

California Partners for Fish and Wildlife Program: Conserving Birds Through Private Partnerships¹

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Introduction

The Partners for Fish and Wildlife Program, the U.S. Fish and Wildlife Service's (Service) habitat restoration assistance program for private landowners, was created primarily to improve habitat for waterfowl. Since its inception in 1987, however, the program has grown to include the restoration of all types of habitat. The purpose of this paper is to explain how the Partners for Fish and Wildlife Program has grown from an effort to benefit waterfowl to one that can benefit a wide variety of bird species.

The Partners for Fish and Wildlife Program arose from the recognition that privately owned lands, which make up approximately 2/3 of the United States land base, represented an untapped resource and that, if the Service was to accomplish its mission - working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people - it needed the help of private landowners to maintain healthy populations of fish and wildlife. The program was designed to be a proactive, voluntary program to assist landowners in improving fish and wildlife habitat on private lands by providing technical and financial assistance.

The program was originally established primarily as a wetland restoration program. However, it has grown and changed significantly since its inception. The program has evolved into a broader, ecosystem- and landscape-based effort that emphasizes the restoration of historic ecological communities for the benefit of federal trust species, which include migratory birds, anadromous fish, and threatened and endangered species. Project designs strive to restore the greatest habitat diversity where possible. Today the program includes restoration and enhancement of a variety of Federal trust species' habitats, including riparian corridors, in-stream habitats, native grasslands, and other upland habitats, as well as wetlands. The program promotes building partnerships with other agencies and nonprofit organizations, who provide financial and/or technical support. Typical partners include U.S.

Department of Agriculture, Bureau of Reclamation, California Department of Fish and Game, Ducks Unlimited, California Waterfowl Association, and Joint Ventures.

Nationally, the program has restored approximately 574,800 acres of wetlands, 884,800 acres of native grasslands and other uplands, and 4,190 miles of riparian and stream habitat. In California, the Service has developed partnerships with more than 560 landowners, restoring and enhancing approximately 71,000 acres of wetlands, 4,700 acres of uplands, and 170 miles of riparian and stream habitat. Over time, the projects completed under the program have focused on the restoration of riparian, grassland, and other upland habitats (*fig. 1*).

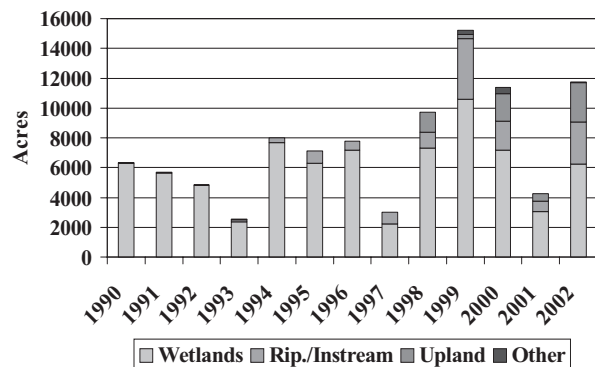


Figure 1—California Partners for Fish and Wildlife Program restoration accomplishments.

Habitat Improvement Strategies

The predominant wetland restoration activities in California are restoration of wetlands degraded as a result of agricultural activities to seasonal and semi-permanent emergent wetlands. These projects involve the use of bulldozers, excavators, and other earthmoving equipment to excavate historic swales and ponds to restore open water for waterfowl wintering habitat. Excavated material is used to build perimeter levees and nesting and loafing islands for waterfowl and shorebirds. Wetland restoration is also taking place in mountain meadow environments where downcutting and incised creeks cause wet meadows to dry. Instream structures are installed to stabilize the channel and col-

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lect sediment to help raise channel bottoms and restore wetland hydrology to adjacent meadows.

Typical riparian restoration under this program involves installing livestock exclusion fence and planting cuttings or container stock, predominately composed of willow and cottonwood, but also including box elder, Oregon ash, buttonbush, elderberry, aspen, sycamore, and oaks. In addition, restoration may include the installation of drip irrigation systems, and the planting of native perennial grasses, sedges, and forbs in the riparian understory. Some projects include measures to stabilize banks and control erosion of the channel. Riparian habitats are also being restored by removing giant reed (*Arundo donax*), tamarisk (*Tamarix parviflora*) and other non-native invasive riparian plants from waterways.

Typical grassland restoration activities involve the removal of non-native invasive annual grasses and weedy forbs followed by the planting of native perennial grasses and forbs. Restoration begins by using farming techniques (disking, herbicide application), livestock, or fire to remove non-native plants from the project site. Native grasses and other upland plants are then planted through seed drilling, broadcasting, or plug planting. Follow-up applications of herbicide, mowing, livestock grazing, or other vegetation control methods are used to deter non-native plants while the native species become established.

