

## ON THE FROGS OF THE GENUS OXYGLOSSIS.

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WITH A PLATE.

In the genus *Oxyglossis*, three species have been included, namely:—*O. lima* (Gravenh.), *O. laevis* Günther, and a third form, doubtfully distinct from the latter, and described by Peters from specimens obtained in Bangkok, under the name of *O. martensi*.<sup>1</sup> This latter was separated from *laevis* on three points:—the webs of the toes deeply emarginate, a rather indistinct metatarsal tubercle, and warts on the back and limbs. None of these points, however, are of specific value.

Writing of *O. laevis* when describing the tadpole, Mr. Boulenger remarked.<sup>2</sup> “Adult and larval specimens were collected by Mr. Everett in Southern Celebes, at an altitude of some 2,000 feet. The largest specimen measures 42 mm. from snout to vent. The toes may be fully webbed, with rectilinear membrane, or the webs may be deeply emarginate, as described by Peters in *O. martensi* from Siam, which I am now very much inclined to think is based on an individual variation of *O. laevis*.”

In *O. laevis* also there may be warts on the skin, while *O. martensi* may have the skin smooth.

I have always been struck, however, when examining these frogs in Siam, by the difference in size which exists between them and in those recorded from the Archipelago. Through the kindness of the authorities of the Selangor Museum, Kuala Lumpur, and The Raffles Museum, Singapore, I have recently been able to examine the specimens in their collection, and to compare those from the Malay Peninsula and Archipelago, with my own large series from Siam.

Siamese specimens seldom exceed 28 mm. in length, and those that I have seen from the Peninsula (Nakon Sitamarat, Singgora, Patani, Jalor, Perak), have not been any larger. In the Archipelago

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1. Mon. Berl. Ac., 1867, p. 29.

2. Boulenger, P. Z. S. 1897, p. 228.

on the other hand, as just mentioned, they may attain a length of 42 mm., and the general build is in proportion

With regard to the toes, the web in specimens from the Peninsula and Siam is always emarginate, and never full as appears to be usual with those from the Archipelago.

In colouration there appears to be no difference, but individuals from the Peninsula and Siam may have a large orange or yellow patch behind the eyes.

The tadpole of this frog in Siam, is less than half the size of that described by Mr. Boulenger from the Celebes.

For these reasons, therefore, it would be convenient to separate this species into two races, a large or southern one inhabiting the islands of the Malayan Archipelago, and a small or northern one, ranging through the Malay Peninsula and Siam, into Burma and Indo-China. To this latter race the name *Oxyglossis laevis martensi* may be applied.

#### THE TADPOLE OF OXYGLOSSIS LIMA.

Head and body, length twice, or nearly twice its breadth, snout long, obtusely pointed. Nostrils equidistant between the eyes and the tip of the snout. Eyes towards the upper surface of the head, looking outwards and upwards, twice as far apart as the nostrils. Spiraculum sinistral, directed straight backwards, nearer the vent than the eye, long and prominent in life. Anal tube very short, median. Mouth small, terminal, without papillae; lower lip vertically horse-shoe shaped, upper lip, a small rounded flap; no teeth; beak entirely black, lower mandible deeply semilunar in shape. The lower lip, which occupies the greater part of the mouth, itself projects from a sheath of skin, which is formed by, and is part of, the skin of the rest of the body.

Tail sharply pointed, very high at its commencement where it rises almost abruptly from the base of the tail, diminishing gradually as it passes backwards; at its highest point about four times as deep as the lower crest, which is very shallow. Toes webbed as in the adult.

Colour (in life). Light olive above, with darker markings; a dark streak through the eye passing backwards, and dark patches at the base of the tail. Caudal membranes handsomely veined and marbled with shades of brown. Below, white.

Dimensions. Total length, 33 mm., head and body 11.

A feature of the tadpole is the high, festooned upper crest, which gives it a very handsome appearance.

THE TADPOLE OF *OXYGLOSSIS LAEVIS* MARTENSI.

Similar to *O. lima* except:—

Upper caudal membrane, low, hardly any deeper than the lower, slightly convex.

