



**IOSEA Marine Turtle MOU**  
**4<sup>th</sup> Meeting of the Northern Indian Ocean Marine Turtle Task Force**  
Baa Atoll, Maldives & *online*, 7-9 March 2023

**IOSEA**  
Marine Turtle MOU

## **COUNTRY UPDATE: MALDIVES**





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## **COUNTRY UPDATE: MALDIVES**

### 1. New research or conservation projects related to marine turtles and/or their habitats



**OLIVE RIDLEY  
PROJECT**

Founded in 2013 by Dr. Martin Stelfox

Based in 7 different atolls of the  
Maldives

Focus Areas: Rescue & Rehab, Research,  
Education & Outreach



**A T O L L  
M A R I N E  
C E N T R E**

Founded in 2012 by Naifaru Juvenile NGO

Location: Lh.Naifaru

Focus Areas: Rescue & Rehab, Community  
Engagement & Education Outreach



## COUNTRY UPDATE: MALDIVES

### 1. New research or conservation projects related to marine turtles and/or their habitats

#### Population Monitoring

- Expansion of data collection locations through collaboration.



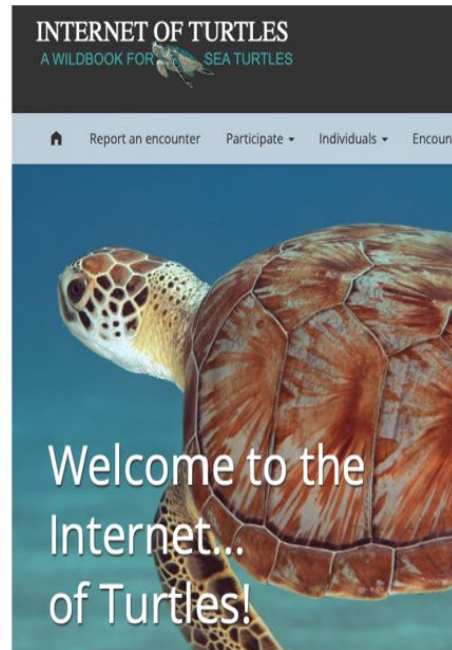


## COUNTRY UPDATE: MALDIVES

### 1. New research or conservation projects related to marine turtles and/or their habitats

#### Population Monitoring

- Total number of identified turtles: 1369 greens, 4497 hawksbills (as per 01.03.2023)
- Total number of identified turtle encounters registered on IoT: 34,266



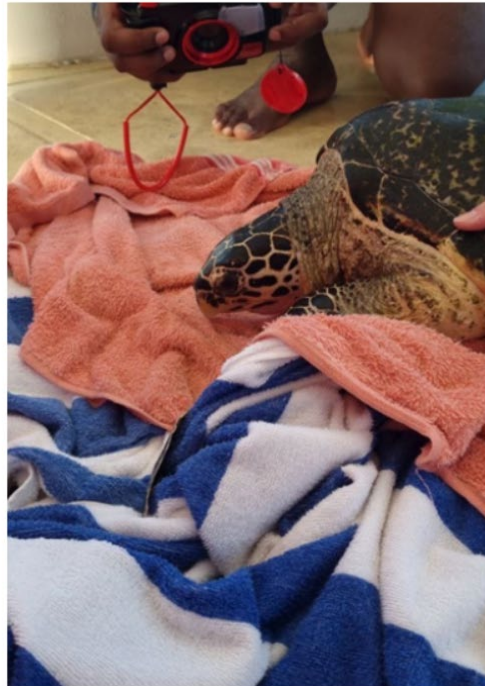


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#### Sea Turtle Expedition

- Establishing a population genetics baseline for the sea turtle populations in the country
- Also study sea turtle symbionts, tag hawksbills for spatial ecology, turtle hotspot benthos, gut fauna baseline





## COUNTRY UPDATE: MALDIVES

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#### Satellite Tagging

- Identify sea turtle migration, diving behaviour, foraging grounds and potential threats along the way.



