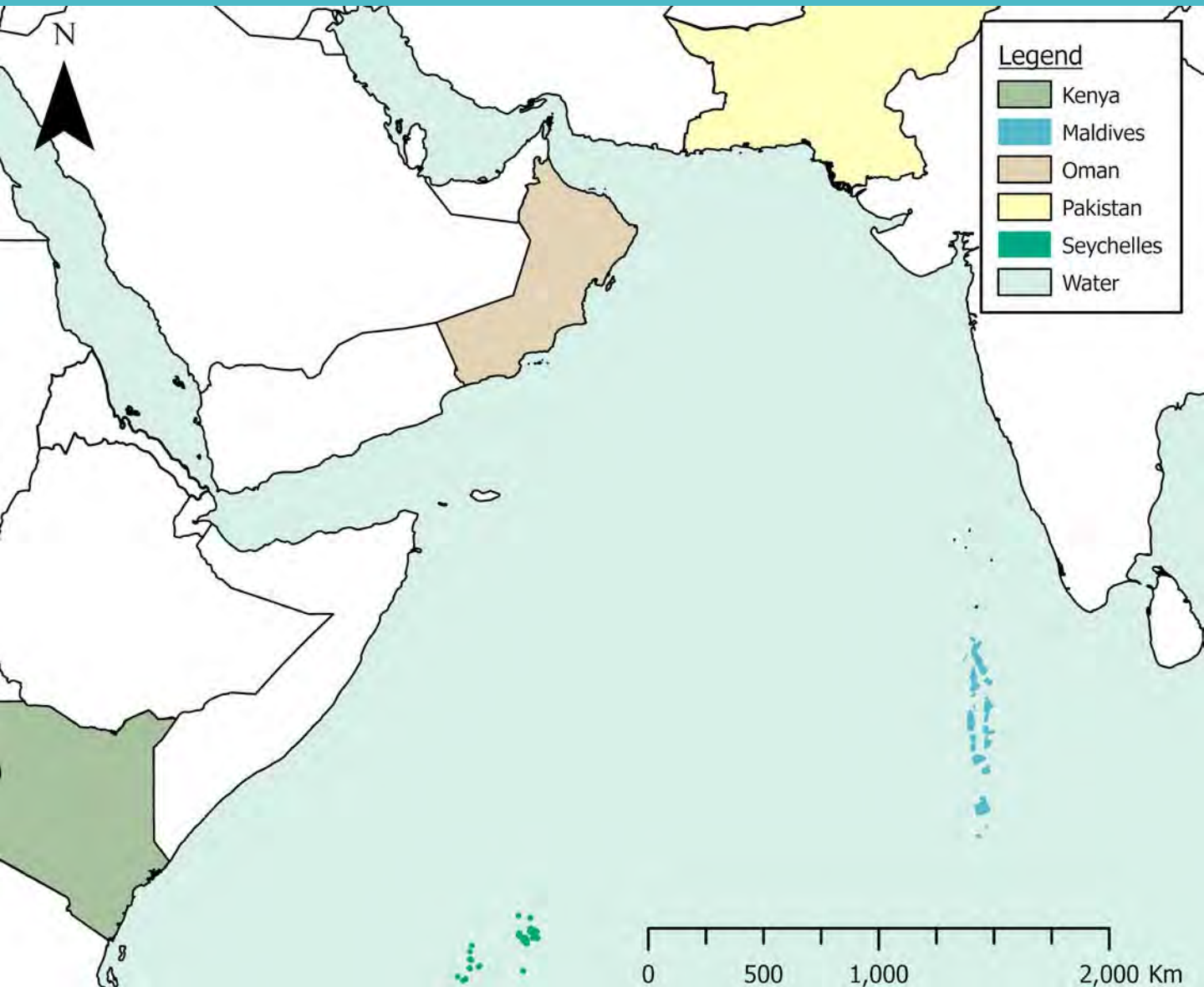
The Olive Ridley Project (ORP) is a charity established in 2013, registered in England & Wales and in the Maldives. We have partnered with resorts, organisations and local NGOs to host our rescue and rehabilitation centres and research teams, and to maximise the effectiveness of our reach in local communities. We would like to extend our gratitude for their backing, help, and support.



Registered Charity in the UK #1165905



OUR BASES



Kenya

Established: 2018

Base: Diani Beach

Main Activities: Sea turtle population research and habitat connectivity.

The Maldives

Established: 2013

Bases: Baa, Laamu, Lhaviyani, North Malé, Noonu & Raa 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 Centre, North Malé Atoll.

Oman

Established: 2015

Base: Musandam

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

Pakistan

Established: 2015

Base: Abdul Rehman Goth, Karachi

Main Activities: Ghost gear recovery, mitigation and repurposing, educational outreach.

Seychelles

Established: 2021

Base: Félicité Island

Main Activities: Sea turtle population research, habitat connectivity and threats



EXECUTIVE SUMMARY

2022 began with a great start! ORP team members in the Maldives, Kenya, Seychelles, Oman and Pakistan worked very hard on a large variety of projects, forged new collaborations and continued to work towards our charitable objective of protecting sea turtles and their habitats.

In the Maldives, the initial assessments for the first ever [Maldives National Red List of Threatened Species](#) were published. The assessments for green, hawksbill and olive ridley turtles were led by ORP representatives and are now available online. While the data available on loggerhead, leatherback and olive ridley turtles in the country is still too sporadic to infer population trends, thus rendering the species officially "data deficient", green turtles were found to be "endangered" and hawksbill turtles "critically endangered" in the country.

This quarter, 28 turtle nests were laid in the Maldives. While most of the nests were green turtle nests, two olive ridley turtle nests have also been reported from Haa Dhaalu and Vaavu atolls. Although olive ridleys are assumed not to be resident in the country, nesting has been reported occasionally in the last years and we are excited to see how this trend develops in the future.

The rescue and rehabilitation team admitted a record number of 18 new patients in Q1, with an unusually high number of boat strike victims.

While the rescue centre team did everything in their

power to help all turtles and make them comfortable when needed, eight patients passed, some within a very short time after their arrival. Currently nine patients are still in our care and keep everyone busy.

ORP Kenya continued existing monitoring efforts in the Diani-Chale area and established new connections towards the North in Tiwi. The team also forged an important new partnership with Pwani university to collaborate on various projects including population genetics, habitat studies and sea turtle health.

With a new In Field Coordinator supporting the team, we started a detailed survey of the Diani seagrass lagoon to understand and predict feeding ground preferences of green turtles, which is expected to provide an important baseline for future projects.

The new ORP chapter in the Seychelles started off with the establishment of our Sea Turtle Photo-ID project as well as a lot of networking with other local stakeholders, such as the Seychelles Parks and Garden Authority (SPGA).

Additionally, our biologist arrived in the middle of the nesting season and recorded 11 nests on Felicite Island. All of the nests were hawksbills nests. Currently, these nests have an average hatching success rate of just over 70%. We will be working together with our partners at Six Senses Zil Pasyon to improve this number in the future by improved nest protection.

EXECUTIVE SUMMARY

Our Sea Turtle Photo-ID project continues to progress incredibly well. We recorded a total of 187 new individuals in the Maldives (44 green turtles and 143 hawksbills) in the first quarter of 2022. Over 1,200 identified turtle encounters were logged and uploaded to the Internet of Turtles. This was in part possible due to our amazing citizen scientists throughout the country, who share their turtle encounters with us. We would like to thank them for the continued support!

In Kenya, 358 sightings were recorded, with 71 new turtles (61 greens and 11 hawksbills) being added to the database from Diani as well as the Tiwi area. This highlights that even after several years of survey efforts, we still find new individuals.

Our biologist in Oman recorded 34 turtle encounters, including 18 new individuals (15 greens and 3 hawksbills), but also resighted several turtles we have recorded the last time before the Covid-19 pandemic. We are excited to see that these turtles are still around.

Our newly established database in the Seychelles consists of 65 records of 43 individual hawksbill turtles, including in water and nesting turtle encounters.

The ORP team in Pakistan recovered 62 kg of ghost gear from beaches and the sea in the first quarter, and recorded two sea turtles who potentially fell victim to them.

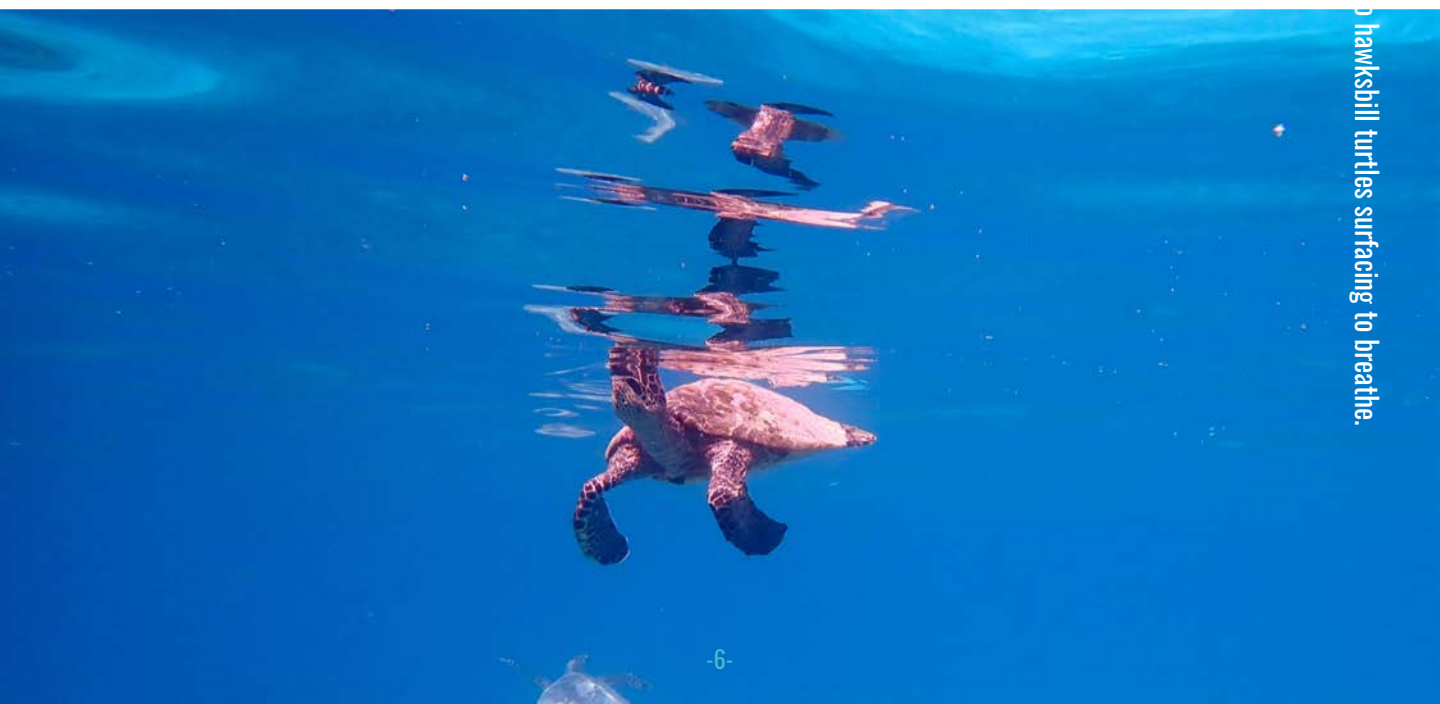
The ORP team was engaged in a variety of presentations at several international institutions in Q1. Additionally, several team members attended the International Sea Turtle Symposium, presenting and discussing our research findings with the international sea turtle community, exchanging knowledge about sea turtle medicine, engaging with students and networking at regional meetings.

Our various turtle adoption programs continue to be popular and generate a substantial amount of donations for us. Our long term patients Heidi, Disco and Xena have built up quite the fan club!

In the first 3 months of the year, 111 new students enrolled in our online courses and we have a total of 137 "graduates" to date. We are currently working on refreshing e-Turtle School, which will be relaunched in the next couple of months.

In the upcoming months we are looking forward to continuing our community engagement initiatives as well as starting several studies regarding poaching, genetics and spatial ecology.

- Dr. Stephanie Köhnk, Senior Scientist



Hawksbill turtles surfacing to breathe.



**OLIVE RIDLEY
PROJECT**

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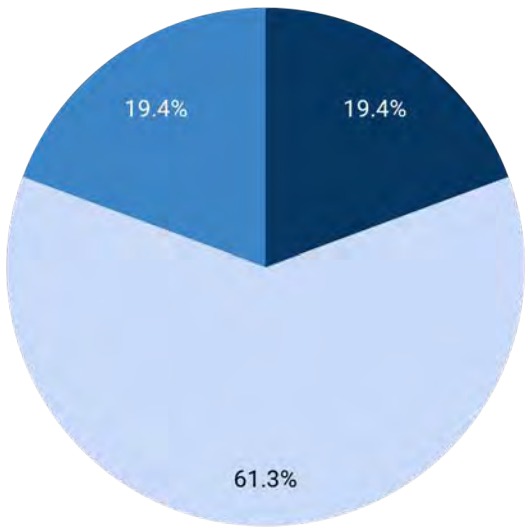
MALDIVES



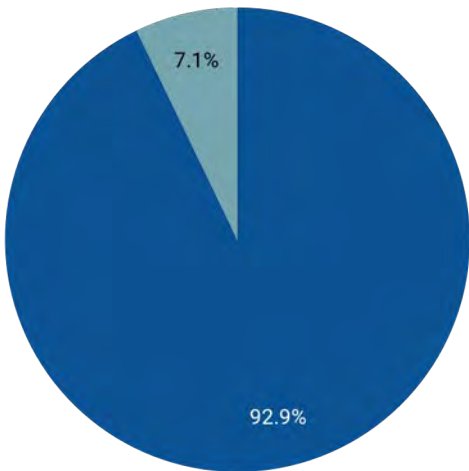


STRANDED TURTLES REPORTED - MALDIVES

Found Dead Released immediately Transferred to rescue centres



Entangled Stranded

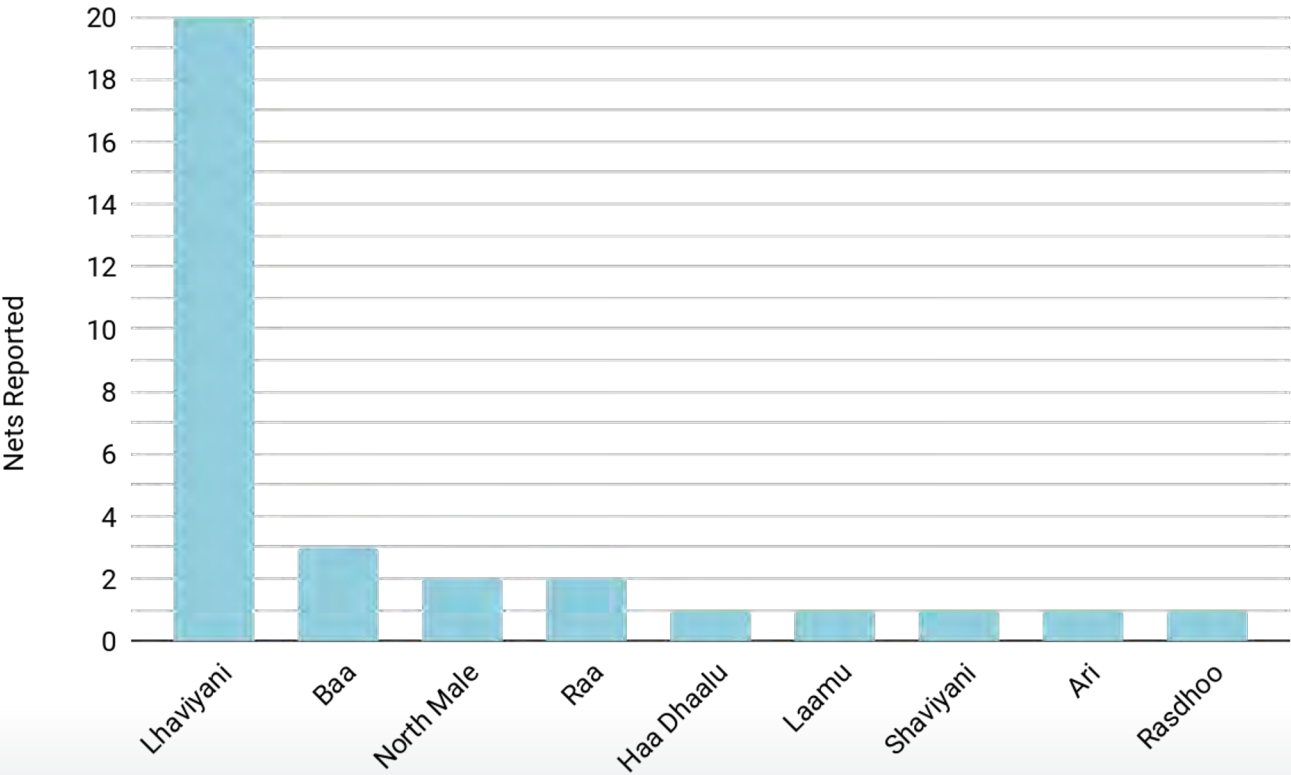


Species	This Quarter	This Year	Since Project Began
Olive Ridley	28	28	938
Green	2	2	34
Hawksbill	1	1	96
Unknown	0	0	4
Total	31	31	1072

A ghost net recovered in January 2022 near Coco Bodu Hithi, North Male Atoll (photo: Starr Sams)



GHOST NET REPORTS



GHOST NETS REMOVED - MALDIVES

	This Quarter	This Year	Since Project Began
Ghost Net Conglomerates Removed	30	30	572



TURTLE RESCUE & REHABILITATION

This quarter has been our busiest on record for new patient admissions, with 18 new patients admitted in total at the Marine Turtle Rescue centre in Baa Atoll, and the Rehabilitation Centre in North Malé Atoll.

