

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

**Invertebrate Abstract**

**Element Code:**

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**Data Sensitivity:**

**No**

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Megathymus ursus ursus*  
**COMMON NAME:** Ursine Giant Skipper, Ursus Giant Skipper  
**SYNONYMS:**  
**FAMILY:** Hesperidae

**AUTHOR, PLACE OF PUBLICATION:** Poling, O. 1902. Ent. News, 13: 97.

**TYPE LOCALITY:** "Pinal Co., Arizona", but stated to be Santa Catalina Mtns., Pima Co., by H. A. Freeman, Suppl. Lepid. Soc., (1):25 (1969).

**TYPE SPECIMEN:** Holotype in United States National Museum.

**TAXONOMIC UNIQUENESS:** The genus *Megathymus* contains four species in the United States. Three of these species occur in Arizona, two of which occur in the Coronado National Forest. The largest of these three giant skippers is *Megathymus ursus*. Two other subspecies of *Megathymus ursus* are recognized, *Megathymus ursus deserti* and *M. u. violae*. The genus *Megathymus* is closely related to the genus *Agathymus*. Together this assemblage constitutes the subfamily Megathyminae. (Brock and Prchal 2001).

**DESCRIPTION:** Wingspan (63-83 mm); antenna mostly white, black at the base; body black. This is the largest skipper in North America. Males are generally smaller than females.

Upperside: Forewing black, spots at apex white. Forewing spotband bright yellow, orange and wider on females. Hindwing black with no spots.

Underside: Forewing spotband paler. Hindwing with veins black and covered with bluish-white overscaling, two white spots near the hindwing costa.

**AIDS TO IDENTIFICATION:** Large size separates it from most skippers. Most other giant skippers (genus *Agathymus*) fly at a distinctly different time of the year. *Megathymus yucca* (Yucca Giant Skipper), a sympatric species in some areas, is smaller, has pale, yellow, upper forewing spots with extensive black scaling on the ventral hind wing. *M. ursus* has orange-yellow upper forewing spots with much blue-white overscaling over more than two-thirds of the hindwing below. The excessively heavy body and white antennae should separate this skipper from true butterflies. The flight can be vary rapid although females will slowly hover near potential host plants while investigating potential oviposition sites. (Brock and Prchal 2001).

**ILLUSTRATIONS:** Drawing of underside (Opler and Wright, 1999: Plate 44)  
Color photo of upperside (Bailowitz and Brock, 1991: Appendix A, Plate IV)  
B&W photo of upperside and underside (Bailowitz and Brock, 1991: page 112)  
Color photo of upperside (Scott, 1986: Plate 52)  
Color drawings of upperside of both sexes (Tilden and Smith, 1986: Plate 38)  
  
Color photo of upperside (Holland, 1931: Plate LXXII, rev.)  
Color photos of adult, larvae and burrows (Brock and Prchal 2001)

**TOTAL RANGE:** Arizona, and the Animas Mountains in Hildalgo County, New Mexico. The extent of the distribution for this subspecies in Sonora, Mexico is presently unknown but the species is known from the central eastern part of that state.

**RANGE WITHIN ARIZONA:** Known from Pinal (Santa Catalina Mtns.), Pima, Santa Cruz and Cochise counties. It is recorded in the following mountain ranges: Santa Catalina, Santa Rita, Whetstone, Huachuca, Dragoon, Pozo Verde, Atascosa, Patagonia, and Chiricahua. (Brock and Prchal 2001).

## **SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** Information on adult behavior is lacking. This is due to infrequent encounters with adults. Females are more commonly encountered than males. These are probably egg laying females that will hover near host plants searching for oviposition sites. Very little has been reported about male flight behavior. Adults do not feed at nectar although males are reportedly attracted to mud and human urine. The life span of adults is unknown but it may be short due to the infrequency of encounters. It has a rapid flight and often flies over difficult terrain. (Brock and Prchal 2001).

**REPRODUCTION:** Eggs large (3 mm), greenish-white, turning creamy -white with brown blotches, laid singly on the host leaves.

Young caterpillars begin feeding upon the leaves as they crawl down into the center of the plant. They then feed into the root creating a burrow about the diameter of the small finger of a human. The larva expels its frass as it feeds pushing it out the top of the entrance to its burrow. A frass pile (tent) is then begun and gradually grows in size as the larva develops. Tents of frass can be 2' or higher by the time development is completed. These tents facilitate location of larvae. Larvae hibernate in middle instars in late fall. They resume feeding in early spring and finish their feeding about a month prior to the flight. The mature larva is creamy -yellowish-white and can be over 2" in length. (Brock and Prchal 2001).

The pupa is dark reddish-brown. It is able to move up and down the burrow by wiggling its abdomen. The burrow is lined with a fine powder.

**FOOD HABITS:** Various species of *Yucca* are used. For *Megathymus ursus ursus*, the main host is *Yucca schottii*. *Yucca baccata* var. *brevifolia* is also utilized. Generally, only small plants and suckers are used but occasionally a medium size plant may be selected, particularly if there is root underground that the larva can get to. It is suspected that the infested plant dies, however, it is unclear whether or not suckers sprout from the roots of these plants. (Brock and Prchal 2001).

**FLIGHT PERIOD:** Adults have been recorded from 5 July to 28 August. There is a single brood.

**HABITAT:** Mostly oak woodland but also desert regions with stands of the host between 1200 and 2200 m. Most common at the lower edge of the oak belt.

**ELEVATION:** Most common at the lower reaches of the oak belt but has been taken from 3,397 - 7,218 (1200 - 2200 m).

**PLANT COMMUNITY:**

**POPULATION TRENDS:**

**SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None  
**STATE STATUS:** None  
**OTHER STATUS:** Full Species: Forest Service Sensitive (USDA, FS Region 3 1999).

**MANAGEMENT FACTORS:****PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:** A survey of known populations to ascertain population levels.

**LAND MANAGEMENT/OWNERSHIP:****SOURCES OF FURTHER INFORMATION****LITERATURE CITATIONS:**

- Bailowitz, R.A., and J.P. Brock. 1991. Butterflies of Southeastern Arizona. Sonoran Arthropod Studies, Inc., Tucson, AZ. p. 113.
- Brock, J., and S. Prchal. 2001. Sensitive Insect Species of the Coronado National Forest. A Training Project by Sonoran Arthropod Studies Institute, Tucson, AZ.
- Holland. 1931. The Butterfly Book. Doubleday Doran.
- Miller and Brown. 1981. A Catalogue/Checklist of the Butterflies of America north of Mexico. The Lepidopterist's Society.
- Opler and Wright. 1999. Western Butterflies. Houghton Mifflin Company.
- Scott. 1986. Butterflies of North America. Stanford Press.
- Tilden and Smith. 1986. Peterson Field Guides: Western Butterflies. Houghton Mifflin Company, Boston. pp. 206-207.
- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.
- Wielgus and Wielgus. 1972. A New subspecies of *Megathymus ursus* Poling (Megathymidae) from Arizona with observations and notes on its distribution and life history. Bulletin of the Allyn Museum, #9.
- Wielgus and Wielgus. 1973. New food plant and distribution records for *Megathymus ursus* (Megathymidae). Bulletin of the Allyn Museum, #12.

**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

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**ADDITIONAL INFORMATION:**

"The adults of this species are rarely seen. Yet, one can easily locate tents of the caterpillars annually. No one knows why adults are so rarely seen. However, based upon personal experience this species is in no danger and is not rare. An in depth study of its behavior and limiting factors would be most informative and revealing." (Brock *in* Brock and Prchal 2001).

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