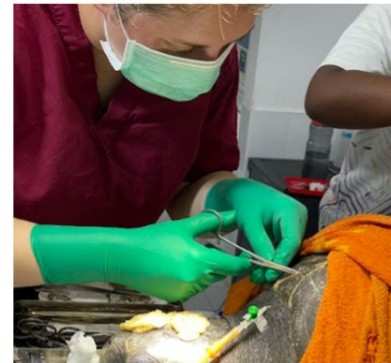


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#### Sea Turtle Health & Behaviour

- Documenting and developing new treatment methods for injured turtles.
- Aiming to improve rehab housing conditions for turtle patients and the implementation of enrichment objects.
- Develop protocols for understudied species.
- Monitoring sea turtle epibionts and parasite, comparing species composition in reef residents vs entangled animals.
- Gut health in turtle patients vs wild turtles, investigating the respective gut microbiome.
- Tourist-turtle interactions pre-and post COVID.





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#### Socio-Economic Research

- First estimate of the potential socioeconomic value of sea turtle tourism in the Maldives.



The screenshot shows the Euro-Divers website with a navigation bar at the top containing links for 'BLOG', 'CONTACT', 'Covid-19 & Diving', 'ONLINE CHECK-IN', and 'NEWSLETTER'. The main heading is 'Maldives Bucket List – Dive, Snorkel and Swim with Sea Turtles'. Below this is a 'Categories' dropdown menu and a 'Recent Posts' list with the following items:

- > Dive and Snorkel with Whale Sharks in the Maldives (06/08/2022)
- > Easy and Convenient Scuba Diving Education with Euro-Divers (07/07/2022)
- > Get a Taste of Tech Diving with TX Specialties (05/07/2022)
- > Reasons To Become a PADI Self-Reliant Diver (02/07/2022)
- > Winners of the Euro-Divers 50th Anniversary Underwater Photo Competition (29/06/2022)

The featured article includes a large image of a sea turtle swimming in clear blue water. The text below the image reads: 'Maldives Bucket List – Dive, Snorkel and Swim with Sea Turtles' and 'May 20th, 2020 Categories: Diving in The Maldives'. The article content states: 'If one of your dreams is to swim with a sea turtle in the wild, the Maldives provides the perfect opportunity to get that bucket list tick. It is highly likely that you will spot a few sea turtles whilst swimming, diving or snorkelling in the crystal clear waters around your resort island and our teams at Euro Divers know the reefs where they like to hang out. Although sea turtles are listed as endangered, five of the seven species of sea turtles in the world can be found in the waters around the Maldives, and there are two species that are seen far more frequently'.





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#### Protected Area: L.Gaadhoo Turtle Nesting Beach Protection

- Monitoring the most significant sea turtle nesting beach with community participation
- Ranger conducts scientific data collection & coordinate with EPA on monitoring the site (poaching/maintenance)
- Increasing community participation in conservation science
- Aims to develop an effective monitoring plan for the protected area management plan





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#### Education and Community Outreach

- 2022 Vaavoshi Festival and Lhaviyani Kanuhura Festival combined, reached about 5000+ people.
- Sea Turtle Guardian Program – a training program targeted to increase citizen scientists.





