Beaver
Nature's Fish Habitat Contractor

Coho salmon once returned to Oregon's coastal rivers and streams by the millions. The measurable decline of these fish in recent years has reminded us all just how tenuous a hold even the most numerous species have on their place in the environment. A variety of factors contributed to the coho population decline, but biologists believe that one of the most important factors was the reduction of fish-friendly habitat within the streams.

Still pools, off-channel ponds and large woody debris within the stream contributed heavily to the successful rearing of juvenile salmonids. Beaver activities, especially the building of dams, helped to create these habitat elements.

The near elimination of beavers from most Oregon streams during the first part of this century, coupled with human activities such as grazing, logging, road building, dam building, urbanization and application of herbicides have impacted the health of Oregon's streams. Slow meandering streams, flowing over expanses of gravel and into heavily sedimented wetlands have been converted to fast, deeply channeled flows, which have often cut down to bedrock. This leaves little spawning area and even fewer places where young salmonids can avoid predators and survive the heavy winter floods.

History of Beaver Populations

Our relationship with beaver has undergone numerous changes in the last 200 years or so. In the early 1800s beaver drew thousands of trappers west to the Rocky Mountains and beyond.

By the mid-1800s, beaver had been eliminated from parts of North America. Since then, many states have made efforts to transplant beaver to control damage and to import beaver to wooded areas, where their dam building ability has contributed to improvements in watersheds. In Oregon, extensive transplanting efforts have resulted in healthy beaver populations across much of the state. Beaver can be harvested under Oregon Department of Fish and Wildlife (ODFW) management. Recreational harvest is permitted from November 15 to March 15 in most areas of the state with a License for Furbearers.

Beavers Can Help Landowners

In many cases, beaver can help private landowners. Beaver dams may help reduce the severity of high winter and spring flows, and provide water storage in lower gradient reaches of streams in watersheds.

Stored water may then be more gradually released after the flows from snow melt or storms subside.

Beaver dams reduce water velocity and trap sediments, ensuring the sediment will be deposited and stored in a confined area. In some areas, beaver dams have been a major factor in building up soil in meadows behind the dams.

Beaver dams help raise the water table surrounding the stream. This promotes vegetative growth, which in turn will help stabilize stream banks and minimize erosion.

Beaver dams help to re-establish the historic sponge effect of nearby wetlands, thus improving downstream water quality by removing sediments. Water stored in this fashion may also improve downstream flows well into the summer and beyond.

Beaver dams contribute to improved nesting and brood rearing areas for waterfowl in ponds and surrounding areas. The increased growth of vegetation provides additional forage for livestock, big game and other upland wildlife. Many songbirds also benefit from the increased vegetative growth.

Beaver ponds attract and provide habitat for Oregon's native mink, otter, muskrats, turtles, frogs, and salamanders.

Beaver dams enhance habitat for many other fish and wildlife species and provide areas to fish, hunt or view wildlife.

Beaver Dams Can Help Establish and Maintain Healthy Fish Populations

Beaver dams can be of tremendous benefit to Oregon's native fish.

By providing ponds where fish are protected from strong winter flows.

By providing plenty of brush and woody debris in which juvenile fish can hide from predators, beaver dams help young trout and salmon survive their first, vulnerable year.

By increasing water depth (and water temperature layers, in some cases).
By storing leaf litter in the water and in turn supports aquatic insect production, an important food for fish.

Are You Considering Transplanting

Beaver Onto Your Land?

If so, you should consider the following things:

First, and most important, it is illegal for anyone to trap and/or transplant beaver in Oregon without a permit from the Oregon Department of Fish and Wildlife.

Consult your local ODFW biologist first. Extension agents can also help you identify potential conflicts. You should also speak to neighbors and managers of lands and roads near the potential release site.

Beavers can cause a great deal of damage to valuable plants. The presence of nearby orchards on your or your neighbors' property should be a warning that damage is likely.

Beaver dams may inundate low areas with water. If undesirable conditions occur, pond level control methods are available which can be used to reduce the area that is ponded.

Potential beaver sites should have a stream gradient of less than 3 percent and a bank-full width of 10-50 feet. Also, areas with rocky or bedrock banks are not suitable for beavers.

Potential sites should also have plenty of food available nearby. You can expect beaver to cut and use numerous trees for dam construction during the first year or two after transplant.

The most successful beaver transplants are made with beaver taken during their primary dam building period, August-October. Earlier transplants tend to migrate out and later transplants have low survival rates.

It is best to transplant three to five beaver to a site, preferably a family unit selected from the same colony.

Artificial dam structures provide some security cover at the time of release and may help encourage the new transplants to stay at the release site.

Beavers are attracted to running water and will try to 'stop the leak.'
This can result in washed out roads when high waters begin to wash over the roads instead of going through a beaver-dammed culvert.

Beaver harvest should be monitored to ensure that newly established sites are not over harvested.

Transplanting beaver is not an exact science. Only 12 percent of relocated beaver stay in their new stream systems. The average distance from release site to the area of establishment is eight miles...some have moved farther from the release site.

Addressing Beaver Damage

Beaver can cause damage in a variety of ways. Examples include blocking culverts, flooding roads, cutting down valuable trees, etc. The development of beaver ponds can also contribute to a rise in the overall water temperature. A number of methods are available which can eliminate or minimize beaver damage without destroying the animals.

These include:
Installing devices or applying management activities which will protect culverts and control beaver pond levels.

- Tree protectors
- Repellents
- Electric fences
- Live trapping and relocation

Beaver Facts

North America's largest rodent, beaver may weigh up to 65 pounds and measure nearly 4 feet in length.

With paddle-shaped tail, webbed hind feet, valves that close their ears while diving and a rich oil gland which waterproofs their fur, beaver are ideally suited for the aquatic environment.

Beavers are primarily nocturnal, but may be seen at dusk or dawn, and occasionally during the day.

Beavers eat a variety of vegetation, including herbaceous and succulent plants, though they depend primarily on woody plants for winter food. Their favorite trees are aspen, alder, willow, poplar, and cottonwood.

Most western Oregon beaver do not build lodges, but burrow into stream banks in areas where lodges are not necessary or the waterways are too large to dam.

Beavers in eastern Oregon are only slightly more likely to build the classic dam with lodge. Bank dens are most common because of frequent high water events which can wash away dams.
The American beaver was named Oregon's state animal by the 1969 Legislature.

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High Desert	61374 Parrell Rd, Bend, 97702	541-388-6363
Northeast	107 20th st. La Grande, OR 97850	541-963-2138
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