



**OLIVE RIDLEY**  
**PROJECT**

Registered Charity in the UK #1165905

# ANNUAL REVIEW 2020



*Protecting sea turtles and their habitats*

# TABLE OF CONTENTS

SECTION	PAGE
<a href="#">Overview</a>	3
<a href="#">Executive Summary</a>	4
<a href="#">Maldives</a>	6
<a href="#">Stranded Turtles</a>	7
<a href="#">Turtle Rescue &amp; Rehabilitation</a>	8
<a href="#">Visiting Vets &amp; Volunteers</a>	10
<a href="#">Sea Turtle Population Research</a>	11
<a href="#">Baa Atoll</a>	18
<a href="#">Laamu Atoll</a>	20
<a href="#">Lhaviyani Atoll</a>	22
<a href="#">North Malé Atoll</a>	24
<a href="#">Haa Alif Research Expeditions</a>	26
<a href="#">Nesting Activity</a>	28
<a href="#">Kenya</a>	29
<a href="#">Oman</a>	32
<a href="#">Pakistan</a>	35
<a href="#">Ghost Net Repurposing</a>	37
<a href="#">Further Research</a>	39
<a href="#">Publications</a>	42
<a href="#">Education &amp; Outreach</a>	43
<a href="#">Financials</a>	47
<a href="#">Objectives 2020-2021</a>	49
<a href="#">Partners &amp; Donors</a>	50
<a href="#">The Team</a>	51



# ABOUT THE OLIVE RIDLEY PROJECT



**The Olive Ridley Project (ORP) is a UK registered charity established in 2013. Our mission is to protect sea turtles and their habitats.**

The ORP operates in several regions of the Indian Ocean including the Maldives, Kenya, Oman and Pakistan. We focus on research, rehabilitation and education & outreach to achieve our mission. We operate a Marine Turtle Rescue Centre and a Sea Turtle Rehabilitation Centre in the Maldives.

We are a team of turtle biologists, veterinarians and conservationists that use our knowledge to safeguard sea turtles and their habitats.

## OUR RESEARCH

**We have one of the largest sea turtle-ID and ghost net databases in the Indian Ocean.**

**Our research areas are:**

- Photo-identification (population research).
  - Genetics / isotopes
  - Ocean modelling
- Ghost gear modelling.
  - Parasitology
  - Turtle behaviour
  - Satellite tagging
- Sea turtle veterinary science



## OUR PARTNERS



We have partnered with resorts, organisations and local NGOs to host our rescue and rehabilitation centres, 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.



**OLIVE RIDLEY PROJECT**

Registered Charity in the UK #1165905







## EXECUTIVE SUMMARY

This reporting period is running from April to December 2020 and is a shorter reporting period than previous years. This is for the purpose of aligning our reporting period with the calendar year. All subsequent annual reviews will report from January to December of each year.

It goes without saying that this year was extremely challenging for the Olive Ridley Project (ORP). The Maldives recorded its first Covid-19 case in the first week of March 2020, and within a few days, a state of public health emergency was declared. Border closures were followed by domestic lockdown and inter-island travel restrictions. Then WHO declared a global pandemic on the 11<sup>th</sup> March 2020 and the Novel Coronavirus took centre stage globally.

As the number of international tourists plummeted, borders were closed, and most countries implemented travel restrictions and lockdowns, many of our partner resorts in the Maldives, Kenya and Oman, had to suspend operations. Our rescue centres were forced to operate on a skeleton staff with limited funding, our in-field research activities were suspended everywhere and staff sent home, and our work with the Abdul Rehman Goth fishing community in Pakistan was temporarily suspended.

With most of our staff working from home rather than

in the field, we had to go back to the drawing board to come up with new ideas to protect sea turtles and their habitats.

Our team's ability to stay connected was critical for ORP to stay on mission during this time. Regular video team meetings and WhatsApp messaging kept (and continues to keep) everyone in touch and up to date. We focused our work on data analyses and scientific writing, developing and planning new projects in Kenya, Maldives, Pakistan, and further developing our educational and outreach programmes. We also explored new avenues to diversify our funding and increased our activity on social media and on our website. One project that we are particularly proud of is our new e-learning platform. Our entire team dedicated many hours creating a comprehensive online learning tool dedicated to sea turtles. This free resource quickly became a big hit amongst turtle enthusiasts and allowed us to reach new audiences, as well as continue our education mission even though we could not meet anyone in person.

Whilst some of our team were busy developing new projects, others were working hard rescuing and treating injured and sick sea turtles in the Maldives. Unfortunately, the pandemic meant that we were

# EXECUTIVE SUMMARY

unable to fully operate both centres or have volunteers help with daily operations. However, thanks to the hard work of Sea Turtle Biologist Rosie Brown and intern Eman Shareef, under the close guidance of our vets Dr. Claire Petros and Dr. Amelia Liddell, we were able to continue to treat existing patients at our Marine Turtle Rescue Centre in Baa Atoll and we would like to extend our sincere gratitude to our partners Coco Collection Dhuni Kolhu for making this possible.

Even though our efforts in Pakistan had to be put on hold for much of the year, we were able to collect ghost gear towards the end of the reporting period. In total, the team recovered over 400 kg of ghost nets from local beaches and fishing grounds of the Abdul Rehman Goth (ARG) fishing community.

Shortly after lockdown and travel restrictions were lifted in Pakistan, the community got back to making ghost net dog leashes and bracelets as part of our circular economy initiative and raised over \$700 in alternative revenue for the community. We were finally able to launch sales of the 'ghost leashes' on our website in December 2020.

For the reasons mentioned above, and the shorter reporting period, our reporting numbers are much lower than previous years for this reporting period.

From April to December 2020, we recorded a total of 38 sea turtle strandings in the Maldives. 90% of these were found entangled in ghost nets. Despite major difficulties with inter-island transportation, we managed to transfer 32% ( $n = 12$ ) of these strandings to rehabilitation and rescue facilities around the Maldives and we admitted six patients into our care. Fortunately, we were able to release six sea turtles back into the wild.

In the same period, we recorded a total of 198 new individual sea turtles in the Maldives (62 green turtles, 136 hawksbill turtles) and 25 new individuals

in Kenya (19 green, 6 hawksbill). Unfortunately, we were unable to collect any data in Oman.

New sightings increased by 2.5% in the Maldives and 4.5% in Kenya compared to last year, however this was to be expected given the ongoing restrictions due to the pandemic.

Interestingly, geographic difference between species were observed in Kenya. Galu appeared to be home to the highest number of green sea turtles. However, Kisima Mungu reef is home to more identified hawksbill sea turtles. It is too early to explain, with any confidence, the difference in habitat range between hawksbill and green turtles, however, as we collect more data, we will uncover more robust patterns.

This year we were able to record sea turtle nesting activity in the Maldives from Baa Atoll ( $n = 17$ ), Lhaviyani Atoll ( $n = 11$ ) and Laamu Atoll ( $n = 9$ ). All nests were from green sea turtles and the average incubation period was 58 days, similar to reports from last year (59 days). Although we reported fewer nests this season (due to the pandemic and lack of data collection) we did see an increase in nest success rate to 82% when compared to last year (75%). However, due to the lack of datasets we are cautious to say if this is a true improvement in nest success or an outlier year.

This year has been extremely challenging for ORP, as it has for so many other charities. The whole team has worked exceptionally hard to come up with innovative ideas to keep our projects funded and going - and our message loud!

The support from our corporate sponsors, adopting parents and individual donations were exceptional this year! This valuable support, along with the cost saving efforts by the Board of Trustees, enabled us to continue our work - even through the darkest of times.

*- Dr. Martin Stelfox, ORP CEO and Founder*





# MALDIVES

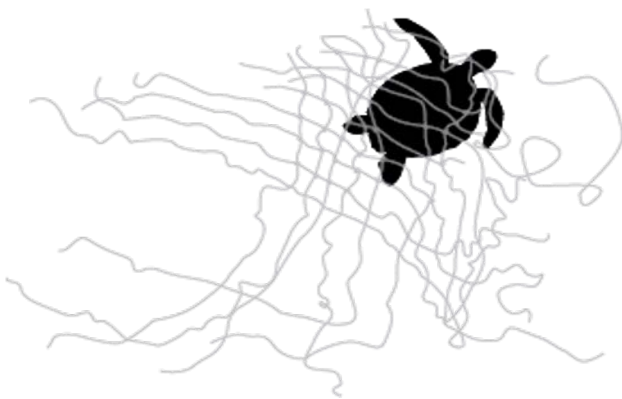
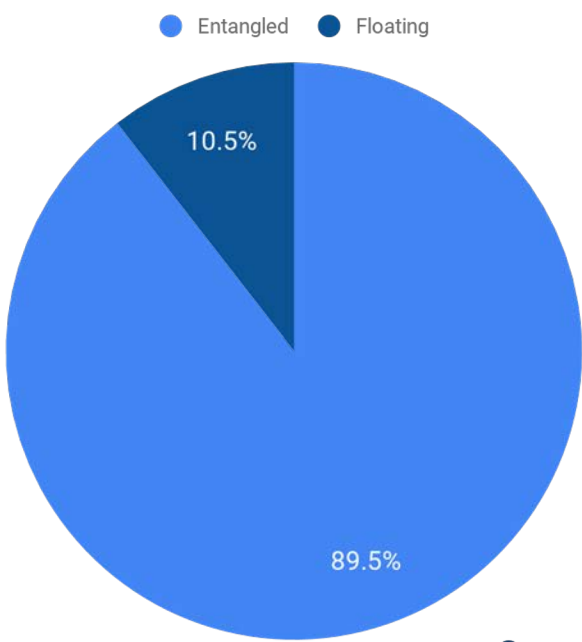




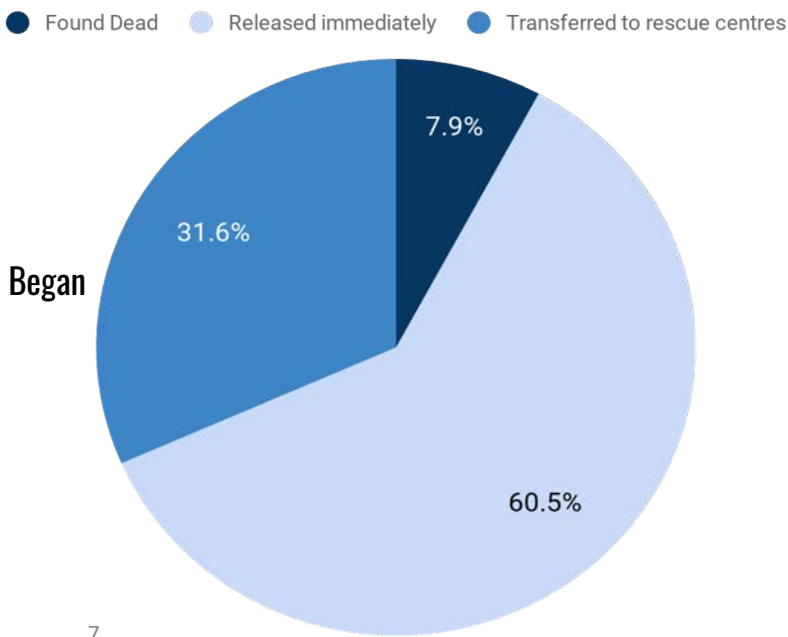
4 olive ridleys and 2 white tipped reef sharks found entangled in Lhaviyani Atoll. © M Sojah



TOTAL NUMBER OF STRANDED TURTLES REPORTED: 38



Species	This Year	Since Project Began
Olive Ridley	29	861
Green	2	31
Hawksbill	7	83





Azura on a sea swim

## TURTLE RESCUE & REHABILITATION

The Marine Turtle Rescue Centre at Coco Palm Dhuni Kolhu had a challenging year in light of the coronavirus pandemic. With the departure of Dr Jackie in March, and Dr Minnie’s arrival being delayed by travel and visa restrictions, the Rescue Centre was left without a vet from March to September. However, the resident patients were very capably looked after by our Sea Turtle Biologist and intern, under remote supervision by our Lead and Resident Veterinarians.

As a result of restrictions on boat travel and hugely reduced tourism, there were far fewer opportunities to find and rescue entangled turtles. Hence, our patient intake during this period has been substantially reduced. Our Volunteering and Visiting Veterinarian programmes were also suspended.

When Sea Turtle Biologist Laura, at our Rehabilitation Centre at One & Only Reethi Rah in North Malé Atoll, had to return home due to the pandemic, our patient Azura was returned back to the Marine Turtle Rescue Centre. Fortunately we were able to release our other patient, Eve. As of December a new Sea Turtle Biologist is in place, allowing us to once again have a dedicated rehabilitation facility for patients not requiring veterinary care.

We provide veterinary care to turtles rescued across the Maldives, the majority of which have been found entangled in ghost gear and need surgical intervention. We also see fish hook injuries, plastic ingestion and debilitation/floating of unknown aetiology.

*-Dr. Minnie Liddell, ORP Resident Veterinary Surgeon*

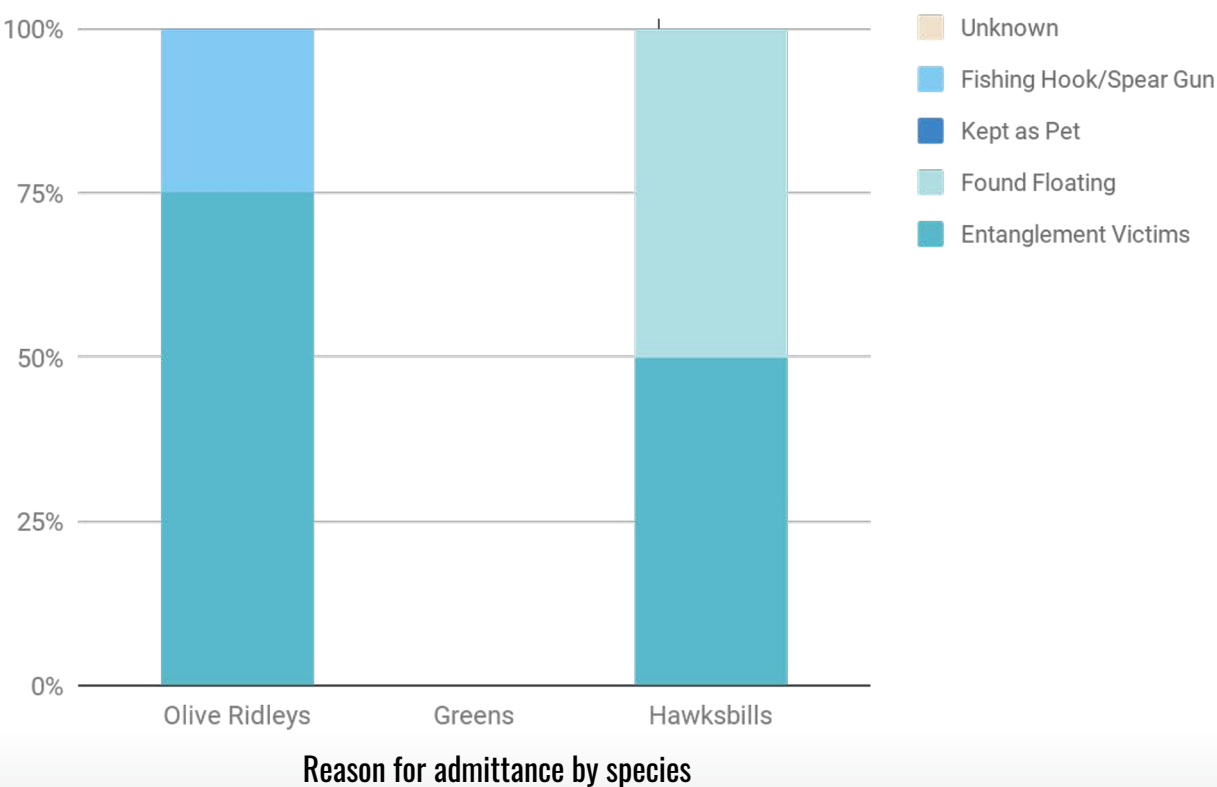
## TURTLE PATIENTS

	This Year	Since Opening
New Patients Admitted	6	131
Patients Treated	15	131
Turtles Released	6	76
Turtles Deceased	3	44
Patients Still in Care (ORP/Others)	5	





# TURTLE PATIENT REASON FOR ADMITTANCE



**Olive ridley turtles make up 67% of patients**

**Patients requiring flipper amputation: 2**

**Average length of stay: 124 Days (not including current patients)**

# VISITING VETERINARIAN PROGRAM

The [ORP Visiting Veterinarian Program](#) provides a unique opportunity for qualified veterinarians specialising in sea turtle or exotic medicine to obtain hands on experience at our clinic. The initiative is also beneficial for our resident veterinarians to continue their professional development and enhance their skills, ultimately improving the quality of care we can provide.

