

## Bring The Coho Back

Why should coastal landowners help restore coho habitat?

A healthy coho population means a healthy watershed. A healthy watershed can improve water quality, help reduce storm runoff, improve habitat for many species of fish and wildlife and increase owners' options for managing their lands.

A healthy watershed can sustain economic, ecological and cultural benefits, such as increased real estate values, more recreational opportunities and improved survival of fish and wildlife.

A healthy watershed makes a community a better place to live and work. It's good for fish and good for people.

A healthy watershed is also a gift to future generations.

Thanks to the hard work that some coastal landowners already have done, wild coho are again finding a good home in some of Oregon's streams.

Maybe some day, wild "silvers" will become abundant again. It can happen—with everyone working together.



Fishing with grandpa

## How Do I Begin?

Visit the Oregon Plan for Salmon and Watersheds on the web: [www.oregon-plan.org](http://www.oregon-plan.org). You will learn what the plan does and what you can do, and you'll learn about the wide range of public agencies and private organizations standing ready to help you.

Then contact your local watershed council or Soil and Water Conservation District (SWCD). Oregon has more than 90 watershed councils and 45 SWCDs. Links to these groups are on the Oregon Plan Web site.



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## Private landowners can help make the difference for coastal coho

Culvert slated for replacement.



Bridge under construction.



Project completed.



East Humbug Creek



The Oregon Plan for Salmon and Watersheds

## Hard Times For Coastal Coho

Coho salmon used to be abundant in Oregon's coastal rivers. Many Oregonians have happy memories of fishing for "silvers" with their families.

That's an experience most young people don't have today because populations of wild coastal coho have declined significantly throughout the Pacific Northwest.

The reasons for the decline of coho are many. Past overfishing, poor hatchery practices and ocean cycles have certainly contributed. We can't do anything about the ocean's restless ways. An important factor that we **can** do something about is poor coho habitat, especially in low-gradient streams that flow into the Pacific all along the coast. Oregonians have already invested millions of dollars and thousands of hours of work to make habitat better for salmon through the Oregon Plan for Salmon and Watersheds in the last 10 years, but much more needs to be done for coastal coho.

Coho spend part of their lives in fresh water and part in the ocean. Adults lay their eggs in small streams during the winter. The young fish hatch and spend about a year in the stream, and then they migrate to the ocean. After about two years, the mature salmon find their way back to the streams where they were hatched. They spawn and die, their eggs hatch, and the cycle begins again.



Map provided by InfoGraphics Lab, Department of Geography, University of Oregon, Copyright 2006, University of Oregon  
Cover photos courtesy of Maggie Peyton.

## Coho Salmon Life Cycle



A spawning coho

Photo courtesy of Maggie Peyton.

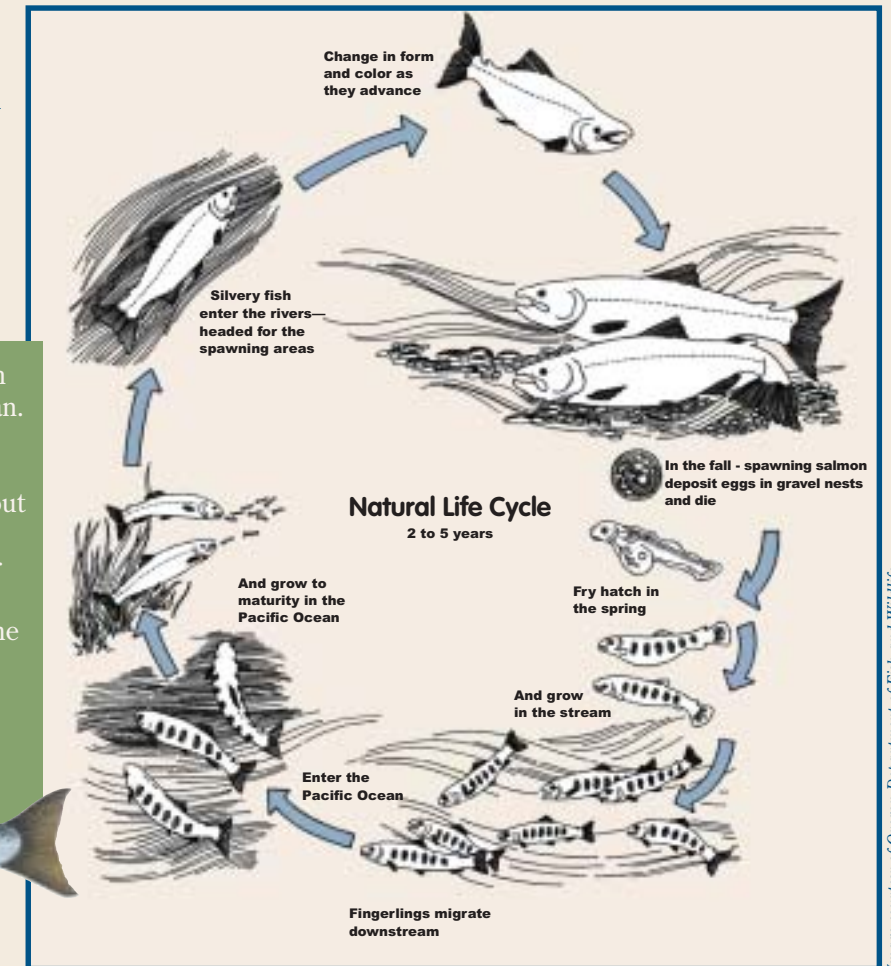


Image courtesy of Oregon Department of Fish and Wildlife.

