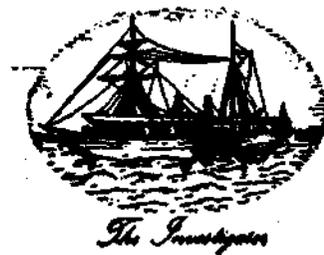


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## SOME OBSERVATIONS AND REMARKS ON THE ENDANGERED MARINE ANIMALS OF ANDAMAN AND NICOBAR ISLANDS

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### ABSTRACT

The Andaman and Nicobar Islands being oceanic in nature, harbour a number of marine animals such as whales, dolphins, turtles, saltwater crocodiles, dugongs and robber-crabs. All these animals are now listed as endangered species. The author during his stay of three years in Andaman and Nicobar Islands recorded a number of instances of these animals. Also records and informations collected from others are included in the paper to make it more comprehensive. The paper also includes interesting observations on the anatomical details of false-killer whale which is recorded for the first time from the Andaman Sea, growth rate of saltwater crocodile in captivity, mode of capture and maintenance of live turtles by Bengalee settlers in earlier days and also on the habits of robber-crab.

### INTRODUCTION

THE ANDAMAN and Nicobar Islands being oceanic in nature harbour such animals as whales, dolphins, turtles, saltwater crocodiles, dugongs and robber-crabs in the seas around them. All these animals are now protected under the Indian Wildlife Protection Act, 1972 since they are considered as endangered species. Earlier all these animals were indiscriminately killed for food, recreation, skin, oil and for other products. Due to the far flung nature of the Islands and also due to their remoteness and isolation from the mainland of India records regarding them are few and far between. Nevertheless, during the stay of the author in Andaman and Nicobar Islands for three years during 1975-78 some observations were made by him on them. Also information collected from other sources are presented in the paper.

The author is grateful to Dr. E. G. Silas, Director, Central Marine Fisheries Research Institute, Cochin for his kind interest and encouragement. He also thanks Shri N. Mohan

of the Fisheries Department, Port Blair for furnishing some additional information.

### WHALES

Very little is known about the whales of Andaman and Nicobar Seas. Kloss (1902) has made a passing reference to the sighting of a killer whale. Two false killer whales *Pseudorca crassidens* (Owen) (Pl. I A) were entangled in a gill net at Port Blair on 27th July 1976. However, one of them escaped while being brought to the Jetty. A description of the animal is given below.

The specimen was 3.9 metres long and jet black in colour. The eye was small and teeth were small and blunt (Pl. I B). The teeth were 7-8 in number. The dorsal fin was small and sickel-shaped. The flippers were also small. The caudal fluke was well developed. The stomach was cylindrical in shape. When the stomach was cut open head of a *Barracuda* and tail portion of a Carangid fish were found

in semi-digested condition (Pl. I C). The intestine was very long and the liver was triangular in shape (Pl. I D). Hundreds of live nematode parasites were seen in the stomach. The body wall was thick (50 mm) with blubber.

Some of the measurements in mm taken of the Carcass are given.

Total length	..	3962
Distance from the tip of the snout to the origin of the dorsal	..	1395
Distance from the tip of the snout to the eye	..	481
Distance from the tip of the snout to the angle of the mouth	..	329
Distance from the tip of the snout to the anterior insertion of the flipper	..	575
Length of flipper	..	428
Breadth of flipper	..	201
Width of whale	..	657
Breadth of the dorsal fin	..	428
Height of the dorsal fin	..	228
Distance between the posterior margin of the flipper and the anterior margin of dorsal fin	..	714
Distance from the posterior margin of the dorsal fin to the notch of the caudal fluke	..	1828
Width of the caudal fluke	..	228
Length of the largest tooth	..	98
Diameter of the blow hole	..	47

#### Remarks

False killer whale has a world wide distribution. It is a truly oceanic form and gregarious in nature moving in schools (Fraser, 1938). On the Indian side it has been reported from the neighbourhood of Trivandrum by Ferguson and Lydekar (1903) and also by Dawson (1911). Silas and Pillai (1960) have recorded the stranding of two specimens from Pozhikara north of Cape Comorin. The other records of *P. crassidens* from the Indian region

are those of three schools stranded on Sri Lanka coast and reported by Pearson (1931) and Deraniyagala (1945). The present one is the first record from the Andaman Sea.

