

A NEW *COLOSTETHUS* (ANURA: DENDROBATIDAE)
FROM ECUADOR

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Abstract.—A new species of dendrobatid frog from southeastern Ecuador, *Colostethus nexipus*, is described. This species is distinguished from other members of *Colostethus* by the combination of extensive toe webbing and the presence of distinct dorsolateral and oblique lateral light stripes.

An undescribed member of the dendrobatid genus *Colostethus* has come to my attention through the generosity of Alice G. C. Grandison of the British Museum (Natural History). The specimens described are from a collection made by the British Los Tayos Archaeological Expedition and presented to the British Museum. Assignment of this species to *Colostethus* is a matter of convenience because dendrobatids that lack the apomorphies of *Atopophrynus*, *Dendrobates*, or *Phyllobates* are currently referred to the basal grade-genus *Colostethus* (see Lynch 1982, Lynch and Ruiz-Carranza 1982).

Colostethus nexipus, new species
Figs. 1, 2

Holotype.—BMNH 1983.1061, adult male obtained at Los Tayos, Morona-Santiago Province, Ecuador, 78°12'W, 3°10'S, 9 Jul 1976 by Philip Ashmole and J. K. Campbell.

Paratypes.—All from the vicinity of the type locality: BMNH 1983.923 (small male), in a shallow cave adjacent to the Río Coangos (a tributary of the Río Santiago), 1 Aug 1976 by Philip Ashmole; BMNH 1983.1060 (small male), same data as holotype; KU 194164 (small male) and BMNH 1983.924 (newly transformed) from bottom (50 m) of main cave shaft, on walls, 9 Jul 1976 by Philip Ashmole and J. K. Campbell.

Diagnosis.—A dendrobatid frog not exhibiting bright coloration, loss of ears, or

fusion of first and second toes; distinguished from all other members of *Colostethus* by the combination of extensive toe webbing and the presence of distinct dorsolateral and oblique lateral light stripes. *Colostethus nexipus* cannot be confused with any other known species.

Description.—Head as wide as body, slightly wider than long; snout truncate and rounded in lateral view; nostrils small, slightly protuberant and directed anterolaterally; canthus rostralis rounded but discernible; loreal region concave; lips not flared; snout short; interorbital region flat, slightly narrower than width of upper eyelid; no tubercles on head; weak supratympanic fold; tympanum evident; postriental tubercles not evident; choanae concealed by palatal shelf of maxillary arch when viewed from directly below; vomerine odontophores absent; numerous teeth on premaxillae and maxillae; tongue longer than wide, posterior notch very broad and shallow; posterior $\frac{3}{5}$ not adherent to floor of mouth; vocal slits present; skin of dorsum finely shagreened, not easily abraded; folds on dorsum absent; skin of venter finely shagreened; vent opening at upper level of thighs; no enlarged warts in vicinity of vent; ulnar fold and tubercles absent; palmar tubercle round, about 4 times larger than thenar tubercle; supernumerary palmar tubercles absent; subarticular tubercles indistinct, round, flat; lateral fringe on fingers present as weak ridge; third finger not swol-

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Fig. 1. Paratype of *Colostethus nexipus*, BMNH 1983.923. Snout-vent length equals 21.3 mm.

len; tips of fingers expanded to form pads, approximately 1.5 times width of digit; pair of scutes atop tips of fingers and toes, not differing in coloration from digits; second finger shorter than first (anomalously so on right hand; in paratypes second longer than first); condition of thumbs of breeding males unknown; tubercles absent from knee, heel, or tarsus; tarsal fold weak; inner metatarsal tubercle nearly twice as long as wide, flat, at least twice as large as flat, round outer metatarsal tubercle; supernumerary plantar tubercles absent; subarticular tubercles round to ovoid, flat; toe tips expanded to form pads; toes with prominent lateral fringes confluent with toe webbing; toe webbing formula (after Savage and Heyer 1967) I 0-1 II 0-1.7 III 1-2 IV 2-1 V; webbing

incised; when hind legs flexed and held at right angles to sagittal plane, heels touch.

Coloration in preservative.—(Holotype is formalin-darkened so coloration has been determined, in part, from paratypes.) Dorsum dark brown with broad dorsolateral stripe extending from eye to vent (stripe broken posteriorly); flanks dark brown with broken, white, oblique lateral stripe extending from point above insertion of forelimb to groin; hind limbs pale brown with dark cross-bars; forelimbs tan with irregular dark blotches; venter pale brown with dark stippling, becoming darker in the gular region, not forming collar or discernible spots.

