

BLUE & GREEN LAAMU

*The Marine Conservation & Sustainability
Newsletter by the Maldives Underwater Initiative*
AUGUST 2023



SIX SENSES
LAAMU



MUI

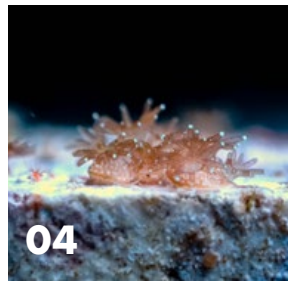
MALDIVES UNDERWATER INITIATIVE by Six Senses Laamu

© Miriam Staiger



WHAT'S INSIDE?




- 04 SIX SENSES CONSERVATION
- 06 OUR COMMUNITY
- 08 THE MANTA TRUST
- 12 BLUE MARINE FOUNDATION
- 16 THE OLIVE RIDLEY PROJECT
- 20 OUR HOME



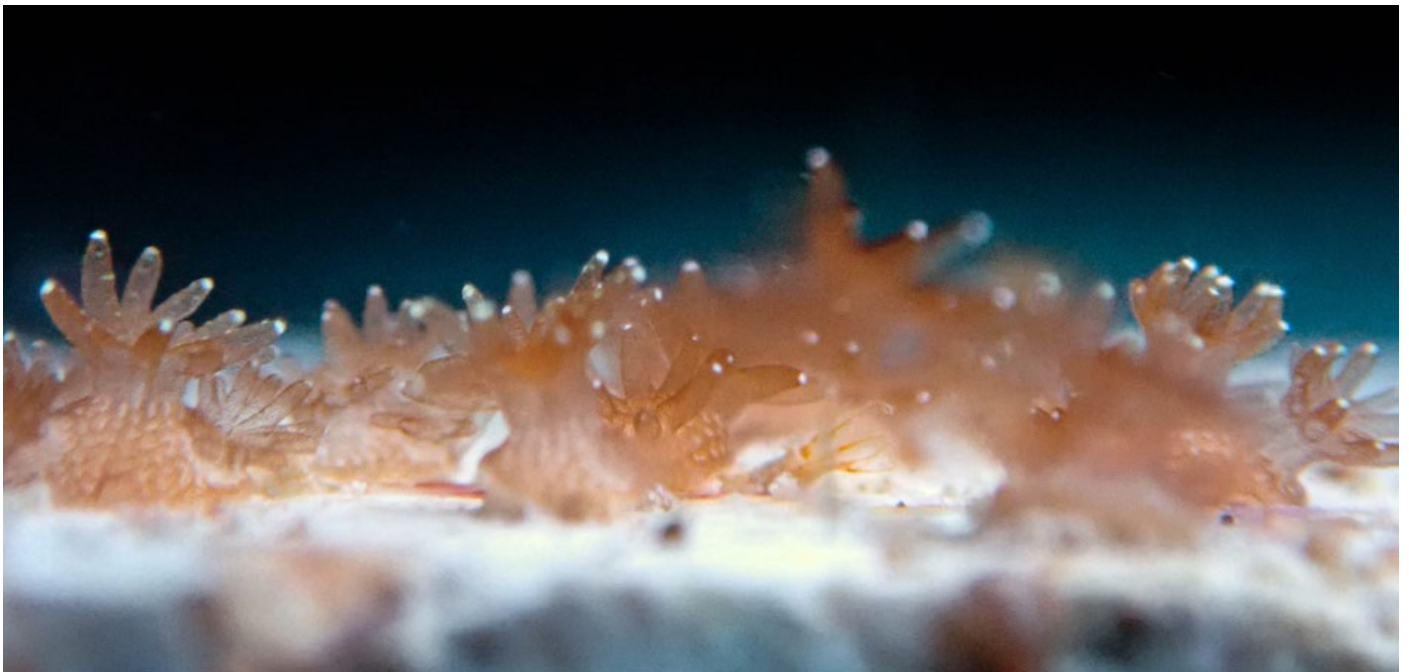
THE BIG STUFF

-  **375** sharks were sighted
-  **124** rays were sighted
-  **239** turtles were sighted
-  **430** Guests joined on megafauna surveys

OUR EDUCATION

-  **2032** moments of education were shared with guests
-  **112** moments of education were shared with hosts
-  **130** moments of education were shared with the community

SIX SENSES CONSERVATION



GROW WITH SIXSENSES CORAL EDITION



230 Coral
Babies in our lab

It has been 5 months since the MUI team and collaborators initiated the “Collaboratives for reefs in Laamu” Project, otherwise known as CRL, and within those 5 months, the coral babies in our Lab within the SHELL, are growing slowly but growing well!