## COUNTRY UPDATE: MALDIVES

### 1. New research or conservation projects related to marine turtles and/or their habitats

#### Capacity Building of Locals

- Paid internship opportunities
- Employment opportunities





## **COUNTRY UPDATE: MALDIVES**

### 2. Large infrastructure developments affecting marine turtles and/ or their habitats

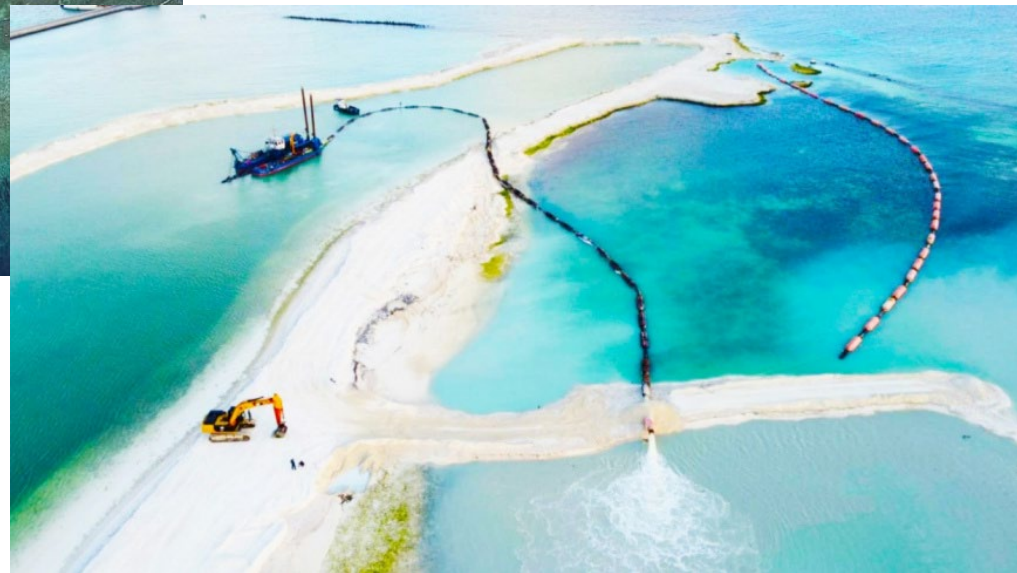
#### **Dredging and Reclamation**



Photo: MTCC

#### **Coastal Modifications**

Photo: MTCC





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### 3. Changes in national policy, laws, or management frameworks affecting marine turtles and/ or their habitats

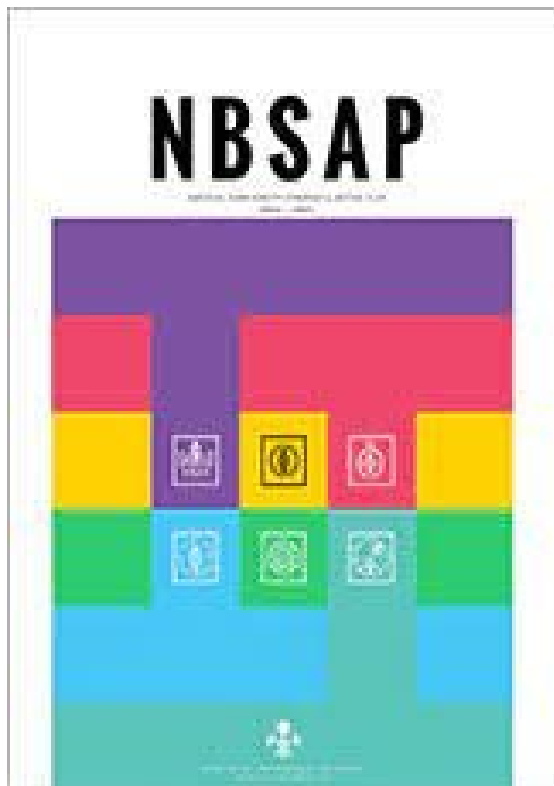




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### 3. Changes in national policy, laws, or management frameworks affecting marine turtles and/ or their habitats

#### Environmental Protection and Preservation Act (4/93)



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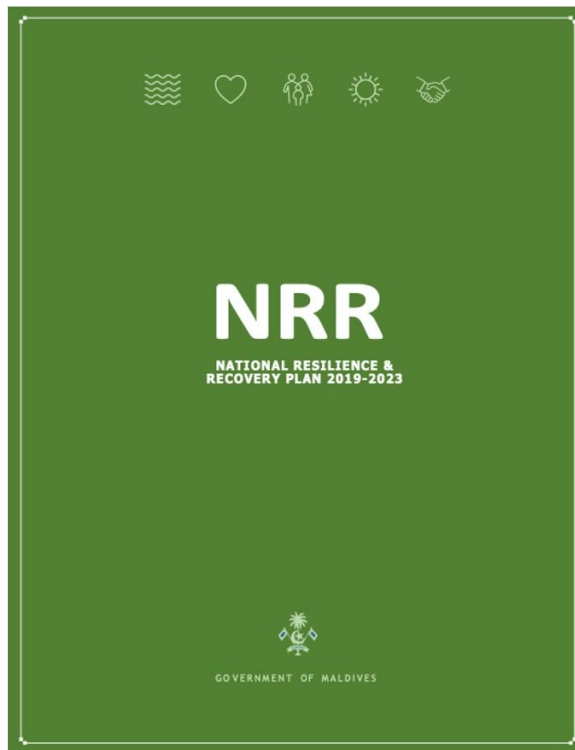