Our patients were predominantly found floating in the ocean, but not entangled in ghost gear this time. However, on examination, it becomes apparent that many of them must have been previously entangled, but managed to free themselves.

In addition, we did also see an unusual number of presumed boat strikes, which is a new finding for us, and resulted sadly in some catastrophic wounds. Unfortunately, eight patients passed away this quarter, with five of those passing within one and seven days of arrival. This is indicative of how sick they were to begin with. Many of these entangled or injured turtles have been floating out at sea for months, resulting in patients very much on a knife edge by the time they arrive. The Rescue Centre team has worked exceptionally hard this quarter to provide the best care possible to all these turtles.

Interestingly we've had two patients this quarter presenting with reproductive disease, another first at our Rescue Centre. We also had a number of flipper

amputations, extensive daily wound care, and performed regular blood samples, x-rays and ultrasounds of our patients.

In March we welcomed a group of school children from a local island to the Rescue Centre for the first time since the pandemic. We are thrilled to be able to share the work we do with the local community again.

Our team also continue to live-stream the feeding of our patients every Sunday to growing success and engagement; we have even started live-streaming on the Coco Resorts Instagram page once a month to further highlight our work.

This is Dr Minnie's last update from the Marine Turtle Rescue Centre. "I have been fortunate enough to care for these sea turtle patients for 18 months now (and in that time I have admitted 56 patients and cared for over 60!), and will hugely miss all aspects of the job, but the turtles most of all! It has been a pleasure keeping you all updated and seeing the incredible support and generosity of everyone; thank you for making the Rescue Centre the success that it is today." Dr Minnie will be handing over the reigns to Dr June Ang in April.

-Dr Minnie Liddell, Resident Veterinarian



TURTLE PATIENTS

	This Quarter	This Year	Since Project Began
New Patients Admitted	18	18	182
Patients Treated	25	25	182
Turtles Released	4	4	96
Turtles Deceased	8	8	65
Patients Still in Care (ORP only)	10		

TURTLE ADOPTIONS

	This Quarter	This Year	Since Project Began
Patient Adoptions	73	73	1,150
Maldives Adoptions*	65	65	653
Kenya Adoptions	4	4	122
Famous Turtle Adoptions	1	1	109

**Does not include 70 turtles adopted by Patina in 2021*



CURRENT TURTLE PATIENTS REASON FOR ADMITTANCE

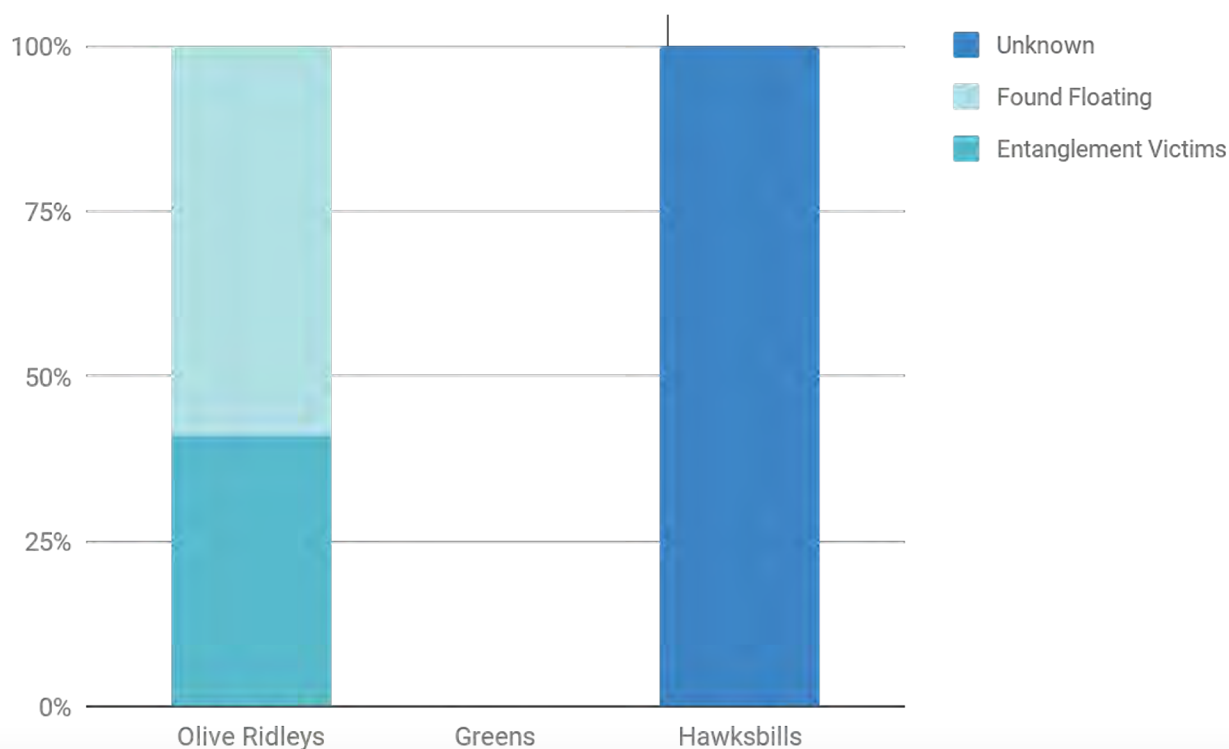


Figure 1. Reason for admittance by species



Olive ridley turtles make up 82% of all patients

Patients requiring flipper amputation (this quarter): 2

Average length of stay (all patients): 67 days

CURRENT TURTLE PATIENTS



Heidi



Xena



Discovery



Sumo



Pickle



Leonardo



Minnie



Kalo



Autumn



Tibby
(One&Only)



Crwban

New Patients at MTRCs: Mojo, Atlas, Percy, Jodie, Sumo, Hera, Kalo, Tawny, Mariyambu, Izzy, Leonardo, Autumn, Cleopatra, Minnie, Crwban

New Patients at One&Only Rehabilitation Centre: Moon, Zeo, Patient 172

Released: Loabi, Atlas, Jodie, Tawny

Transferred to rehabilitation (Atoll Marine Centre): Biscuit, Zeo

Deceased: Mojo, Percy, Hera, Moon, patient 172, Mariyambu, Izzy, Cleopatra



INTERNSHIPS, VOLUNTEERS, AND VISITING VETS

ORP's internship program for Maldivian nationals at the Rescue Centre is an important aspect of our mission to build local capacity to care for injured sea turtles. The program is a paid position and open to anyone above 18 with an interest in sea turtle conservation and husbandry.

Our intern Ni started the middle of last quarter and stayed with us all the way to the end of this quarter. She was an integral part of the running of the Rescue Centre and much loved by the whole team for her diverse skill set and passion. She is moving on to train as a veterinary nurse so we are very excited to follow her progress and hope one day she may re-join us at the Centre!

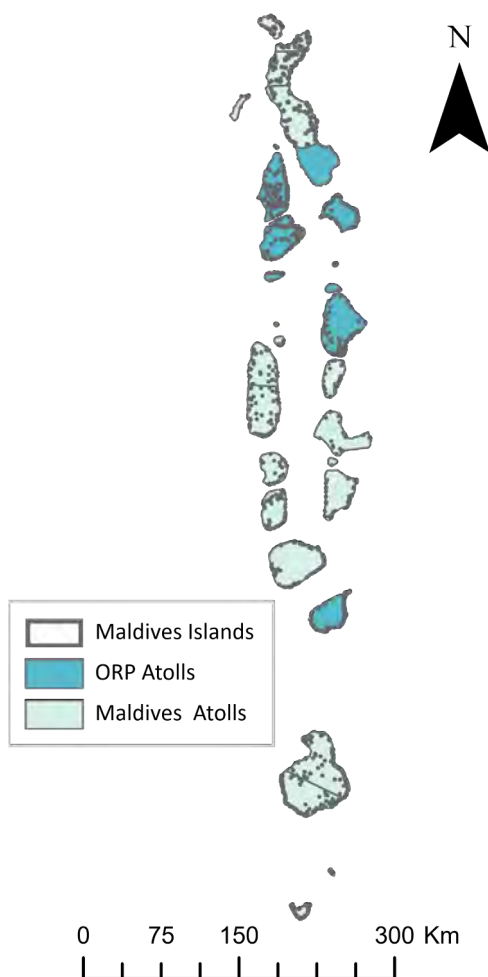
Since 2017 we have hosted 15 interns, many of whom, we are very pleased to report, have continued working in the marine conservation field. Some are now working for the government, others for NGOs or at resorts as marine biologists and educators. We

are also working on getting the internship accredited so that our interns will leave with both a wealth of experience and a formal qualification to assist them in their future careers.

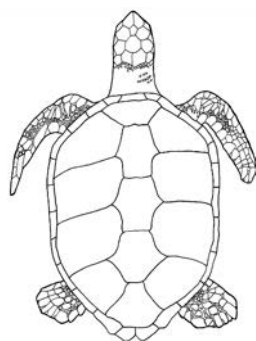
We welcomed 16 volunteers from three different countries (UK, Germany and Belgium) at the [Rescue Centre Volunteer Program](#) in the first three months of 2022. The volunteers help run the Rescue Centre and we truly value their contributions.

We have also resumed our [Visiting Veterinarian Program](#) and welcomed Dr Erick Onsongo from Kenya to the Rescue Centre to train him in all aspects of sea turtle medicine. This is in support of our goal to increase the capacity to care for sea turtles globally.

*-Dr Claire Petros, Lead Veterinarian &
Dr Minnie Liddell, Resident Veterinarian*

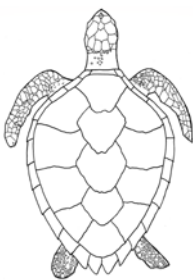


TURTLE SIGHTINGS & NEW INDIVIDUALS MALDIVES



GREENS

Total Sightings: 9,813
Total Individuals: 1,215



HAWKSBILLS

Total Sightings: 20,704
Total Individuals: 4,223

	This Quarter	This Year	Since Project Began
Total Number of Turtle Sightings	1,213	1,213	30,517
Total Number of New Individuals	187	187	5,438

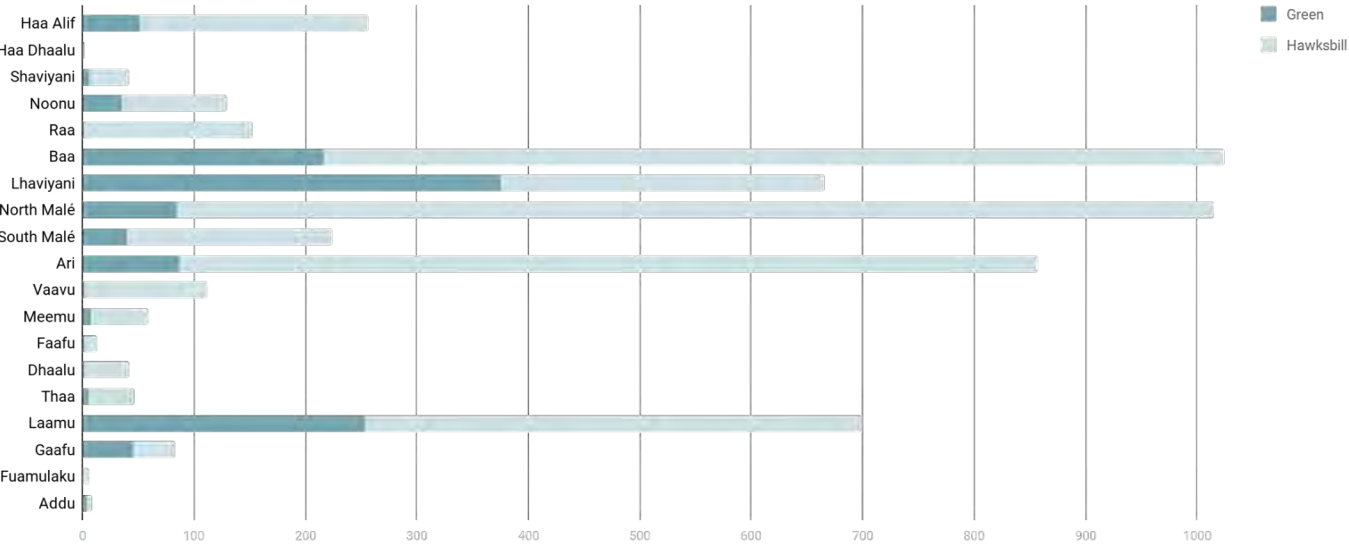


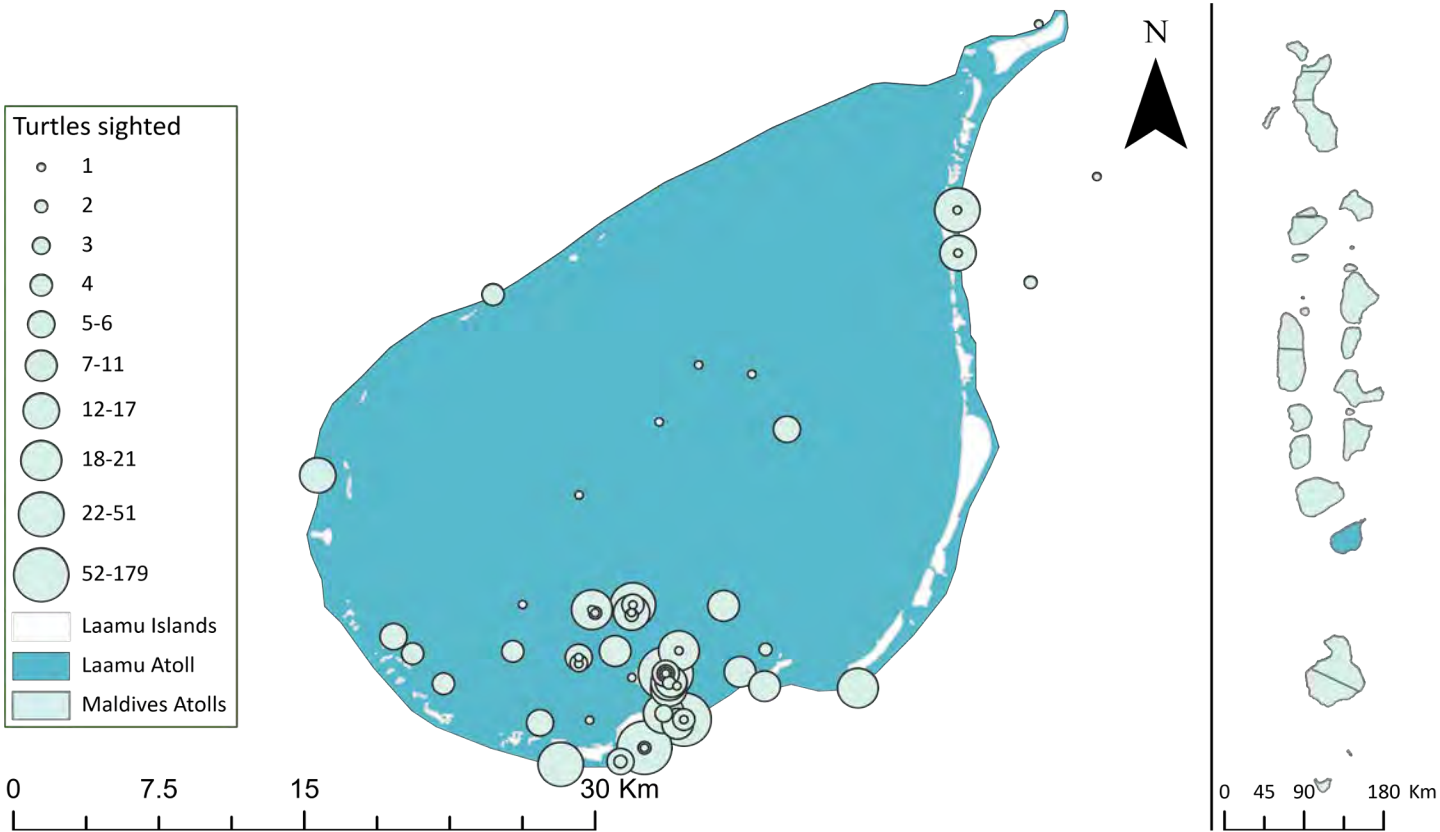
TURTLES IN MALDIVES

In the past three month we have managed to log the incredible number of over 1200 identified sea turtle encounters in the Maldives, especially due to the efforts of some very prolific citizen scientists. Thank you so much for your support!

