



CALIFORNIA

Introduction and General Description

Since 1990, the Partners for Fish and Wildlife Program in California has been restoring and enhancing wetlands, riparian areas, native uplands, in-stream habitats, and other habitats on private lands to benefit migratory birds, threatened and endangered species, salmon and steelhead, and other terrestrial and aquatic life. The program provides financial and technical assistance to farmers, ranchers, and other rural landowners throughout the State to benefit fish and wildlife on their land.

Habitats of Special Concern

Wetlands

California has lost over 90 percent of its historic wetlands. The Partners Program is focusing its efforts on restoring wetlands in the Central Valley where vast numbers of migratory waterfowl breed and overwinter. Partners Program representatives work with landowners to restore and enhance thousands of acres of wetlands each year for the benefit of migratory birds.

Riparian Areas

Over 95 percent of the historic streamside trees, shrubs, and ground vegetation has been lost in California from urbanization, agricultural conversion, vegetation clearing for flood control, livestock grazing, and invasion of non-native plant species. Through its Partners Program, the Service assists landowners to restore riparian habitat on private lands for the benefit of migratory songbirds, waterfowl, salmon and steelhead, amphibians, and other fish and wildlife.

Native Uplands

Of the native habitats in California, native uplands have experienced the greatest percentage decline. It is estimated that 99 percent of the historic native grasslands have been lost or have become

dominated by non-native plants. Many native plant species are declining because they cannot compete with non-native plants for water and sunlight. Grassland songbirds, reptiles, insects, and other animals are often unable to find the variety of food and cover they need among non-native plants.

In-stream Habitats

Logging, road building, dams, overgrazing, and urbanization are factors that have reduced the number of salmon and steelhead returning to California's rivers each year. The Partners Program emphasizes the benefits to private landowners of improving in-stream habitats.



The Pit River in northern California.

Threatened and Endangered Species

With 288 species in California listed as threatened or endangered under the Endangered Species Act many Partners projects restore habitat for one or more federally-listed species. The Partners Program is actively reaching out to farmers, ranchers, and other private landowners to restore and improve habitat for listed species on their land. Landowners are coming forward with a willingness to provide habitat for rare species through the assistance of the Partners Program. The following threatened and endangered species have directly benefitted from habitats restored or enhanced through the Partners Program in California:

Threatened Species

Alameda whipsnake
Aleutian Canada goose
bald eagle
California coastal gnatcatcher
California red-legged frog
coho salmon
giant garter snake
Monterey spineflower
Morro manzanita
northern spotted owl



California red-legged frog.

southern sea otter
spring-run chinook salmon
steelhead trout
western snowy plover
valley elderberry longhorn beetle

Endangered Species

California freshwater shrimp
California tiger salamander
El Segundo blue butterfly
least Bell's vireo
light-footed clapper rail
Lost River sucker
Monterey gilia
Morro Bay kangaroo rat
Morro Bay shoulderband snail
Otay tarplant
Palos Verdes blue butterfly
Quino checkerspot butterfly
San Francisco garter snake
San Joaquin kit fox
Santa Cruz long-toed salamander
Shasta crayfish
shortnose sucker
Smith's blue butterfly
southwestern willow flycatcher
southwestern arroyo toad
winter-run chinook salmon
Yuma clapper rail

Threats

It is expected that California will experience the greatest population growth of any State over the next 50 years. Competition for water will put tremendous pressure on wetland, riparian, and in-stream habitats, both in terms of habitat loss and degradation of the quality of water available for fish and wildlife. Increasing land values and the high cost of water will be incentives for agricultural producers and other rural landowners to sell their land for development. This will result in

significant losses in the amount and quality of habitats for fish and wildlife. Invasions of exotic plants and animals will reduce the diversity of habitats causing native species to be less competitive. This will lead to increased threatened and endangered species listings and fewer opportunities to recover listed species.



