

A new species of “*Lithasia*” (Mollusca: Caenogastropoda: Pleuroceridae) from the Harpeth River, Tennessee, U.S.A.

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Abstract

A species of pleurocerid snail, *Lithasia spicula* sp. nov., is described from two groups of specimens taken from the Harpeth River, Tennessee near Bellevue. The species resembles *Li. armigera* (Say, 1821) conchologically, but molecular analyses group it either with the polyphyletic assemblage currently considered *Leptoxis* or as a separate lineage in Pleuroceridae. The species also possesses a unique radula, and is the first known pleurocerid endemic to the Harpeth River.

Introduction

Lithasia armigera (Say, 1821) is one of seven species in the genus *Lithasia* as discussed in Minton and Lydeard (2003). The species historically occurred in the Cumberland, Ohio, and Tennessee River drainages, and now is limited to small populations in those basins (Burch and Tottenham 1980; Bogan and Parmalee 1983; Minton and Lydeard 2003). In a recent phylogenetic study of the genus using mitochondrial cytochrome oxidase I (COI) sequences, specimens of *Li. armigera* from throughout its range were seen as monophyletic, and the species was the only one recovered as such (Minton and Lydeard 2003). These specimens fell out in a larger, well supported clade the authors recognized as *Lithasia*, sister to *Io*, and not related to *Leptoxis*. This finding was interesting as Holznagel and Lydeard (2000) showed that *Li. armigera* was sister to Mobile Basin *Leptoxis* species based on 16S rDNA sequences. Even more interesting was that both studies used *Li. armigera* from the Harpeth River in Tennessee, although from different localities; those used in Holznagel and Lydeard (2000) were collected from a site near Bellevue, Davidson