Measurements of holotype in mm.—Snout-vent length 23.9; tibia 11.9; head width 8.2; head length 7.8; distance from

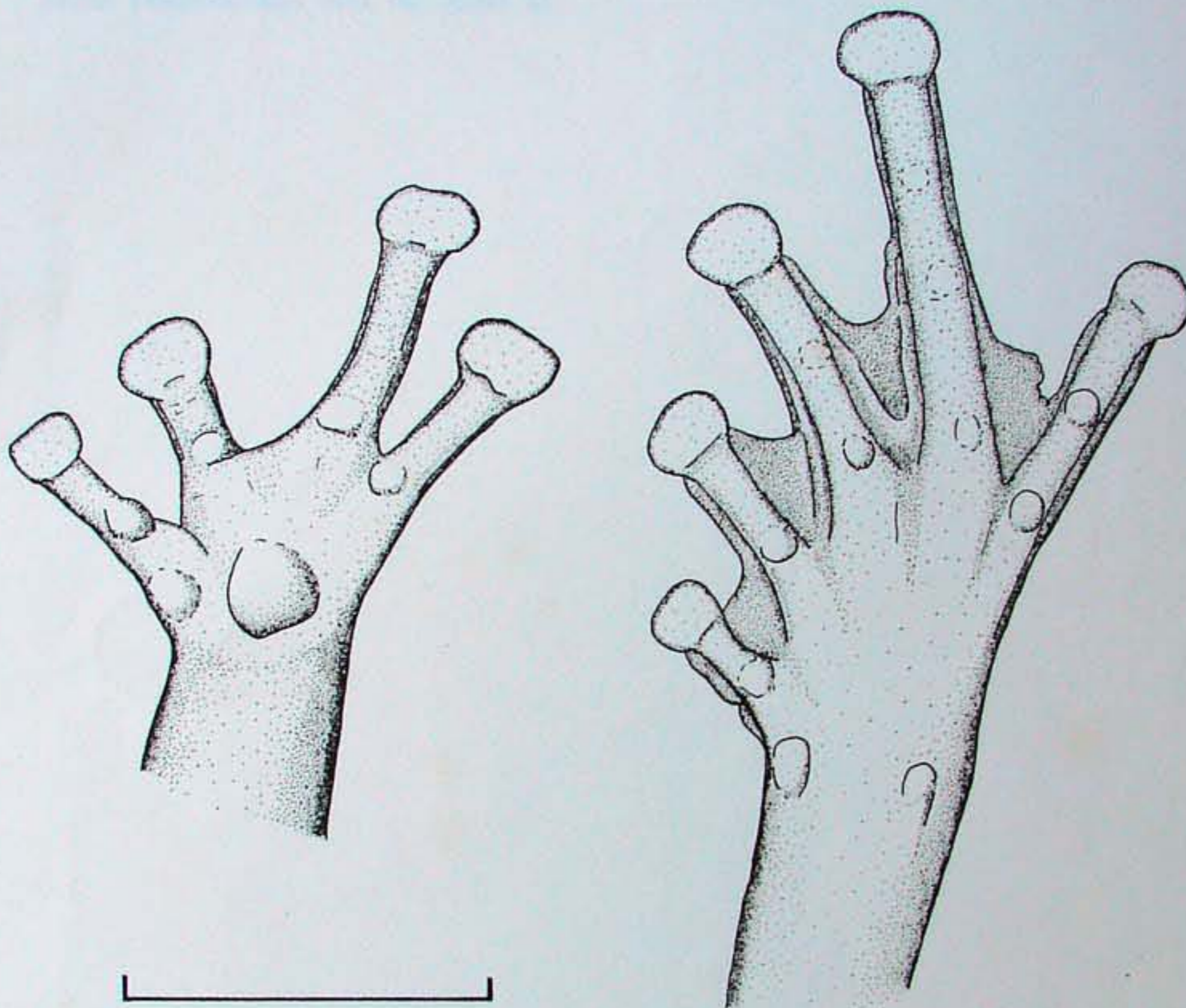


Fig. 2. Palmar views of left hand and left foot of holotype. Bar equals 5 mm.

tip of snout to angle of jaw 8.2; upper eyelid width 2.6; interorbital distance 2.4; eye length 3.5; eye to nostril distance 2.0.

Etymology.—The epithet, *nexipus*, is a Latin noun in apposition, derived from the Greek *nexipous*, meaning web-foot.

Discussion.—The type locality is in rain forest. The types were collected in the vicinity of a 50 m deep limestone cave shaft that intermittently receives from the Río Coangos a waterfall that carries with it tree trunks and other debris. Although two of the paratypes were collected from within this cave, it is doubtful that *Colostethus nexipus* is normally cave-dwelling. Non-cavernicolous species also found in the cave were the gymnophthalmine teiid lizards

Alopoglossus buckleyi and *Euspondylus guentheri*. *Colostethus nexipus* is a denizen of stream banks and adjacent wet forest, like many of its congeners. The phylogenetic relationships of *C. nexipus* are unclear because it lacks any of the striking apomorphies (e.g., swollen third finger in males, dark collar, or chest spots) that characterize putative monophyletic groups within *Colostethus*.

Acknowledgments

I thank Alice G. C. Grandison (British Museum) for allowing me to describe this species and, with A. M. Hutson (British Museum), for providing helpful information. David C. Cannatella, Rafael de Sa, William

E. Duellman, Linda S. Ford, and John D. Lynch made useful comments.

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