

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

Invertebrate Abstract

Element Code: IILEP87110
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Agathymus evansi*
COMMON NAME: Huachuca Giant-Skipper, Brigadier, Evansi Giant-Skipper, Evan's Agave Borer.
SYNONYMS:
FAMILY: HesperIIDae

AUTHOR, PLACE OF PUBLICATION: H.A. Freeman *Megathymus*. 1950. Field and Lab., 18: 144-146.

TYPE LOCALITY: Ramsey Canyon, Huachuca Mountains, Cochise County, Arizona.

TYPE SPECIMEN: Holotype in the American Museum of Natural History.

TAXONOMIC UNIQUENESS: The genus *Agathymus* consists of eight species. All are found in the southwest and are closely associated with *Agave* plants. Three species are found within the boundaries of Coronado National Forest, *Agathymus evansi*, *Agathymus polingi* and *Agathymus aryxna*. All three were originally placed in the genus *Megathymus*, a closely allied genus of yucca feeding skippers. (Brock and Prchal 2001).

DESCRIPTION: Wingspan (50-61 mm). The sexes are similar with females averaging slightly larger. Upperside: blackish with a postmedian band of orange-yellow spots. These spots are wider on females. There is some orange overscaling on the basal half of the hindwing.

Underside: the forewing marked like that of the upperside but with some gray overscaling near the apex, the hindwing is mostly gray with the postmedian band very faint.

AIDS TO IDENTIFICATION: The heavy body and large size will separate this skipper from most others. *Megathymus* species fly earlier in the year. *Evansi* is close to identical to *Agathymus aryxna* (Arizona Giant-Skipper). *A. aryxna* is slightly smaller (45-58 mm) and generally flies at lower elevations than *A. evansi*. However, in the Huachuca Mountains the two may be found together and are probably not reliably separable in the field. (Brock and Prchal 2001).

ILLUSTRATIONS: Color drawing of upperside male (Opler and Wright, 1999: Plate 44)
B&W photo of upper and underside male (Bailowitz and Brock, 1991: page 109)
Color photo of upper and underside male (Scott, 1986: Plate 57)
Color photo of upperside female (Scott, 1986: Plate 57)
Color drawing of upperside male (Howe, 1975: Plate 81)
Color drawing of upperside female (Howe, 1975: Plate 82)
Color photo (Brock and Prchal 2001)

TOTAL RANGE: In the United States, known only Arizona. Also known from Sonora and Chihuahua, Mexico. The southern limits of its range are poorly defined.

RANGE WITHIN ARIZONA: In Arizona, known only from the Huachuca Mountains and vicinity. Records from eastern Santa Cruz County have not been duplicated recently. (Brock and Prchal 2001).

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Adults do not visit flowers. Males visit mud and are often found imbibing their own excreted fluids. Adults are fond of perching on cliff or rock overhangs. The flight is powerful and can be rapid when they are disturbed. (Brock and Prchal 2001).

REPRODUCTION: Eggs are laid singly on the food plant. Young larvae bore into the leaves about halfway from the leaf base to the tip, where they hibernate. Older larvae live in the leaf base and complete their feeding in late June or early July. Larvae construct a trapdoor underneath the leaf. Mature larvae are pale reddish-green or bluish-green with a reddish-brown head. Pupa is light brown. (Brock and Prchal 2001).

FOOD HABITS: So far, only known to use *Agave parryi* var. *huachuensis* (larval food), although may use *Agave palmeri*.

FLIGHT PERIOD: There is a single brood of *evansi*, most common in September. Adults have been observed from early August (8 Aug.) to mid-November (11 Nov.).

HABITAT: Mixed pine-oak-juniper woodland with stands of its host. Most colonies of this species are found in open areas of heavy woodland above 1800m.

ELEVATION: Based on records in the Heritage Data Management System (HDMS), elevation ranges between 5,600 - 5,800 ft. (1708-1769 m) (AGFD, unpublished data accessed 2001).

PLANT COMMUNITY:

POPULATION TRENDS:

SPECIES PROTECTION AND CONSERVATION

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

MANAGEMENT FACTORS: Preserve stands of its food plant.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Monitor existing populations in the Huachuca Mountains. An annual census would provide valuable information.

LAND MANAGEMENT/OWNERSHIP: USFS - Coronado National Forest; DOD - Fort Huachuca Military Reservation.

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. 109.

Brock, J., and S. Prchal. 2001. Sensitive Insect Studies of the Coronado National Forest. A Training Project by Sonoran Arthropod Studies Institute, Tucson, AZ.

Howe. 1975. The Butterflies of North America. Doubleday.

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, J.W., and A.C. Smith. 1986. Peterson Field Guides: Western Butterflies. Houghton Mifflin Co., Boston.
p. 210.

USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION:

Although this butterfly is restricted to the Huachuca Mountains of southeastern Arizona in the United States, there has not been an adequate survey of the northwestern Sierra Madre of Mexico to ascertain its status there. (Brock and Prchal 2001).

I have casually observed this species in the Huachuca Mountains for over twenty years. The population fluctuates from year to year but appears to be rather healthy. In some years, I have observed more than 100 individuals in a single day which is the largest concentration of any giant skipper species I have ever seen. (James Brock in Brock and Prchal 2001).

Revised: 2001-02 (JB)

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Arizona Game and Fish Department. 2001. *Agathymus evansi*. Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 3 pp.