



NEKTON MALDIVES MISSION

- BRIEFING -

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1. Nekton Maldives Mission: Time for the Planet

The Nekton Maldives Mission is an expedition to undertake the first systematic discovery and documentation of ocean life in Maldives from the surface to 1000metres. The Mission will support Maldives to prioritise ocean protection and sustainable management so that it continues to provide for the Maldivian people.

The Mission is a partnership between the Government of Republic of Maldives and Nekton, a UK marine research institute. A global alliance of 40 organisations are supporting the Mission (16 from Maldives, 24 international). Two expedition vessels will deploy over a dozen subsea survey and sampling technologies including two of the most advanced human operated submersibles, Remotely Operated Vehicles (ROVs) and other autonomous systems.

Dates: 4th September to 7th October 2022

2. The Voice of the Maldives – Story Summaries

Maldivians, like hundreds of millions of others, have contributed the least to the climate and biodiversity crises but are the most vulnerable to its impacts.

To strengthen and protect their nation and build resilience against the impacts of the crises, the Maldives are launching an audacious mission to discover and protect what's in their ocean, before the ocean's demise triggers their own.

Pioneering Scientific Research to Drive Conservation Action

1. The Frontline of the Rising Ocean

The Maldives is 99% ocean, 1% land. On average, it stands 1.5metres (4ft 7 inches) above sea level. With an expected half metre (1.5 ft) rise in sea-levels, at least half of the country is expected to be inundated in the coming decades. *The Nekton Maldives Mission will reveal the old ocean beach lines from the end of the Last Glacial Maximum (26,500-19,000 years ago), 120 metres below the surface and explore how coral reefs and ocean life have adapted to sea level rise.*

2. Maldives: The Coral Country – the canary in the climate mine

With the nation built on coral atolls, coral reefs are one of the earliest and most significant ecological casualties of global warming. Identifying new corals and new reef locations is critical for the nation's survival. *The Nekton Maldives Mission will help determine the location, health and resilience of coral reefs leading to their protection. These reefs will help strengthen Maldives' coastlines and population from the increased frequency and intensity of storms caused by climate destabilisation.*

3. Deep Reefs: the refuge of hope



Deep reefs (30+m) have a greater geographic reach than shallow reefs and can act as a refuge for organisms threatened in shallower waters. *The Nekton Maldives Mission will be the first to systematically map, survey and sample the Maldives' deep reefs. It is hoped the corals at these depths can support communities from shallower waters that are disturbed by the warming ocean and will help strengthen the nation's resilience to the impacts of the climate crisis.*

4. Subsea Mountains: The first scientific exploration of a seamount in the Northern Indian Ocean

Seamounts (undersea mountains) are hotspots of marine biodiversity and with high levels of biological endemism. Of 100,000 seamounts globally, fewer than 300 have ever been studied in any detail and almost all are unprotected. *The Nekton Maldives Mission will undertake the first survey and biological sampling of a seamount in this part of the global ocean and inform policy for the sustainable management of its resources.*

5. Health Check: Ocean Life to support human life

The diversity of ocean life provides oxygen, carbon cycling and regulates the planet's climate and chemistry. Its discovery and protection can help us strengthen the ocean's ability to support all life on Earth. *The Nekton Maldives Mission will be the first to systematically survey and sample the Maldives from the surface to 1000 metre depths. It will establish the first 'baseline health check' on the status of Maldives ocean and inform the protection of critical nurseries, spawning habitats and related ecosystems.*

6. Maldives: The Shark Spa

Graceful, Whale, Blacktip, Blacktip Reef, Oceanic Whitetip, Silky, Spot-tail and even Tiger – just some of the 40 different species of shark to call the Maldives home. Many are endangered and already on the global IUCN Red List. The abundance of these apex predators – along with 18 different species of rays - is a critical indicator of ocean health. *The Nekton Maldives Mission will be the first to document their lives in the depths of the Maldives to assess abundance and population health.*

Conservation Policy Impact

7. Protecting the ocean to protect the planet

100 nations have already pledged to protect at least 30% of their territorial waters by 2030, the goal set by scientists to help restore the health of the ocean for people and the planet. *The Nekton Maldives Mission's research goals have been determined by the Government of Maldives to meet national priorities to establish vast new marine protected areas (20% of Maldives waters/oceans) and policies for sustainable ocean management and global targets of 30% protection.*

8. What happens to the Indian Ocean will affect half the world's population

By 2050, half the world will live on the shores of the Indian Ocean. Currently it's the least known and least protected ocean. *With the primary fisheries limited to the sustainable, pole-and-line and handline tuna fisheries, multiple species protected and ambition to create new protected areas, Maldives will use the expedition data to further their scientific exploration and sustainable management goals.*

Deep Sea Technology



9. Advanced submersibles and subsea technology deployed to lead the first systematic exploration of the Maldives

There's very little data about ocean life beneath 30 metres and no systematic research undertaken beneath 20 metres across the entire Maldives. *Two deep diving human submersibles with acrylic transparent spheres, coupled with robots, autonomous systems and survey and sampling systems will be deployed on this historic mission.*

10. First Descent: Aquanaut Programme: Maldivian scientists will undertake over 30 first descents in the Mission's three-person submersibles, 'Omega Seamaster II' and 'Aurelia' to create a new national cadre of Aquanauts.

Building Equity & Inspiring a Generation

11. Turning the Tide on parachute science

'Parachute science' is widespread in marine research and a far more equitable and ethical approach needs to be undertaken. Sometimes referred to as 'colonial science', parachute science is when international scientists - typically from higher-income countries - conduct field studies in another country - typically of lower income, and then complete the research in their home country without any further engagement with others from that nation. *The Nekton Maldives Mission has been co-defined by the Government of Maldives with Nekton's international scientific team to meet national priorities. The expedition is co-led and co-delivered by Maldivian scientists, including all analysis and publications. New species will be named by Maldivians. All data is owned and vested by the Government of Maldives.*

12. International team

c. 60 people on two expedition ships including scientists, submersible crew, surveyors, ship crew and media teams. The scientific team is drawn from the Maldives, UK, Seychelles, India, Sri Lanka, South Africa, Spain, Greece, Netherlands and Ireland.

13. Inspiring a generation: Submarine Live

During the mission, from September 27th to 29th, the students, teachers and schools will be able to join Nekton and their aquanauts for three live lessons to discover the physics of submersible exploration, the variety of life in the deep sea, and what we can all do to care for our ocean. Submarine Live is available free via registration through Nekton's educational partner:

<https://encounteredu.com/live-lessons/nekton-submarine-live-2022>

3. The Team

The Maldives

- **H.E. Aminath Shauna**, Minister of Environment, Climate Change & Technology
- **Dr. Hussain Rasheed Hassan**, Minister of Fisheries, Marine Resources and Agriculture
- **Shafiya Naeem**, Director General of Maldives Marine Research Institute (MMRI)
- **Mohamed Ahusan**, Senior Research Officer, MMRI



- **Scientific Research Team:** Dr. Ahmed Riyaz Jauharee (Senior Scientific Officer, MMRI), Mohamed Shimal (*Marine Biologist, MMRI*), Fathimath Hana Amir, (*Marine Biologist, MMRI*), Hussain Moosa (*Assistant Marine Research Officer, MMRI*), Hussein Zahir, *SIRG*).