Upper lip shorter, so that a considerable portion of the lower lip can be seen when the head is viewed from above.

Toes webbed as in the adult.

Size much smaller; total length, 23 mm., head and body 8.5 mm.

Colour (in life) Olive above, finely speckled and streaked with black. A dark band through the eye, and a light golden one beneath, along each side of the head. Tail with light and dark variegations. Below thickly speckled with black and white.

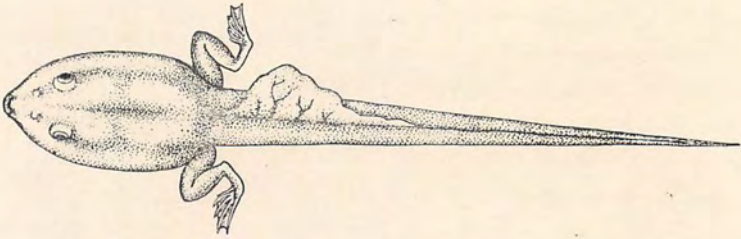
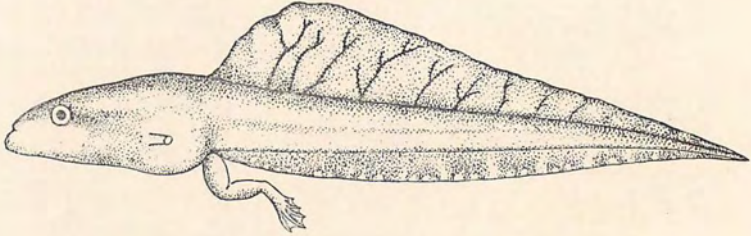
The tadpole of *O. laevis* from the Celebes as described by Mr. Boulenger is 51 mm. in total length, but in other respects appears to agree very closely, with *O. l. martensi*.

Both the tadpoles just described may be found in Bangkok throughout the greater part of the rainy season. In their habits they are much alike. Both are sluggish, and hardly ever move about, remaining quietly at the bottom of any ditch or pool they happen to live in. Unlike other tadpoles that I know, they have a habit of sprawling out their hind-limbs in an ungainly manner, and of using them also as a means of locomotion, preferring to crawl slowly about by their aid, rather than use their tails. They are carnivorous feeders, preying on mosquito larvae, other small tadpoles etc.

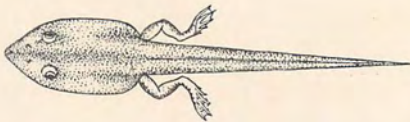
As a genus, these tadpoles seem very distinct, the long, pointed snout, and the small, terminal mouth, with large beak but no teeth, serving to distinguish them at once from tadpoles with the Ranid or Engystomatid type of mouth.

The embrace of the parent frog (I have only seen that of *O. lima*), is axillary.

Both species of frog are widely distributed throughout Siam. In the southern portion of the Malay Peninsula they appear to be



**OXYGLOSSIS LIMA.**



**MOUTH.**

**O. LAEVIS MARTENSI.**



rare, but are more numerous in the northern half. In Siam proper they are exceedingly common. I have no records of any specimens north of Prae, but there is no reason to believe that their range does not extend beyond this. In Bangkok both are plentiful.

*O. lima* is strictly aquatic in its habits, and I have never seen it away from water. It haunts the open rice-fields and small ponds. Its cry is a harsh, chattering note, and it is the only frog in Bangkok that may be heard calling at any time of the year. It feeds chiefly upon ants and spiders.

*O. laevis martensi*, although never far from water, is seldom to be found in it, preferring the road-side ditches, where it seeks concealment in the long grass or dense foliage by the water-side. From this habit, as well as from its small size, it is seldom seen and is a difficult frog to catch. Once its note can be recognized, however, an unobtrusive and not unmusical "chink, chink" often repeated, it is amazing what numbers of these creatures reveal themselves. Every compound, every road, in fact, practically every patch of green throughout the whole city, seems to harbour some of them. Throughout the rainy season they may be heard at any hour of the day or night, but in the dry weather they are silent. They remain active, however, throughout the year.