

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

Invertebrate Abstract

Element Code: IIORTG2010

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Prorocorypha snowi* Rehn

COMMON NAME: Snow's Toothpick Grasshopper

SYNONYMS:

FAMILY: Acrididae

AUTHOR, PLACE OF PUBLICATION: Rehn, Kansas Univ. Sci. Bull. 5: 301. 1911.

TYPE LOCALITY: Santa Rita Mts., Arizona, USA.

TYPE SPECIMEN: LT: SEMC (Kansas, male).

TAXONOMIC UNIQUENESS: This family contains 17 recognized subfamilies with more than 1,500 genera and 10,000 species. This is the only species in this genus and the only one in Arizona.

DESCRIPTION: Most grasshopper species have camouflage coloring and patterning (usually a combination of brown, gray or green), although some have bright "warning" coloration and produce noxious chemicals. Members in this family have relatively short and stout antennae, and large eyes. The females, which are nearly always larger than the males, do not have a conspicuous ovipositor; ovipositor short and stout. They have chewing mouthparts (like their relatives the katydids and crickets), 2 pairs of wings (one narrow and tough, the other wide and flexible), and strong long hind legs for jumping and kicking. The hind wings are large and membranous. The pronotum is saddle shaped and does not extend over the abdomen. The tarsi are 3 segmented. The tympana are located on each side of the first abdominal segment.

AIDS TO IDENTIFICATION:

ILLUSTRATIONS:

TOTAL RANGE: Pima County, Arizona.

RANGE WITHIN ARIZONA: See "Total Range."

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: This family of grasshoppers produces a low buzzing sound by rubbing the roughened surfaces of their hind wings against their fore wings. Most species are solitary, and only come together to mate, except for those species that migrate which gather in huge groups (millions or even billions). Most grasshoppers only survive the winter as an egg; the adults all die when it gets cold. In warm climates, which do not have freezing winters, grasshoppers can probably live longer. They avoid predators by jumping or flying away, and hiding if they can. Known predators include ground beetles (eat eggs), wasps, ants, praying mantids, spiders (those that are big enough), mites (eat eggs, parasites on adults), centipedes, frogs, toads, lizards, snakes, birds, and small mammals (especially shrews). (<http://www.biokids.umich.edu>, accessed 2005).

REPRODUCTION: Males sing during the day to attract females. After mating, egg masses are laid in the ground, using sharp points on the end of the abdomen. In this family, the clutch size usually ranges from 8-25 eggs. A foamy substance that is secreted by the female protects the eggs. When the foam dries, it forms a tough and waterproof eggpod, and protects the eggs until they hatch. The hatchlings climb up through the foam and out into the world. If there is enough food, and they live long enough, each female can produce several egg pods before she dies. (<http://www.biokids.umich.edu>, accessed 2005).

FOOD HABITS: Herbivores. Sometimes they also scavenge dead insects for extra protein.

HABITAT: Grassland/herbaceous. Stony grassy washes.

ELEVATION:

PLANT COMMUNITY:

POPULATION TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: None

OTHER STATUS: None

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Studies to determine distribution, life history factors, and population status need to be performed.

LAND MANAGEMENT/OWNERSHIP: Possibly USFS – Coronado National Forest.

SOURCES OF FURTHER INFORMATION

REFERENCES:

- Borror, D.J., and R.E. White. 1970. Insects: Peterson Field Guide. Houghton Mifflin Company. Boston, Massachusetts. Pp. 78.
- Foltz, J.L. Family Identification – Acrididae. University of Florida, Dept of Entomology & Nematology, 13 October 1998. Modified 12 June 2001. Accessed 3/16/2005 from <http://eny3005.ifas.ufl.edu/lab1/Orthopteroid/Acridid.htm>.
<http://osf2x.orthoptera.org/OSF2.2/basic/taxa.aspx?ID=1770811393>.
<http://www.biokids.umich.edu/critters/information/Acrididae.html>. BioKids: Grasshoppers (Acrididae). Accessed: 3/16/2005.
- McGavin, G.C. 2002. Smithsonian Handbooks Insects Spiders and Other Terrestrial Arthropods. DK, New York, New York. Pp. 64.
- Milne, L., and M. Milne. 1980. National Audubon Society Field Guide to North American Insects and Spiders. Alfred. A. Knopf. New York, New York. Pp. 417.
- NatureServe. 2004. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.1. NatureServe, Arlington, Virginia. Available: <http://www.natureserve.org/explorer>. (Accessed: January 06, 2005).
- Preston-Mafham, R., and K. Preston-Mafham. 1993. The Encyclopedia of Land Invertebrate Behaviour. The MIT Press. Cambridge, Massachusetts. Pp. 55-58.
- Resh, V.H., and R.T. Carde. 2003. Encyclopedia of Insects. Academic Press. New York, New York. Pp. 837-838.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

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