

SPECIES FACT SHEET

Common Name: Malheur planaria

Scientific Name: *Kenkia rhynchida* Hyman 1937.

Synonyms:

Phylum: Plathelminthes

Class: Turbellaria

Order: Tricladida

Family: Kenkiidae

Type Locality: OREGON, Harney county, Malheur Cave, C.L. Hubbs col. July 27, 28, 1934.

OR/WA BLM and FS Region 6 Units where Suspected or Documented:

BLM: Andrews Resource Area.
Burns District.

Description:

A white, blind flatworm 2-6 mm long, with microscopic, pale brownish spots on the dorsum, except for the head region (Kawakatsu and Mitchell 1981).

Kenkia is a monotypic genus of the family Kenkiidae.

Life History:

Details about the life cycle of this species have not been recorded. This organism exhibits an excessive development of the adhesive structures, with an adhesive organ and large marginal rhabdites. These structures are evidently not necessary for clinging to the substratum because this species lives in relatively still water. It is hypothesized that the extensively developed adhesive structures are used to capture food, probably isopods and amphipods (Hyman 1937).

Range, Distribution, and Abundance:

Kenkia rhynchida Hyman 1937 has been found only in Malheur Cave (SE $\frac{1}{4}$ of Sec18 T27S R36E). This species occurs in low abundance (Benedict and McEvoy 1995).

Habitat Associations:

Kenkia rhynchida Hyman 1937 has been collected only from Malheur Cave. Specimens were collected under the surface of the water from a rotting gunny sack and on the lower surface of boards. They tend to stick tightly to the substratum on which they are found.

Threats:

The most significant threat for cavern wildlife can be disturbance and alteration of the habitat. Human visitation from tourism to spelunking can alter temperature, disturb hibernating bats, and introduce pollutants. Closure of entrances or further opening of a cave can affect wildlife use and the air circulation patterns and air temperatures. Vandalism or intentional destruction has been noted as well. Other threats include pollution of aquatic systems that maintain the humidity of the cave environment.

Loss of vegetation can lead to increased erosion and water runoff. Polluted runoff washes into waterways, which drain into underground areas, affecting both the cave environment and the creatures that live within it.

The most inappropriate activities with the highest impact are those that destroy or alter cave resources, such as: acts of vandalism, graffiti and spray painting, dumping garbage or litter, removal or damage of cave resources, or other such destructive behaviors or activities.

Conservation Considerations:

- (1) Tread slowly and softly at all times. Take care where you place your hands and feet.
- (2) Be aware of sensitive features, including fauna and their habitats. Walk carefully around waterways, tree roots, sediment banks and organic deposits (leaf litter, wood, dead animals). Look but don't disturb spider webs and other nests.
- (3) Protect water quality in the area.
- (4) Maintaining the natural surface vegetation is vital to the survival of cave ecosystems.

ATTACHMENTS:

- (1) Map of Range and Distribution**
- (2) BLM Distribution Maps**
- (3) List of Pertinent References/Literature**
- (4) Original Published Description**

Hyman, L.H. 1937. Studies on the morphology, taxonomy, and distribution of North American Triclad Turbellaria. VIII. Some cave Planarians of the United States. Transactions of the American Microscopical Society 56:457-477.