The Nekton & International Partners

- **Professor Lucy Woodall**, *Principal Scientist, University of Oxford and Nekton*
- **Dr Paris Stefanoudis**, *Senior Postdoctoral Researcher, University of Oxford and Nekton*
- **Sheena Talma**, *Science and Knowledge Exchange Manager, Nekton*
- **Nuria Rico Seijo**, *Laboratory Manager, Nekton*
- **Research Team:** Dr Anthony Bernard, *The South African Institute for Aquatic Biodiversity (SAIAB)*, Dr Kaylee Smit, *South African National Biodiversity Institute (SANBI) and University of Cape Town*, Professor Alex Rogers (*Science Director REV Ocean, Visiting Professor at the University of Oxford*), Professor Louise Allcock (*National University of Ireland*), Molly Rivers (*PhD Candidate, University of Aberdeen*), Dr Asha de Vos (*OceansWell, Sri Lanka*), Shri N. Saravanane Narayanane (*Centre for Marine Living Resources and Ecology, Ministry of Earth Sciences, India*), Dr. Sherine Sonia Cubelio and Dr. Sendhil Kumar Ramaiyan, (*Marine Living Resources and Ecology, Ministry of Earth Sciences, India*)

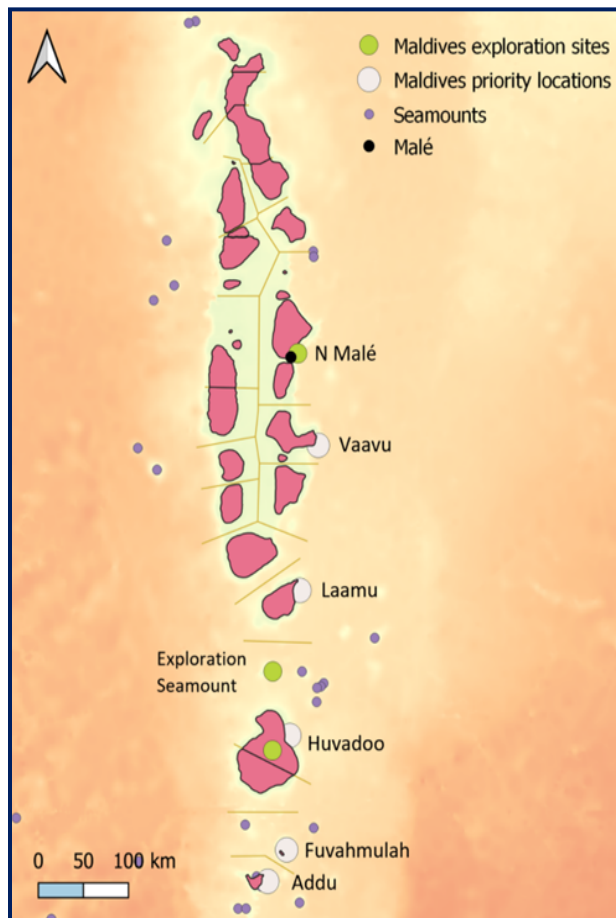
Marine Operations Team

- **Oliver Steeds** (*Mission Director, Chief Executive, Nekton*)
 - **Mike Pownall** (*Head of Marine Operations, Nekton*), **Denise Swanborn** (*Expedition Manager*)
 - **Kimly Doh** (*Chief Submersible Pilot, Omega Seamaster II*), plus 5-person sub crew
 - **Ryan Palmer** (*ROV Pilot, The South African Institute for Aquatic Biodiversity (SAIAB)*)
-



4. The Locations & Schedule

Date	Activity
1 September	Press Conference in Male, Maldives with Maldivian Aquanauts announced
4 th September	Nekton Maldives Mission - Expedition starts, Male, Maldives
4 Sep – 7 October	<ul style="list-style-type: none"> Nekton Maldives Mission – at sea – producing and publishing content and published and distributed for international news media (via Associated Press). Social media campaign – content produced by Nekton and posted on Nekton digital platforms Live interviews from the mission mothership with Maldivian aquanauts and international scientists.
7 th September	Maldives Knowledge Exchange Expedition starts, Male
11 th September	First Descent, Maldivian Aquanauts: Vaavu, Maldives
27 th / 28 th / 29 th September	Submarine STEM Live – live educational programme broadcast from the Mothership (15:00 Male / 12:00 CET / 11:00 UK time). Free access to all schools and teachers who register
5 or 6 th October	VIP visits to the Mothership – content distributed via Associated Press
7 th October	Expedition Ends, Male, Maldives
8 th October	Post Mission - Press Conference, Male, Maldives
2022-2023	Participation at global ocean, science, environmental events by Maldivian and Nekton teams highlighting the discoveries and impact from the Expedition
December / Jan (TBD)	First scientific results from the Expedition announced first in the Maldives. National media promotions (GoM), International Media promotions (Nekton)





Indicative Schedules – *dates subject to change due to weather and other operational requirements*

Date	Location
4 Sep	Male
5-10 Sep	Vaavu
11-15 Sep	Laamu
16-20 Sep	Huvadhu
21-25 Sep	Addu
26-30 Sep	Foamulah
1-3 Oct	Seamount
4-6 Oct	North Male
7 Oct	Male



5. Nekton & Indian Ocean Missions

Nekton's mission is to scientifically explore and conserve the ocean for people and the planet. Since launch in 2016, Nekton's impact includes:

1. **Discovery of the Rariphotic Zone** (130-300m down), one of the largest new ecosystems found on Earth in decades.
2. **Deep Ocean Live** - first live submersible news broadcasts, & subsea Presidential address (broadcast live in more than 100 nations)
3. **Protecting the ocean** - from Bermuda to Seychelles, NW Atlantic and Comores - protecting an ocean area equivalent in size to twice that of Germany.

Nekton is an independent, not-for-profit research institute and is a UK registered charity.

Indian Ocean Missions: 2019-2024: Since starting in Seychelles in 2019, Nekton has been working with nations of the Indian Ocean which have policy commitments to ocean protection to undertake a series of scientific research expeditions and galvanise national and regional ocean conservation and sustainable management.

