SCIENTIFIC NAME: Rothelix warnerfontis

COMMON NAME: Warner Spring shoulderband snail **CLASS, FAMILY:** Gastropoda, Helminthoglyptidae

ORIGINAL DESCRIPTION: Reeder, R.L., and W.B. Miller. 1988. A new *Helminthoglypta (Rothelix)* (Gastropoda: Pulmonata: Helminthoglyptidae) from Warner Springs, San Diego County, California. The Veliger 31(1-2):87-90, figs 1-4 (anterior portion of reproductive system of holotype, and aperature, apical, and umbilical views of shell of holotype).

TYPE MATERIAL: Holotype and 71 paratypes (adult and immature shells) - California: San Diego County; in wood rat nests in Cañada Agua Caliente along south side of California State Highway 79, adjacent to golf course, about 1.6 km west of post office and fire station buildings in Warner Springs, elevation about 2950', collected 31 Jan 1960 and 20 May 1962 by W.B. Miller and W.O. Gregg, 23 Nov 1972 by W.B. Miller and R.L. Reeder, and 4 Mar 1985 by W.B. Miller, R.L. Reeder, and H.L. Fairbanks. Holotype deposited in Santa Barbara Museum of Natural History, # 34943. Paratypes in Academy of Natural Sciences, Philadelphia, # 368246; U.S. National Museum of Natural History, #860400; W.B. Miller collection, #3794 and #4307; R.L. Reeder collection, #716. Roth and Sadeghian (2003) give the holotype number as SBMNH 34950. According to Richard Reeder (pers. comm.), Miller's collection included a third lot, #6032, and the coordinates for the type locality are 33° 17.1' N, 116° 39.2' W.

RANKING/STATUS: G1S1 (NatureServe – CNDDB).

- **GENERAL DESCRIPTION:** The original description states that the species is "a medium-sized, subglobose *Helminthoglypta (Rothelix)* with a densely papillose shell and an open umbillicus."
- **DIAGNOSTIC CHARACTERS:** From Reeder and Miller: "...with penial sheath enveloping only the anterior chamber of lower part of penis, and combined length of vagina and oviduct nearly equal to that of the lower part of the penis."
- **OTHER ILLUSTRATIONS:** There are no additional published illustrations of this species.
- **DISTRIBUTION:** Known only from the type locality and a small population in a ravine just below Lost Valley Spring, about 5 miles north of the type locality.
- **HABITAT:** This species inhabits abandoned wood rat nests at the type locality, and fallen logs and leaf mold of *Quercus agrifolia* at the Lost Valley Springs site. Reeder and Miller state that the species was widely and abundantly scattered in wood rat nests along Cañada Agua Caliente in 1957 and 1972. With increasing urbanization and the construction of nearby golf courses, the wood rat nests became less common, contributing to the decline in the population of this snail. A concentrated search effort

at the type locality in 1985 yielded only one dead subadult shell and one live immature. The authors concluded the species was nearing extirpation at the type locality, but noted that the only other known population of the snails was located within the Cleveland National Forest, and might survive in that relatively protected area.

LIFE HISTORY/BEHAVIOR: No details of the life history or behavior of this species are known.

SELECTED REFERENCES:

Roth, B. and P.S. Sadeghian. 2003. Checklist of the Land Snails and Slugs of California. Santa Barbara Museum of Natural History Contributions in Science, 3:1-81.

Written by Sandra Shanks, California Department of Fish and Game, Natural Diversity Database

Reviewed by Richard Reeder, University of Tulsa.