

Giant sized rays landed at Cochin Fisheries Harbour

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On 4th March 2017, three huge rays - two *Mobula tarpacana* and one *Manta birostris* were landed at Cochin Fisheries Harbour. They were caught in long lines, which were operated for skipjack tuna. These rays caught off Ratnagiri coast at a depth of 500m weighed around 400 kg each. Of these, *Mobula tarpacana* locally called 'Kakkathirandi' measured 2.4 m in disc width (DW). Since the rays were too big to be put into the fish hold they were cut into 3 pieces and iced. Of the two mobulids, one was a female and the other a male. The fishes were auctioned at ₹ 15000 for the central piece which included the gill rakers or flowers, and ₹ 9000 for the fins. Meat generally fetched only ₹ 18-20 per kg while the flowers locally called 'white' fetched a higher price. *Mobula tarpacana* is one the largest of the genus *Mobula*, reaching 37 cm in disc width. They are slow-growing, large-bodied

migratory, planktivorous animals with small, highly fragmented populations distributed across the tropical and temperate oceans of the world. Their biological and behavioural characteristics (low reproductive rates, late maturity and schooling behaviour) make these species particularly vulnerable to over-exploitation in fisheries and extremely slow to recover from depletion. They are protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Morphometric measurements of the *Mobula tarpacana* landed at Cochin Fisheries Harbour are listed below

Disc width	2.4 m
Horn length	40 mm
Mouth Width	39 mm
Fin length	127cm

Inter gill distance

I-I gill distance	29 cm
II-II gill distance	27 cm
III-III gill distance	21 cm
IV-IV gill distance	17 cm
V-V gill distance	13 cm

Giant manta ray (*Manta birostris*) caught weighed around 250 kg. Measurements were impossible since the fish was cut to be stored in the fish hold. Widely distributed throughout the world's major oceans, this species has a high value in international trade. The rate of population reduction appears to be high in several regions.

The giant manta ray and the Chilean devil ray are listed as Vulnerable on the IUCN Red List (<http://www.iucnredlist.org>). Giant mantas are also included in the Appendix II rendering trade of the products from these species traceable. India being a party to CITES, documentation of landings of *Manta* or *Mobula* rays is very important for the conservation of this resource.



Cut giant manta ray

In recent years, manta ray fishing has expanded in many places throughout their range, primarily in response to the emerging international market for their gill plates (Nair *et al.* 2016 *Indian Journal of Geo-Marine Sciences*, 44 (9):1265-1283). Given the slow growth and very low fecundity for these species, it is imperative to estimate available fishing stock from Indian waters.