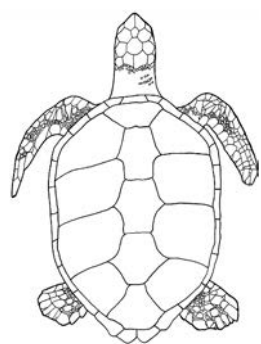
In the first quarter of 2022, a second atoll surpassed the total number of 1000 identified individual turtles: North Malé with 84 green turtles and 931 hawksbills, totalling 1015 identified individuals! It is still second only to Baa, where 216 greens and 809 hawksbills have been recorded (total: 1025). Ari Atoll is the home to over the third largest group of identified hawksbills (770), with a total of 857 individuals, including 87 greens. The largest number of green turtles can still be found in Lhaviyani (375) and Laamu atolls (253). Both atolls also have a resident hawksbill population with 291 and 446 individuals respectively.

The large number of resorts in the central atolls, as well as a relatively consistent effort by our team members in certain atolls has resulted in better data coverage there. The northern and southern atolls still have few turtles photographed and we greatly appreciate all submissions from citizen scientists.



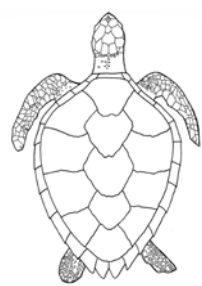


LAAMU ATOLL, MALDIVES



GREENS

Total Sightings: 2,983
Total Individuals: 253



HAWKSBILLS

Total Sightings: 2,337
Total Individuals: 446

	This Quarter	This Year	Since Project Began
Total Number of Turtle Sightings	282	282	5320
Total Number of New Individuals	22	22	699



LAAMU ATOLL

Four nests were laid at Six Senses Laamu in early 2022. ORP piloted a new project by deploying temperature loggers for the first two nests of the year, which collected temperature and humidity data during incubation period to give us a better understanding of nesting conditions in Six Senses Laamu.

Seven nests, including the last three nests of 2021, hatched. 300 guests witnessed the turtles first crawl to the beach, thanks to the efforts of the Nestwatch team. Staff members from many different departments - including F&B and Gardening - have volunteered their time to physically sit by the nest to catch early signs of hatching and alert the Turtle Biologist. The team contributed to 320 physical hours of nest monitoring in the first quarter! Nesting stopped in February on the resort, however it continues on the neighbouring nesting hotspot of L. Gaadhoo.

Consistent beach monitoring surveys of Gaadhoo finally resumed after the pandemic.

Sadly, our bi-weekly beach patrol surveys of the nesting beach shows that nests continued to get poached - 95% of suspected nests recorded in the first quarter were all poached.

With the efforts of Maldives Underwater Initiative, guests, and dive center staff, 329 turtle encounters were submitted for identification. The teams also helped recover two ghost-nets in Laamu during the beginning of the year, which ORP collected data from.

Adam Naahi joined the team in Laamu as our first turtle biologist intern in the Maldives. He is assisting us with nesting and photo-ID research.

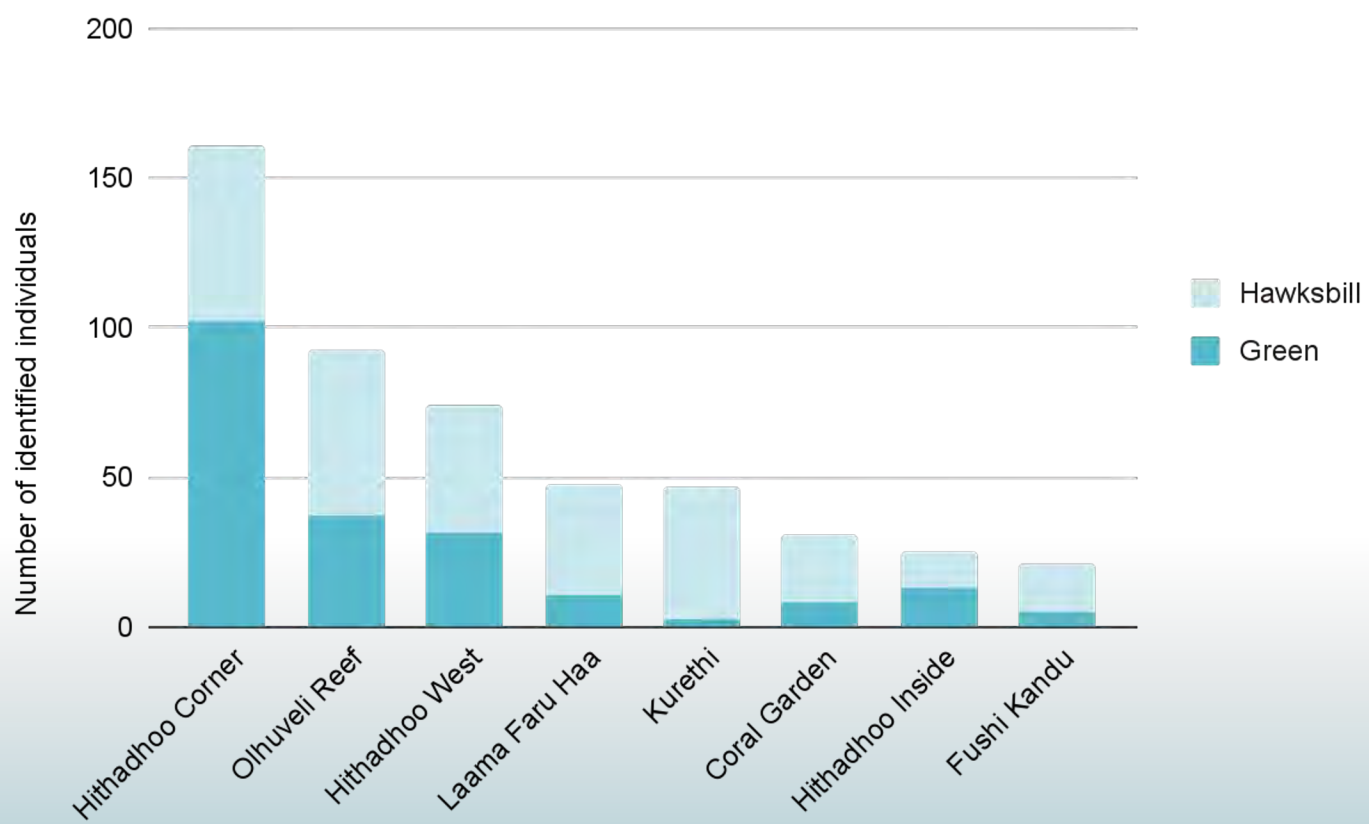
Lastly, we published our Laamu reports, analysing population and sightings data, observing nesting patterns and trends in the atoll, and we continue to share our key findings with the community.

*-Isha Afeef, Sea Turtle Biologist,
Laamu Atoll*



Green turtle resting at Hithadhoo Inside by Ibrahim Yameen

TURTLE SIGHTINGS & NEW INDIVIDUALS: LAAMU ATOLL





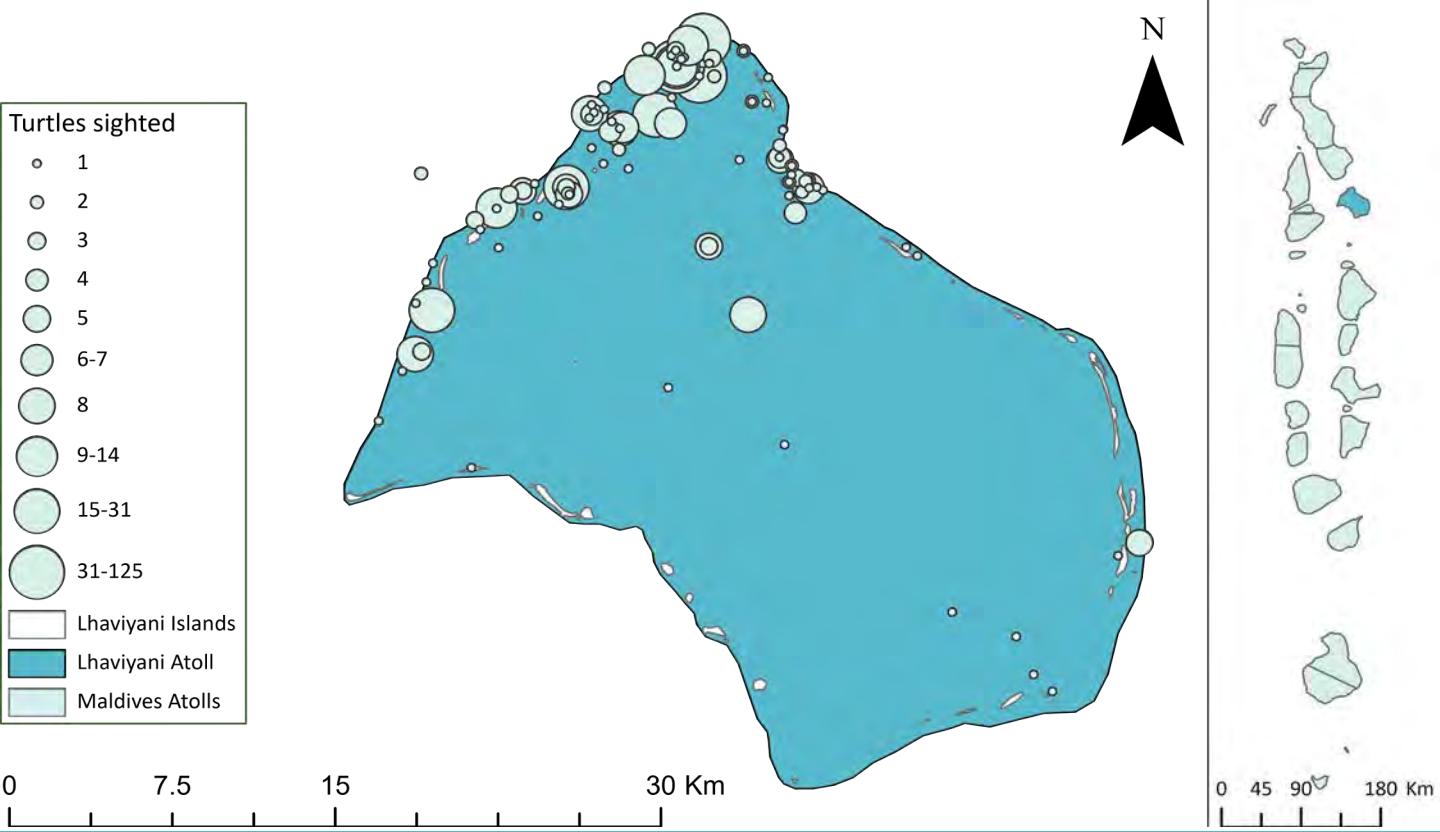
(Left) Our Turtle Biologist, Isha, and ORP intern Naahi met with the AgroNat team based in Laamu. AgroNat has started working on their plan for developing L. Gaadhoo’s agriculture in line with the Environmental Impact Assessment guidelines. With AgroNat’s support, ORP has continued nesting surveys in L. Gaadhoo in 2022 and are currently in discussions for further partnership. AgroNat’s team in Gaadhoo also includes former Gaadhoo resident and the island’s council president who were actively involved in turtle protection when they were based on Gaadhoo.

(Right) Isha met with Laamu Hithadhoo’s council and Women’s Development Committee to share our findings from reefs surrounding their island. This meeting gave us the chance to share our research findings from the atoll, and helped us lay foundation for collaborative work in the future involving extensive study of turtles in Hithadhoo Corner. The meeting went well and we look forward to working with their support.

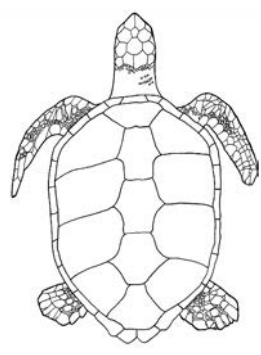


ADDITIONAL INFORMATION

	This Quarter	This Year
Hours Spent Surveying	32.11	32.11
Sites Surveyed	19	19
Nests Laid	4	4
Nests Hatched	7	7
Live Hatchlings Counted	422	422
Ghost Nets Removed	2	2

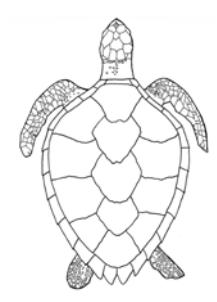


LHAVIYANI ATOLL, MALDIVES



GREENS

Total Sightings: 5,084
Total Individuals: 375



HAWKSBILLS

Total Sightings: 979
Total Individuals: 291

	This Quarter	This Year	Since Project Began
Total Number of Turtle Sightings	544	544	6,063
Total Number of New Individuals	37	37	666



LHAVIYANI ATOLL

In the first quarter of 2022, our base in Lhaviyani Atoll, Kuredu Island Resort, had no nesting activity at all, which is a big drop from this time last year. The neighbouring island Kanuhura had one false crawl in March but no recorded nests there, or anywhere else in the atoll. This marks the first time since our records began 5 years ago that no nests were recorded during what was thought to be Lhaviyani's peak nesting season, November to February.

We look forward to seeing whether nests are laid during the next quarter, and nesting surveys have and will continue to be conducted a minimum of four times a week to ensure none may be overlooked. Nesting surveys were greatly aided by the generous donation of a bicycle from Kuredu Island Resort and Spa, for which we are very thankful!