Tri-colored blackbird

Conservation Strategies

Wetlands

Restoration of wetlands in the Central Valley is one of the most effective ways of conserving fish and wildlife species in California. Wetlands provide important habitat for migratory waterfowl, shorebirds, songbirds, and threatened and endangered species. Wetland restoration involves the use of earthmoving equipment to restore historic topography that has been leveled for agriculture. To mimic historic water flows, water control and delivery structures are placed around the restored wetland. Wetland vegetation is often planted to provide immediate wetland benefits to wildlife.

Costs for wetland restoration range from \$250 to \$800 per acre depending on size, access, location, and other factors.



Drained wetland prior to restoration.



The same area after the wetland was restored.

Riparian Areas

Most migratory songbirds use riparian areas to meet some or all of their habitat needs, with some species including the yellow warbler and willow flycatcher being completely dependent on riparian habitats. Riparian areas also support many other common and declining species of mammals, reptiles, amphibians, and insects.

Populations of many species of songbird are in decline in the west. The Partners Program is working with ranchers and others to exclude livestock from creeks, replant native riparian trees, shrubs and other plants, and to restore and stabilize eroding channels and

streambanks. Restoration costs can range from \$5,000 to \$15,000 per mile.

Native Uplands

Native grasslands and other uplands provide important habitat for songbirds, foraging raptors (hawks and owls), nesting waterfowl, endangered mammals such as the giant kangaroo rat and San Joaquin kit fox and a variety of reptiles. Native upland restoration is accomplished using the same equipment a farmer would use to plant cereal grains, and ongoing weed control is a critical part of all upland restorations. The cost for native upland restoration can vary, typically ranging from \$300 to \$1,000 per acre.

Invasive Species

Yellow starthistle, giant reed, saltcedar, perennial pepperweed, and many other aggressive non-native plants have invaded natural areas and have become the dominant plant in many wetland, riparian, and upland areas. These plants crowd out native species and displace native plants that provide food and cover for wildlife. The Partners Program has begun to target particularly aggressive plant species that degrade and dominate important fish and wildlife wetland and riparian habitats, species such as perennial pepperweed and giant reed. Costs for invasive species control range from \$500 to \$1,500 per acre.

Partners

Natural Resources Conservation Service
Farm Service Agency
Bureau of Reclamation
Bureau of Land Management
Bureau of Indian Affairs
U.S. Forest Service
National Guard
National Park Service
AmeriCorps
California Wildlife Conservation Board
California Department of Fish and Game
Butte College
California Conservation Corps
California Department of Forestry
Humboldt State University
DQ University
University of California
Resource Conservation Districts
Sonoma Fish/Wildlife Advisory Board
South Bay Union Elementary School
Tulelake Schools
Ducks Unlimited
The Nature Conservancy
California Waterfowl Association
National Audubon Society
Sonoma Land Trust
Arcata Redwood Company
Boy Scouts of America
Chico State University Foundation
Pheasants Forever
Putah Creek Council
The Shrimp Club of Brookside School
Trout Unlimited
Klamath Flycatchers
New Earth
PacifiCorps

Accomplishments

Over the past 12 years the Partners Program in California has restored or enhanced :

- < 70,262 acres of wetland habitat
- < 4,315 acres of upland habitat
- < 1,132 acres of riparian habitat
- < 150 miles of riparian habitat
- < 11 miles of instream habitat
- < 544 sites have been constructed
- < 562 completed Partners projects with 425 landowners
- < 6 educational facilities have wildlife habitat restored for use as outdoor classrooms

CONTACT



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July 2001

Future Needs

- C Restore 50,000 acres of wetlands in the Central Valley and Northeast Plateau.
- C Restore 250 miles of riparian habitat in the Central Valley, Pacific Coast, and Sierra Nevada Ranges.
- C Restore 50 miles of in-stream habitat for salmon and steelhead in Central Valley and Pacific Coast waterways.
- C Benefit the federally threatened California red-legged frog by habitat improvements on grazing lands.