ON A NEW RECORD OF SEI WHALE, *BALAENOPTERA BOREALIS* LESS FROM INDIAN WATERS

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The stranding of a 15.53 metres long sei whale, *Balaenoptera borealis* for the first time in the Indian shores is reported and described.

A huge whale was observed by fishermen in the second week of December, 1971 off Tondi in Palk Bay, drifting southwards. A few days later it was seen off Manakad near Mandapam Camp and finally it ran aground near Pullamadam, a fishing village four miles north west of Mandapam Camp. The authors visited the spot on 23rd December, 1971 and made certain observations which are reported here.

The whale (Fig. 1. A.) was lying on its back, measured 15.53 metres in total length and was in an initial stage of decomposition. The animal had sustained an extensive injury on the ventral side between the anus and beyond the umbilicus. The wound was approximately one metre long and half a metre wide, and was limited to the surface musculature. No portion of the viscera protruded out (Fig. 1. B.). Some of the measurements of the whale taken in the field are given below:

Total length (from the tip of the lower jaw to the tip of the the fluke) .	15.53 metres
Fork length (from the tip of the lower jaw to the fork of the fluke) .	15.05 metres
Standard length (from the tip of the lower jaw to the origin of the fluke)	14.04 ,,
Width of the body at the posterior end of the lower jaw .	3.72 ,,

Eye diameter	..	0.10 meters
Pre-flipper length (from the tip of the lower jaw to the origin of flipper)	..	4.66 ,,
Length of flipper	..	1.32 ,,
Width of flipper at the base	..	0.49 ,,
Width of flipper at the middle	..	0.39 ,,
Width of flipper at the top		0.11 ,,
Length of lower jaw (from the tip to the cleft of the mouth)	..	3.32 ,,
Length of upper jaw (from the tip to the cleft of the mouth	..	2.22 ,,
Length of upper jaw (from the tip to the cleft of the mouth	..	2.22 ,,
Length of caudal fluke (origin of the fluke to the posterior tip)		1.50 ,,
Length of fluke from fork to the posterior tip	..	1.30 ,,
Number of ventral grooves	..	58

The body colour of the whale was generally bluish black on the dorsal side but wherever the skin had peeld off the creamy undersurface showed out. The flanks were of grey colour. A narrow patch of white hue extending backwards from the chin and expanding beyond the level of the flippers up to the wounded portion on the ventral side was also observed. The flippers were completely dark grey in colour.

The shape of the body indicated that maximum girth was at the region of the flippers. Posterior to the flippers the body was more or less cylindrical, but the caudal peduncle was much compressed laterally, forming a dorsal and a ventral ridge. The dorsal fin could not be seen as the animal was lying on its back. Due to the difficulty in opening the mouth, it was not possible to examine the baleen plates. The ventral grooves were very distinct (Fig. 1. C.) and extended beyond the flippers and were confluent with the wound. They were counted across the mid-portion between the chin and the flippers. There were 29 ventral grooves on one side and assuming that the same complement was present on the other side, the total was estimated to be 58. The ratio of the flipper length (1.32 m) to fork length (15.05m) was 1: 11.4.

The whale was identified as rorqual or whalebone whale of the genus *Balaenoptera* from the presence of a series of parallel grooves on the throat and chest and fairly short flippers. Five species belonging to this genus are known. The diagnostic features of this species are given in Table I. A comparison of the various characters of the present specimen with those of the five species of this genus shows that it could be the sei whale, *Balaenoptera borealis* Less for it agreed with the following main characters of the species *viz.* the extension as well as the number of ventral grooves,