We were unable to host any visiting vets in 2020 due to the Covid-19 outbreak and have rescheduled all accepted applicants to 2021. We hope to welcome our first visiting vet in April 2021.

In 2020, the visiting vets have generously found other ways to support our clinic and have been donating equipment and medications to bring out with them when they arrive in 2021.

*-Dr. Claire Petros, ORP Lead Veterinarian*



'It has been a wonderful experience hosting the vets from the ORP Visiting Vet Program. Every vet has had something amazing to offer us, from items such as medications and even basic consumables that are unavailable in the Maldives, to knowledge from their areas of expertise, to new skills which they are happy to share. All the vets that I have had the pleasure of working with have left here feeling like they have gained a great amount of knowledge with regards to sea turtle medicine, surgery and husbandry. I have learned so much from them, for example, updated techniques they have learned from recent conferences, that I have now employed in the veterinary clinic.'

*- Dr Jackie Reed, Resident Veterinarian 2019-20*



# RESCUE CENTRE VOLUNTEER PROGRAM

The Rescue Centre also has a [volunteer program](#) open to anyone who is interested in sea turtle conservation and husbandry. The volunteers are involved in the daily running of the Rescue Centre, helping to care for the turtle patients, including feeding and cleaning them. They also assist in maintaining the facilities and give guided tours and presentations to guests.

The volunteer program was suspended for all of the reporting period due to the pandemic. However, volunteers were keen to postpone their visit and we are excited to welcome them - and new ones - back in 2021. The program will run at a reduced capacity to ensure everyone's safety until such time that things can go back to normal.

*-Dr. Claire Petros, ORP Lead Veterinarian*







## SEA TURTLE POPULATION RESEARCH

Photographic identification (Photo ID) is a non-invasive technique used to identify individual animals in a population and track them over time from natural marks on the body. For sea turtles, it relies on capturing photographs of the unique patterns of scales on the animal's face.

Photo ID can be used as a non-invasive alternative to tagging and data may be analysed through Capture-Mark-Recapture (CMR) methods. This technique allows researchers to conduct longitudinal studies of individuals, yielding information about home range, survival rate, migration patterns, and life cycle. It also provides the opportunity to gather information on populations that are less studied, such as juveniles and males.

We collect sightings data for both nesting and foraging green (*Chelonia mydas*) and hawksbill (*Eretmochelys imbricata*) sea turtles in Kenya, Maldives, and Oman. Olive ridley (*Lepidochelys olivacea*), loggerhead (*Caretta caretta*), and leatherback (*Dermochelys coriacea*) sea turtles are present in these countries; however, greens and hawksbills are the most abundant in the regions where our teams operate.

ORP began collecting new and historical photographs of foraging and nesting turtles from the Maldives in 2014. We have a seven-year data set for some atolls. We started collecting Photo ID data from Kenya in 2018 and Oman in 2019, and, though it is too soon to analyse these data using CMR, we hope to replicate our Maldivian population studies in these countries as well.

This project aims to help fill the gaps in scientific knowledge by providing detailed information on the abundance, distribution, population growth rate, apparent survival, and nesting frequency of hawksbill and green sea turtles.

We continue to use the Internet of Turtles (IoT) platform to analyse all turtle sightings from Maldives, Kenya, and Oman. This new conservation tool has the potential to greatly improve and facilitate data collection for sea turtles by using photo identification data. The IoT platform combines data analytics with individual animal tracking. IoT uses computer vision to compare new IDs to the existing database and Wildbook to store metadata.

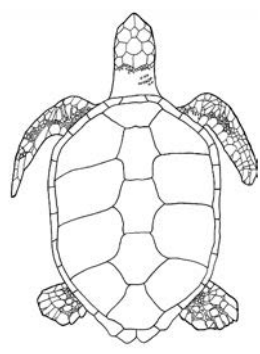
The total number of turtles reported in the Maldives ( $n = 26,090$ ) was lower than last year ( $n = 26,313$ ) due to our data being uploaded to IoT. Several hundred historical files between 2012-2015 were either missing or corrupt, resulting in them not being uploaded into the IoT.

Unfortunately, in 2020 the COVID-19 pandemic resulted in temporary suspension of research and educational outreach in all areas we work. Research slowly resumed in the Maldives between July and December 2020. The Kenyan project will resume in early 2021 while our Oman project will pick back up once the risk of the pandemic has subsided.

- Dr. Jillian Hudgins, ORP Senior Project Scientist

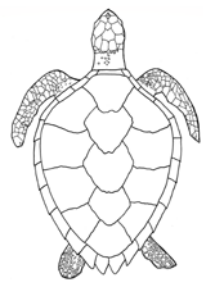


**TURTLE SIGHTINGS & NEW INDIVIDUALS MALDIVES**



**GREENS**

**Total Sightings: 7,775**  
**Total Individuals: 1,055**



**HAWKSBILLS**

**Total Sightings: 18,315**  
**Total Individuals: 3,755**

	This Year	Total Since Records Began
Total Number of Turtle Sightings	639	26,090
Total Number of New Individuals	198	4,810
Total Overall Growth in Sightings	2.5%	N/A



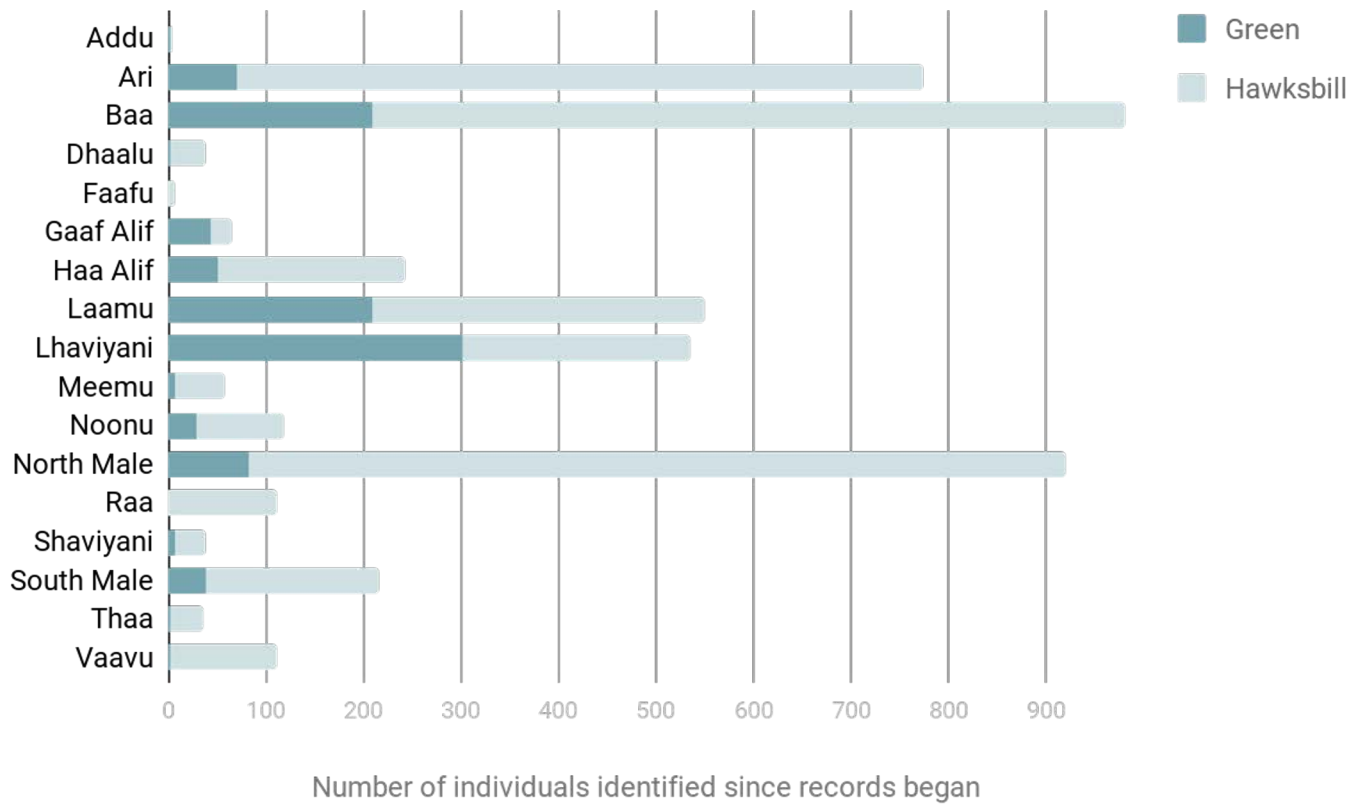


HK3289, Brownie, juvenile hawksbill, North Malé

## TURTLES IN MALDIVES

North Malé and Baa atolls are home to the largest identified turtle population overall, followed closely by Ari Atoll. North Malé has the largest population of identified hawksbill turtles. Lhaviyani is home to the largest population of green turtles followed by Laamu and Baa atolls.

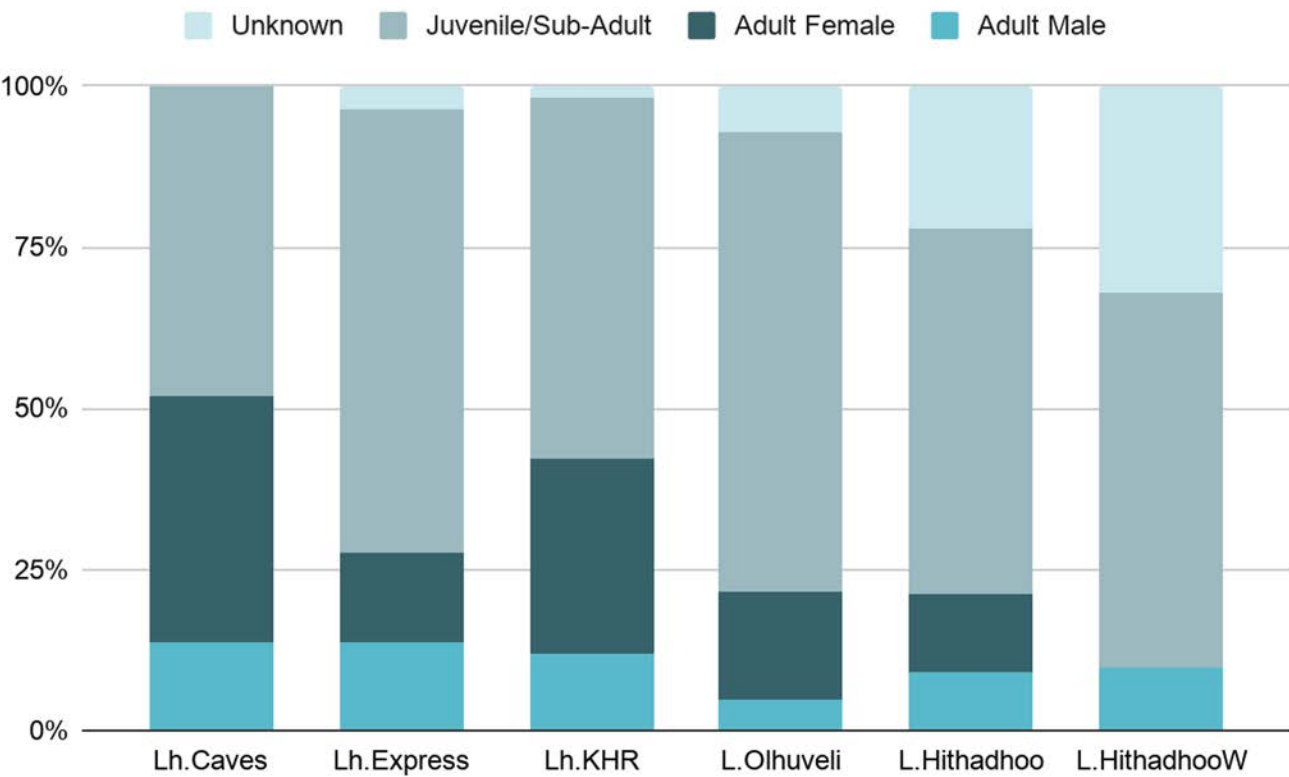
The large number of resorts in the central atolls (North Malé, Ari, Baa, South Malé), as well as a relatively consistent effort by our team members in Haa Alif, Laamu, and Lhaviyani, has resulted in much better data coverage from these atolls. The other northern and southern atolls, with relatively fewer resorts, still have few turtles photographed.





## GREEN TURTLE RESULTS

The graph below shows sex and age breakdown for all identified green turtles at six reefs in Laamu and Lhaviyani atolls (the letter in front of the reef name designates the atoll). Juveniles or sub-adults make up the majority of the population at all sites except at Kuredu Caves, which is home to the highest population of adult green turtles at 52%. Kuredu Caves and Kuredu Express have the highest percentage of males at 13.8% in their population, while Olhuveli Reef in Laamu Atoll has the highest percentage of juveniles are 71%. Overall, Lhaviyani is home to 43% adults whereas the Laamu population is made up of significantly more juveniles (62%).

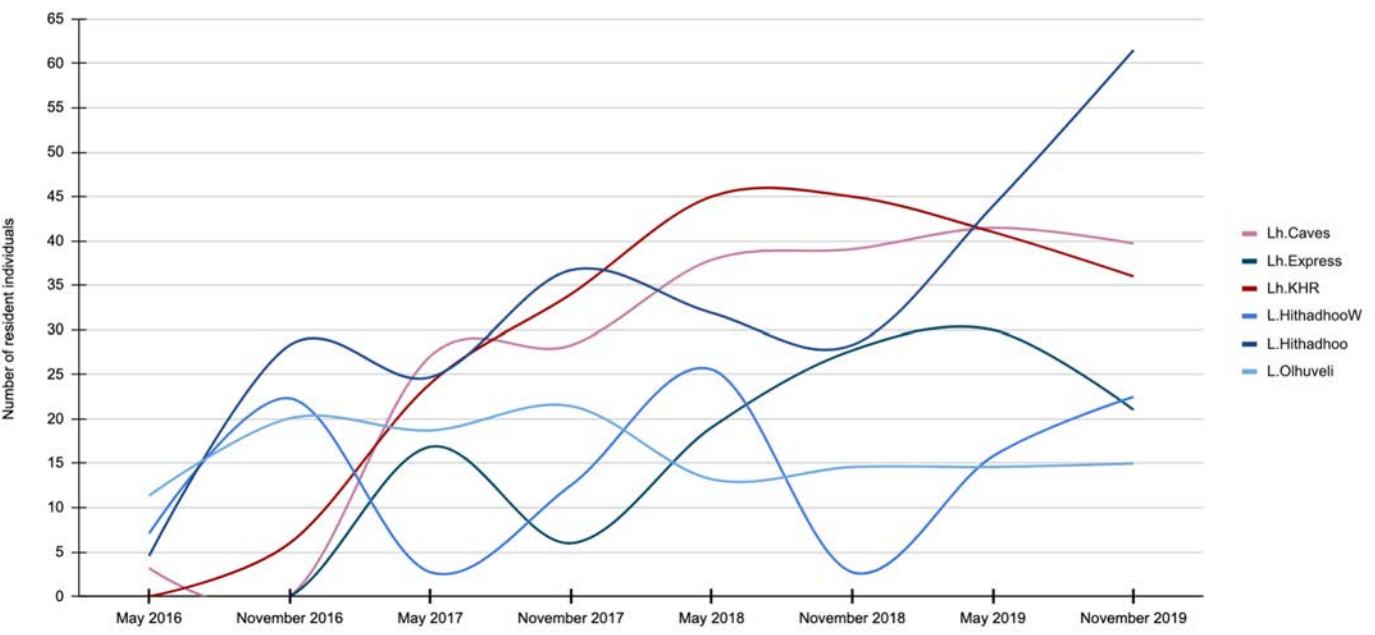






## GREEN TURTLE RESULTS

The graph below shows the change in population over time (abundance) for green turtles at six reefs in Laamu and Lhaviyani atolls from 2016 to 2019. 2020 data was not included due to data gaps resulting from the COVID-19 pandemic. The number of resident individuals increased at all six reefs between the first and last time periods. The number of resident individuals at Hithadhoo increased the most between the first and last time periods, from 4.5 individuals in May 2016 to 61.5 individuals in November 2019.