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Ministry of Environment, Climate Change and Technology  
 Male', Maldives

#### **Guideline for Recognising Areas as Other Effective Area-based Conservation Measures (OECMs) in Areas Leased for Tourism Operations**

|                        |  |
|------------------------|--|
| Introduction and Title | 1. (a) This Guideline outlines the procedure for recognising areas other than any nationally protected areas as "Other Effective Area-based Conservation Measures" (OECMs) as described under the United Nations Convention on Biological Diversity (CBD), to sustainably manage and conserve the biodiversity |
|                        | (b) This Guideline shall be titled as the "Guideline for Recognising Areas as Other Effective Area-based Conservation Measures (OECMs) in areas Leased for Tourism Operations in the Maldives."  |
| Objective              | 2. The objective of this Guideline is;   |



## **COUNTRY UPDATE: MALDIVES**

### 4. Emerging threats or challenges (including caused/ aggravated by the pandemic)

- Limited funding
- Public revenue focuses on basic needs
- Unsustainable development/encroachment of habitat
- Climate change







## COUNTRY UPDATE: MALDIVES

### 4. Emerging threats or challenges (including caused/ aggravated by the pandemic)

- Lack of general awareness and education on conservation
- Poaching & cultural sensitivities on hunting/harvesting turtle & eggs
- Limited resources in monitoring and enforcement/ unclear responsibilities for police
- Parachute science





## COUNTRY UPDATE: MALDIVES

### 4. Emerging threats or challenges (including caused/ aggravated by the pandemic)

- Geographic isolation of islands
- Limited local involvement





## COUNTRY UPDATE: MALDIVES

### 5. Achievements / success story

#### Maldives Red List



**National Red List**

**Green Sea Turtle**  
*Chelonia mydas*



**Endangered EN**

Extinction Risk

|                       |           |
|-----------------------|-----------|
| Extinct               | EX        |
| Extinct in the Wild   | EW        |
| Critically Endangered | CR        |
| <b>Endangered</b>     | <b>EN</b> |
| Vulnerable            | VU        |
| Near Threatened       | NT        |
| Least Concern         | LC        |
| Not Evaluated         | DD        |
| Not Listed            | NE        |


**Assessment Summary**

| National Distribution   | Population  |
|---|---|
| Significant numbers (1400) of green turtles were identified in Baa Lagoon and Uthmaniyahol. Nesting has been recorded in nine atolls, and in significant numbers in Baa, Kaafu, Thaa and Laamu Atoll. | 175 individual green turtles, including juveniles, have been identified throughout the country as of November 2022. |
| Habitat and Ecology   | Threats   |
| Marine and Terrestrial (Feeding and nesting habitats)   | In the ocean: Bycatch, marine pollution and debris. On land: habitat loss, photo pollution, poaching, pet trade.    |

Logos: USAID, IUCN, IOSEA

**National Red List**

**Hawksbill Sea Turtle**  
*Eretmochelys imbricata*



**Critically Endangered CR**

Extinction Risk

|                              |           |
|------------------------------|-----------|
| Extinct                      | EX        |
| Extinct in the Wild          | EW        |
| <b>Critically Endangered</b> | <b>CR</b> |
| Endangered                   | EN        |
| Vulnerable                   | VU        |
| Near Threatened              | NT        |
| Least Concern                | LC        |
| Not Evaluated                | DD        |
| Not Listed                   | NE        |

