





#### Threatened and Endangered Species

#### **Karner Blue Butterfly**

#### Lycaeides melissa samuelis



States in which the Karner blue butterfly is found.



The Karner blue butterfly is an *endangered species*. Endangered species are animals and plants that are in danger of becoming extinct. *Threatened species* are animals and plants that are likely to become endangered in the foreseeable future. Identifying, protecting, and restoring endangered and threatened species are the primary objectives of the U.S. Fish and Wildlife Service's endangered species program.

What is the Karner Blue Butterfly?

**Appearance** - The male and female of this small (wingspan of about one inch) butterfly are different in appearance. The topside of the male is silvery or dark blue with narrow black margins. The female is grayish brown, especially on the outer portions of the wings, to blue on the topside, with irregular bands of orange crescents inside the narrow black border. The underside of both sexes is gray with a continuous band of orange crescents along the edges of both wings and with scattered black spots circled with white.

**Reproduction** - The Karner blue butterfly usually has two generations, and thus two hatches, each year. In April, the first group of caterpillars hatch from eggs that were laid the previous year. The caterpillars feed only on wild lupine plant leaves. By about mid-May, the caterpillars pupate and adult butterflies emerge from their cocoon-like chrysalis by the end of May or in early June. These adults mate, laying their eggs in June on or near wild lupine plants. The eggs hatch in about one week and the caterpillars feed for about three weeks. They then pupate and the summer's second generation of adult butterflies appears in July. These adults mate and lay eggs that will not hatch until the following spring.

### What is the Karner Blue Butterfly? (Continued)

**Feeding Habits** - Karner blue caterpillars feed only on the leaves of the wild lupine plant. Adults feed on the nectar of flowering plants. This severely restricts where they can survive.

**Range** - Karner blue butterflies are found in the northern part of the wild lupine's range. The butterfly is most widespread in Wisconsin, and can be found in portions of Indiana, Michigan, Minnesota, New Hampshire, New York, and Ohio. It may also be present in Illinois.

## Why is the Karner Blue Butterfly Endangered?

**Habitat Loss or Degradation** - Habitat throughout the range of the Karner blue butterfly has been lost due to land development and lack of natural disturbance, such as wildfire and grazing by large mammals. Such disturbance helps maintain the butterfly's habitat by setting back encroaching forests, encouraging lupine and flowering plant growth.

**Collection** - The Karner blue butterfly's rarity and beauty make it a desirable addition to butterfly collections. Because butterfly numbers are so low, the collection of even a few individuals could harm the butterfly population. Collection is illegal without a permit from the U.S. Fish and Wildlife Service.

# What Is Being Done to Prevent Extinction of the Karner Blue Butterfly?

**Listing** - The Karner blue butterfly was Federally listed as an endangered species in 1992.

**Recovery Plan** - The U.S. Fish and Wildlife Service prepared a Recovery Plan that describes and prioritizes actions needed to conserve and restore this species. The Service and its partners are implementing that Plan.

**Research** - Researchers are studying the Karner blue butterfly to find the best way to manage for the butterfly and its habitat.

**Habitat Protection** - Where possible, the butterfly's habitat (pine and oak savanna/barrens supporting wild lupine and nectar plants) is managed and protected. Other kinds of animals and plants will also benefit from protection of the butterfly's habitat.

**Wisconsin Habitat Conservation Plan** - Wisconsin is carrying out a statewide Habitat Conservation Plan that permits human activities (such as roadside maintenance and timber harvests) in areas that support Karners but ensures that the activities are conducted in ways that conserve and protect the species and its habitat.

**Reintroductions** - Zoos are propagating Karner blues and those butterflies are being released in suitable habitat in Ohio, Indiana and New Hampshire to start new populations in areas where this butterfly had been extirpated.

## What Can I Do to Help Prevent the Extinction of Species?

Join - Join a conservation group; many have local chapters.

**Volunteer** - Volunteer at a nearby zoo, nature center, or National Wildlife Refuge.

**Plant** - Plant a garden with flowers that attract butterflies. Use native plants in your lawn and gardens.

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