ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Invertebrate Abstract **Element Code:** ILARAA3010
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Thymoites minero* Roth
COMMON NAME: A cave obligate spider; a comb-footed spider; a cobweb spider
SYNONYMS:
FAMILY: Theridiidae

AUTHOR, PLACE OF PUBLICATION: Roth, 1992: 124, f. 1-5 (Dmf).

TYPE LOCALITY: USA.

TYPE SPECIMEN: Roth, 1992.

TAXONOMIC UNIQUENESS: *Thymoites minero* is a member of one of the largest families of spiders (Theridiidae), having more than 200 spiders in North America (Milne and Milne, 1980 in BISON, 2000), and 2200 species worldwide (McGavin 2002). They are members of the order Araneae, and suborder Araneomorphae (McGavin 2002). In North America, Roth (1985) reports 27 genera and 231 species in the family Theridiidae, and 12 species in the genus *Thymoites*.

DESCRIPTION: Families under this suborder Araneomorphae, are considered modern (or advanced) and can tolerate exposed habitats that promote desiccation. They have only one pair of book lungs, fangs that operate in pincer-like diaxel fashion, and have a distinctive epigynum on the underside of the female abdomen.

Spiders in the family Theridiidae are small, 1/16-1/2 in (1.5-14 mm) long (most under 3/8 in (10 mm)), mostly with a large abdomen and a very small cephalothorax. The males are much smaller than the females. In many species, the abdomen is brightly colored and almost spherical. Their eyes are in 2 rows of 4. Some species have 6 eyes (Milne and Milne 1980). The legs are long and slender and there is a small comb on the end of the fourth pair of legs that the spider uses for drawing out silk from the spinnerets. They spin irregular webs, with no obvious organization but usually having contact with the ground. Their combs are used to fling silk strands over any captive that gets caught in the web.

For *T. minero*, the males are smaller than females, with males ranging between 1.7-2.0 mm, and females around 2.5 mm. Based on Roth's 1985 description, in the genus Thymoites, males usually with eye region of clypeus very high, bulging, projecting, or clypeus with groove. Most specimens are less than 1.5 mm long; often orange in coloration; commonly with scuta on the abdomen; and the cocoon is carried by spinnerets with one leg supporting

the cocoon. Females rarely with projecting clypeus. Male palpus with radix and median apophysis.

AIDS TO IDENTIFICATION: Many of the smaller theridiids have strongly convergent endites, separating them easily from spiders of related families (Roth, 1985).

ILLUSTRATIONS:

TOTAL RANGE: Endemic to Cochise County, Arizona.

RANGE WITHIN ARIZONA: See "**Total Range**."

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Adults are present in December. Family members construct 3-dimensional webs with numerous strands radiating from the web to the ground. The lower sections of silk strands are coated with glue droplets. When prey wander into one of these, the strand breaks off and the captive is wrapped in silk, lifted up to where the spider will bite it, inject it with venom, and remove it to its lair (or rest site) and later eaten at leisure. Various size prey are caught in this manner. (Milne and Milne, 1980; Iziko Museums, 2004).

REPRODUCTION: Members in the family Theridiidae, lay egg cases that are suspended near the resting site of the web. For the Family, females produce about 200-250 eggs, attached to the web in a sac. After their first molt, the spiderlings make their own webs.

FOOD HABITS: Members of the family consume insects, although some consume animal tissue, and other invertebrates.

HABITAT: Subterrestrial; caves. Tangled webs are built under stones, against walls, and in cracks and crevices.

ELEVATION: Unknown

PLANT COMMUNITY:

POPULATION TRENDS: Unknown. The secretive nature of most cave species makes assessing population size and distribution difficult.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: None
OTHER STATUS: None

MANAGEMENT FACTORS: Potential threats, as with other cave invertebrates, may include development (such as the collapse or filling in of caves), and vandalism (Skerl, no date).

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Studies need to be conducted to determine distribution and population size, and biology, life span, reproduction, and food habits.

LAND MANAGEMENT/OWNERSHIP:

SOURCES OF FURTHER INFORMATION

REFERENCES:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION:

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