Nekton Alliance: Nekton and the Nekton Maldives Mission are supported by an international alliance of organisations led by Mission Partner: **Omega** and supported by others including Teledyne Marine and Saab Seaeye (subsea technology), The Associated Press (News Agency), Kensington Tours (tourism), Helly Hansen (Apparel), University of Oxford, South Africa Institute of Aquatic Biology (SAIAB)

Definition: Nekton is a zoological noun that describes aquatic animals that can swim against the current.

www.nektonmission.org

6. Newsrooms & Media Contacts

Digital Newsroom – on Associated Press: <https://apmultimedianeewsroom.com/nekton>

- Video and photographic content, news releases will be available pre and during the expedition to ALL media through the mission newsroom.

Interviews

- Maldivian aquanauts and Nekton's international team are available for interviews pre and during the Expedition, including live on Zoom from the Mission's Mothership.

Press Contacts:

- **International:** Lisa Hynes, Head of Communications, Lisa@nektonmission.org +44 7966 272256
- **Maldives:** Maldives: Aishath Shazra, shzraishath@gmail.com / + 960 755 2293

Hashtags:

- **Maldives:** #maldives, #dhivehiraajje, #NooRajjee, #VisitMaldives.
- **Nekton:** #nekton, #oneoceanoneplanet, #maldivesmission, #nektonmaldives2022.



Appendix 1: Maldives

Size: 920,739 km² (including ocean) – over two and half times larger than Germany (357,021 km²)

Population: c. 550,000 people (2021)

Capital: Malé with about 200,000 inhabitants

Name: Republic of Maldives. The name ‘Maldives’ is from Sanskrit word ‘Mahal Dvipa’ meaning garland of islands’. Mahal Dvipa, around 11th century became Arabicised by middle eastern travellers as Mahaldib and later became Anglicized by the British empire as Maldives. However, throughout history the Maldivians have used the name of the country as ‘*Dhivehi Raajje*’, meaning ‘the country of the [Dhivehi people](#)’.

Language: The national language is Dhivehi, a language in Dhivehi script but derives from the Sinhala language spoken in Sri Lanka

Religion: The Maldives is the smallest Muslim country in the world.

Geography:

- The Maldives are located on the central part of a submerged ocean mountain range called Laccadive-Chagos Ridge stretching from the north to central Indian Ocean.
- The Maldives are home to some of the largest atolls in the world. Seventh largest reef system in the world.
- The Maldives is the flattest country in the world and there are no rivers in the Maldives and no hills
- Its highest point (on Villingili Island) is approximately 3m above sea level (MSL), but the average ground level across the country is approximately 1.5m above MSL.

The Atolls

- The Maldives is a chain of 26 coral atolls.
- Of the 1,192 islands in the Maldives, only 194 are inhabited.^{1,2} Only about 42 islands are home to more than 1,000 people.³
- The Atolls are the summits of the remains of a chain of sunken volcanoes formed around 60 million years ago along the Laccadive-Chagos Ridge. Studies indicate that coral reef atolls (of Coralline origins) have formed over hundreds of thousands of years on their sinking remains.⁴
- The word “atoll” is the only English word derived from Dhivehi, the Maldivian language. The original word *atholhu* translates to ‘*a ring-like formation of coral islands surrounding a lagoon*’.

Beaches & Parrotfish poo: Parrotfish are huge contributors to the beauty of the Maldives beaches. Their fine coral sand is the result of undigested corals they eat. Scientists estimate that an adult parrotfish can produce one ton of sand per year. Parrotfish are protected species in the Maldives.

First settlements

- There’s some archaeological evidence to suggest the islands were inhabited as far back as 1500 BC.
- The Maldives was part of the Indian Ocean trade routes (notably related to the cowry trade) and Arab traders were known to use the islands as a stopping point en-route to Asia.

¹ <https://doi.org/10.1016/B978-0-08-100853-9.00010-5>

² https://unfccc.int/sites/default/files/resource/SNC%20PDF_Resubmission.pdf

³ https://unfccc.int/sites/default/files/resource/SNC%20PDF_Resubmission.pdf

⁴ Godfrey T, 2018, Atlas of the Maldives A reference guide for travellers, divers and sailors, 6th edition, Cairns, atolls edition



Appendix 2: Voice of The Maldives: Story Details

Pioneering Scientific Research to Drive Conservation Action

2.1 Sea-level Rise – the Frontline of the Rising Ocean

Challenge

- 99% of the Maldives is ocean - only 1% is land.⁵
- The average ground level is 1.5metres above sea level (4ft 11 inches) with the highest natural point of 2.4 metres (7 feet and 10 inches).⁶
- Sea level has risen before – following the last glacial maximum (LGM) (from ~26,500 years to about 19,000 years ago)⁷, deglaciation caused sea level to rise around Maldives by an estimated 120metres. 122 to 128m was the sea level low-stand during the LGM.⁸
- The Maldives is projected to experience up to half a metre (1.64ft) sea level rise and to lose 77% of its land area by around the year 2100.⁹ If sea levels were instead to rise faster and by 1 metre (3.28ft) as some scientists project, the Maldives could be almost completely inundated by about 2085.¹⁰
- If the full volume of ice caps and glaciers melt on Earth, global sea level would rise approximately 70 meters (approximately 230 feet), flooding every coastal city on the planet.¹¹

Solution

- Reducing greenhouse gases / global warming
- Protecting and strengthening resilience of coral reefs to protect the Maldives' coastlines from storms and erosion are critical to mitigating the impacts of increased frequency and intensity of storms caused by climate destabilisation.
- See reef-building corals in sections below (Reefs and Deep Reefs).
- Adaptation to ongoing impacts.

Maldives Mission 2022

- Documenting the previous beach lines created during previous sea-level rises during the last glacial maximum. Successive melting, especially of Antarctic Ice Sheets, led to a successive increase in sea level rise over the following few thousands of years. The most rapid sea level rise occurred during Meltwater Pulse 1A (MWP-1A; ~14,500ya) and Meltwater Pulse 1B (MWP-1B, ~11,200-11,500 ya) which correspond to terraces (i.e. beach lines / sea levels) at 95m and 55m, respectively¹².
- The ancient beachlines provide critical indicators to how species and habitats have changed and/or adapted to sea level rise.
- Measuring sea temperatures at surface and different depths to inform and validate climate modelling being undertaken by the Maldivian Meteorological Office.
- Technology: Submersibles / Remotely Operated Vehicles (ROVs) / CTD Sensors (Conductivity, Temperature, Depth).