In March this year, the team collected coral eggs during the spawning event following the March full moon. Following this the team released roughly 21,000 coral larvae on a small degraded part of our house reef, this site is being monitored over the long term to see how it changes over time. The team also kept a small portion of larvae in the Coral Spawning System within the Lab and the MUI team is observing the stages of coral growth from tiny Larvae to matured coral colonies. These colonies will be kept in the Coral Rearing tanks for at least 1-2 years for them to grow a few centimetres and more resilient to life on the reef, they will be planted out onto degraded parts of Laamu Atoll. The reason the MUI team focuses on this type of larval restoration is that the fertilization rate, survival rate and recruitment rate are so much higher than what would happen naturally in our oceans but one of the biggest factors for the team to focus on this method is that, larval restoration increases coral diversity due to natural sexual fertilization still occurring and this means that these baby corals are more genetically diverse and possibly more resilient and heat resistant than the colony they were spawned from and the chances of them to survive another bleaching event is hopefully higher! There is still hope for our coral reefs!



JUNIOR MARINE BIOLOGY INSPIRING OVER THE SCHOOL HOLIDAYS

The MUI team was excited to welcome many new members to the team this month, with many students joining the Junior Marine Biology program in August. This month's JMB sessions included a wide range of activities, from completing mini-research projects to learning how to ID and help turtles. All the new students started by learning about being a scientist and how the Maldives came to be and then headed out on the House Reef to look for some of the evidence for the formation of sand. Definitely, one of the favorite sessions is 'Maldivian Megafauna' where the students were taken to two amazing reefs on the resort snorkel boat. During the snorkel, the students collected data on the megafauna and one group of Junior Marine Biologists were lucky enough to see five sharks and three turtles in one afternoon!



Many of the children are continuing their studies at home with the online Junior Marine Biology Program. This includes ten weeks of videos, challenges, and homework, which they can complete in their own time. Keep an eye out for the release of the new Alumni program over the coming months for all our previous students!



18 Junior Marine
Biology Sessions
Completed



WELCOME TO THE NEW JUNIOR MUI MEMBERS

A warm welcome to the team to **Alexis, Arousha, Myeesha, Max, Dylan, Tilly, Isobel, Isla, Alicia, Pablo, Rush, Bowen, Matilda, Sam, Theo, Chloe, Hind, Finley** who all participated in Junior Marine Biology in August. And a big welcome back to **Espen and Tommy!**



20 Students graduated
Junior Marine Biology

THE MANTA TRUST



 **16** Remote Underwater Video Systems deployed

 **20** manta ray sightings

 **12** individual manta rays encountered

WOMEN'S EQUALITY DAY

On August 26, the Manta Trust organized a snorkel with the Women Development Committee of Kunahandhoo to celebrate Women Equality Day. Together with the whole MUI team and helpers from other departments in the resort, the team travelled to the local island of Kunahandhoo which is also the home island of our sustainability coordinator Laisha. Laisha invited her mum and sister to join the team on this snorkel – and together with 15 other women from different age groups they joined the snorkel. For most of the women, this was the first time they had ever seen the underwater world and for one very brave woman, it was the first time she had gone into the water since the 2004 tsunami! To overcome a trauma like this and put her trust in the team to help her through it was a wonderful moment for all involved and the team would like to thank the whole Women Development Committee (WDC) for their trust and support.

Before the snorkel, the women received a detailed snorkel briefing, as well as short talks by the Manta Trust, the Olive Ridley Project and Maldives Resilient Reefs about the different marine life and the importance of the protection of their environment. To emphasize the celebration of Women Equality Day the team also gave a short speech to empower women and girls to have more confidence. During the snorkel, they saw animals such as the hawksbill sea turtle, a black tip reef shark, different species of corals and fish, some of these were animals that the women had never seen before.

