A new species of Ansonia (Anura: Bufonidae) from northern Tanintharyi Division, Myanmar

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Abstract

A new species of Ansonia is described from northern Tanintharyi Division, Myanmar. The new species is the first record of Ansonia from Myanmar. It is phylogenetically most closely related to A. kraensis at the Isthmus of Kra, Thailand, but can be distinguished from A. kraensis and all other species of Ansonia from Thailand and the Malay Peninsula by a combination of several morphological characters and dorsal and ventral color patterns.

Key words: Ansonia thinthinae, A. kraensis, stream toad, molecular phylogenetic analysis

Introduction

As part of an ongoing survey of the reptiles and amphibians of Myanmar, members of the Nature and Wildlife Conservation Division (NWCD) of the Myanmar Forest Department, National Museum of Natural History, Smithsonian Institution (USNM), and California Academy of Sciences (CAS) surveyed the Tanintharyi Nature Reserve (TNR) in March 2008 and again in September and October 2009. The TNR is an approximately 1,700 km² reserve ca. 70 km north of Dawei in the Tanintharyi Division of Myanmar. The TNR includes part of the Thein Ze Kalein Aung forest (857 km²) and Lu Wine forest (843 km²). The area is predominantly semi-evergreen dipterocarpacean rain forest (Thein 2009), and was established as a sanctuary for the Asian elephant and possibly the tiger (Lynam et al. 2006).

Approximately 22 species of amphibians and 41 species of reptiles were found during the two surveys, including several unidentified species of frogs. Amongst these, a species of Ansonia Stoliczka was determined to be new and is the first record of Ansonia in Myanmar.

Material and methods

Specimens were collected by hand, euthanized, tissue samples removed, and then fixed in 10% buffered formalin before preserving in 70% ethanol. The tissue samples were stored in 95% ethanol. Latitude and longitude of specimen localities were recorded with a Garmin 12 GPS, datum WGS84. Specimens are housed in the Department of Herpetology, CAS and the Division of Amphibians and Reptiles, USNM. Additional specimens, although not used in this paper, are housed in the Myanmar Biodiversity Museum. The preserved specimens were examined, sexed (using body size and presence or absence of vocal sacs, nuptial pads, and eggs), and measured. Comparisons were made with available specimens (see material examined; museum acronyms follow Sabaj Pérez [2010]) and published descriptions of currently recognized (Frost 2011) and phylogenetically closely related (Matsui et al. 2010) or geographically proximate species of Ansonia from Thailand and the Malay Peninsula (Inger 1960; Kiew 1985; Matsui et al. 1998, 2005; Grismer 2006a,b; Wood et al. 2008; Quah et al. 2011).