

## XII. DESCRIPTIONS OF THREE NEW BATRACHIANS FROM THE GARO HILLS, ASSAM.

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Dr. N. Annandale has kindly submitted to me for study and description, examples of four new Batrachians obtained in the Garo Hills, by Mr. and Mrs. S. W. Kemp. Descriptions of three of these are here given, the fourth, *Rana garoensis*, being reserved for a monograph of the genus *Rana* which is shortly to be published in the *Records of the Indian Museum*.

### ***Nectophryne kempi*, sp. nov.**

Head moderately large, broader than long, flat above, distinct from 'neck'; snout short, truncate at the end, feebly projecting beyond the mouth; canthus rostralis distinct; loreal region nearly vertical, slightly concave; nostril near the tip of the snout; interorbital region broader than the upper eyelid; tympanum hidden. Fingers moderately elongate, much depressed, with feebly dilated, truncate tips,  $\frac{1}{3}$  webbed; first finger about  $\frac{2}{3}$  the length of second; subarticular tubercles indistinct. Hind limb short, the tibio-tarsal articulation reaching the shoulder; tibia  $\frac{2}{5}$  the length of head and body. Toes  $\frac{3}{4}$  webbed, the tips broadly rounded but not dilated; subarticular tubercles small, flat; two small metatarsal tubercles; no tarsal fold. Upper parts rough with granules and small round tubercles; a rather prominent, elliptic parotoid gland; lower parts granulate. Blackish brown above, dark brown beneath; lower surface of fore limb and thigh yellowish; a large round yellowish spot on each side of the breast, at the base of the arm.

From snout to vent 34 millim.

Two specimens from above Tura, 2,500 ft., obtained by Mr. Kemp. *N. maculata*, Mocquard, from Kina Balu, Borneo, was the only Asiatic species known in which the tympanum is completely hidden, but it is distinguished from the toad here described by a very slender form.

### ***Ixalus garo*, sp. nov.**

Snout truncate, scarcely projecting, a little shorter than the diameter of the orbit; canthus rostralis distinct; loreal region slightly oblique, concave; nostril equally distant from the eye and the tip of the snout, interorbital region broader than the upper eyelid; tympanum distinct, one-third the diameter of the eye. Fingers short, free; toes short, webbed at the base; discs of



fingers and toes large, quite as large as the tympanum. The tibio-tarsal articulation reaches the eye; heels overlapping when the limbs are folded at right angles to the body; tibia  $\frac{1}{2}$  the length of head and body. Skin smooth above; a glandular fold from the eye to the shoulder; throat smooth; belly granulate. Greyish above, with a large sharply defined dark brown hourglass-shaped blotch covering the head from between the eyes and the back; loreal and temporal regions dark brown; limbs with dark cross-bands; lower parts greyish, dotted with white.

From snout to vent 13 millim.

A single specimen was obtained by Mr. Kemp above Tura. The nearest ally of this species is *I. annandalei*, Blgr., from the Kurseong Himalayas, which differs in the pointed and very prominent snout and in the smaller digital discs.

#### *Ixalus kempiae*, sp. nov.

Snout rounded, scarcely projecting, a little shorter than the diameter of the orbit; canthus rostralis indistinct; loreal region oblique, feebly concave; nostril equally distant from the eye and the tip of the snout; interorbital region broader than the upper eyelid; tympanum hidden. Fingers short, free; toes short, webbed at the base; discs of fingers and toes large. The tibio-tarsal articulation reaches the tip of the snout; heels overlapping when the limbs are folded at right angles to the body; tibia  $1\frac{4}{5}$  times in length of head and body. Upper parts with small warts; throat smooth; belly granulate. Greyish above, with small blackish spots; a blackish cross-band between the eyes and a X-shaped marking on the back; limbs with irregular blackish cross-bands; upper lip with vertical dark bars; throat and belly whitish, spotted and marbled with brown.

From snout to vent 17 millim.

A single specimen, obtained by Mrs. Kemp above Tura. Closely allied to *I. parvulus*, Blgr., from the Karin Hills, Burma. Distinguished by the longer hind limb.



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