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18. DEFENSIVE BEHAVIOUR IN THE INDIAN ROOFED TURTLE *KACHUGA TECTA* (GRAY)

(With a text-figure)

Static defensive adaptations — head, tail and appendage retraction into a shell, is seen in all emydid turtles. Box turtles of several genera from both the Old and New Worlds, in addition possess single or double hinges in the plastron, allowing them to cover, partially or completely, their retracted parts.

When alarmed, the Indian roofed turtle *Kachuga tecta* retracts its head, tail and appendages readily into its shell. However, in the absence of hinges in the plastron, the species is vulnerable to some degree of predation, especially from land-based predators, even after pulling in the projecting body parts into the shell. In this position, physical threat such as a light touch to the turtle's head or forelimbs makes the hindlimbs fully extended and planted vertically or obliquely to the substrate, while the head, tail and forelimbs are retained within the shell, thereby raising the posterior part of the shell considerably. In an 8.2 cm. (carapace length) specimen, the plastron was raised by 2 cm. Following adoption of the posture, the turtle may attempt to move forward, using its hind limbs, maintaining this unusual posture till suitable shelter is reached.

Evidently, the species assumes this defensive posture, as the head and forelimbs are given additional protection, being lowered close to the ground. Possibly turtles encountered by predators while wandering on land assume the posture, which gives some measure of protection to the exposed parts on the anterior opening of the shell, and may additionally confound some of the land-dwelling predators, thereby giving them several moments to proceed towards the relative safety of water.

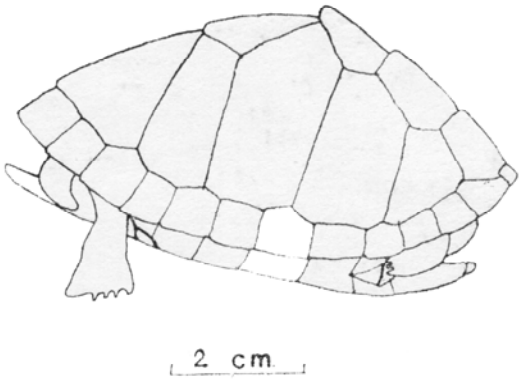

Fig. 1. Response of the Indian roofed turtle *Kachuga tecta* when physical contact is made to the retracted head and forelimbs.

INDRANEIL DAS

18/20, Ballygunge Place (East),
Calcutta - 700 019,
April 23, 1986.