# BLUE & GREEN LAAMU



The Marine Conservation & Sustainability Newsletter by the Maldives Underwater Initiative

FEBRUARY 2022

A shot caught by the Manta Trust team during drone surveys at Hithadhoo Corner





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#### THE BIG STUFF



178 megafauna surveys were conducted by the MUI and DBD teams



1,229 sharks were sighted



**498** rays were sighted



**545** turtles were sighted

#### OUR **EDUCATION**



1,674 moments of education were shared with guests



**162** moments of education were shared with hosts



**76** moments of education were shared with the community

### SIX SFNSFS CONSERVATION

#### A YEAR OF **CORAL RESEARCH**

This month, the Six Senses Laamu research team is proud to have finished their first full year of monitoring coral spawning events on the beautiful house reef.

A year ago, the project started when the team tagged 13 different colonies to monitor. Now that number has grown to 24, which are still being monitored on a monthly basis to check for signs of egg development. This continuous effort resulted in the team successfully recording spawning events of these tagged colonies in six separate months: January, April, June, October, November and December. These are incredibly important findings in the field of coral research, as little is still known about the reproductive cycles of coral species in Maldives, and up till now, nothing was known about this for corals in Laamu Atoll

The team is even more proud of the success of their ex-situ coral fertilization project, in which sperm and eggs of gamete bundles were successfully separated, cross-fertilized and developmental stages were observed from conception to the free swimming larvae stage, and finally settlement onto a rock and development into a coral polyp.

This month, a new research permit was also granted to Six Senses Laamu to continue their vital work in understanding how often corals reproduce in Laamu Atoll, as well as investigating which reefs are recovering well and for what reasons.

#### JUNIOR MARINE BIOLOGISTS NEAR AND FAR

During February, the Six Senses Laamu team was delighted to have so many opportunities to engage with the next generation of marine stewards from all around the world.

Junior Marine Biology has continued to be a very popular activity this year. Following on from one of our busiest months for the program in January, February also saw many Little VIPs learning all about our work and marine biology. In February, students deployed RUV (remote underwater video) systems, they surveyed the seagrass, identified different species and created conservation videos educating others on how we can protect the ocean!

February was also an exciting month as it marks the first international school talk given by one of our team This month MUI's Guest Education Coordinator, Greg, popped in (online of course) to Donhead Primary School, in the UK, to talk to them about what MUI do, including our Junior Marine Biology and Junior Marine Biology Online programs. All the students loved the talk and apparently "I want to be a Marine Biologist when I am older" was a common comment heard by teachers throughout the rest of the day.