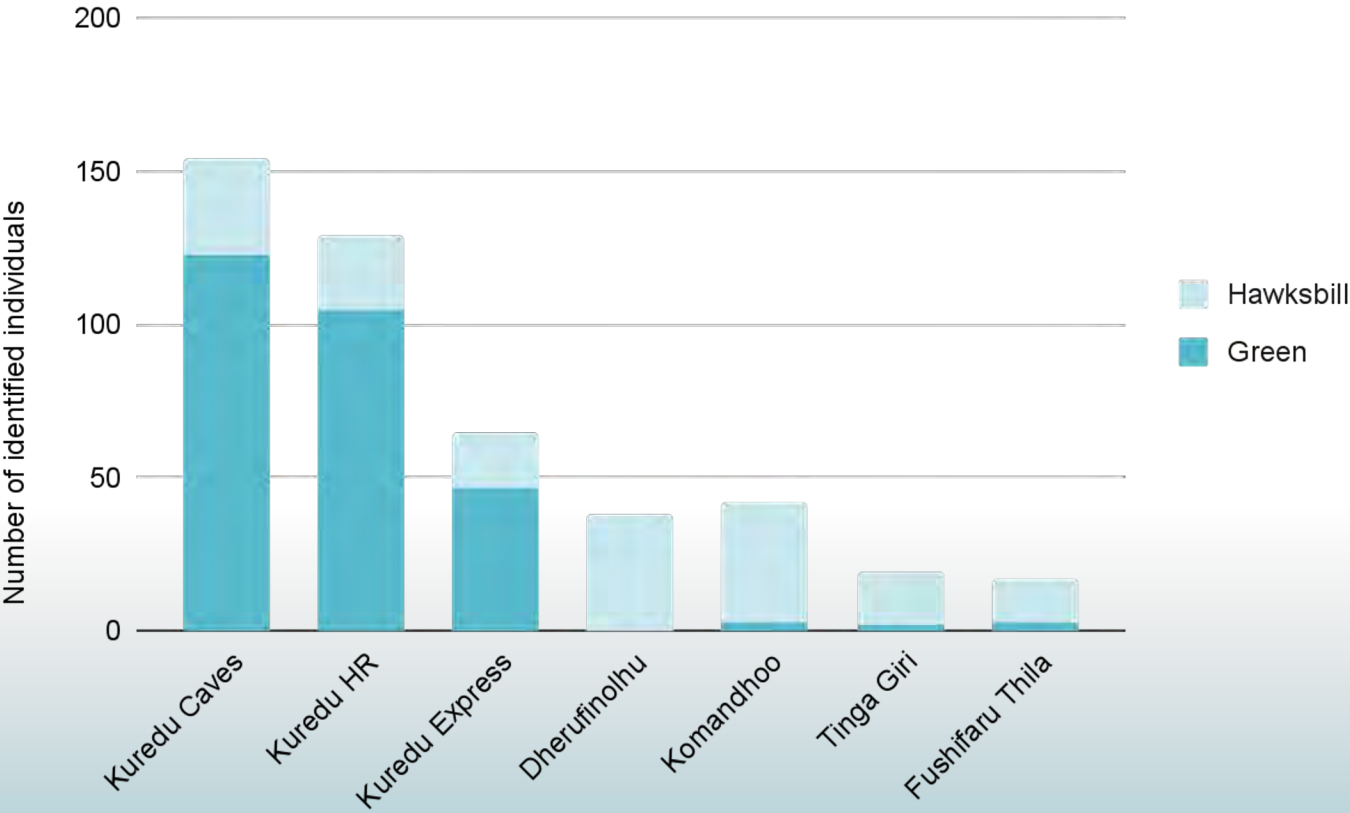
January this year was busy with ghost net retrieval and entangled turtle rescues. Thanks to strengthened cooperation between our biologist on Kuredu, all Prodivers centers, and dive centers, watersports centers and marine biologists on other islands across the atoll, 14

sea turtles were found in ghost gear in the first month. Thirteen of these were rescued, four were sent to either our Rescue Centre or Atoll Marine Center's rehabilitation center on Naifaru, and one was found dead. February saw five turtles rescued from ghost gear and March saw a further reduction with three entangled turtles rescued. A total of 23 ghost nests were retrieved across Lhaviyani this quarter.

In the last three months we surveyed 21 dive and snorkel sites across the atoll, and with contributions from our partner Prodivers' staff, guests and marine biologists from other resort islands, 544 wild turtle sightings were recorded. Of these sightings, 36 new individuals were added to the database. Between January and March, 31 wild turtles were named and adopted from Lhaviyani Atoll and we are grateful to everyone who generously supported our work.

*-Emily Mundy, Sea Turtle Biologist,
Lhaviyani Atoll*

TURTLE SIGHTINGS & NEW INDIVIDUALS: LHAVIYANI ATOLL



LHAVIYANI

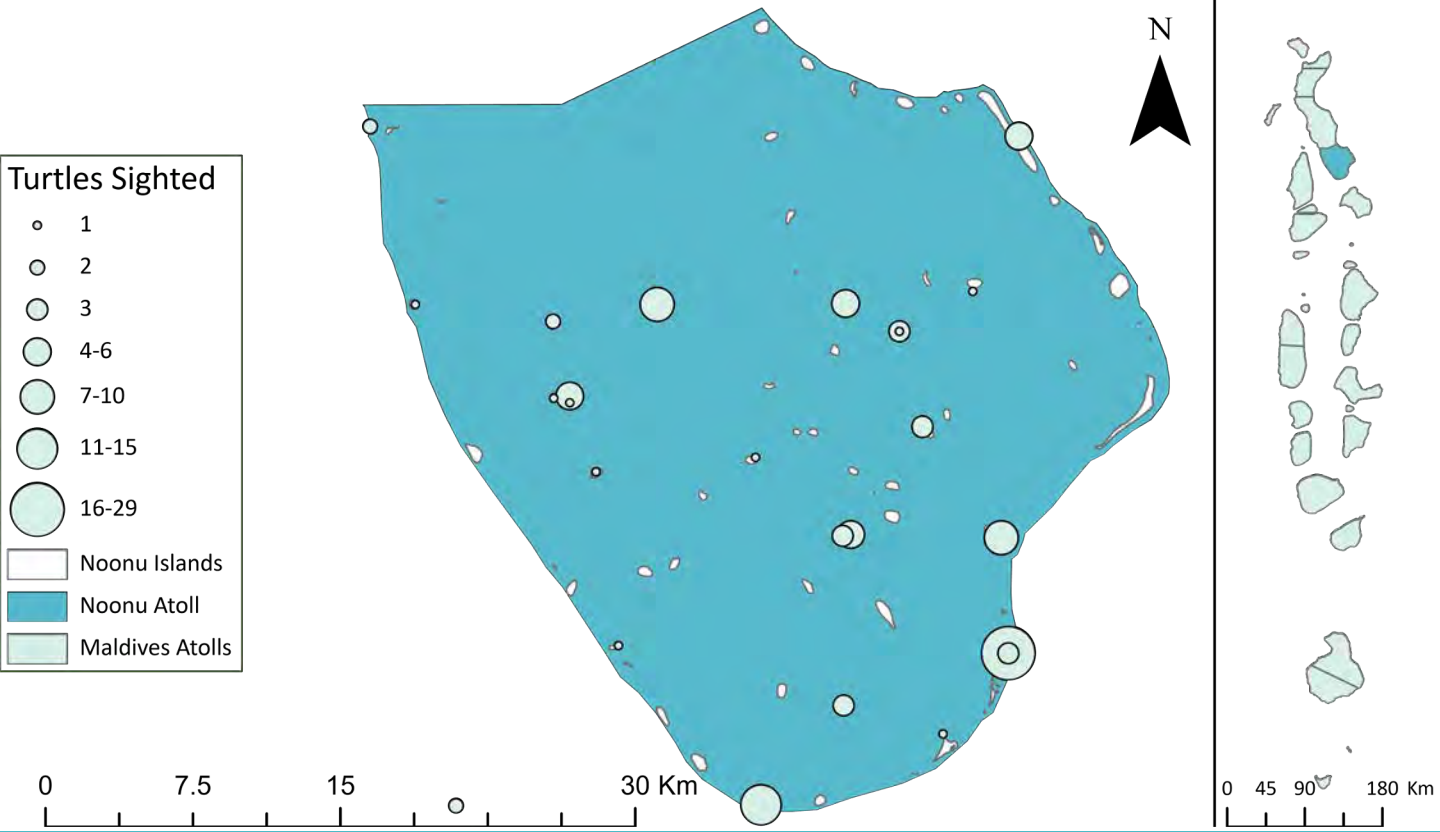
(Right) On the 20th of February, the first report of an uninjured, free swimming olive ridley turtle was recorded in Lhaviyani. The turtle was spotted by guests snorkeling in the inner lagoon of Le Méridien Maldives Resort & Spa in the south east of the atoll, over sand and seagrass. The turtle was swimming slowly towards the snorkelers before it dived down and swam away. This interesting encounter was shared with us by the marine biologist of Le Méridien who has become a regular contributor of turtle-ID photos, helping us expand our data collection to previously unsurveyed sites in the south of the atoll, for which we are grateful.



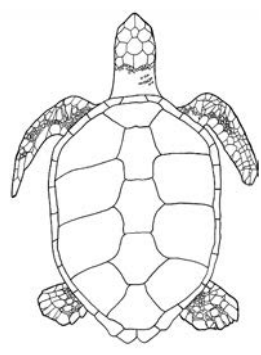
(Left) This quarter, relations with resorts, dive centers, watersports centers, marine biologists and the Atoll Marine Center on Naifaru were strengthened due to the immense rescue efforts involving entangled turtles across Lhaviyani Atoll. Our Sea Turtle Biologist based on Kuredu island was in continuous communication with this network, and in total, 21 turtles were rescued from ghost gear. Pictured left is a large conglomerate of ghost gear discovered by Prodivers Kuredu, that Kuredu Island Resort provided a boat and crew to drag and winch up onto the beach at Kuredu. This was one of two such conglomerates found in Lhaviyani in one day in January!

ADDITIONAL INFORMATION

	This Quarter	This Year
Hours Spent Surveying	44.5	44.5
Sites Surveyed	21	21
Nests Laid	0	0
Nests Hatched	0	0
Hatchlings Counted	0	0
Ghost Nets Removed	23	23

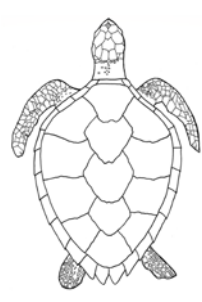


NOONU ATOLL, MALDIVES



GREENS

Total Sightings: 36
Total Individuals: 35



HAWKSBILLS

Total Sightings: 125
Total Individuals: 95

	This Quarter	This Year	Since Project Began
Total Number of Turtle Sightings	5	5	161
Total Number of New Individuals	1	1	130



Entangled olive ridley turtle from Soneva in Aqua

NOONU ATOLL

We are thrilled to announce that as of this year, we have expanded our work in the Maldives into Noonu Atoll. Our Sea Turtle Biologist Rosie is now based at sustainable luxury resort Soneva Jani.

As part of our work in Noonu Atoll, we are working closely with our partners IPNL, on a [ghost gear project funded by SatLink](#). The project will involve a) educating the local community on how best to retrieve and report ghost gear b) working closely with fishers of the local island Lhohi to encourage retrieval of gear, and c) implementing methods to recycle retrieved gear and repurpose it where possible into workable products, with all profits going back to the local community. As part of this initiative, Rosie has been conducting training with hosts at Soneva Jani, and has already received three reports of ghost nets.

Our Rescue Centre at Coco Palm Dhuni Kolhu has been at full capacity for much of this year. We are therefore very excited to let you know

that a new a turtle rehabilitation centre is is being built at Soneva! The centre will consist of four tanks (two large rehabilitation tanks and two small holding tanks), perfect for buoyant turtles in need of a large space to recover.

Though sea turtles seem to be a little skittish in Noonu atoll, one friendly resident hawksbill, Kathy, has been regularly spotted around the lagoon. The lack of turtle sightings in the water is certainly made up for by the amount of nesting on island! There is year round nesting at Soneva Jani, with the peak season being between May and November. We have been conducting weekly beach monitoring at both Medhufaru and the neighbouring Chicken Island, with reports of frequent poaching. Accessibility of the nesting beaches is a little difficult in places but there is one nest on the island just outside the host gym - perfect for monitoring purposes!

*-Rosie Brown, Sea Turtle Biologist,
Noonu Atoll*



During February, four hawksbill hatchlings were found lost behind one of the nesting beaches on Soneva Jani. Sadly three hatchlings were hot to touch and didn't make it - they had likely been lost in the heat for hours. One hatchling, however, (pictured here) was successfully released. In response to the event, the resort has replaced some beachside lights with red lights to reduce the likelihood of hatchlings getting lost. Though this was a sad occurrence, we are thrilled to have hawksbills nesting here and are extremely happy we were able to help one hatchling find its way!

(Right) We are conducting regular training sessions both on and off the island! Last quarter Rosie was lucky enough to join Soneva's liveaboard, Soneva In Aqua, to conduct training with the crew on how best to rescue sea turtles, behave around nesting turtles and appropriately swim with turtles. She is also taking part in the Soneva induction for all new staff members to educate as many people as possible. Here she is introducing the Olive Ridley Project to the heads of teams at Soneva Jani.

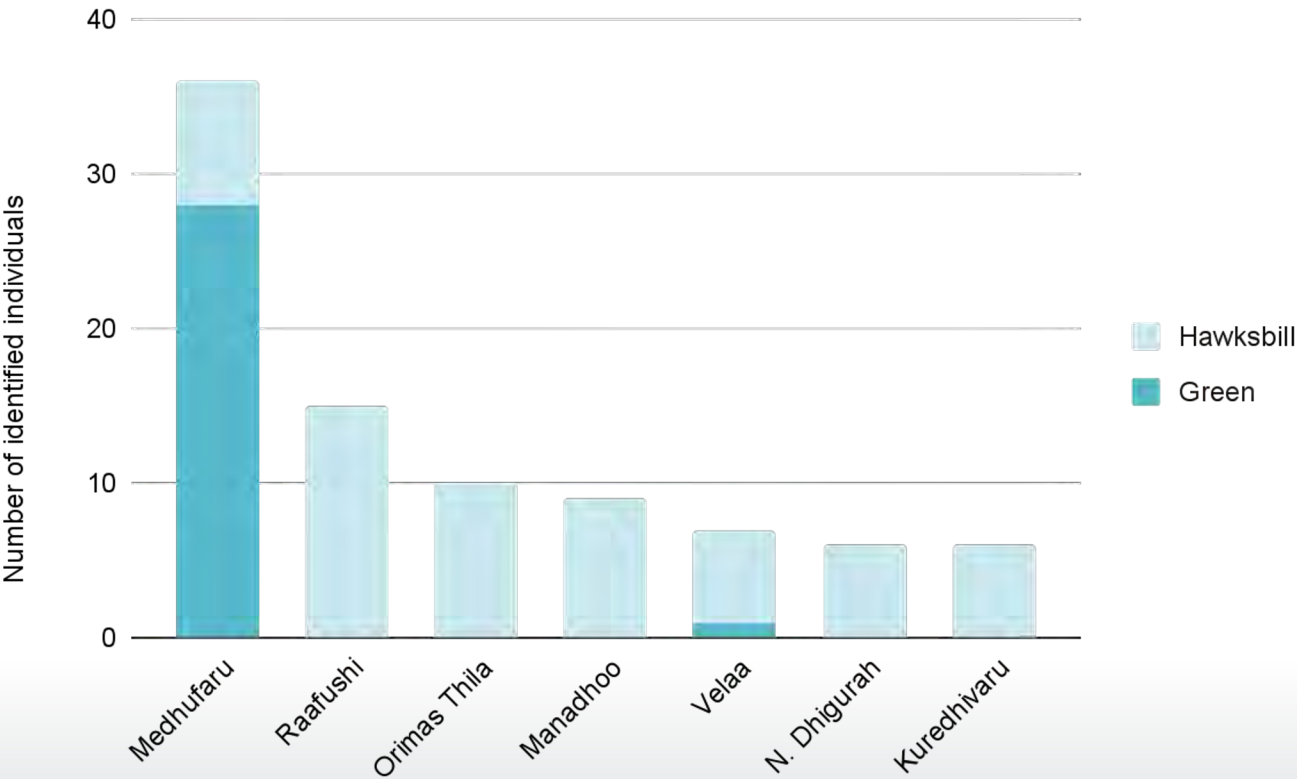


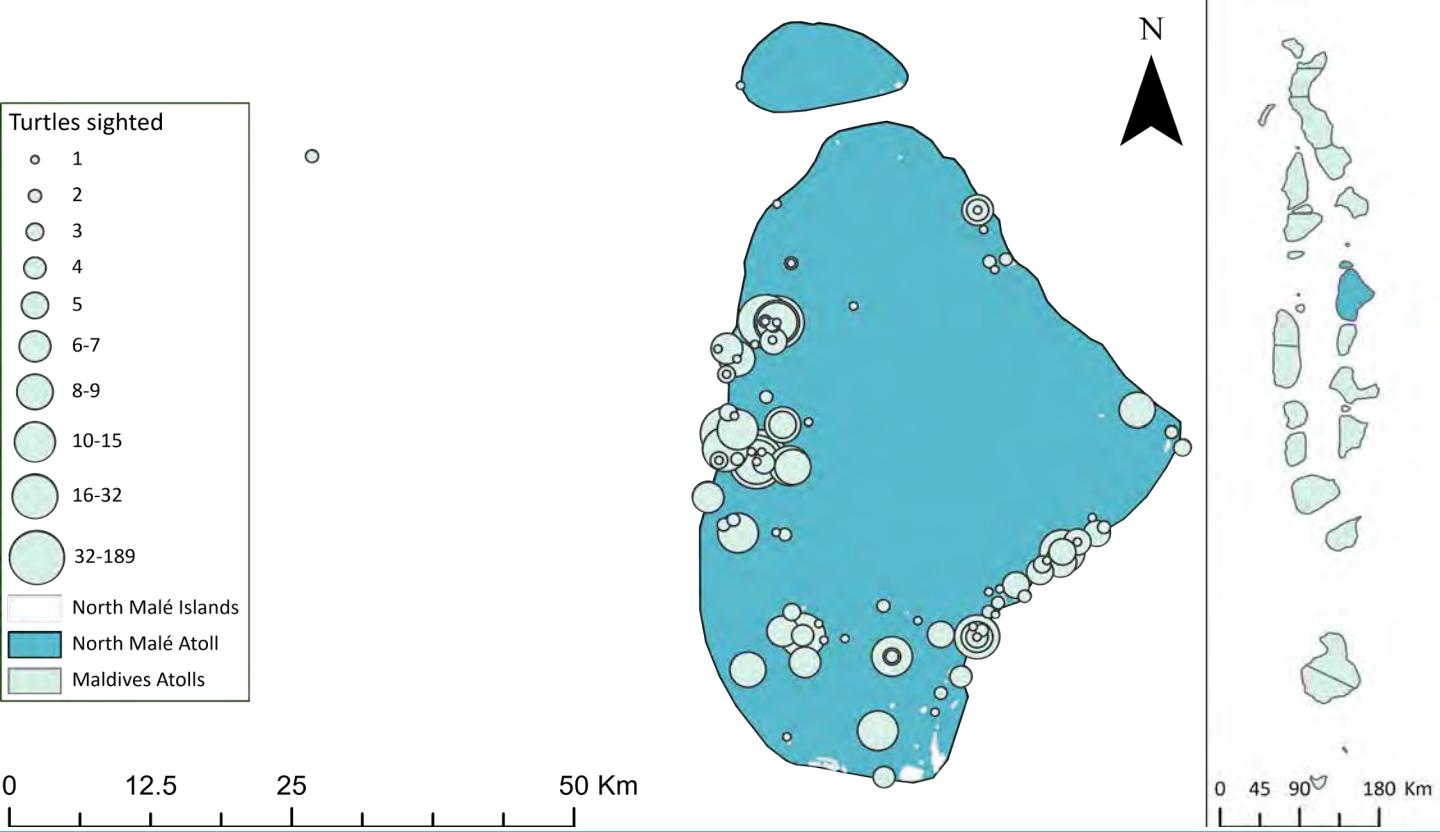
ADDITIONAL INFORMATION

	This Quarter	This Year
Hours Spent Surveying	6	6
Sites Surveyed	6	6
Nests Laid	2	2
Nests Hatched	0	0
Hatchlings Counted	4	4
Ghost Nets Removed	4	4