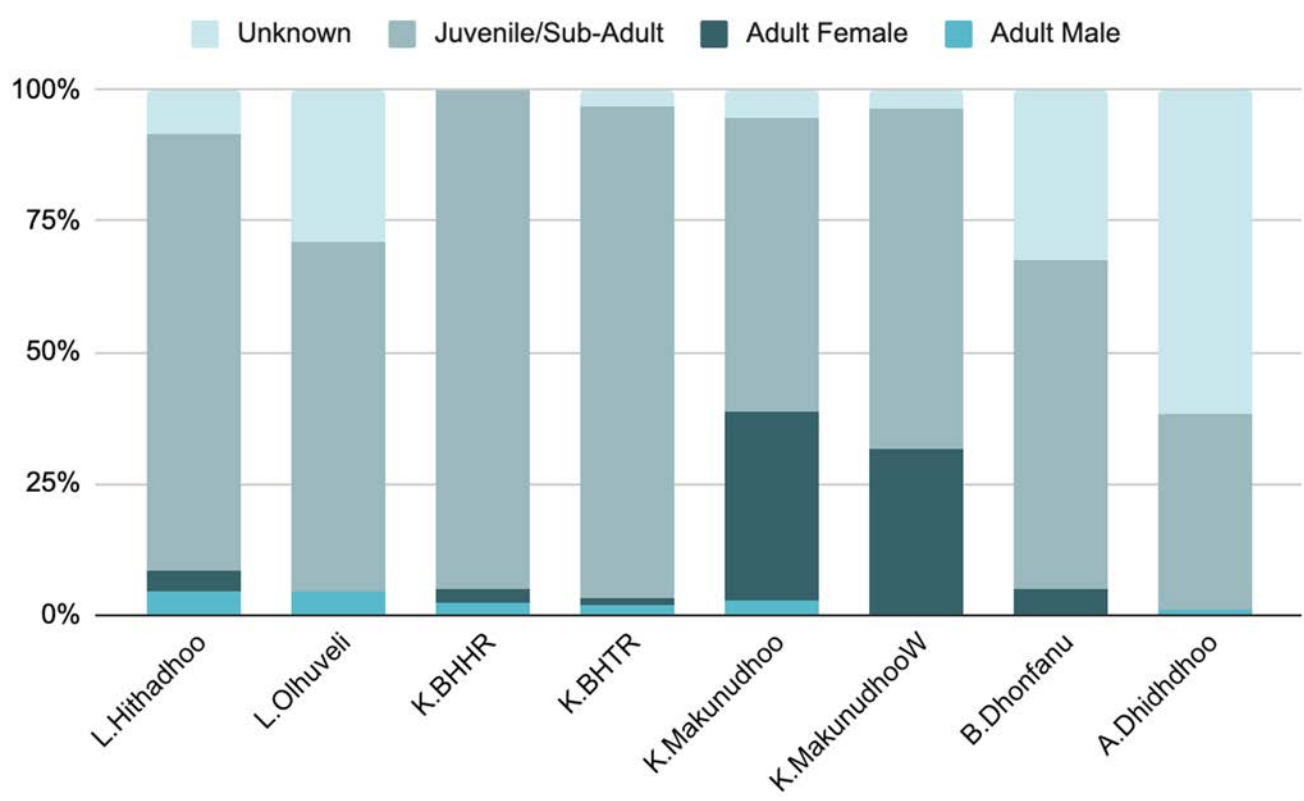


There were no obvious seasonal fluctuations (or patterns) in abundance that repeated throughout the entire time series, except at Olhuveli where there was a rough pattern of decreasing abundance in the dry season (December to May) and increasing abundance in the wet season (June to November). The dry season is high season for tourism in the Maldives. Additionally, water is clearer and calmer making turtles easier to spot. Generally visibility is lower during the wet season and there are fewer tourists in the water.



## HAWKSBILL TURTLE RESULTS

The graph below shows sex and age breakdown for all identified hawksbill turtles at eight reefs in four atolls (the letter in front of the reef name designates the atoll). Juveniles or sub-adults make up the majority of the population at all sites except at Dhidhdhoo, where most of the turtles age and sex were unidentified. Olhuveli Reef is home to the highest percentage of adult males at 4.4%. Both Bodu Hithi House Reef (BHHR) and Bodu Hithi Turtle Point (BHTP) are home to over 93% juveniles or sub-adults. Makunudhoo Reef in North Malé Atoll has the highest population of adult turtles at 38%. Compared to the identified population of green turtles, the hawksbill population is more dominated by juveniles and sub-adults (69%) compared to green turtles (59%).

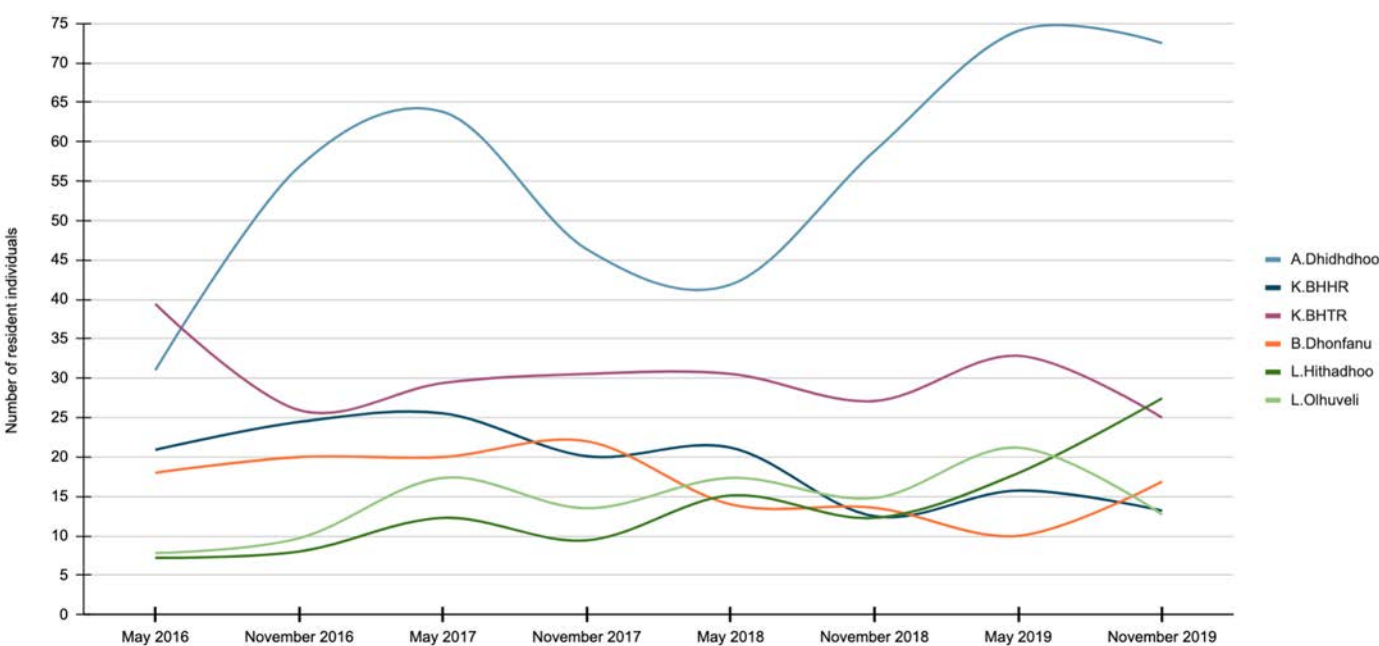




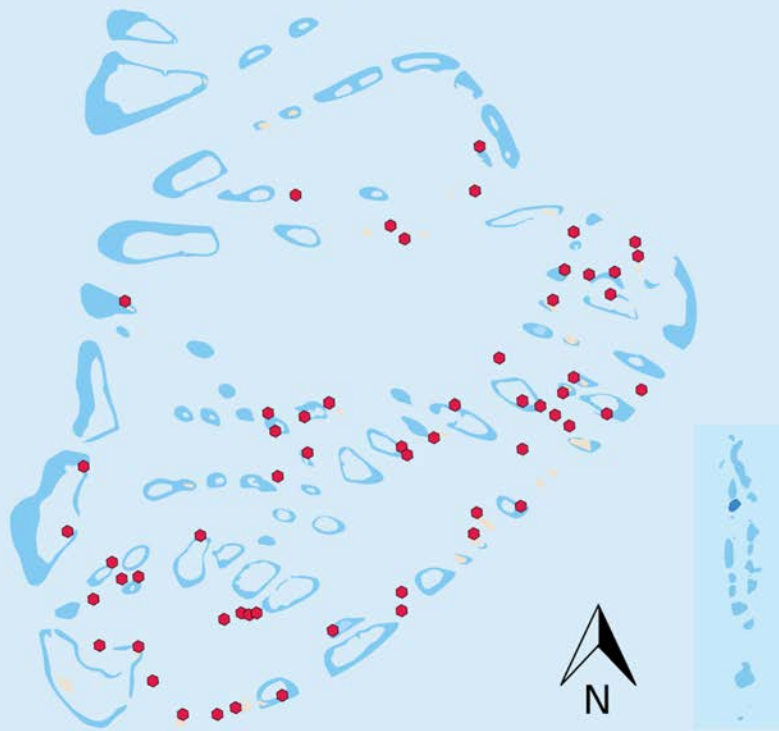


# HAWKSBILL TURTLE RESULTS

The graph below shows the change in population over time (abundance) for hawksbill turtles in six atolls from May 2016 to November 2019. 2020 data were not included due to data gaps resulting from the COVID-19 pandemic. Populations have increased over time at three reefs (Dhidhdhoo, Hithadhoo, and Olhuveli) and decreased at three reefs (Bodu Hithi House Reef (BHHR), Bodu Hithi Turtle Reef (BHTR), and Dhonfanu).



Plotting the abundance revealed population fluctuations between the monsoon seasons for most reefs. These fluctuations were particularly prevalent at Hithadhoo, Olhuveli, and Bodu Hithi House Reef (BHHR), but were also observed to a lesser degree at Bodu Hithi Turtle Reef (BHTR). The pattern of increasing abundance in the dry season (December to May) and decreasing abundance in the wet season (June to November) repeated at these four reefs in 2016, 2017, 2018, and 2019. The opposite seasonal pattern was observed at Dhonfanu. A different pattern was observed at Dhidhdhoo, where abundance increased over a 12 month period, followed by a decrease in abundance over the subsequent 12 months. The dry season is high season for tourism in the Maldives. Additionally, water is clearer and calmer making turtles easier to spot. Generally visibility is lower during the wet season and there are fewer tourists in the water.



## BAA ATOLL, MALDIVES

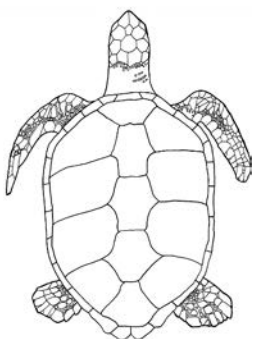
ORP first Sea Turtle Biologist, Rosie Brown, in Baa Atoll arrived in March 2020, however Photo ID did not start until later in the year. Covid-19 related travel restrictions prevented our new Resident Veterinarian from reaching the island, and Rosie had to take care of the injured turtle patients at the Rescue Centre. Along with our intern, Eman, Rosie stayed on the island and managed the Rescue Centre even as the resort temporarily closed down. During that time, they were also kept busy with a total of 13 confirmed green turtle nests on Coco Palm Dhuni Kolhu, from which 1,067 hatchlings made their way successfully to the sea!

Two juvenile sea turtles (one green, one olive ridley) washed up in a ghost net on Coco Palm in July; fortunately both were able to be released immediately.

After the arrival of our new Resident Veterinarian, Dr Minnie, in September, Rosie was finally able to spend more time in the water, contributing to our Photo ID research. Few turtles were spotted on Dhuni Kolhu House Reef but, thanks to other marine biologists contributing their sightings, 23 new individuals have been identified in Baa Atoll this year, bringing us up to a total of 980 individuals!

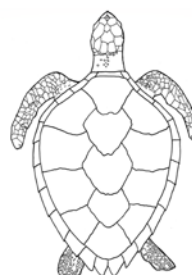
Few guest interactions were possible in 2020 and much of our outreach was done online. This year, we launched our new e-learning platform on ORP's website and created the 'hatchling club' where we created and posted turtle related activities for children stuck indoors during the pandemic. We also ran a very successful Giving Tuesday campaign to raise money for new pumps and pipes for the Rescue Centre.

*-Rosie Brown, ORP Sea Turtle Biologist,  
Baa Atoll*



### GREENS

**Total Sightings: 1,160**  
**Total Individuals: 208**



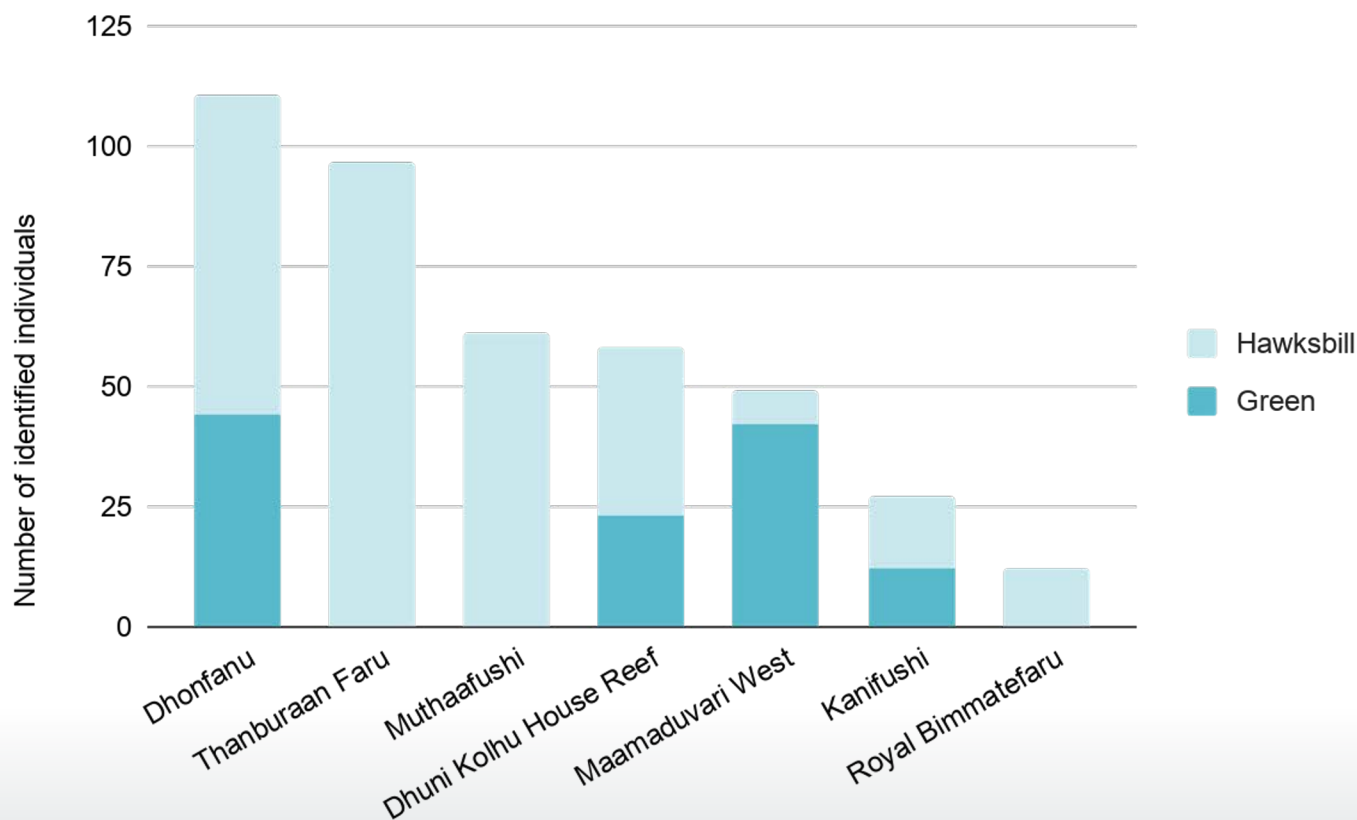
### HAWKSILLS

**Total Sightings: 3,376**  
**Total Individuals: 772**

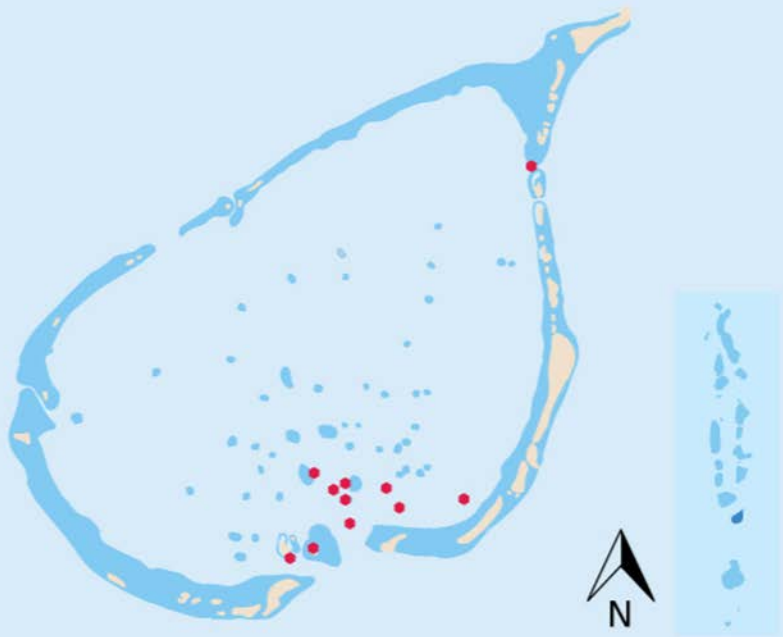




## TURTLE SIGHTINGS & NEW INDIVIDUALS: BAA ATOLL



	This Year	Total Since Records Began
Total Number of Turtle Sightings	54	4,536
Total Number of New Individuals	23	980
Total Overall Growth in Sightings	1.6%	N/A



## LAAMU ATOLL, MALDIVES

Research in Laamu continued throughout the reporting period. During this time, 18 new turtles (nine greens and nine hawksbills) were added to the Laamu database. Coupled with additions from archived photographs, this brought the total number of individuals in Laamu to almost 550!

