

DESCRIPTION OF A NEW FROG OF THE GENUS *HYLA*
FROM NORTHWESTERN BRAZIL.

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AMONG the specimens in a small collection of frogs from Acre, Brazil, sent to me for examination by Werner C. A. Bokermann, is a single individual of a striking little *Hyla* that seems to be undescribed. It is a pleasure to associate the name of the collector with this handsome little species.

Hyla bokermanni, n. sp.

Type.—W. C. A. Bokermann 2881, adult (?) female; Tarauaca, Acre, Brazil; collected December 4, 1956, by Werner C. A. Bokermann.

Diagnosis.—A small *Hyla* without well developed webs between the fingers; with small, rounded vomerine tooth patches and small rounded choanæ; with short hind legs; and with a pattern of a pair of white dorsolateral stripes on a chocolate brown background.

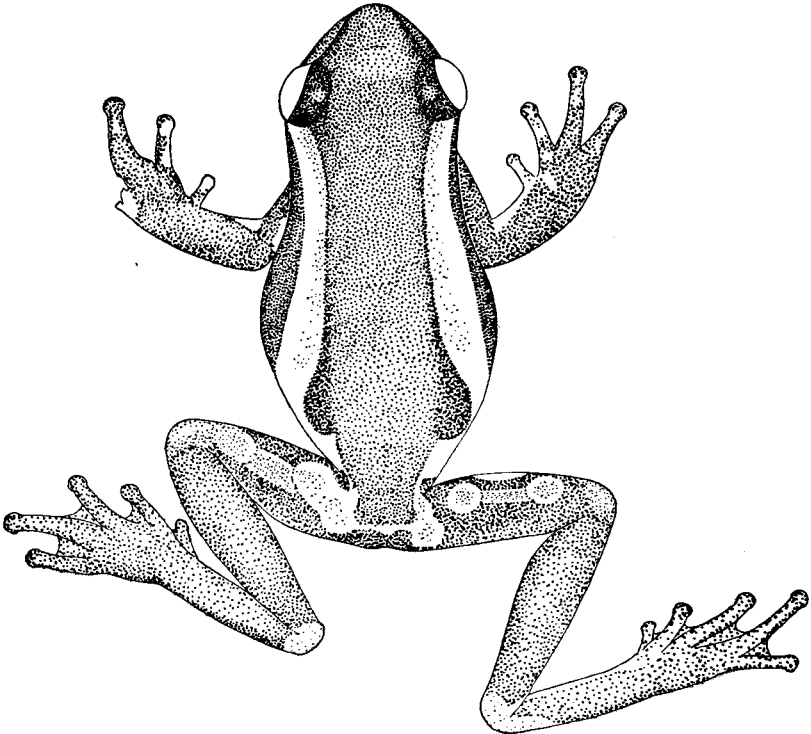
It is perhaps most closely allied to *H. parviceps*, from which it differs in its smaller size, shorter legs, smoother skin, and in having a pattern of dorsolateral stripes as well as differences in detail of pattern of the thighs. From *H. microps*, which may also be a near relative, it likewise differs in its small size, shorter legs and in having a pattern of dorsolateral stripes.

Description.—Vomerine teeth in two small, short series lying close together on a level with the posterior borders of the small, widely spaced, rounded choanæ; tongue three-fourths as wide as mouth-opening, broadly cordiform, its posterior border free and moderately notched; snout short, broadly pointed when viewed from above, somewhat pointed in profile, the tip of snout extending considerably beyond the lower jaw; nostrils lateral, not projecting, their distance from end of snout about one-third that from eye, separated from each other by an interval equal to about three-fourths of their distance from eye. Canthus rostralis slightly defined; loreal region concave and nearly vertical, the upper lip not flaring out strongly below it. Eye moderate, not particularly prominent, its diameter slightly greater than its distance from nostril; interorbital distance nearly twice the width of upper eyelid, which is in turn about equal the distance between nostrils. Tympanum small, not markedly distinct, about one-fourth the diameter of eye, separated from eye by a distance equal to its own diameter. Fingers slightly webbed at base, fourth considerably longer than second, just reaching to disc of third. Fourth finger of left hand removed for dissection. The discs

