



Refuge, Forest Service Work Together To Remove Carp From Malheur Lake

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by Lauren Brown

The Carp Derby has become a fun, family-friendly annual event at the Malheur National Wildlife Refuge. The derby is a fishing competition where the public is invited to catch carp and learn more about how the refuge is managing the carp population. It is usually hosted by the Friends of the Malheur National Wildlife Refuge and refuge staff in August, but it will not be held this summer.

While the Carp Derby is a fun, educational event for the public, more extensive measures are required for dealing with the invasive fish. Malheur National Wildlife Refuge and the U.S. Forest Service have collaborated on more intensive carp removal with professionals from multiple agencies. They gather for a day or two removing as many invasive carp as possible out of the Blitzen River before they are able to head back to the lake.



The invasive common carp was introduced to the Harney Basin sometime in the early 1900s. By the 1950s, they were so numerous, they began to have detrimental effects on aquatic habitats within the refuge. As bottom feeders, carp are constantly rooting for food, which clouds the water and creates a turbid environment that smothers aquatic vegetation by preventing sunlight from penetrating the water. As this vegetation disappeared, so did the migratory birds that fed on

it. Fewer aquatic plants make the Harney Basin less useful to migrating birds that depend on those plants to fuel their journey north to the nesting grounds. As a result, the refuge has had to take measures to manage the carp population to rehabilitate Malheur Lake.

Pictured above: Crews at work removing carp during the 2018 carp round-up.

In 2017, mainly smaller carp were harvested with 278 pounds removed from the river. In 2018, 43 workers removed 8,000 carp for a total of 43 tons. There was no carp removal in 2019 due to high water on the lake.

Dr. James Pearson, a fish biologist for the Malheur National Wildlife Refuge, is heading up the carp removal this year, along with Sophia Kim, a Forest Service fisheries biologist for the Malheur National Forest Emigrant Creek Ranger District. Pearson believes it's an effective tool for carp management.

"When each one of those female carp has one million eggs in it, you think every time you remove a carp you're doing some good," Pearson said.

Kim noted that the U.S. Forest Service made removing carp from Malheur Lake one of its regional lake targets.

"The Silvies River drains into Malheur Lake, and we don't want the carp moving upstream into Forest Service land, so by assisting the refuge, we contribute to reducing the chance that the carp will move upstream," she explained.

Normally, as the carp leave the lake for the river, the refuge uses a dam and installs nets and blocks to keep the carp in a certain area. They use block nets to prevent the carp from swimming into the lake and send fishing boats down the river to push the carp into the block nets. People stationed near the block nets then scoop the fish out of the river and kill them. Native fish, such as redband trout, are taken out and placed into a safe area away from the carp.

"The carp are in high concentrations once they have left the lake and gone into the river, so there will be thousands of fish," Pearson said. "It is actually fairly easy to scoop them out of the water with big nets."

This year, rather than the 30 to 40 workers and volunteers who have assisted with previous carp removal, Pearson said there will be fewer than 10 people helping.



"Just enough for two boats and to have two people in the water," he said.

Kim said that precautions for the removal will include wearing masks. They'll also adjust the plan according to the most current COVID-19 situation, adhering to state and local regulations and guidance from the Centers for Disease Control and Prevention.

Pearson and Kim hope to proceed as planned with the carp removal in September.

"What we learned in the modeling was that if you remove adults at a high level, you can cause a reduction in the overall carp biomass in the lake," Pearson said.

Once that carp biomass reaches a threshold of 50 kilograms per hectare (1 hectare is almost 2 ½ acres), the aquatic habitat in the lake will start the rehabilitation process.

Pictured: Some of the at least 8000 carp caught during the 2018 round-up.

“You’ll start to see improvements in water quality and potentially some improvements in aquatic vegetation,” Pearson said.

The refuge had planned to study the impact of carp and wind on the turbidity of the lake, but funding from Oregon Water Enhancement Board (OWEB) was suspended in the spring due to the pandemic. The Mesocosm Project would have involved setting up 10 to 12 mesocosms in the lake. A mesocosm is an area of the lake that is fenced off with plastic sheeting to isolate the water column.

Within the 10 to 12 mesocosms, they planned to use certain treatments to see just how much of an impact carp, wind re-suspension, and phytoplankton have on the turbidity of the lake.

“We wanted to build these mesocosms to isolate the water column to test out which one of these has the largest effect on the turbidity in the water column,” Pearson explained.

OWEB has since reinstated the funding, but it was too late in the season to start the mesocosm project. The project will hopefully proceed as planned next spring.

Malheur Lake may have a long rehabilitation journey ahead, but the carp-removal events are an effective tool on the path to recovery.

Improving the health of Malheur Lake is one of the goals of the Harney Basin Wetlands Initiative, a collaborative of the High Desert Partnership (HDP). For more information about the initiative and HDP, visit highdesertpartnership.org.

Note: As of the writing of this article, the carp round-up is scheduled to proceed. However, it is possible that restrictions imposed by the Governor’s office could impact this event.

This article is provided by High Desert Partnership; a Harney County nonprofit convening and supporting six collaboratives including the Harney Basin Wetlands Initiative.

