

June 5, 2019

Pelton Round Butte Fish and Wildlife Newsletter



The month of May brought good news along with sunny days. Juvenile fish counts continue to be strong compared to last year, thanks to higher river flows and new fisheries strategies in the Deschutes. Even more exciting is the adult spring Chinook return, which has exceeded expectations in a year when poor returns were forecasted for



the Columbia basin. We believe these high returns are a direct result of operational changes made in 2017.

All newsletter issues can be found on our [Deschutes Updates and Events](#) page.

Join us for the 25th Annual

Pelton Round Butte Fisheries Workshop

Presentations will cover lower river fire restoration efforts, Water Quality Study results, Opal Springs fish passage progress, and more! Check out the complete workshop agenda on our [website](#).

When: July 17-18, 2019

Where: The Riverhouse Convention Center
2850 NW Rippling River Ct,
Bend, OR 97703

RSVP: [Register](#) for the workshop.

- Registration is open through July 5th.
- The Riverhouse Hotel has a room rate of \$179 for the night of July 17th and is holding a block of 10 rooms *until June 17th*. Mention that you are attending the Fisheries Workshop when contacting the hotel.
- The venue is centrally located with additional lodging options nearby.

Featured Study: Screw Trapping

What are rotary screw traps and how are they used?

Each spring, PGE biologists install fish collectors called rotary screw traps in several locations throughout the Deschutes' upper tributaries. Screw traps allow us to sample out-migrating fish, providing information on fish movements and populations.

- Traps have a large metal cone on the front that spins when lowered into the water. As the river's current moves through the cone, it captures juvenile fish. Fish are collected in a "live box" — a water-filled holding area.
- Screw traps are typically operated daily for several months each spring. Each day, the traps are checked and fish are examined. PGE fisheries technicians count the captured smolts and record information on species, size and origin (hatchery vs. naturally reared).
- Naturally-reared smolts are individually marked with PIT-tags — small devices similar to pet identification chips — and released back into the water. These fish are later detected by a tag reader at the Selective Water Withdrawal (SWW), providing information on how long it takes fish to move from the tributaries to our project areas.
- Screw trap studies have helped our biologists generate population estimates for naturally-reared fish, allowing comparisons from year-to-year. They also generate data on migration timing and duration for reintroduced Chinook and steelhead.



What have we learned?

- Screw trap studies helped reveal that hatchery-reared smolts were exiting the tributaries too quickly. We suspect that these fish were not developing a proper imprint of their natal stream and were less likely to find the right tributary on their return migration. These observations led managers to implement smolt acclimation, in which hatchery fish are held in the river for several days prior to release. Learn more about this process in our [May newsletter](#).
- PIT tag data also exposed that smolts were delayed in Lake Billy Chinook, taking longer than expected to find the SWW. This information helped lead to the development of nighttime generation, a management change covered in our [March newsletter](#).
- Learn more about screw traps in [our video](#) featuring fish biologist Gonzalo Mendez.

Water Quality Study: Release, Resources, and Open Houses

In February 2015, we kicked off an extensive multiyear Water Quality Study to learn more about conditions and potential changes in the Lower Deschutes River, the reservoirs and the major tributaries. The complete study, along with helpful resources to guide your reading, will be available on our [website](#) on June 20th. We will also share the results and answer your questions in person at three upcoming open house events. Find more information on our [Updates & Events](#) page.

Central Oregon: July 17th, 4 p.m. to 6 p.m. — Riverhouse on the Deschutes

Portland: July 23rd, 5 p.m. to 7 p.m. — Ecotrust, Billy Frank Junior Conference Center

Maupin/The Dalles: TBA, sometime **Fall 2019**

Juvenile Fish Update

Juvenile Species	April 2019	Yearly Total (through April 2019)
Chinook	9,833	13,698
Steelhead	1,876	1,936
Sockeye	78,147	83,015

- In April, 182,572 fish from seven species were processed at the Fish Transfer Facility.
- Chinook, steelhead and sockeye were transported and released downstream into the Deschutes River.

Complete daily fish counts can be [found online](#).

Adult Fish Update

Adult Species	May 2019	Yearly Total (hatchery, wild and upper basin)
Spring Chinook	167	167

- Adult spring Chinook are returning in strong numbers. Our total upper basin run in 2018 was only five fish, preceded by 20 fish in 2017. This year, we've *already* returned 33 fish to the upper Deschutes basin — and there are still weeks to go in the run.
- Columbia basin forecasts for spring Chinook were poor, so this higher return is likely a direct result of our adaptive management actions started in 2017, including nighttime generation and night releases.

Announcements, News, and Events

- **Monty and Perry South campgrounds are now open for the summer.** [Check out](#) our two newest PGE parks.
- Pelton Dam Road is temporarily closed for improvements. To access Lake Simtustus, you'll need to enter the road from the other end, off Highway 26. More information in the [Madras Pioneer](#).
- The new Opal Springs fish ladder is nearly complete. More on [KBND](#).
- Due to poor projected fish returns, Columbia river fishing will be reduced or restricted in several areas this summer, including on the Deschutes downstream of Moody Rapids. Details in the [Columbia Basin Bulletin](#).
- The world-class Deschutes salmonfly hatch began in early May. Fishing tips and other information in the [Bend Source](#).
- Enjoy Protect Respect — a Bend-area river stewardship committee — is encouraging residents to clean the Deschutes while they recreate. More information in the [Bend Source](#).



In April, several PGE staff had the opportunity to volunteer with [Kokanee Karnival](#). We loved working with fifth graders from Central Oregon, teaching water safety, knot tying, casting techniques and the salmon lifecycle.

The Plain Facts: Blending Operations at Pelton Round Butte

As we begin blending operations for the summer season, you may have questions about how or why we release water from both the surface and depths of Lake Billy Chinook. Here's a quick explanation:

By mixing water from different layers of the reservoir, the Selective Water Withdrawal reduces the Pelton Round Butte project's effect on water temperature in the Lower Deschutes. The water blend released downstream is aimed at matching what temperatures would be like without the dam's presence. This restored temperature regime helps promote growth and emergence of juvenile salmon, so they have higher survival rates when entering the ocean.

- Juvenile fish tend to swim in the topmost layers of the reservoir, so we release 100% surface water from late fall through early spring to optimize fish collection. As temperatures at the Reregulating Dam rise in May and June, we begin increasing the percentage of bottom water added to the blend.
- The timing of bottom-water release is determined by comparing discharge temperatures to a model of how the river would warm without the dams. Timing varies from year-to-year depending on weather and the conditions in the tributaries.
- Throughout the summer, we continue to add bottom water to the mix, still comparing the discharge temperatures to the model. Typically, by late summer we are releasing the maximum amount of bottom water (60%). By early November, we go back to full surface-water release, which allows us to conserve cold water for the following summer when it's needed.
- We always consult with our two water quality regulators — the Oregon Department of Environmental Quality and Tribal Water Control Board — when we plan for a blending change.
- All decisions regarding blending are directed by state standards and the guidelines in our Water Quality Management and Monitoring Plan.

Thanks for reading our June newsletter!

Visit our [website](#) to find more information about the Deschutes, including informative videos, fact sheets, and reports.

- ◊ Have suggestions for what you'd like to see in the next newsletter? Want to schedule a tour? Please contact us at deschutes.passage@pgn.com.
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