

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

Invertebrate Abstract

Element Code: **IILEP87080**

Data Sensitivity: **No**

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Agathymus aryxna*

COMMON NAME: Arizona Giant Skipper, *Aryxna* Giant skipper, *Aryxna* Agave Borer

SYNONYMS:

FAMILY: HesperIIDae

AUTHOR, PLACE OF PUBLICATION: (Dyar) *Megathymus*. 1905. J. New York Ent. Soc., 13:141.

TYPE LOCALITY: "Mexico", restricted to SE of Nogales, Sonora, Mexico, by Barnes and McDunnough, Contrib. Nat. Hist. Lepid. N. America, 1:23 (1912).

TYPE SPECIMEN: Lectotype in British Museum, designated by I.C.Z.N. (opinion 483).

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, *A. aryxna*, *A. polingi*, and *A. evansi*. All three were originally placed in the genus *Megathymus*, a closely allied genus of yucca feeding skippers. Some authors consider *Agathymus baueri* (Bauer's Giant-Skipper) to be a subspecies of *A. aryxna*. *A. baueri* occurs to the north of Coronado National Forest land so it is not included in distributional information (see Total Range for *Agathymus aryxna*). (Brock and Prchal 2001).

DESCRIPTION: Wingspan (45-58 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. *Agathymus aryxna* is nearly identical to *Agathymus evansi* (Huachuca Giant Skipper). *A. evansi* is slightly larger (50-61 mm) and generally flies at higher elevations than *A. aryxna*. However, in the Huachuca Mountains the two may be found together and are probably not reliably separable in the field. *Agathymus polingi* (Poling's Giant-Skipper) is much smaller (41-44 mm) and is brighter orange above and the postmedian bands below are more prominent.

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 107)

Color photo of upper and underside male (Scott, 1986, Plate 57)

Color photo of upperside female (Scott, 1986, Plate 57)

Color drawing of upper and underside male (Howe, 1975, Plate 79)

Color drawing of upperside female (Howe, 1975, Plate 79)

Color photos (Brock and Prchal, 2000)

TOTAL RANGE: Arizona and southwestern New Mexico to Sonora, Mexico and possibly as far south as Durango, Mexico.

RANGE WITHIN ARIZONA: This species is known from as far north as Gila County in Arizona, then southward through southeastern Arizona. County records include Cochise, Graham, Pima, Pinal, and Santa Cruz. Most if not all mountain ranges in the Coronado National Forest containing the food plant, harbor colonies of this species.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Immatures burrow into the leaves and stalks of various species of *Agave*. Adults do not take nectar, but are often found at puddles and other sources of moisture, and prefer steep cliff faces and road cuts, always landing with head upward. They have a rapid, noisy flight but flutter somewhat clumsily at water-holes. (Bailowitz and Brock 1991). Males perch on or near stands of the food plant from about 7:30 A.M. until noon (Brock and Prchal 2001).

REPRODUCTION: Eggs are pale green and laid singly on the food plant. Young larvae live and hibernate in the leaf tips, while older larvae live near the base of the leaves. Mature larvae are whitish-blue; the head is dark brown. They cease feeding in May and a trapdoor is constructed usually on the underside of the leaf. There are several months of inactivity prior to the flight in the fall. (Brock and Prchal 2001).

FOOD HABITS: The larvae are well-documented leaf borers of *Agave palmeri*. Perhaps other species of *Agave* are used.

FLIGHT PERIOD: Adults are known to fly from early September (1 Sept.) to mid-November (13 Nov.) in a single brood (Brock and Prchal 2001). Best flights around the first of October.

HABITAT: Most colonies are found between 1200-2000 m on open hillsides, in grasslands and in rocky canyons where stands of the host plant occurs.

ELEVATION: 4,585 - 7,642 ft. (1200 - 2000 m). Based on records in the Heritage Data Management System (HDMS), elevation ranges from 5,100-5,800 ft (1556-1769 m) (AGFD, unpublished data accessed 2001).

PLANT COMMUNITY:

POPULATION TRENDS:

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:

STATE STATUS:

OTHER STATUS: Forest Service Sensitive (USDA, FS Region 3 1999)

MANAGEMENT FACTORS: Disturbance or removal of the host may impact isolated populations but both host and butterfly are widespread enough to not be of concern presently.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: USFS - Coronado National Forest; Private.

SOURCES OF FURTHER INFORMATION

LITERATURE CITATIONS:

- Bailowitz, R.A., and J.P. Brock. 1991. Butterflies of southeastern Arizona. Sonoran Arthropod Studies, Inc., Tucson, AZ. pp. 107-108.
- Brock, J. and S. Prchal. 2001. Sensitive Insect Species 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 Co.
- Scott. 1986. Butterflies of North America. Stanford Press.
- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

This species is common and widespread. There is no reason for listing this species at this time. (Brock and Prchal 2001).

Revised: 2001-02-?? (JB)
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