

## Gentle Giants

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While kayak surfing waves along the South Padre Island jetties, I decided to paddle out into deeper waters and back into the Brazos Santiago Pass. With excitement, I sighted dolphins approaching me. But, as they neared me, they weren't dolphins. Their fins seemed odd. In the clear water the huge fins and bodies of manta rays became visible.

The beauty of three Caribbean manta rays (*Mobula cf. birostris*) flying just under the surface of the water less than eight feet from my kayak staggered me. I will never forget them. As they calmly flew through the water within a couple of feet of the surface with their fin tips rising almost 18" above the water. The arm-like cephalic lobes below their mouths created an oblong funnel (almost two cubic feet in size) that scooped small fish and zooplankton into their mouths as they filtered the water through ventral gills beside their mouths. I wish I could have seen them perform their swooping feeding dance which circles vertically underwater like a ferris wheel. They are phenomenal acrobats of the sea who glide along sleeplessly at nine miles per hour, but can accelerate to 22 miles per hour in a flurry of oscillating undulations to evade an attacking shark, orca or false killer whale.



A magic moment observing manta rays (note fin on left)

The wild peculiar appearance of mantas swimming by me was pleasantly alien. The three I saw were 12 feet long from head to tail, two feet thick through the middle of their bodies and 15' across between the tips of their pectoral fins. They seemed dressed for a fish formal with their dark back and white belly with a 30 inch tail to accent their tuxedo.

No doubt the manta that came within touching distance saw me, but she showed no fear nor altered her course. Mantas have superb vision. Scuba divers report that mantas can be curious about humans, especially juveniles. Occasionally young mantas come near and repeatedly circle divers. Due to their having the largest brains and greatest brain to body ratio, many marine biologists believe that mantas are the most intelligent fish and among the brightest animals on earth (the majority of which are mammals). Mantas' reaction to large underwater mirrors, lead some researchers to conclude that mantas are self aware. A number of divers note that they have heard these gentle giants communicating with high pitched squeals.

Since mantas can live well over 50 years, I could not guess the age of the ones I encountered. Though I met the mantas virtually on the ocean surface, mantas can dive below 3,200 feet. Mantas are known to migrate alone or in squadrons for more than 600 miles. But, I imagine the ones I saw were born and matured in the Flower Garden Banks National Marine

Sanctuary about 75 miles away. In 2018, marine biologists discovered the only known Caribbean manta ray nursery in the world. The gestation period of a manta is appropriately 12 months. Mantas are ovoviviparous, meaning their eggs hatch inside of their mother. At birth, their fins are wrapped around their bodies like a sleeping bat enveloped in its wings. A male manta reaches sexual maturity in between four and six years, where females take from eight to ten years. Where the average pectoral fin span of Caribbean manta rays is about 15 feet, some grow significantly larger. Ocean manta rays have been seen with a fin span of 30 feet and weighing over 3,000 pounds.

Though mantas are apt in evading sharks (their distant relatives) and orcas, they are easy prey for their worst enemies - humans. We kill over 5,000 mantas annually for their meat and gill plates, which are prized as a Chinese medicine (with no evidence of its efficacy) to improve circulation, treat chicken pox and cure impotence.

A 2013 study found that an average of \$400 was paid for an adult manta on the fish market in comparison to the value of a manta in the wild that could generate over \$700,000 in its life for ecotourism. In addition to over fishing, the human impacts of boat strikes, marine debris, fishing nets, environmental degradation and by-catch has reduced manta ray populations in the world to under 20,000 and warranted their uplisting last year as an "Endangered Species" under the Endangered Species Act.

The rapid decline of manta rays could be reversed in several ways: by advocating for the expansion and increased supervision of the Flower Garden Banks National Marine Sanctuary and other manta nurseries, by promoting appropriate economic sanctions against countries that harvest mantas, by supporting efforts to remove plastics from our oceans, by reducing our plastic consumption, by promoting eco-sensitive ocean shipping lanes and by partnering with the Manta Trust or a similar organization.

The next time you see strange looking dolphin fins surfacing in the ocean, they may not be dolphins and you may be in for a rare treat.



Author and wife kayaking the Brazos Santiago Pass near sighting of manta rays