A warm welcome to the team to Malik, Matthew, Christopher, Tassilo, Aurelia,

#### THE DIFFERENT STAGES OF RESEARCH WHICH WERE UNDERTAKEN IN 12 MONTHS OF CORAL RESEARCH AT SIX SENSES LAAMU:

1. Tagging Coral Colony



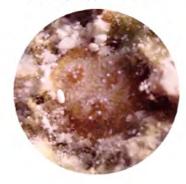
6. Monitoring of spawning event



7. Collection of egg & sperm bundles



12. Growth of new coral polyps on rocks



2. Cracking Colony



5. Pigmented eggs allow for estimation of spawning date



8. Ex-situ sepearation of



11. Planting of rocks onto house reef



3. Waiting for egg development



4. Observation of white, undeveloped eggs



9. Ex-situ cross fertilisation under microscope

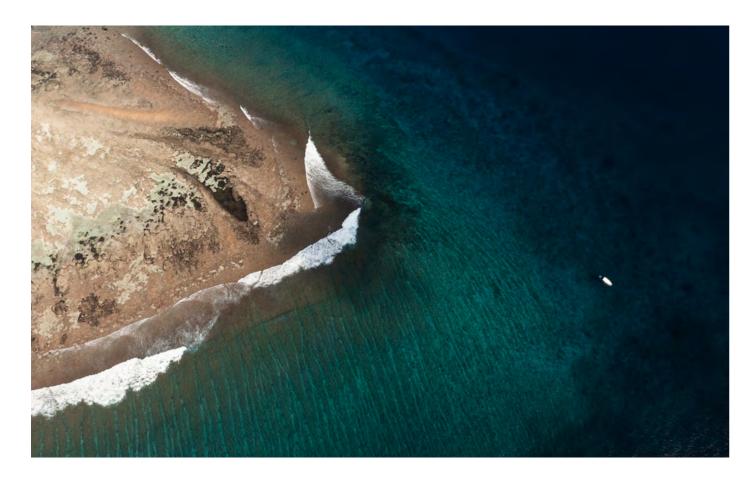


10. Coral larvae settling onto rocks in coral tanks



### THE MANTA **TRUST**





#### TAKING TO THE SKIES

Following the transition from the Southwest to the Northeast monsoon, the winds have calmed down and waters are glassy in the Maldives. This means now is perfect conditions for flying a drone!

The Manta Trust team were able to get out and resume their aerial surveys, at local manta



**4** drone surveys were conducted by the Manta Trust team

aggregation sites and along the southwest edge of the atoll, where manta ray surface feeding encounters are likely at this time of year. By using drone technology, the Manta Trust team have been able to expand their view of manta rays and their habitats in non-invasive ways and gain a unique perspective of their behaviour. In the long term this tool could also assist with mapping marine protected areas and monitoring any illegal activities within their boundaries. Lastly, drone surveys produce beautiful photos and videos of the marine habitats in Laamu. The possibilities are endless with drone technology!

#### EYES ON THE REEF SHARK SIGHTING

Although the majority of the Manta Trust's images on their remote underwater time-lapse cameras are heart-warming images of manta rays on cleaning stations, they also capture some more troubling images too.

During a camera deployment at Kurethi, a cleaning station in the southwest of the atoll, a grey reef shark was seen with marine debris wound tightly around the front of its body, most likely fishing line or discarded plastic waste. This will likely cut off blood flow, damage it's gills, or affect its ability to feed. It's important for us to see images like this to remember how much impact we have on this fragile planet. Fingers crossed the line will loosen and the shark can return safely to its place in the ecosystem.





**60** guests dived with and taught about manta rays



58 manta memos were sent to guests from dives



**○ ○** 

16 in water surveys were conducted by the Manta Trust team

4 remote underwater

photography surveys with

220 hours recording time



25 manta ray

#### WELCOME JINAAD!

This month, the Manta Trust Laamu team are delighted to welcome a new Assistant Project Manager - Jinaad.

Born and raised on Fuvahmulah, a remote one-island-atoll with unique marine life such as an annual migration of oceanic manta rays, the ocean was the perfect escape for Jinaad whilst growing up. He is inspired by ocean conservation and loves educating people about the organisms he is passionate about. Previously, Jiinaad has volunteered with the Olive Ridley Project elsewhere in the Maldives to gain experience in sea turtle research and conservation, and has worked as a Divernaster in his home atoll Fuvahmulah. Prior to joining the Manta Trust Laamu team, he completed a six-month internship as a Marine Biologist at Como



Maalifushi. Facilitating their coral propagation program, giving educational talks, and taking guests on whale shark excursions were a few of the responsibilities he had as a marine biologist there, that gave him the skillset for the next steps with the Manta Trust Laamu team.



## BLUE MARINE FOUNDATION

## REPORTING ON TWO YEARS OF LAAMASEELU MASVERIYA

This month, BLUE published an internal report which examined the effectiveness of the Laamaseelu Masveriya fisher program conducted here at Six Senses Laamu.

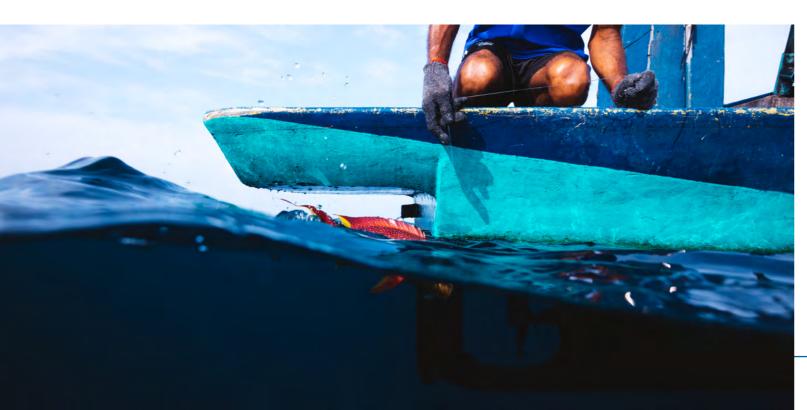
The Laamaseelu Masveriya program was established in February 2020 to ensure that Six Senses Laamu creates a market for responsibly caught fish in Laamu Atoll and facilitates fishing practices which have a minimal ecological impact upon local marine ecosystems. In doing so, the program aims to support local fisher livelihoods, whilst also promoting sustainable tourism and marine environmental stewardship.