Length of life cycle varies with species and conditions



## Restoring a Healthy Habitat

Coho need streams with cool water, plenty of gravel and pools with lots of cover where they can find shelter and food. They need to be able to get upstream without being blocked by dams or culverts.

Most of Oregon's best coho habitat was historically in lower-lying streams. Because of historical settlement patterns, most of the lands adjoining these waterways are privately owned farms, forests and homes. If you live next to a stream in a coastal valley, it's likely that it is, or once was, home to wild coho.

The health of coho and their habitat depends greatly on how these lands and waters are managed and used. Therefore, private landowners have a critical role to play in restoring coho populations.

Restoring coho in a stream could be as simple as replacing a culvert that is blocking fish passage or providing slow-water hiding places for young coho. Along many coastal rivers, neighboring landowners have already formed partnerships to plan and implement many restoration projects. These landowners have:

- Stabilized banks by planting native trees and shrubs
- Placed logs into streams to create pools and backwater nooks
- Installed fencing to keep livestock out of streams
- Replaced undersized culverts with bigger ones or built bridges
- Improved road surfaces and drainage to reduce polluted runoff into the stream

Coho numbers are starting to increase in some coastal streams. The hard work of landowners to enhance habitat is partially responsible for this.

Government regulators, watershed councils, non-profit groups and public land managers have a role in restoring coho habitat, but they can't do the whole job. If coho are ever to return to their former abundance, private landowners will need to join together to make a critical difference.

*East Humbug Creek, with culvert, before bridge*



*East Humbug Creek, after bridge*

## Money and Other Support

Landowners can get money and technical help by participating in the Oregon Plan for Salmon and Watersheds. The Oregon Plan provides a **voluntary** opportunity for landowners to improve salmon habitat in ways that are compatible with the primary uses of their land.

The Oregon Watershed Enhancement Board (OWEB) provides grants for financial assistance and technical support. The money comes from Oregon Lottery funds, federal funds and proceeds from the sale of salmon license plates. Watershed councils, soil and water conservation districts, Oregon State University Extension offices, Oregon departments of Fish and Wildlife, Forestry and Agriculture and other organizations provide technical assistance and help landowners apply for OWEB grants as well as for financial incentives offered by other agencies.

Here are examples of the support available:

- Farmers with pastures next to a coastal stream or wetland may get grant money to add or improve fences
- Owners of lands with river or stream frontage may get tax breaks for stabilizing streams by planting native trees and shrubs
- Owners of land that is especially important for fish or wildlife habitat may be compensated for modifying their land use

## Neighbors Working Together

The Oregon Plan encourages neighbors to work together. Why? Because, to be truly effective, habitat improvements have to happen all along a stream, across the various ownerships.



*Landowner placing large wood in creek*

*Photos courtesy of Maggie Peyton.*



*Large wood placed at the mouth of Dalton Creek, South Slough*

*Photo courtesy of Alesha Gray, Salmon River Watershed Council.*

It doesn't help coho as much if landowners on one side of a stream improve habitat on their land, and landowners on the other side don't. For habitat restoration to be truly successful, everybody has to get involved.

Habitat restoration projects fall into four general categories: improving riparian vegetation, placing large wood in streams, restoring wetlands and improving road drainage and road crossings. Financial assistance is available for projects such as these. These projects could also save you money in the long run by helping stem the loss of soil, avoid water-quality violations and flood damage, fix access problems and help your land be more productive.

- 1) **Improving streamside vegetation:** Healthy streamside (riparian) vegetation contributes to the cool water temperatures that coho need. Native trees and shrubs provide shade, stabilize soils and protect banks more effectively than human-made structures or invasive plants such as Himalaya blackberry. Sturdy soils and banks also reduce sediment in streams. Planting native trees and shrubs helps landowners comply with agricultural water-quality rules and reduces loss of valuable farmland. Protecting healthy streamside areas with fencing also can help farmers protect their livestock from injury in cold weather and implement grazing rotations for the long-term health of their lands. Finally, some of the planted trees will eventually mature and fall into the stream, providing large wood and further enhancing coho habitat.
- 2) **Placing large wood in the stream:** Large wood, such as logs and rootwads, slow the flow of the stream and give the fish calm pools for resting during high flows and hiding from predators. Wood increases algal growth and insects, which provide valuable food for fish.
- 3) **Restoring wetlands:** Wetlands provide food and shelter for growing coho. Restoring wetland vegetation and connections to streams helps landowners as well as fish. Robust wetlands reduce flood damage by storing water that would otherwise move rapidly into non-wetland areas, eroding soil and damaging property.
- 4) **Improving roads and road crossings:** Landowners often replace culverts, tidegates or other stream structures that are blocking fish passage. Landowners also improve road surface drainage and improve ditches and other drainage structures to reduce sediment, oil and other pollutants. Better roads also help landowners more efficiently conduct their residential, farming and forestry uses.