**Assessment Summary**

| National Distribution   | Population  |
|---|---|
| Significant numbers (1500) were identified in Aa, Baa, Haa, Alifan and North Male. Juveniles and nesting has been recorded in five atolls: Baa, Haa, Dhoo, Kaafu, Laamu and Uthmaniyah. | 3500 individual Hawksbill turtles including juveniles, have been identified in the Maldives as of November 2022.  |
| Habitat and Ecology   | Threats   |
| Marine and Terrestrial (Feeding and nesting habitats)   | In the ocean: Long line fisheries, marine pollution, habitat loss and reef degradation. On land: habitat loss, beach erosion, photo pollution, poaching, pet trade. |

Logos: USAID, IUCN, IOSEA

## National Red List

### Leatherback Sea Turtle *Dermochelys coriacea*

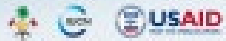


Extinction Risk

- Extinct **EX**
- Extinct in the Wild **EW**
- Critically Endangered **CR**
- Endangered **EN**
- Vulnerable **VU**
- Near Threatened **NT**
- Least Concern **LC**
- Data Deficient **DD**
- Not Evaluated **NE**

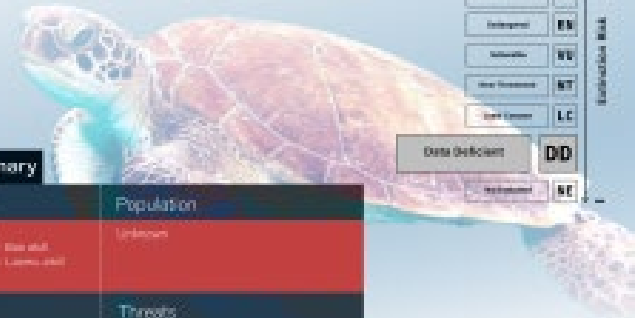
#### Assessment Summary

| National Distribution  | Population |
|--|------------|
| Signings summary:<br>1900 - 1900: Ashl<br>1900 - 1900: Ashl<br>1900 - 1900: Ashl | Unknown    |
| Habitat and Ecology  | Threats    |
| Unknown  | Unknown    |



## National Red List

### Loggerhead sea turtle *Caretta caretta*

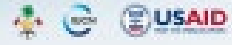


Extinction Risk

- Extinct **EX**
- Extinct in the Wild **EW**
- Critically Endangered **CR**
- Endangered **EN**
- Vulnerable **VU**
- Near Threatened **NT**
- Least Concern **LC**
- Data Deficient **DD**
- Not Evaluated **NE**

#### Assessment Summary

| National Distribution  | Population  |
|--|---|
| Signings summary:<br>2000 - 2000: Ashl<br>2000 - 2000: Ashl<br>2000 - 2000: Ashl | Unknown   |
| Habitat and Ecology  | Threats   |
| Marine and Terrestrial   | With the concentrations observed in the Mediterranean, the threats of Loggerheads will be similar to the identified global threats. |



## National Red List

### Olive Ridley Turtle *Lepidochelys olivacea*



Extinction Risk

- Extinct **EX**
- Extinct in the Wild **EW**
- Critically Endangered **CR**
- Endangered **EN**
- Vulnerable **VU**
- Near Threatened **NT**
- Least Concern **LC**
- Data Deficient **DD**
- Not Evaluated **NE**

#### Assessment Summary

| National Distribution   | Population  |
|---|---|
| Unknown - most individuals will not be seen as they are found in remote or inaccessible, but no documented fishing gear interactions. | Occasional sightings reported of few surviving individuals.   |
| Habitat and Ecology   | Threats   |
| Marine and Terrestrial  | Inter-generational marine debris and bycatch in fish and shrimp traps, fish seines, trawls, and potentially perennials. |





## COUNTRY UPDATE: MALDIVES

### 5. Achievements / success story

- Resource mobilization (GEFF small grant)
- Protected Areas
  - (29 sea turtle ecosystems declared as protected areas)
  - Protected Area management at L.Gaadhoo and B.Olhagiri
- Biosphere Reserve (3 atolls declared as BR)
- Strengthened regulatory framework and enforcement (guidelines/management plan)
- Long term data collection through permits (nesting data, turtle injuries, nest relocation)
- Improved monitoring and inspections
- Govt capacity building in research
- Increase in research activities including citizen science submissions
- Sea turtle booklet

