



The Amphibulimidae (Mollusca: Gastropoda: Orthalicoidea) from Colombia and adjacent areas

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Abstract

The land snails of the family Amphibulimidae occurring within northwestern South America are critically examined and notes on their distribution are given. The total number of taxa discussed is 61 (7 *Dryptus*, 54 *Plekocheilus*); of these, four Colombian *Dryptus* and 32 *Plekocheilus* species are included. The following new species are described: *Plekocheilus* (*P.*) *bigener*, *P. (P.) incognitus*, *Plekocheilus (Eurytus) camaritagua*, *P. (E.) labiosus*, and *P. (E.) paraguas*. The following nominal taxa are now synonymized: *Plekocheilus (P.) speciosus* (Pfeiffer, 1854) = *P. (P.) plectostylus* (Pfeiffer, 1848); *Plekocheilus (Eurytus) couturesi* Ancy, 1900 = *P. (P.) glandiformis* (Lea, 1838); *Plekocheilus (Aeropictus) latilabris* (Pfeiffer, 1855) = *P. (A.) succineoides* (Petit de la Saussaye, 1840); *Plekocheilus (Eurytus) virgatus* (Pilsbry, 1935) = *P. (E.) mabiliei* (Crosse, 1867) = *P. (E.) pulicarius* (Reeve, 1848). Also, *Simpulopsis fulguratus* Miller, 1878 is now considered a junior subjective synonym of *Simpulopsis (Eudioptus) citrinovitrea* (Moricand, 1836). For the following species, precise localities are given for the first time: *Dryptus stuebeli* (Martens, 1885), *Plekocheilus (Aeropictus) cathcartiae* (Reeve, 1848), *P. (E.) cardinalis* (Pfeiffer, 1853), *P. (Eurytus) episcopalis auriformis* (Da Costa, 1904), *P. (E.) episcopalis corticosus* (Sowerby, 1895), and *P. (E.) lynciculus* (Deville & Huppé, 1850). Newly recorded for the Colombian malacofauna are the following taxa: *Plekocheilus (P.) couturesi* (Ancy, 1900), *P. (Eurytus) piperitus* (Sowerby I, 1837). The following taxa are excluded from the Colombian fauna: *Dryptus funckii* (Nyst, 1843), *Plekocheilus (Aeropictus) veranyi* (Pfeiffer, 1848), *Plekocheilus (Eurytus) jimenezi* (Hidalgo, 1872).

Key words: Northwestern South America, Ecuador, Panama, Venezuela, Stylommatophora, *Dryptus*, *Plekocheilus*, taxonomy, distribution

Introduction

The land snail superfamily Orthalicoidea is a dominant element within the Neotropical malacofauna. Its taxonomy at the family level has seen several conflicting views, based on shell morphology and anatomy (Breure 1979, Schileyko 1999, Bouchet *et al.* 2005). Recently, Breure *et al.* (2010) presented a phylogenetic study covering representatives of the whole superfamily. Although some relationships need further study, the overall conclusion is that five families can be recognized within the Orthalicoidea. One of these families are the Amphibulimidae, occurring in the northern part of South America, Central America and the West Indies.

This paper relies on shell morphology since no material suitable for anatomical studies of the taxa treated herein became available since Breure (1978). Shells were studied from major museums in the USA and Europe, as well as from several institutions in Colombia and Ecuador, from additional private collections, and from recent field surveys. Some comments about the quality of the locality information in museum specimens are warranted: Northwestern South America was called “New Granada” for many years. This terminology referred to present-day Colombia and Ecuador, including adjacent parts of Panama, Venezuela, and northwestern Brazil. As a consequence, material collected in this region in the early to mid-19th century was labeled “New Granada.” Similarly, a number of museum labels state “U.S. Colombia,” a late 19th century political division that included present-day Colombia and portions of several neighboring countries. Later, collectors were more “precise” and labeled their specimens as coming from “Bogota” or “Quito,” but the actual collection locations may have been at considerable distances from the main cities. A similar situation is evident among lots in the Zurich museum, where we found quite a substantial amount of material collected by G. Wallis, a plant collector who travelled through Colombia and other parts of northern South America in 1858–1878. His labels often state “Frontino” and “Ocaña,” which are places located in the Departments of Antioquia and Norte de Santander, respectively. However, we must assume that this is only a rough indication, as Wallis was probably lodged on a “finca” near those places and collected his material in the wide surroundings. Thus, although the places have been pinpointed to the departments mentioned, the species concerned may actually occur in nearby departments. This uncertainty highlights some other issues, viz. the labeling with imprecise localities in old collections and the changing of names that have been applied to localities in the study area. Considering the above caveats, we were able to pinpoint the distributional area more exactly for some species with the help of recent collections that have (even more) precise localities. However, there remain a number of taxa described from imprecise areas that have not been re-collected since their original descriptions.

Colombia is generally recognized as one of the megadiverse countries of the world (Mittermeier *et al.* 1998, Myers *et al.* 2000). The total land area, approximately 1.12 million km², may be divided into six natural regions: (1) Caribbean Plains, (2) Pacific, (3) Andean, (4) Orinoquia, (5) Amazonia, and (6) Insular (including islands in the