# STOUT CREEK
# SNORKEL & FISH TRAP SURVEY RESULTS


## Stout Creek a Model Watershed

In 2009, the North Santiam Watershed Council selected Stout Creek as a priority sub-basin for restoration and enhancement as part of the Meyer Memorial Trust and Bonneville Environmental Foundation's Model Watershed Program. Stout Creek is an important tributary of the North Santiam River, entering the mainstem just above the City of Stayton. Approximately 11 square miles of land, primarily rural residential and commercial forestry, make up the land area that drains into Stout Creek.

Since 2009, 20 landowners have partnered with the Council to treat invasive Japanese Knotweed along the creek and an additional 8 landowners have partnered with the Council to restore approximately 30 riparian acres of native vegetation on Stout Creek. Restoration in Stout Creek has included clearing of invasive species, planting of native trees and shrubs, and a robust maintenance system to ensure that plants can be "free to grow." Through continued maintenance, the Council hopes to create a mature riparian buffer of native trees and shrubs that can provide shade and habitat for fish and other wildlife. Root systems of native plant species also provide some stability to stream banks and filter water entering the system through the subsurface.

## Stout Creek Snorkel Surveys

In the fall of 2014 snorkel surveys were conducted along 2.6 miles of Stout Creek, a tributary to the North Santiam. The surveys along Stout Creek began at the confluence of the North Santiam mainstem and ended where the stream gradient increased to the point in which finding spawning and rearing salmonids was unlikely. Every fifth pool was snorkeled in order to provides a sample size sufficient to describe both the relative abundance and distribution of salmonids in the stream. Snorkel surveys help us to understand how salmon are utilizing the available summer habitats within our watershed.

Snorkel Surveys were conducted by Steve Trask and Conrad Gowell, Fish Biologists with Bio-Surveys, LLC. The snorkel surveys were funded by a grant from the Meyer Memorial Trust Foundation.

**Project Funders & Partners:**

Meyer Memorial Trust

Native Fish Investigations Program
Supporting the conservation of Oregon's native fish species

BONNEVILLE ENVIRONMENTAL FOUNDATION

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# Fish Species Present in Stout Creek

**Juvenile Chinook Salmon:** Native to the Willamette Basin juveniles have a silver to white underside with a darker top. Slight blue, blacks and yellow colors can be seen. Parr marks can also be seen on their sides. The Chinook or king salmon is the largest of the five Pacific Salmon species. The Upper Willamette Chinook salmon was first listed as "Threatened" under the Endangered Species Act in 1999.

**Juvenile Coho Salmon:** Historically non-native above the Willamette Falls. Coho runs in the North Santiam are remnants of ODFW's old stocking program. Juvenile Coho have an orange tinted forked tail or caudal fin that is usually tipped in black. They have a sickle shaped anal fin with parr marks centered on the lateral line.

**Juvenile Steelhead/ Rainbow Trout:** Native to the Willamette Basin. One identifying characteristic is the mouth bone maxilla does not extend past the eye. They can be blue/green on top with light red on the sides. They have white undersides. The Upper Willamette Winter Steelhead was first listed as "Threatened" under the Endangered Species Act in 1999.

**Juvenile Cutthroat Trout:** Native to the Willamette Basin. A key characteristic is the red/orange slash mark on the throat. Small spots on the body. Their color can be blue/green on top blending with light red on the sides and a white underside. Cutthroat trout will move around in a river system but they do not migrate to the ocean.

## 2014 Stout Creek Snorkel Survey Results

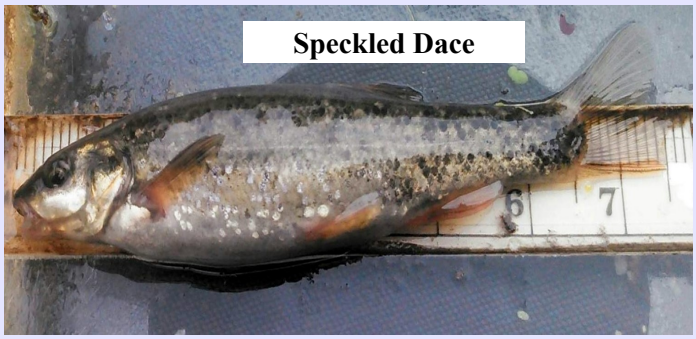
During September of 2014, fish biologist from Bio-Surveys, LLC surveyed Stout Creek looking for salmon and trout. The biologists worked up the creek, swimming through pools wearing a mask and snorkel, counting fish as they went. In all, the biologists surveyed 2.6 miles of Stout Creek. While the survey conditions were not ideal due to cloudy water,* the biologist counted **3,156** young Coho salmon, **145** young Chinook salmon, and **135** trout in the creek. Based on the number of young Coho salmon, at least 25 adult Coho salmon spawned in Stout Creek in 2013 – 2014. Though, given the poor visibility experienced during the surveys this is most likely an underestimate. The best spawning habitat was found 1.7 miles upstream from the confluence of Stout Creek and the North Santiam River.

