

MANTA RAY CONSERVATION

SUSTAINING THE NATURE THAT SUSTAINS INDONESIA

FACTS ABOUT MANTA RAYS

Two manta ray species: Reef manta ray (*Manta alfredi*) and the Oceanic manta ray (*Manta birostris*)

Manta rays are the largest rays in the world. Reef mantas can grow up to 4.5 meters, while Oceanic mantas can reach a massive 8-meter wingspan.

Manta rays can live up to 50 years.



Manta rays feed on zooplankton (tiny animals that drift in ocean currents).

Highly vulnerable as they have extremely low reproductive rates – female mantas reach sexual maturity at 8-10 years old, and give birth to only one pup every 2-5 years.

Manta rays are very intelligent and have the largest brain to body ratio of any fish. They are a social, gentle, and highly curious species.

Manta rays are harmless. They do not have a barb on their tail, and cannot sting.

MANTA RAYS IN INDONESIA



- Both Reef and Oceanic manta rays live in Indonesian waters.
- Raja Ampat is one of the only places in the world where both species of manta can be encountered at the same place and time.
- In 2015, CI discovered South East Asia's first manta ray nursery in Wayag Lagoon in Raja Ampat, West Papua.
- Manta rays can be found throughout Indonesia, with key populations in Sangalaki (East Kalimantan), Nusa Penida (Bali), Komodo (Flores) and Raja Ampat (West Papua).
- Manta rays seen in tourist sites Nusa Penida and Komodo migrate through Tanjung Luar (West Nusa Tenggara) and Lamakera (East Nusa Tenggara), the biggest known manta hunting areas in Indonesia.

THREATS



High fishing pressure due to growing demand for manta ray gill plates, which are used in Traditional Chinese Medicine.



The largest manta ray fishery in the world, located in Indonesia.



Low reproductive rates, long life spans, the tendency to aggregate in predictable locations and the lack of fear of humans make them susceptible to being hunted.

POTENTIAL FOR TOURISM



Coastal communities in many countries benefit from manta-focused tourism, which is estimated at over US\$140 million per year globally.



Indonesia is the second largest manta tourism destination in the world, generating an estimated US\$15 million per year.



A dead manta ray is worth US\$40 to US\$500 to local fishermen, yet a living manta ray can be worth up to US\$1 million to the local dive tourism industry over its lifetime.

CONSERVATION



Both species of manta are currently listed as Vulnerable to extinction on the IUCN Red List of Threatened Species.



On March 14, 2013, manta rays were included in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), regulating the trade of this species.

In 2014, the government of Indonesia designated the country's 6 million square kilometers of waters the world's largest manta sanctuary.

OUR WORK

CI monitors manta rays to understand their behavior and ecology. The resulting scientific data helps to inform public policy and conservation efforts.

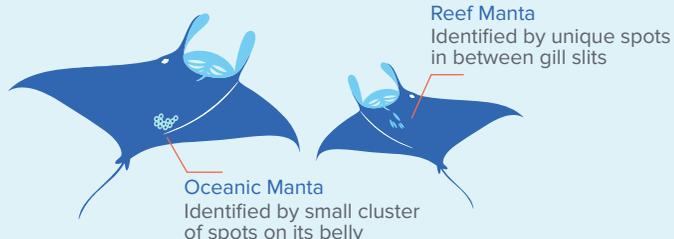
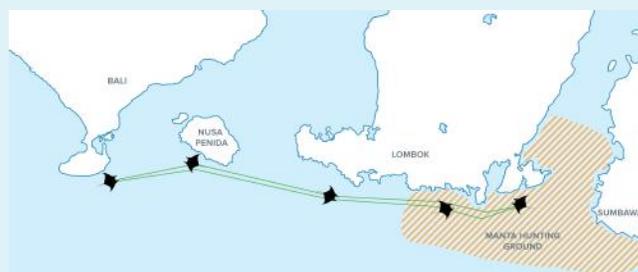


Photo Identification

Every manta ray has its own unique pattern of spots and blotches on its underside, like a human fingerprint. By cataloguing photos of manta rays, scientists can develop a better understanding of local populations.

Divers and snorkelers can help scientists with this research by taking photos of any manta rays they see. To find out more about contributing and becoming a citizen scientist, visit <http://birdsheadseascape.com/indonesian-manta-id>



Satellite Tagging

Satellite tags are used to monitor migration and behavior patterns. As of 2017, 33 manta rays have been tagged – 29 reef manta rays and 4 oceanic manta rays in the four areas of manta population: Raja Ampat, West Papua; Nusa Penida, Bali; Komodo National Park; and Sangalaki, East Kalimantan. The data obtained from these tags led to the implementation of new regulations and increased enforcement to protect the species.