Bird Conservation

Although wetland restoration continues to be the foundation of the Partners program, there is an increasing interest in riparian habitat restoration. Riparian habitats are extremely valuable for birds. Riparian ecosystems have the highest diversity and productivity of landbirds of any habitat type in the western United States. Over 135 species of birds in California depend upon riparian habitats or use them preferentially at some stage of their life history. Riparian habitat provides important breeding habitat, migration stopover areas, overwintering areas, and corridors for dispersal. However, over 95 percent of the historic streamside trees, shrubs, and ground vegetation in California has been lost as a result of urbanization, agricultural conversion, vegetation clearing for flood control, livestock grazing, and invasion of non-native plant species. The loss and degradation of riparian habitat are probably the greatest causes of the population decline occurring among bird species in western North America (RHJV 2000).

One of the goals of the Riparian Habitat Joint Venture is to double the extent of riparian habitat in California (RHJV 2000). The U.S. Fish and Wildlife Service,

through the Partners for Fish and Wildlife Program, is striving to help meet that goal.

One example of riparian habitat restoration performed under this program can be found at Pete's Valley Ranch in northeastern California. Comprising 1,200 acres of wet meadows, wetlands, riparian habitat and sagebrush uplands, Pete's Creek has been managed since the 1940s as a cow/calf operation with season-long grazing that included intense use of the wetland and riparian areas. The loss of willows, sedges, and other streamside vegetation led to substantial erosion and down-cutting of the creek, lowering the water table in adjacent meadows. In turn, the meadows dried out earlier each year, allowing sagebrush to encroach. Two dams placed in Pete's Creek further degraded its value for fish (*fig. 2*).

Pete's Creek Partnership purchased the ranch in 1993 and the new owners realized that the existing grazing management system had a detrimental effect on the ranch's productivity and profitability. The new owners, disturbed by the decline of fish and wildlife habitats in the creek, wet meadows and uplands, sought financial and technical assistance to restore the damaged lands.

One of the owners contacted the Service about the Partners for Fish and Wildlife Program, and the Natural Resources Conservation Service (NRCS) to see if any of the Farm Bill conservation programs could fund their project. Service and NRCS staff met with the owners at the ranch in 1997 to discuss the proposed project. Because the anticipated benefits to fish, wildlife, wetlands, and water from the project would be so significant, both the Service, through the Partners program, and the NRCS contributed funds.

Biologists fenced and permanently excluded cattle from 1.25 miles of Pete's Creek, established a riparian buffer, and removed the dams to return historic flows to the creek. In addition, 120 acres of dense invasive sagebrush were removed, promoting the reestablishment of native perennial grasses and forbs.

Four years later, a dense riparian growth of sedges, forbs, grasses and willows provides feeding and breeding habitat for migratory songbirds (*fig. 3*). Mallards nest in dense cover along Pete's Creek. Pronghorn antelope are abundant and have access to the improved forage along the creek through the wildlife-friendly fence. A sage grouse "lek" (courting site) is located on the ranch and as many as 100 sage grouse have been seen on the property at one time. Sage grouse nest in the upland adjacent to the creek, and chicks and hens can be seen foraging among the forbs and perennial grasses in the riparian area.

The value of California's grasslands is also receiving increased attention by the Partners for Fish and Wildlife

Program. Native grasslands and other uplands provide important habitat for a wide variety of songbirds, foraging raptors, and nesting waterfowl. However, grassland birds face several problems here in California. The primary problems affecting grassland birds are the replacement of native perennial and annual grasses and forbs with exotics, the loss of grassland habitat, and the consequent reduction in the patch size of remaining grasslands (CPIF 2000). Grasslands around the Great Central Valley are becoming increasingly fragmented by urbanization and, in some areas, encroaching woody vegetation.

Again, the Pete's Valley Ranch project provides an example of how restoration through the Partners for Fish and Wildlife Program can benefit grassland bird species. As mentioned above, 120 acres of sagebrush were removed through brush-beating in order to allow for the reestablishment of native perennial grasses and forbs (figs. 4 and 5).

In summary, the Partners for Fish and Wildlife Program has evolved from a primarily wetland restoration program for the benefit of waterfowl, to one that is concerned with restoring or enhancing a wide variety of habitats for the benefit of all types of wildlife. Land-

owners enlist in the program for a variety of reasons such as restoring areas that have been difficult to farm because of flooding or soil type, planting trees to reduce wind erosion or stabilize an eroding stream, or increasing hunting and fishing opportunities. But most often landowners wish to participate in the Partners for Fish and Wildlife Program to provide habitat for those wildlife species they saw as a child. With more than two-thirds of California's land in private ownership, the future of wildlife habitat is heavily dependent on the conservation practices of the private landowner.

Literature Cited

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Figure 2—Pete's Creek before partnership with Partners program.



Figure 3—Pete's Creek following restoration.



Figure 4—Pete's Valley Ranch uplands before restoration.



Figure 5—Pete's Valley Ranch uplands after restoration.