

FENDER'S BLUE BUTTERFLY

The Fender's blue butterfly was listed as endangered in 2000. Historically, the butterfly was found only in the upland prairies of Oregon's Willamette Valley. Only about one percent of the original habitat survives, some 1,000 acres scattered across multiple sites. The rest was lost to agricultural and other development.

Today, the butterfly occurs on only 32 sites in Yamhill, Polk, Benton and Lane counties. Fender's blue butterfly sites lie almost entirely on the western side of the valley, within 21 miles of the Willamette River. The largest populations occur at Baskett Slough National Wildlife Refuge and at Willow Creek Main Preserve, managed by The Nature Conservancy.

The Fender's blue is a relatively small butterfly with a wingspan of only about one inch. The upper wings of the male are brilliant blue with a blackish wing margin and white fringe. The upper wings of the female are brown with a white fringe. The undersides of the wings of both sexes are creamy-tan with black spots surrounded by a fine white border or halo.

The butterflies are dependent on Kincaid's lupine, a wildflower federally listed as threatened that serves as the insect's primary food source as a caterpillar. Adult butterflies begin laying eggs on host plants, primarily Kincaid's lupine, in May. After the larvae hatch, they feed on the lupines until early July, when they drop to the ground and become dormant until late winter or early spring. Then they begin feeding again before pupating and emerging as adults in May.

The butterfly is endangered because its native prairie habitat has been converted to agriculture, subject to fire suppression, invaded by non-native plants or otherwise developed. The insect finds relief from these dangers mostly along fence rows



and on intervening strips of land along agricultural fields and roadsides. Even these areas are disappearing as private landowners come under increasing pressure to develop. Loss of native prairie has resulted in the isolation of butterfly populations once interconnected. This isolation makes the butterfly more vulnerable to natural and human disturbances.

Historically, large-scale fires helped maintain open prairies. Today, fire suppression is allowing shrubs, trees and nonnative invasive plants to overgrow prairies. Land managers use controlled burning, mowing and hand clearing to protect prairie ecosystems in some areas.

Staff from the Oregon Zoo in Portland are working with landowners to explore the potential for rearing Kincaid's lupine. The zoo also is investigating the potential for captive breeding of the butterflies.

Presently, the butterfly is maintaining its status quo, with some populations declining and others increasing. A few new populations have been located. Most populations number barely a few dozen butterflies, however.

Funding from all government sources for Fender's blue butterfly recovery nationwide ranks the species at 197 out of 1,311 species, according to the U.S. Fish and Wildlife Service fiscal year 2004 report (the most recent available) to Congress, *Federal and State Endangered and Threatened Species Expenditures*.^{*} Total recovery funding for the species from all government sources that year was about \$248,000, with \$209,000 coming from the Service.

^{*} The U.S. Fish and Wildlife *Federal and State Endangered and Threatened Species Expenditures* report incorporates subjective estimates provided by regulated entities without any independent verification and without effort to segregate Endangered Species Act expenditures from other related expenditures. However, for most listed species, no other funding data is available.