After the snorkel, lunch and refreshments were arranged by the WDC for the team. We would like to thank them for their kind hospitality, as well as Deep Blue Divers and Ocean Watersports for providing the snorkel equipment and lifejackets and the whole team and Six Senses Laamu for their assistance in making it a successful



 **1** Woman overcame trauma

 **15** Women joined community snorkel

MANTASTIC DIVES IN FONADHOO



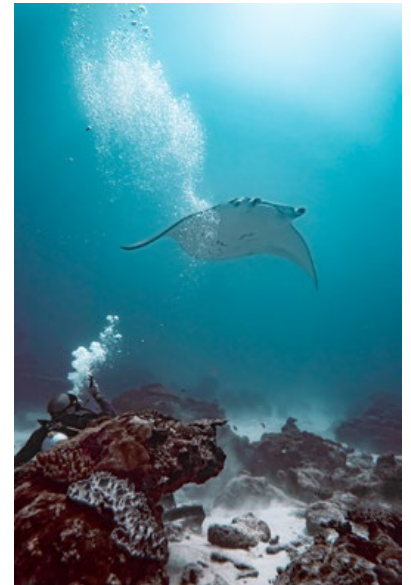
2 mantas cleaning for entire dive

This month the Manta Trust team joined 28 manta guest dives – but one of them stood out! A dive to Fonadhoo Beyru, one of the dive sites known for its deep manta ray cleaning station was a gift to the lucky divers who joined! After the dive briefing by the Deep Blue Divers instructor, the Manta Trust team gave the joining guests their manta ray briefing to give them a better understanding of the magnificent manta rays, their habitats, behavior, and the best practices to be followed while diving.

Five minutes into the dive, the team reached the manta ray cleaning station and immediately spotted the silhouette of a manta ray that was utilizing the station. The team gathered all divers around the sandy patch surrounding the cleaning station, who all followed the previously explained Code of Conduct so brilliantly that the manta ray kept cleaning without feeling disturbed.

It was a male manta ray called Haris who stayed there throughout most of the dive. When Haris had been cleaning for over 20 minutes already, he was joined by a big pregnant female manta ray called Velma (who became our manta of the month!). She seemed to be more shy, and the manta rays left the cleaning station together after a couple of minutes.

The dive itself was a great success as the Manta Trust team managed to put down an Eyes on the Reef Remote Photo Camera, an acoustic listening device with a 360 camera and even two Remote Underwater Video cameras – ready to record the next mantas that came by throughout the day! All the guests who joined the dive had a wonderful experience with the two manta rays Haris and Velma and some of them managed to capture some mesmerizing footage of the manta rays as they encircled the cleaning station slowly giving the cleaner wrasse time to clean them.



MOU SIGNED WITH HITHADHOO COUNCIL



The team is incredibly excited that after long discussions, the Manta Trust and the Hithadhoo Island Council have signed a Memorandum Of Understanding (MOU), expressing the agreement that the Manta Trust's scientific research is supported in their area of jurisdiction. The council president Shamoon supports the exciting research projects that are being conducted by the team at the local manta aggregation site Hithadhoo Corner, which will be called Kandu Kolhu from now on, and has asked the team to do more community outreach with the younger school children from Hithadhoo. The Manta Trust is very grateful for the relationship and is looking forward to more education and outreach sessions with the community from Hithadhoo.



