

ON A COLLECTION OF AMPHIBIANS AND REPTILES FROM THE UPPER RECHAES OF THE BRAHMAPUTRA.

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I am indebted to the Director of the Zoological Survey of India for the privilege of examining a small collection of Amphibians and Reptiles obtained on different occasions during the last few years from Upper Assam and the extreme north of Burma. The region is but little known zoologically and any records concerning it therefore are of interest.

AMPHIBIANS.

***Rana cyanophlyctis* Schneid.**

A single juvenile specimen from the Phulcherra Tea Estate, Srimangal, Assam (S. W. Kemp coll.).

***Rana limnocharis* Wieg.**

Many specimens from Pung-ka-mem-john and Cantonment Hill, Cherrapungi, Assam (S. L. Hora coll.); Shillong, Assam, 5000 ft. (T. B. Fletcher coll.); Phulcherra Tea Estate (S. W. Kemp coll.).

Examples from these districts shew a rare form of coloration in that they have, in addition to a light vertebral line, a fine yellow streak extending along the back of the leg from above the vent to the external metatarsal tubercle.

***Rana hascheana* Stoliezka.**

Rana hascheana, Boulenger, *Rec. Ind. Mus.* XX, p. 54 (1920).

Rana limborgi, Boulenger, *ibid.* p. 56.

One adult male from Paukang, N. E. Burma, near the Tibetan frontier (Dr. Murray Stuart coll.).

Rana limborgi is said to differ from *R. hascheana* in having a larger and more prominent inner metatarsal tubercle and by the presence of tooth-like prominences in the front of the lower jaw as well as of vocal sacs in the male. I am unable to find any of these distinguishing characters in the specimens labelled *limborgi* and *hascheana* in the British Museum collection. Through the kindness of Professor Gestro of the Natural History Museum of Genoa, I have also been able to examine the specimen of *limborgi* figured in *Ann. Mus. Civ. Genova*, (2) XIII, 1893, p. 329, pl. X, in which the vocal sacs are said to shew externally as strong folds on either side of the throat. This specimen is exactly as figured (fig. 1a), but the folds have no connection with the mouth; they are not vocal sacs, but a part of the general cranial enlargement which occurs in the fully grown male of this species, and which can be seen also in other members of this group, particularly in those allied to *Rana macrognathus*.

R. limborgi Sclater therefore becomes a synonym of *R. hascheana* Stoliczka. The range of the species can be extended over the whole of the Indo-Chinese region, a specimen having been recently acquired by the British Museum from as far east as Thai-Nien in Tonkin.

***Rana alticola* Boulenger.**

Numerous tadpoles from Nong-priang stream, Cherrapungi (S. L. Hora coll.); Therriaghat, Khasi hills (R. Hodgart coll.); Wangjuti, N. E. Burma, near the Tibetan frontier (Dr. Murray Stuart coll.).

***Rana afghana* (Günth.).**

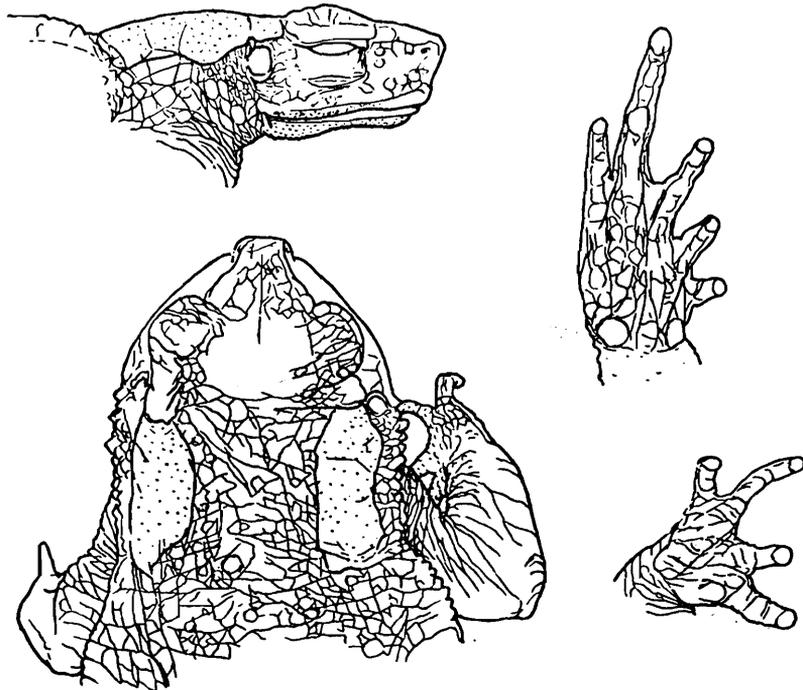
Rana latopalmata, Boulenger, *Rec. Ind. Mus.*, XX, p. 217 (1920).