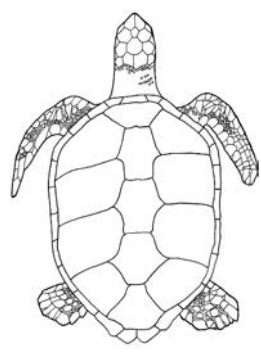


TURTLE SIGHTINGS & NEW INDIVIDUALS: NOONU ATOLL



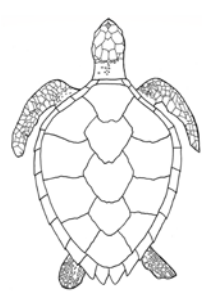


NORTH MALÉ ATOLL, MALDIVES



GREENS

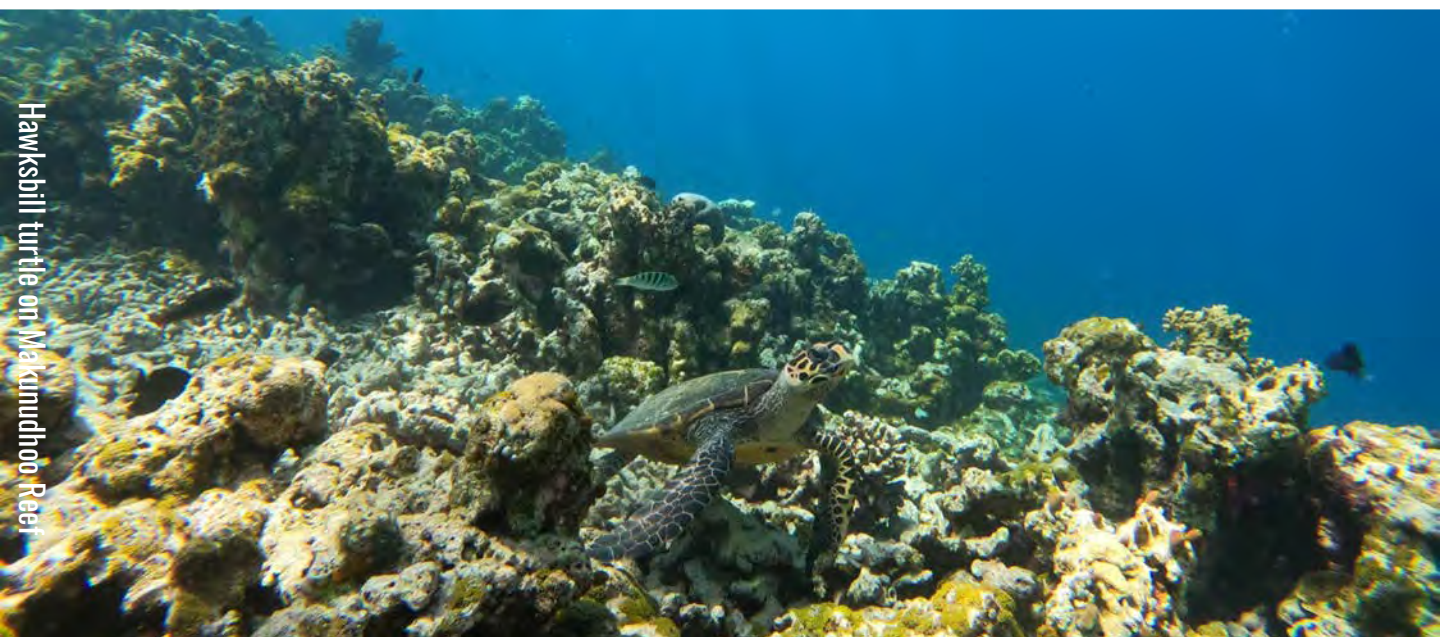
Total Sightings: 90
Total Individuals: 85



HAWKSBILLS

Total Sightings: 10,150
Total Individuals: 948

	This Quarter	This Year	Since Project Began
Total Number of Turtle Sightings	76	76	10,240
Total Number of New Individuals	18	18	1,033



NORTH MALÉ ATOLL

We added a total of 76 sightings to our database in North Malé this quarter. We conducted surveys all over North Malé, spending 204 hours in the water. Most of the sightings recorded were hawksbill sea turtles with 17 new hawksbills being identified. One new green sea turtle was sighted at Bandos House Reef. One of our new turtles (HK5135) identified at a lesser known spot called Makunudhoo South is an amputated hawksbill, missing its front left flipper. It has been sighted several times and seems to be in good health, which is great to see.

The Rehabilitation Centre team was very busy in January, admitting four new patients, all of whom arrived within a few days of each other. Unfortunately, three patients died very soon after arriving as their injuries were too severe. This included Moon and a large unnamed female olive ridley who came together from South Ari Atoll. The final turtle that died sadly passed away minutes before reaching the centre after being hit by a boat.

The last patient of this quarter, Zeo, came to us from Meeru on the 17th January. After a few months of recovery and slowly improvement, Zeo was sent to the Atoll Marine Centre to make full use of their sea cage and within a week was released back into the ocean!

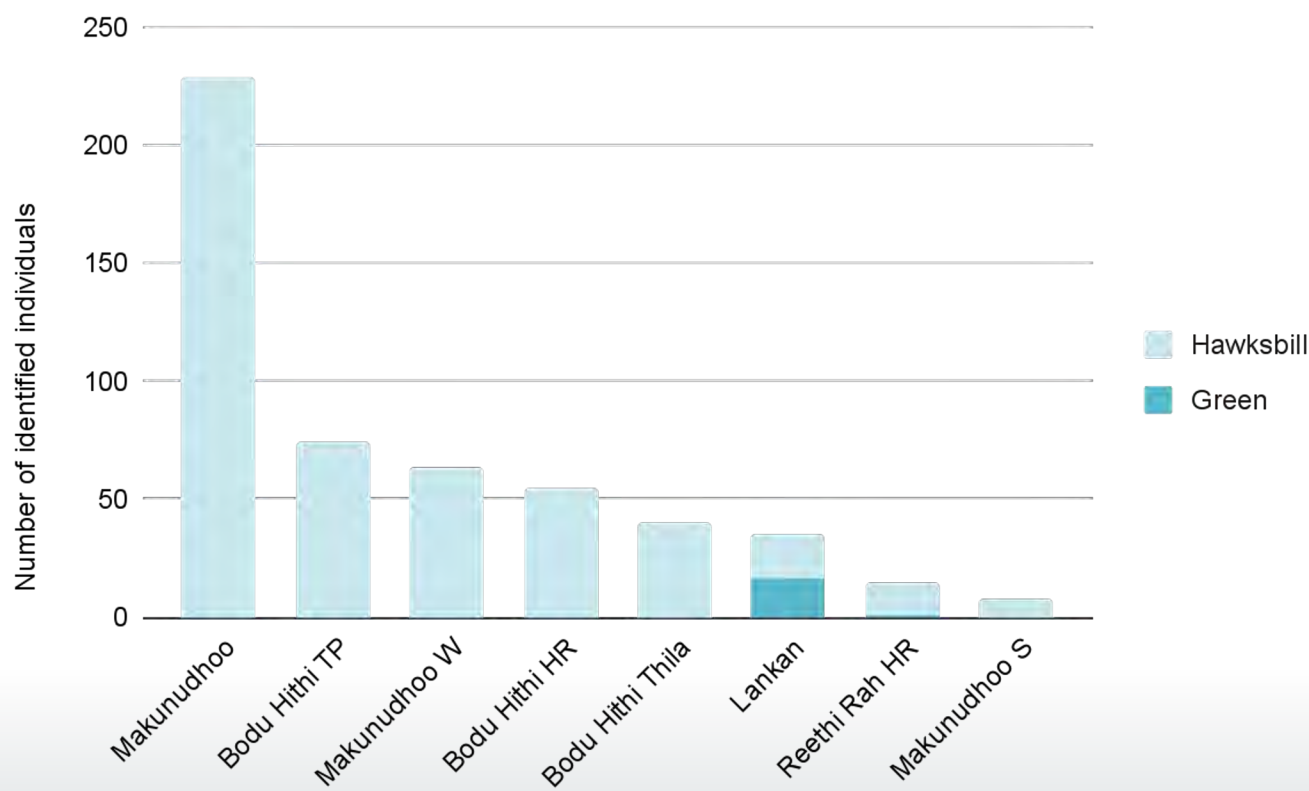
Tibby is still at our Rehabilitation Centre. Unfortunately, she is still very weak in the open water, struggling against strong currents. She is relatively stable in her weight and ability to rest at the bottom of the tank, but is no closer to going back to the wild.

Our Sea Turtle Biologist, Joe, will be assisting with our new research project 'ORP Track' and will be heading up to the Marine Turtle Rescue Centre in Baa Atoll in April to attach satellite trackers to some patients who are ready to go home! He will also train the new Resident Vet so more patients can be tagged as they are ready to be released. Soon we shall be able to see where our olive ridley patients go, stay tuned!

*-Joe Rigby, Sea Turtle Biologist,
North Malé Atoll*



TURTLE SIGHTINGS & NEW INDIVIDUALS: NORTH MALÉ ATOLL



NORTH MALÉ



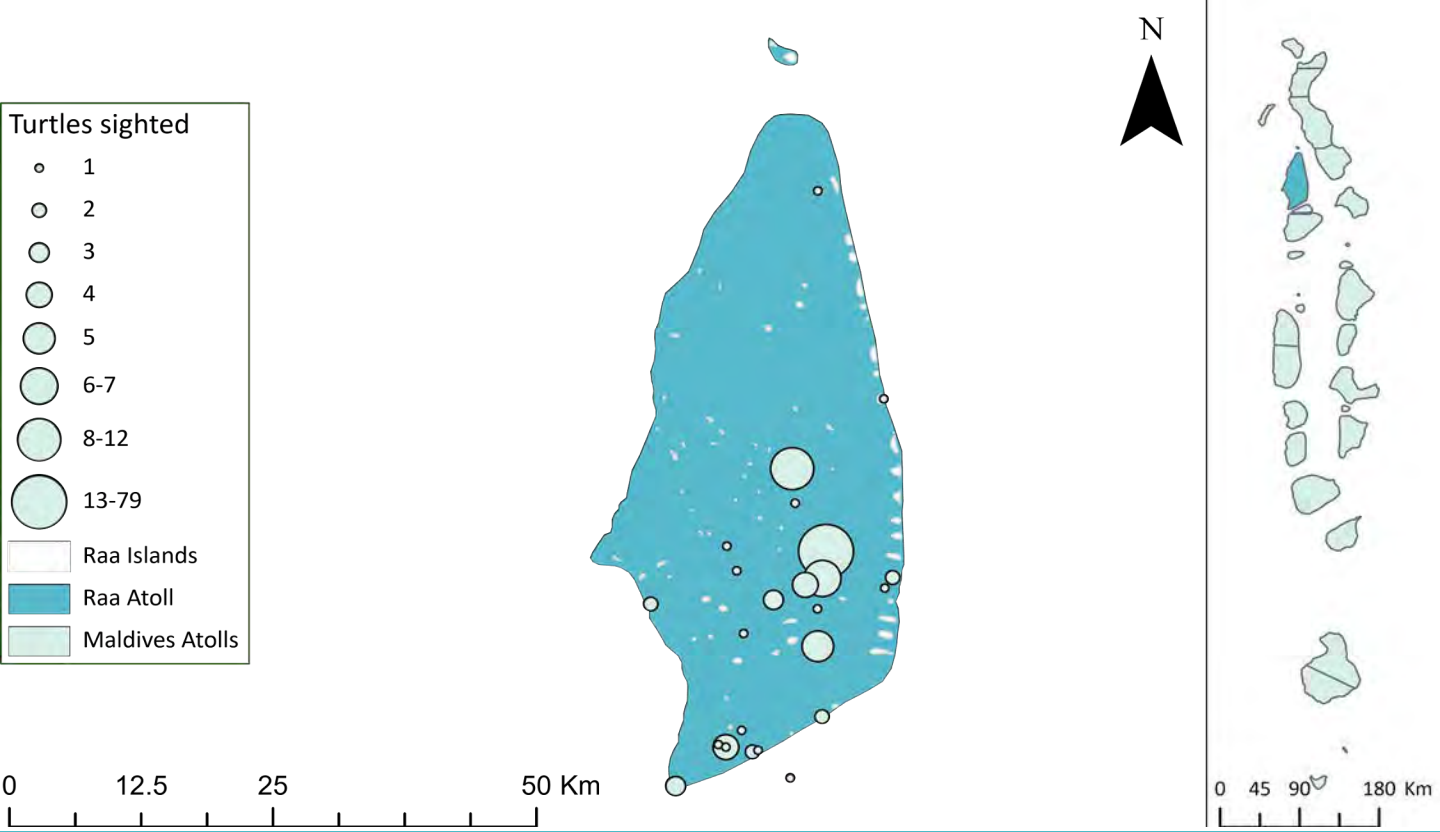
(Left) We continue to find lots of ghost nets and plastic in North Malé Atoll. Here Jade, from our partner resort One&Only Reethi Rah, is returning from collecting this large ghost net with our Sea Turtle Biologist, Joe. Joe and Jade go out every few weeks searching for ghost nets in order to remove them and rescue any entangled animals. We would like to thank One&Only Reethi Rah for continuously going above and beyond to help the surrounding ocean.

(Right) The Rehabilitation Centre has also seen a number of other animals this quarter, including this masked booby, a grey heron and a deceased bottlenose dolphin. The booby had been kept as a pet and had his wings clipped to stop him flying. He was found floating in the sea and has spent the last 6 weeks growing his primary feathers back and we hope to let him fly free soon! We also collected data on the deceased dolphin to understand the cause of death and aid EPA in research.