1 MOU signed

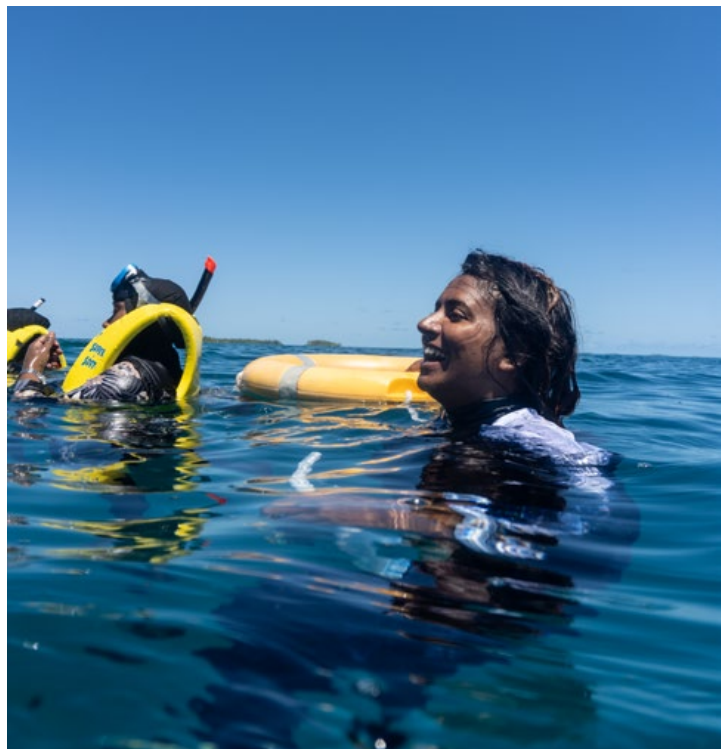
WELCOMING THE FIRST EVER MANTA TRUST COMMUNITY INTERN IN LAAMU

The Manta Trust is incredibly excited that thanks to Six Senses Laamu, they have been able to hire their very first Community Outreach and Research Intern in and from Laamu Atoll.

Mariyam Niuma, better known as Ni, was born in Laamu Dhambidhoo but grew up in Male since she was three. During her annual trips to Laamu Atoll, she would spend most of her time exploring the beaches learning about the natural environment. Her love for the ocean has taken her into surfing, diving, freediving, surf photography and working in the tourism industry. Prior to joining the Manta Trust and MUI team, Ni worked as a sea turtle biologist for our partner, the Olive Ridley Project based in North Male Atoll and she also worked as an intern at the Olive Ridley Project Marine Turtle Rescue Center in Baa Atoll.

Ni is passionate about teaching others about marine conservation and helping others discover the wonders of the underwater world. She hopes to implement this passion in her new position with the Manta Trust, as their very first Community Outreach and Research Intern in Laamu Atoll. In this internship she will help the Laamu team with their data processing, especially their ever-growing remote camera data, and focus on community outreach by hoping to ignite in others the same passion for ocean protection that she has developed over the years.

Six Senses Laamu supports the Maldives Manta Conservation Programme's RahVeshi Fund, an initiative created to establish long-term, locally driven research and outreach programmes to protect the natural resources of the Maldives, build local capacity for conservation in remote parts of the country, and help the Maldives adapt to the climate crisis by improving ecosystem-based resiliency.



1 Local Intern Hired

BLUE MARINE FOUNDATION



BLUE MARINE FOUNDATION

LAUNCH OF MALDIVES TOURISM CLIMATE ACTION PLAN

Blue Marine's Laamu Project Manager, Jenny, attended the launch of the Maldives Tourism Climate Action Plan in the capital city Malé. It was a formal event attended by over 50 people including the Minister of Tourism, the Director General of the Ministry of Tourism, United States Ambassador-Designate, the Maldivian President's Special Envoy for Climate Change and industry stakeholders. Jenny met the Minister of Tourism and engaged with several representatives of the Ministry of Fisheries, Marine Resources and Agriculture and Ministry of Tourism and Maldivian USAID representatives to inform them of Blue Marine's and MRR's Laamaseelu Masveriyaa sustainable fishing programme at Six Senses Laamu and its expansion to other resorts, which features in the action plan as an example for promoting local fisheries under the strategic objective to incorporate community experiences, products and priorities.



1 Action Plan launched



5 Ministry Representatives Engaged



1 Meetings held



LAAMU HITHADHOO CCA MANAGEMENT PLAN COMMUNITY CONSULTATIONS

Locally referred to as the “Baaney Kolhu” area in Laamu Hithadhoo, this region holds significant ecological importance. Our team has observed aggregations of Grouper and Napoleon wrasse, identified it as a resting area for green sea turtles, and recognized it as a known manta ray cleaning station. Recognizing this ecological significance, the council decided to collaborate with Blue Marine and MRR to designate the area as a Community Conservation Area (CCA).

The Blue Marine and MRR Team is delighted to have taken the next step in establishing the first-of-its-kind Community Conservation Area, funded by the UNDP’s GEF Small Grants scheme. The past month, the team, along with local consultant Salma Fikry, conducted four stakeholder consultation sessions, involving the local community, local fishermen, and atoll tourism operators. These meetings were designed to collect input and opinions from the local community regarding the management plan for the Community Conservation Area designation.

