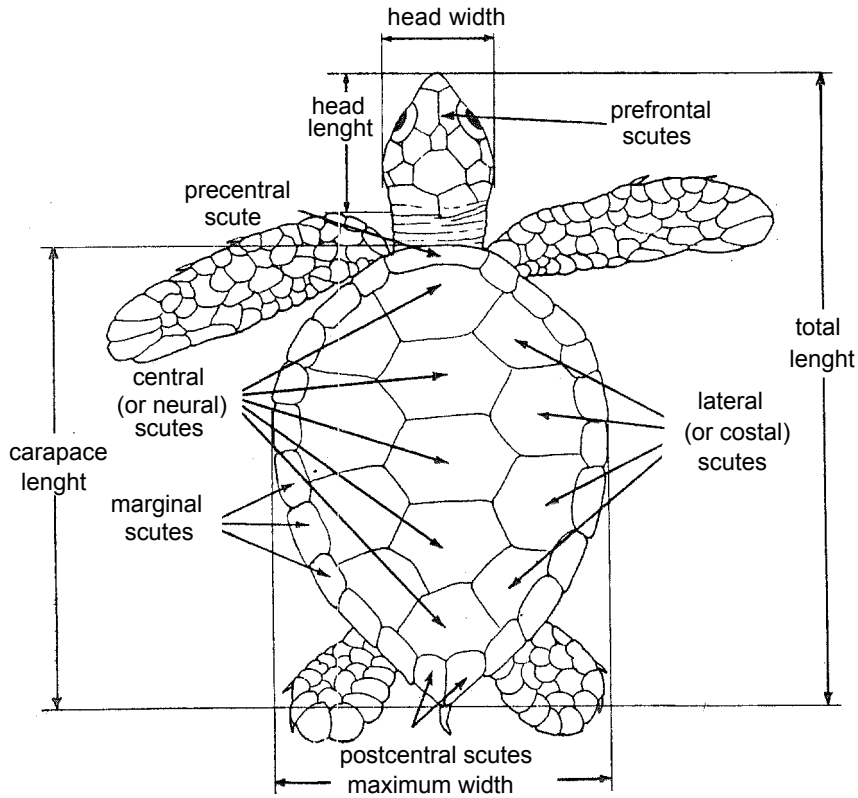
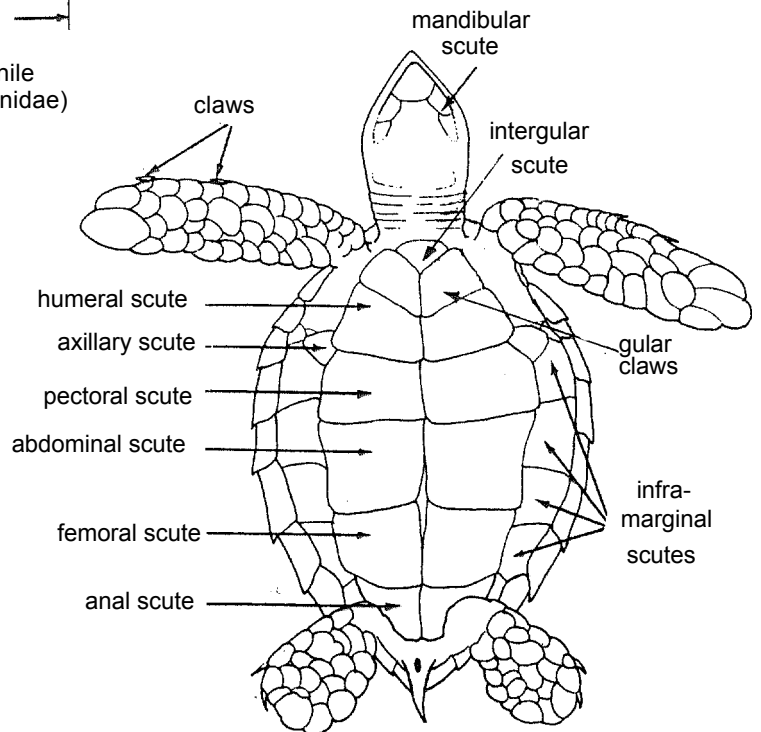


TECHNICAL TERMS AND PRINCIPAL MEASUREMENTS USED

(Straight-line distances)



dorsal view of a juvenile sea turtle (Family Cheloniidae)



ventral view of a juvenile sea turtle (Family Cheloniidae)

GENERAL REMARKS

The most typical feature of a turtle is the hard shell encasing the entire body. This shell is composed of a layer of bones underneath and a layer of horn on the outside; the latter often, but not always, displays a geometrical pattern of lamellae or scutes (see basic arrangement and nomenclature in the above figures). The top of the shell or carapace is joined at the sides with the bottom or plastron and the latter is notched in front and rear where the limbs emerge from the shell. All turtles have a strong, horny beak; none have true teeth, although tooth-like projections may be present on the jaws. The limbs or flippers of sea turtles are paddle-shaped.