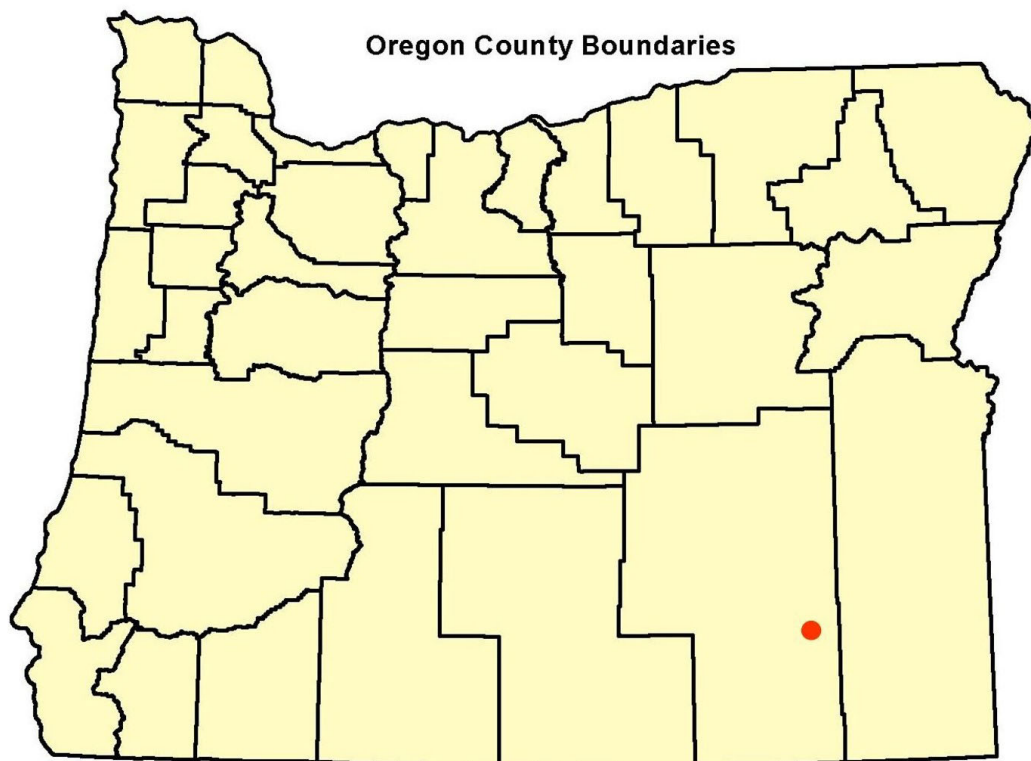
(5) Redescription of the species

Kawakatsu, M. and R.W. Mitchell. 1981. Redescription of *Kenkia rhynchida*, a troglobitic planarian from Oregon, and a reconsideration of the family Kenkiidae at its genera (*Turbellaria*, *Tricladida*, *Paludicola*). Annot. Zool. Jap. 54(2):125-141.

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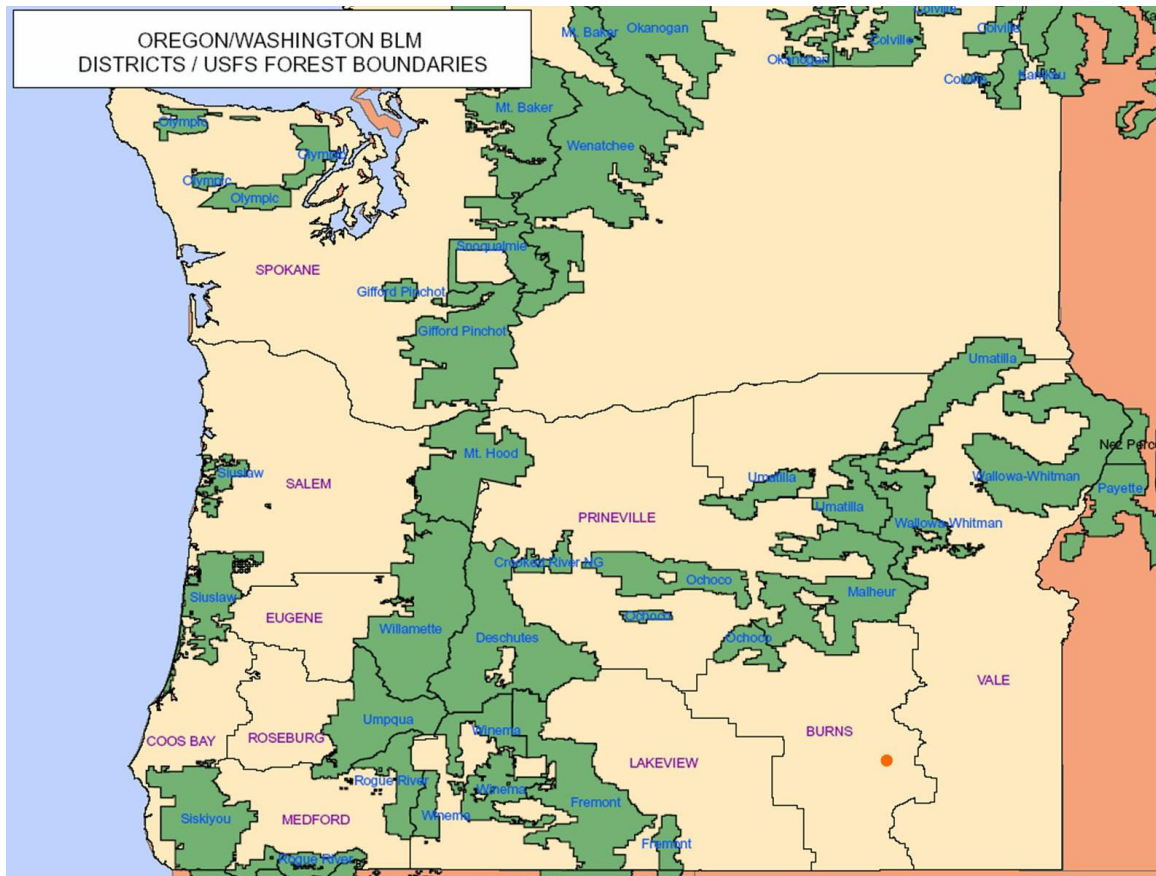


Distribution of *Kenkia rhynchida* Hyman 1937 in Oregon.