2.2 The Maldives: Coral Country – the canary in the climate mine. Atolls: Coral & Reefs

Challenge

⁵ <https://doi.org/10.1016/B978-0-08-100853-9.00010-5>

⁶ <https://doi.org/10.1016/B978-0-08-100853-9.00010-5>

⁷ DOI: 10.1126/science.1172873

⁸ <https://doi.org/10.1007/s00367-009-0174-2>

⁹ <https://doi.org/10.1007/s11027-007-9097-2>

¹⁰ <https://doi.org/10.1007/s11027-010-9220-7>

¹¹ United States Geological Survey, <https://www.usgs.gov/faqs/how-would-sea-level-change-if-all-glaciers-melted>

¹² <https://doi.org/10.1007/s00367-009-0174-2> <https://link.springer.com/article/10.1007/s00367-009-0174-2>



- The Maldives is a country built on coral and home to some of the largest atolls in the world¹³.
- All of the 1,192 islands (only 187 are inhabited)¹⁴ are coral reef atolls (or coralline islands), meaning that they are made of coral detritus and associated material - formed over time on the sinking remains of a chain of sunken volcanoes.
- The health of the reefs is fundamental to the two largest sectors of the Maldivian economy, tourism and fisheries.¹⁵ Apart from the economic benefits coral reefs provide, they are the first line of defence against waves and storms, which are becoming more frequent and intense.
- Reefs are known as the 'rainforests of the ocean' and account for 32% of known ocean biodiversity^{16,17}.
- 99% of tropical and sub-tropical reefs could be lost with 1.5 degree temperature rise above temperatures in the pre-industrial period, and 100% with 2 degrees¹⁸. Currently we are on course to reach 1.5°C between 2030 and 2052¹⁹.
- The preliminary results of the Coral Assessment for IUCN Red Listing, which are currently under review, suggest that all coral species assessed found in the Maldives are under threat with predicted future population decline.
- Even if countries meet commitments made under the 2015 Paris Agreement, Earth is on the trajectory for a 3.2°C temperature rise by the end of the century (source: UN)
- The size, complexity, and rich diversity also makes the coral reefs of the Maldives globally significant, containing 3.1% of the world's coral reefs (Spalding et al. 2001) and supporting 248 species of zooxanthellate corals and 1120 fish species, 887 of which are reef-dependant.

Solution

- Protecting and strengthening resilience of coral reefs to protect Maldives' coastlines from storms and erosion and critical to mitigating the impacts of increased frequency and intensity of storms caused by climate destabilisation.
- Identification, propagation and protection of climate resilient coral species – for instance hard coral communities provide 3D complex structure of the reef that is home to a range of invertebrates and fish, and are impacted by climate change (e.g., bleaching and warming water, sea level rise) - important to survival of Maldives.

Maldives Mission 2022

- Discovery of the geographic and depth of corals and reefs, their health and species type to inform management, protection and climate modelling impacts.
- Technology: Submersibles / Remotely Operated Vehicles (ROVs), Baited Remote Underwater Vehicles (BRUVs)

2.3 Deep Reefs: The Refuge of Hope

Challenge

- Deep reefs are *mesophotic* (30-150 m), *rariphotic* (150-300 m), and *cold-water corals* (>300 m) and are little known in the Maldives
- Globally, deep reefs have a higher geographic reach to shallow reefs and are just as important but remain largely unprotected.²⁰

¹³ <https://doi.org/10.1016/B978-0-08-100853-9.00010-5>

¹⁴ <https://statisticsmaldives.gov.mv/maldives-in-figures-june-2021/>

¹⁵ <http://maldivesmission.ch/commercial-affairs/economic-profile/>

¹⁶ <https://www.jstor.org/stable/4312965>

¹⁷ <https://doi.org/10.1016/j.cub.2014.12.022>

¹⁸ <https://doi.org/10.1371/journal.pclm.0000004> & <https://www.weforum.org/agenda/2022/02/coral-reefs-extinct-global-warming-new-study>

¹⁹ <https://www.ipcc.ch/sr15/chapter/spm/>

²⁰ https://doi.org/10.1007/978-3-319-92735-0_22



- Deep reefs are biodiversity hotspots providing many essential ecosystem services such as food production, carbon cycling and sequestration, coastal protection, and fisheries.²¹
- They are threatened by a multitude of stressors, including overfishing, pollution, and climate change.²²

Solution

- The Maldives' deeper reefs could provide coral species that strengthen the nation's resilience to the impacts of the climate crisis including acting as a refuge for organisms threatened in shallower waters, including commercially important species.
- Reef-building corals can be found up to 150m deep²³; other reef-building organisms can build reefs beyond that depth (e.g. 312m for deepest coralline algae²⁴); non-reef building corals - which also provide complex habitats - can be found to thousands of metres deep.²⁵

Maldives Mission 2022

- The first discovery, survey and sampling of deep reefs in Maldives, documenting depth, abundance, health and species type and determining if they are acting (or could act) as refuge for organisms threatened in shallower water.
- All data to inform management, protection including in determining offshore Marine Protected Areas (through the Marine Spatial Planning Process) and climate modelling impacts
- Technology: Submersibles / Remotely Operated Vehicles (ROVs), Baited Remote Underwater Vehicles (BRUVs)

2.4 Undersea Mountains of Hope: the first scientific exploration of a Seamount in the Northern Indian Ocean

Challenge

- Seamounts are active and extinct subsea volcanoes with heights greater than 100metres.
- The Maldives has 34 seamounts²⁶ and none have been explored. The majority of Maldives' atolls are formed on the summits of the ancient undersea mountains, formed by volcanic activity.
- The seamounts are biodiversity hotspots and vital fishing grounds for Maldivian yellow fine tuna and skip-jack tuna.
- At the heart of Maldivian folklore, seamounts today provides a focus of the tuna fishery for local fishers
- Scientists estimate there are at least 100,000 seamounts higher than 1,000 metres around the world.²⁷ Fewer than 300 of the 100,000 seamounts²⁸ have been studied in any detail. They remain one of the least researched parts of the ocean.
- Recent estimates suggest that, taken together, seamounts encompass about 28.8 million square kilometres – a surface area larger than deserts, tundra, or any other single land-based global habitat on the planet.
- Seamounts are highly productive fishing grounds for more than 80 commercial species worldwide. They provide protective nurseries for juvenile fish.
- They are generally very slow to recover from any disturbance

Solution

²¹ https://doi.org/10.1007/978-3-319-92735-0_49

²² <https://doi.org/10.1016/j.scitotenv.2020.138456>

²³ https://doi.org/10.1007/978-3-319-17001-5_4-1

²⁴ <https://doi.org/10.1371/journal.pone.0100142>

²⁵ DOI: 10.1126/science.1119861

²⁶ <https://doi.org/10.1016/j.dsr.2011.02.004>

²⁷ <https://www.jstor.org/stable/24861056> (Wessel et al, The global seamount census, oceanography Vol 23 24-33)

²⁸ <https://doi.org/10.1007/s10750-015-2327-9>



- Sustainable management and governance, protection of critical nurseries, designation of priority marine protected areas through the marine spatial plan (Noo Raajje)
- Amplifying the importance of seamounts to society, culture and economy.

Maldives Mission 2022

The first scientific exploration of a seamount in the Northern Indian Ocean combining mapping, visual documentation and sampling from the summit and down the flanks.

