

**A NOTE ON THE STRANDING OF THE SPERM WHALE
PHYSETER CATODON LINNAEUS AT MAHABALIPURAM
ON THE EAST COAST OF INDIA ***

ABSTRACT

Detailed measurements for an young male specimen of the sperm whale *Physeter catodon* Linnaeus which was stranded at Mahabalipuram beach on 12-4-80 are given. It is of interest to note that this species is again recorded from the vicinity of Madras after a lapse of nearly 90 years.

LATE in the evening of 12-4-1980 the fishermen at Mahabalipuram noted a whale in the surf region struggling to get back into the sea. Immediately some enterprising

* In view of the delay in the issue of this number of the Journal, this note of topical interest is included here.

—Editor

fishermen tried to bring it ashore. They tied the whale with ropes around the flipper and the middle portion of the body but found the task of pulling the animal too difficult for them. They then brought the other end of ropes to the shore and tied it to the catamarans and other objects on the beach in order to prevent its escape into the sea. Next morning the whale was found dead. It was dragged to the shore with the help of about hundred fishermen. It was found to be a young male measuring 6.7 metres. Judging from the observations of Maruyama (1965) and Walker (1968) it would have weighed 10 to 11 tonnes.

Only on two occasions stranding of sperm whales has been reported from India. Blanford (1891) reported a washed ashore specimen from Madras and Antony Raja and Pai (1973) from Karwar, west coast of India. Deraniyagala (1960) reported four specimens stranded on the coast of Sri Lanka in 1889, 1904 (twice) and 1934. It is of interest to note here that the present specimen is recorded here from Madras after a lapse of 90 years. Sperm whale is widely distributed throughout the great oceans of the world (Norman and Fraser, 1937). In the Indian Ocean it is found concentrated more in the Arabian Sea upto 20° N and between 50° and 80° E. especially in the Gulf of Aden and approaches, a little east of Minicoy Island and off Sri Lanka (Brown, 1957).

The animal was found to be healthy and without any injury. Although Odontocetes are known to have good sense of direction using sonar they may yet find themselves stranded occasionally while pursuing their prey in shallow areas and gently shelving beaches due to some error in navigation (Dudok Van Hell, 1966).

The teeth had not erupted in the present specimen due to the young condition of the animal. Caldwell *et al.* (1966) reported that teeth do not pierce the gums until the animal reaches sexual maturity and the minimum size at sexual maturity is nine metres. It is hence presumed that the present specimen is a juvenile. On the lower jaw there are two rows of twenty oval protrubarences representing the unerupted teeth. The four pairs of protrubarences at the apex of the jaw are small with a diameter of 10 mm. The size of the protrubarences gradually increases from the apex to the base of the jaw. They are round in shape, red in colour and soft to touch. The diameter of the larger ones is 20 mm. The width of the jaw is 100 mm. The length of the tongue is 200 mm and width 60 mm. The palate and the tongue are rose-coloured. It is interesting to note that Fraser (Norman and Fraser, 1937) reported that the inner surface of mouth and tongue are of pearl-white colour.

The colour of the animal was jet black with flippers lighter in shade. Due to the presence of blubber the animal began to exude oil and on the third day it was buried.

Since it is a very rare animal it attracted large number of people. The resourceful fishermen made an enclosure round the whale and collected Rs. 200.00 by charging an entrance fee of 25 Paise per head.

Body measurements are given in Table I and compared with those of the specimen stranded at Karwar.

TABLE 1. *Body measurements in cm and percentages to total length in parenthesis of Physeter catodon stranded at Mahaballpuram together with percentage of total length of the specimen, washed ashore at Karwar*

Measurements	Specimen of the present study	Specimen caught at Karwar
Total length (snout to notch of caudal flukes)	670	..
Projection of snout beyond tip of lower jaw	30 (4.4)	4.8
Tip of snout to blow hole	14 (2.0)	2.0
Tip of snout to angle gap	120 (17.0)	16.1
Tip of snout to centre of eye	155 (23.1)	21.4
Tip of snout to tip of flipper	280 (41.7)	40.0
Tip of snout to anterior insertion of flipper	220 (32.8)	29.9
Tip of snout to centre of anus	495 (73.8)	76.5
Notch of flukes to centre of anus	175 (26.1)	23.9
Notch of flukes to the posterior end of dorsal fin	305 (45.5)	45.3
Length of fluke on the outer curvature	120 (17.9)	16.1
Length of fluke on the inner curvature	90 (13.4)	12.5
Distance between extremities of flukes	180 (26.8)	25.3
Width at insertion of flukes	45 (6.7)	7.8
Length of dorsal fin base	60 (8.9)	3.6
Vertical height of dorsal fin	18 (2.6)	2.7
Length of flipper from anterior insertion to tip	60 (8.9)	10.2
Length of flipper along curve of lower border	52 (7.7)	8.7
Greatest width of flipper	30 (4.4)	4.5
Depth at anal region	96 (14.3)	12.7
Depth at origin of flipper	160 (23.8)	20.3
Depth at origin of dorsal	155 (23.1)	19.7
Maximum depth	160 (23.8)	21.2
Depth of head front	90 (13.4)	13.4
Tip of lower jaw to centre of anus	495 (73.8)	71.7
Length of lower jaw	90 (13.4)	12.4
Maximum width of lower jaw between teeth	10 (1.4)	2.0
Minimum width of lower jaw between teeth	5 (0.7)	0.7
Width of mouth (angle to angle)	60 (8.9)	9.0
Length of blow hole	7 (1.0)	2.7
Width of blow hole	6 (0.8)	1.1
Antero-posterior length of eye slit	5 (0.7)	0.6
Dorso-ventral diameter of eye	4 (0.5)	0.5
Distance between centre of eye and cleft of mouth	50 (7.4)	6.8
Distance between eyes	140 (20.8)	21.0
Length of penis	20 (2.9)	..
Length of genito-anal slit	45 (6.7)	5.6
Distance between genital opening and anus	32 (4.7)	3.2

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REFERENCES

- ANTONY RAJA, B. T. AND M. V. PAI 1973. *Indian J. Fish*, 20 (2) : 641-645.
- BROWN, S. G. 1957. *Mar. obs. London*, 27 : 157-165.
- CALDWELL, D. K., M. C. CALDWELL AND D. W. RICE 1966. In : K. S. Norris (ed.) *Whales, Dolphins and Porpoises*. University of California Press, Berkeley and Los Angeles ; pp. 679-717.
- DERANIYAGALA, P. E. P., 1960. *Spolia. Zeylania*, 29 (1) : 79-85.
- DUDOK VAN HEEL, W. H. 1966. In : K. S. Norris (ed.) *Whales, Dolphins and Porpoises*, University of California Press, Berkeley and Los Angeles ; pp. 597-606.
- MARUYAMA, T. 1965. In : G. Borgstram (ed.) *Fish as food*, Vol. III. Processing : Part I, Academic Press, New York and London, 489 pp.
- NORMAN, J. R. AND F. C. FRASER 1937. *Giant Fishes, Whales and Dolphins*. Putnam, London, 361 p.
- WALKER, E. P. 1968. *Mammals of the World*, Vol. II. The John Hopkins Press, Baltimore, 1500 pp.