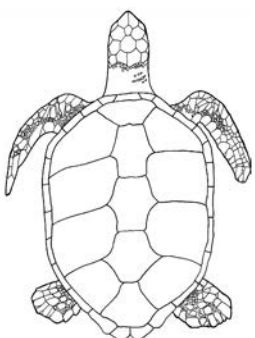
Nesting activity was lower in 2020 than had been reported in recent years. A total of nine nests were laid on Olhuveli during the 2020 nesting season. Hatching success was determined for four of the nine nests; 82% of eggs in these nests hatched successfully. Nesting surveys on Gaadhoo - a nearby uninhabited island thought to be one of the most significant green turtle nesting sites in the Maldives - ceased in March 2020 due to access restrictions relating to the COVID-19 pandemic. Two surveys were conducted

during pre-approved visits in September and November. A total of ten nests and four false crawls were recorded; 20% of these nests showed signs of poaching activity. ORP's nesting research was presented at the Third Maldives Marine Science Symposium in December 2020.

Two entangled turtles (one hawksbill and one olive ridley) were rescued during the reporting period. Both were found entangled in the same ghost net conglomerate. Thankfully, the turtles were able to be released immediately. A total of five ghost net conglomerates were recovered in Laamu in 2020.

This year, much of Olive Ridley Project's outreach moved online and included Six Senses Laamu's Junior Marine Biology Online programme and our very own e-Turtle School.

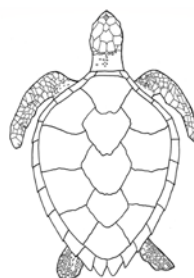
*Joanna Goodfellow, ORP Sea Turtle Biologist,  
Laamu Atoll*



### GREENS

**Total Sightings: 2,585**  
**Total Individuals: 209**

20



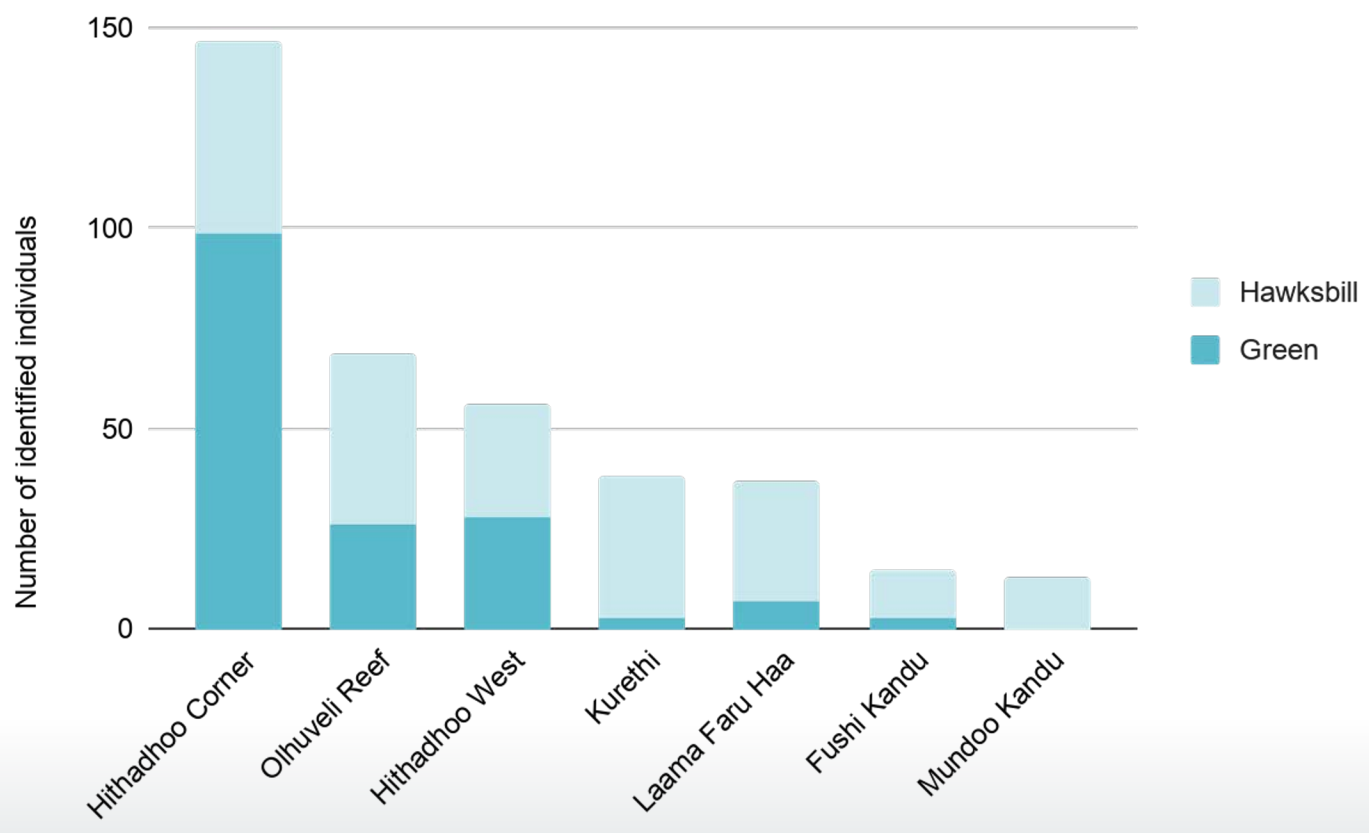
### HAWKSBILLS

**Total Sightings: 1,665**  
**Total Individuals: 336**

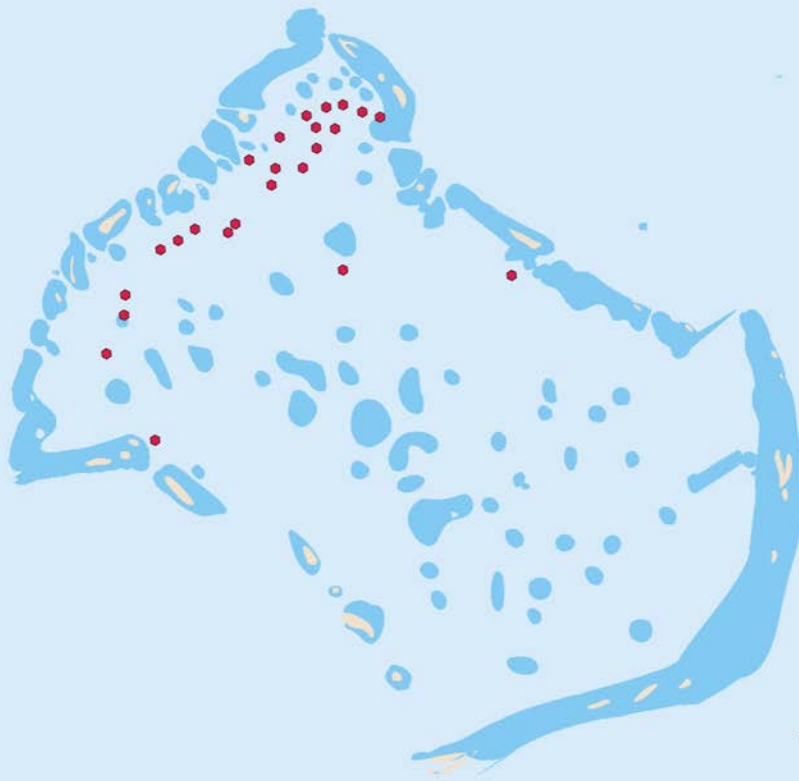




# SIGHTINGS & NEW INDIVIDUALS LAAMU



	This Year	Total Since Records Began
Total Number of Turtle Sightings	242	4,250
Total Number of New Individuals	18	545
Total Overall Growth in Sightings	6%	N/A



## LHAVIYANI ATOLL, MALDIVES

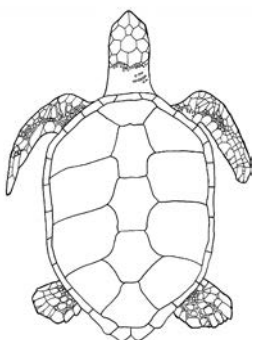
ORP has partnered with Prodivers Maldives and Kuredu Island Resort & Spa since October 2017. In 2019/2020 Kristina Loosen represented ORP in Lhaviyani Atoll, however, work was temporarily suspended in March 2020 due to the COVID-19 outbreak and the shutdown of the resort. Kristina left the island and Emily Mundy, from ProDivers, began contributing to the Photo ID project from April until she had to leave the island in May. The resort was closed for a total of eight months, reopening on the 1st of November 2020. Emily Mundy has now taken over the Sea Turtle Biologist position in Lhaviyani Atoll.

In April and May only two sites around Kuredu island were surveyed due to boat restrictions. No data collection was possible between June and October, but resumed in November with 47 hours spent in the water at over 16 sites in the last two months of the year.

Besides the Photo ID, ORP also collects data on nesting activity in Lhaviyani Atoll. In the reporting period, nine nests were recorded, of which four have hatched and were excavated, and three are due to hatch in 2021. ORP also assists with ghost net recovery and rescue of entangled turtles, however, from April to December no ghost nets or entangled turtles were encountered in Lhaviyani Atoll.

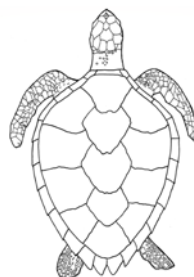
The cooperation between the Kuredu Island Resort and ORP has been strengthened by conducting further training sessions for resort staff. Turtle nesting and hatching protocols were distributed to ProDivers, security, gardening, and housekeeping departments and our sea turtle entanglement protocol was distributed to ProDivers and boat crews.

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



### GREENS

**Total Sightings: 3,432**  
**Total Individuals: 301**



### HAWKSBILLS

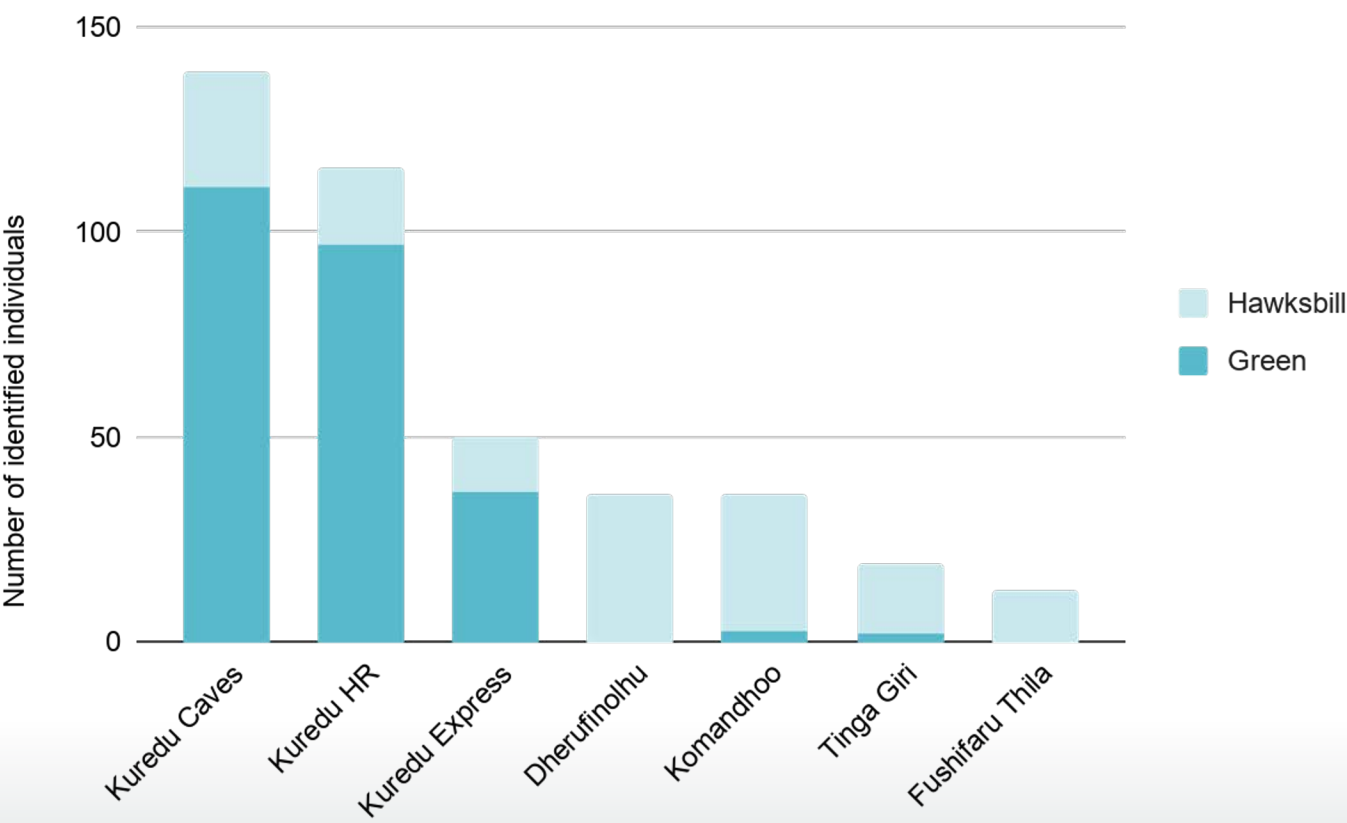
**Total Sightings: 716**  
**Total Individuals: 234**



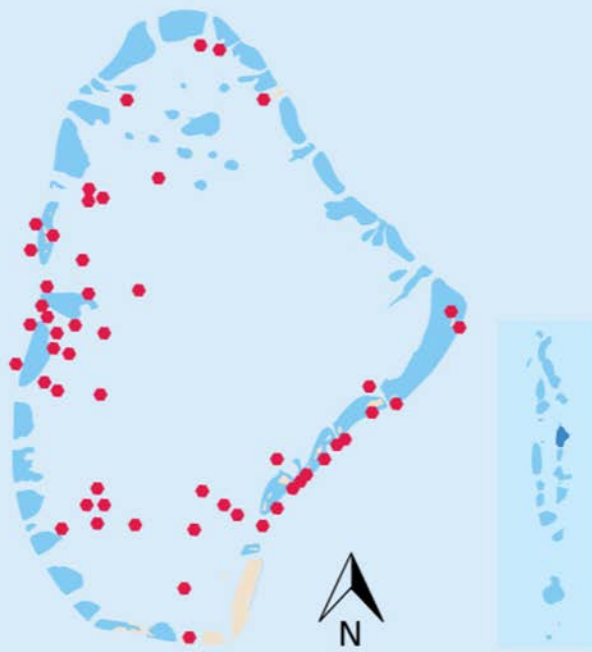


GR1222, Charlie, a newcomer to Kuredu Lagoon

# TURTLE SIGHTINGS & NEW INDIVIDUALS LHAVIYANI



	This Year	Total Since Records Began
Total Number of Turtle Sightings	290	4,153
Total Number of New Individuals	24	535
Total Overall Growth in Sightings	7.5%	N/A



## NORTH MALÉ ATOLL, MALDIVES

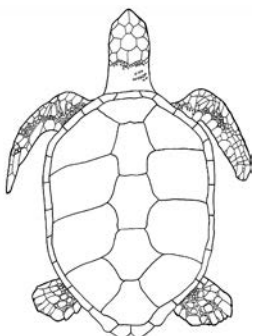
ORP partnered with One & Only Reethi Rah in December 2018. This year, due to Covid-19, the resort was officially closed from April to July, but ORP's former Sea Turtle Biologist, Laura Whiteley, remained on the island, looking after the sea turtle patients. Due to a severe reduction in guests arrivals, the resort were forced to operate on a skeleton staff, resulting in the Turtle Rehabilitation Centre being temporarily closed and Laura leaving the island in August. We were without a Turtle Biologist up to the end of December, when the new Sea Turtle Biologist, Estrella Tapias, arrived at One & Only.