- Technology: Submersibles / Remotely Operated Vehicles (ROVs), Baited Remote Underwater Vehicles (BRUVs)
-

2.5 Health Check: Ocean life to support human life

Challenge

- The diversity of ocean life provides oxygen and carbon cycling contributing to the regulation of the planet's climate and chemistry. Its discovery and protection can help us understand and strengthen the ocean's ability to support all life on Earth.²⁹
- A healthy planet is dependent on a healthy ocean.
- Our ocean makes up >90% of The Biosphere³⁰
 - Biosphere (with capitalization also of the initial letter of 'The' (sic) when immediately preceding it): The integrated living and life-supporting system comprising the peripheral envelope of Planet Earth together with its surrounding atmosphere so far down, and up, as any form of life exists naturally.³¹
- The ocean regulates our planet's climate and chemistry, provides food and livelihood to billions, gives us half of our oxygen and absorbs 93% of anthropogenic heat.
- A third to two thirds of fish stocks are overfished and the proportion is still increasing, worsening food security for three billion people who eat fish as their source of protein.

Fishing / Tourism in Maldives

- Sustainable fishing is fundamental to the lives and livelihoods of Maldivians in the future - fishing has long been the lifeblood of the Maldivian economy, today it employs almost 10,000 Maldivian households and is the second largest industry in the Maldives (after tourism)³².
- Tourism represents 28% of GDP, 60% of foreign exchange and the main driver of economic growth.
 - Tourism sector has the largest percentage share of 12.13 per cent for 2020. Compared to previous year. Tourism sector decreased its percentage share by – 9.5 per cent for year 2020. This is due to the impact of COVID-19 pandemic on the tourism industry.³³
- Construction for tourism development often requires sub-surface dredging that if done without proper mitigation measures can lead to the destruction of reefs and biodiversity. There is a strong need to integrate climate resilience into economic development as much of the Maldives GDP is dependent on the health of its natural systems.

Solution: Fisheries

- Establish the first 'baseline health check' on the status of Maldives ocean below 20 metres and inform the protection of critical nurseries, spawning habitats and related ecosystems.
- Research shows, protection of critical nurseries, spawning habitats and related ecosystems, increases productivity of fisheries

²⁹ Ocean Dynamics and the Carbon Cycle: Principles and Mechanisms By Richard G. Williams, Michael J. Follows -> BOOK

³⁰ <https://doi.org/10.1146/annurev-environ-112420-013219h>

³¹ <https://doi.org/10.1017/S037689290001420X>

³² <https://www.gov.mv/en/files/project-name-maldives-sustainable-fisheries-resources-development-project-update.pdf>

³³ <https://statistics.maldives.gov.mv/nbs/wp-content/uploads/2021/10/Annual-GDP-2020.pdf>

**Solution: Tourism**

- Documenting the impact can support sustainable tourism development and provide mitigation plans for re-populating coral or re-planting reefs.

Maldives Mission 2022

- Documenting location, reach, abundance and health of reefs to inform development plans and highlighting their value for the economy and society.
- Technology: Submersibles / Remotely Operated Vehicles (ROVs), Baited Remote Underwater Vehicles (BRUVs), Neuston Nets, Tucker Trawls.

Maldives Mission 2022

- Comprehensive biodiversity assessments (abundance and biomass) at all locations from surface to 1000 metres to reveal the health status of ocean life, including commercially exploited species (e.g. groupers, lobster, crabs, sea cucumbers) → Policy advice for fisheries management, ii) Describe benthic communities and seafloor topography of known bait fishing grounds → Aid bait-fishery management plans and MPA designations, and iii) Describe pelagic fish communities in fisheries hotspots (e.g. seamounts) → Policy advice for fisheries management.
- New species are expected to be discovered including coral, fish, sponges and others.
- Documenting and sampling the 'Diel Vertical Migration - the largest migration on Earth - to assess biodiversity health and abundance to inform sustainable fisheries management. Every day, as the sun sets, animals rise from the depths to feed and return at dawn to the depths. Every night, they participate in drawing carbon from the surface, into the depths.
- Tourism: Documenting location, reach, abundance and health of reefs to inform development plans and highlighting their value for the economy and society.
- Technology: Submersibles / Remotely Operated Vehicles (ROVs), Baited Remote Underwater Vehicles (BRUVs), Neuston Nets, Tucker Trawls.

2.6 Maldives: The Shark Spa

Challenge

- Megafauna are at the apex of the food chain and essential to the health of Maldives ocean.³⁴
- The abundant diversity of shark (40) and rays (18) species³⁵, although never documented at depth in the Maldives, indicates their critical importance of the Maldives ocean' health (and also a vital contributor to tourism).
- Shark species include: Pelagic thresher, Silvertip, Bignose, Graceful, Whale, Blacktip, Blacktip reef, Oceanic whitetip, Silky, Spot-tail and Tiger.

Solution

- The Maldives has a moratorium on shark fisheries since 2010 and sharks are protected under the Fisheries Act 2019.
- Protecting these species results in a healthier ocean, supporting sustainable fisheries and a growth in tourism (e.g. manta ray tourism generates an estimated US\$15 million annually in revenue)³⁶

The Maldives Mission 2022

³⁴<http://202.1.196.72/jspui/bitstream/123456789/4603/1/National%20plan%20of%20action%20for%20the%20conservation%20and%20management%20of%20sharks%20in%20the%20Maldives.pdf> (Ali, K. and Shinan, H., 2015. National plan of action: for the conservation and management of sharks in the Maldives.)

³⁵ <https://doi.org/10.1016/B978-0-08-100853-9.00010-5>

³⁶ <https://doi.org/10.1371/journal.pone.0065051>



- From sharks (whale sharks, tiger sharks) to rays (reef and oceanic) and other charismatic ocean life, research to evaluate their abundance to determine ocean health.
 - Sharks for instance are apex predators and therefore a critical indicator of ocean health.
 - The location of Fuvahmulah will be the focus of tiger shark research in particular.
 - Technology: Submersibles / Remotely Operated Vehicles (ROVs), Baited Remote Underwater Vehicles (BRUVs).
-

Conservation Policy Impact

2.7 Protecting the ocean to protect the planet

Global challenge

- The ocean is changing faster than it has for millions of years.
- Marine ecosystems sit at the heart of many of the world's global challenges and opportunities: food security, medicine development, clean energy, climate regulation, job creation and inclusive growth

Marine Protection and sustainable use: Global solution

- Establishing well managed marine reserves is a proven way to build resilience against the effects of climate change, conserve marine life and associated habitats, enhance fisheries and food security, by protecting key spawning, nursery areas and population connectivity, and by delivering sustainable economic growth (jobs in fisheries and tourism sectors). (*Source: Marine Reserves can mitigate and promote adaptation to climate change, Roberts et al. PNAS, 2017; Science of Marine Reserves, Partnership for Interdisciplinary Studies of Coastal Oceans, PISCO*)
- The United Nations Sustainable Development goal and the Convention on Biological Diversity's (CBD) Aichi Target 11 calls for 30% protection of the ocean by 2020.
- To restore a healthy, resilient and prosperous ocean many leading scientists are calling for strongly protecting at least 30% of the ocean³⁷. More than 100 countries, in the Maldives have already committed to this target.
- It is estimated that at present 8.1% of the ocean is covered by marine protected areas, although only 2.4% is fully or highly protected from fishing impacts.³⁸

