

## Benton County Special Management Species: Kincaid's lupine

**KINCAID'S LUPINE** (*Lupinus sulphureous* var. *kincaidii*) is native to the Willamette Valley. Kincaid's lupine was listed as a threatened species under the federal Endangered Species Act in 2000. It is a long-lived plant in the pea family, and plays a very important role in the conservation and lifecycle of another Prairie Conservation Species, Fender's blue butterfly.

Like many of the Willamette Valley's threatened and endangered prairie species, challenges in conserving this plant primarily have to do with loss of habitat due to human development.

The Willamette Valley was historically grassy prairie dominated by oak trees. When human development increased, prairieland shrunk which endangered many species. Less than one percent of the original prairie habitat that once existed is still present today!<sup>1</sup>

Kincaid's lupine can be distinguished from other lupine species by a ruffled banner petal. In the pea family, a banner petal is the very visible and large lobed petal at the top of the flower. Kincaid's lupine flowers May through June and is dependent on insects for pollination.

There are 17 populations known within Benton County, with 59 subpopulations in total as of

2010. Similar lupine species in the area include spur and sickle-keeled lupine. These species can also act as host plants for Fender's blue butterfly but don't historically have the same important role. Sometimes these species can also hybridize when they are cross-pollinated.



Photo: Institute for Applied Ecology

Kincaid's lupine can be found in upland prairie habitats as well as transition zones between grasslands and forested environments. It historically was found as far north as British Columbia but no longer occurs this widely.

### WINGING IT

Kincaid's lupine is an important plant for the Willamette Valley native butterfly, Fender's blue. Not only does Kincaid's lupine host nearly the entire life cycle for Fender's blue caterpillars and butterflies, but each individual insect is usually highly associated with one single plant or clusters of plants. Adult butterflies lay eggs on the leaves of the lupine. When caterpillars emerge, they eat the young leaves until they drop into the soil below the plant to overwinter. They build a chrysalis and emerge in May as butterflies to start the one-year lifecycle over again.

<sup>1</sup> Black, S. H., and D. M. Vaughan. 2005. Species Profile: *Icaricia icarioides fenderi*. In Shepherd, M. D., D. M. Vaughan, and S. H. Black (Eds). Red List of Pollinator Insects of North America. CD-ROM Version 1 (May 2005). Portland, OR: The Xerces Society for Invertebrate Conservation.