Adults, juveniles and tadpoles from Shillong, 5,000 ft. (T. B. Fletcher coll.); Nong-priang stream, Cherrapungi and Therriaghat, Khasi hills (S. L. Hora coll.); Garo hills, Assam (S. W. Kemp coll.).

In 1924 (*Rec. Ind. Mus.*, XXVI, p. 139) I stated that the tadpole of *Rana livida* could be distinguished from that of *R. afghana* by the presence of a white V-shaped notch on the upper mandible. The above series of tadpoles, however, shews that this character cannot be relied upon and the tadpoles which I described then as *livida* I believe now to be those of *afghana*. The tadpole of *Rana livida* therefore is unknown.

***Bufo stuarti*, sp. nov.**

Description of the type. Adult male, collected on the Putao plain, N. E. Burma, near the Tibetan frontier, by Dr. Murray Stuart, after whom it is named.



TEXT-FIG. 1.—*Bufo stuarti*, sp. nov. Nat. size.

Habit like that of *B. melanosticus*. Crown without bony ridges; snout as long as the upper eyelid, prominent, projecting forwards beyond

the lower jaw; canthus rostralis distinct; loreal region almost vertical; interorbital space a little broader than the upper eyelid; tympanum distinct, half the diameter of the eye. First finger a little longer than second, third finger nearly twice as long as second; two well marked carpal tubercles, the outer larger and flatter than the inner. Toes half webbed, the membrane not reaching the tips of the third and fifth toes; subarticular tubercles single, not very prominent; no tarsal fold; two well marked metatarsal tubercles. The tarso-metatarsal articulation reaches to the tip of the snout; the heels meet when the legs are folded at right angles to the body.

Skin of the head fairly smooth, of the back and limbs above with smooth warts of moderate size. Parotids well developed, elongate, twice as long as broad, parallel with each other. Skin of the lower parts coarsely granular. Nuptial asperities on the inner three fingers.

Pale olive above, uniform; brownish-white below.

From snout to vent 73 mm.

Bufo stuarti is closely related to *B. stomaticus* Lutken from which it can be distinguished by the more prominent snout, the strong canthal ridges and by the absence of a tarsal fold.

Megalophrys major Boulenger.

Megalophrys major, Boulenger, *Proc. Zool. Soc., London*, 1908, p. 416.

One adult example from above Tura, Garo hills (Mrs. S. W. Kemp).

LIZARDS.

Cosymbotus platyurus (Schneid.).

Hemidactylus platyurus, Boulenger, *Fauna Brit. Ind.*, 1890, p. 95.

Two examples from Shillong (Col. R. B. S. Sewell coll.).

Draco maculatus (Gray).

One example from the Naga hills, Assam (Dr. J. H. Hutton coll.)

Draco norvillii Alcock.

Alcock, *Journ. Asiat. Soc. Bengal*, LXIV, pt. 2, p. 14, pl. iii (1895).

A female specimen from the Naga hills, Assam (Dr. J. H. Hutton coll.).

It is the second specimen known. With the exception of a slight difference in the coloration of the patagium it agrees well with the description of the type, a male, from Doom Dooma, Upper Assam. Both sexes now being known it will be convenient to redescribe the species.

Head small; snout a little longer than the diameter of the orbit; nostrils directed vertically upwards; tympanum covered with small scales. Upper head shields unequal, strongly keeled; a small subconical tubercle at the posterior part of supraciliary edge; nine or ten supralabials. Gular appendage of the male a little longer than the head, covered with large scales, of the female less than half the length of the head.

Dorsal scales unequal, smooth or feebly keeled, the largest about as large as the ventrals which are strongly keeled; a dorso-lateral series of distant, enlarged subtriangular scales. The fore-limb extends to well beyond the tip of the snout, the hind limb to the axilla. Male with a slight nuchal fold; no caudal crest.

Greyish or bronzy above, with metallic tints and darker spots; a more or less distinct light transverse bar across the middle of the back. Patagium of the male with three dull red (scarlet in life) transverse bands above, which bifurcate as they approach the body. In the female the first band and inner parts of the second and third bands are dark brown. Beneath immaculate. Gular appendage pale lemon in life; inside of wattles red.

From snout to vent 175; tail 200 mm.

Range.—Upper Assam.