
MONITORING
LOG BOOK



DUGONG RECOVERY PROGRAMME

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Recovery of Dugongs and their habitats in India - An integrated participatory approach

PROJECT DURATION

5 years (2016–2021)



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INTERNATIONAL PARTNER

Memorandum of Understanding on the Conservation and Management of Dugongs and their Habitats (CMS-Dugong MoU) Signatories

IMPLEMENTING AGENCIES

Wildlife Institute of India
Tamil Nadu Forest Department
Andaman & Nicobar Department of Environment & Forest
Gujarat Forest Department
Indian Coast Guard
Indian Navy

NATIONAL PARTNERS

Zoological Survey of India
Indian Institute of Science, Education and
Research- Kolkata
National Centre for Sustainable Coastal Management
Central Marine Fisheries Research Institute
Bombay Natural History Society

REGIONAL PARTNERS

Marine Police
State Fisheries Department
Gujarat Ecological Education and Research (GEER)
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Wildlife Trust of India
OMCAR Foundation
Suganthi Devadason Marine Research Institute
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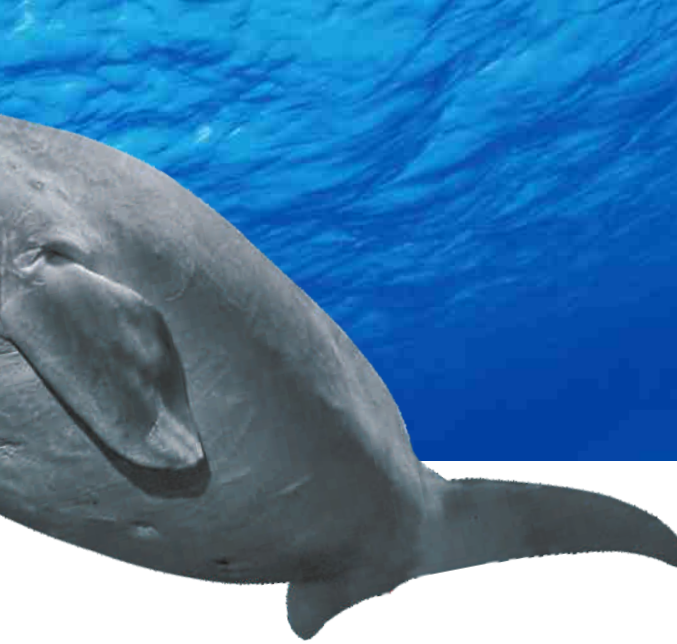
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PREFACE

The Ministry of Environment, Forest and Climate Change (MoEFCC) entrusted the Wildlife Institute of India in 2015 to prepare and implement Endangered Species Recovery Plans (ESRP) of Dugong along with 3 other wild animal species (Great Indian Bustard, Gangetic Dolphin and Sangai) under the National Compensatory Afforestation Fund Management and Planning Advisory Council (NCAC). The Dugong ESRP includes research and management actions imperative to stop the population decline and support the recovery of this highly threatened species. With substantial funding under this program, necessary ground interventions have been initiated to ensure the long-term survival of dugongs in the wild through multi-stakeholder partnerships and support of the local communities. This project aims at implementing the “National Action Plan for Dugong Conservation in India” jointly with various stakeholders such as State Forest Departments, other line agencies and local communities to recover the population and habitat of dugong in India within next two decades.

Dugong (*Dugong dugon*), also known as Sea Cow, is one of the four surviving species in the order Sirenia and the only existing species of exclusively marine herbivorous mammal. Dugongs are naturally found in calm sheltered, nutrient-rich water,



generally in bays, shallow island and reef areas which are protected from strong winds and heavy seas and which contain extensive seagrass beds. In India, seagrass habitats are present in Gulf of Mannar, Palk Bay, Gulf of Kutch and Andaman and Nicobar Islands. The population of dugongs in India is expected to be less than 250 individuals in highly fragmented habitats. Several threats contribute to their continuous population decline, which include seagrass habitat loss and degradation, fishnet entanglement, indigenous use and hunting and coastal pollution among others.

