



INSIGHTS INTO THE GENERIC AFFINITIES OF *Longiverena* PILSBRY & OLSSON, 1935 (GASTROPODA: THIARIDAE) BASED ON PARTIAL SEQUENCES OF THE MITOCHONDRIAL 12S rRNA GENE

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Longiverena Pilsbry & Olsson, 1935 is a genus of freshwater snails included in the family Thiaridae Gill, 1871. The genus was created to accommodate several mid-Tertiary species, and currently has only one living species, *Longiverena tuberculata* Spix, 1827 described from southern Brazil. Several genus-group names are available for Neotropical thiarids, and includes *Aylacostoma* Spix, 1827, *Hemisinus* Swainson, 1840 and *Longiverena*, among others. Most of the South American representatives of these genera were described based solely on conchological features following the typological approaches of most of the 19th and the mid-20th centuries authors. Morphologically, *Aylacostoma* and *Longiverena* appear to be very similar except that the latter is strongly sculptured. Recently, mitochondrial DNA sequences for *Aylacostoma* were made available, thus providing new data for comparison. Here, we present the first molecular data for *L. tuberculata*. Total genomic DNA was obtained from museum material. Using information from the third domain of the 12S rRNA gene and a secondary structure model of this region, we assessed the evolutionary relationships among *L. tuberculata* and the three *Aylacostoma* species for which DNA sequences are available. Our result suggests that the morphological distinction of *L. tuberculata* is not of generic significance, and the species fit well within the genus *Aylacostoma* which has priority over *Longiverena*. Further anatomical and conchological evidence complementing the molecular data are required in order to make sound decisions regarding the generic status of *L. tuberculata*.

Keywords: *Historical DNA, taxonomy, freshwater snails.*