Klamath Basin, Oregon

"ascends the streams in thousands in the spring" E.D. Cope, 1879, of the Lost River Sucker

Introduction and General Description

The headwaters for the Upper Klamath Basin start in the arid mountains east of the Cascade Range in southern Oregon. Downstream, these waters support one of the largest lake-wetlands complexes in the western US. These unique aquatic habitats in the Upper Klamath Basin support the incredible biodiversity for which the watershed is notorious. Water is also a critical economic resource as it is used for irrigating crops and supporting cattle across the Basin, where there is a long history of highly productive farming and ranching.

In 1988, two species of fish—Lost River sucker and shortnose sucker—were listed as endangered. There were several reasons cited for the decline of these fish populations including habitat loss and poor water quality. Their listing sounded an alarm across the Upper Basin that aquatic resources were in a degraded state. Ecosystem restoration is expected to contribute to the recovery of these fish populations and benefit many other species in the watershed.

The Partners for Fish & Wildlife Program assists in developing and implementing landscape-level conservation objectives as well as specific restoration projects. We provide technical expertise for project design and implementation.

Riparian restoration along the Williamson River.

Klamath Basin Activities

- Restoration, enhancement, protection of habitat for threatened, endangered, or rare species
- Wetland restoration
- Upland restoration (juniper removal)
- Spring restoration
- Wetland enhancement
- In-stream restoration
- Stream bank stabilization and restoration
- Restoration of riparian and flood plain areas
- Restoration of fish habitat
- Outdoor classrooms

5-year Restoration Targets (2007-2011)

- **15,775 wetland ac.**
- **8,000 upland acres**
- **280 instream & riparian miles**
- **2,000 riparian ac.**

Habitats of Special Concern

River, riparian, lake, and wetlands habitats are what make the Klamath Basin unique. These habitats historically supported millions of fish and waterbirds.

Wetlands and riparian habitats also provide key ecosystem services that sequester nutrients and provide habitat for all life stages of fish native to the basin. More than half of the wetlands in the Basin have been modified by draining, levee construction, and agricultural practices. These changes have impacted populations of all species that depend on these habitats including water dependent birds, fish, and other organisms.

Wetlands restoration is a widely accepted solution for many of the Klamath Basin watershed problems.

Threats

Habitat loss and degraded water quality are the biggest threats to sensitive species in the Upper Klamath Basin. Upper Klamath Lake is hypereutrophic and is victim to severe outbreaks of blue-green algae in summer.

The algal blooms are the driven by large inputs of phosphorus and nitrogen. Some of the nutrient loading is native due to the volcanic soils, but much of it comes from agricultural practices including draining wetlands soils and untreated cattle waste. The algal blooms on Upper Klamath Lake are a major threat to the two endangered species of sucker. The algae generate water quality problems such as elevated pH and low dissolved oxygen levels when the algae die.

Historic wetlands and riparian vegetation played a key role in filtering nutrients and other pollutants before the water reached the lake.

These wetlands and riparian areas throughout the watershed also provided habitat for migratory waterbirds as well as nursery habitat for rearing fish species.

Conservation Strategies

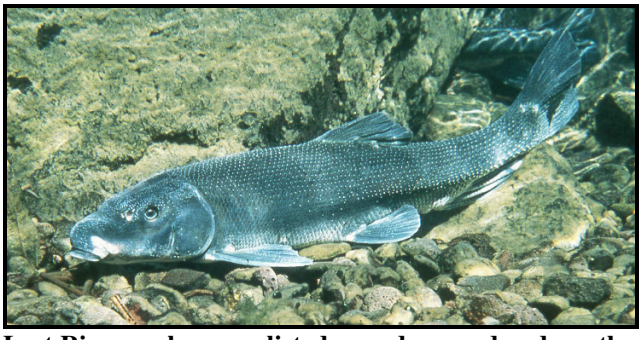
Habitat improvement and restoration projects are aimed at rehabilitating wetlands and functioning riparian zones to provide habitat for fish and wildlife and improve water quality and quantity.

The Partners for Fish & Wildlife Program works with partners on privately owned lands to identify and complete projects on their property for these habitat benefits. We work under several priorities most notably the Hatfield Science Team's Five Year Plan, which is a priority plan developed by a local multi-disciplinary stakeholder group.

The Chiloquin Dam impedes fish movement on the Sprague River. It will be removed in 2008.

Partners

- Ducks Unlimited, Inc.
- Natural Resources Conservation Service
- Oregon Department of Fish & Wildlife
- Oregon Watershed Enhancement Board
- The Klamath Tribes
- The Nature Conservancy
- Municipalities
- Private Landowners
- Private Industry
- US Bureau of Reclamation
- US Forest Service
- US Geological Survey



Lost River suckers are listed as endangered and are the focus of many of the restoration projects in the Upper Klamath Basin.

Contact

Matt Barry
Partners for Fish and Wildlife Program
U.S. Fish and Wildlife Service
1936 California Avenue
Klamath Falls, Oregon 97601
(541) 885-8481