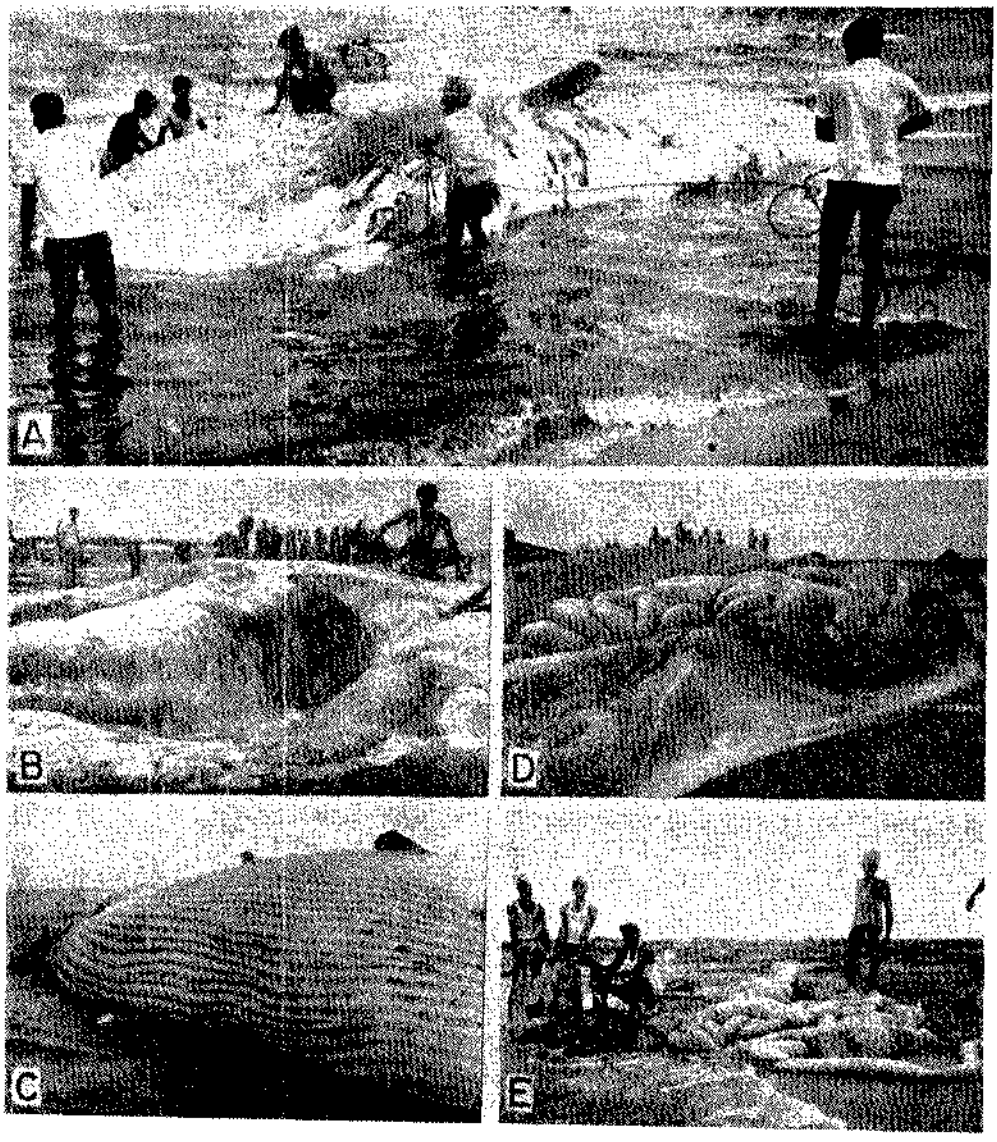

FIG. 1. The Sei Whale, *Balaenoptera borealis* Less stranded near Pullamadam.

A. Full view of the Whale (Total length 15.53 m)

B. Portion showing the wounded area.

C. Photograph showing ventral grooves.

D. Intestine *in situ*.

E. View of the alimentary canal spread out.

the ratio of the flipper length to fork length and the colouration of the flippers and the chin. Though *B. borealis* closely resembles Bryde's whale *B. brydei*, the former could be distinguished from the latter from the colouration of the flippers which are uniformly dark grey on both sides in *B. borealis* whereas in *B. brydei* the flippers are dark bluish grey above and grey below. Further, the number of ventral grooves observed in the present specimen is within the range of *B. borealis* (Table 1).

TABLE I. *Distinguishing characters of the species of the genus* Balaenoptera *(after Gibson - Hill, 1950 and Norman & Fraser, 1937)*

Characters	*B. musculus*	*B. physalus*	*B. acutorostrata*	*B. borealis*	*B. brydei*
Ratio of flipper length to fork length	1/7	1/9	1/8	1/10 - 1/12	1/10- 1/12
No. of ventral grooves	80 - 100	60 - 90	about 50	30 - 60	42-54
Extension of ventral grooves	Up to umbilicus	Up to umbilicus	Half way between the flippers and the umbilicus	Up to midway between the line of the flippers and the umbilicus	Up to umbilicus
Size and position of dorsal fin	Small and placed well back towards the tail	Fairly tall, triangular in shape	Smaller and placed further forward	Relatively larger, and placed further forward	Small
Colouration of Flippers	Slate blue above and whitish below	Grey above and white below	Blue grey with a prominent white patch above and white below	Both surface dark grey	Dark blusih grey above and grey below
Flukes	Both surfaces slate - blue	Grey above and white below	Blue grey above and white below	Both surfaces grey	Dark bluish grey above and whitish below
Baleen plates	Jet black, including frayed edge	Fore part right side white the remaining portion dull blue-grey streaked with pale ash-grey and yellowish grey and the frayed edges yellowish white	Yellowish white including frayed edges.	Black with the frayed inner edges white	Anterior plates whitish, sometimes with greyish stripes and the posterior plates greyish black

This is the first record of stranding of sei whale from the Indian waters. The previous record of this species from the Indian Ocean was from Java, the inner Gulf of Siam (ashore at Kandhuli) and at the mouth of Souibas River (ashore Pusa) (Gibson-Hill, 1950).

The whale was cut open and some of the measurements of the internal organs (Fig. 1. D & E) are given below:

Length of stomach	..	200	cm
Length of duodenum	..	130	cm
Length of intestine	..	7,538	cm
Length of liver	..	114	cm
Length of heart	..	71	cm
Diameter of dorsal aorta at the origin	..	16	cm
Maximum diameter of dorsal aorta	..	20	cm

The stomach was empty, except for a filmy layer of light greenish matter. The intestine contained small quantities of digested, pulp like yellowish mass. The sei whale is generally known to feed almost entirely upon planktonic crustaceans (Jonsgard, 1966). It has been observed to glide over the water surface and swallow its prey. It feeds mostly on, in the order of preference, copepods, euphausiids and swarming fishes (the most common fish being pacific saury when available) and squids (Nemato, 1959). Gill and Hughes (1971) found the stomach of the sei whale 13.3 m in total length filled to capacity with 227 kg of sauries.

No external parasites were found. A thorough examination of the lumen of the alimentary canal did not indicate presence of any parasitic forms.

On boiling a big chunk of flesh weighing 9 kg removed from the ventral side between the flippers, with water for about 6 hours, ½ kg of oil was obtained.

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