

Partners for Fish and Wildlife in Maryland

Restoring Habitat for Future Generations



American Bald Eagle

William Majoros

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 Maryland

The Partners Program in Maryland, administered from the Chesapeake Bay Field Office in Annapolis, Maryland, focuses on restoration of non-tidal wetlands, upland and riparian (streamside) forests, and grasslands. The projects benefit fish and wildlife in and around the Chesapeake Bay. Many of the restored habitats are completed in agricultural fields and/or along streams that flow to tidal rivers and ultimately the Chesapeake Bay. Restored habitats provide direct benefits to breeding and migratory birds and endangered species. In addition, restored habitats reduce sediment and nutrient runoff which improves aquatic habitat for fish, shellfish, and many other aquatic animals and plants.

Threats

Two centuries of European settlement have severely degraded local ecosystems with Maryland losing more than 50 percent of its non-tidal wetlands and forests. Urban sprawl and land clearing and draining of wetlands for agriculture represents the two largest causes of wetland and forest decline.

Maryland Partners Program Accomplishment Highlights 1993-2009

- Restored 215 miles of riparian habitat;
- Restored 2,400 acres of wetlands;
- Restored 635 acres of upland restoration;
- Reopened 1,430 miles of stream to fish passage;
- Completed 9.1 miles of in-stream restoration;
- Restored 1,200 acres of habitats impacted by invasive species; and
- Partnered with over 500 landowners to complete more than 450 projects.



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The Partners Program is working with private landowners to improve bog turtle habitat.

The loss of riparian forests has contributed to the decline in water quality and habitat in the Chesapeake Bay as well as the coastal inland bays. Endangered species, such as the Delmarva Fox Squirrel, continue to lose habitat due to forestry practices that convert native mixed hardwood/pine forests to commercial pine plantations.

Conservation Strategies

Wetlands

Techniques used to restore wetland hydrology in both woodlands and forests include: crushing drainage tiles; constructing earthen ditch plugs; and breaking holes through artificial levies, created by spoil from ditching, to reconnect streams to forested floodplains. Installing low profile berms to capture overland flow in wet farm fields is also used to create shallow emergent wetlands.

Innovative restoration techniques are used to recreate features that occur in natural wetlands but no longer exist in



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Federally endangered Delmarva fox squirrel.

agricultural fields. These techniques include: building micro (small ridges and swales on the land surface) and macro (hummocks) topography to better simulate natural wetlands; transplanting tree saplings using conventional excavating equipment; and placing logs and stumps in the restored wetland to provide habitat structure. Straw or hay are incorporated to stimulate the conversion of nitrate to harmless nitrogen gas, and to provide habitat for aquatic invertebrates.

Wetland restoration projects have been targeted in impaired Maryland watersheds with a special emphasis on proximity to federal wildlife management areas and refuges.

Riparian and Upland Forest Restoration

In addition to providing travel corridors for wildlife, riparian buffers are one of the most cost effective features that remove sediments and nutrients from adjacent agriculture fields and developed



Warm season grasses one year after planting.

land. The Partners Program provides free tree seedlings, funds for livestock exclusion fence, and assistance with management of newly planted riparian buffers.

Many watersheds on Maryland's Eastern Shore have lost more than 60 percent of their forests. The Partners Program is working to reverse this trend by restoring upland forests for forest interior birds and the Delmarva Fox Squirrel.

Working in cooperation with Natural Resources Conservation Service and the Maryland Forest Service, the Partners Program has restored more than 50 miles of riparian forest buffers and 500 acres of upland forests. Over 500

Grassland Restoration

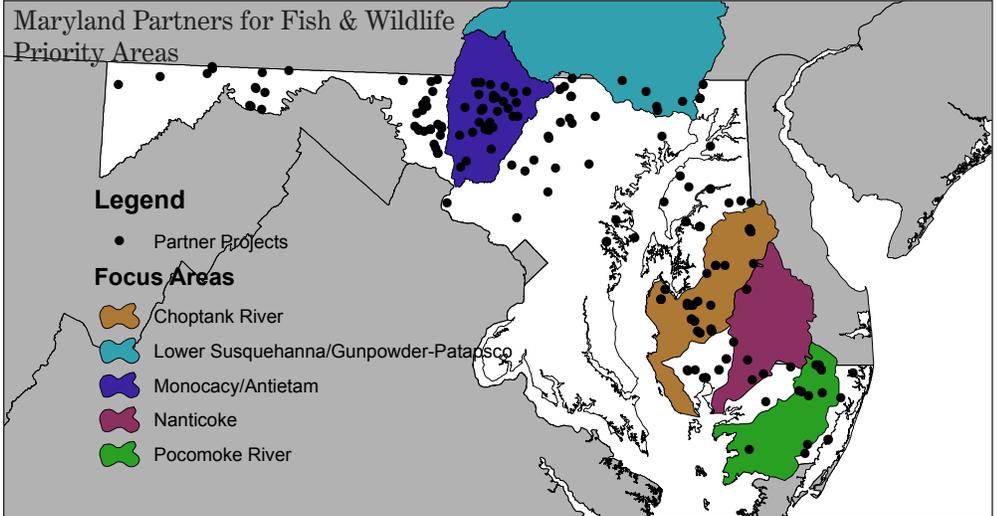
Grasslands provide habitat for a variety of migratory birds. Elimination of native grasslands in the Northeast has contributed to the decline of grassland dependent birds such as the Eastern Meadowlark and Grasshopper Sparrow. The Partners Program, working with other federal, state and non-government organizations, seeks opportunities to establish grassland meadows of at least 25 acres for area sensitive bird species. Long term monitoring of birds on a 220 acre grassland on Maryland's Eastern Shore has shown significant results.

Endangered Species

The Partners Program is identifying opportunities and restoring habitats that directly benefit threatened and endangered species such as the Delmarva Fox Squirrel and Northern Bog Turtle. Several Bog Turtle wetland sites have been restored with the control of woody vegetation. Many of the forest restoration and riparian forest buffer initiatives will ultimately benefit the endangered Delmarva fox squirrel.

Invasive Plant Species Control

Invasive plants and animals, such as Nutria (a large rodent) and Phragmites (a wetland plant) are damaging habitats for our native fish and wildlife. Invasive species control on each site is different based on the extent of the problem, the



species being controlled, and the ability of the landowner to provide management. Many challenges lie ahead in this area.

Farm Bill Conservation

The Partners Program provides technical assistance to the USDA for the Conservation Reserve Enhancement Program, Wildlife Habitat Incentive Program, and Wetlands Reserve Program in Maryland. As members of the USDA-State Technical Committee, the Partners Program helps guide the development and use of habitat restoration technical standards.

Cooperative Conservation

From 1993-2009 the Partners Program in Maryland worked with landowners and partners to complete several hundred projects. The projects benefit fish and wildlife while meeting practical and financial needs of landowners. Nearly all the projects were completed in cooperation with our partners some of which include the Natural Resources Conservation Service, Maryland Department of Agriculture, Maryland Department of Natural Resources, Maryland/DC Audubon, Chesapeake Bay Foundation, local land Trusts, and many others. Many of the restored habitats are permanently protected through conservation easements held by our partners.



Restored emergent wetland.



Volunteers planting trees in Adamstown, Maryland.

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