

XV CONTRIBUTIONS TO THE FAUNA
OF YUNNAN BASED ON COLLEC-
TIONS MADE BY J. COGGIN
BROWN B.Sc.
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PART VI.—BATRACHIA AND REPTILES.

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Mr. Coggin Brown's collection of Batrachia and Reptiles is not a large one and the specimens have suffered much through leakage of spirit *en route*. Some interesting forms are, however, represented and I trust that the following records will prove interesting from a geographical point of view.

BATRACHIA.

1. *Tylototriton verrucosus*, Anderson.

Specimens from Tengyueh (5,600 feet) and Yang-pi (5,200 feet). This newt was originally described from Yunnan and occurs also in Upper Burma and the Eastern Himalayas. It is very abundant at Kurseong (alt. 4,500—5,000 feet) in the Darjiling district, breeding there in small pools of rain-water in June and July. Larvae evidently just about to undergo their final metamorphosis are common in August, but I have seen quite young larvae also in April and it seems possible that the early spring showers induce a few individuals to breed, although the majority do not do so until the real break of the rains.

2. *Megalophrys carinensis* (Boulenger).

Leptobrachium carinense, Boulenger, *Faun. Brit. Ind.—Rept.*, p. 511.
Megalophrys carinensis, *id.*, *P.Z.S.*, 1908 (i), p. 427.

A large specimen from Hsia-kuan (6,700 feet). Originally described from the Karin Hills; this frog also occurs in Tenasserim.

3. *Megalophrys major*, Boulenger.

? *Ixalus lateralis*, Anderson, *Anat. Zool. Res. Yunnan Exp.*, p. 844, pl. lxxviii, fig. 5 (1879).
Megalophrys major, Boulenger, *P.Z.S.*, 1908 (i), p. 416, pl. xxiii.

No specimens of this species were taken by Mr. Brown in Yunnan, but he has recently sent me what may be its larva from the Hse-gna-Sang River, Panzi, Hsipaw, N. Shan States. The tadpoles from Hsipaw closely resemble those of *M. montana* and *M. parva* in structure but differ from the former in having the ventral surface pale and from the latter in not being mottled or spotted on the dorsal surface, which is of a uniform dark brown.

I take this opportunity to put on record the occurrence of tadpoles apparently identical with those of *M. parva* in a small spring on the road to the plains from Naini Tal at an altitude of about 5,000 feet. This record extends the known range of the family Pelobatidae, which does not appear to have been taken hitherto in the Western Himalayas. The specimens were taken by myself in October, 1906.

4. *Bufo melanostictus*, Schneider.

Specimens from Tengyueh. The common toad of the greater part of tropical Asia.

5. *Hyla chinensis*. Günther.

Mr. Brown has given me the following note on the species:—

“*Hyla chinensis* is very widely distributed in China, and has been obtained from Southern China and the island of Formosa by Swinhoe,¹ from Shanghai by the Szechenyi expedition,² from Lung-tan-ssi in southern Shensi by Blackwelder,³ from Tengyueh in Western Yunnan by Anderson⁴ and from Tengyueh and Pu-piao in the same province by myself. Günther has pointed out that this frog (which is extremely similar to the common European tree frog) appears to be peculiar to China. Anderson’s specimens were found covering a few bushes around Momien (Tengyueh) in the month of July; whilst Blackwelder found a small company in a shallow temporary pool of water on the grassy side of a mountain ridge, 6,000 feet in elevation, in the month of April. The chorus made by them was so loud as to be plainly audible at a distance of 2,000 feet.

The frog is common around Tengyueh and appears to spend the cold months of the year on the ground, in secluded positions under old tree-trunks, etc. I have found them, usually in small groups of four or five, under stones in damp fields in December and January. As the weather gets warmer they appear to become more arboreal in their habits, taking then to bushes, trees and tall

¹ *Catalogue of Batrachia Salientia in British Museum*, p. 108, 1858.

² “Verzeichniss der Reptilien, Amphibien, und Fische,” by Dr. Franz Steindachner in *Die wissenschaftlichen Ergebnisse der Reise des Grafen Bela Szechenyi in Ost-Asien, 1877-1880*, Band ii, p. 507.

³ “Report on Zoology,” by Eliot Blackwelder in *Research in China*, part 2, p. 481. Washington, 1907.

