

Partners for Fish and Wildlife in Pennsylvania

Restoring Habitat for Future Generations



Golden-winged Warbler

William Mnajeros

Background

The Partners for Fish and Wildlife Program (Partners Program) is the U.S. Fish and Wildlife Service's most popular and effective program for voluntary, citizen and community-based fish and wildlife habitat restoration activities. The Partners Program serves as a bridge to owners and managers of private lands to develop partnerships for the benefit of federal trust species. The approach is simple: engage willing partners, through non-regulatory incentives, to conserve, restore and protect fish and wildlife habitat on their property. The Partners Program began in 1987 to help farmers restore degraded wetlands for wildlife; today it continues to grow with opportunities to restore wetland, riverine, and upland habitats.

Partners Program in Pennsylvania

The Partners Program in Pennsylvania is administered from the Pennsylvania Field Office in State College, Pennsylvania. The program began in 1988, primarily as a wetland restoration program. The Partners program in Pennsylvania was one of the leading programs in the nation in designing and implementing streambank fencing and wetland restoration projects, and has more recently become a leader in the field of in-stream assessment and aquatic restoration. Projects are focused in areas where conservation efforts will provide the greatest benefit for federal trust species, which include: migratory birds, anadromous fish, and Federally-listed threatened and endangered species.

Threats

Since European settlement began in the 1600s, Pennsylvania's vast forests, wetlands, streams, and grasslands have fueled the Commonwealth's growth and development. Natural resources were exhausted or degraded as the landscape was changed to make room for agricultural and urban development.

Pennsylvania Partners Program Accomplishment Highlights 1988-2010

- Restored 370 miles of riparian buffers;
- Restored over 7,225 acres of wetlands and 8,430 on uplands;
- Restored 680 acres of habitats impacted by invasive species; and
- Partnered with over 1,800 landowners.



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Efforts to restore riparian habitat benefit native populations of Brook trout and result in improved fishing opportunities in Pennsylvania.

More than half of Pennsylvania's wetlands were drained or filled, 99 percent the states native grasslands were converted to other uses, more than 5,000 dams were constructed that blocked fish movement, and miles of stream were channelized. In addition, its extensive hemlock-white pine and hardwood forests were cut and cleared.

Remaining native habitats and farmed areas are threatened by urbanization, energy development and industry, thereby reducing opportunities for both conservation and restoration of fish and wildlife.

Conservation Strategies

Wetlands

Restoration efforts focus on returning hydrology to formerly drained wetlands by removing or disabling field drainage tiles, plugging drainage ditches, and constructing low berms to further inhibit drainage. Projects are carefully crafted to blend into the surrounding landscape, and involve a variety of techniques, including creating micro-topography; incorporating small, seasonal wetland complexes; and restoring larger, permanent wetlands.

Wetland restoration projects have been a top priority in the Lake Erie Lower Susquehanna River focus areas. These areas have extensive hydric soils and the densest breeding populations of waterfowl in the Commonwealth.

Riparian Areas and Streams

Pennsylvania's streams and riparian areas support fish, mussels, and amphibians, and serve as corridors connecting fish and wildlife communities. However, many Pennsylvania streams have been dredged and straightened, and then "armored" with stone or other man-made materials. Because these areas are also flood-prone and usually inhabited, flood damage costs can be high, and the response has been additional dredging and straightening – an endless cycle of stream degradation.

In agricultural areas, hundreds of miles of streams and their riparian areas have been degraded by over a hundred years of intensive livestock grazing. Streambank fencing is a cost-effective and popular technique for halting stream degradation. The Partners Program provide equipment and labor to control livestock access to streams. Fencing

out livestock restores excellent habitat for fish and wildlife, while reducing concentrations of sediments and nutrients in streams that are tributary to the Susquehanna River and Chesapeake Bay. The Partners Program also provides tree seedlings to landowners to establish woody riparian buffers.

Grasslands

Grasslands are an essential component of nesting habitat for many species of migratory birds. The decline of grassland bird species such as the bobolink and eastern meadowlark, is directly linked to the decline of grasslands in the Northeast. The Partners Program promotes the use of native grasses in agricultural programs. Other grassland management techniques include mowing, burning, planting both warm-season and cool-season grasses, and removing invasive plant species. Both of these techniques are used in the Upper and Lower Susquehanna River focus areas. This watershed supports some of the largest populations of migratory birds dependent upon grassland and early succession scrub/shrub habitats for nesting cover.