Maldives Mission

- The multi-disciplinary research programme combines biology, chemistry and geo-physical research to create a baseline of the health and state of the ocean
- The data from the Mission will inform the designation of marine protected areas and policies for sustainable ocean management.
- The Maldives Government is committed to designating at least 20% of its waters as protected areas. This will contribute to healthier ocean ecosystems for Maldives. Other benefits include:
 - o More resilient models of coastal protection
 - o Spawning grounds and nursery grounds for commercially important fish
 - o Improved livelihoods and jobs (fisheries and tourism sector (blue economy))
 - o Long-term planning for tourism and ocean economies
 - o Increased opportunity for marine education and research
- Technology: Submersibles / Remotely Operated Vehicles (ROVs), Baited Remote Underwater Vehicles (BRUVs), Neuston Nets, Tucker Trawls.

³⁷ <https://doi.org/10.1111/conl.12247>

³⁸ <https://mpatlas.org/>



2.8 What happens to the Indian Ocean will affect half the world's population

Challenge

- Already home to nearly three billion people with an average age of under 30; by 2050 the Indian Ocean – ‘The Ocean of the Future’ - will be home to half the world’s population. This young population holds the potential to have youth advocating for the planet and stands to be a powerhouse for development.
- The Indian Ocean is poorly known and has limited protection.
- The Indian Ocean is warming three times faster than the Pacific Ocean. The Indian Ocean Dipole (an irregular shift between warmer and cooler sea surface temperatures, and results from the interaction between the sea surface currents and atmospheric circulation) magnifies the impact of climate destabilisation, increasing the intensity, frequency and impact of extreme climate events and destroying lives, livelihoods, economies, biodiversity and food security.

Solution

- **Enhance Marine Science** - inform and coordinate decisions on the sustainable use and management of marine resources and priorities for restoration and resilience.
- **Harness a Sustainable Blue Economy** - support the development of a sustainable blue economy plan that delivers resilience, jobs and a just, equitable transition
- **Strengthen Natural Resilience & Restoration** - establish a just, equitably designed and managed connected network of ecologically and culturally representative protected areas in national and international waters, complementing global targets.
- **Advance Ocean Governance** - advance governance and management for sustainable use and management of marine resources and protected areas.

Maldives Mission

- Maldives 2022 is the second in a series of missions in the Indian Ocean led and coordinated by Nekton.
- Nekton, in partnership with Governments in the Indian Ocean region, aim to galvanise 30% protection by 2030.
- Each mission combines national commitments to ocean protection, marine spatial planning, applied research to inform ocean policy, inspirational communications to strengthen the public support for political action and investments in capacity development to create a legacy of long-term, sustainable ocean governance.
- The findings from the mission will inform Marine Spatial Plan currently being developed, along with helping identify marine protected areas and the sustainable management of the ocean.
- Technology: All

Building Equity

2.9 Turning the Tide on ‘parachute science’ (‘colonial science’)

The Challenge

- *‘Parachute science’* (sometimes referred to as *‘colonial science’*) is when international scientists, typically from higher-income countries, conduct field studies in another country, typically of lower income, and then



complete the research in their home country without any further engagement with others from that nation.³⁹

- Of the top ten countries with the most scholarly articles / publications focusing on warm-water (tropical and subtropical) coral reef biodiversity-related research, only two (Mexico and Indonesia) are not classified as high-income nations and scientists from low and middle income nations are often excluded from research activities undertaken in their nation's territorial waters.⁴⁰

The Solution

- The UN Decade of Ocean Science for Sustainable Development identifies the critical need for building capacity, developing scientific knowledge, building and sharing infrastructure and fostering partnerships between member states for a sustainable and healthy ocean.
- A healthy ocean can only be achieved by eliminating 'parachute science' and adopting a research culture that is more ethical and equitable where partnerships, knowledge-exchange activities, mutual trust and respect between researchers from host nations and international researchers are the rule, not the exception.
- Specific ways to build inclusive partnerships that involve the co-creation and co-delivery of projects that address national priorities include⁴¹:
 - o Establish academic collaborations with host-country institutions
 - o Liaise with government funding bodies of the host nation
 - o Develop a joint research agenda
 - o Engage with the next generation of researchers
 - o Share academic literature and Transparency in publishing
 - o Know the regulatory landscape

Maldives Mission 2022

- This mission is co-defined and co-delivered with Maldivian partners to meet national priorities with all data, including biological specimens, owned by Maldives.
- The field research is an international collaboration with scientists from Seychelles, South Africa (South Africa Institute for Aquatic Biodiversity, SAIAB), India (Centre for Marine Living Resources & Ecology) and Sri Lanka (Oceanswell).
- From the Maldivian side, the scientific research is led by Maldives Marine Research Institute. From Nekton's side, the Principal Scientist is Professor Lucy Woodall.
- Nekton works in a collaborative and inclusive way by committing to conducting marine research hand-in-hand with ocean nations. Turning the Tide on Parachute Science, Royal Society, read [here](#) and [here](#). Interview with the Nekton authors: Sheena Talma, Paris Stefanoudis (Read [here](#)).
- Technology: In addition to the technologies onboard Sheena Talma brings a low cost high tech camera (the Maka Niu) that has a capability of reaching 1500m, designed by the Ocean Discovery League

³⁹ <https://doi.org/10.1016/j.cub.2021.01.029>

⁴⁰ <https://doi.org/10.1016/j.cub.2021.01.029>

⁴¹ <https://doi.org/10.1016/j.cub.2021.01.029>



Appendix 3: The Technology

The most advanced submersibles and subsea technology deployed to lead the first systematic exploration of the Maldives

Submersibles

- **Omega Seamaster II:** Triton 3k3 (3 person, 3300ft/1000metre depth), acrylic, transparent sphere; equipped with a suite of five different cameras for documenting biodiversity, scanning sonar, ultra-short baseline positioning systems, manipulator arm and biobox for sampling. Endurance: eight hours; Life support: 96 hours. The submersible carries the name of *Seamaster II* in homage to *Seamaster I*, the name of the vessel of the late sailor and environmentalist Peter Blake.
- **Aurelia:** Triton 7500/3 (three person, 7500ft/2,286metre depth), the world's deepest diving submergence vehicle (DSV) with a transparent acrylic sphere (300mm pressure hull thickness). Equipped with six different camera systems, scanning sonar, manipulator and suction sampling, bioboxes and sensors. Endurance: 10+hours; Life Support: 96hours. Owned and provided by Mission's Strategic Partner: *REV Ocean*.

