

CLARIFICATION OF THE NAMES *RANA MYSTACEA*
SPIX, 1824, *LEPTODACTYLUS AMAZONICUS*
HEYER, 1978 AND A DESCRIPTION OF A
NEW SPECIES, *LEPTODACTYLUS SPIXI*
(AMPHIBIA: LEPTODACTYLIDAE)

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Abstract.—Méhely in 1904 proposed a lectotype designation for *Rana mystacea* Spix, 1824, that differs from Heyer's lectotype designation of 1978. *Leptodactylus amazonicus* Heyer, 1978, is a synonym of *Rana mystacea* Spix, 1824, and a new species is proposed to solve the remaining consequent nomenclatural problem.

Dr. Marinus Hoogmoed brought to my attention a paper by Méhely (1904) which I had overlooked in my review of the *Leptodactylus fuscus* species group (Heyer 1978). Méhely (1904: 219) designated a lectotype for *Rana mystacea* Spix, 1824, which differs from and obviously predates my designation for the species (Heyer 1978:30). To summarize briefly, Spix based his new species, *mystacea*, on two Brazilian specimens (since destroyed), a male from "Bahia" (Spix 1824, plate 3, figure 3) and a female from "Solimoens" (=Rio Solimões) (Spix 1824, plate 3, figure 1). Méhely (1904:219) considered the Bahia specimen to belong to the species *Rana typhonia* Daudin [= *Leptodactylus fuscus* (Schneider, 1799)] and chose the Rio Solimões specimen as represented in figure 1, plate 3 of Spix to be the name-bearer of *mystacea*. I considered the Bahia and Solimões specimens to represent two distinct members of the *mystaceus* complex and chose the figure of the Bahia specimen as the name bearer of *mystacea* and described a new species, *amazonicus*, for the species represented by the figured specimen from the Rio Solimões. As Méhely's action takes precedence, the consequences are: (1) *Leptodactylus amazonicus* Heyer, 1978, becomes a synonym of *Rana mystacea* Spix, 1824; (2) the species of the *mystaceus* complex from the northern Atlantic forests of Brazil lacks a name, as no other name has been proposed for the species involved. Consequently, the following name is proposed for the species referred to as *Leptodactylus mystaceus* in the 1978 paper.

Leptodactylus spixi, new species

Holotype.—USNM 96409, an adult male from Brazil: Rio de Janeiro; Saco de São Francisco, Niteroi. Collector unknown, collected on 13 Oct 1923.

Paratopotypes.—USNM 96407-8, 96410-11.

Referred specimens.—Other specimens as indicated under distribution section for *Leptodactylus mystaceus* in Heyer, 1978 (p. 65).

Diagnosis.—Most individual *spixi* have a combination of a distinct light stripe on the posterior surface of the thigh and distinct white tubercles on the surfaces of the posterior tarsus and sole of foot; these states are shared with *albilabris*

(Günther), 1859; *elenae* Heyer, 1978; *fragilis* (Brocchi), 1877; and *latinus* (Espada), 1875. *Leptodactylus spixi* has distinct dorsolateral folds (at least indicated by color pattern), *fragilis* and *latinus* lack distinct dorsolateral folds. *Leptodactylus spixi* has white tubercles on the dorsal surface of the tibia; the tibia is smooth in *elenae*. *Leptodactylus spixi* is found in east coastal Brazil, *albilabris* occurs in the West Indies.

Some individuals of *L. spixi* lack the white tubercles on the tarsus and sole of foot (light thigh stripe present). These states are shared with at least some individuals of *furnarius* Sazima & Bokermann, 1978 (= *laurae* Heyer, 1978), *fuscus* (Schneider), 1799, *geminus* Barrio, 1973, *gracilis* (Duméril & Bibron), 1841, *longirostris* Boulenger, 1882, *notoaktites* Heyer, 1978, and *poecilochilus* (Cope), 1862. The tubercles on the dorsal surface of the tibia distinguish *L. spixi* from all these species.

Description of holotype.—Snout shape subelliptical from above, rounded with protruding ridge from side; canthus rostralis indistinct; loreal slightly concave in cross section; tympanum large, distinct, diameter about $\frac{3}{4}$ eye diameter; well developed vocal slits present; slight external lateral vocal fold present, not developed into well developed sac; vomerine teeth in two long angulate, arched series almost in medial contact posterior to choanae; first finger much longer than second; fingers I and IV free, fingers II and III with slight lateral ridges; thumb lacking asperities; dorsum smooth; a pair of well developed dorsolateral folds from behind eye to hind leg; distinct supratympanic fold, from eye to shoulder; belly smooth, ventral disk distinct; toes free, tips not expanded; subarticular tubercles moderately developed; metatarsal ridge barely indicated; tarsal fold extending about $\frac{7}{8}$ length tarsus; upper tibia scattered with white-tipped tubercles; posterior surface of tarsus and sole of foot with many white-tipped tubercles.

SVL 43.0 mm, head length 19.8 mm, head width 14.5 mm, interorbital distance 3.2 mm, eye-nostril distance 4.2 mm, femur 16.4 mm, tibia 21.5 mm, foot 24.7 mm.

Dorsum with irregular darker brown markings on lighter brown background including irregular interorbital triangle with apex directed posteriorly and chevron in suprascapular region; dorsolateral folds barely highlighted by darker brown color; dark canthal stripe from nostril to tympanum, interrupted by eye; distinct light stripe from tip of snout, running below dark canthal stripe, under eye and tympanum to angle of jaw; upper lip with slightly darker shading below light stripe; limbs barred above; venter immaculate; posterior surface of thigh almost uniform tan dorsally, bordered below by distinct light stripe highlighted by dark brown above and below.

Etymology.—Named for J. B. Spix, who was not to blame for the confusion that his figures have caused subsequent generations of herpetologists.

Distribution.—To my knowledge, no additional specimens have been documented from east coastal Brazil than those listed previously (Heyer 1978:65, and fig. 61).

Acknowledgments

Dr. Marinus Hoogmoed (Rijksmuseum van Natuurlijke Historie, Leiden) not only pointed out the Méhely paper I had overlooked, but analyzed the nomen-

clatural situation in consultation with his colleague, Dr. Holthius, and suggested that I should propose a new species to solve the situation.

Ronald I. Crombie and George R. Zug (Smithsonian Institution, USNM) kindly reviewed this paper.

Literature Cited

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