

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Invertebrate Abstract

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CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Sonorella papagorum*
COMMON NAME: Black Mountain Talussnail; Papago Talussnail
SYNONYMS:
FAMILY: Helimthoglyptidae

AUTHOR, PLACE OF PUBLICATION: Pilsbry and Ferriss, 1915.

TYPE LOCALITY: Black Mountain near San Xavier Mission, on the Tohono O'Odham Indian Reservation about 9 miles south of Tucson, ca.3,200 ft, Pima County, Arizona.

TYPE SPECIMEN: Lectotype: ANSP 112161
Paralectotype: ANSP 359464

TAXONOMIC UNIQUENESS: This species is known only from this one site. Further searches at this site inhibited by Tohono O'Odham Indians who have become more protective of their reservation in recent years.

DESCRIPTION: In general talussnails are a rock snail, usually found in taluses or "slides" of coarse broken rock. The shell is usually thin, globular and is weakly differentiated between species. The shell averages over half an inch tall and almost an inch wide. *Sonorella* comprises helminthoglyptid snails with a depressed globose, helicioid shell, 12-30 mm in diameter, umbilicate or perforate, with a wide, unobstructed mouth and a thin, barely expanded peristome, smoothish or slightly sculpted with growth lines, occasionally with fine oblique or spiral granulation and short hairs (particularly on the early whorls), lightly colored, and normally with a dark peripheral band. Its most characteristic features are, however, in the genitalia, which lack a dart sac and mucus glands. For helminthoglyptidae, the buccal mass is small and spheroidal. The gastric caecum and the rectal caecum are absent. The radular teeth are endocones and ectocones retained in marginal teeth but these are serrated, on quadrate or rectangular basal plates or the central and lateral teeth may be lacking endocones and ectocones but with a broad mesocone. The prolonged cuspid head on radular teeth may or may not be present. The cephalic shield is reduced, defined only by vestigial grooves. The hyponotum is absent. Inferior tentacles are present. The eye position is at the tip of more or less elongate cephalic tentacle. The tentacular nerve is bifurcated. (Barker 2001).

AIDS TO IDENTIFICATION: The species are usually separated by their location and male genitalia.

ILLUSTRATIONS:

TOTAL RANGE: Black Mountain, Pima County, Arizona.

RANGE WITHIN ARIZONA: See "Total Range."

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY:

REPRODUCTION: For helminthoglyptidae, embryonic brooding may or may not be present and they can be oviparous or viviparous. The eggs are single, not embedded in a jelloid/mucoid mass. The egg capsule could be partially calcified, with calcite crystals embedded in jelly layers but not forming a distinct shell or it could be calcified forming a distinct shell. The larval development has no trochophore or veliger stages; there is direct development in the egg. The larval operculum is absent. The genital orifices in the male and female are fused or nearly so in cephalic region, near right ocular tentacle. The extrapallial sperm duct is a closed duct, free in the body cavity. The lumen of the penis is lacking of spines. (Barker 2001).

FOOD HABITS: For helminthoglyptidae, the openings of the digestive gland lobes are more or less adjacent, openings are intestinal. The stomach is greatly simplified, with very poorly developed musculature. The diagonal intestinal folds are absent. The intestinal valve is absent. (Barker 2001).

HABITAT: The snails are generally found in crevices one to several feet below the surface, sealed to stones by their mucus. This snail is found deep within the slopes covered with slides of black basalt. The vegetation found near the slopes consists of ocotillo, mesquite, cat-claw and palo verde.

ELEVATION: 3,200 feet (975 m).

PLANT COMMUNITY: Unknown

POPULATION TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION**ENDANGERED SPECIES ACT STATUS:****STATE STATUS:**

2 (AZGFD, AWCS 2022)
[1B (AGFD SWAP 2012)]

OTHER STATUS:

Forest Service Sensitive (USDA, FS Region
3, 1999)

MANAGEMENT FACTORS: **Threats:** highly restricted distribution with associated potential for extinction due to chance events; human impacts from nearby campground and associate trail, including potential removal or infilling of talus. **Management needs:** periodic monitoring of snail population and its habitat.

PROTECTIVE MEASURES TAKEN: Unknown

SUGGESTED PROJECTS: Little is known about the life history, diet, reproduction, activity patterns, home range size, survivorship and basic biology of the Papago Talussnail.

LAND MANAGEMENT/OWNERSHIP: BIA – Tohono O’odham Nation.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

- Arizona Game and Fish Department. 2012. Arizona's State Wildlife Action Plan 2012-2022. Phoenix, AZ.
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MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

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