A new species of Anomaloglossus (Anura: Aromobatidae) from the Pakaraima Mountains of Guyana

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Abstract

We describe a new species of Anomaloglossus from the Pakaraima Mountains of Guyana. Anomaloglossus megacephalus sp. nov. is currently known from Maringma Tepui at 1060 m elevation and from Mt. Ayanganna at 1490 m elevation. The new species can be distinguished from all known congeners by the following combination of characters: relatively large size (females up to 28.3 mm), head large, Finger I subequal or shorter than II, the tip of Finger IV surpassing the base of the distal tubercle on Finger II when fingers are adpressed, fingers with preaxial keel-like lateral folds, best developed on Fingers II and III, toes moderately webbed with folded flaplike fringing, symmetrical cloacal tubercles present, dorsolateral stripe absent, ventrolateral stripe present, inconspicuous, oblique lateral stripe present, often broken in spots. Anomaloglossus megacephalus has been previously confused with A. tepuyensis, a taxon described from Auyantepui in Venezuela.

Key words: Anomaloglossus, endemism, Guiana Shield, Pantepui, taxonomy, tepui

Introduction

The genus Anomaloglossus contains twenty-four species—some of them previously assigned to the genus Colostethus—many of which apparently have restricted distribution ranges (Grant et al. 2006). Anomaloglossus species are easily distinguished from other Aromobatidae by the synapomorphic presence of a median lingual process (Grant et al. 2006).

Anomaloglossus species display considerable variation in reproductive biology. The six species for which data on reproductive behaviour are available have terrestrial eggs (i.e. non-aquatic). After hatching, tadpoles are transported on males’ dorsum to a suitable body of water, except in A. stepheni (Martins, 1989) (tadpole endotrophic, nidicolous), and in A. degranvillei (Lescure, 1975) (tadpole endotrophic, developing on the male’s back). In phytotelm-breeding species like A. beebei (Noble, 1923), tadpoles hatch from eggs laid on leaves above the water-filled axis of bromeliads and slide into the bromeliad tank; males transport them only occasionally, for instance when there is no food in the bromeliad tank (Kok et al. 2005). Maternal care (here laying of trophic eggs) is reported in two species [A. beebei and A. kaiei (Kok, Sambhu, Roopsind, Lenglet & Bourne, 2006a)]. Tadpole deposition sites are invariable within species and range from phytotelmata [e.g. A. beebei, A. roraima (La Marca, 1998)], to small forest puddles [e.g. A. kaiei, A. praderioi (La Marca, 1998)] and to running water [e.g. A. tepuyensis (La Marca, 1998)].

The genus is reported to occur on the Pacific slopes of the Andes in Colombia and Ecuador (three species), in the Amazonas state of Brazil (one species) and in the Guiana Shield (21 species), where most