To report on the last two years, the BLUE team used both fish landing data and local fisher interviews to develop a rounded perspective of the extent to which the program is achieving it's goals.

The team found that the program had been very successful in preventing the sale of protected and vulnerable species, such as parrotfish and grouper, to the resort. However, a few commercial species are showing signs of overfishing. Six Senses Laamu will be working with BLUE to implement changes and improvements to the program to ensure that those species

remain in healthy quantities here in Laamu. The report concludes with nine management directions as recommendations towards ensuring the establishment and longevity of a sustainable fisher program at the resort

It is the team's opinion that the program can be regarded as a shining light of marine fisheries conservation in the Maldives, with informed management of the program now critical in ensuring the resilience of Laamu's coral reef ecosystems into the future.



## TRAINING CORAL REEF CITIZEN SCIENTISTS

The Maldives Resilient Reefs conducted an Open Water Diving course this month, as part of BLUE's Laamaseelu Farudhun (exemplary citizen) citizen science program. Three young people from Laamu - one each from Hithadhoo, Maabaidhoo and Dhanbidhoo - as well as BLUE staff Hassan Moosa took part in the five-day training in February.

In this first batch of coral reef Laamaseelu Farudhun, the team were greeted with two familiar faces in Mohamed Waheed (Maabaidhoo) and Ali Faiz (Dhanbidhoo) who were MRR fisheries officer interns in the reef biomass surveys. 17-year-old Mohamed Aloof from Hithadhoo was a new addition to MRR's local citizen scientists. All participants successfully completed the training after four wonderful open water dives to some of the beautiful reefs of Laamu atoll – Huras Faru and Fanaa Giri

The participants of this course will take part in a Reef Check Eco-Diver course later this year. After completing these courses, they will be equipped with the training needed to monitor the coral reefs in the atoll. These exemplary citizens will then monitor Laamu's reefs twice every year to understand the changes happening to these ecosystems over long periods. Through this program, MRR hopes to create a community of people who value their environment and actively work to conserve it.



4 citizen scientists received their Open Water qualification









#### THE OLIVE

#### RIDLEY PROJECT

#### NEXT STEPS FOR PROTECTING GAADHOO

L. Gaadhoo, one of Six Senses Laamu's neighboring islands, would take anyone's breath away. Since it became uninhabited in 2016, the island has grown wild, with the only sounds that greet visitors being the startled calls of birds as they take flight. Since there is only one area where boats can dock easily on this island, it takes about an hour to reach the nesting beach on the southwestern side of the island. Here, it is apparent that the island hasn't actually been left completely alone, and there are clear signs of human disturbance of turtle nests.

At the moment, the company that has leased the island out for agriculture, governmentsubsidiary AgroNat, has hired locals familiar with Laamu, and from Gaadhoo, to carry on their work. In February, the Olive Ridley Project's team met with the current guardians of the island to discuss ways forward in creating effective management of the island. While Gaadhoo's nesting beach, it's seagrass meadows, reefs, and enclosed mangrove are protected, it'll take stakeholders buy-in and lobbying efforts to ensure better management. It's still a work in progress, but our hope for this year is that there will be continuous monitoring of the nesting beach that deters poachers from coming to take the eggs of these critically endangered species.





#### TURTLE OF THE MONTH

#### **DUM DUM**

Dum Dum is a Female Green sea turtle that has been a resident here at Six Senses Laamu's house reef since 2021, making it the second year of sighting her.

Dum Dum seems to love her beauty-sleep and rest. She's almost always seen resting on a particular spot on one of the pinnacles here on the house reef. She used to be really skittish and swam away whenever snorkelers come near. But, now she seems to be warming up to us and tends not to mind someone swimming around her.

