

# Mussel Mania

## The plight of Oregon's freshwater mussels

BY CAMILLA MORTENSEN

Standing chest deep in the chilly waters of the Willamette River, Travis Williams of Willamette Riverkeeper scans the water for mussels. The flow is high on a cold October day, and as I gingerly climb down the muddy bank and into the waters beside him, I too look for the dark shells Williams tells me are there, beneath the surface.

Thinking back to various floats I've done on the Willamette, I know I've seen mussel shells. I just never thought about them. On some level, I assumed that the bivalve remnants had somehow crept into the waters from the Pacific Ocean.

And that's the thing with freshwater mussels. They tend to go unnoticed, unregarded and underappreciated.

We are next to Skinner Butte, the pair of people in dry suits planning to plunge into the water, at a spot where Williams says he's seen a bed of mussels in the past. It's a good spot for them, he tells me — the flows aren't too fast here and the riverbed is right for them.

Unfortunately, the water is too high and murky today to see any shells, and I turn down Williams' offer to follow his example and plunge my face into the cold water and snorkel around.

I admit that I'm reluctant not only because it's cold, but also because I worry about the Willamette being less than clean as it flows through town. I know I'm not alone in that fear, and that is one reason we need to learn to love freshwater mussels: They clean the river.

Before we part, Williams hands me a slim booklet, a field guide called *Freshwater Mussels of the Pacific Northwest*, put out by U.S. Fish and Wildlife Service and the Xerces Society for Invertebrate Conservation, among others. As I read it later, in the warmth of my office, I note that the word "unknown" comes up again and again in reference to which fish host the mussels in their larval stage, historical data and the long-term effects of the loss of native fish.

Despite being small, simple creatures, there is much we don't know about the freshwater mussels of the West.

Mussels face the same challenges that salmon and other more charismatic species face, such as climate change, invasive species and dams. At the same time mussels are a key element in river health. Scientists and river advocates have been delving into mussels, where they are, how they survive and how to bring them back.

The Confederated Tribes of the Umatilla have taken that one step further as they look at mussels' key role in the ecosystem as a tribal "First Food."

### Flexing the Willamette's Mussels

Williams really began thinking about mussels in 2014 after the Willamette Riverkeeper group he heads up began to acquire Norwood Island, at the confluence of the Long Tom River and the Willamette, north of Corvallis. The \$70,000 purchase will be completed this year. Williams discovered a massive bed of mussels in a river channel along the island. "I looked down," he says, "and the entire channel was littered with mussels. It blew my mind."

This past summer Williams snorkeled 120 miles of the river, spotting other mussel beds along the way, including the one we tried to look at in Eugene.

Some of the Norwood mussels were quite large. As it turns out, freshwater mussels can be very long-lived. One species native to Oregon and the primary one found in the channel, the Western pearlshell (*Margaritifera falcata*) can live more than 100 years, making it one of the longest-lived animals.

Oregon is also home to the Western ridged mussel (*Gonidea angulata*), which lives 20 to 30 years, and the shorter-lived Oregon floater (*Anodonta oregonensis*) as well as other floater species. Floaters tend to live 10 to 15 years.

All of these are among the eight species found in the