

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

Invertebrate Abstract

Element Code: IILEY15020

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Crinodes mcFarlandi* Miller, 2018

COMMON NAME: A Notodontid Moth

SYNONYMS: *Astylis* sp. 1

FAMILY: Notodontidae

AUTHOR, PLACE OF PUBLICATION: Miller, J.S., D.L. Wagner, P.A. Opler, and J.D. Lafontaine. 2018. Drepanoidea, Doidae; Noctuoidea, Notodontidae (Part): Pygaerinae, Notodontinae, Cerurinae, Phalerinae, Periergosinae, Dudusinae, Hemiceratinae. In: Hodges RW (Ed). The Moths of North America, Fascicle 22.1A The Wedge Entomological Research Foundation, Washington, 348 pp.

TYPE LOCALITY:

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS:

DESCRIPTION: For the family the adults are medium sized to large, typically with a relatively long forewing and stout body that extends two or more times the width of the hind wing. The head often has scale tufts or crests. The antennae are usually bipectinate to the tip in the male, filiform or sometimes bipectinate in the female. Proboscis is usually well developed and coiled. The abdomen is densely covered with long, slender scales and sometimes dorsal scale tufts at the base. The tips of the tibial spurs are serrated. These are mostly dull-colored, tan, brown, or gray moths. The larval body is stout, nearly bare, sometimes with a long secondary seta, often possessing one or more protuberances. Larvae have two MD setae above the spiracle on abdominal segments, whereas other noctuoids have only one (Borror and White 1970).

AIDS TO IDENTIFICATION:

ILLUSTRATIONS:

TOTAL RANGE: Reported from the United States in Ash Canyon (Huachuca Mountains) in Arizona, but at this point no confirmed records or observations known (unconfirmed observation reports a single specimen collected in Ash Canyon, Huachuca Mountains, Cochise County, Arizona by Noel McFarland. Specimen seen by Paul Opler and photo sent to J.G. Franclemont). Also known from Sonora and San Luis Potosi, Mexico (SCAN 2021).

RANGE WITHIN ARIZONA: May have been collected from Ash Canyon, Huachuca Mountains, Cochise County.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Most Notodontid moths are woodland or forest moths, typically widespread within habitat, unless the foodplant is localized. Adult males of the family are powerful fliers, but heavily laden females are probably not. Very few species in the family feed as adults. Many species are heavily egg laden and deposit eggs in rather large masses rather quickly after mating (NatureServe 2021).

REPRODUCTION: For the family, eggs are laid on the leaves of host plants, probably in masses (NatureServe 2021).

FOOD HABITS: For the family, larval foods include a wide diversity of dicot angiosperms, mainly woody shrubs and trees; a few feed on grasses.

HABITAT: Mixed oak/juniper woodland (NatureServe 2021).

ELEVATION:

PLANT COMMUNITY: Oak/juniper woodland, host plant unknown.

POPULATION TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: None

OTHER STATUS: None

MANAGEMENT FACTORS: The primary risk to this species is believed to be the loss of habitat or curtailment of range. This species has a limited range, which exposes it to stochastic events such as wildfire. Fire suppression in southwestern forests has resulted in excessive fuel loads that can result in large, vegetation-destroying wildfires (USDI, FWS 2021).

PROTECTIVE MEASURES TAKEN: As of May 11, 2021, this species is under review for ESA listing consideration by the US Fish and Wildlife Service (USDI, FWS 2021).

SUGGESTED PROJECTS: Life history, population status, and population range studies need to be performed.

LAND MANAGEMENT/OWNERSHIP: Private.

SOURCES OF FURTHER INFORMATION

REFERENCES:

- Borror, D.J. and R.E. White. 1970. Insects: Peterson Field Guide. Houghton Mifflin Company. Boston, Massachusetts. Pp: 234.
- Draudt, M. 1940. Notodontidae. Pages 901-1070 in A. Seitz. The Macrolepidoptera of the World. Volume 6, Part 2. Alfred Kernen, Stuttgart, Germany.
- McGavin, G.C. 2002. Smithsonian Handbooks Insects Spiders and Other Terrestrial Arthropods. New York, New York. Pp: 166.
- Miller, J.S., D.L. Wagner, P.A. Opler, and J.D. Lafontaine. 2018. Drepanoidea, Doidae; Noctuoidea, Notodontidae (Part): Pygaerinae, Notodontinae, Cerurinae, Phalerinae, Periergosinae, Dudusinae, Hemiceratinae. In: Hodges RW (Ed). The Moths of North America, Fascicle 22.1A The Wedge Entomological Research Foundation, Washington, 348 pp.
- Milne, L. & M. Milne. 1980. National Audubon Society Field Guide to North American Insects and Spiders. Alfred. A. Knopf. New York, New York. Pp: 783-784.
- NatureServe. 2005. An online encyclopedia of life [web application]. Version 4.2. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: January 27, 2005).
- NatureServe. 2021. NatureServe Explorer [web application]. NatureServe, Arlington, Virginia. Available <https://explorer.natureserve.org/>. (Accessed: September 9, 2021).
- Opler, P.A. 2000a. Notodontidae of North America. Draft working document. ABI Contract Number:ZOO - 010100.
- Preston-Mafham, R. & K. Preston-Mafham. 1993. The Encyclopedia of Land Invertebrate Behaviour. The MIT Press. Cambridge, Massachusetts. Pp: 143-144.
- Resh, V.H. & R.T. Carde. 2003. Encyclopedia of Insects. Academic Press. New York, New York. Pp: 658-659.
- Symbiota Collections of Arthropods Network (SCAN). 2021. A data portal built to visualize, manipulate, and export species occurrences. Online: <http://scan-bugs.org/portal/index.php>. Accessed September 9, 2021.
- UDSI, Fish and Wildlife Service. 2021. DIP letter, Notodontid Moths. Ecological Services, Arlington Texas. May 11, 2021.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

Revised: 2005-08-19 (AMS)
2021-09-09 (KSL)

To the user of this abstract: you may use the entire abstract or any part of it. We do request, however, that if you make use of this abstract in plans, reports, publications, etc. that you credit the Arizona Game and Fish Department. Please use the following citation:

Arizona Game and Fish Department. 20XX (= **year of last revision as indicated at end of abstract**). X...X (= **taxon of animal or plant**). Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. X pp.