⁴ *Anatomical and Zoological Researches of Yunnan Expeditions*, by Anderson, 1878, vol. i, p. 847

plants. They are apparently nocturnal, for a group which were under observation in a garden for three months in the autumn of 1909, used to lie snugly together in the open end of a bamboo during the day, wriggling closer together if approached. At dusk they emerged one by one, remaining at the mouth of the bamboo for a few minutes before taking a leap on to the spray of an adjacent rose bush which was their favourite and apparently only hunting-ground. When approached with a light they showed great alarm, jumping rapidly and far, and apparently at random, their adhesive feet taking firm hold at the instant of contact with a twig or leaf. They seemed to like water, for a small quantity was always lying collected at the bottom of the bamboo in which they lived, and during rain or when water was poured in on them they invariably came up half way to meet it. During the three months of observation they made no sound; this was perhaps owing to it not being the time of the breeding season.

The specimens from Pu-piao were obtained at an elevation of 4,500 feet, living on the top of a thick high hedge. Tengyueh itself has an elevation of 5,365 feet."

The collection also includes specimens of several species of *Rana*, but their condition forbids a precise identification.

REPTILES.

6. *Japalura yunnanensis*, Anderson.

Anderson, *Anat. Zool. Res. Yunnan Exp.*, p. 803. pl. lxxvi, fig. 2 (1878).

A specimen from Yang-pi.

7. *Acanthosaura dymondi*, Boulenger.

Boulenger, *Ann. Mag. Nat. Hist.* (7), xvii, p. 567 (1906).

A specimen from Ta-lu, Yung-pe Ting district (alt. 7,800 feet). I have compared it with one of the types from Yunnan Fu (alt. 6,400 feet).

8. *Ablabes porphyraceus* (Cantor).

A young specimen from Mong Wan (alt. 3,100 feet).

9. *Zaocys nigromarginatus* (Blyth).

A specimen from Lu-shui-ho in the province of Ssu-chuan.

10. *Coluber taeniurus*, Cope.

Specimens from Tengyueh and Ma-chan-kai (6,000 feet) in the Tengyueh district.

11. *Coluber prasinus*, Blyth.

A specimen from Pu-piao (alt. 4,600 feet) in the Yung-chang Fu district.

12. *Helicops schistosus* subsp. *yunnanensis* (Anderson).

Atretium schistosum, Daud., var. *yunnanensis*, Anderson, *Anat. Zool. Res. Yunnan Exp.*, p. 822 (1878).

Helicops schistosus var. *andersoni*, Wall, *Rec. Ind. Mus.*, iii, p. 146 (1909).

A specimen from Mong Wan must be attributed to this race, the internasal being divided into three shields as in two of the three original specimens, which are the types of Wall's variety as well as of Anderson's. So far as I am aware this form has only been found in Yunnan. It is distinguished from the typical form of the species by the splitting of the internasal into either two or three shields.

13. *Tropidonotus stolatus* (Linn.).

A specimen from Lo-po-ssu-chuang (Mong Hum) (alt. ca. 5,000 feet). The markings are unusually conspicuous owing to the pale ground-colour of the dorsal surface, but I am not sure how far this is due to partial maceration of the specimen.

14. *Tropidonotus nuchalis*, Boulenger.

Boulenger, Cat. Snakes Brit. Mus., i, p. 218, pl. xiii, fig. 1.

I attribute to this species, which was originally described from the upper basin of the Yang-tse-kiang, two small specimens, one (total length 31 cm.) from Tengyueh, the other (total length 43 cm.) from Pe-lien (alt. 5,800 feet) in the same district. They agree fairly well with Boulenger's description and have the mid-dorsal groove on the neck (which doubtless suggested the specific name) conspicuously present; but in one the suture between the internasals is distinctly and in the other slightly shorter than that between the fronto-parietals. The smaller specimen is dark with a pale transverse bar running across the neck and interrupted by the nuchal groove, and with a minute white spot on each side of a large number of the dorsal and lateral scales. In the larger specimen these minute spots have disappeared and the nuchal cross-bar is represented by a brownish spot on either side. The dark lines on the sides of the head were apparently faint or absent in both specimens, but their state of preservation is too bad to justify an exact statement on this point.

15. *Bungarus fasciatus* (Schneider).

A young specimen from Chu-tung (alt. 5,500 feet) in the Yung-ping Hsien district.