This dugong monitoring logbook has been developed for involving State Forest Department, Indian Coast Guard, Indian Navy, State Fisheries Department, Marine police, Fisherfolk and other stakeholders to help generate ground information on marine megafauna in and around critical dugong habitats. The data collected through the logbook will help in monitoring important biodiversity areas and formulating requisite management interventions for their conservation.

DUGONG



Dugong (*Dugong dugon*)

Conservation Status:

International Union for
Conservation of Nature
(IUCN): Vulnerable

Indian Wildlife Protection Act
IWPA: Schedule-I

Life Span: Upto 70 years

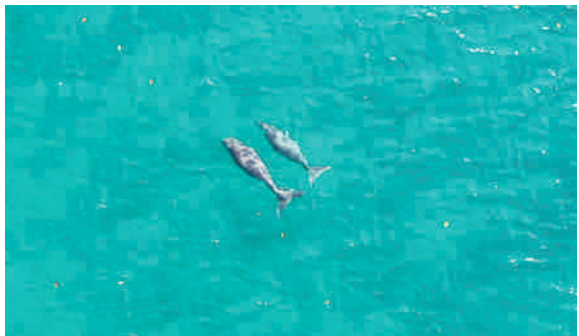
Common Name: Sea Cow

Distribution:

Gulf of Kutch,
Andaman & Nicobar Islands,
Gulf of Mannar and Palk Bay



Standard View



Aerial View

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DOLPHINS



Indo-Pacific Bottlenose Dolphin (*Tursiops aduncus*)

Dolphins

Conservation Status:

Indian Wildlife Protection Act
(IWPA): Schedule-I

Life Span: 30 - 40 years

Distribution:

Coastal waters of Indian Ocean.

Ten species of marine dolphins
are found in India.



Standard View



Aerial View

COASTAL DOLPHINS



— Indo-Pacific finless porpoise (*Neophocaena phocaenoides*)



— Indian Ocean humpback Dolphin (*Sousa plumbea*)

OCEANIC DOLPHINS



— Risso's Dolphin (*Grampus griseus*)



— Pan-tropical spotted Dolphin
(*Stenella attenuata*)



— Spinner Dolphin (*Stenella longirostris*)



— Short Finned Pilot-whale (*Globicephala macrorhynchus*)



— Rough-toothed Dolphin (*Steno bredanensis*)



— Striped Dolphin (*Stenella coeruleoalba*)



— Fraser's Dolphin (*Lagenodelphis hosei*)



— Killer whale (*Orcinus orca*)

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WHALES



Blue Whale (*Balaenoptera musculus*)

Whale

Conservation Status:

Indian Wildlife Protection Act
(IWPA): Schedule-I

Life Span: 80 - 90 years

Distribution:

West coast, East coast, Andman,
Nicobar and Lakshdweep Islands

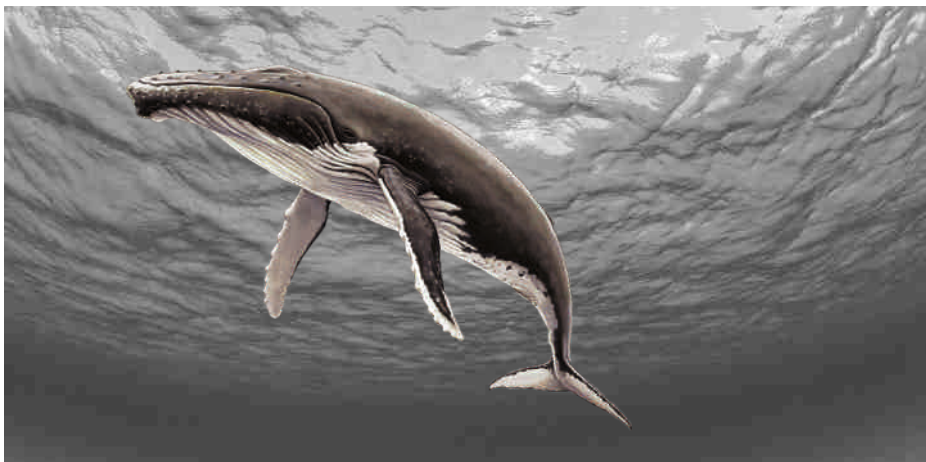


Standard View



Aerial View

Baleen Whale



— Humpback whale (*Megaptera novaenglia*)