Remotely Operated Vehicles

- **SAAB Seaeye Falcon:** 300 metre depth, equipped with five cameras for biodiversity documentation and sampling systems.
- **REX:** 150 metre depths, equipped with four cameras, ultra-short baseline positioning systems, manipulator and cutting arm. Owned and provided by Mission's Strategic Partner: UK *Natural History Museum*.

Mothership:

- **R/V Odyssey:** combines state of the art oceanographic, exploration, scientific and filmmaking capabilities including seabed mapping system, wet labs, dry labs, on-board medical facility, hyperbaric chamber, a sophisticated Mission-Control Centre, as well as a broadcast-quality studio. Formerly, M/V Alucia, previously owned by *Ocean X*, the vessel supported the successful search for the wreckage of Air France flight 447, the filming of the first giant squid in the wild and BBC Blue Planet II. Prior to *Ocean X*, she was the support ship for the French submersible *Nautilus* on hundreds of sub dives including the first dives on Titanic in 1987. Owned by Mission's Expedition Partner: *Ocean Conservation, Exploration & Education Foundation (OCEEF)*.

Other Research Equipment includes:

- **Multibeam Mapping:** Teledyne Reson, 3000 metre depth and contributing data to Seabed 2030.
- **BRUVs** (Baited Remote Underwater Video system) – pelagic and benthic systems deployed at different depths from shallow to 1000 meters with bait attracting large predators and communities in specific locations. Operated by Mission's Strategic Partners, *The South African Institute for Aquatic Biodiversity, SAIAB*.
- **Neuston nets:** sampling the neuston layer - between air and water – specifically for zooplankton, the base of the marine food web. Sampling day and night to assess the productivity of the layer and to understand the activity and health of life within the water column.
- **Tucker Trawl:** opens at three different depths or multiple times at different depths. Required to sample the interface between the seabed and the water column . This 'Benthic-Pelagic coupling' is where habitats come together and very little is known about it across the entire Indian Ocean.
- **CTD** (Conductivity, Temperature, Depth): Plus other sensors deployed to determine the parameters of the water column including oxygen, nutrients, temperatures (vulnerability of hard corals), identification of deeper water and upwellings (more nutrients).



Appendix 4: Selected Team Biographies

The Maldives

1. H.E. Aminath Shauna, *Minister of Environment, Climate Change & Technology, Government of Republic of Maldives*
2. Dr. Hussain Rasheed Hassan, *Minister of Fisheries, Marine Resources and Agriculture,*
3. Shafiya Naeem, *Director General of Maldives Marine Research Institute (MMRI)*
4. Mohamed Ahusan, *Senior Research Officer, MMRI*
5. Mohamed Shimal, *Marine Biologist, MMRI*

The Nekton & International Partners

1. Professor Lucy Woodall, *Nekton Principal Scientist, University of Oxford*
2. Dr Paris Stefanoudis, *Nekton Senior Postdoctoral Researcher, University of Oxford*
3. Sheena Talma, *Nekton Science and Knowledge Exchange Manager*

Marine Operations Team

1. Oliver Steeds, *Mission Director, Chief Executive, Nekton*
2. Mike Pownall, *Head of Marine Operations, Nekton*
3. Kimly Do, *Chief Submersible Pilot, Omega Seamaster II*
4. Ryan Palmer, *ROV Pilot, The South African Institute for Aquatic Biodiversity (SAIAB)*

4.1 The Maldives Team

H.E. Aminath Shauna, Minister of Environment, Climate Change & Technology, Government of Republic of Maldives



H.E. Aminath Shauna's portfolio includes, protecting the natural environment and its resources, action and advocacy on climate change, science and technology development, and the implementation of policies and regulations related to the provision of energy, telecommunications, water, and waste management. She also provides policy direction to the Ministry's affiliated agencies, namely, the Environmental Protection Agency, Utility Regulatory Authority, Communications Authority of Maldives, National Centre for Information Technology, Maldives Meteorological Service, and the Biosphere Reserve Office. Shauna was recognized by the World Economic Forum as a Young Global Leader 2020. Shauna has a Bachelor of Arts in Political Science, Environmental Science and Economics from Westminster College, Missouri, USA.

**Dr. Hussain Rasheed Hassan, Minister of Fisheries, Marine Resources and Agriculture, Government of the Republic of Maldives**

H.E Dr Hussain Rasheed Hassan, is responsible for the development and sustainable management of fisheries, marine resources and agriculture in the Maldives and previously the Minister of Environment (2018-2021) and Minister of State for Fisheries and Agriculture (2008-2013). Dr Hussein holds a Masters with distinction, in the field of Fisheries Economics and a Doctorate of Philosophy in International Production and Trade in Principle Market Tunas, from the University of Portsmouth, UK and was previously the President of the College Council of the Kulliyathul Dhiraasathul Islamiyya (College of Islamic Studies, which is now the Islamic University of Maldives).

Shafiya Naeem, Director General of Maldives Marine Research Institute (MMRI)

Shafiya leads the Maldives Marine Research Institute (MMRI) at the Ministry of Fisheries and Agriculture responsible for policy driven strategic research, including on fisheries resources, mariculture and coral reefs to inform sustainable ocean management. From her Bachelor of Aquaculture, University of Tasmania to her MSc in Aquatic Pathobiology, University of Stirling, Shafiya's specialist research areas range from tuberculosis-type disease in sea horses to ongoing work in grouper hatchery development.

Mohamed Ahusan, Senior Research Officer, MMRI

Ahusan is a Senior Research Officer at MMRI and leads the Maldivian team aboard the Knowledge Exchange Expedition, part of the *Nekton Maldives Mission*. He also was instrumental in the development of the research science plan and the expedition from the Maldives side. Ahusan has been part of various research activities at MMRI, including on coral reefs, reef fisheries and mariculture with a current focus on tuna fisheries. At present, he focuses on pelagic fishery research activities at MMRI and engages with the Working Parties and the Scientific Committee of the Indian Ocean Tuna Commission, the Regional Fishery Management Organization for tunas in the Indian Ocean.

Mohamed Shimal, Marine Biologist, MMRI

Shimal has been working at MMRI since 2015, currently overseeing the Reef-based Fisheries monitoring and research. His main activities are focused on improving and implementing fisheries monitoring and research programs for data-limited reef-based fisheries in the Maldives. Shimal also works at the Sustainable Fisheries Resources Development Project, funded by the World Bank, as a Science & Research Coordinator, overseeing research components of the project. In addition to main research activities, Shimal has a specific interest in data management and data analysis through R programming. He holds a Bachelor of Environmental Science, specializing in wildlife and conservation biology from Charles Darwin University, Australia, and a Master of Science in Marine Biology at Bangor University, UK.