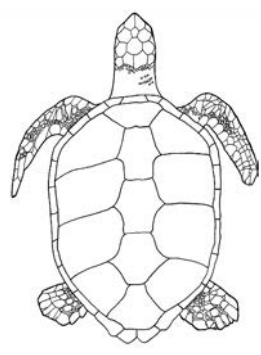


ADDITIONAL INFORMATION

	This Quarter	This Year
Hours Spent Surveying	204	204
Sites Surveyed	16	16
Nests Laid	0	0
Nests Hatched	0	0
Hatchlings Counted	0	0
Ghost Nets Removed	3	3

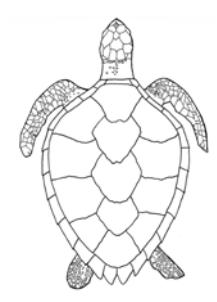


RAA ATOLL, MALDIVES



GREENS

Total Sightings: 3
Total Individuals: 2



HAWKSBILLS

Total Sightings: 431
Total Individuals: 152

	This Quarter	This Year	Since Project Began
Total Number of Turtle Sightings	61	61	434
Total Number of New Individuals	19	19	154



RAA ATOLL

This quarter marked the start of our new partnership with JOALI BEING, Bodufushi, the first nature immersive wellbeing resort in the Maldives. We are delighted to be able to expand our efforts in the Maldives to yet another atoll with Sea Turtle Biologist Olivia based in Raa.

The island of Bodufushi is located in the southern part of Raa atoll, just 3km away from the atoll's best turtle snorkelling reef; Gemana Faru is home to many hawksbill turtles. Previously, we had relied solely on citizen scientists for population data in Raa Atoll, but with Olivia now based at JOALI BEING, there is ample opportunity for data collection.

Bodufushi also has a number of resident hawksbill turtles on its house reef. HK5027 is a newly sighted individual which has been seen six times this quarter and is a favourite among hosts and

guests due to a carapace deformity which makes this individual easily distinguishable from other turtles.

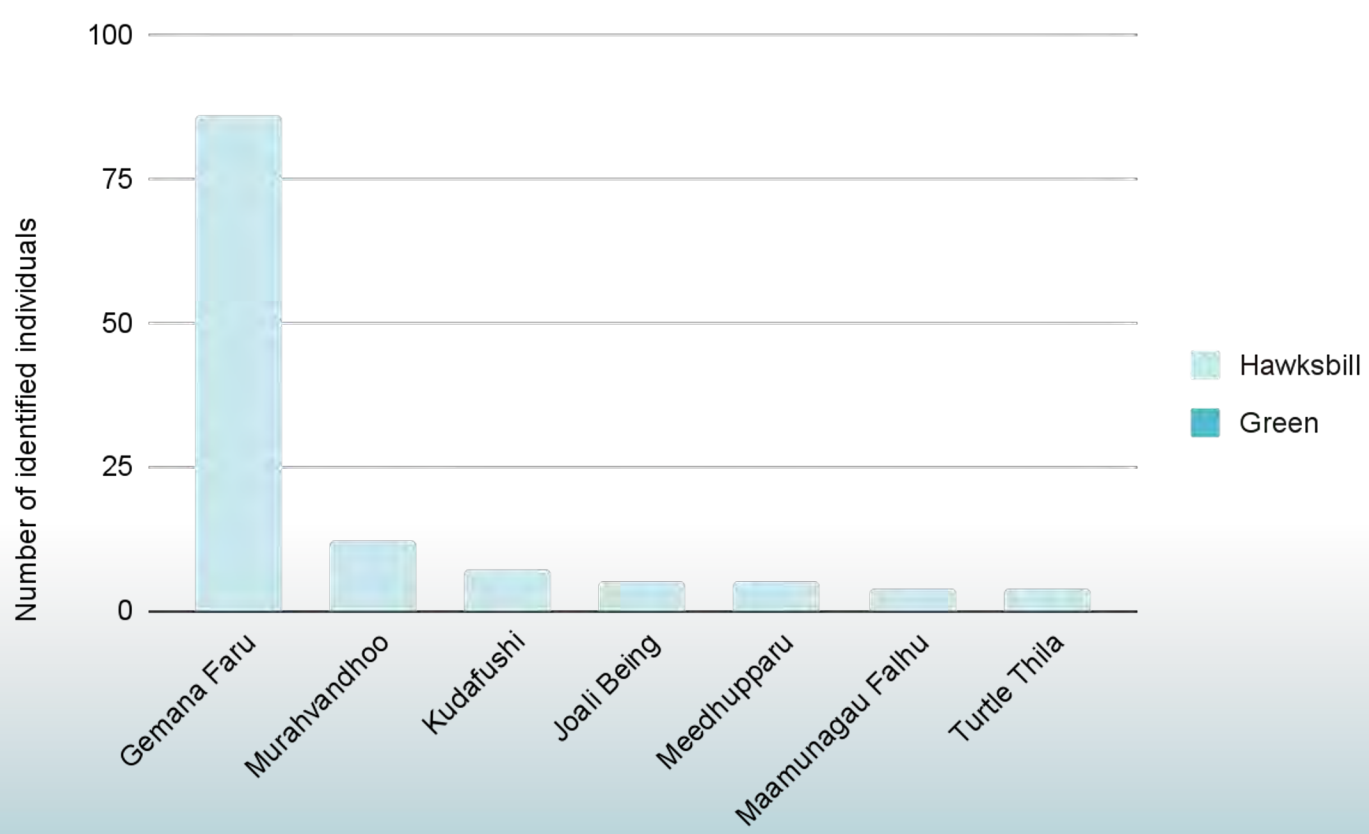
ORP plans to have a new rehabilitation centre built at JOALI BEING in order to expand our rehabilitation efforts further. The centre will consist of one large tank and one small holding tank and, although construction is not yet underway, we are hopeful it will start after the Easter period.

In the meantime, Olivia has been busy expanding the photo-ID database with over 60 new turtle sightings this quarter. She is also providing guests with marine presentations and excursions, as well as training resort staff in basic turtle conservation and ORP's work.

*-Olivia Forster, Sea Turtle Biologist,
Raa Atoll*



TURTLE SIGHTINGS & NEW INDIVIDUALS: RAA ATOLL





(Left) ORP’s Sea Turtle Biologist, Olivia, travelled to JOALI Maldives to deliver a presentation to guests about sea turtle conservation and ORP’s work, and to receive a donation which had been raised by guests and staff as part of a collaborative art project during the festive period.

(Right) Two large ghost nets were recovered from JOALI BEING’s house reef this quarter, one of which has been on the reef for some time and had caused substantial damage to the surrounding coral. The second conglomerate of net contained over 28 different types of gill net and fishing line. Fortunately, no turtles were entangled. However, the attached wooden pallets and rubbish had caused some reef damage and a number of fish had become trapped and died as a result.



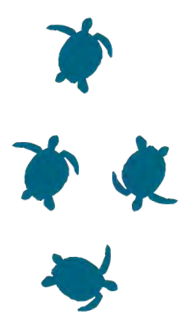
ADDITIONAL INFORMATION

	This Quarter	This Year
Hours Spent Surveying	24	24
Sites Surveyed	7	7
Nests Laid	0	0
Nests Hatched	0	0
Hatchlings Counted	0	0
Ghost Nets Removed	2	2

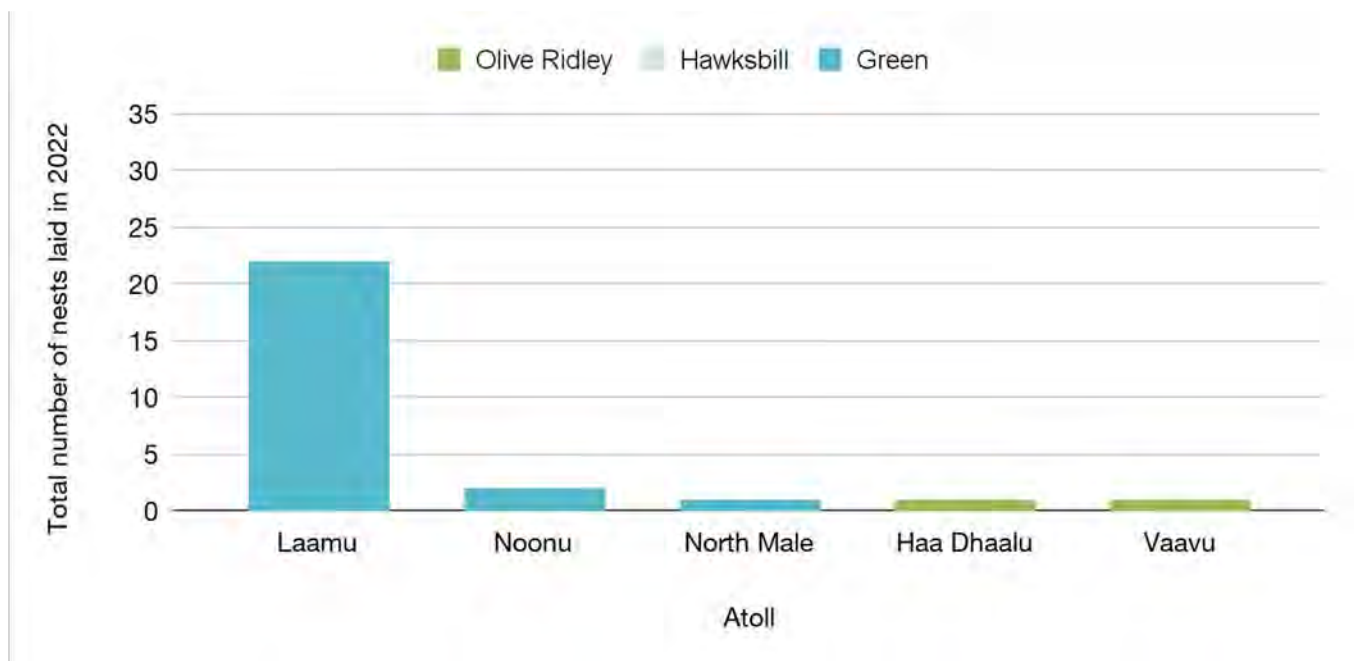


Green turtle returning to the sea after nesting
©Maavin Faure

RECORDED SEA TURTLE NESTING ACTIVITY



	This Quarter	This Year
True Nests Laid	28	28
False Crawls	15	15
Nests Hatched	3	3
Live Hatchlings Counted	69	69
Average Hatching Success	90.9%	90.9%
Average Incubation Time	50	50



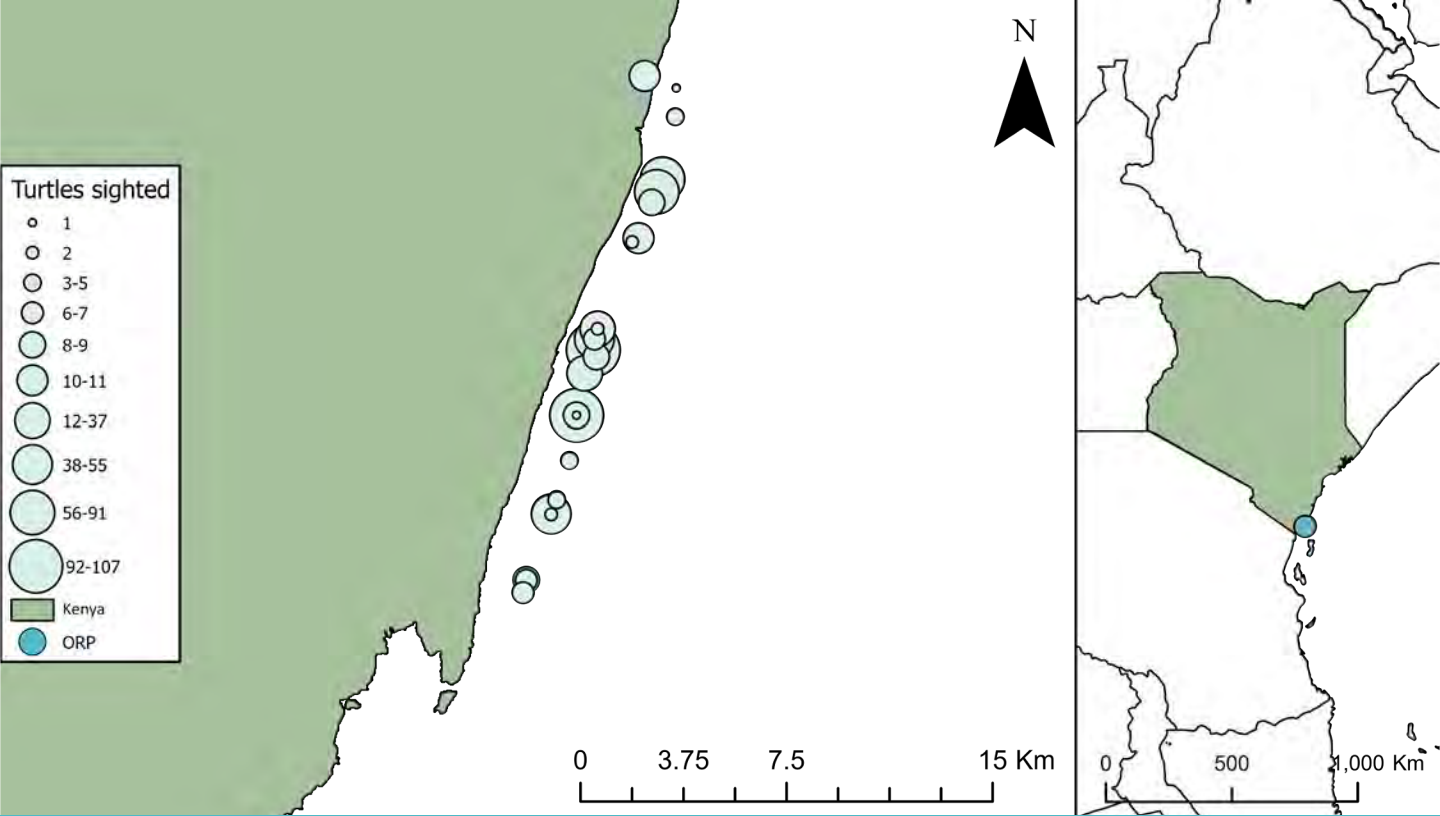


**OLIVE RIDLEY
PROJECT**

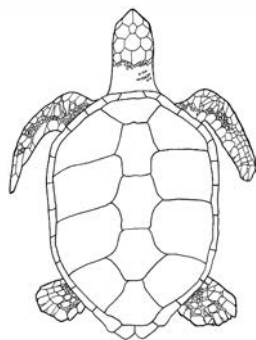
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KENYA



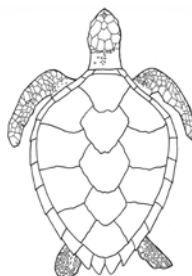


DIANI BEACH, KENYA



GREENS

Total Sightings: 2,989
Total Individuals: 653



HAWKSBILLS

Total Sightings: 380
Total Individuals: 85

	This Quarter	This Year	Since Project Began
Total Number of Turtle Sightings	358	358	3,369
Total Number of New Individuals	56	56	719



DIANI BEACH

January marked the full relaunch of our activities in Kenya. We also welcomed Jenni Choma to our team as an In-Field Supervisor. The regular in-water surveys continued in collaboration with Diving the Crab Dive Centre, and during the first quarter of the year, the team conducted a total of 58 diving surveys in Diani-Chale area. These surveys yielded a total of 328 green and 30 hawksbill turtle sightings, with 56 new turtles added to the database (41 greens and 4 hawksbills). Additional individuals from Tiwi reef (20 greens and 7 hawksbills) were submitted by the Tiwi Turtle Police, who is currently initiating its own in-water monitoring program and contributing data with the support of our Project Manager in Kenya, Dr Joana Hancock.

As part of the new in-water activities, we have initiated a pilot study to predict green sea turtle feeding grounds in Diani-Chale's seagrass lagoon. A total of 16 surveys, which started in March, have allowed us to survey the entire south section of the lagoon, where the team has

catalogued the presence of eight seagrass and 17 macroalgae species. Our team takes any opportunity during these snorkel surveys to reach out to local fishermen and beach operators with the aim of incorporating traditional knowledge onto our project planning, as well as to promote citizen science and community involvement in sea turtle monitoring and conservation.