— Bryde's whale (*Balanoptera edeni*)

Sperm Whale



— Sperm whale (*Physeter macrocephalus*)



— Pygmy sperm whale (*Kogia breviceps*)

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WHALE SHARK



Whale Shark (*Rhincodon typus*)

Conservation Status:

International Union for
Conservation of Nature
(IUCN): Endangered

Indian Wildlife Protection Act
(IWPA): Schedule-I

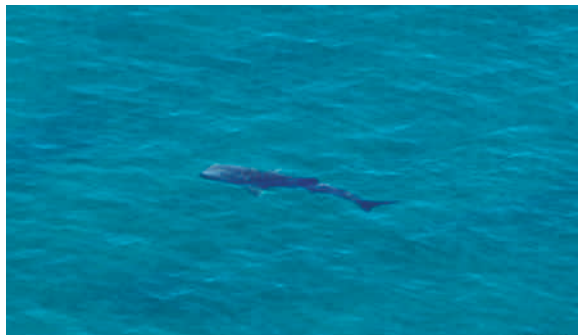
Life Span: Upto 80 years

Distribution:

West coast and Lakshadweep Islands



Standard View



Aerial View

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SEA TURTLES



Green Sea Turtle (*Chelonia mydas*)

Sea Turtle

Conservation Status:

Indian Wildlife Protection Act
(IWPA): Schedule-I

Life Span: Upto 80 years

Distribution:

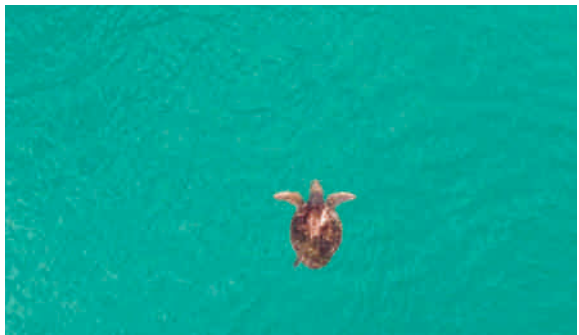
West Coast, East Coast and Andaman Nicobar
and Lakshadweep Islands

Five species of sea turtles are found in India.

1. Olive ridley turtle (*Lepidochelys olivacea*)
2. Green sea turtle (*Chelonia mydas*)
3. Hawksbill turtle (*Eretmochelys imbricata*)
4. Loggerhead turtle (*Caretta caretta*)
5. Leatherback turtle (*Dermochelys coriacea*)



Standard View



Aerial View



— Hawksbill turtle



— Loggerhead turtle



Olive ridley turtle



Leatherback turtle

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SALT WATER CROCODILE



Salt-water Crocodile (*Crocodylus porosus*)

Conservation Status:

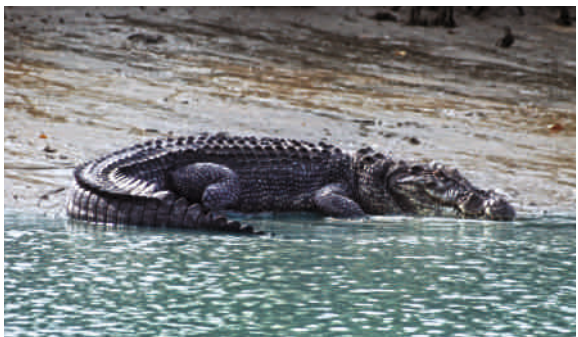
International Union for
Conservation of Nature
(IUCN): Least Concern

Indian Wildlife Protection Act
(IWPA): Schedule-I

Life Span: Upto 70 years.