Photo ID collection, one of the pillars of our work in North Malé Atoll, slowed down during early to mid-2020 due to the resort closure and, following re-opening, the lack of transport to Turtle Reef and West Point, our main points of research. However, our Photo ID research picked up again in August, though only 59 sightings were logged this year.

When the Turtle Rehabilitation Centre was due to close, our turtle patients, Eve and Azura had to be released or relocated. Eve was released in August, while Azura was moved to our Sea Turtle Rescue Centre in Coco Palm Dhuni Kolhu, where she continues to be cared for. Dr. Minnie discovered that Azura had an elbow infection, but she responded well to the treatment, and she may be transferred back to One & Only Reethi Rah in early 2021 for her final recovery and sea swims before her release!

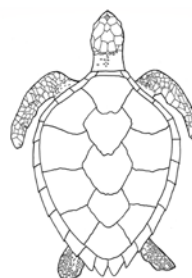
As of the end of December, our new Sea Turtle Biologist remains in quarantine, but she will resume our work in North Malé in January 2021.

*-Estrella Tapias, ORP Sea Turtle Biologist,  
North Malé Atoll*



### GREENS

**Total Sightings: 87**  
**Total Individuals: 82**



### HAWKSBILLS

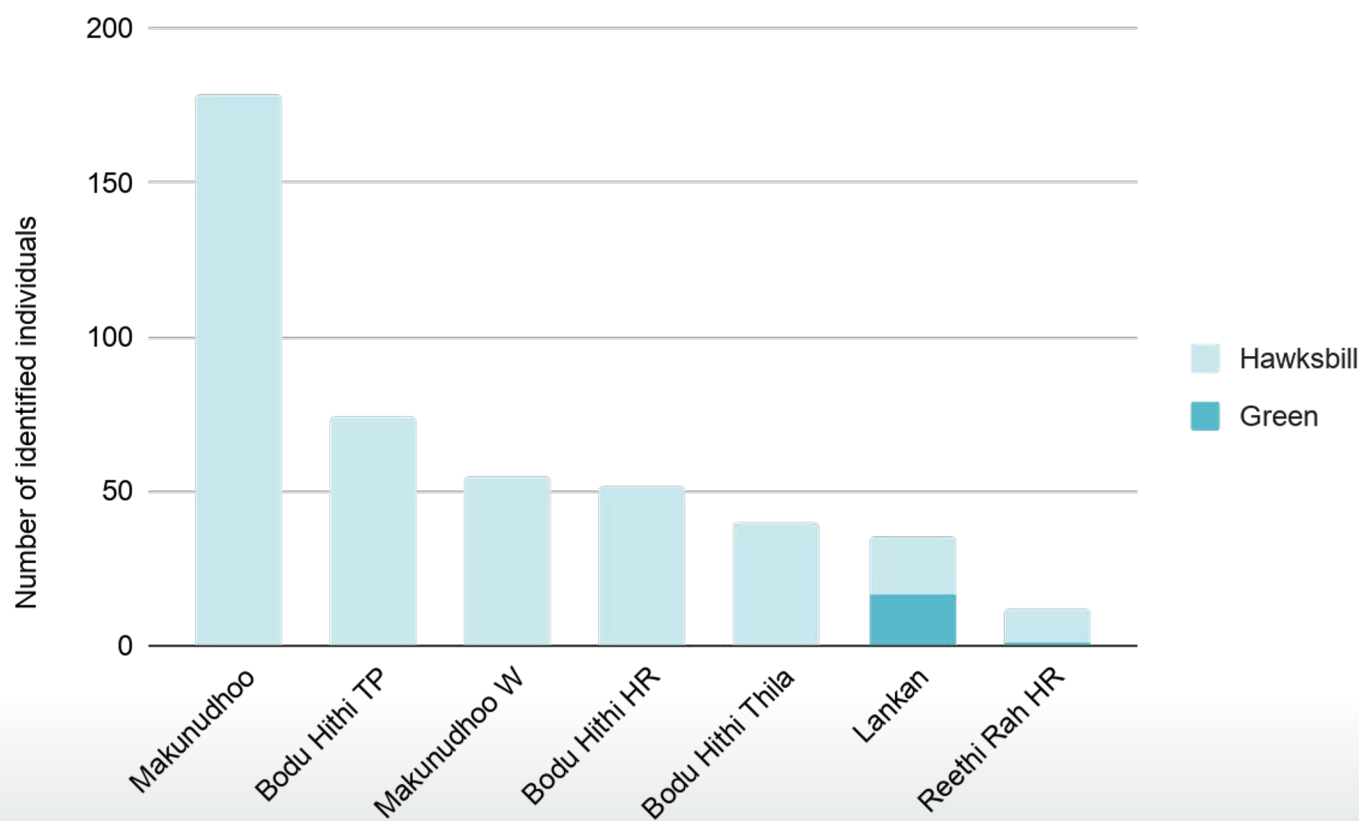
**Total Sightings: 9,127**  
**Total Individuals: 830**



A hawksbill roaming the waters of famous Turtle Reef.  
@Beki Hull



## TURTLE SIGHTINGS & NEW INDIVIDUALS NORTH MALÉ



	This Year	Total Since Records Began
Total Number of Turtle Sightings	59	9,214
Total Number of New Individuals	11	921
Total Overall Growth in Sightings	0.6%	N/A



## HAA ALIF SEA TURTLE RESEARCH EXPEDITIONS

Haa Alif Atoll is situated in the far north of Maldives where very little scientific work has been done. The lack of data in this region is what scientists call a “black hole”. We aim to fill this gap so that we can accurately interpret sea turtle population and movements in the Maldives. Due to its remote location, Haa Alif Atoll has very few resources to conduct dedicated sea turtle research or run marine conservation projects. In addition to our research, we drive community projects, working with the local schools, our local partner Island Development and Environmental Awareness Society (IDEAS), and with members of the community to help tackle common issues affecting marine habitats for turtles.

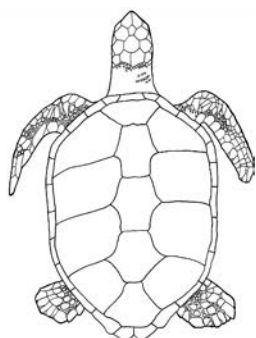
This project is sustained through the generous contributions of our expedition volunteers and brings economic benefits to the island of Kelaa in the form of ecotourism.

During the research expeditions, our team carries out in-water surveys in search of turtles to photograph and add to our database. In addition, we record megafauna sightings, such as sharks, dolphins and rays. We recover ghost nets and occasionally rescue entangled turtles during these expeditions.

The expedition teams also organise beach clean-ups in collaboration with the Island Council and Parlay Maldives and conduct community outreach activities.

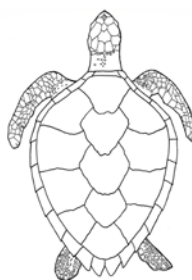
No research expeditions were completed during the reporting period due to the Covid-19 pandemic. We hope to restart our Haa Alif sea turtle expeditions in 2021.

*-Ibrahim Shameel, ORP Project Coordinator,  
Maldives*



### GREENS

**Total Sightings: 53**  
**Total Individuals: 50**



### HAWKSILLS

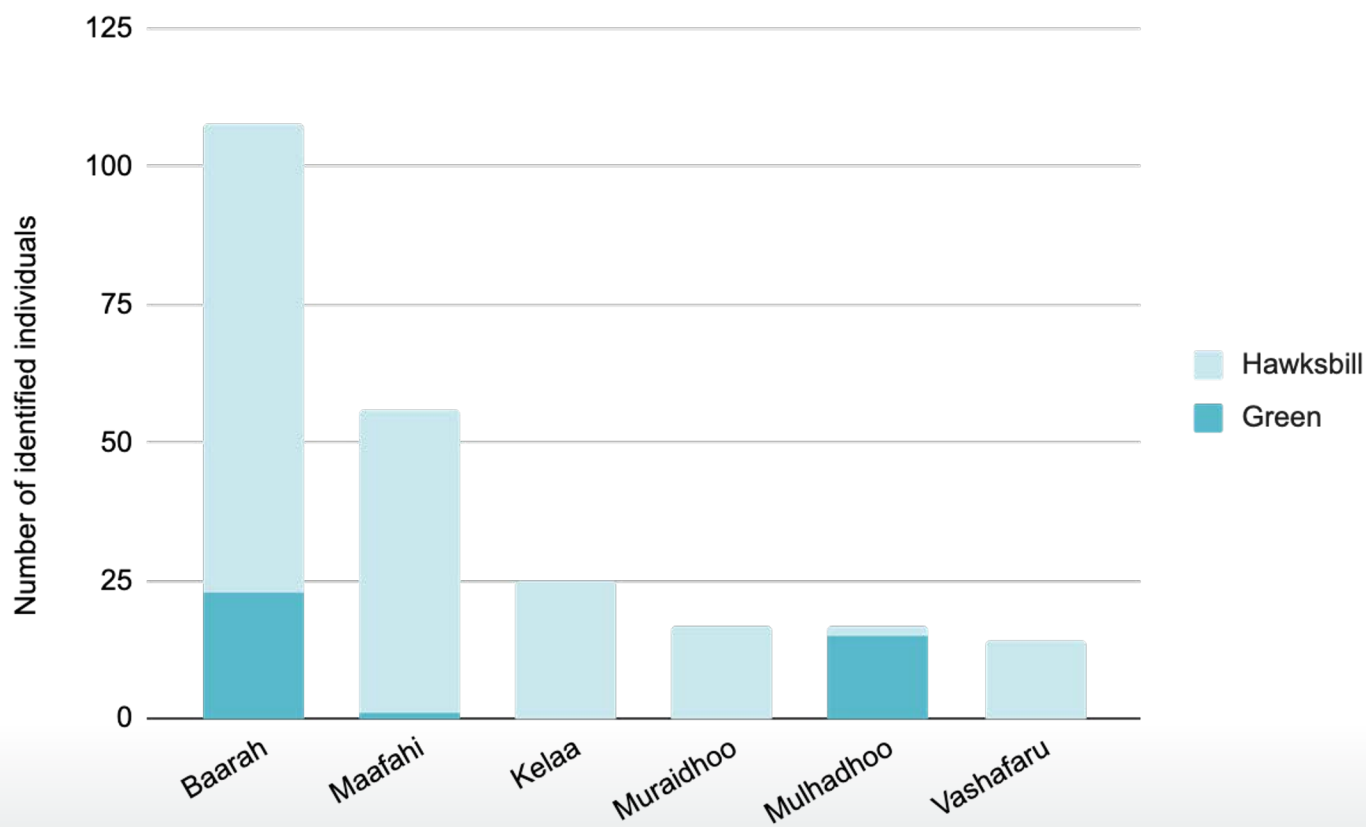
**Total Sightings: 255**  
**Total Individuals: 185**





HK3129 Susie seen 4 times at Maafahi Reef

## TURTLE SIGHTINGS & NEW INDIVIDUALS HAA ALIF



	This Year	Total Since Records Began
Total Number of Turtle Sightings	0	308
Total Number of New Individuals	0	235
Total Overall Growth in Sightings	0%	N/A



## RECORDED SEA TURTLE NESTING ACTIVITY



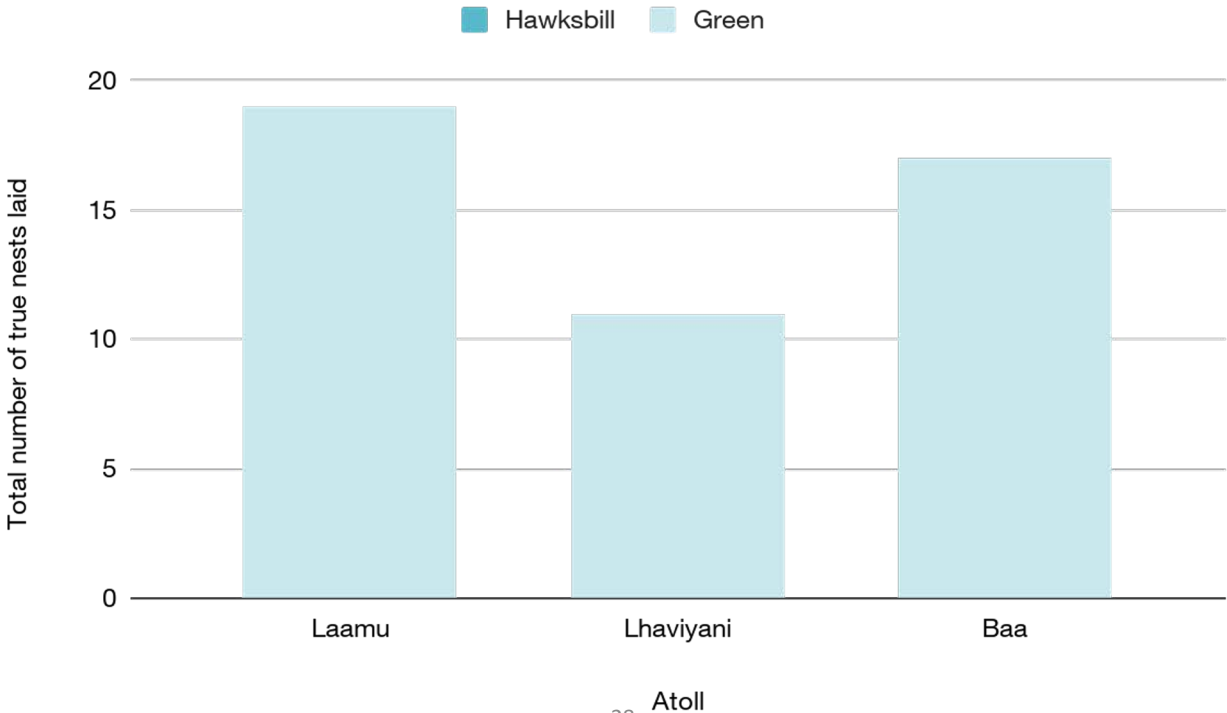
\*Data for nesting is limited due to the small number of marine biologists collecting nesting information.



Total Number of True Nests: 45  
Total Number of False Crawls: 30

Total Number of Live Hatchlings Counted: 1,286\* (to date, not all nests have hatched & some nests were not observed hatching due to staff being off resort)

Average Hatching Success: 82%  
Average time of incubation: 58 days







**OLIVE RIDLEY  
PROJECT**

Registered Charity in the UK #1165905

# KENYA







## DIANI BEACH, KENYA

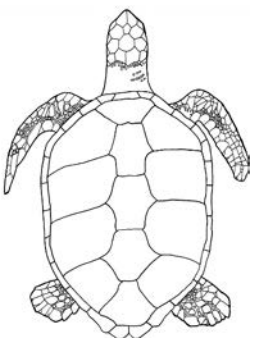
Our field work in Kenya was suspended in April 2020 due to the Covid-19 outbreak. In-water activities were allowed again in June, but our Project Manager had to remain in Europe and Diving the Crab was shut down until October. Therefore, the sea turtle Photo ID program relied on photo submissions from local divers and the Diani Turtle Watch's By-Catch Program for the remainder of the year.

A total of 103 photos were submitted, representing 68 individual greens (19 new) and 14 hawksbills (6 new). We have now uploaded most of our photos to the Internet of Turtles, the global online database for sea turtle sightings. In total, 1,521 encounters of nearly 300 individual turtles were added to this platform. As of December 2020, all photos are now directly uploaded onto the Internet of Turtles as they are submitted.