On 7th March 1983 two false killer whales were stranded near Shastri Nagar (32 km from Campbell Bay). Both the animals died sometime after stranding. The male measured 4.57 metres and the female 4.87 metres in length.

#### CROCODILES

Andaman and Nicobar Islands are famous for the salt water crocodile *Crocodylus porosus* which grows to a large size of over 8 metres in length. Due to its valuable leather it was much hunted and the numbers dwindled alarmingly.

Whitaker and Whitaker (1978) have furnished the following figures regarding Crocodile population of Andamans.

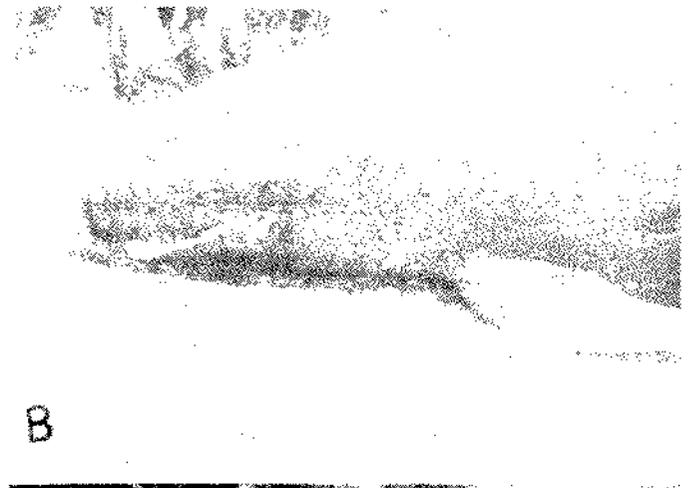
Area	No. of breeding females	Total No. of crocodiles
North Andamans	50	150-200
Middle Andamans	20	50-100
South Andamans	10	20-30

The above figures very much reveal the effect of human interference since the number of crocodiles is inversely proportional to human settlement. The chief causes for decline are indiscriminate hunting for hide, loss of habitat due to land reclamation programmes, drainage of swamps and finally clearing of the mangrove swamps. Unfortunately the ecological significance of mangroves as barrier to cyclone damage, beacherosion and as a natural spawning and nursery grounds for many species of marine fish, prawns and crabs has not been properly appreciated.

During the authors stay at Andamans a small crocodile measuring 1.52 metres in



A



B



C



PLATE 1. A. *Phainocheilus* with a young calf. B. Head portion showing small eyes and teeth. C. Viewed portion of animal showing the stomach, intestine, and ovaries. D. Stomach cut open to show semidigested fish.