Distribution:

East coast and Andaman & Nicobar Islands



Standard View



Aerial View

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NOTES

PICTURE CREDITS

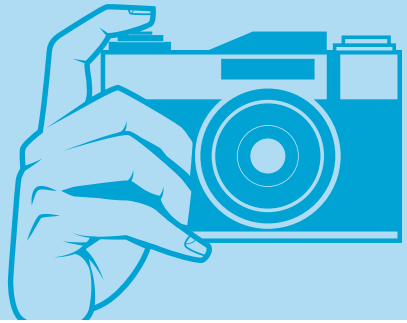
DUGONG

1. Dugong Photo: Vardhan Patankar
2. Dugong Standard view : CMS
3. Dugong Aerial view: Wildlife Institute of India-CAMPA. Dugong Project (2016-2021)

DOLPHINS

1. Indo Pacific Bottlenose Dolphin:
<http://www.thegolfclub.info/related/baby-dolphin-pictures.html>
2. Indo Pacific Bottlenose Dolphin Standard view : Rufford: Cetacean Diversity, Abundance and space use in waters of Andaman Islands, India PI Mahi Mankeshwar (©Sagar Rajpurkar)
3. Indo Pacific Bottlenose Dolphin Aerial view:
<https://www.fisheries.noaa.gov/species/common-bottlenose-dolphin>
4. Indo-Pacific humpback Dolphin : Dawbin
5. Indian Ocean humpback Dolphin : Environment Agency Abu Dhabi
6. Risso's Dolphin: Rufford: Cetacean Diversity, Abundance and space use

- in waters of Andaman Islands, India PI Mahi Mankeshwar (©Sagar Rajpurkar)
7. Pan-tropical spotted Dolphin : OCEANA
 8. Indo-Pacific common Dolphin : Sagar Rajpurkar
 9. Rough-toothed Dolphin :
<https://www.freebirdone.com/details/rough-toothed-dolphin/>
 10. Spinner Dolphin :
<https://www.dolphins-world.com/spinner-dolphin-stenella-longirostris/>
 11. Striped Dolphin :
<http://kidskunst.info/linked/striped-dolphin-facts-whalefactsorg-73747269706564.htm>
 12. Fraser's Dolphin:
<https://www.weasyl.com/~darklittledarkling/submissions/541469/fraser-s-dolphin>
 13. Killer whale: Robert Pittman – NOAA
<http://www.afsc.noaa.gov/Quarterly/amj2005/divrptsNMML3.htm>
 14. Indo-Pacific Finless porpoise:
<https://www.pinterest.com/pin/150378075031012795/>



15. Short-finned pilot whale:
<https://www.tribunnews.com/internasional/2014/11/05/sekitar-36-paus-pilot-kedapatan-sudah-mati>

WHALES

1. Blue whale Photo:
http://wildkratts.wikia.com/wiki/File:Blue_whale_sri_lanka_3.jpg
2. Blue whale Standard :Natgeo
3. Blue whale Aerial : POND5
4. Humpback whale : Emily S. Damstra
5. Bryde's whale : Jirayu Tour Ekkul
6. Sperm whale :
<https://www.parks.tas.gov.au/?base=30729>
7. Pygmy sperm whale:
<https://www.kaieteurnewsonline.com/2014/11/22/the-pygmy-sperm-whale-kogia-breviceps/>

WHALE SHARK

1. Whale Shark Photo:
https://www.sharks-world.com/whale_shark/
2. Whale Shark Standard view : Paul Hilton, Greenpeace
3. Whale Shark Aerial view: Steve De Neef Photography

SEA TURTLES

1. Green Sea turtle Photo: N.E.S.T
2. Green Sea turtle Standard view : Natgeo
3. Green Sea turtle Aerial view: NSW DPI
4. Hawksbill turtle: Adobestock
5. Loggerhead turtle:
https://www.fws.gov/refuge/Blackbear_d_Island/wildlife_and_habitat/loggerhead.html
6. Olive ridley turtle : Sri Lanka Sea Turtles. Site by LEW
7. Leatherback turtle : Jason Isley-Scubazoo/Science Faction/Corbis

SALT WATER CROCODILE

1. Salt-water Crocodile Photo: Sarah Mcpherson
2. Salt-water Crocodile Standard view: Anant Pande
3. Salt-water Crocodile Aerial view: Maximo shutterstock



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