Invasives

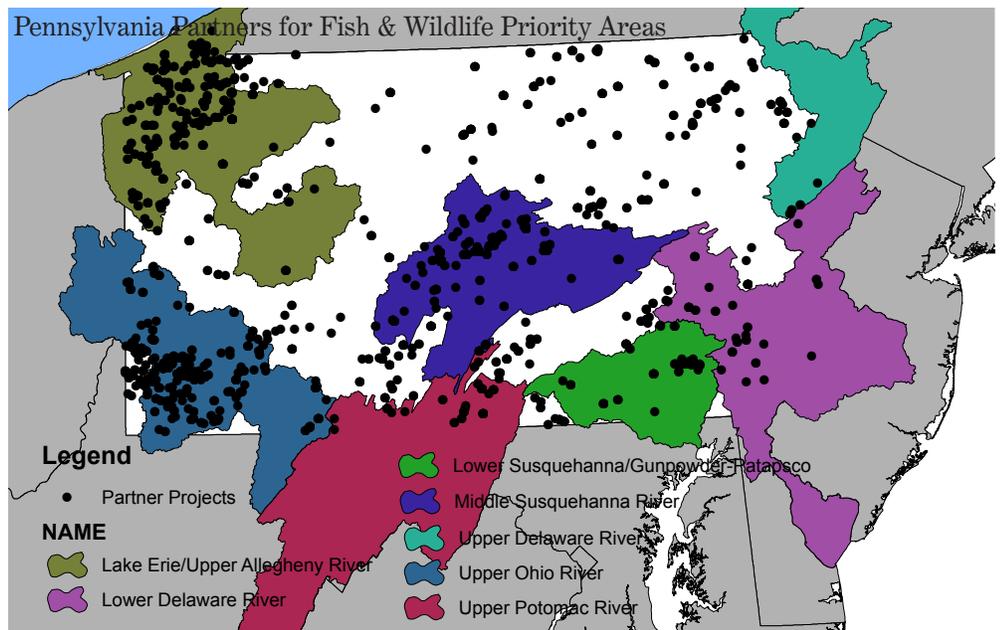
The Partners Partners program works to eliminate, control and manage a host of invasive plant species on its projects by using mechanical (mowing and cutting), chemical (herbicide spray, stump painting, and tree injection), and biological (encouraging rose-roseette disease and releasing plant-specific insects).

Endangered and Threatened Species

In Pennsylvania, the Partners program has also worked with partners to install gates on caves to minimize disturbance to hibernating bats, since wintertime disturbance causes these mammals to expend energy reserves needed to get them through their winter hibernation.

Other projects have included the restoration of timber rattlesnake hibernacula, and enhancement of habitat for the eastern masassauga rattlesnake, a candidate for federal listing as threatened or endangered.

Habitat and hydrology restoration projects for the threatened bog turtle have included mechanical and chemical control of invasive woody vegetation. Treated sites have then been fenced so grazing animals can be used to curtail succession and maintain the open emergent wetlands that this species needs for successful reproduction.



We are working with the Wildlife Management Institute, Indiana University of Pennsylvania, and the Pennsylvania Game Commission to implement the Appalachian Mountain Woodcock Initiative. Projects completed under this initiative have shown significant promise for restoring habitat for golden-winged warblers as well as American woodcock.

Outdoor Classrooms

Partners Program staff works with schools, nature centers, partner agencies and organizations, and private landowners to restore and enhance fish and wildlife habitat as part of local educational and recreational programs. Connecting with today's youth through the use of outdoor classrooms is a valuable tool to promote a conservation ethic and educate future leaders in this field. These connections help us leverage project funds with an average contribution of \$4,000 per project.

Farm Bill Conservation

The Service recognizes the value of agricultural lands to wildlife, and works with landowners to ensure their farms are both economically and biologically productive. Our Partners program also improves the effectiveness of U.S. Department of Agriculture (USDA) Farm Bill conservation programs by providing the technical expertise needed to select projects, recommend restoration methods, and assist in cost-effective, on-the-ground project delivery. The expertise of Partners program staff is valued by the USDA, and we have added high-quality fish and wildlife habitat to thousands of acres of farmland in Pennsylvania.

Cooperative Conservation

From 1988 to 2010 the Partners for Wildlife Program in Pennsylvania has worked with more than 1,800 private landowners to restore over 7,225 acres of wetlands, 8,430 acres of upland habitats, with most of those acres in native grasses, nearly 370 miles of riparian buffers, primarily through streambank fencing, planting of more than a half-million tree and shrub seedlings, completing more than 47 miles of in-stream habitat restoration, controlling invasive plants on more than 680 acres, restoring bog turtle habitat at 15 sites affecting nearly 50 acres and completing 9 school yard habitat projects focusing on wetlands.

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