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A NEW RANID FROG (*STAUROIS*) FROM THE COLONY OF HONGKONG

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In August, 1950, the junior author collected a torrent frog that appears to represent an undescribed form, which we propose to name

Staurois hongkongensis, sp. nov. Figures 129, 130.

Type.—No. 64157 Chicago Natural History Museum, adult female from Tai Mo Shan, New Territories, Colony of Hongkong. Collected on August 31, 1950, by J. D. Romer.

Range.—Colony of Hongkong. Known to occur on Hongkong Island and in the New Territories on the mainland.

Description of type.—There are no vomerine teeth. A tooth-like projection at the tip of the lower jaw is as high as the adjacent ridges.

The head is as broad as long (measured to angle of jaw) and strongly depressed. The snout is rounded, strongly projecting, and about equal to the eye. The canthus rostralis is distinct and the loreal region nearly vertical. The nostril is slightly nearer to the eye than to the tip of the snout, and the distance between the nostrils is greater than that between the eyes. The tympanum is hidden.

The fingers are short, the disks on the second, third, and fourth large. The disk of the second is as wide as the finger (exclusive of the disk) is long, of the third almost as wide, and of the fourth, wider. The disk of the first is about half as wide as that of the third. The first finger is shorter than the second, and the second and fourth are about equal in length. A groove separates the upper

from the lower surface of the finger disks. The subarticular tubercles are not prominent.

The leg is short, the tibio-tarsal articulation reaching the anterior corner of the eye. The disks of the toes are grooved peripherally and smaller than those of the second, third, and fourth fingers, the largest toe disk being a little smaller than the disk of the second

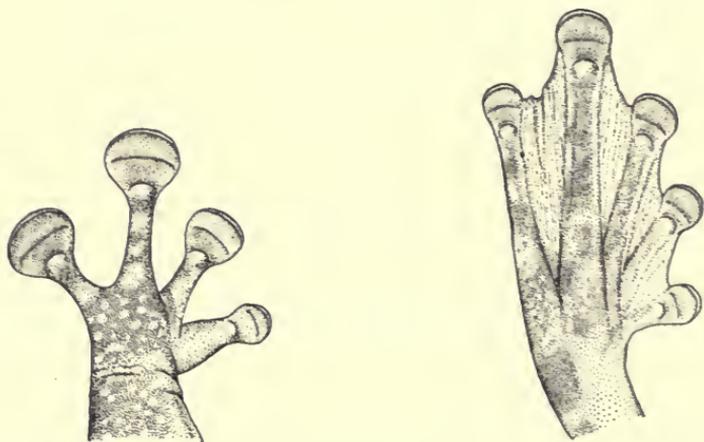


FIG. 129. *Staurois hongkongensis*, sp. nov., type. Left, dorsal view of hand; right, dorsal view of foot.

finger. The webbing is full, and involves the base of the disks. The subarticular tubercles of the toes are more prominent than those of the fingers. The strong tarsal fold ends in a poorly defined outer tubercle.

The skin of the back is covered with numerous small warts that are most prominent anteriorly and laterally. The belly is smooth.

The color (in alcohol, originally in formalin) is almost black above with a suggestion of mottling produced by concentrations of light-tipped warts. The back of the thighs is boldly mottled, and the limbs are weakly banded with colors like those of the back. The lower parts are light and immaculate.

The length from snout to vent is 48 mm. There are well-developed ova and the oviducts are much swollen.

Paratypes.—There are fourteen paratypes (C.N.H.M. Nos. 64150-6 and 64158-64), all from the type locality and all collected by the junior author during 1950. Ten females measure from snout to vent 46, 46, 45, 43, 40, 40, 39, 35, 35, and 31 mm., three males 41,

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41, and 34 mm. The ova are large and the oviducts much swollen in the 45-mm. female. The two largest males have pigmentless, granular nuptial pads on the inner side of the first finger. Since these specimens were collected May 3, the nuptial pads probably are not fully developed. Openings to the vocal sacs are round and situated far back in the mouth; no modification of the skin is evident from without. Sexual dimorphism in size is indicated by the difference in length between these two 41-mm. males and the two females (the type, which measures 48 mm., and the 45-mm. specimen) with



FIG. 130. *Staurois hongkongensis*, sp. nov., type. Left, side view of head; right, anterior aspect of head with mouth opened to show contour of lower jaw.

ova almost ready for deposition. The fact that both of these females were collected on August 31 gives some suggestion as to the breeding season.

C.N.H.M. No. 64164 is metamorphosing but retains a large adhesive disk with a free edge forming its lateral and posterior margin. The posterior beak is missing but the border of the anterior one is denticulate. The tooth formula is hard to make out but perhaps was III: 1-1/II: 1-1. There are a few small papillae on the extreme lateral parts of the lips. What must be remnants of poison glands are evident on the sides of the belly posteriorly.

The chief variation in structure is the presence of very small vomerine teeth in one of the 46-mm. females. The two patches are close together and just posterior to the level of the choanae. Variation in color is not great. The female with vomerine teeth is so dark that the pattern is largely obscured and even the ventral aspect is largely suffused with dark pigment. One of the large males is relatively dark above but its belly is light.

Habitat.—The type and paratypes were taken in a rocky mountain stream at an altitude of about 1,000 feet. Others were taken at lower altitudes, down to about 500 feet, and on Hongkong Island they were found in an artificial nullah.

Relationships.—The new form is readily distinguished from *Staurois r. ricketti*, a mountain torrent species of Tongking and southern China; in *ricketti* the finger disks are only as large as those of the toes, the tympanum is distinct, vomerine teeth are present, the male has no vocal sac, and the size is larger.

Staurois hongkongensis is a close relative of *S. hainanensis* and may well be subspecifically allied to it. The differences between them, as discerned by use of the literature and two Hainan specimens, Museum of Comparative Zoology Nos. 9409–10, follow:

Size: the new form is smaller; its snout-vent maximum is 48 mm., that of *hainanensis* 73 mm.

Profile: the snout of the new form is longer and noticeably more projecting.

Contour of lower jaw: in the new form the feeble median tooth-like process of the lower jaw is not flanked by two strong ones as in *hainanensis*.

Tympanum: this structure is hidden in *hongkongensis*, distinct to indistinct in the other form.

Finger length: the fingers are shorter and their disks proportionately wider in the new form.

Tarsal fold: this fold is well developed in *hongkongensis*, lacking to incomplete in *hainanensis*.

Texture of skin: the skin is less warty in the new form.

We wish to thank Mr. J. C. E. Britt for valuable assistance during the several nocturnal collecting trips. The drawings are the work of Miss Margaret Bradbury, Staff Artist, Department of Zoology.

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