Green turtles are known to eat about 2-4 kilograms of seagrass and go to reefs to rest. They can rest holding their breath for up to 7 hours by slowing their heart rate to as low as one beat per minute.





108 turtle ID photos were submitted, including 3 from guests



3 surveys were conducted on L. Gaadhoo by the ORP team



nest was laid at Six Senses Laamu



164 hatchlings started their lives at Six Senses Laamu when 2 nests hatched

### OUR HOME

#### INTERNATIONAL **MOTHER** LANGUAGE DAY

February 21 is International Mother Language Day. This day recognizes that languages can advance inclusion and help ensure no one is left behind in the wake of development. Here in the Maldives, the local language is Dhivehi with notable dialects spoken throughout the country.

This year, we wanted to take the opportunity to connect our guests with the local culture by teaching them some phrases in Dhivehi, and encouraging them to practice with our local hosts. To do so we provided every villa with a gift featuring a slice of Kiru Bokiba, a local favorite dessert, as well as a handout with some local phrases on it.



#### LEARN SOME **DHIVEHI** WITH US!

HELLO ASSALAAMU ALAIKUM Pronounced: As-sa-lam-alai-kum HOW ARE YOU? **KOBA KIHINEH?** 

Pronounced: Kee-hee-nay?

I AM GOOD **RAN'GALHU** 

Pronounced: Ra-ga-lhu

THANK-YOU **SHUKURIYYAA** 

Pronounced: shu-ku-ri-a

YOU'RE WELCOME MARUHABA

Pronounced: Ma-ru-ha-ba

WHAT IS YOUR NAME? KON'NAMEH TA KIANI?

Pronounced: Kon-na-may ta ki-a-nee

MY NAME IS... AHAREN'GE NAMAKI... Pronounced: A-ha-ren-ge na-ma-ki

#### A DIVE FOR HOPE

Further north in the Maldives, From February 25-27, 2022, Shafraz Naeem (Shaff), conducted a 50-hour dive called "Ocean 6/50, A Dive for Hope". This event aimed to bring the local and international diving communities together and create awareness on sustainable solutions to plastic pollution, climate change and marine conservation.

Whilst we were unable to attend the event in person due to busy operations, Six Senses Laamu endorsed it and we got involved from a far! On Sunday, February 27, towards the end of Shaff's 50-hour dive, seven divers from MUI and Deep Blue Divers geared up and took to the water with a banner to show our support.

This is just one of the many events happening across the nation this year as the Maldives celebrates its 50th anniversary of the tourism and diving industry the country. We are delighted to see so many of these initiatives keeping marine conservation and sustainability at the forefront of the communication and look forward to getting involved in more events as the year goes on.



## OUR COMMUNITY

#### INTERNATIONAL DAY OF WOMEN AND GIRLS IN SCIENCE

International day of Women and Girls in Science aims to raise awareness of the gender inequality in the STEM industry. Over the past decades, the global community has made a lot of effort in inspiring and engaging women and girls in science. Yet women and girls continue to be excluded from participating fully in science.

For us, February 11 has always been a significant day on our calendar as we strive to inspire local girls to pursue careers in STEM and raise awareness of the issues within the industry here in the Maldives. In previous years we have held events within the community at local schools and public areas to provide hands on education and an opportunity for young girls to ask questions to our team of female scientists. Last year, due to travel restrictions, we conducted a live event on social media where viewers across the country reached out via comments to ask questions.

This year, we wanted to shift the spotlight away from our team who we highlighted last year, and instead tell stories of amazing Maldivian women and girls who we have worked with over the years. These local women are representing marine science and conservation from across the country.

We reached out with a series of questions for them to recorded themselves answering. The final product was this video we edited to inspire women and girls in the community to get involved in marine science and conservation. The video was shared with the Schools, Women Development Committees, and across all social media channels to ensure maximum reach.





**CLICK HERE** TO WATCH THE VIDEO



To learn more about marine conservation and sustainability initiatives at Six Senses Laamu please contact:

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To stay up to date with the latest news, events and visiting experts follow the Maldives Underwater Initiative and Six Senses Laamu on social media

@maldivesunderwaterinitiative















