SHARK STEWARDS

RESTORING OCEAN HEALTH BY SAVING SHARKS

MANTA BIROSTRIS

Genus – Manta
Species – Birostris

Image FAO (cites.org)

THIS GIANT MANTA

largest ray in the world with a wing span averaging about 22 feet across, but some specimens were measured at almost 30 feet. It has distinct triangular pectoral wings that arch backwards, and specialized fins on either side of its mouth called cephalic fins, that can be unfurled and angled to direct water and plankton into its mouth. They are typically dark on top and white underneath, but often have light marks on top and dark spots underneath that are unique to each ray and allow for identification.

GEOGRAPHICAL DISTRIBUTION

The manta inhabits temperate, tropical, and subtropical waters worldwide, between 35° N and 35° S latitudes. In the Pacific, they have been observed as far north as San Diego.

HABITAT

The habitat of this ray ranges from near shore to pelagic. It occurs over the continental shelf near reefs, pinnacles, and offshore islands. They are observed near the surface and in the mid-waters of reefs and lagoons.

Manta birostris sometimes swim in loose aggregations and spends considerable time near the surface. Mantas have been observed breaching, jumping clear of the water and returning with a splash.

BIOLOGY

➜ Distinctive Features

Adults are easily recognized by their large triangular pectoral fins and projecting cephalic fins which are forward extensions on either side of the head. This ray has a broad, rectangular mouth located at the front of the head, smooth skin, and a slightly flattened tail that is shorter than disc width and lacks a spine. M. birostris has a small dorsal fin located just behind the wings.

➜ Coloration

These are generally dark brown, grayish blue, or black on top with pale edges and white underneath. Some individual mantas have pale patches and color patterns on top as well as dark blotches underneath. Individual rays have uniquely distinct coloration that are used to identify individuals.

➜ Size and Age

These rays average about 22 feet of disc width and can achieve a maximum disc width of around 30 feet. The largest giant mantas weigh up to 3,000 pounds, with a historical record of 5000 pounds. Estimated life span for these giants is approximately 20 years.

➜ Diet

All mobulids are primarily filter feeders eating fish eggs, larvae and zoo plankton and occasionally consume small fish. They filter seawater through plates of a sponge-like tissue located between the gill bars that support the gills. Mantas aggregate in areas with large concentrations of zooplankton, with up to 50 individuals within an area.

➜ Reproduction

Males reach maturity at a disc width of at least 13 while females mature at a disc width of 16.5 feet (5 meters). Manta rays reproduce by ovoviviparity with the birth of one live pup during the breeding season. Pups are born alive with a four foot disc width and weigh 20 lbs. or more.

➜ Predators

With the exception of man, who kill them for their skin and for meat the only predators of the manta ray are large sharks. The increase in demand for Chinese medicine made from the gill rakers has increased fishing pressure on all mobulas.

MANTA BIROSTRIS

has been harvested in tropical America. The manta ray was formerly harvested commercially off Australia and California waters for its liver oil and for its skin which is used as an abrasive. Today it is rarely hunted, although meat from the manta ray is considered a delicacy in the Philippines.

Dive tourism has benefited greatly from the manta in locations where they are reliably encountered and sometimes approach divers. In these areas, where divers often touch and interact with mantas, the rays can develop skin lesions in response to the removal of the protective mucous layer.

CONSERVATION

The IUCN lists these rays as endangered, with their populations decreasing globally.