



The identity of *Zachaenus roseus* Cope, 1890 (Anura: *species inquirenda*)

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Abstract

Zachaenus roseus Cope, 1890, has puzzled systematists working in southern South America. A single individual, the holotype, has ever been collected and this specimen is in extremely poor preservation condition. Herein, the precise location of the type locality of *Z. roseus* is determined based on a historical review of the literature. Furthermore, following a careful comparison with all species that inhabit the southern austral forest, and that could potentially correspond to *Zachaenus roseus*, we conclude that this taxon is placed in the synonymy of *Eupsophus calcaratus* (Günther, 1881).

Key words: *Eupsophus calcaratus*, *Zachaenus roseus*, synonymy, type locality

Introduction

On February 9th, 1888, Leslie Alexander Lee, biologist on board of the U. S. Fish Commission Steamer Albatross, collected a small frog, 23 mm SVL, in a locality then known as “Port Otway”, somewhere in Southern South America. The specimen was deposited at the United States National Museum with catalogue number 15126, and subsequently was described by E. D. Cope (1890) as a new species, *Zachaenus roseus*.

In the original description Cope (1890) indicated that the type locality was in the “Argentine Confederation”, “Patagonia”; however, no locality named “Port Otway” exists or existed in Argentina, and no anuran with the characteristics of *Zachaenus roseus* has been ever reported for the Atlantic Coast of Patagonia. Unfortunately, as reported by Cochran, (1955; 1961), Lynch (1971), and Heyer (*in* Frost 1985) the name-bearing type is a macerated mass (Figure 1). Our examination of the holotype (February, 2010) showed that its remnants are a partially skinned soft mass, where the only identifiable elements are the eyes, few cranial bones (i.e., only a few disarticulated bony elements remain), some elements of the pectoral girdle, the vertebral column (i.e., the best preserved remain), and the urostyle. Absolutely no external morphological character is left to examine; furthermore several osteological characters that would set it apart from other species in the genus *Zachaenus* cannot be determined.

The extremely poor state of this holotype led Lynch (1971) to consider the taxon as a *species inquirenda*, i.e., a species of doubtful identity needing further assessment. *Zachaenus roseus* is a loose end in the systematics of the amphibian fauna of southern South America, with no additional specimens ever collected or deposited in any collection under this name beyond the name-bearing type. Coincidentally, it is one of the seldom-cited species in the literature, Lynch’s (1971) monograph being the only reference that contributed new information since the original description (the re-description in Nieden 1923, being a partial translation of Cope 1890). Lynch (1971) and Heyer (*in* Frost 1985) stated that the holotype is clearly not associated with the genus *Zachaenus*; subsequently, in Duellman’s (1999) description of the fauna of Patagonia the species is referred as the “...enigmatic *Zachaenus roseus*”.