of the fingers soft, flabby, and partially eroded due to death before preservation ; no rudiment of a pollex ; toes slightly more than one-half webbed, third and fifth subequal, disc of fourth covering about one-half the tympanic area ; metatarsal tubercles not evident ; no tarsal ridge ; no dermal appendage on heel. Body not elongate, in post-axillary region a little broader than greatest width of head ; when hind leg is adpressed, heel reaches middle of eye ; when limbs are laid along the sides, knee and elbow fail to touch ; when hind legs are bent at right angles to body, heels overlap slightly. No developed fold of skin (patagium) from the back of the upper arm to the side of the body. Skin of upper parts smooth ; no pronounced glandular ridge encircling upper part of tympanum ; skin of throat, chest, belly, and lower femur uniformly smooth ; no apparent trace of a skinfold across the chest ; vocal sac not apparent. Derm of head not fused with cranium and cranium smooth, not exostosed.

Dimensions.—Head and body 17.8 mm. ; head length 5.1 mm. ; head width 5.1 mm. ; femur 8.2 mm. ; tibia 8.5 mm. ; foot 11.7 mm.

Fig. 1.



Dorsal view of the type of *Hyla bokermanni*. Actual length, 17.8 mm. snout to vent.

Colour in alcohol.—Dorsal ground colour dark chocolate brown ; tip of snout and canthal region slightly darker than rest of head ; a small white dot on each side of the upper lip just ventral to the naris and a more conspicuous white mark on each upper jaw passing from the eye downward and backward to the edge of the lip. A very distinct white stripe, about half as wide as the eye, originates on each side at the posterior margin of the eye and passes backward along the dorsolateral region where it widens and extends nearly to the groin. It then turns downward and merges with the pale colour of the unpigmented venter. The unpigmented pale ventral colour extends up into each groin region forming a pale area posterior to the end of the dorsolateral stripe. The anterior face of each thigh is marked by a very distinct oval white blotch surrounded by dark brown pigment. The dorsal surfaces of the thighs are marked by a couple of pale brown ovate blotches surrounded by a dark brown ground colour. The tip of each heel is pale, but not white. Otherwise the dorsal surfaces of the limbs are dark brown. Beneath there are dark blotches under the chin and throat, and a fairly heavy concentration of pigment on the under surface of the thighs. Otherwise the ventral surface is pale with only scattered melanophores on the belly.

DISCUSSION.

At first glance, this species, with its dark dorsum and pale dorsolateral stripes, gives the impression of being a small, striped phyllobatid. Dissection of the toes, however, shows that they lack dermal flaps on the dorsal surfaces of the digital discs and have intercalary cartilages, and thus demonstrates that this frog is indeed a *Hyla*. Within *Hyla*, its morphological characters and bright pattern seem to indicate a relationship with *parviceps*. Morphologically, it differs most pronouncedly from *parviceps* in the much shorter hind leg (the adpressed knee does not reach the elbow in *bokermanni* but overlaps it in *parviceps*). So far as pattern is concerned, while both are fairly brightly marked, there is really little similarity otherwise. In *parviceps*, the dorsal ground colour is a pale brown with a pattern of dark brown blotches and there are no dorsolateral light stripes of any sort, although there are a couple of light spots posteriorly along the side near the groin. In both species the dorsal surface of the thigh is dark with light spots, but in *bokermanni* there is a single clear, white spot on the anterior face of each thigh, while in *parviceps* there are two clear, white spots on the dorsal surface of each thigh near its proximal end. Ventrally, *bokermanni* is pale below while *parviceps* is dark except for light marks on the throat and the light chest.

Perhaps even more distantly related is *H. microps*. The dorsal pattern of *microps* is mottled and reminiscent of that of *versicolor* of North America. It does have a pale lateral stripe but this stripe is interrupted and begins at the base of the jaw, passing under, rather than above, the tympanum and along the side to the groin. It is in no sense a clear-cut dorsolateral stripe like that possessed by *bokermanni*. The thigh in

microps has a narrow band of the dorsal pattern on its dorsal surface from above the groin to the knee, and is pigmented in a triangular patch below the vent, but is otherwise absolutely immaculate.

Along with *Hyla bokermanni* the following species of *Hyla* were collected : *H. calcarata*, *H. parviceps*, *H. reticulata*, *H. rubra* and a species allied to the *H. evelynae-parkeri-lindneri* group.

I am indebted to Esther Coogle for the figure that accompanies this description and to Mr. Bokermann for the privilege of describing this species.