[*From the* JOURNAL OF THE BOMBAY NATURAL HIST. SOC., *April* 1961]

MISCELLANEOUS NOTE

2. 'OCCURRENCE OF THE SEA COW, *HALICORE DUGONG* (ERXL.), OFF THE SAURASHTRA COAST'[1]

A recent note by Mani (1960) which appeared under the above title calls for some comments.

1. The occurrence of a dead and floating dugong in the sea noticed near Kalyan lighthouse on 17 July 1959 is a rare sight indeed, and to my knowledge this appears to be the first such record. The natural tendency of many of the marine mammals is to sink when they are killed and that such was not the case with the above specimen, in spite of its relative freshness, is interesting. The cause of death, whether due to injury or excessive infestation from intestinal parasites or some natural cause is unknown. The sex[2] of this animal is not given, but fortunately as the head appears to have been preserved, this could be easily verified.

2. The author mentions a second specimen, this time a female caught from the same place on 30 July 1959 measuring[3] 13′ 4″ (4.06 metres); if this length is correct, it is a record as there is up to now no authentic report of any dugong of this gigantic size. The method used in measuring is not given, but if it represents a straight line measurement from the anterior end of the muzzle (snout) to the fork of the caudal flukes, the size is exceptionally large. It is a pity that, in spite of the animal being 'retrieved intact', a photograph and other body measurements of the animal were not taken. In a way, the sex of the animal is also interesting. The general tendency, I find, is for the male dugong to attain larger proportions as is the case with some marine mammals and, if this be so, should we expect some day to find a still larger male? The average size of the Indian dugong is about 2.5 metres and it is known to attain about 3.5 metres. The Red Sea dugong which Gohar (1957) considers to be subspecifically distinct [*D. d. tabernaculi* (Rüppell)] is said not to exceed 3.15 metres.

---

[1] Published with the permission of the Chief Research Officer, Central Marine Fisheries Research Station, Mandapam Camp.

[2] The skull received by the Society from Mr. Mani is that of a male, and since he describes the second dugong as a female, must be the skull of the first.—EDS.

[3] We are informed by Mr. Mani that the animal was placed alongside the wall of a cold storage room and the tips of the snout and the caudal flukes marked off on the wall and measured by him personally.—EDS.

3. The proximity and identical locations of the two occurrences are noteworthy. Information as to whether dugongs are seasonal visitors to the Saurashtra Coast will be of interest.

4. The author remarks that 'This relation of the sea lions and seals is reputed to use its forelimbs as hands for conveying food to the mouth . . .' It may be said in this connection that the dugongs (Sirenia) are as distinct from the amphibious Pinnipedia (Carnivora) as the elephant is from the lion, but the dugongs and the Pinnipedia (sea lions, seals, etc.) evince some convergent resemblance on account of the aquatic mode of life that they share. I have never during my observations on the captive dugongs kept at the Central Marine Fisheries Research Station, Mandapam Camp, seen them using the flippers to convey food to the mouth, although in addition to their natatory function they are used for other purposes, such as: for supporting the anterior part of the body while resting at the bottom, with the distal part of the flippers slightly flexed outwards; for moving a few paces forwards or backwards on the bottom, with the flippers in the same attitude as described above but used alternatively, the movement itself being primarily governed by the action of the tail flukes; and for making short forward or backward 'glides' in mid-water, with both flippers used simultaneously. When beached or when the water in the tank is kept low for cleaning, the animal may flex back the anterior part of its body as though drawing itself up on its flippers and make ineffective attempts to lunge or lurch forward at the same time using both flippers simultaneously in a few antero-posterior thrusts, all the while beating the tail strongly up and down. Often such violent action results in the animal turning supine and when it rolls on to one side the flippers are used to right itself to its normal position. Underwater, occasionally one of the flippers may be flexed forwards in a rotatory movement to brush the chin. However, these are only secondary actions, for the primary mode of locomotion in the dugong as in the cetaceans may be termed 'tail propulsion', where the swimming movements are effected by the up-and-down movements of the posterior part of the body and the horizontally-placed tail flukes.

5. According to Ellerman & Scott (1951), the correct nomenclature of the Indian dugong should be *Dugong dugon* (Müller).

6. Incidentally, newspaper reports[1] dated 23 July 1959 referred to the capture of a dugong on the Saurashtra coast as follows: 'FISH RESEMBLING MAN CAUGHT: . . . Townspeople of Jamnagar and

[1] NAFEN report in the *Pioneer*, Lucknow, and other daily papers.

the surrounding areas have been flocking to the near-by port of Rozi, to view with amazement a unique catch of a 400-pound, 16-foot-long fish, whose head, features and chest formation are said to resemble a human being. . . .'; 'A fisherman, Juma Abdullah, of Bedi Port, caught the giant fish in his net while out at sea.' 'The entire population of the village of Bedi and large numbers of persons from Jamnagar have been thronging the Rozi sea coast to view the strange catch—the first of its kind made in these waters. . . .' No doubt, these reports refer to the first specimen mentioned by Mani (1960). The length of 16 feet would appear to be an exaggeration, while the weight of 400 lb. will be more correct for a dugong measuring about 2 metres. A 2.47-metre-long specimen weighed here scaled 260 kg. (565 lb.).

7. There is an editorial comment at the end of the note to the effect that 'These Saurashtra specimens extend the *recorded distribution* of the Dugong in India to north of the 15th parallel. 'Bedi (Jamnagar) is *c.* 22° 30′ N.' (*italics mine*). While these two are definite records, the late Dr. S. T. Moses's statement, 'The dugong is said to have been caught in a *bush vada* (a type of fence net) near Sachana in 1877', bears repeating (Moses, 1942).

8. For a recent informative account on the Indian dugong, reference may be made to the article by Jones (1959). It might interest all animal lovers in general and those interested in the conservation of marine life in particular that steps are being taken by the Marine Biological Association of India for the conservation of this animal. It is earnestly hoped that the Dugong Research and Conservation Fund, started under the auspices of the Association, will receive support from all quarters.

CENTRAL MARINE FISHERIES RESEARCH STATION,
MANDAPAM CAMP, E. G. SILAS
S. INDIA,
September 22, 1960.

REFERENCES

Ellerman, J. R., & Scott-Morrison, T.C.S. (1951): Checklist of Palaearctic and Indian Mammals—1758 to 1946.

Gohar, H.A.F. (1957): The Red Sea Dugong. *Publ. Mar. Biol. Sta., Al Gharadqua, Egypt* **9** : 3-50.

Jones, S. (1959) : On a pair of captive dugongs [*Dugong dugong* (Erxleben)]. *J. Mar. biol. Ass. India* **1** (2): 198-202.

Mani, S.B (1960) : Occurrence of the sea cow, *Halicore dugong* (Erxl.), off the Saurashtra Coast. *J. Bombay nat. Hist. Soc.* **57** (1): 216-217.

Moses, S.T. (1942): The Fisheries of the Gujarat Coast. *J. Gujarat Res. Soc.* **4** (2) : 75.