Sea turtles occur in all tropical and warm-temperate oceans. They inhabit shallow waters along coasts and around islands, but some species are believed to be highly migratory and are found in the open sea. They are swift swimmers and some are said to attain speeds of about 35 km per hour; unlike freshwater turtles they move forward by simultaneous action of the front flippers, when swimming. All species are compelled to return in regular intervals to the land during the nesting season when the females lay their eggs in a nest dug into the sandy beach. After a relatively long incubation period (usually from 45 days to two and a half months) the hatchlings go back to the sea. Very little is known about their movements and fate before they attain sexual maturity after 10 or more years. The majority of sea turtles are predominantly carnivorous, but some species are omnivorous or even herbivorous.

Since ancient times turtles have been held in high esteem as food for man. The flesh as well as the eggs are of delicate taste and much of the production goes frozen or canned to export markets for the preparation of turtle soup, calipee and other delicacies. Other uses are in the extraction of oil from turtle fat, in the tortoise shell industry and in the leather industry. Fishing gear at sea includes catch by hand, tangle nets, gillnets, seines and harpoons. The catch reported to FAO from Fishing Area 51 in 1980 totalled 52 t (Seychelles only), but unofficial catch data indicate more than 2 700 t annually for the whole area, principally green and hawksbill turtles.

Some marine turtle species are becoming scarce nowadays and are in bad need of protection from irrational exploitation; they are especially vulnerable on land during their nesting period. More recently, farming of sea turtles, especially of the green turtle, has been successfully introduced to some parts of the world; it is hoped that this technique will become more widespread in the near future and thus take off some of the fishing pressure exerted on the species. In addition to the enforcement of protective legislation, the establishment of natural reserves for sea turtles is highly desirable.

The sea turtles of the Western Indian Ocean comprise 2 families, 5 genera and 5 species.

GUIDE TO FAMILIES AND GENERA OCCURRING IN THE AREA

FAMILY CHELONIDAE

CHEL

Shell, head and flippers covered with horny lamellae (scutes); horny beak never W-shaped when viewed from the front; flippers with 1 or 2 claws.

KEY TO GENERA OCCURRING IN THE AREA:

- 1a. Horny scutes on carapace imbricated (overlapping in all except very old specimens) (Figs 1b and 1c) Eretmochelys
- 1b. Horny scutes on carapace juxtaposed (not imbricated)
 - 2a. Four pairs of lateral (costal) scutes on carapace (Fig.2c); edge of lower jaw coarsely toothed (Fig.2b); a single pair of prefrontal scutes (Fig.2a); a single pair of claws on flippera.. Chelonia
 - 2b. Five or more pairs of lateral (costal) scutes on carapace (Figs 3a and 4a); 2 claws on each flipper
 - 3a. Four pairs of inframarginal scutes on the bridge of the plastron, each with a small perforation or pore toward their hind margin (Fig.3c); carapace semicircular (F ig.3b) Lepidochelys
 - 3b. Three pairs of enlarged inframarginal scutes without pores on the bridge of the plastron (Fig.4c); carapace heart-shaped (Fig.4b) Caretta

LIST OF SPECIES OCCURRING IN THE AREA:

Code numbers are given for those species for which identification Sheets are included

<u>Caretta caretta gigas</u> (Deraniyagala, 1939)	CHEL Car 1
<u>Chelonia mydas agassizii</u> (Bocourt, 1868)	CHEL Chel 1
<u>Eretmochelys imbricata bissa</u> (Rüppell, 1835)	CHEL Eret 1
<u>Lepidochelys olivacea</u> (Eschscholtz, 1829)	CHEL Lepid 2

FAMILY DERMOCHELIDAE

DERMO

Horny skin smooth, scuteless; carapace black with 7 narrow longitudinal ridges (Fig.5b), white dotted plastron with 5 longitudinal ridges (Fig.5c); upper jaw with a well-defined cusp on each side, giving the horny beak a W-shaped appearance when viewed from the front (Fig.5a); large flippers without claws, the anterior pair much bigger, the posterior broadly connected with the tail by a web in adults.

A single species occurring in the area:

<u>Dermochelys coriacea schlegelii</u> (Garman, 1884)	DERMO Dermo 1
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PICTURE GUIDE TO SPECIES OCCURRING IN THE AREA

