

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

Invertebrate Abstract

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CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Oxyloma haydeni kanabensis*
COMMON NAME: Kanab Ambersnail
SYNONYMS:
FAMILY: Succineidae

AUTHOR, PLACE OF PUBLICATION: Pilsbry, H.A. 1948. Land Mollusca of North America 2(2):797-798.

TYPE LOCALITY: Kanab Creek near Kanab, Utah.

TYPE SPECIMEN: Types, 103166 and 391101. H.A. Pilsbry. 1909.

TAXONOMIC UNIQUENESS: The 1991 collection is the first live record of this genus in Arizona. It was previously known only from fossils. Because of taxonomic problems, it is possible that *O.h. kanabensis* may have been misidentified and may indeed be a new species. Further anatomical studies are being arranged.

DESCRIPTION: Terrestrial with mottled grayish- to yellowish-amber colored dextral (right-handed spiral) shell. Thin-walled, with elevated spire and an expanded aperture. Fully mature individuals about 14.0 to 19.0 mm (0.55 - 0.74 in.) long, 7.0 to 9.0 mm (0.27 - 0.35 in) in diameter with 3 1/4 to 3 3/4 whorls in a drawn out spire. Eyes borne at ends of long peduncles while tentacles reduced to small protuberances at eye stalk base.

AIDS TO IDENTIFICATION: Identified by anatomical dissection of genitalia.

ILLUSTRATIONS: Line drawing of types, reproductive anatomy and map of Utah distribution (Ecosearch, Inc. 1991)

TOTAL RANGE: Kanab Creek, six miles north of Kanab, Utah and Vaseys Paradise, Grand Canyon, Arizona.

RANGE WITHIN ARIZONA: See "Total Range."

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Terrestrial, but associated with wetted soil. "Life span of about 12-15 months" (Clarke 1991).

REPRODUCTION: "Occurs through all warm wet periods of the year." Species overwinters as juveniles, subadults and adults (Clarke 1991).

FOOD HABITS:

HABITAT: Marshes watered by springs and seeps at the base of sandstone cliffs or limestone (Clarke 1991, Spamer and Bogan 1993). Snail associated with a perennially wet

soil surface or shallow standing water, not under logs or other microhabitats commonly frequented by other land snails. The presence of cattail (*Typha domingensis*) or at least the permanently wet ground which *Typha* indicates, is believed to be a critical component of the species habitat. Snail most densely aggregated under fallen *Typha* stalks at the edges of thick *Typha* stands and are also frequently seen just within the mouths of vole burrows. In Utah, this species is closely associated with poison-ivy (*Rhus radicans* var. *Rydbergii*), maidenhair (*Adiantum Capillus-Veneris*) and monkey-flower (*Mimulus cardinalis*). The American robin, *Turdus migratorius*, has been observed to feed on *O.h. kanabensis* and may be its principal natural predator. For a specific description of each of the two Utah sites, see Clarke 1991, and Pilsbry 1948.

ELEVATION: 3,200 ft. (976 m)

PLANT COMMUNITY:

POPULATION TRENDS: A recent survey by Larry England, US Fish and Wildlife Service, Utah, indicates that one of the two Kanab Creek populations may be lost. According to a survey by Clarke in 1990, the major population has "about 100,000 individuals." In Utah, "severe impacts from a construction project and from cattle grazing are severely jeopardizing the survival of this subspecies." (Clarke 1991).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: LE without Critical Habitat (USDI, FWS 1992)
[PE USDI FWS 1991]

STATE STATUS: None

OTHER STATUS: Bureau of Land Management Sensitive (USDI, BLM AZ 2000)
Forest Service Sensitive (USDA, FS Region 3 1999)
Group 4 under *Oxyloma kanabense* (NNDFW, NESL 2000, 2005)

MANAGEMENT FACTORS: **Threats:** reduced and highly restricted distribution; loss of habitat due to human development; uncontrolled floods. **Management needs:** recovery plan dictates: surveys to determine whether other populations exist; research on ecology and systematics; translocation and establishment of additional populations; protect habitat from development.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Trans-canyon surveys along the Colorado River during different seasons to obtain more information about this mollusk as well as others. Very little malacological work has been done in the area.

LAND MANAGEMENT/OWNERSHIP: Both populations on privately owned land in Kanab, Utah. Population at Vaseys Paradise believed to be protected because it is in the Grand Canyon National Park.

REFERENCES:

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- USDI, Fish and Wildlife. 1991. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species; Notice of Review; Proposed Rule. Federal Register 56(225):58821.
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MAJOR KNOWLEDGEABLE INDIVIDUALS:

- A.E. Bogan - Department of Malacology. The Academy of Natural Sciences. Philadelphia, Pennsylvania.
- Earle Spammer - Diatom Herbarium. The Academy of Natural Sciences. Philadelphia, Pennsylvania.
- Jeff Sorensen - Arizona Game and Fish Department, Phoenix, AZ.

ADDITIONAL INFORMATION:

Poison ivy is found to such an extent in the habitat of *Oxyloma haydeni kanabensis* that special protective gear is highly recommended when conducting surveys.

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