With the ORP Kenya Project Manager based in Portugal for most of the year, we found several opportunities to develop fun and interesting activities there to promote our work and project visibility in Europe. This included meetings and collaborations with Portuguese conservation organizations or initiatives, such as Plasticus Maritimus, with whom we collaborated on an educational program about ghost gear and plastic pollution.

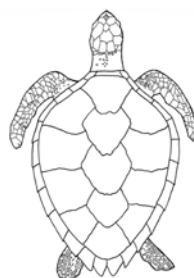
Others include Sea Shepherd - Portugal, and Pico Sport in the Azores islands. Other outreach efforts resulted in a small article published on [SCB's African Conservation Telegraph](#), a successful blog post, and regular social media presence.

- Dr. Joana Hancock, ORP Project Manager, Kenya



### GREENS

**Total Sightings: 2,028**  
**Total Individuals: 478**

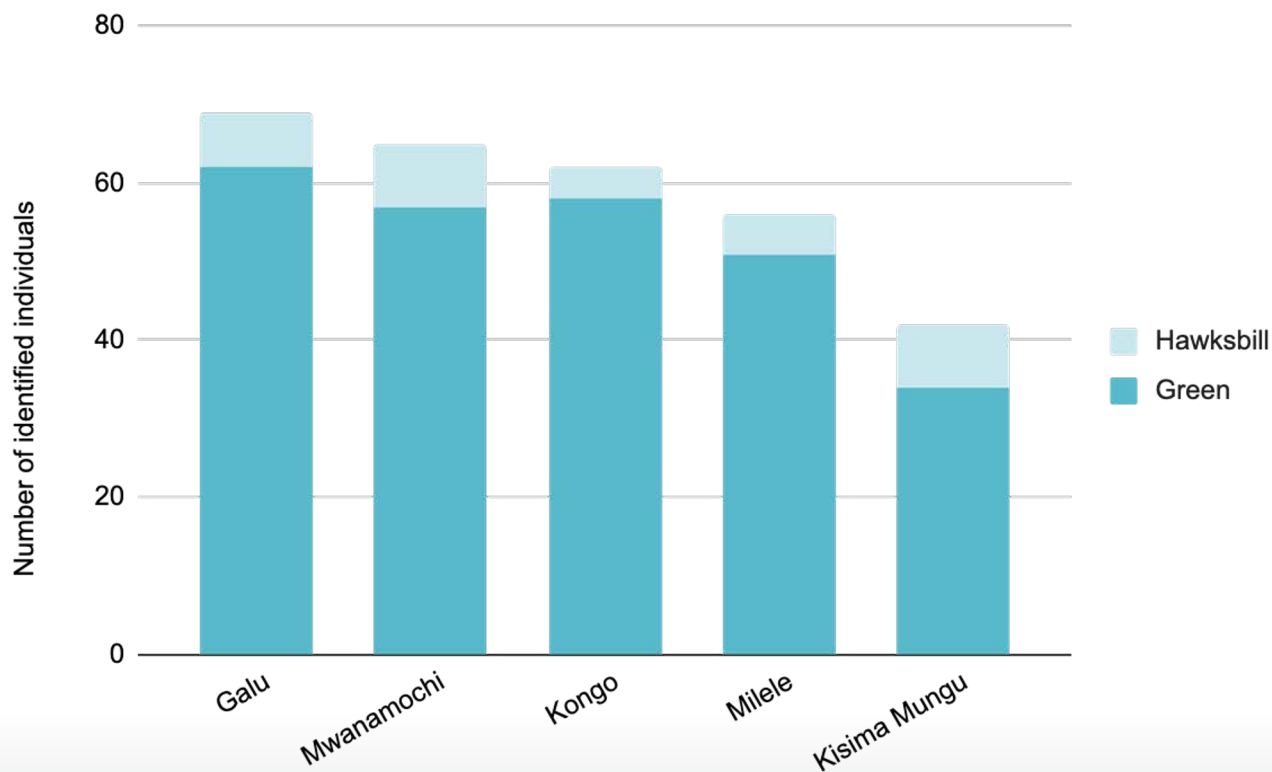


### HAWKSIBILLS

**Total Sightings: 274**  
**Total Individuals: 62**



# TURTLE SIGHTINGS & NEW INDIVIDUALS KENYA



	This Year	Total Since 2018
Total Number of Turtle Sightings	103	2,303
Total Number of New Individuals	25	540
Total Overall Growth in Sightings	4.7%	N/A



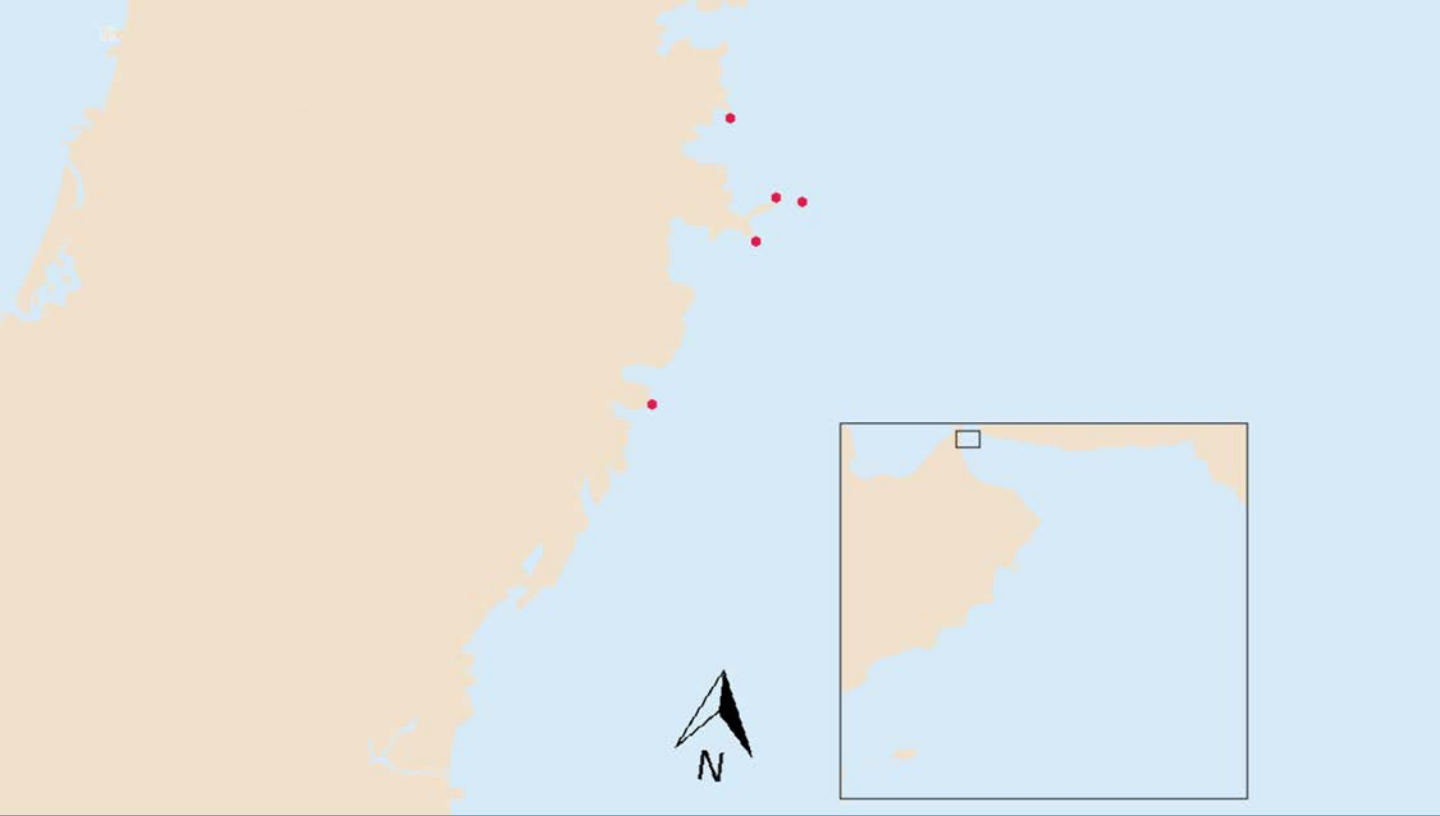
**OLIVE RIDLEY  
PROJECT**

Registered Charity in the UK #1133903

# OMAN







## MUSANDAM, OMAN

ORP partnered with Six Senses Zighy Bay in January 2019. The Musandam, Oman project is a multi-faceted project, aiming to monitor sea turtle populations in the area, and working alongside local fishing communities to combat the ghost gear issue in the region.

We also work with the Ministry of Environment and Climate Affairs (MECA) to promote our goals to reduce ghost gear in the region and support their reef cleaning efforts and participate in regional beach cleans and school visits with a specific focus on marine environmental education and sea turtles.

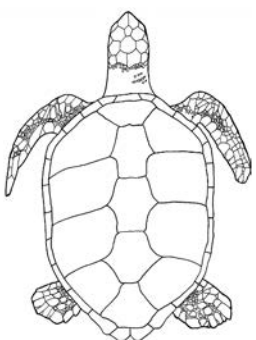
Furthermore, we work with BEAH - the company responsible for managing waste and recycling in Oman. They have made plans to provide a skip in Dibba Marina for fishermen to dispose of their

broken, old or otherwise unusable fishing equipment in a responsible manner. This is to be accompanied with suitable education about ghost gear and its impacts to encourage a positive dialogue with the fishing community.

In February 2020 we received permission from MECA to remove ghost gear from coral reefs. This will enable independent clean up efforts of divers for the surrounding dive sites.

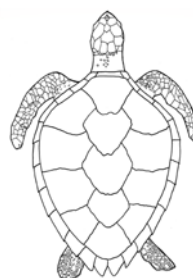
Unfortunately, our work in Oman was suspended in March 2020 due to the Covi-19 outbreak and remains so till date. We hope to be back in Oman as soon as the situation allows it.

*-Jane Lloyd, ORP Sea Turtle Biologist, Oman*



### GREENS

**Total Sightings: 56**  
**Total Individuals: 34**



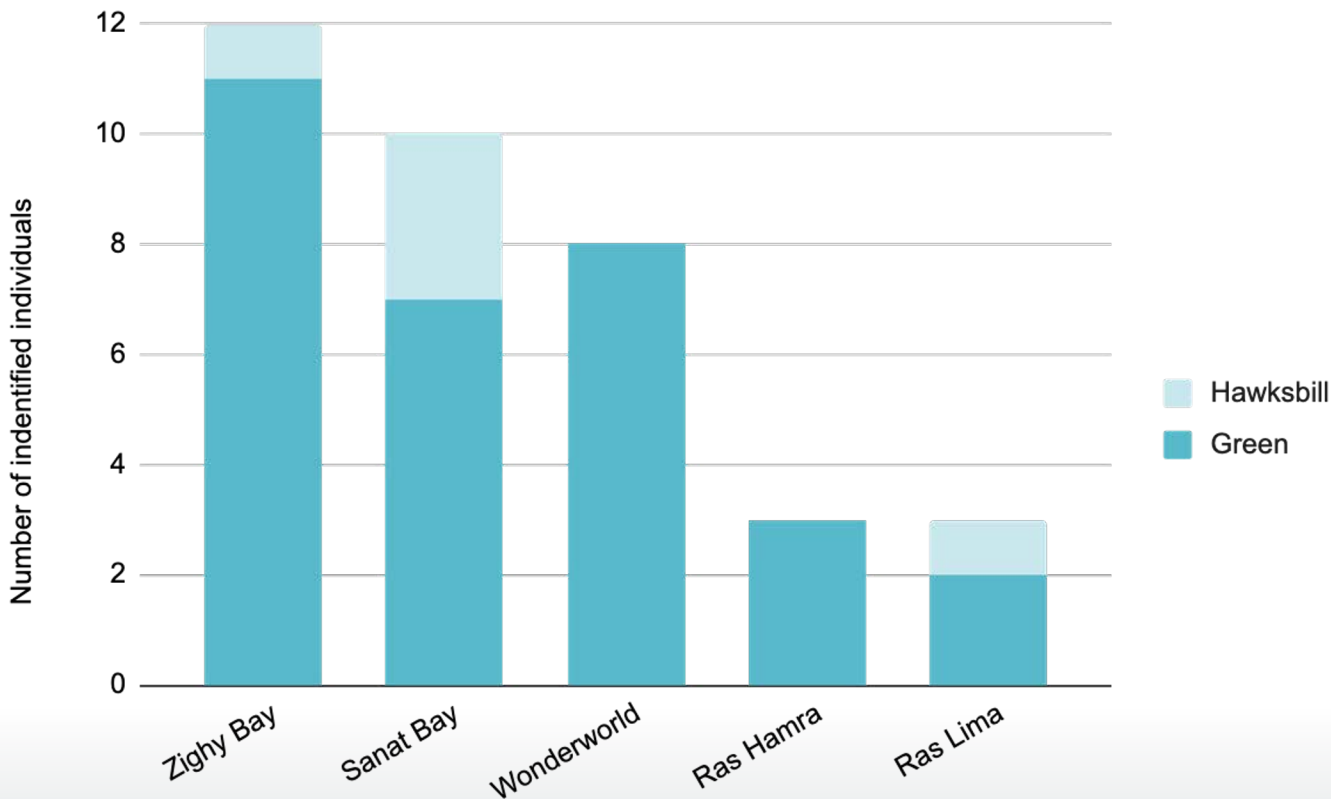
### HAWKSBILLS

**Total Sightings: 12**  
**Total Individuals: 6**



Green turtle swimming in the blue in Oman

## TURTLE SIGHTINGS & NEW INDIVIDUALS OMAN



	This Year	Total Since 2019
Total Number of Turtle Sightings	0	68
Total Number of New Individuals	0	40
Total Overall Growth in Sightings	0%	N/A



**OLIVE RIDLEY  
PROJECT**

Registered Charity in the UK #1165905

# PAKISTAN







# PAKISTAN

Our Pakistan project in Abdul Rehman Goth (ARG) fishing community continues to progress. The project aims to remove ghost gear from the ocean environment and to create value out of waste through the power of community and creative ideas. Finding new ways to reuse ghost gear depends on the experience and innovative thinking of people from different sectors of economy and so we have explored various initiatives in the past year.

The plans for the year 2020 were derailed because of the Covid-19 out-break and the subsequent lockdowns imposed by the government to control the spread of the virus. In these testing times, the fishing community of Abdul Rehman Goth suffered greatly. The ORP Pakistan team managed to raise PKR 300,000 to provide two-weeks' worth of ration packs for the 150 families from Abdul Rehman Goth who were hit the hardest.

Our ghost gear recoveries resumed as lockdown restrictions eased from July onwards, allowing access to the beaches along Karachi coastline for qualified and experienced divers. These *ad hoc* and voluntary recovery dives are conducted with the knowledge from the fishing villages - the fishers inform the ORP team where fishing gear has been lost. Scuba equipment is provided to us for free by Indus Scuba and volunteers join us to remove ghost nets. This year 18 kg of the recovered gear was given back to the fishers for reuse.

In December 2020, the ORP team made a visit to Astola Island, a Marine Protected Area off the coast of Balochistan. Astola is a nesting beach and the ORP team discovered over 800 green turtle nests on the north-eastern beach of Astola Island. However, the large number of ghost nets found on the nesting site was a cause for the concern and the team is planning a clean up visit to the island.

-Usman Iqbal, ORP Project Manager, Pakistan



Ghost Nets Recovered

Total Overall Growth Ghost Net Recovery

This Year

419 kgs

9.6%

Total Since 2016

4,777 kgs

N/A

# GHOST NET REPURPOSING - A CIRCULAR ECONOMY PROJECT



Abdul Rehman Goth (ARG) is a centuries-old fishing village with a population of around 5,000 people and 300 fishing boats. Like so many traditional fishing communities, climate change, industrial fishing and overfishing strongly affect this community. ORP is working on ways to reuse ghost gear recovered in the area to provide an alternative income for the community. So far, the ORP team and volunteers have recovered more than 4.7 tons of ghost gear from the sea and beaches near the village.

Whilst the men of the village may travel for work, the women are more restricted in terms of mobility due to the lack of public transport. The design and sale of ghost net bracelets and dog leashes provide local work; work that can provide a significant addition to the household income of a fisher family.

The many restrictions implemented in Pakistan to contain the spread of Covid-19 virus forced us to temporarily place our circular economy initiatives on hold for several months. Once restrictions were lifted, the team got back to work immediately with the aim to improve the dog leash design from 2019. The new design incorporates a 100% recycled material (excluding the clip) and uses more robust clips in its design. This change in design improves the user experience and quality of the leash.

