ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Invertebrate Abstract **Element Code:** IIORTE6010
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Leuronotina ritensis* (Rehn) Otte
COMMON NAME: Lichen Grasshopper
SYNONYMS: *Scirtetica ritensis* Rehn
FAMILY: Acrididae

AUTHOR, PLACE OF PUBLICATION: *Leuronotina ritensis* D. Otte, North American Grasshoppers. 2: 56. 1984. *Scirtetica ritensis* Rehn, Bull. Kans. Univ. 5: 303. 1912.

TYPE LOCALITY: USA: Arizona, Pima County, Santa Rita Mts., vii 1907.

TYPE SPECIMEN: HT: ANSP (Philadelphia, female).

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: Arizona and Missouri.

RANGE WITHIN ARIZONA: Pima County, Arizona.

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: Lichen-encrusted rocks in mountains. Bare rock, talus, and scree.

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:

SOURCES OF FURTHER INFORMATION

REFERENCES:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

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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.