

Limnebius aridus (Animas Minute Moss Beetle)

No Photo Available

Taxonomy

- **Class:** INSECTA
- **Order:** COLEOPTERA
- **Family:** HYDRAENIDAE
- **Genus:** Limnebius
- **Scientific Name:** *Limnebius aridus* Perkins, 1980
- **Common Name:** Animas Minute Moss Beetle
- **Synonyms:**
- **Taxonomic Name Source:** Poole, R. W., and P. Gentili (eds.). 1996. *Nomina Insecta Nearctica: a checklist of the insects of North America. Volume 1 (Coleoptera, Strepsiptera)*. Entomological Information Services, Rockville, MD. Available online:
<http://www.nearctica.com/nomina/nomina.htm>

Agency Status

- **NMDGF:**
- **Federal Status:**
- **BLM Sensitive:**
- **USFS:**
- **IUCN Red List:** [Not Evaluated](#)
- **Nature Serve Global:** [GH](#)
- **NHNM State:** S1
- **NM Endemic:** YES

Description

Like other species in this genus, the Animas Minute Moss Beetle is a small (1.28 mm long and 0.64 mm wide), oval shaped, dark, freshwater species. It is mostly black, with some dark brown legs and palpi. It can be differentiated from similar species only by examining the genitalia (Perkins 1980).

Habitat and Ecology

Little is known about the habitat and ecology of this species. It is known from only one site, at 1,676 m in elevation, in the Animas Mountains (Perkins 1980). It is thought to occur along the edges of clear mountain streams. Based on the habits of similar species, it is likely they usually occur among sand, though adults can sometimes be found on vegetation. Most species in this family, Hydraenidae, require substrates with specific particle and interstitial space size (NatureServe 2024).

Geographic Range:

The full scope of the Animas Minute Moss Beetle's range is unknown. It has been collected just once, in 1952, on the Double Adobe Ranch in the Animas Mountains of Hidalgo county, in extreme southwestern New Mexico. It was found at around 1,676 m in elevation (Perkins 1980). The Animas Mountains are not very well surveyed, so it is possible the species is found elsewhere in the area.

Conservation Considerations:

There are no known conservation actions in place for this beetle. Various state and federal agencies have considered protections for this species over the years, though none have been designated. For example, the species was included as a Species of Greatest Conservation Need list in the New Mexico Departments of Game and Fish's Comprehensive Wildlife Conservation Strategy for New Mexico, in 2005 (NMDGF 2005). However, it was subsequently dropped from the list as the state does not have constitutional authority to protect insect species. Additionally, this species was reviewed by the United States Fish and Wildlife Service for protections under the Endangered Species Act four times, but was never officially listed (USFWS 1984, 1989, 1991, 1994). Research is needed to ensure this species remains extant, determine population size and trend, better understand the habitats and ecology, assess the threats and to determine whether conservation actions are necessary.

Threats:

Threats to this species are not well understood. Much of the possible range of this species, including the sole known occurrence locality, is on private land. This results in restricted access for research, which may be why the species has not been recorded in more than 50 years. This also makes it difficult to assess potential threats to the species.

Population:

The species has not been collected since the holotype was found in 1952 (Perkins 1980). Therefore, population size and trend are not known for this species.

References:

- IUCN. 1990. IUCN Red List of Threatened Animals. IUCN, Gland, Switzerland and Cambridge, UK .
- Perkins, P.D.. 1980. Aquatic beetles of the family Hydraenidae in the western hemisphere: Classification, biogeography, and inferred phylogeny (Insecta: Coleoptera). *Quaestiones Entomologicae (U. Alberta, Edmonton)* 16: (3-554).
- U.S. Fish and Wildlife Service (USFWS). 1991. Endangered and Threatened wildlife and plants: animal candidate review for listing as endangered or threatened, proposed rule. *Federal Register* 56: (58804-58836).
- U.S. Fish and Wildlife Service (USFWS). 1994. Endangered and Threatened wildlife and plants: animal notice of review. *Federal Register* 59: (58982-59028).
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- U.S. Fish and Wildlife Service (USFWS). 1984. Endangered and Threatened wildlife and plants: review of invertebrate wildlife for listing as endangered or threatened species. *Federal Register* 49: (21664-21675).
- [New Mexico Department of Game and Fish \(NMDGF\). 2006. Comprehensive Wildlife Conservation Strategy for New Mexico.. New Mexico Department of Game and Fish, Sante Fe . https://bison-nm.org/documents/47967_Comprehensive-Wildlife-Conservation-Strategy.pdf](https://bison-nm.org/documents/47967_Comprehensive-Wildlife-Conservation-Strategy.pdf)
- Groombridge, B.. 1994. IUCN Red List of Threatened Animals. IUCN, Gland, Switzerland and Cambridge, UK .
- [NatureServe. 2024. NatureServe Explorer: *Limnebius aridus*. Arlington, Virginia 2024. https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.110909/Limnebius_aridus](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.110909/Limnebius_aridus)

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