As import and export restrictions eased, the first batch of new dog leashes were exported to the UK to be sold via the ORP website. The launch was successful and we have already placed our second batch order with the community.

All leashes are strength tested to 70 kg to ensure safety. Each leash uses 880 sq feet / 82 sq metres of ghost net, that would otherwise be polluting local beaches, and waste materials that would otherwise be sent to a landfill. We are currently selling the Ghost Leash online and continue to expand our product range in 2021.



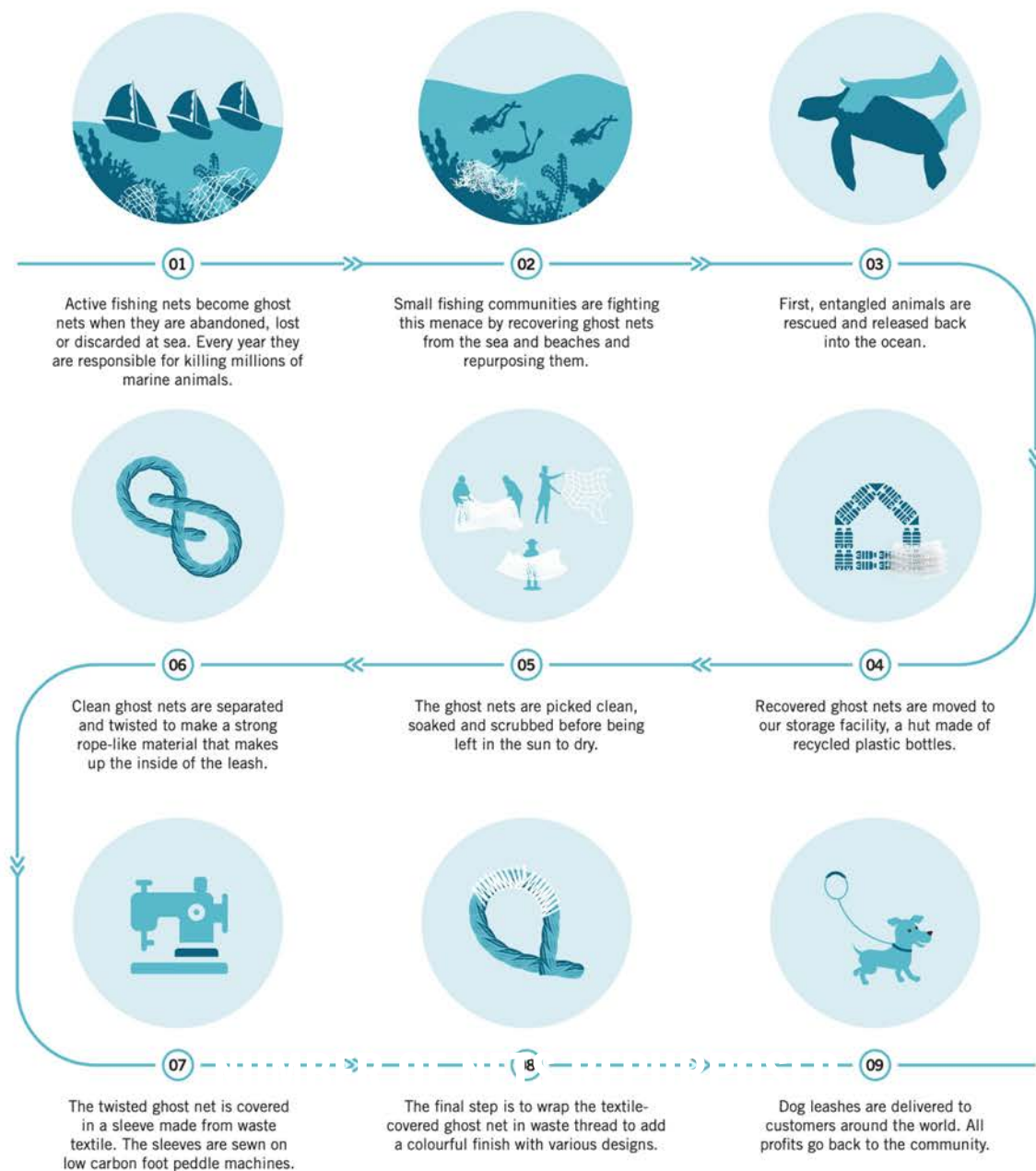
All profits from the sales of Ghost Leashes and ghost net bracelets go back to the community and we hope to provide a valuable and additional income to the fishing community of ARG (1000 PKR / £5 per ghost leash and 500 PKR / £2.50 per bracelet). We are looking forward to replicating this initiative into more villages as we move into 2021.

Ghost Leashes sold	42
Ghost Net Bracelets sold	140
Other ghost net jewellery sold	14
Total Alternative Income generated	PKR 119,000 (\$ 743)

-Usman Iqbal, Project Manager,  
Pakistan

# Ghost Leash

## HOW IT IS MADE



The collection of raw materials and production of the dog leashes is done in Pakistan by local fishing communities. The dog leashes are shipped with no frills, labels or unnecessary packaging to minimise the shipping carbon footprint.

<https://oliveridleyproject.org/shop>



**OLIVE RIDLEY  
PROJECT**

Registered Charity in the UK #1165905





**OLIVE RIDLEY  
PROJECT**

Registered Charity in the UK #1165905

# FURTHER RESEARCH







## RESEARCH

ORP continued to push the boundaries and pioneer research techniques to analyse sea turtle populations, distribution, health and threats in the Indian Ocean throughout 2020. Though the global pandemic meant that we were unable to carry out in-field research for much of the year, we focused on analysis of data already collected, and on planning new research projects for the future. By the end of the year, most of our team were back in the field and able to conduct research again.

Our satellite tagging project, led by ORP researcher [Rushan Bin Abdul Rahman](#) was paused in 2020, but we have secured additional funding and hope to continue this research in 2021.

We submitted two papers for review and an additional two papers from Martin's PhD were accepted and published along with a book chapter this year. The first paper submission was led by ORP researcher [Dr. Stephanie Köhnk](#), documenting the presence of *Sangivorous* ectoparasites found on entangled sea turtles in the Maldives. Stephanie hopes to expand this research into the wider Indian Ocean in 2021.

The second paper submission was led by [Dr. Martin Stelfox](#) and Dr. M. Martin-Cereceda, exploring a successful example on how to engage researchers and society.

The book chapter, entitled Applications of Photo Identification in Sea Turtle Studies, was published in the book Sea turtle Research and Conservation: Lessons From Working in the Field, edited by Brad Nahill. [Dr. Jillian Hudgins'](#) contribution to this chapter firmly cements the use of non-invasive Photo ID as a useful and promising tool in sea turtle research.

In 2021 we are contributing to a global study on hawksbill sea turtle genomics.

Finally we assisted the Maldivian government in preparing the Maldivian chapter contribution to the MTSG Annual Regional Report. A Report of the IUCN-SSC Marine Turtle Specialist Group.

We will continue our research and attempt to fill research gaps, as well as explore new research opportunities in 2021. We have a number of new projects in the pipeline and we are excited to get started.

-Dr. Martin Stelfox, ORP CEO and Founder



## GHOST GEAR RESEARCH

Between April and December 2020 ORP were able to recover and measure 15 ghost net conglomerates consisting of 18 fragments in the Maldives. These numbers are much lower than previous years as there were very few marine biologists on site and little boat movement this year due to the pandemic.

ORP became members of the NGO Tuna Forum, and expanded our presence within the Global Ghost Gear Initiative (GGGI) this year. This means we are able to apply some of our research on ghost gear and ghost fishing at the policy level - a very important step forward.

The NGO Tuna Forum brings together NGOs and other organisations working on global tuna sustainability. We currently sit on three working groups and hope to bring our experience and knowledge of ghost gear and sea turtles into the context of tuna fisheries.

Our work with the GGGI has been ongoing since 2015, but now that we officially sit on two working groups (Build Evidence and Best Practices), we hope to bring our experience of working in developing nation and small scale fishery into the discussion.

We are also excited to announce an important partnership with the International Pole and Line Foundation (IPNLF). This partnership aims to combat the ghost gear issue in the Maldives and achieve the first fishery in the world to recover more ghost gear than it generates. Together with funding from the Joanna Toole Foundation and Satlink, we are working with the pole and line fishing community and the Women Development Committee (WDC) of Gemanafushi in Gaafu Alif Atoll. The plan for this collaboration is for fishers to recover ghost gear from the EEZ of the Maldives and for the WDC to repurpose the ghost gear in a circular economy project, similar to what ORP does in ARG in Pakistan.

The project got off to an exciting start with the Maldivian Pole and Line fishers already recovering several Fish Aggregating Devices (FADs), which will be brought back to Gemanafushi for repurposing.

Current travel restrictions have hindered our progress so far in Gemanafushi; however, we are working hard and are prepared for when we are able to revisit the community and develop the project further.

*-Dr. Martin Stelfox, ORP CEO and Founder*



## PUBLICATIONS - RESEARCH PAPERS

- Stelfox, M., Burian, A., Shanker, K., Rees, A.F., Jean, C., Willson, M.S., Manik, N.A. and Sweet, M., 2020. Tracing the origin of olive ridley turtles entangled in ghost nets in the Maldives: A phylogeographic assessment of populations at risk. *Biological Conservation*, 245, p.108499.
- Stelfox, M., Lett, C., Reid, G., Souch, G. and Sweet, M., 2020. Minimum drift times infer trajectories of ghost nets found in the Maldives. *Marine pollution bulletin*, 154, p.111037.
- Umaira Ahmed, Enas Riyaz, Jillian Hudgins, and Martin Stelfox in: Phillott, A.D., and Rees, A.F. (Eds.) (2020). [Sea Turtles in the Middle East and South Asia Region: MTSG Annual Regional Report 2020](#). Report of the IUCN-SSC Marine Turtle Specialist Group, 2019.

## CONFERENCE PRESENTATIONS

- Dr Claire Petros. World Turtle Day Open House 2020. The Pandemic & Turtle Conservation: Stories of Resilience Beyond our Borders. An online conference led by SCB Malaysia Chapter: Representing the work of ORP during the Covid Pandemic 2020 <https://bit.ly/scbmsia-youtube>
- Dr Stephanie Köhnk, Dr Jillian Hudgins and Dr Martin Stelfox. Swimming with turtles - the behaviour of sea turtles in proximity to tourist resorts in the Maldives. Oral presentation at the Third Maldives Marine Science Symposium, 12.-13.12.2020, Malé, Maldives, held online.
- Dr Stephanie Köhnk, Dr Jillian Hudgins and Dr Martin Stelfox. Swimming with turtles - the behaviour of sea turtles in proximity to tourist resorts in the Maldives. Oral presentation at the International Marine Conservation Congress 6, 17.-28.08.2020, Kiel, Germany, held online.
- Joanna Goodfellow, Dr Jillian Hudgins and Dr Martin Stelfox. Green turtle nesting in Laamu. Oral presentation at the Third Maldives Marine Science Symposium. 12-13.12.2020, Malé, Maldives, held online.

## PUBLICATIONS - OTHERS

- Hancock, J.H., Choma, J., Mainye, L., Stelfox, M. & Hudgins, J. (2020) "[Photo Identification as a Tool to Study Sea Turtle Populations in Kenyan Marine Protected Areas](#)". African Conservation Telegraph, Vol. 15 No 3
- Lomas, C. (2020) British Chelonia Group "[Conservation and rehabilitation of sea turtles in the Maldives](#)". Testudo Vol. 9 No. 2
- S.G. Dunbar, J. Hudgins, and C. Jean, Applications of Photo Identification in Sea Turtle Studies, in: B. Nahill (Ed.), *Sea Turtle Research and Conservation: Lessons From Working In The Field*, Elsevier, Academic Press, 2021, pp. 45-55.

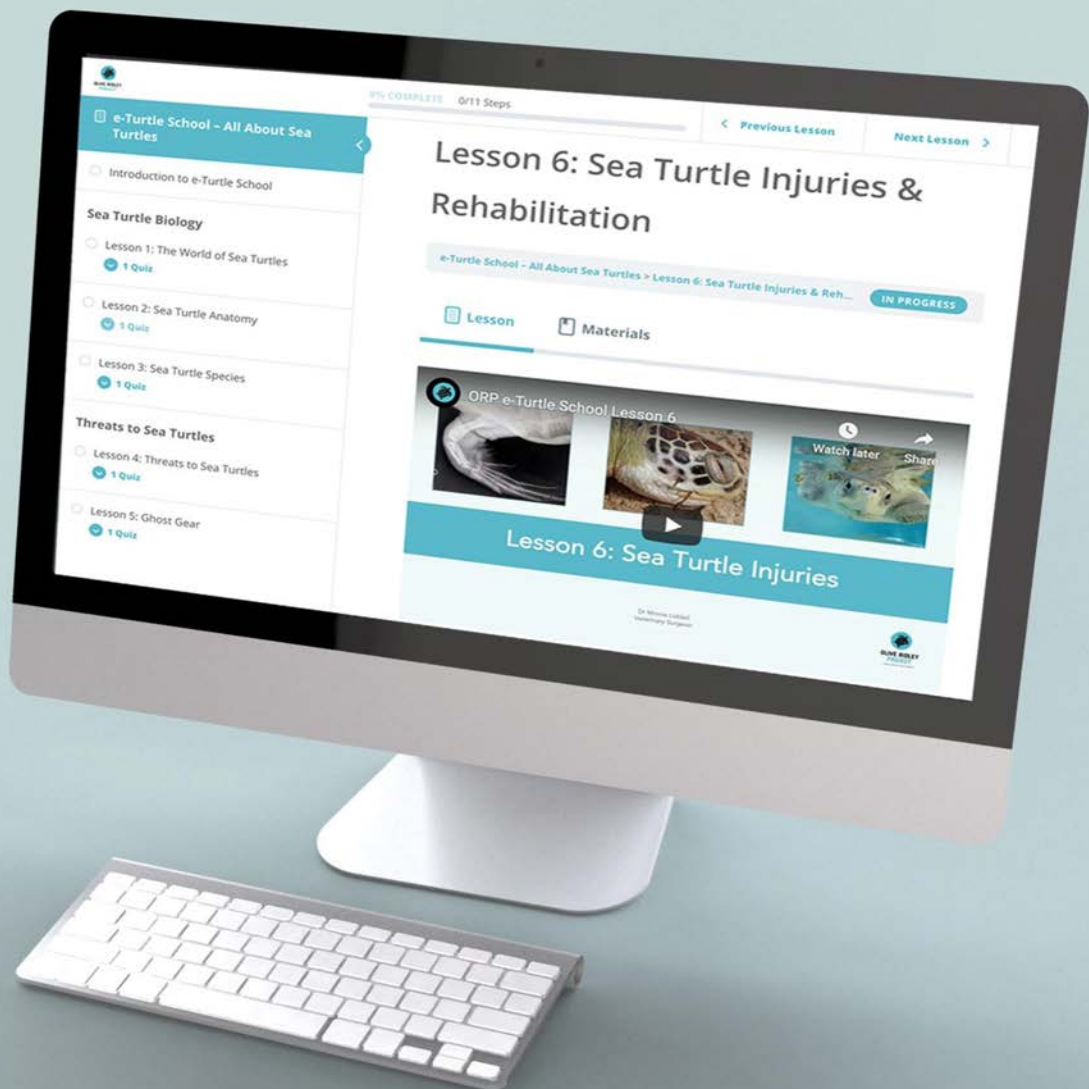


**OLIVE RIDLEY  
PROJECT**

Registered Charity in the UK #1165905

# EDUCATION & OUTREACH

## The Year ORP Went All Digital



# INTERNSHIP PROGRAM

## BUILDING LOCAL CAPACITY

ORP's Internship Program for Maldivian nationals is critical in achieving our goal to build local capacity in the Maldives; there are currently no other veterinary-led training facilities available in the country. The interns work at the Rescue Centre for a three-month period and play an integral part in the daily running of the facilities. They receive a financial stipend, food and accommodations during the internship.

The interns learn basic turtle medical care and husbandry and help educate both guests and school groups that visit the Rescue Centre. Once their internship is complete, they graduate to turtle ambassadors for the project and continue to spread awareness of the project's work and goals all over the Maldives.

The Marine Turtle Rescue Centre was able to continue to care for its patients during the pandemic with the help of interns Eman Shareef and Ali Jinaad. Eman kindly extended her internship during the challenging times - a great help for ORP.



