

THE MARINE EDIBLE TURTLES

B. Shantharam

College of Fisheries, Mangalore.

Tortoises, terrapins and turtles are collectively known as Chelonians. There are over two hundred different kinds of Chelonians in the world to-day. Turtles live in seas and brackishwaters. Turtles and terrapins are found in tropical and semi-tropical regions in all the seasons. But a few are found even in temperate seas in summer. Turtle trunk is covered dorsally and ventrally by a shell of bony plates. Dorsal bony plate is known as carapace and the ventral as plastron. They have no teeth. Only the edges of the jaws are covered with a horny plate. With any sign of danger, the turtle escapes itself by retracting its head, limbs and tail into the shell.

Among the sea animals, very seriously threatened by extinction, are the sea turtles. Therefore, before the extinction of turtles, it is advisable to start rearing the turtles by putting up enclosures on the edges of the coastal waters. Countries like Australia, Latin America and others have initiated culturing of turtle in small marine farms. In Australia more than fifty turtle farms have been successfully established, thus achieving pre-commercial stage in turtle

culture. So far, in India, attempts have not been made to start rearing turtles.

Eggs, meat, fat, calipee (cartilaginous material, between the shell bones), the upper and lower shells are all highly priced. Turtle oil is used in the manufacture of cosmetics and their calipee is used to make turtle soup. Turtle skins are also in great demand. Their meat is eaten by the people, mostly in Tamilnadu and Kerala. Though the turtle meat is not in much demand in India, it can be exported to Japan, United States and Germany where it is relished much. In United States soups and broths are prepared from turtle meat. In India, along the coast of Tamilnadu, turtles are being caught by operating gill nets. Majority of them are green sea turtles, but the other four species viz, hawksbill logger head, biddleys and leather back are also caught. The meat and fat of the sea turtle, is sold at rupees four per kg. and the blood is sold at rupees one per glass in the local market.

Turtles take about two to four years to grow to commercial size. It breeds every fourth year in summer. In breeding season, turtles come ashore and lay their eggs in

huge clusters and bury them in the sand. A female turtle lays between seventy five and eight hundred eggs. The hatching of eggs takes about two months. Till it attains one year, it remains in open sea. During that period many of them are eaten by predators. This period is known as the Lost year. After the lost year, it is observed that only one percent survives and returns to shallow waters at the beginning of their second year. Their enemies are sea birds, fishes, crabs and man. The eggs and their newly hatched young suffer high mortality than that of the adults. Often, female turtles are caught when they come ashore to lay eggs. Thus population of turtles are tremendously reduced when they are caught before the eggs are laid.

The commercially important species of few sea turtles are, green turtle (*Chelonia mydas*), the hawksbill turtle (*Chelonia imbricata*), logger head turtle (*Thalassochelys caretta*), leather back (*Thalassochelys* sp) and diamond back terrapin (*Malaclemys terrapin*).

The Green Turtle (*Chelonia mydas*):

This is a true marine turtle, found along the Tamilnadu and Kerala coasts. Their fat is green in colour, hence the popular name green turtle. The jaws of this species are not hooked. The shield of the carapace is smooth and brown in colour, spotted with yellow and bordered with white or yellow colour. The shell has no commercial value.

The green turtle in their early life is carnivorous. After attaining one year age, they change their feeding habit from carnivorous to herbivorous. Occasionally, they prefer even small quantity of meat or fish. Their vegetable diet need not consist of only sea weed but also include vegetable waste when cultured. They attain three to four feet in length and grow up from 45 to 225 kg, in weight. They spend their entire adult life in open sea. They come ashore only for laying eggs.

The Hawksbill Turtle (*Chelonia imbricata*):

This marine turtle rarely attains 30 inches in length. So, it is considered as the smallest among the marine turtles. This can be distinguished by the arrangement of the shields of the carapace which coarsely overlap like shingles. The shields are transparent and spotted black, brown and yellow. The skin of head and limbs are brown or black tinged with pale yellow about their margins. The carapace is covered with thirteen plates. Out of those five occupy the center and four on each side. The shells of hawksbill turtle are highly priced, but the flesh of these turtles is not so delicious. This is carnivorous in habit, feeding on fish, mollusca, crabs and rarely on seaweeds.

The Logger head Turtle (*Thalassochelys caretta*)

The logger head turtle is economically less important because their meat is rarely

used as food, but the eggs are commonly eaten. The shield of carapace is also valued less because it is opaque in nature. The large logger head turtles have a shell of about 3.5 feet in length which is uniformly brown above and yellowish below. The head is much larger and coarser than that of the green turtle. This is also carnivorous, and chiefly feeds on fish, mollusca and crabs.

The Luth or Leather back turtle
(*Thalassochelys* sp.):

This is edible form. Horny shields are absent. The carapace is covered by leather like skin. It attains a size of about 8 feet weighing about 75 kg.

The Diamond back Terrapin
(*Malaclemys terrapin*):

The diamond back terrapin is also highly priced. It is found in salt and brackishwaters. It feeds on small fishes. Flesh is liked very much. Here the male is smaller than female.

Though the turtle meat, shell, oil and calipee are all highly priced in India and abroad, the Government has not taken any steps to encourage the turtle industry to involve itself in research, conservation and husbandry. The Government should also consider the possibilities of turtles being farmed instead of being merely exploited. The secret of turtle farming is to rear babies in captivity and also to avoid huge losses by predation. ●

October, 1975

ORIENT TO ORIENT

**NEW TOYO SEAFOODS
COMPANY, Ltd.**

IMPORT

- FROZEN SHRIMPS
- LOBSTER HEAD
- FROG LEGS
- OTHER MARINE PRODUCTS

EXPORT

- FISHING TRAWLERS
- FREEZING PLANTS
- ALL KINDS OF FISHING
GEARS AND EQUIPMENTS

OFFER

All technical know-how

Address :

ISHIKAWA BLDG.,
20-1, 2 CHOME,
MISAKI-CHO - CHIYODA - KU
TOKYO, JAPAN.

Telephone:

264-4373
262-4408
402-7830 RES:

Cable Address:

"NEWSEAFOOD TOKYO"
OR
"BANERJI TOKYO"
TELEX: NEWFOOD J 25220