It was evident from these sessions that the community is enthusiastic about managing and preserving the area, as evidenced by the significant turnout of participants. In total, 59 individuals attended, including 15 fishermen, 40 community members, and 1 tourism operator. The valuable insights gathered during these discussions will be used to compile a report for the final designation, which will be presented to the Ministries.



 **40** Community members participated

 **15** Fishers Participated

 **4** Meetings held

 **1** Tourism operators participated

FISH OF THE MONTH RAINBOW RUNNER

 **3** Landings of Rainbow Runner

The Rainbow Runner is a strikingly beautiful and sleek pelagic fish known for its elongated body, deeply forked tail fin and vibrant iridescent colors that seem to shimmer like a rainbow as it glides through the open ocean. Their diet typically consists of smaller fish and squid, and they play a vital role in the marine ecosystem. The Rainbow Runner’s captivating appearance and graceful movements make it a sought-after subject for underwater photographers and a fascinating species for marine enthusiasts. Found in warm tropical waters, this semi-pelagic fish form large shoals to keep themselves protected from predators and increase their efficiency in getting food. However, this adaptation is disadvantageous for them since this increases their chance of being overfished as many can easily be caught from a single school, for this reason, Rainbow Runner is accepted as part of the Laamaseelu Masveriyaa programme under a very strict minimum size limit to ensure their stocks are healthy.



LMSV PROGRAMME ROLLOUT

The Blue Marine and MRR team recently concluded its scoping trips to expand the Laamaseelu Masveriyaa (LMSV) programme to three additional atolls. Initially trialed and adopted in 2020 by Six Senses Laamu to major success, this innovative approach works with local fishers to source the resorts seafood under a sustainable fishing code of conduct, providing fishers with an equitable market to sell their catch. As a result of a comprehensive report to mark its two year anniversary, the programme was further strengthened and developed to a point that both Blue Marine and MRR are now thrilled to rollout out the programme to other resorts across the Maldives.



Facilitated by the grant assistance from the Canada Fund for Local Initiatives, LMSV Project Manager, Jake Edmiston and Project Officer Ahmed Aiham, set sail to three diverse atolls in August, partnering with three additional resorts to promote the programme and conduct surveys with local fishers. These resorts include Amilla Maldives in Baa Atoll, Ayada Maldives in Gaafu Dhaalu Atoll and Six Senses' newest property – Six Senses Kanuhuraa. Spending over a week in each atoll, the team consulted extensively with the resort's management, discussing present fish landing and operational procedures to effectively adopt the programme. Crucial to the initiative were the meetings with fishers from neighbouring islands and island councils, gauging perspectives and sentiments regarding the viability of the programme. Coupled with invaluable knowledge gained from these discussions and the unwavering support expressed by fishers, we hope to establish a dependable and open market to supply tourism with sustainable reef fisheries that directly benefits and is driven by empowered local island communities.



168 Community Members Engaged



3 Resorts Visited



13 Island Councils met



101 Fishers Consulted



13 Islands Visited



113 Resort Staff Engaged





**OLIVE RIDLEY
PROJECT**

THE OLIVE RIDLEY PROJECT



6 new turtles identified



155 submissions by
MUI and DBD



43 in-water surveys



973 turtles in Laamu



1 Nests Laid

SITE VISIT FROM DR. STEPHANIE

Dr. Stephanie Köhnk, the Senior Project Scientist for the Olive Ridley Project, paid a visit to Six Senses Laamu at the end of this month to help set up our new sea turtle genetics research and discuss plans for future projects in Laamu. This marks an extremely exciting time for the project here as Laamu will be the first location in the Maldives to begin collecting genetic samples from deceased hatchlings and embryos, which will help improve our understanding of sea turtle populations in the Maldives.

While here, Dr. Köhnk helped run a special Sea Turtle Experience at the SHELL attended by 12 guests and shared her expert knowledge on sea turtle anatomy and genetics. She also gave a special presentation for 13 guests and 9 hosts on ORP's nesting research in the Maldives since data collection began in 2017.

Regular site visits such as these are important to strengthen and develop the project here in Laamu. Our team onsite and the wider ORP team are excited to see how the project will continue to grow in the coming years.



34 Guest and Host
Interactions

SEA TURTLE EXPERIENCES ARE A HIT!