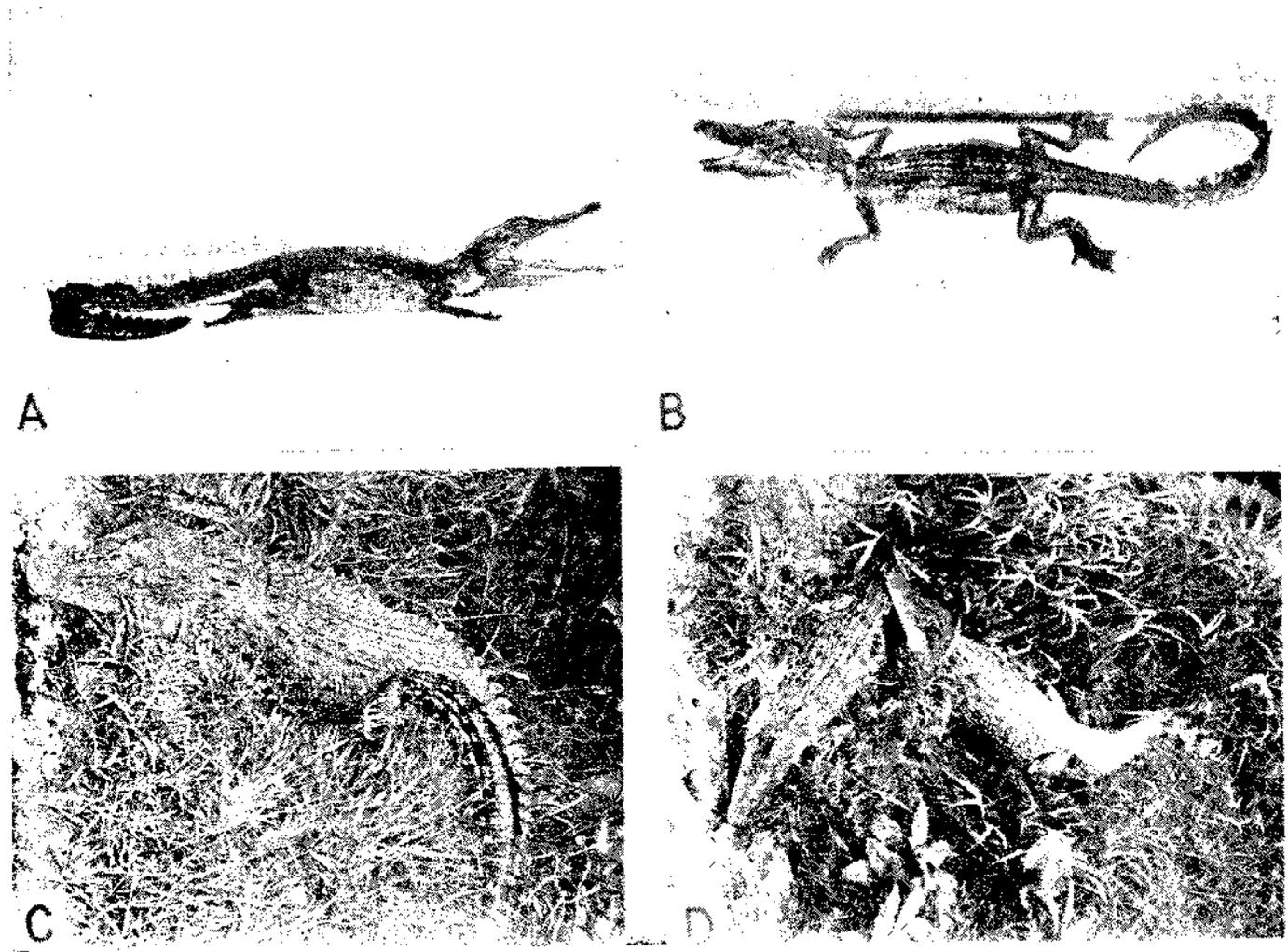


PLATE II. A, B. Baby crocodiles and C, D. Crocodile; from the Andaman Zoo.

