U.S. Fish & Wildlife Service

Partners for Fish and Wildlife Program *in Alaska*

Introduction and General Description
Many outside observers envision Alaska as a completely untouched landscape. This popular myth ignores the impacts that a century of natural resource development has had on the "Last Frontier's" freshwater and terrestrial ecosystems. Mining, timber harvest and oil and gas development have traditionally driven the 49th State's economy. These major industries, increasingly coupled with rural and urban subdivision and infrastructure development, have had far-reaching effects on fish and wildlife habitats throughout the State's nearly 50 million acres of private lands.

For example, a century of gold and platinum mining reduced salmon runs on one western Alaska river from 50,000 to less than 2,000 adults annually. Road systems, transmission lines, and dams also impact fish and wildlife; one abandoned Interior Alaska dam, removed in 2002, had blocked more than 100 miles of salmon spawning and rearing habitat since 1926. On another Southcentral Alaska stream, construction of a railroad in the 1920's eliminated runs of salmon prized by local subsistence users. Only in 2005 was this barrier removed and adult Chinook and coho salmon allowed to return to traditional spawning waters.

Using draft horses to place logs for streambank restoration.

Spawning and rearing habitats on popular sport fishing rivers, including the Kenai River, the Little Susitna and Willow Creek, have suffered from extreme trampling and loss of riparian vegetation. In some instances, large areas of streambank have failed due to high human traffic, resulting in greatly increased sediment flow into critically important spawning reaches.

Habitats of Special Concern
Riparian and in-stream areas on Alaska's 15,000 anadromous fish waters are keystone habitats critical to the functioning of terrestrial, freshwater, and marine ecosystems. Salmon are fundamental to the economic, social, andecological vitality of the State. Alaska's rivers and streams support thriving recreational and commercial fisheries worth hundreds of millions of dollars annually; these fisheries are the mainstay of subsistence cultures that have existed for thousands of years.

Salmon also play essential ecological roles by transporting marine-derived nutrients into Alaska's freshwater ecosystems. These nutrients contribute to the productivity of Alaska's rivers, lakes, wetlands, and forests. Aquatic insects, resident fishfishes, juvenile salmon, birds, mammals, and man rely on healthy salmon populations.

Threats
Hundreds of Alaskan rivers and streams have degraded banks from intense recreational use. Other streams suffer from decades of abuse as dumping grounds for junk vehicles and other debris, or from gravel and metal mining of streambanks and in-stream

Before

After

Thanks to a Partners project to restore fish passage, juvenile salmon can once again rear in previously inaccessable wetlands in the Matanuska-Susitna Valley's Little Meadow Creek Watershed.

bars. Rural development is skyrocketing in some areas of the state, particularly in Anchorage-area "bedroom" communities. Throughout the State, and particularly on private lands, historic timber harvest and associated forest road construction have reduced or totally blocked fish passage to important spawning areas. And well over 100 dams may impede fish passage throughout the State's waters.

Conservation Strategies
Most Partners for Fish and Wildlife projects in Alaska focus on restoration of riparian areas, wetlands, and in-stream features. Projects include revegetating streambanks with native species, removing fish passage barriers, installing wildlife-friendly bank protection structures using coir (plant fiber) logs, spruce tree revetments, and root wads, and constructing light-penetrating angler walkways. Other

projects recontour gravel mine sites to create wildlife habitat, install fences to protect riparian areas from overuse by livestock, and restore woody debris to degraded stream reaches.

While field seasons are short and transportation and equipment costs high, Partners Program biologists in Alaska's four Fish and Wildlife Field Offices are meeting the challenge of habitat restoration throughout the State. From Juneau to Cordova, Kenai, Palmer, and the greater Fairbanks area, projects are restoring habitats critical to king, sockeye, coho, chum and pink salmon, and Dolly Varden char, Arctic grayling and cutthroat trout, as well as, a diversity of migratory birds. And many projects – even in suburban Anchorage or Juneau – benefit species now rare or absent from the lower 48 states, including brown bears, wolves, lynx, and wolverine. For example, our focus on Kenai Peninsula riparian zones is playing a role in averting the need to list the small, isolated Kenai brown bear population under the Endangered Species Act.

