

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

Invertebrate Abstract

Element Code: IMGASM5050Data Sensitivity:     No    **CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Gyraulus (Torquis) parvus*  
**COMMON NAME:** Ash Gyro; Ramshorn Snail; Freshwater Disc Snail  
**SYNONYMS:** *Planorbis vermicularis*, *Planorbis similaris*  
**FAMILY:** Planorbidae

**AUTHOR, PLACE OF PUBLICATION:** T. Say 1817, in W. Nicholson's British Encyclopedia Its American Edition, 2, Art. Conchology, signature Xx, 9<sup>th</sup> unnumbered page, Pl. 1, fig. 5, as *Planorbis*. *Planorbis vermicularis* A. A. Gould, 1847, Proc. Boston Soc. Nat. Hist. 2:212. *Planorbis similaris* F.C. Baker, 1917, Bull. Amer. Mus. Nat. Hist. 41:529.

**TYPE LOCALITY:** Delaware River, Pennsylvania (Bequaert and Miller, 1973).

**TYPE SPECIMEN:**

**TAXONOMIC UNIQUENESS:** The *Gyraulus* genus is worldwide in distribution . There are 5 species within the *Gyraulus* genus. The only other species within the *Gyraulus* genus occurring within Arizona is *G. circumstriatus*. The *Gyraulus parvus* species is taxonomically well-characterized and systematically stable (Perez et al., 2004, Bequaert and Miller, 1973).

**DESCRIPTION:** For the genus the shell is small, 2-8 mm in diameter, spire height varying from high to flattened or depressed, spire pit shallow and wide, height of body whorl equal across the whorl. The shell of *G. parvus* is brownish, translucent, and not planispiral (Perez et al., 2004). They have 3.5 adult body whorls.

**AIDS TO IDENTIFICATION:** *G. parvus* can be distinguished from *G. circumstriatus* by shell color and shape. The shell of *G. parvus* is brownish, translucent, and not planispiral, whereas the shell of *G. circumstriatus* is whitish or yellowish, semi-transparent, and planispiral. Although superficially similar to *M. dilatatus*, *G. Parvus* seems to be restricted to richer environments.

**ILLUSTRATIONS:** Color Photo (In [http://www.cofc.edu/~dillonr/FWGSC/g\\_parvus.html](http://www.cofc.edu/~dillonr/FWGSC/g_parvus.html))

**TOTAL RANGE:** *G. parvus* is widespread throughout North America. However, it seems especially well-adapted to lacustrine environments north of the glacial maximum and becomes less common as one samples from North to South Carolina. (Dillon, 2004).

**RANGE WITHIN ARIZONA:** Coconino Co.: Walker Lake, Spitz Spring, Lindbergh Spring, Ashurst Lake, and Chevelon Creek. Navajo Co.: Cholla Lake, Clear Creek Reservoir, and Rainbow Lake. Apache Co.: East Fork of Black River, A-1 Lake, Rogers Reservoir, Luna Lake, and Wilson Reservoir. Greenlee Co.: Eagle Creek. Cochise Co.: Parker Canyon Lake, Cave Creek at Herb Martyr Dam, and Rucker Canyon. Santa Cruz Co.: Pena Blanca Lake. Yavapai Co.: E side of Cornville 5 mi. E of Cottonwood. Gila Co.: Reynolds Creek, Seneca Lake, and Carizo Creek (Bequaert and Miller, 1973).

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** Planorbid snails lack an operculum and as in the family Physidae, Planorbid snails have an accessory "gill", which is the pseudobranch located on the foot.

**REPRODUCTION:** Planorbid snails are hermaphroditic; each individual possesses both male and female reproductive organs and two animals may exchange sperm during copulation. Egg-laying begins in the spring, and can continue throughout the summer. In northern climates where adults aestivate, these snails may live for 2-4 years, although the norm is likely 9-15 months (Aquatic Invertebrates Illustrated Field Guide, 2000).

**FOOD HABITS:** *Gyraulus parvus* are considered to be scrapers (grazers) whose diet includes algae, diatoms, and periphyton (Aquatic Invertebrates Illustrated Field Guides, 2000).

**HABITAT:** Lotic freshwaters of both temporary and permanent habitat (Aquatic Invertebrates Illustrated Field Guides, 2000).

**ELEVATION:** 3,000-8600 ft (914-2,621 m) (Bequaert and Miller, 1973).

**PLANT COMMUNITY:** Can be found attached to vascular plants.

**POPULATION TRENDS:**

### **SPECIES PROTECTION AND CONSERVATION**

<b>ENDANGERED SPECIES ACT STATUS:</b>	None
<b>STATE STATUS:</b>	3 (AZGFD, AWCS 2022) [1C (AGFD SWAP 2012)]
<b>OTHER STATUS:</b>	None

**MANAGEMENT FACTORS:** Occurs regularly, as a native taxon in multiple nations (NatureServe, 2006).

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:** Surveys to determine distribution and status should be performed.

**LAND MANAGEMENT/OWNERSHIP:**

### **SOURCES OF FURTHER INFORMATION**

#### **REFERENCES:**

- Aquatic Invertebrate Illustrated Field Guides. 2000. Snails (Gastropoda). Ecology Illustrated Field Guides. Available online:  
<http://info.wlu.ca/%7Ewwwbiol/bio305/Database/gastropoda.htm>
- Arizona Game and Fish Department. 2012. Arizona's State Wildlife Action Plan 2012-2022. Phoenix, AZ.
- Arizona Game and Fish Department. 2022. Arizona Wildlife Conservation Strategy: 2022-2032. Arizona Game and Fish Department, Phoenix, Arizona. 378 pages.
- Baker, F.C. 1917, Bull. Amer. Mus. Nat. Hist. 41:529.
- Bequaert, Joseph, C., Miller, Walter, B. 1973. The Mollusks of the Arid Southwest with an Arizona Checklist. The University of Arizona Press. Tucson, AZ. 204-205 pp.
- Dillon, Robert T., Dr. 2004. Freshwater Gastropods of North America: *Gyraulus parvus* (Say 1817). Available online: [http://www.cofc.edu/~dillonr/FWGSC/g\\_parvus.html](http://www.cofc.edu/~dillonr/FWGSC/g_parvus.html).
- Dillon, Robert T., Dr. 2004. Freshwater Gastropods of North America: *Gyraulus parvus* (Say 1817). *Gyraulus parvus* color photo by unknown photographer. Available online: [http://www.cofc.edu/~dillonr/FWGSC/g\\_parvus.html](http://www.cofc.edu/~dillonr/FWGSC/g_parvus.html).
- Gould, A.A. 1847, Proc. Boston Soc. Nat. Hist. 2:212.
- NatureServe. 2006. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.7. NatureServe, Arlington, Virginia. Available  
<http://www.natureserve.org/explorer>. (Accessed: April 25, 2006 ).
- Perez, Kathryn E., Clark, Stephanie A., Lydeard, Charles. 2004. Freshwater Mollusk Conservation Society. Freshwater Gastropod Identification Workshop. "Showing Your Shells". University of Alabama, Tuscaloosa, AL. Available online:  
<http://www.unc.edu/~keperez/FMCSGastropodID.pdf>.
- Say, Thomas. 1817, in W. Nicholson's British Encyclopedia 1<sup>st</sup> American Edition, 2, Art. Conchology, signature Xx, 9<sup>th</sup> unnumbered page, Pl. 1, fig. 5, as Planorbis.

#### **MAJOR KNOWLEDGEABLE INDIVIDUALS:**

#### **ADDITIONAL INFORMATION:**

**Revised:** 2006-04-25 (BT)  
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