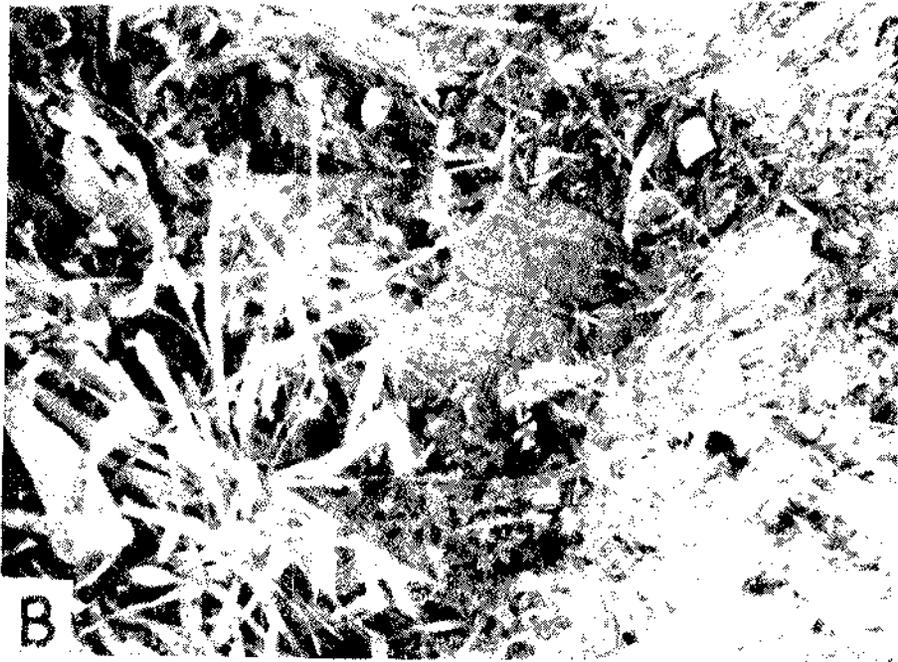
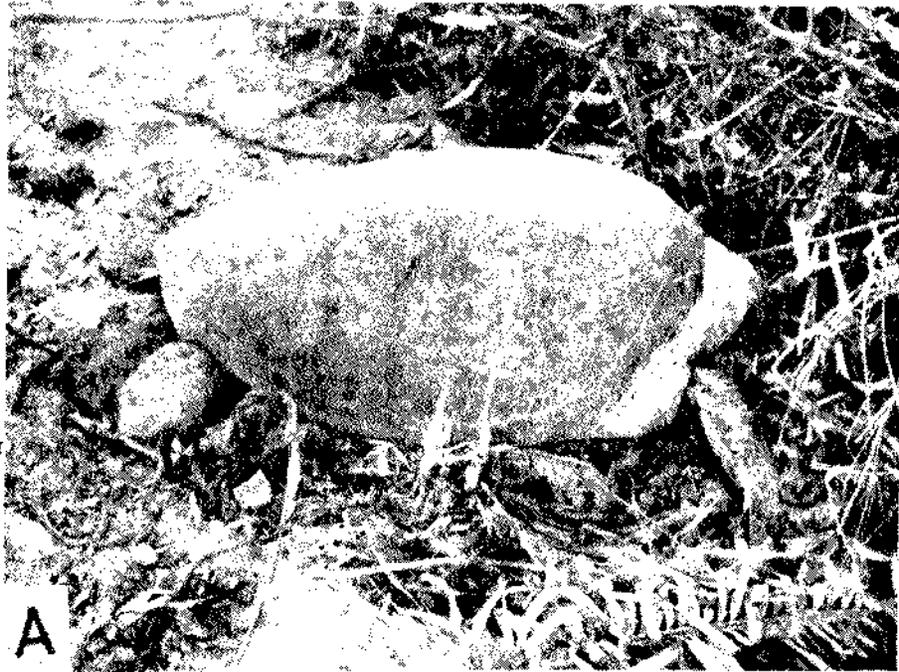


PLATE III A. *Chelonia mydas* and B. *Chelonia mydas* tied to the ground and covered by twigs.

length and weighing 12 kg was caught in a fishing net at Corbyns Cove which is a prime tourist centre where people take bath in the sea. This was brought to the notice of the Fisheries Department and it was promptly released back into the sea. During the three year period four instances of crocodiles attacking man were reported, all from North Andamans. At the end of 1975 a small baby crocodile measuring 280 mm. in length was brought from North Andamans and presented to the Deputy Commissioner who handed it over to the Zoology Department of Government College. Due to feeding problems the baby crocodile died after a week (Pl. II B). The webbed feet are clearly seen in the Photograph.

The Andaman Zoo of the Forest Department at Port Blair was maintaining some crocodiles (Pl. II C, D). One crocodile brought on 28th July 1976 was 381 mm. in length and was estimated to be four months old. This was kept in a separate enclosure and daily fed on deer meat. The total length from the tip of the snout to the tip of the tail were recorded every month. From Table 1 it will be seen that there was an increase of 635 mm in a period of 13 months. The rate of growth in captivity works out to be 48.8 mm per month.