The short seasons and complex logistics and travel costs inherent in Alaskan projects result in substantially higher per acre costs than comparable projects in the lower 48. For example, a typical project to restore 300 feet of severely degraded streambank on a salmon river may cost $40,000 or more. However, the resource payoffs are equally high. Individual restoration efforts may mean the difference in protecting downstream spawning areas that produce tens of thousands of salmon.

Partners

In addition to hundreds of private landowners, the Partners Program in Alaska has joined with State, Federal, municipal, non-governmental and Native American organizations to restore fish and wildlife habitats. Examples of recurring partnerships include those with:

USDA Natural Resources Conservation Service
National Marine Fisheries Service
Alaska Department of Fish and Game
Matanuska-Susitna Borough
Municipality of Anchorage
Kenai Peninsula Borough
Alaska Flyfishers
City and Borough of Juneau
City and Borough of Yakutat
Anchorage Waterways Council
Mendenhall Watershed Partnership

Accomplishments

Since the program's inception in 1995, more than 500 restoration projects have been completed statewide. These projects have improved fish and wildlife habitat on more than 350 miles of rivers and streams and associated riparian and upland habitats. Many projects have targeted the world-famous Kenai River, where more than 6 miles of streambank have been restored, and nearly 3 miles of elevated, light-penetrating angler walkways installed. These projects have played a significant role in maintaining the health of a unique ecosystem that produces Chinook salmon in excess of 90 pounds and brown bear. In FY 2005, 97 projects were completed statewide, ranging from fish passage barrier removals in North Pole and Wasilla, to streambank restorations on the Kasilof and Kenai Rivers, to watershed assessments at Yakutat and Palmer. Efforts are planned for FY 2006 on Nome's Basin Creek, Juneau's Mendenhall Wetlands, and on Southwest Alaska's Sanak Island; more than 60 projects are planned for the Kenai Drainage.

Future Needs

Our needs in Alaska are to continue restoration of some of the more than 200,000 acres of wetlands that have been lost and to improve fish passage along the State's 15,000 miles of State and Federal highways and additional thousands of miles of private and forest forest roads. Initial surveys suggest as much as 70 percent of culverts on secondary and forest roads in Alaska hinder passage of salmon. We are focusing on:

- The 19,000 acres of wetlands that have been lost in the Anchorage Bowl since 1950.
- The 1,200 acres of wetlands that have been lost in the greater Juneau area since 1948.
- Improving fish passage on more than 200 miles of streams in the Matanuska Susitna Valley, 100 miles of streams on the Kenai Peninsula and hundreds of miles of streams on Native Alaskan lands in Southeast Alaska.

Satisfied customers - A pair of moose check out a newly completed shoreline restoration project

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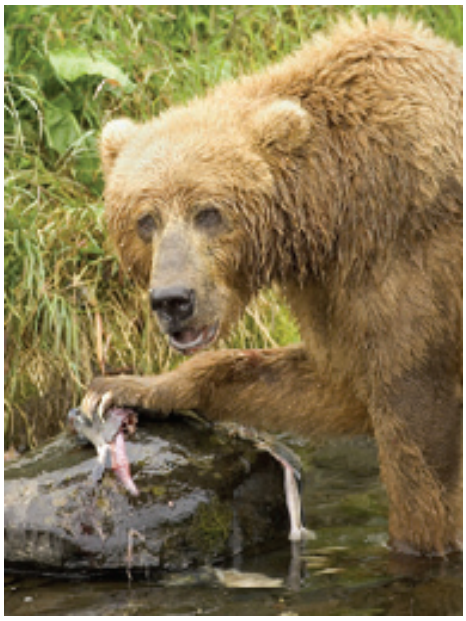

Brown Bears benefit from healthy salmon populations

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