

## EDIBLE CHELONIANS AND THEIR PRODUCTS<sup>1</sup>

BY

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On account of the food shortage that is at present prevailing in India, Fishery Departments of many Provinces and States are making special efforts to increase production of fish and to market it to the public in a wholesome condition and at cheap rates. The Chelonians<sup>2</sup> (Tortoises, Turtles etc.) as a valuable source of food do not, however, appear to have received adequate attention. Tortoises and turtles, are not only an excellent food, rich in proteins and other valuable nutritive elements, but a fishery of these animals, if conducted on proper scientific lines, will provide employment for a considerable number of persons and will also help in setting up small scale industries in tortoise-shell, turtle-oil, etc. One great advantage in the fishery of these animals is that they can be kept for a considerable time out of water and do not suffer any appreciable deterioration in their edible qualities.

Turtle farming is a flourishing industry in Mexico, Japan and other countries. In some parts of India, notably in Assam and Bengal, considerable quantities of chelonians are caught and eaten. The Santals and some other tribes in Rajmahal relish tortoise<sup>3</sup> and, according to Annandale<sup>4</sup>, the meat of *Kachuga dhongoka* Gray, commonly known as *Dhundi* or *Dhoor*, is relished even by the Brahmins<sup>5</sup>.

Chelonians may be broadly classified into three groups, according to their habitat, i.e., Marine, Freshwater and Land forms. A brief and general account of those species which are valued as food, or have some other commercial or semi-commercial importance is given below.

### I. MARINE FORMS

*Dermochelys coriacea* (Linn.) is the largest of all living marine turtles; specimens weighing half a ton have been recorded. It is a great wanderer, travelling from ocean to ocean, and generally distributed in the tropical seas, and found in abundance on the coasts of Ceylon. It has no value as food, but eggs are highly prized. Babcock<sup>6</sup> has recorded that the inhabitants of the tropical islands extract oil out of

<sup>1</sup> Published with the permission of the Director, Zoological Survey of India.

<sup>2</sup> The term Chelonian has been used in a broad sense. It includes marine, freshwater and land forms.

<sup>3</sup> Chaudhuri, B. L., *Rec. Ind. Mus.* VII, p. 212-214 (1912).

<sup>4</sup> Annandale, N., *Journ. Asiat. Soc. Bengal* X, p. 137, Foot-note (1914).

<sup>5</sup> In the ancient law books of the Brahmins, the meat of tortoises is not forbidden.

<sup>6</sup> Babcock, H. L., *P.Z.S.* (London) CVII, p. 595 (1937).

the thick carapace of this animal. Deraniyagala<sup>1</sup> states that the oil is used as canoe preservative of considerable value. A specimen was sold at Colombo for Rs. 30.

**Eretmochelys imbricata** (Linn.), known as Hawksbill Turtle, is distributed in the tropical and subtropical seas. The flesh is dark, coarse and very seldom eaten. The much valued 'tortoise-shell' of commerce is derived from this species. From a single specimen as much as 10 lbs., of tortoise-shell may be obtained. Watt<sup>2</sup> has stated that sometime the price of a single specimen goes up to £ 4, though it naturally depends on the quality of its shell. The finest shell, according to Watt, is obtained from the Western Archipelago, but is exported from the southern coast of the Indian continent, Ceylon, the West India Islands and Brazil. In India tortoise-shell is largely used in making ornamental articles in Vizagapatam.

According to Babcock (*loc. cit.*, 1937, p. 601), 4980 chelonians were exported from Jamaica during the year 1929-31, valued at £ 10,097. Deraniyagala<sup>3</sup> has given the export figures of *Eretmochelys* scutes, based on the returns from the Ceylon Customs department.

**Chelonia mydas** (Linn.), the well-known Green Turtle is the animal from which the highly prized turtle soup is prepared. It has got a very wide distribution, occurring in tropical and subtropical seas. It is found in abundance near the Andaman Islands, and on the Rangoon coast. Maxwell<sup>4</sup> stated that there was a regular trade in these chelonians between Calcutta and the Andaman Islands. In the Nicobar Islands, these animals were extensively killed by 'pegging', and consumed by the local inhabitants.

Sometimes this turtle attains a weight of 400 lbs. The eggs are laid near the sea beach by digging holes at a safe distance from the water-mark. The chief egg-laying period is between July and November. Generally 66 to 195 eggs are laid by a single female. Maxwell (*loc. cit.*, 1911, p. 8) has recorded that the annual collection of eggs of the Green Turtle in the Irrawady division of Burma is about 1,600,000 or more. The Burmese are very fond of chelonian eggs, and the entire catch, therefore commands a high market price; sometimes in bigger cities like Rangoon, the eggs used to be sold at a fancy price. According to this author the eggs are very rich in food value and have a taste somewhat like that of marrow.

In Ceylon these animals are netted from November to March, and are kept in a pen specially constructed for the purpose in the sea near the beach, from which they are transported to the market according to the prevailing demand. In each season the catch runs to about 1,000 turtles. Deraniyagala (*loc. cit.*, 1930, p. 66, footnote) observed that turtle flesh is in great demand in the Jaffna (Ceylon) market. An adult turtle will fetch from Rs. 40 to Rs. 70. The Hindus are

<sup>1</sup> Deraniyagala, P.E.P., *Spol. Zeyl.* XVI, p. 52 (1930).

<sup>2</sup> Watt, G., *Dictionary Economic. Products VI*, part 1, p. 433 (1892).

<sup>3</sup> Deraniyagala, P.E.P., *Tetrapod Rept. Ceylon I.* p. 190 (1933).

<sup>4</sup> Maxwell, F. D., *Report Inland Sea Fisheries (Rangoon)*, p. 4 (1911).