BLM Distribution Maps



BLM Resource Areas where *Kenkia rhynchida* Hyman has been found.



BLM Districts/USFS Forests where *Kenkia rhynchida* Hyman has been found.

References

Benedict, E. M. and E.G McEvoy. 1995. Malheur Cave Status Survey. The Distribution, Habitat, and Status of the Malheur Isopod *Amerigoniscus malheurensis* Schultz and the Malheur Scorpion *Apochthonius malheuri* Benedict and Malcolm with notes on Special Species. Final Report. Submitted to the Heritage Program of the Nature Conservancy, Portland, Oregon.

Hyman, L.H. 1937. Studies on the morphology, taxonomy, and distribution of North American Triclad Turbellaria. VIII. Some cave Planarians of the United States. Transactions of the American Microscopical Society 56:457-477.

Kawakatsu, M. and R.W. Mitchell. 1981. Redescription of *Kenkia rhynchida*, a troglobitic planarian from Oregon, and a reconsideration of the family Kenkiidae at its genera (Turbellaria, Tricladida, Paludicola). Annot. Zool. Jap. 54(2):125-141.

Kenk, R. 1972. Freshwater Planarians (Turbellaria) of North America. Biota of Fresh-water Ecosystems, Identification Manual. U.S. Environmental Protection Agency, Washington, D.C. 81 pp.

Kenk, R. 1976. Freshwater planarians (Turbellaria) of North America. Second Printing. US EPA Off. Res. & Dev., Aquatic Biol. Sect., Cincinnati, Ohio. 81 pp.

Kenk, R. 1989. Revised list of the North American freshwater Planarians (Platyhelminthes: Tricladia: Paludicola). Smithsonian Institution Press Number 476. 10 pp.

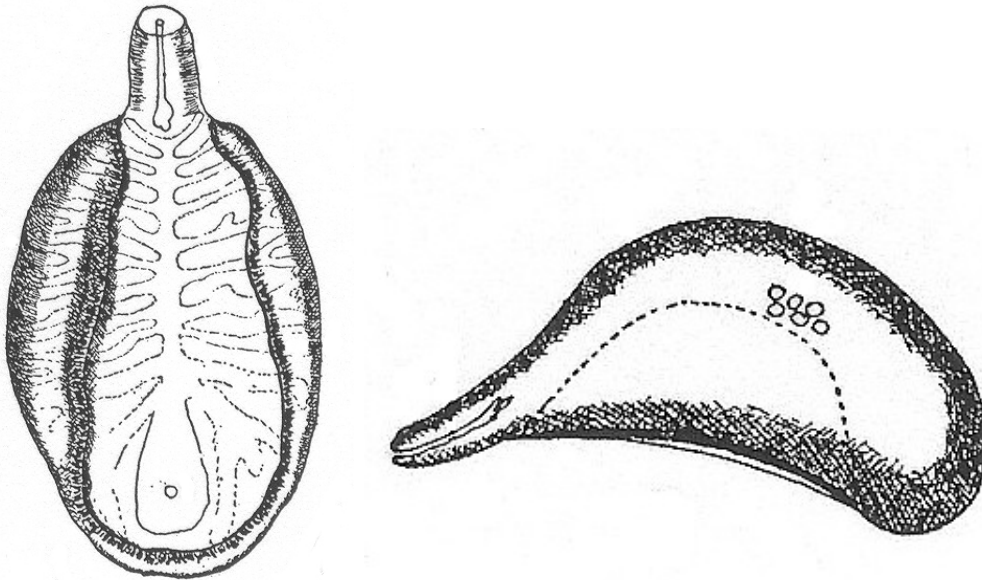
Pennak, R. W. 1989. Freshwater invertebrates of the United States: PROTOZOA to MOLLUSCA. 3rd Edition. John Wiley & Sons, Inc. 628 pp.

T C Barr Jr., J R Holsinger. 1985. Speciation in Cave Faunas. Annual Review of Ecology and Systematics 16:313-337.

U.S. Fish and Wildlife Service. 1989. Endangered and threatened wildlife and plants; animal notice of review. Federal Register, Department of the Interior. 54(4):554-579.

Technical Description:

2 to 4 mm long, white and devoid of eyes, and of the general shape of a miniature turtle. The main portion of the body is oval, strongly convex above, concave below; from the anterior end there projects a snout about $\frac{1}{4}$ to $\frac{1}{5}$ the body length. The incurved body margin is provided with a thick band of very large rhabdites. The pharynx and copulatory apparatus are in the slightly thickened posterior end (adapted from Hyman 1937).



**Ventral and side view of *Kenkia rhynchida* Hyman 1937.
Drawings from Hyman 1937.**

Live specimens are white with a creamy center and move sluggishly with a snail-like movement. They are soft, flabby creatures about $\frac{1}{4}$ inch long, rather oval-domed shape.