4.2 The Nekton & International Partners

Professor Lucy Woodall, Nekton Principal Scientist, Department of Biology, University of Oxford



Lucy is a Marine Conservation Ecologist. She is an Associate Professor at the University of Oxford. Lucy plans and leads the scientific component of multiple disciplinary ocean expeditions to understand the patterns of biological life in deeper waters and the consequences of human activities on them. Using principles of transdisciplinary practice and co-production, Lucy endeavours to conduct marine research that informs contemporary ecological challenges globally. In doing so, she aims to improve the access of local communities and scientists from low-income nations to their ocean to provide a truly representative global picture of marine life. Lucy is featured as one of Inverse's FUTURE 50, profiling people who will shape the coming decade. She is a

member of a number of international advisory groups such as IUCN Species Survival Commission Seahorse, Pipefish and Sea Dragon specialist group, and is the co-lead of the DOSI Marine Debris working group. Lucy is also a co-founder of the Heritage Marine Foundation.

Dr Paris Stefanoudis, Nekton Senior Postdoctoral Researcher, Department of Biology, University of Oxford



Paris is a marine biologist focused on documenting the distribution patterns of marine life in the ocean and identifying the underlying environmental factors shaping those. His main research focus is benthic and fish community structure and connectivity across depth in tropical coral reef ecosystems. In other capacities, he is the communications officer of the Deep-Sea Biology Society and part of the editorial team of the INDEEP/DOSI/DSBS-led newsletter Deep-Sea Life.

Sheena Talma, Science and Knowledge Exchange Manager, Nekton



Sheena Talma is a marine biologist and owner of Talma Consultancy, a marine based consultancy in the Seychelles Her time is split between Nekton and various other organisations including Save Our Seas Foundation lending her expertise both internationally and in the Seychelles. She also volunteers her time with the Sustainable Ocean Alliance as well as the Deep-sea Biology Society. Sheena has a keen interest in learning more about how we use the ocean and the implications of overfishing marine pollution and climate change in that relationship. Sheena holds a Masters degree in Ichthyology from Rhodes University and NRF-SAIAB, she is a National Geographic Explorer and a finalist for the local ocean hero award.



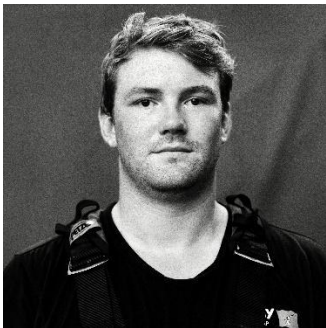
4.3 Marine Operations Team

Oliver Steeds, Mission Director, Chief Executive, Nekton



Oliver Steeds is the Founder, Chief Executive and Mission Director of Nekton and leads the management and development of the organisation and field operations. He's also a submersible pilot and a 'leading ocean explorer' (Economist) and formerly a critically acclaimed broadcast journalist with ABC, NBC, Channel 4, Discovery Channels and others. He is co-founder of Encounter EDU including the Ocean's Academy.

Mike Pownall, Head of Marine Operations, Nekton



Mike has over 10 years of industry experience executing, planning, implementing and managing large multi-disciplinary offshore projects in the offshore wind, oil & gas and construction sectors. He joined Nekton in 2019 as Head of Marine Operations working on management, scheduling, logistics, budgeting and design, HSE and risk management of Nekton's expeditions. His work aims to ensure safe and productive offshore operations and day to day activities onboard the vessel, and he will be on board R/V Odyssey during the first week of the Mission.

Kimly Do, Chief Submersible Pilot, Omega Seamaster II



Kimly is the Expedition's Chief Submersible (*Omega Seamaster II*) has been designing and prototyping robotics for the last decade. Graduating from Olin College of Engineering with a BS in Mechanical Engineering, her portfolio of ridiculous robots ranges from wearable exoskeletons, humanoid motorcycle-riding robots, all the way to several inflatable fabric arms made for NASA and ONR. In her free time, she hangglides, swing dances, and putts around San Francisco on her cute moped, in a never-ending mission to trying all the sweet cakes and pastries. Together with Erika Bergman, she runs an underwater robot camp for girls aged 12-16 hoping to create and mentor a network of strong, empowered women who love to explore their curiosities as well as the ocean and wild world they live in.

Ryan Palmer, ROV Pilot, The South African Institute for Aquatic Biodiversity (SAIAB)



Ryan combines a unique set of ecological, technical and management skills to facilitate and support marine research. He is currently the Marine Platform Manager at the South African Institute for Aquatic Biodiversity and also manages the African Coelacanth Ecosystem Programme, a programme that links researchers with research infrastructure and provides the necessary support for cutting edge multi-disciplinary projects. He is passionate about his work and loves the opportunity that it affords him to work at sea with like-minded people and contributing to the understanding of its systems.



Appendix 5: Mission Partners

The Maldives Mission 2022 is a partnership between The Government of the Republic of Maldives, Maldivian organisations, Nekton and Nekton's Alliance of international partners.

Maldives (16)

- **Government of Maldives:** Office of the President, Government Ministries - Fisheries, Environment, Tourism and Defence and Maldives Meteorological Services
- **Research / Academic:** Maldives Marine Research Institute,
- **Civil Society Organisations:** Noo Raajjee, IPNLF, Maldives Whale Shark Research Programme, Manta Trust, Coral Research Institute, The International Pole & Line Foundation, Small Island Research Group, IUCN Maldives, Blue Marine Foundation

Nekton's Alliance: International Partners (24)

Mission Partner: Omega

Expedition Partner: Ocean Conservation, Exploration and Education Foundation (OCEEF)

Strategic Partners:

- Teledyne Marine: Official Subsea Technology Partner
- Inmarsat: Official Satellite Communications Partner
- The Associated Press: Official News Agency Partner
- Helly Hansen: Official Apparel Partner
- SAAB Seaeye: Official ROV Partner
- Kensington Tours: Official Tourism Partner
- Commonwealth Blue Charter

Collaborating Partners:

- SAIAB: Research and Technology Partner
- University of Oxford: Academic Partner (Marine Ecology and Conservation Research Group)
- University of Exeter: Academic Partner
- Paralenz: Subsea Imaging Partner
- Sonardyne: Subsea technology Partner
- Natural History Museum (UK): ROV Partner
- Manta Air (Maldives: Maldivian Airline Partner
- REV Ocean: Submersible Partner
- Triton: Submersible Operations
- Priavo: Official Maritime Security Partner
- Encounter EDU & AXA: Official Education Partner
- Great Campaign & UK Government & FCDO.
- EYOS: Expedition logistics, Risk analysis
- UK Natural History Museum: ROV Partner
- Institute of Marine Engineering, Science & Technology (IMarEST): Institutional Partner
- Alfametal: Specialist Engineering

Nekton Founding Partners: AXA-XL, Kensington Tours, Garfield Weston Foundation