In August, the ORP team organised and ran two Sea Turtle Experiences at the SHELL for a total of 27 guests. The hour-long activity first started with an introduction to the project and a Photo-ID Workshop for citizen scientists, which also involved a fun turtle ID game in the Glass Bottom Boat room! This was followed by a turtle rescue demonstration, where guests were able to try their hand at disentangling a turtle. Finally, it was finished with an exhibition of sea turtle anatomy in the lab, where guests were shown samples of green turtle embryos to demonstrate the different stages of development in an egg during incubation.

The aim of the experience is for ORP to not only share our knowledge of sea turtles, but our practical expertise as well, and give guests a chance to get hands-on experience with the work done by our team here. With the facilities provided by the SHELL, the team is able to enhance guest education and share so much more than was previously possible. This will definitely be a regular activity at the SHELL, which our team will continue to develop and hopefully open up to the local community as well.

SAY HI TO DOVER! (HK5572)

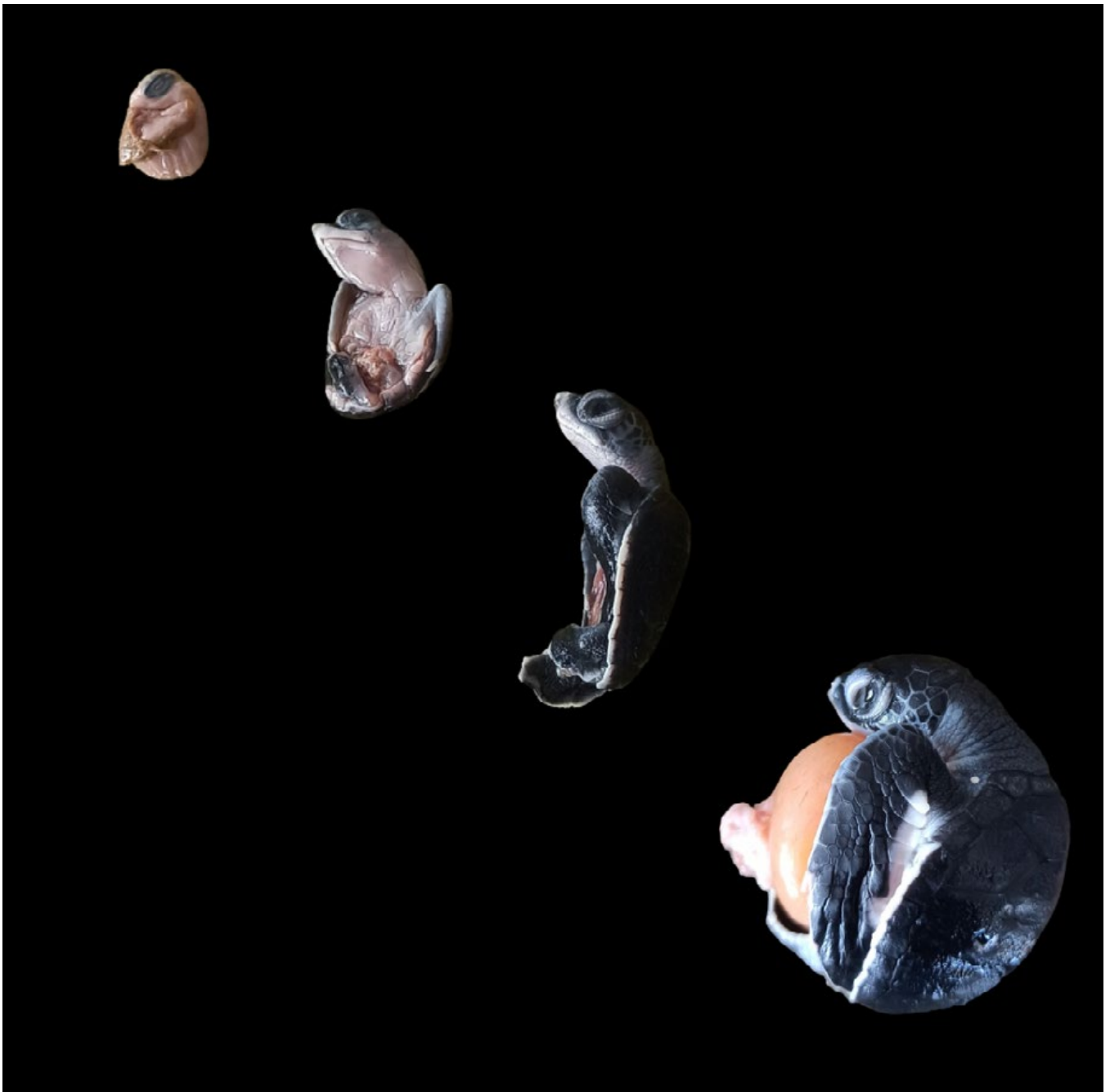
This turtle was first encountered on Haleema Haa on May 28th this year, and can now almost always be seen ruling over the shallow pinnacle, foraging for sea sponge and soft coral. Truly a King of the Hill.