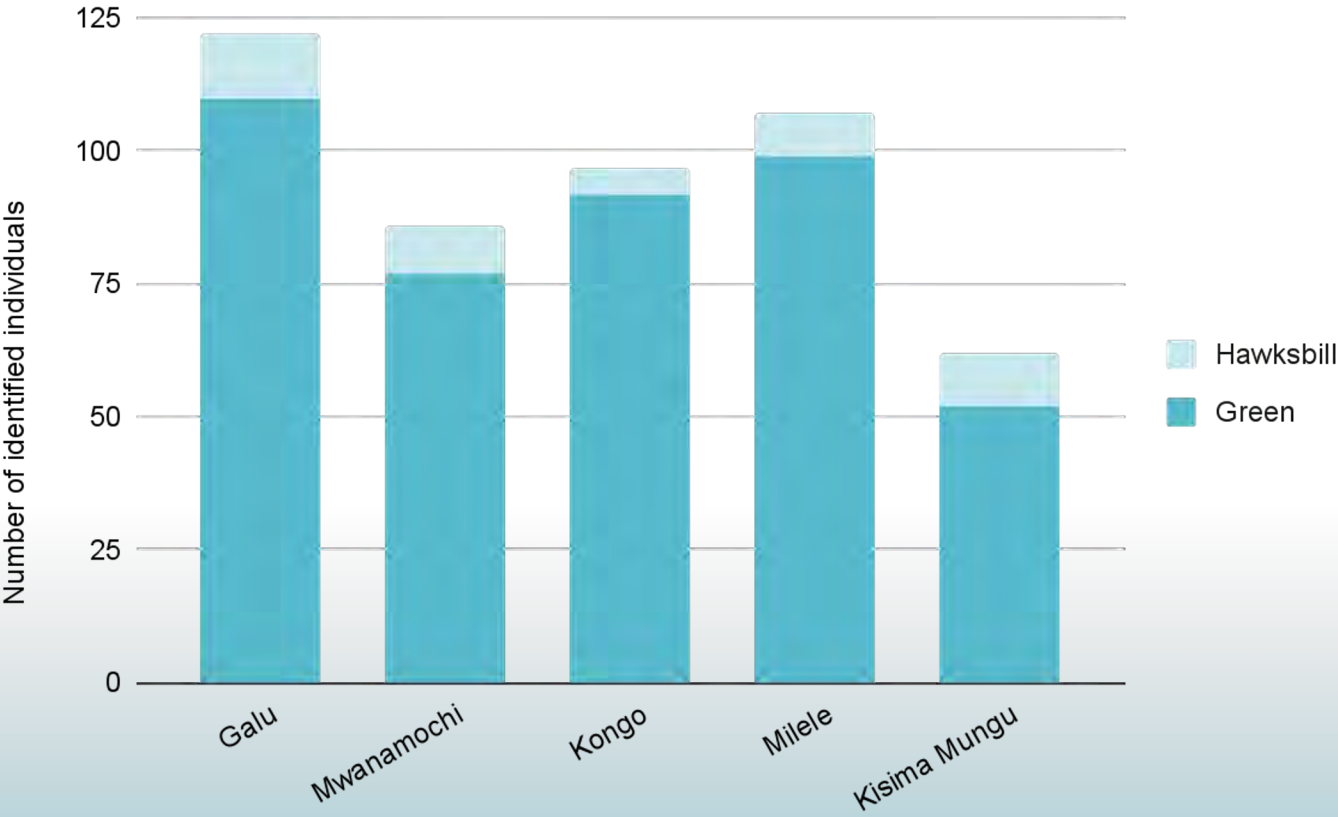
Additionally, a key partnership was finally made official when ORP Kenya signed a Memorandum of Understanding with Pwani University and its [Bioscience Research Centre \(PUBReC\)](#) to conduct research on sea turtles along Kenya's south coast. Some of the research areas will include population genetics, habitat studies and sea turtle health, in particular assisting ongoing efforts led by PUBReC to understand the impact and prevalence of the fibropapillomatosis disease in green sea turtles. This disease affects nearly 10% of the turtles identified along Diani Beach.

- Dr. Joana Hancock, Project Manager Kenya



(G448) was one of the most sighted turtle in Diani this quarter. Sighted 13 times.

TURTLE SIGHTINGS & NEW INDIVIDUALS: KENYA





(Left) ORP-Kenya and Pwani University and its Bioscience Research Centre (PUBReC) signed a Memorandum of Understanding to conduct research on sea turtles along Kenya’s south coast.

Some of the research topics will include population genetics, habitat studies and sea turtle health. Under this MoU, ORP will benefit from being able to operate under a research permit to conduct these studies.



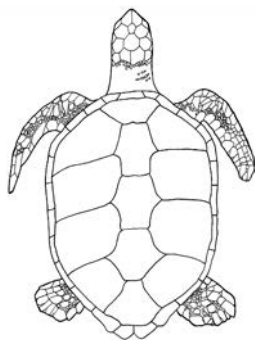
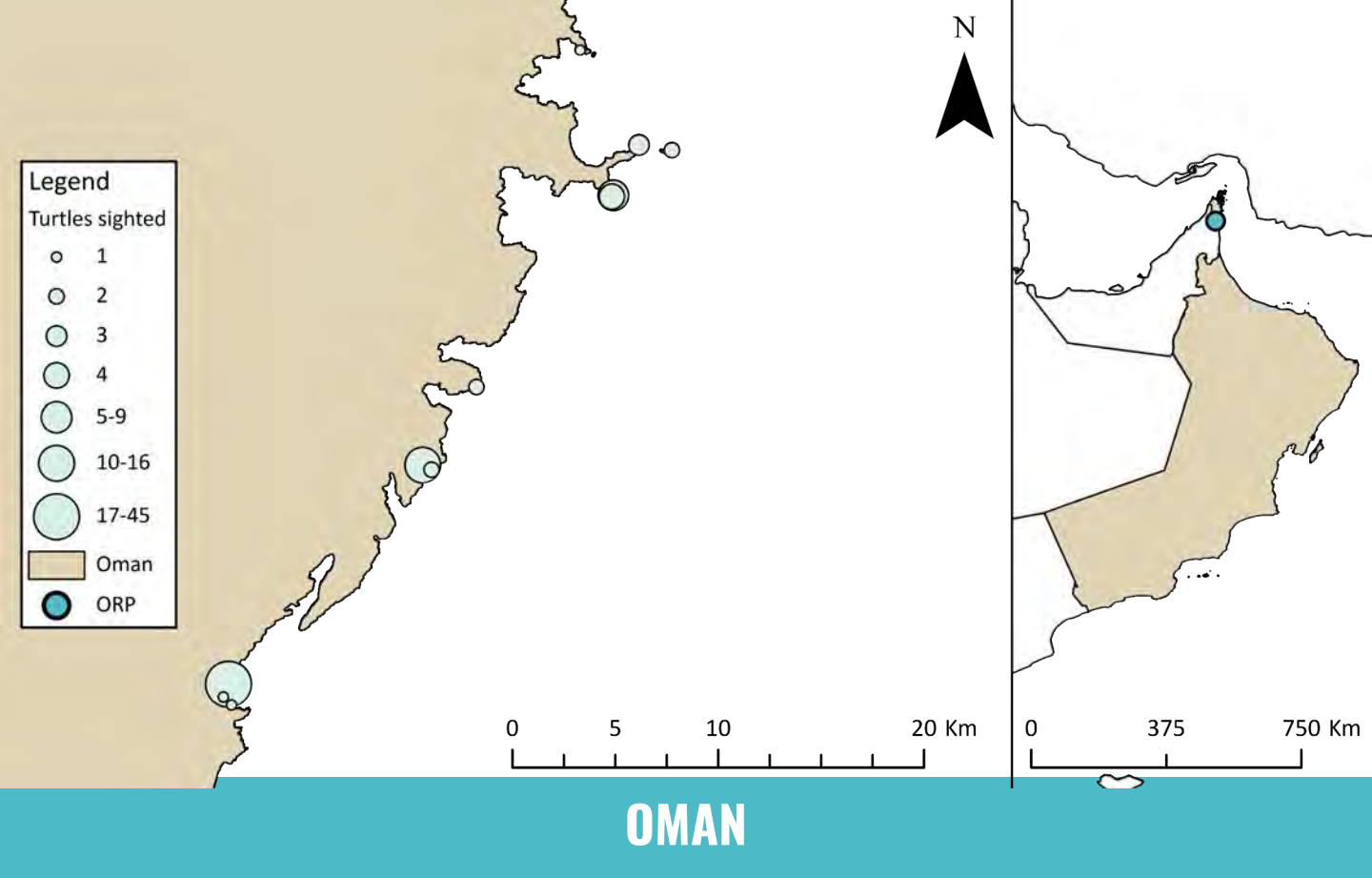
(Right) Jenni Choma has joined our team as our In-Field Supervisor. Jenni has worked closely with the ORP since 2018 and also as part of the [Conservation Education Society](#), contributing data and assisting with education and outreach activities since the origins of ORP in Kenya.

ADDITIONAL INFORMATION

	This Quarter	This Year
Hours Spent Surveying	65.03	65.03
Sites Surveyed	13	13
Adopted Turtles	10	10

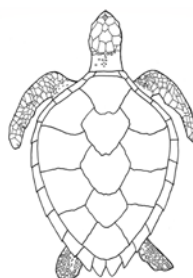


OMAN



GREENS

Total Sightings: 89
Total Individuals: 50



HAWKSBILLS

Total Sightings: 14
Total Individuals: 9

	This Quarter	This Year	Since Project Began
Total Number of Turtle Sightings	34	34	103
Total Number of New Individuals	18	18	59



MUSANDAM

We are happy to say that after Six Senses Zighy Bay being shut due to Covid-19 for 18 months, the resort reopened in October 2021 and reinstated the partnership with the Olive Ridley Project in January 2022. Our new Sea Turtle Biologist in Musandam, Oman, is Tom Osborne.

The first month of surveying was rich in new turtle identification, which was to be expected after a hiatus from the area lasting almost two years. However, there have also been sightings of turtles that have been here since 2019, which is an encouraging sign.

We immediately set to work documenting any ghost nets found in the area and reporting them to the local government. This resulted in the successful removal of almost 2 tons of ghost gear at the start of March. Whilst there are no solid dates for the next clean up just yet, we plan on making this a quarterly event to ensure the regular removal of ghost gear in the local waters.

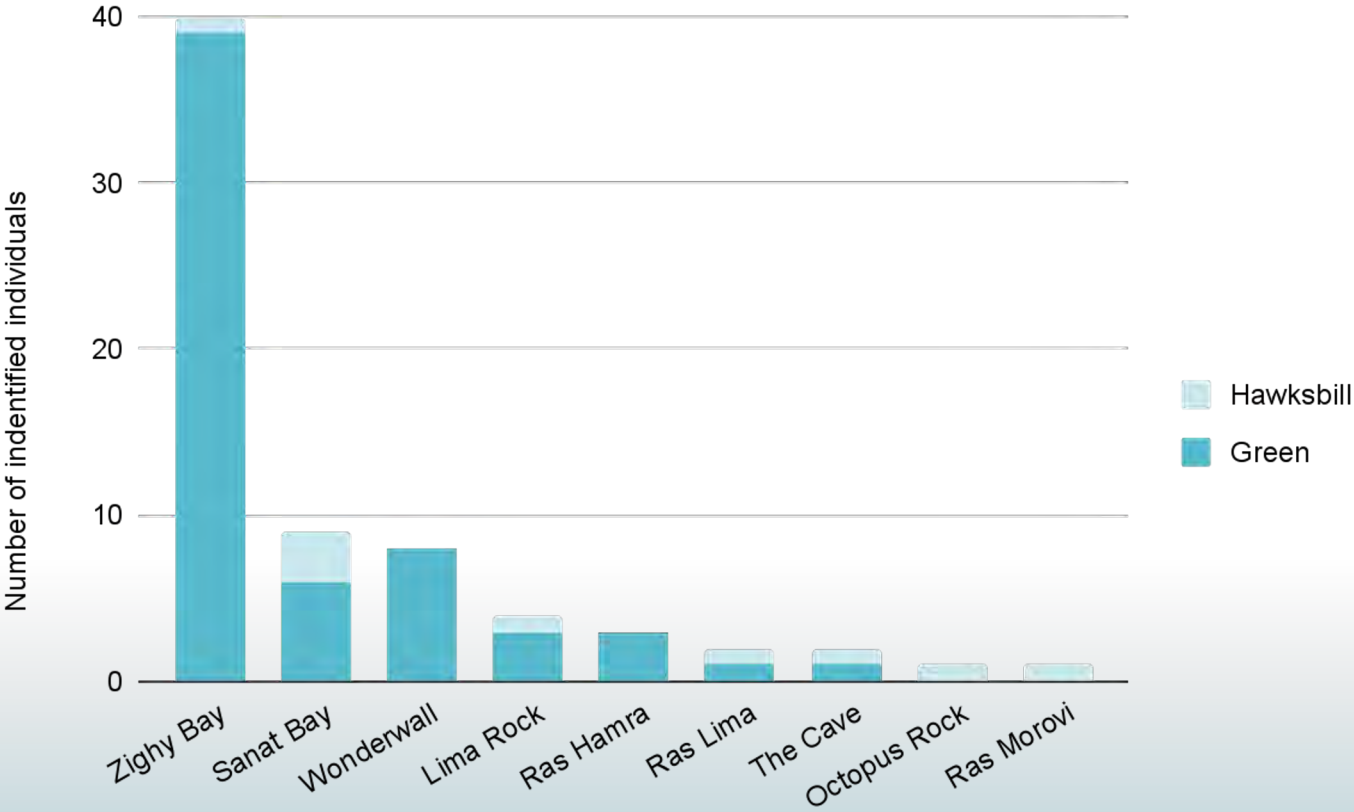
The house reef, which is located less than 50m from the resort beach, appears to provide an excellent habitat for juvenile turtles. Turtles are spotted very regularly by guests enjoying water based activities, whether that be snorkeling or paddleboarding.

Turtles are seen less frequently by excursions further afield, but the ones that are spotted tend to be larger than the juveniles that the house reef plays host to. In the future, we look forward to investigating if there is a shift in habitat use away from the house reef to other sites once the turtles have grown.

*-Tom Osborne, Sea Turtle Biologist,
Oman*



TURTLE SIGHTINGS & NEW INDIVIDUALS OMAN



OMAN



(Left) We have made a big effort to document ghost nets in the Musandam area since we returned in January this year. We first report them to the Ministry of Environment as we are not allowed to remove ghost nets without a permit. In March we received the necessary permits and conducted a large scale clean up over two days to remove almost two tonnes of ghost gear. The clean up involved 40 people from the Ministry of Environment, Ministry of Fisheries, Six Senses Zighy Bay and, of course, the Olive Ridley Project.

(Right) We had a return visitor who was first spotted here in 2019, GR004. This is the first turtle that has been sighted here this year that was also seen before the pandemic, the rest are all new to the area.