*The cloudy water observed was related to the abundance of full spanning beaver dams found in Stout Creek. Out of the 70 pools surveyed 10 had active beaver dams contributing to the turbidity. *See the back page to learn more about the benefits of beaver.*

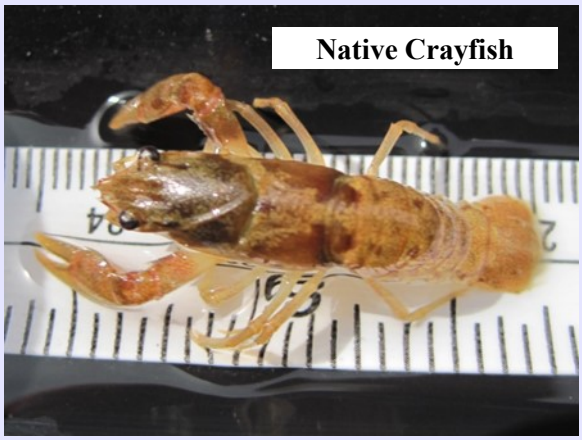
# Other Native Fish Present in Stout Creek

**Oregon Chub:** On February 18, 2015, the USFWS announced the removal of the Oregon chub, and its critical habitat, from the list of Endangered and Threatened Species, and the Oregon chub became the first fish ever to be delisted due to recovery. The Oregon chub were first listed as "Endangered" in 1993. The species status improved to "Threatened" in 2010. Oregon chub colors include olive, silver and mottled browns and blacks with an lighter underside. One distinct characteristic are their large scales.










Brian Bangs ODFW Fish Investigation Programs Biologist: Checking fish traps.

## Oregon Department of Fish and Wildlife Surveys

ODFW has been conducting fish surveys in Stout Creek since 2013. Their goal is to better understand the fish communities using these tributary systems.

**2014 One Day Survey**
Oregon chub: 82
Redside shiner: 88
Speckled dace: 59
Sculpin (unidentified): 47
Northern pikeminnow: 81
Sand roller: 44
Coho: 2
Chinook: 5

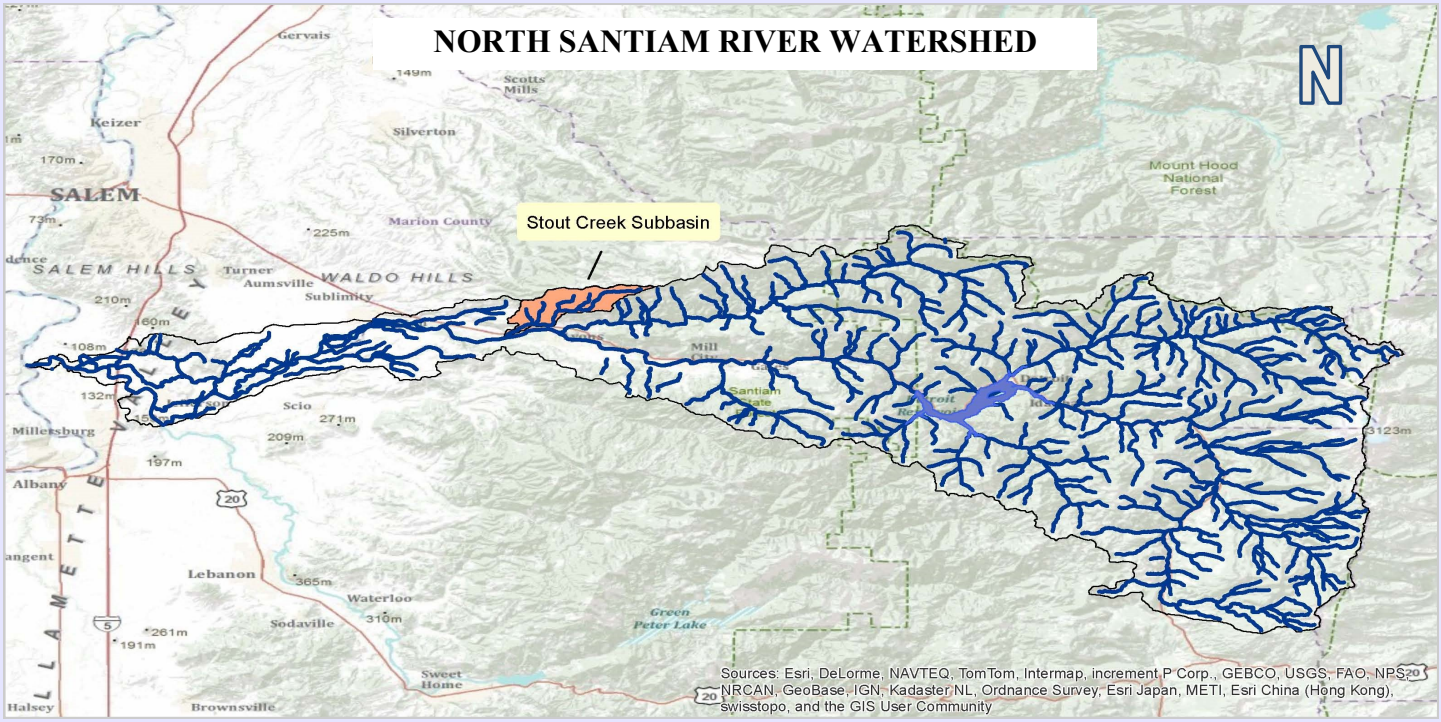
**2015 One Day Survey**
Oregon chub: 214
Redside shiner: 1,480
Speckled dace: 65
Sculpin (unidentified): 347
Northern pikeminnow: 63
Sand roller: 530
Coho: 7

# American Beaver

Stout Creek experiences high levels of beaver activity. Beavers may be considered pests by some but scientists have proven that beavers are "Keystone" species in North America. This means beavers play an important role in enhancing ecosystem biodiversity. There are many fish and wildlife species that rely on beaver ponds for habitat. Some of the benefits of beaver ponds include:

- Decrease damaging floods
- Recharge drinking water aquifers
- Remove pollutants from surface and ground water
- Drought protection
- Decreased erosion
- Produce food for fish and other animals

Beavers can cause problems on public and private lands. To learn more about how to prevent beaver conflicts and solve common beaver problems visit:
**www.dfw.state.or.us/wildlife/living_with/docs/beaver.pdf**

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NORTH SANTIAM watershed council

***Providing opportunities for stakeholders to cooperate in promoting and sustaining the health of the watershed and its communities.***