Dover only measures about 35 to 40 cm in estimated carapace length, which means this little hawksbill is still just a juvenile! Hawksbill turtles tend to reach sexual maturity at an estimated 60 cm in carapace length, and, while still a smaller species than green turtles, can grow up to 100 cm in size!

However, almost all the hawksbills encountered in Laamu are juveniles! Our team believes that the reefs around the atoll act as a sort of nursery ground for hawksbill turtles after they leave their open-ocean phase. When a new recruit arrives, they will often search for a suitable foraging site, and when they've chosen one, they will show fierce loyalty to that patch of reef. Over the next few years, they will spend their time feeding and growing until they reach their next stage of life and potentially move on to new foraging grounds. Where that may be is still a mystery.



5 Total Sightings



A PEAK INTO A SEA TURTLE EGG

Ever wondered what happens inside a sea turtle egg?

After eggs are laid by nesting females, they will spend the next 50-70 days incubating in the sand, developing from a tiny embryo to a fully formed hatchling before hatching and emerging from the nest. During this period they will go through four different stages of development (as shown in the photo).

Our team was able to collect fantastic samples during one of the nest excavations this month that perfectly demonstrate these different stages for a green turtle hatchling. These embryos will temporarily be stored in the SHELL lab to be displayed for educational purposes for both resort and community visitors.

*All samples are collected and handled by trained biologists and under permission from the EPA.



OUR HOME

FROM EGGS TO CHICKS: OUR JOURNEY OF HATCHLING

August was a month filled with anticipation and joy for the Earth Lab team as we welcomed a batch of six adorable chicks to our Kukulhu Village. This exciting development is the culmination of a carefully planned and executed effort that began in June when we embarked on a journey to expand our feathered family.

In July, our dedicated team precisely collected 20 eggs from our free-range hens at Kukulhu Village. These eggs were selected with great care, ensuring that they were the result of a successful union between our hens and the resident rooster. This thorough egg selection process was crucial to guarantee the vitality of the new arrivals.

These carefully chosen eggs were then placed in our energy-efficient incubator. Over the course of 18 days, our team monitored and nurtured these precious eggs, providing them with the ideal conditions for growth and development. And on

the 18th day, our efforts bore fruit as we joyously welcomed six healthy chicks into our farm family. With this new addition, our total chicken count now stands at an impressive 96. These fluffy newcomers not only bring a sense of vitality and renewal to our community but also are a part of our larger mission of promoting sustainable living.

At Earth Lab, we firmly believe that sustainable practices are the key to preserving our environment and safeguarding our well-being. The heavy reliance on unsustainable farming practices poses a significant threat to our planet and the health of our communities. Our new chicks symbolize our commitment to education, as they will serve as living examples of the benefits of responsible farming and sustainable living.



45,207 KWH
Renewable Energy



453 eggs produced



415 Kg Organic Garden
Production



242 guests joined earth lab
education sessions



3727 Kg Compost
Produced



WE COULD NOT HAVE DONE IT WITHOUT YOU!

We are tremendously grateful to the multitude of donors who so generously donated funds to the MUI team's research projects; we are indebted to you all.

A special shout-out to our friends who donated \$10,000 USD and more:

Jeffrey
Andy and Amy
Erin and Don
Take Two London
Sabine and Guy

We are look forward to sharing with you the achievements that you made possible.

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

Greg Holder

Base Leader & Guest Education Coordinator
greg.holder@sixsenses.com

Lawrence Menz

Director of Sustainability and Conservation
lawrence.menz@sixsenses.com

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



@sixsenseslaamu

