

Papéis Avulsos de Zoologia

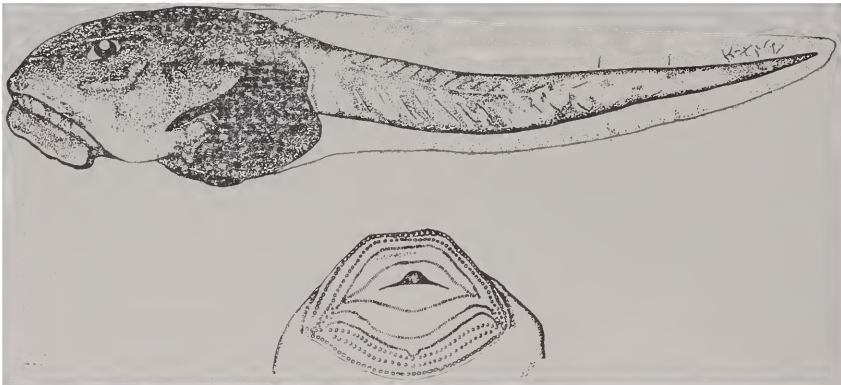
THE PRESUMED TADPOLE OF *PARATELMATOBIOUS LUTZI* (AMPHIBIA, LEPTODACTYLIDAE)

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While gathering muscle samples of leptodactylid frog genera for biochemical analysis at Brejo da Lapa, Serra da Mantiqueira, Itatiaia, Minas Gerais, Brasil, we collected four tadpoles from a roadside rivulet at about 2000 m altitude. The 20 cm wide streamlet was too narrow for a large dipnet; the four captures were made by hand. Two tadpoles belong to the genus *Hylodes*, but two species were present along the rivulet as adults and the tadpoles are unknown for both species, so no positive association can be made at present. The other two tadpoles differ strikingly from the known leptodactylid tadpoles of the Atlantic forest system in Brasil. Although identification of tadpoles by association with adults at the same site is very risky, the uniqueness of the tadpoles described here suggests that they must be *Paratelmato- bius*. Adults of the following leptodactylid genera were encountered along the roadside rivulet: *Crossodactylus*, *Eleutherodactylus*, *Holoaden*, *Hylodes* and *Paratelmato- bius*. The fauna of the Itatiaia region has been relatively well sampled. The only other genera of leptodactylids known to occur in the region are *Craspedoglossa*, *Cyclorhamphus*, *Lepto- dactylus*, *Megaelosia*, *Odontophrynus*, *Physalemus* and *Thoropa* (Barth, 1957). Only *Odontophrynus* and *Cyclorhamphus* of this latter assem- blage are part of the montane fauna such as found at Brejo da Lapa. Of the known leptodactylid genera of the Itatiaia region, *Eleutherodac- tylus*, *Craspedoglossa*, *Cyclorhamphus*, and *Holoaden* have direct devel- opment or terrestrial tadpoles. Larvae are known for at least some species of *Crossodactylus*, *Hylodes*, *Leptodactylus*, *Megaelosia*, *Odonto- phrynus*, *Physalemus*, and *Thoropa*: all have anteriorly interrupted papillae. The two tadpoles in question have papillae completely around the oral disk. If the tadpoles are not of *Paratelmato- bius*, they represent an unknown genus, which is unlikely, as Sr. Elio Gouvêa has studied the amphibians from the Itatiaia region for more than 20 years (Gouvêa, pers. comm.).

DESCRIPTION OF THE PRESUMED LARVAE OF *Paratelmatoobius lutzi*

Nostril nearer eye than tip of snout; distance between nares less than distance between eyes; eyes small, 6% head-body length; mouth-parts ventral, in form of large disk; oral disk entire, not emarginate; marginal papillae in single to double row, not interrupted anteriorly; one row of submarginal papillae between anterior tooth row and marginal papillae, two more or less distinct rows of submarginal papillae between posterior tooth row and marginal papillae, scattered submarginal papillae laterally; oral disk width about 40% head-body length; tooth row formula 2/3; jaw moderately keratinized; spiracle sinistral, midway on side of body; dorsal fin origin just anterior to body-tail juncture; tail height about equal to body height; tail tip rounded; anal tube dextral, but folded, appearing median in preservative; top of head and body suffused with melanophores, neither uniform nor distinctly mottled; tail fin and musculature mottled; ventral surfaces with scattered melanophores; gut peritoneum black; total length at stage 28 (Gosner, 1960) 25.5 mm; head-body length 39% total length (terminology follows Altig, 1970).



DISCUSSION

The tadpole mouthpart morphology is clearly adapted for life in running water. The degree of stream adaptedness of the *Paratelmatoobius* larvae does not clarify the relationships of the genus to the other leptodactylid genera. Lynch (1971) and Heyer (1975) offer quite different hypotheses concerning the generic relationships of *Paratelmatoobius*. The only other known leptodactylid larvae with complete marginal papillae are *Batrachyla* and *Telmatoobufo*. The sharing of this specialization likely represents convergent adaptation to the stream habitat rather than being indicative of close relationship. With our present incomplete knowledge of life history patterns for many genera of leptodactylids, the very specialized larva of *Paratelmatoobius* is of no help in deducing relationships. As more life history information becomes available, the tadpole information for *Paratelmatoobius* will become more meaningful.

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