

by Michael Engel

# Landowners Help Karner Blues



**A female Karner blue butterfly**  
Photo by Mike Engel

## **What Wisconsin Landowners are saying about the Partners Program:**

**“We are impressed that our tax dollars are being used for projects like this, and we hope your program expands and continues. Our next personal effort will be to encourage our local township road-mowing crew to be sensitive to shoulders where lupine [the Karner blue butterfly’s larval host-plant] grows... Thanks again for your program.”**

*David and Shelley Hamel in a note to Kurt Waterstradt, U.S. Fish and Wildlife Service biologist. Private landowners restoring native lupine as habitat for the Karner blue butterfly on 120 acres (48 ha) near Westfield, Wisconsin, the Hamels are managing the site through the Partners for Fish and Wildlife program.*

**David and Shelley Hamel walking through their oak barrens after a fall burn that benefitted Karner blue butterfly habitat.**

*Photo by Kurt Waterstradt*

In 1995, 3 years after the Fish and Wildlife Service listed the Karner blue butterfly (*Lycaeides melissa samuelis*) as endangered, our Wisconsin Partners for Fish and Wildlife program initiated habitat restoration projects for the butterfly in cooperation with private landowners. Success was immediate in terms of landowners willing to participate in voluntary endangered species recovery efforts. In terms of conservation, success soon followed as Karner blues began to colonize the restoration sites (see “Partnerships Take Flight” in *Endangered Species Bulletin*, Vol. XXIII, No. 5).

Since 95 percent of Wisconsin’s land is non-federal, the involvement of private landowners in restoring habitat is essential to conservation of the Karner blue. The Service’s challenge was to provide technical and financial assistance to help landowners restore and enhance Karner blue habitat. Many quality habitat restoration projects are

developed while sitting around a landowner’s kitchen table. These discussions foster an understanding of appropriate management techniques and appreciation for the butterfly. But more importantly, they establish trusting relationships.

The Karner blue butterfly is associated with oak savanna and pine





*Fish and Wildlife Service biologist Mike Engel presents landowner Bill McCartney with a sign and certificate for helping to restore the Karner blue butterfly. Mr. McCartney and his wife Joan converted 30 acres (12 ha) of former crop land to a diverse prairie habitat. This photograph was taken by John Crass, an area landowner who seeded the field.*

barrens, which support a variety of wildflower species. As larvae, the butterfly's sole food plant is wild lupine (*Lupinus perennis*), but the adults feed on nectar from a number of flowering plants. The Partners for Fish and Wildlife program fosters the restoration and enhancement of oak savanna and pine barrens by providing technical and financial assistance to landowners. These ecosystems once occurred across large landscapes throughout the Midwest. Fire suppression, agriculture, pine plantations, and development have reduced these habitats to less than 0.02 percent of their presettlement range. Many of these remnant habitats lie within the 95 percent of the state that is non-federal land. To protect these rare ecosystems and their associated rare species, it is critical for the Service to work cooperatively with private landowners.

While the Partner's program was progressing, another conservation program commenced. After 5 years of development, the Wisconsin Statewide Karner Blue Butterfly Habitat Conservation Plan (HCP) was completed in 1999 (see "Butterflies Benefit from Statewide HCP" in *Bulletin* Vol XXV, No. 4). The HCP was developed by 26 partners, including major forestry stakeholders,

county forests, The Nature Conservancy, utility companies, and the Wisconsin Departments of Natural Resources, Agriculture, and Transportation. It includes a plan that encourages small private landowners to participate in conservation of the Karner blue butterfly voluntarily. The permit issued for the HCP automatically covers the "incidental take" of Karner blues on these lands in accordance with the terms of the plans. This removes regulatory burdens for small private landowners and promotes conservation on private lands.

A third program provides funding to restore Wisconsin's Karner blue habitat on private lands. In 1999, Congress authorized funding for the Endangered Species Act Landowner Incentive Program (ESLIP), an innovative program to provide much needed financial assistance to private property landowners to conserve listed, proposed, and candidate species, and otherwise imperiled species. The Service's Wisconsin Private Lands Office and its three Service partners (Necedah National Wildlife Refuge, Green Bay Ecological Services Field Office, and Leopold Wetland Management District) received an ESLIP grant in 1999 to promote conservation of the Karner blue

**"This prairie experience will enrich our campers and our community."**

*Leroy Latham, operations manager of the Wisconsin Christian Youth Camp at Fallhall Glen, a project to restore 60 acres (24 ha) of prairie as habitat for the Karner blue butterfly and other native plants and animals.*

**"The [Wisconsin] DNR vigorously supports the continuation and increased services from your private lands program in the future. The Karner blue butterfly is the 'poster child' that is driving private landowner support for savanna restoration right now."**

*David Lentz, Karner Blue Butterfly Habitat Conservation Plan Implementation Coordinator, Wisconsin Department of Natural Resources, Bureau of Forestry, in a note to Jim Ruwaldt, Wisconsin Private Lands Coordinator.*

**Wild lupine and other wildflowers spring up on Jon Peterson's property, a Partners site, about one month after a prescribed burn.**

Photo by Kurt Waterstradt



**"I went out there this morning, and it looked good. There was still a little smoldering from the chunks of wood on the south slope of the hill. That was the area next to the small prairie. There was no wind, and there is really nothing around to catch on fire. It's supposed to rain this weekend so I'm not worried. I'll be out at the land again tomorrow for awhile. Thanks for your vision and all of your help. You do good work."**

**Jon Petersen, writing to Kurt Waterstradt, U.S. Fish and Wildlife Service, about a prescribed burn to remove undergrowth around jack pines and red oaks on a site occupied by Karner blue butterflies in Waupaca, Wisconsin. The fires also suppress exotic cool-season grasses and stimulate growth among native grasses. Mr. Peterson is managing 43 acres (17 ha) for the endangered butterflies.**

butterfly and eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) in voluntary cooperation with private landowners.

Funds from the ESLIP grant are used for planting wild lupine and wildflowers that produce nectar for adult Karner blues; restoring oak savanna and pine barrens habitat to promote establishment of viable metapopulations of butterflies; and creating dispersal corridors to connect isolated local populations. In 1999, we exceeded our first year's restoration goals by restoring 542 acres (220 hectares) of Karner blue habitat. Partners included small private landowners, The Nature Conservancy, and two county forests, who together contributed more than \$14,000 for habitat improvement projects. Building on our success, we were awarded additional ESLIP funding in Fiscal Year 2000. Interest in restoring Karner blue habitat by so many landowners allowed us to increase our restoration goal to 800 acres (324 ha) with 25 partners. These partners are contributing nearly \$68,000 to the restoration cost. Our continuing success suggests that additional opportunities may exist for long-term habitat restoration.

A few of the private land sites restored in 1999 have already been colonized by Karner blues. We have every reason to believe that more sites will be colonized as nectar plants and lupine become established.

We plan to measure the success of our restoration program by monitoring for butterflies, lupine, and nectar species at restored sites. The monitoring data collected thus far are stored in a geographic information system (GIS) system by the Leopold Wetland Management District. In addition to analyzing the success of past projects, this information will assist in selecting the best future project sites. Restoring habitat on private lands will benefit not only the owners that care about wildlife but also the butterfly and a variety of associated species.

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