ADDITIONAL INFORMATION

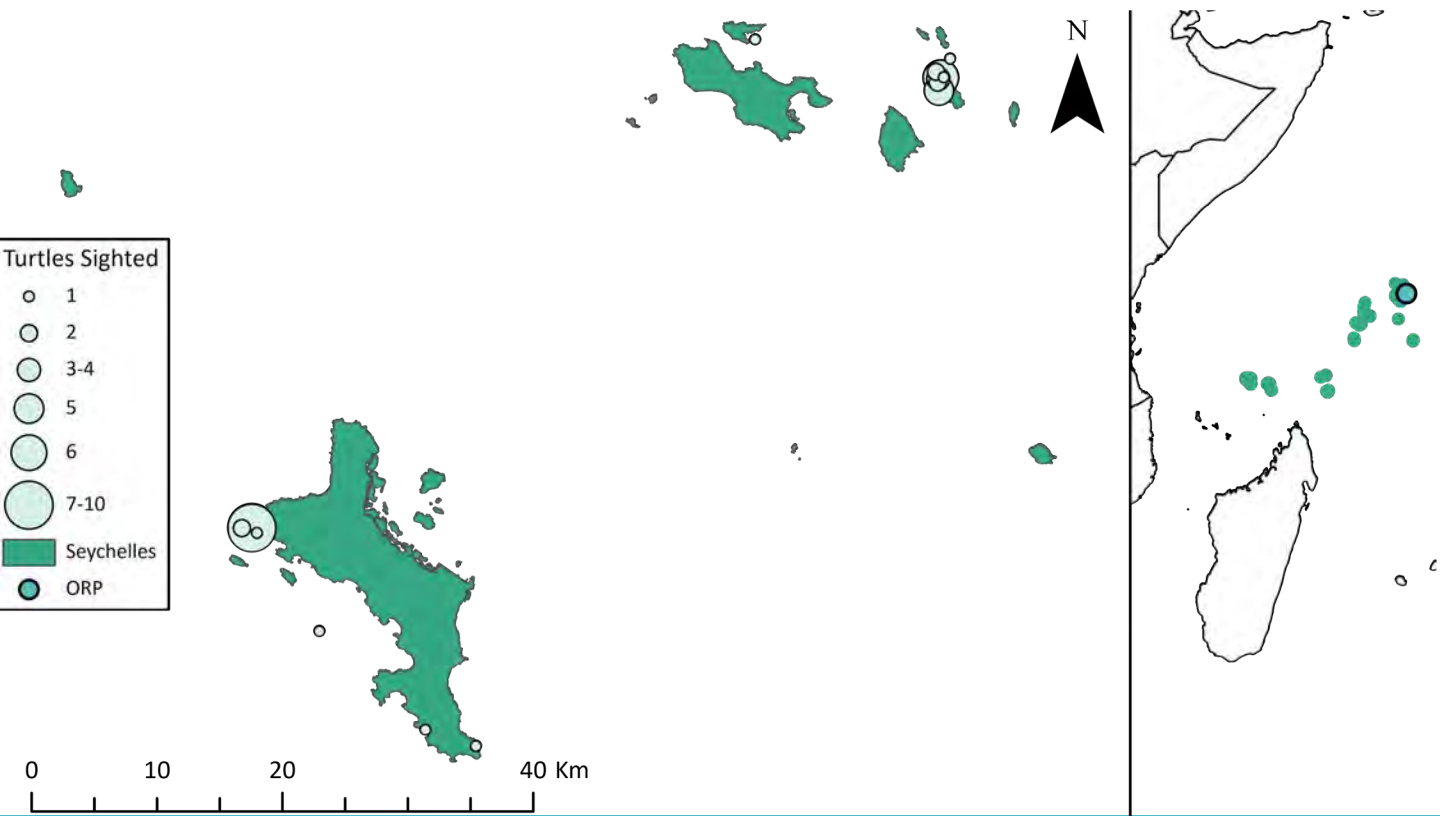
	This Quarter	This Year	Since Project Began
Hours Spent Surveying	90	90	1499
Sites Surveyed	9	9	9
Ghost Nets Removed	14	14	42



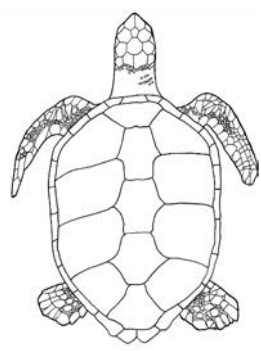
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SEYCHELLES

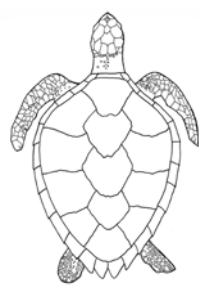


FELICITÉ ISLAND, SEYCHELLES



GREENS

Total Sightings: 0
Total Individuals: 0



HAWKSBILLS

Total Sightings: 65
Total Individuals: 43

	This Quarter	This Year	Since Project Began
Total Number of Turtle Sightings	65	65	65
Total Number of New Individuals	43	43	43



FÉLICITÉ ISLAND

At the beginning of 2022 we expanded our work to the Seychelles with partner resort Six Senses Zil Pasyon on Félicité Island. Seychelles is home to the largest hawksbill turtle population in the Western Indian Ocean and we are fortunate to be based close to Ile Coco National Marine Park, which is renowned for its frequent turtle sightings. ORP's Sea Turtle Biologist in the Seychelle is Lara Kalisch.

Our first three months in the Seychelles were very hectic as it was the middle of hawksbill nesting season, which runs roughly from October till March. We had a total of eleven nests on the island and witnessed our first hatchlings at the end of February. Average hatching success during this season was 72.9%. Female turtles came ashore almost every day on our main nesting beaches during peak season, keeping us very busy.

Guests and hosts were fortunate enough to join two hatching events as well as to observe nesting sea turtles following our Code of Conduct.

In addition to our nesting females we got familiar with our resident turtles of Félicité Island. Our most frequently spotted turtle is HS23, with a total of 10 resightings already! HS23 was recently adopted and named Seychilly, which perfectly represents her relaxed attitude.

Overall we had a total of 65 turtle sightings at Félicité, all of which were hawksbills.

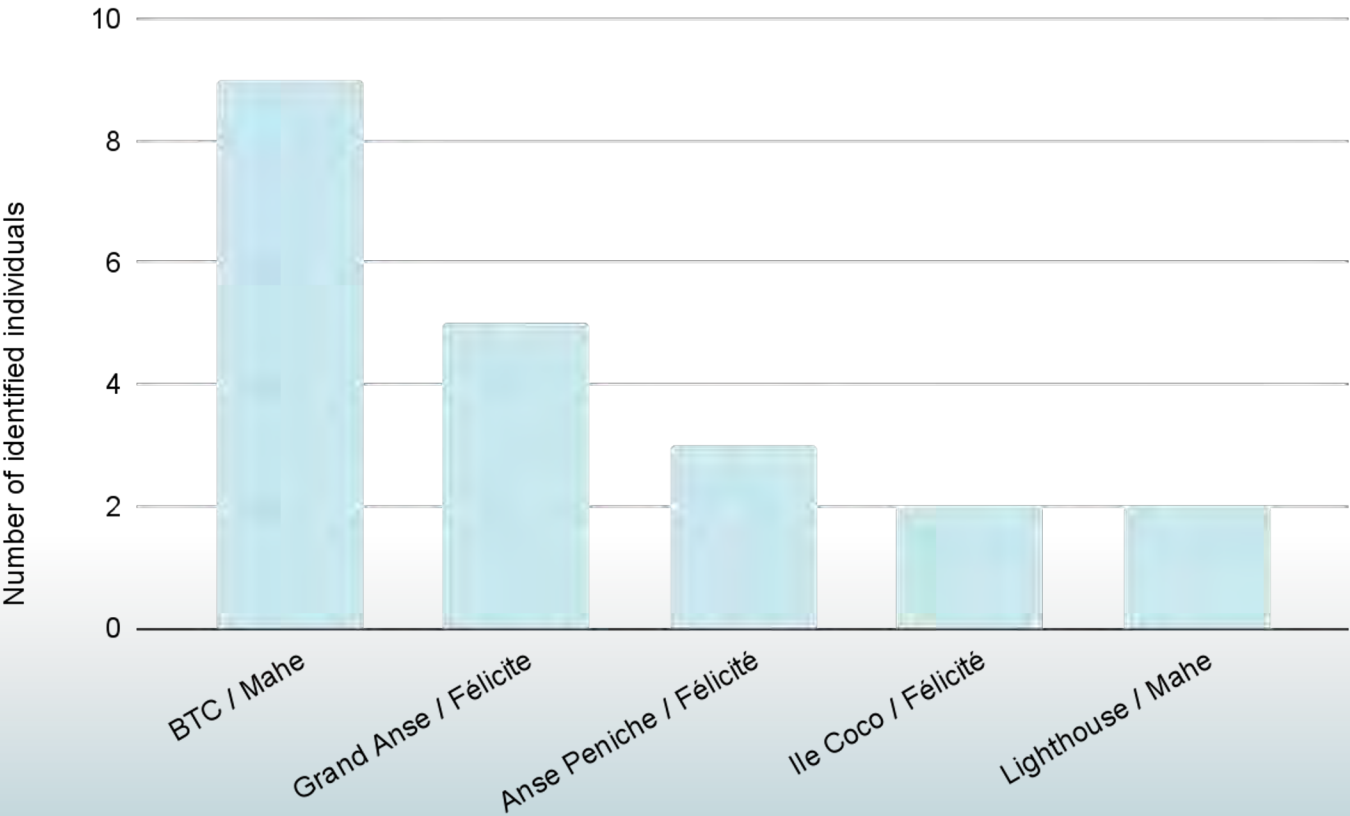
We further focused on introducing the Olive Ridley Project and the importance of sea turtle conservation to the resort team by implementing host training and offering host snorkelling on the weekends.

Many new relations were built during our first three months in Seychelles including local dive centers, national NGO's and organizations as well as the Ministry of Environment and the Seychelles National Park and Gardens Authority. We are excited to further strengthen these relationships and collaborate over the growth of our Photo-ID database!

*-Lara Kalisch, Sea Turtle Biologist,
Seychelles*



TURTLE SIGHTINGS & NEW INDIVIDUALS: SEYCHELLES



SEYCHELLES



(Left) Seychelles is one of the few locations worldwide, where hawksbill turtles nest during the day. They tend to come ashore during high tide and dig their egg chamber hidden in the beach vegetation. Our Sea Turtle Biologist, Lara, monitors the beaches on Félicité daily to record any new turtle activity.

(Right)) On March 16th 2022 we witnessed our second hatching event of the season. With an emergence success of 75% 126 hatchlings emerged during sunset. Resort guests and hosts were invited to join the event.

(Below) During the nest excavation two days later, eight life hatchlings were found stuck in the roots. The hatchlings were carefully placed five meters from the high tide water mark allowing them to make their own way to the ocean.



ADDITIONAL INFORMATION

	This Quarter	This Year
Hours Spent Surveying	30	30
Sites Surveyed	7	7
Nests Laid	11	11
Nests Hatched	3	3
Live Hatchlings Counted	365	194
False Crawls	26	26



**OLIVE RIDLEY
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Pakistan





PAKISTAN

ORP Pakistan is growing and we are pleased to officially welcome Waqar J Khan to the team. Waqar is a sustainable fashion designer and social entrepreneur and has been instrumental in the development and design of our ghost leash and other ghost net jewellery. He has now joined ORP Pakistan as a Community Leader and is also charged with developing a domestic market for the ghost leashes.

From January through March 2022 ORP's team in Pakistan recovered 62 kg of ghost gear: 48 kg was recovered from the beach and 14 kg was recovered from the ocean by scuba diving.

Sadly, we also found several dead sea turtles in the reporting period. One was an olive ridley found floating on the sea off the coast of Manjhar Village in February by Project Manager Usman while scuba diving.

We do not know the cause of death. Just three days prior, Infield Supervisor Asif found a green turtle carcass on Hawkes Bay Beach. This turtle was entangled in ghost gear so it was obvious what the cause of death was.

We are currently in the planning stages of an exciting new program to be based at Kakapir beach just west of Karachi. Although this beach is a nesting beach for green sea turtles, it is also a public access zone with no regulations in place to protect the sea turtles. This means that during nesting season, nesting turtles and hatchlings alike are frequently disturbed by beach visitors. The new program aims to educate beach visitors and locals to reduce the stress for nesting turtles.

*-Usman Iqbal, Project Manager,
Pakistan*



(Right) Waqar J Khan joins the ORP Pakistan team as a Community Leader. Waqar is a sustainable fashion designed and social entrepreneur and has been instrumental in the development of ORP’s dog leash.



(Above) What is left of an entangled green turtle killed by ghost gear entanglement on Hawkes Bay Beach.



(Above) A deceased olive ridley turtle floating on the surface off the coast of Manjhar Village in February. Cause of death unknown.

	This Quarter	This Year	Since Project Began
Ghost Nets Recovered (kg)	62 kg	62 kg	5200 kg
Overall Growth Ghost Net Recovery	1.2%	N/A	N/A
Ghost Leashes Made/Sold	0/0	97/69	545/479
Ghost Net Jewellery Made/Sold	0/0	100/73	565/438



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Education & Outreach



zura in the lagoon.

Diese Woche in der Ringvorlesung
"Aspekte aus Naturschutz und
Umweltforschung"

Dr. Stephanie Köhnk - The Olive
Ridley Project: Sea Turtle
Conservation through Citizen Science

(Left) In February, Dr Stephanie joined the seminar of the Youth for Conservation group at the Ludwig-Maximilians-University Munich to talk about the work of ORP and how we successfully engage citizen scientist in sea turtle conservation.

Over 50 students and other members of the LMU joined the seminar and the following discussion which touched on challenges in marine conservation, operating and coordinating conservation initiatives across borders and potential career paths.



40th International
Sea Turtle Symposium

In March the largest and most important conference for the sea turtle community took place after a Covid-19 related hiatus of two years.

The 40th International Sea Turtle Symposium (ISTS) was hosted in Perth, Australia and over 600 sea turtle experts from around the world participated online, including five representatives from ORP who joined workshops on turtle populations in the IOSEA region and sea turtle medicine, as well as presented our own research findings in two poster presentations and one talk showcasing research conducted on wild turtles and in the Rescue Centre.

In the UK, Dr Claire presented at several outreach and educational events, including a talk hosted by the Zoological Society of London (ZSL) to their herpetology department. She also visited Cambridge Veterinary School to attend a career's day. This was particularly valuable as many veterinary students are keen to come to the Rescue Centre for their extra mural studies.

In addition to the posters presented at ISTS, Dr Claire was invited to the speed chatting event representing the rescue & rehabilitation team to answer questions and give advice on sea turtle medicine.

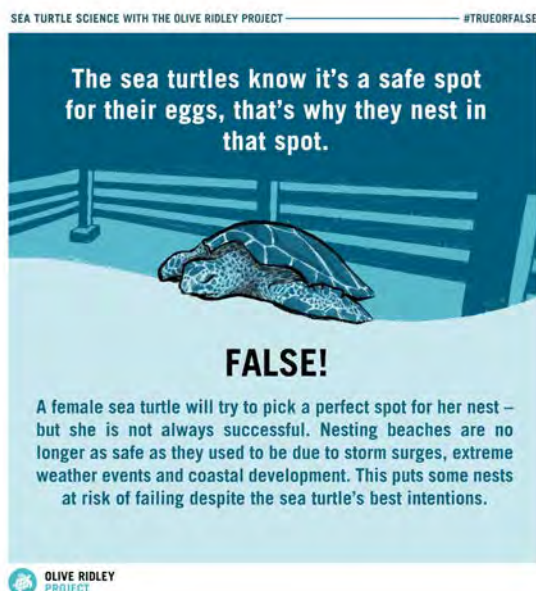


(Left) In March, Maldives Underwater Initiative hosted Waite Institute and Noo Raajje's Founder Mr. Waite at Six Senses Laamu. He was joined by Minister of Fisheries and Agriculture Honorable Hussain Rasheed Hassan and Minister for Environment, Climate Change and Technology Honorable Aminath Shauna. Additionally, members of the climate policy department in the President's Office also participated. ORP met with the team to discuss ways forward with Gaadhoo's management and protection.

VIRTUAL AWARENESS AND OUTREACH

(Right) In March, we launched a social media campaign targeting common misconceptions regarding nesting turtles in the Maldives and providing research-based, factual information. The posts were published in Maldivian language, Dhivehi, and in English for the wider audience. The post reached more than 35K people and was also covered by mainstream media RaajjeMv.

The educational campaign followed the Environment Protection Agency's relocation of a nest laid in the capital city of Malé. ORP provided technical assistance and support for the relocation of the nest, as the nest had started to flood during laying.



(Left) We published our findings from Gaadhoo's beach monitoring surveys on social media, including this photograph of a poached nest. Poaching continues to be a serious problem on Gaadhoo, as it gets nests year around. Our last survey found five of the suspected nests laid in the last ten days to be poached. Following the social media campaign, Maldivian news website Dhauru.com published an article covering our efforts to protect Gaadhoo and calling attention to the issue of poaching.



RECENT PUBLICATIONS

Ahmed U, Hudgins J, Riyaz EM, Stelfox M. Maldives. In: Phillott AD, Rees AF. (eds.). Sea Turtles in the Middle East and South Asia Region. MTSG Annual Regional Report 2021. Report of the IUCN-SSC Marine Turtle Specialist Group, 2022. Draft report published online.

Köhnk S 2022. *Eretmochelys imbricata*. The Maldives National Red List of Threatened Species. Available online [here](#).

Köhnk S and Stelfox M 2022. *Chelonia mydas*. The Maldives National Red List of Threatened Species. Available online [here](#).

Stelfox M and Köhnk S 2022. *Lepidochelys olivacea*. The Maldives National Red List of Threatened Species. Available online [here](#).

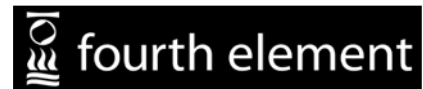
Afeef I, Köhnk S and Stelfox M 2022. Nesting in Laamu - Technical Report 2021. Olive Ridley Project.

Afeef I, Köhnk S and Stelfox M 2022. Laamu Yearly Report 2021. Olive Ridley Project. Available online [here](#).

PARTNERS, COLLABORATORS & DONORS 2022



LEGEND BRACELET



We would like to express our sincere gratitude to all our partners, supporters, fundraisers, donors, adoptive parents, and volunteers! We are only able to do this work thanks to your generosity and support.

Thank you!