TABLE 1. *Length measurements of Crocodylus porosus in captivity*

Date	Length (mm)
28- 7-75	381
29- 8-75	457
27- 9-75	.. 527
27-10-75	.. 577
25-11-75	.. 609
28-12-75	.. 660
30- 1-76	.. 711
28- 2-76	.. 762
15- 6-76	.. 927
2- 7-76	.. 939
12- 8-76	.. 965
1- 9-76	.. 1016

On the night of 9th October 1983 a crocodile measuring 1.82 metres got entangled in a gill net near Magar Nullah which is three kilometers from Campbell Bay. Probably it was attracted by the fish which were entangled in the net. By morning it died. The same was collected by the Forest Department. On 13th October 1983 one more female crocodile measuring 4.57 metres was washed ashore near Magar Nullah. This was brought to Campbell Bay by the Forest Department staff. It was found that the crocodile was injured by a sharp weapon like a spear on its head. It was interesting to note that from the dead animal one toe was removed from each limb. The toes were probably collected for witchcraft by the settlers from Ranchi.

#### SEA TURTLES

Turtles of South Sentinel Island which is 100 km south of Port Blair have been commented by Davies and Altevogt (1976). According to them Green Turtle weighs upto 1.2 tonnes. Bhaskar and Whitekar (1983) have given information about sea turtle resources of Andamans. The author during his visits to Wandoor in South Andamans has observed big green turtles (Pl. III A) caught by the Bengalee settlers and kept alive. Thick ropes were fastened to the fore limbs and then securely tied to the pegs driven to the ground. Over the turtles some twigs and shrubs are cut and put to give them shade (Pl. III B). Wandoor area looked like a grave yard for turtles with all the bones scattered everywhere. The tribals used to spear them when they come ashore to lay eggs. The Bengalee settlers used to turn them quickly upside down when they come to lay eggs. Later they bring them to their settlement and keep them alive in the manner described above. While snorkeling on the reefs at Campbell Bay on 1st March 1977 the author has seen a medium sized turtle. Hatchlings of leather-back turtles and olive

ridley were collected from Gandhi Nagar which is 30 kilometers from Campbell Bay. The people of Nicobar Island use green turtle shells for ornamental purposes.

#### DUGONG

Kloss (1902) mentioned about the occurrences of *Dugong dugon* in Andaman Islands. In the Little Andamans there is a creek known as Dugong Creek due to the past presence of dugongs there. Ongee tribes living there used to catch them to eat and later keep the lower jaw in front of the huts to ward off evil spirits. During the stay of the author only one *Dugong* was caught near Aberdeen Jetty in 1976. It was later released into the sea. In 1967 one *Dugong* was caught at Terressa and again in 1976 one *Dugong* which was 2.75 metres was caught. Four dugongs were caught at Diglipur during the years 1960-66. In 1977 fishermen of Campbell Bay caught one *Dugong* and tried to sell the meat in the market. They were caught by the Forest Department staff and fined for it. In 1981 one more *Dugong* was caught in a fishing net at Vijay Nagar 18 Kilometers from Campbell Bay. In the Office of

the Assistant Commissioner at Nancowry there is a good photograph of a *Dugong* caught there. From the above stray records it is seen that the *Dugong* is distributed from the North Andamans (Diglipur) to the southernmost group of Nicobar Islands (Campbell Bay).

#### ROBBER-CRAB

The robber crab or coconut crab *Birgus latro* is found only in the South Sentinel Island in the Andaman and Nicobar group of Islands. According to Davis and Altevoget (1976) it is found during day and night in South Sentinel Island whereas in other Pacific Islands it is nocturnal. It is distributed in the Indo-west Pacific region and according to Motoh (1980) this species is in danger of extinction. It is also eaten in Philippines. Drs. Davis and Altevoget after their second expedition to the South Sentinel Island in 1974 left one live specimen of *Birgus latro* at the then Research Centre of the Central Marine Fisheries Research Institute, Port Blair. This was daily fed on coconut and lived for several days. When left on a coconut tree it used to climb the tree fast.

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