Intern Eman Shareef

## EDUCATIONAL OUTREACH

### EDUCATION - A POWERFUL TOOL

Education is a big part of ORP's mission and an important aspect of our multifaceted approach to protecting sea turtles and their habitats. We believe education is a powerful tool to increase awareness, engage people and stimulate action.

We usually educate school children, local communities, boat crews, divers, fishermen, tourists, resort staff, and biologists, face to face and in-person, but all that had to change this year.

Instead, we created an [e-learning platform](#) on our website with free courses and resources, for both sea turtle lovers in general and the more science minded, about everything sea turtles.

We hope this free knowledge sharing hub will be an important environmental education resource to help guide aspiring young scientists and supplement existing educational tools for remote learning and school projects.





# ONLINE LEARNING e-Turtle School



## Turtle School

LEARN MORE

0% COMPLETE

Sea turtle conservation is focused on the protection and preservation of sea turtles now and into the future. While much of it is rooted in biology, conservation can only happen by utilising skills from other disciplines. This multidisciplinary approach is the only way to ensure that sea turtles, and the environment in which they live, can continue into the future.

In [e-Turtle School](#) you learn about the fundamental topics needed by anyone working to save sea turtles: The the basics of sea turtle biology and anatomy, the threats sea turtles face, how we, as a conservation charity, work with the community, and what can be done to help.

Number of signed up students: 245

Number of graduates: 18

# ONLINE LEARNING Sea Turtle Science & Conservation

To conserve sea turtles we need to have a solid understanding of their biology and ecology before we develop a plan to protect them. Oftentimes, this plan must include the local communities that live within the same environment as sea turtles. Without either of these components, conservation projects can fail.

In the [Sea Turtle Science & Conservation Course](#) you learn about some of the advanced research techniques that sea turtle scientists use to collect data on study populations, as well as how we can work with local communities to protect them. This course gives provides an in-depth understanding of the tools we use to collect vital information on sea turtles and how we can protect them with community-driven conservation.

Number of signed up students: 130

Number of graduates: 15

A banner for the Sea Turtle Science & Conservation course. It features a large underwater photo of a diver and a sea turtle. Below this is a row of four smaller photos showing different sea turtles. The text 'Enrol Now' is in a green box. The course title 'Sea Turtle Science & Conservation' is in white on a teal background. Below the title is a blue button with 'LEARN MORE' in white. At the bottom right, it says '0% COMPLETE' in teal.

# ONLINE - SCIENTIFIC CONFERENCES IN 2020



World wide travel restrictions did not stop the global scientific community from exchanging ideas and discussing results and findings in 2020 - using the world wide web. We presented our findings at various events, including the International Marine Conservation Congress 6 and the Third Maldives Marine Science Symposium. ORP Researcher Dr Stephanie Köhnk presented her findings on sea turtle behaviour in proximity to tourist resorts in one of the more northern atolls of the Maldives, and ORP Sea Turtle Biologist Jo Goodfellow discussed nesting beach monitoring on Gaadhoo island in Laamu Atoll.

The online format might have been new for every attendee, but great questions and comments after each presentation still highlighted the importance of interaction with the scientific community.

## SCUBA.DIGITAL

In October 2020, ORP took part in Scuba.Digital, an online dive show. We gave a total of five different talks in the session "Ocean's Drop", covering topics such as sea turtle biology, conservation and rehabilitation, as well as presenting ORP's work. Presentations were made in both English and Spanish to reach a wider audience.

Scuba.Digital had 800 attendees from all parts around the world and 200 exhibitors including 30 dive resorts, 27 liveaboard operators, 22 dive centres & liveaboards, 23 travel agents and consultants, 7 manufacturers, 6 magazines, 5 diving agencies, 5 conservation organisations, and loads more. 150 stage and session presentations covered a huge variation of topics.

**SCUBA**  
**.DIGITAL**  
**MEET US**  
**THE #1 ONLINE**  
**DIVE SHOW**  
**23-26 October 2020**

## LAAMAFARU FESTIVAL



#LAAMAFARUFESTIVAL2020

Laamafaru Festival is a joint venture between our partner resort, Six Senses Laamu, and the Laamu community, focusing on the entire marine ecosystem.

This year Six Senses Laamu launched the #LaamafaruFestival2020 social media campaign. Throughout December, educational photos and videos - created by the Laamu community, for the Laamu community - were published. The community shared knowledge about Laamu's marine ecosystems and ideas to help better protect them. ORP created a short video about ghost nets in the Maldives and encouraged the community to report incidences of entangled turtles.





**OLIVE RIDLEY  
PROJECT**

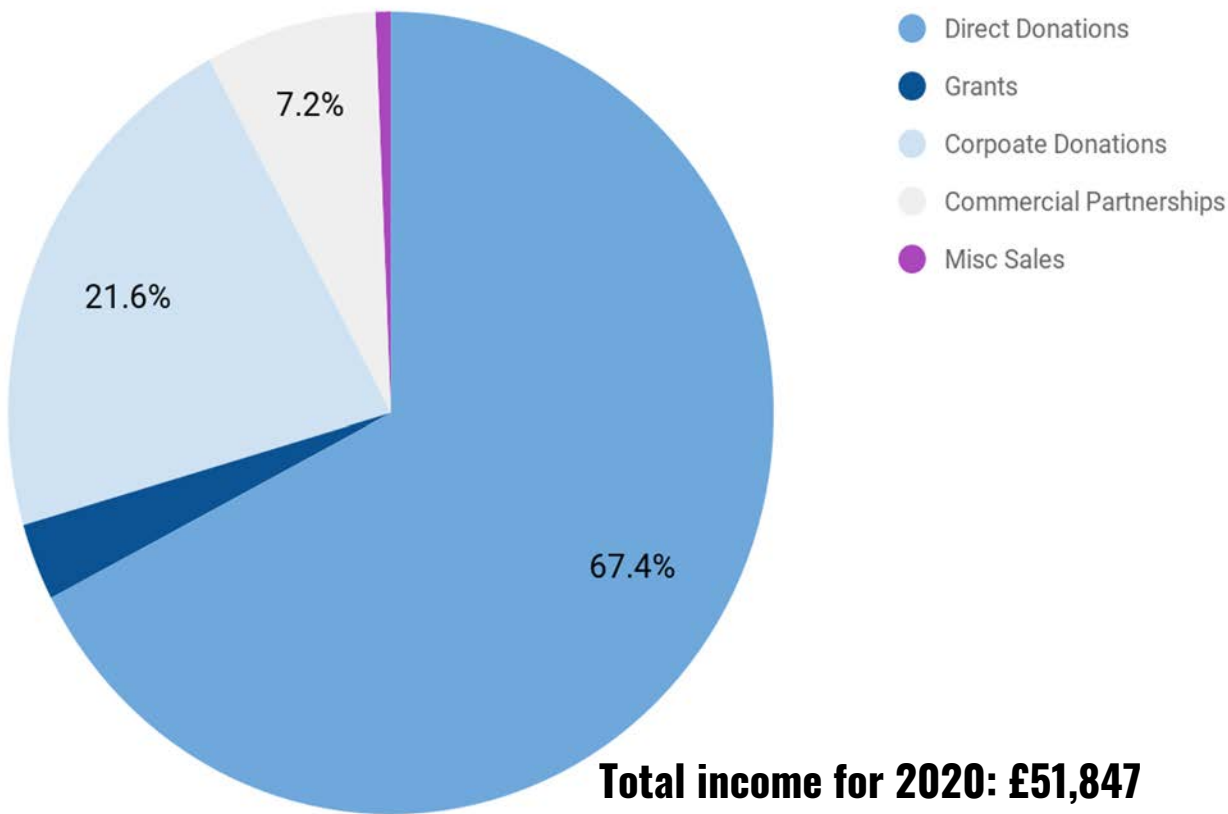
Registered Charity in the UK #1165305

# FINANCIALS

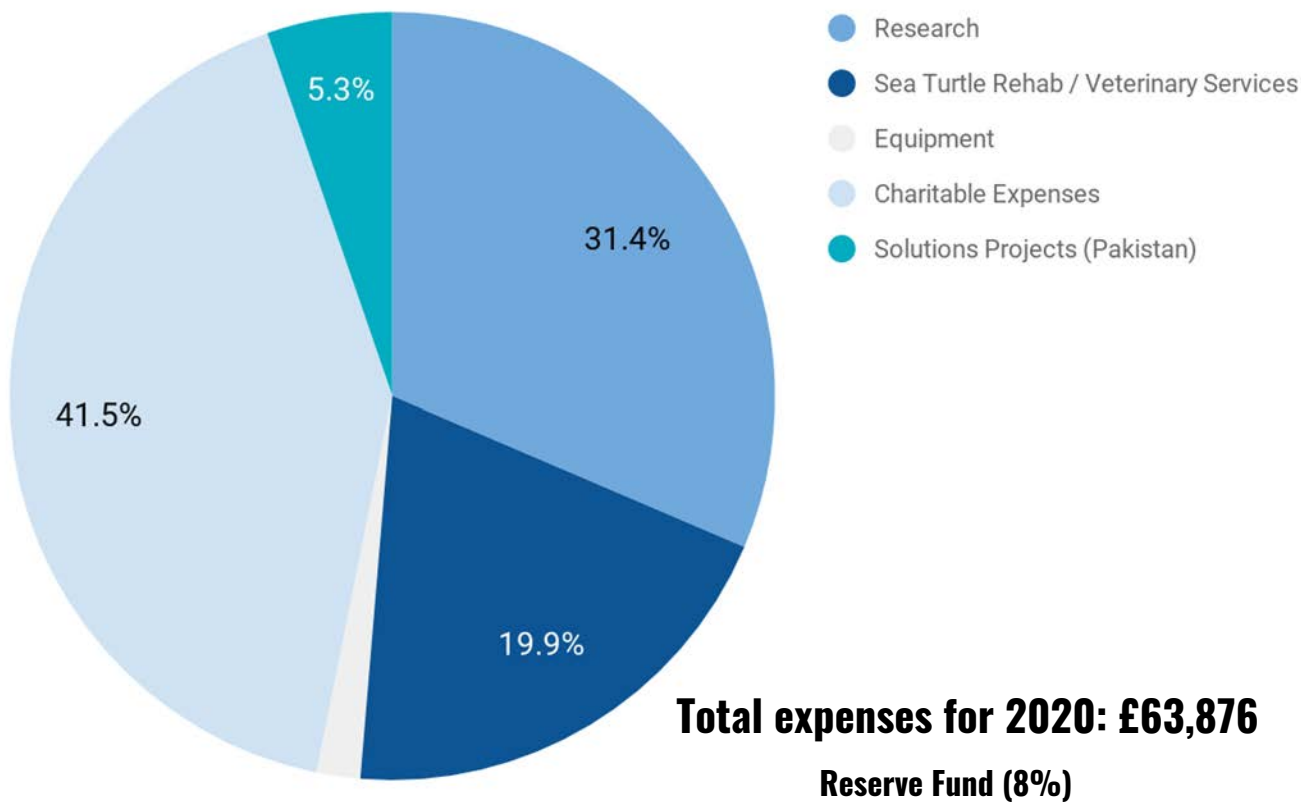




# HOW WE ARE FUNDED - 2020



# OUR EXPENSES 2020



## EXPAND DATA COLLECTION



## GHOST GEAR REPURPOSING



## FORAGING ECOLOGY



## TURTLE REHABILITATION



## BUILD CAPACITY



### 1. Broaden data collection in the Indian Ocean

- Broaden our sea turtle Photo ID and nesting research programs through collaboration with additional individuals, divers, resorts and local NGOs to increase data collection in the Indian Ocean.
- Work with relevant signatories to the IOSEA to increase data collection on ghost gear and turtle entanglement events in the northern Indian Ocean.

### 2. Expand our ghost gear recovery and repurposing projects in the Maldives and Pakistan

- Expand our ghost gear recovery efforts in the Maldives and initiate a circular economy pilot project.
- Replicate and expand our ghost gear circular economy projects in Pakistan.

### 3. Improve our understanding of sea turtle ecology in the Indian Ocean

- Assess green turtle feeding behaviour and diet composition.
- Identify major foraging habitats.
- Continue our satellite tagging research to understand olive ridley movements in the Maldives.
- Assess existing data gaps in sea turtle research and strive to fill these gaps in the Indian Ocean and beyond.

### 4. Provide the best possible care for injured sea turtles in the Indian Ocean

- Expand our rescue and rehabilitation facilities in the Maldives and the wider Indian Ocean.
- Utilise emerging evidence based veterinary medicine to ensure best veterinarian practices are implemented at our rescue centre and share these gold standard practices with other turtle rescue centres internationally.
- Continue our visiting veterinarian program and harness knowledge gained from these specialists.

### 5. Build capacity

- Build relationships with local NGOs, universities and local groups to help protect sea turtles and their habitats in the Indian Ocean.
- Continue to work with school groups to teach sea turtle ecology and threats.
- Expand our online learning tools to compliment national and international learning projects.

# PARTNERS AND DONORS 2020



We would like to express our sincere gratitude to all our adoptive parents, donors, fundraisers, partners, supporters, and citizen scientists! Your support over the years have enabled us to:

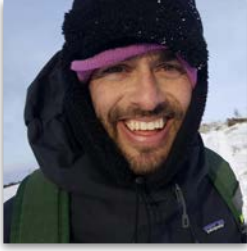
- treat more than 131 injured sea turtles and successfully release 76 back into the wild to date;
- recover more than 10 tons of ghost gear from beaches and oceans, and save countless turtles and other animals from getting entangled;
- make big headways in our research into the origins of ghost gear;
- find inventive ways to reuse recovered ghost nets;
- educate thousands of school children, tourists, divers, fishers and resort employees;
- and identify more than 4,500 individual sea turtles in the Indian Ocean and document tens of thousands of sea turtle sightings in our turtle population studies.

Everyone's generosity was incredible this year. We had an exceptional year for sea turtle adoptions and a phenomenal response to our Giving Tuesday campaign. Many supporters did birthday fundraisers for us and we received several generous gifts. We would also like to extend a special thank you to our long time supporter, Thorsten Albrecht, and our partners Six Senses Laamu, Coco Collection and Ocean Care for their unwavering support. We have only been able to do this thanks to all your generosity and support.

Thank you!



# THE ORP TEAM 2020



Dr. Martin Stelfox,  
Founder & CEO



Dr. Jillian Hugins,  
Senior Project Scientist



Dr. Claire Petros,  
Lead Veterinarian

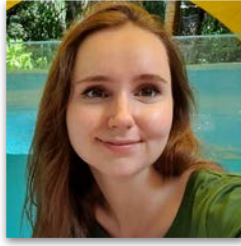


Shameel Ibrahim,  
Project Coordinator

## IN THE MALDIVES



Risha Ali Rasheed,  
Project & Volunteer Coordinator



Dr. Minnie Liddell,  
Veterinary Surgeon



Rosie Brown,  
Sea Turtle Biologist



Jo Goodfellow,  
Sea Turtle Biologist



Kristina Loosen,  
Sea Turtle Biologist



Emily Mundy,  
Sea Turtle Biologist



Laura Whiteley,  
Sea Turtle Biologist



Estrella Tapias  
Sea Turtle Biologist

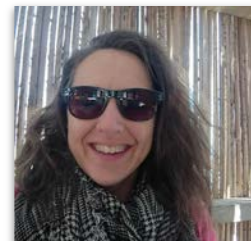
## IN KENYA



Dr. Joana Hancock,  
Project Manager



Leah Mainye  
Sea Turtle Assistant



Jane Lloyd,  
Sea Turtle Biologist

## IN PAKISTAN



Usman Iqbal,  
Project Manager



Asif Baloch,  
Project Coordinator



Waqar J Khan,  
Fashion Designer

## BEHIND THE SCENES



Dr. Stephanie Köhnk,  
Researcher



Rushan bin Abdul Rahman,  
Researcher



Dr. Claire Lomas,  
Veterinary Surgeon



Susie Gibson,  
Graphic Designer

## AMBASSADORS



Andy Torbet,  
Explorer & TV Presenter

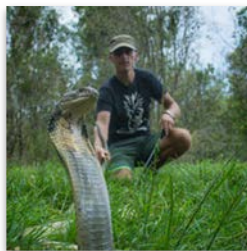


Matt Sorum,  
Rock 'n' Roll Legend

## BOARD OF TRUSTEES 2020



Dr. Michael Sweet,  
Trustee



Mark MacDonald,  
Trustee



Jannicke C Hallum,  
Trustee/Digital Media Manager



Matthew Shoulders,  
Trustee/Treasurer