

ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM

Invertebrate Abstract

Element Code: IILEPG2050

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**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Euphilotes mojave virginensis* Austin

**COMMON NAME:** Mojave Blue, Mohave Dotted-blue

**SYNONYMS:**

**FAMILY:** Lycaenidae

**AUTHOR, PLACE OF PUBLICATION:** Austin, G. T. 1998. New Subspecies of Lycaenidae (Lepidoptera from Nevada and Arizona). Pages 539-572 in: Emmel, T. C. editor. Systematics of western North American butterflies. Mariposa Press, Gainesville, Florida, 878 pages.

**TYPE LOCALITY:** Mojave Desert.

**TYPE SPECIMEN:**

**TAXONOMIC UNIQUENESS:** NatureServe (2005) lists 11 species in this genus, with 10 occurring in Arizona, along with and multiple subspecies; *virginensis* is the only subspecies listed under the species *Euphilotes mojave*. According to Resh and Cardé (2003), "There are more than 6000 described species in 640+ genera, and many tropical taxa are not thoroughly studied. Lycaenids occur worldwide, with endemic species even in New Zealand and the Pacific Islands, but the majority occur in the Neotropics and Africa."

**DESCRIPTION:** For the species the wingspan is 3/4 to 7/8 inches (19.-2.3 cm). The upper side of the male is pale blue with narrow black borders. The female is blackish-brown with extensive blue at the base. The hindwing has an orange marginal hind restricted or absent. The underside is similar to Pacific Dotted-Blue. (Opler, No Date). The underside has black spots and aurora. Inner margins of the forewing are gray and the rest of the wing is whitish. The females have normal fore legs while the males are somewhat smaller and lack claws. They are easy to identify because of their small size and their habit of holding the wings tightly together over the back, exposing the speckled undersurface of the wings. The caterpillars are stocky and slug like and are yellow with red lines.

**AIDS TO IDENTIFICATION:** Members of the genus *Euphilotes* resemble members of the genus *Icaricia*, but the marginal spots on the underside of the HW (hind-wing) lack iridescent spangles, and the wing fringes are checkered. The members of genus *Euphilotes* resemble one another quite closely; all are found only in the immediate vicinity of their food plants, various species of wild buckwheat (*Eriogonum*). (Tilden and Smith, 1986).

**ILLUSTRATIONS:** Color photo of species (David Powell in <http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/mx/238.htm>)  
Color photos of species (2000, In <Http://www.vireos.com/mojaveblue.html>)  
Color drawing of species (Tilden, 1986)

**TOTAL RANGE:** Utah, Nevada, and Arizona.

**RANGE WITHIN ARIZONA:** Northwestern Arizona.

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** The larvae of Lycaenidae members, are shaped like a sowbug, with the body segments broadened laterally and the small head retractable and hidden under the thorax; they are green or brown, and are usually covered with short secondary setae, giving a velvety appearance. Species that live in association with ants are bare. All Lycaenids lack eversible prothoracic glands characteristic of other butterfly caterpillars. Many Lycaenidae have evolved glands at the last abdominal segment that produce a sweet, honeydew-like fluid that is much sought after by ants, which display various behaviors. Some tend and “milk” the larvae on their food plants, thereby presumably warding off parasites and invertebrate predators. Others transport the young caterpillars to their nests, where they are fed by the ants or eat the ant brood. (Resh and Cardé, 2003).

**REPRODUCTION:** For the species the adults have a single flight in mid-March to June. The males patrol all day near host plants to find receptive females. The eggs are laid singly on host plant flowers or buds. The caterpillars eat flowers and fruits, and are tended by ants. The chrysalids hibernate in leaf litter.

**FOOD HABITS:** For the species, caterpillars feed on low wild buckwheat species such as, *Eriogonum pusillum*, and *E. reniforme*. Adult’s nectar on host buckwheats and other plants such as *Cryptantha*, and *E. fasciculatum*.

**HABITAT:** For the species they are found in sandy areas, and dry desert washes and slopes with the caterpillar food plant, wild buckwheats.

**ELEVATION:** Unknown

**PLANT COMMUNITY:** Mohave Desert. Host plants consist of wild buckwheat and other plants, including: *Cryptantha* sp. (cat’s-eye), *Eriogonum fasciculatum* (California wild buckwheat), *E. pusillum* (low buckwheat), and *E. reniforme* (A wild-buckwheat). (Opler, No Date).

**POPULATION TRENDS:** Unknown.

## **SPECIES PROTECTION AND CONSERVATION**

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

**MANAGEMENT FACTORS:** A number of populations for the species are threatened by housing and other kinds of development as well as disruption by off-road vehicles. Invasion by exotic plants notably cheat grass is also a factor.

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:** Surveys to determine biological factors of the subspecies as well as distribution 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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