

CHELONIA AND BATRACHIA OF THE INLE LAKE.

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With Plate XX.

CHELONIA.

The fishermen of the Inlé Lake recognize two species of Chelonia ; to one they give the name *Leik Pu*, to the other *Leik Kambar*. The latter is evidently a species of *Trionyx* ; it is said to be round and flat, to have no scales on its back, to grow to a large size and to have round black spots on its back when young. It may be *Trionyx phayrei*, which seems to be found at higher altitudes than any other species in Burma, but we did not see a specimen. The *Leik Pu* is a local race of the widely distributed terrapin *Cyclemys dhor* (Gray). I describe it here as :—

Cyclemys dhor shanensis, subsp. nov.

The shell of both sexes is somewhat elongate, but that of the female is relatively broader than that of the male. The shields are also broader, specially those of the dorsal row. The dorsal surface of the male shell is flattened, while that of the female is convex. The whole of the margin of the carapace is a little retroverted ; in front of and behind the bridge of the plastron it is distinctly concave above. The growth-lines are strongly developed on the shields. In a young adult female the suture running across the outer part of the abdominal shield and representing the plastral hinge is almost obliterated, being represented merely by a faint superficial groove¹ ; but the suture between this shield and the pectoral is strongly marked. In a slightly older male the suture between the shields is very nearly straight and practically all external trace of the hinge has disappeared. The whole of the shell is very dark brown or black with fine radiating yellowish lines on each shield. These lines tend to disappear with age. The head and neck are greenish black and are uniformly marbled with dull olivaceous. The limbs and tail are blackish. The skull resembles that of the typical form but the snout is perhaps a little broader and blunter.

Measurements of shells with callipers (in millimetres).

				Male.	Female.
Total length	...	...	...	225	184
Breadth	...	...	...	138	137
Depth	...	...	...	78	72
Length of plastron	...	...	...	198	174
Length of bridge	...	...	...	70	65

¹ This groove shows more clearly in the photograph (plate xx, fig. 2*a*) than it does on the actual specimen.

Type-specimens.—Male No. 18594 ; female No. 18593, *Zoological Survey of India (Ind. Mus.)*.

The male type is from Fort Stedman on the Inlé Lake, altitude 3,000 feet ; the female from a small stream from the He-Ho plain 800 feet higher.

This tortoise is largely aquatic in habits, sitting at the edge of canals and other bodies of water and diving to the bottom when disturbed.

I have examined a large series of adults of the typical form of *Cyclemys dhor* from different parts of Burma and from the Khasi and Garo Hills in Assam. In none of them is the hinge of the plastron obliterated in the way in which it is in the Shan specimens, although some of the shells are evidently those of aged individuals in which the growth-lines on the shields have been entirely worn away. In an old living specimen from the Garo Hills recently examined, the hinge, though still represented on the shields by an open suture, was quite immovable. The typical form shows the same sexual difference in shape of shell, but its colour seems to be invariably paler than in the Shan form.

BATRACHIA.

The season of our visit was a very bad one so far as the collection of Batrachia was concerned. The frogs and toads of the Shan Plateau undergo a longer period of hibernation than the mildness of the climate would seem to justify were it not that most of them are tropical species. They were only beginning to arouse themselves from their winter sleep in March and as a matter of fact we did not see a single adult batrachian in the Inlé basin. Several tadpoles were, however, found in small hill-streams running into the lake and we obtained specimens of one frog, a common and widely distributed form, both at He-Ho and some four hundred feet higher at Thamakan.

Rana kuhlii, D. and B.

1917. *Rana kuhlii*, Smith, *Journ. Nat. Hist. Soc. Siam* II, p. 262, pl.—, figs. 1, 1a, 1b (larva).

Tadpoles of this species were abundant in streams at Hsing-Dawng and near Fort Stedman. I have identified them by comparison with specimens sent me from Siam by Dr. Malcolm Smith, who has just described the larva in the *Journal of the Natural History Society of Siam*. It is clear from his investigations that the tadpole¹ I assigned provisionally to this frog recently was incorrectly identified.

The species is widely distributed in southern Asia east of the Bay of Bengal.

Rana limnocharis, Wieg.

Frogs from the Shan States belong to the typical form of the species but are rather small ; I saw none more than 45 mm. in length from snout to vent. The specimens we found at Thamakan were in a well and seemed to be in a half torpid condition. I believe that I heard frogs

¹ Annandale, *Mem. As. Soc., Bengal* VI, p. 147 (1917).

of the species croaking in the swamp at the north end of the Inlé Lake at the beginning of March.

Bufo melanostictus, Schneid.

Dr. Gravely collected a number of tadpoles in the old valley of the Kawlaw river east of Ngot at an altitude of about 3,500 feet. They are all young and had probably spent the winter in a larval state.

Megalophrys montana, Kuhl.

We obtained in a small stream above Fort Stedman a tadpole of the genus *Megalophrys* that agrees precisely with those from Penang¹ and differs in the same characters from those of the Himalayan species.

M. montana is widely distributed in the Malay Peninsula and Archipelago and Smith² states that it is found on most of the hill ranges throughout Siam, but it has not been recorded hitherto from Burma.

¹ *Id., ibid.*, p. 154, pl. vi, fig. 10.

² *Journ. Nat. Hist. Soc., Siam*, II, p. 231 (1917).