



## How Did the Northern Red-Legged Frog Cross the Road?

It depends on location. Two different efforts in Portland, Oregon, are supporting successful wildlife crossings.

BY ALYSON YATES

Over the roar of traffic from the nearby highway, volunteers wearing headlamps and fluorescent vests exchange friendly greetings on a rainy February evening in Portland, Oregon. As the sun sets, they disperse along the shoulder of an access road, scanning for gleaming eyes or a hop in the darkness—signs of northern red-legged frogs about to cross U.S. Route 30 as part of a perilous annual migration.

On the other side of the highway, volunteer Jim Holley swings open the back door of his SUV to reveal several 5-gallon buckets containing dozens of the frogs, each about the size of a small avocado. He totes them over to a stream in the adjacent 5,200-acre Forest Park and gently tips each bucket, allowing the frogs to clamber out in droves. They quickly disappear into the wet ferns and leaf litter. He wastes no time watching them. More frog-filled buckets are waiting for transport in the opposite direction.

“You may not see everyone’s faces out there in the dark, but you know you share a passion,” says Holley, a former

cab driver turned wildlife surveyor who has volunteered with the Harborton Frog Shuttle for the last eight years.

Locals started the shuttle in 2014 after noticing hundreds of red-legged frogs pitifully splattered against the wet pavement on and around Harborton Drive. Every year the frogs attempt to migrate from upland forests west of U.S. 30 to breeding habitat in wetlands along the Willamette River just east of 30 and back again—a roughly 1-mile round trip. Moved by the risky crossing, concerned neighbors and amphibian enthusiasts began spending evenings from December to April picking up frogs on quieter roads paralleling the highway and moving them to the opposite side.

Shuttle organizers have learned frogs are likely to cross the road on rainy nights when temperatures are in the high 40s. What began as a small effort has transformed into a community spectacle, with over 100 eager Portlanders filling the shuttle’s waitlist. In late winter, when frogs are moving to and from the wetlands simultaneously, a 20-person team monitors both sides of the highway.

“I want to live in a world with frogs,” Holley says. “They make Portland a better place.”

Northern red-legged frogs, whose range extends from British Columbia to Northern California, play a key role in Pacific Northwest ecosystems as predators of mollusks and insects, and as prey for birds and mammals. They also act as indicators of watershed health, signifying good water quality and strong connections between aquatic and terrestrial habitats. While the frogs are relatively common throughout their range, biologists have worried that continued roadkill along U.S. 30 could lead to a population crash.

Unfortunately, there’s cause for concern. A 2023 study in *Nature* classified more than 40 percent of amphibian species as threatened by extinction globally. Habitat loss and degradation—including from road construction—are leading causes of amphibian decline, with disease and climate change intensifying perils for sensitive populations.



**Jim Holley (opposite) releases frogs into Forest Park. Biologists check cameras in the Palensky tunnel (above left). A volunteer carefully collects a red-legged frog from a Portland road (above right).**

While the shuttle saves a lot of individual frogs—over 1,000 were transported in 2025 alone—Holley knows volunteers like him can’t protect the population indefinitely. “You want wildlife to be able to [cross roads] on their own,” he says.

Just 3 miles north on U.S. 30, a similar game of Frogger takes place without the help of a bucket brigade. As at Harborton, frogs cross here in large numbers, moving to and from wetlands near the highway. But this stretch of road is closely bordered by steep slopes and lacks an accessible shoulder where volunteers could gather safely. And yet, with over 25,000 vehicles traversing this corridor daily, migrating frogs stood little chance of reaching the other side without intervention.

“It was discouraging,” recalls Susan Barnes, a biologist with the Oregon Department of Fish and Wildlife. “We

found a lot of dead frogs. We would find females with eggs spilling out of their smashed bodies.”

She and others began brainstorming solutions. While Oregon has a legal mandate to facilitate fish passage, there’s no analog for terrestrial wildlife. “We knew we needed either an overpass or an underpass,” Barnes says. “But we didn’t really have a plan because we didn’t have any money.”

The crossing remained elusive for almost 15 years, until funding from a nearby floodplain restoration effort made the project possible. Construction of a steel tunnel roughly 131 feet long and 4.5 feet wide began beneath the highway in spring 2024. By that fall, the \$3.6 million Palensky Wildlife Crossing—funded by a coalition of state agencies, private companies and nonprofits—was complete, reconnecting verdant uplands west of U.S. 30 to a known frog breeding hotspot along the Willamette. Large enough to accommodate other wildlife, the tunnel was

designed first and foremost for amphibians. But a key question lingered: Would frogs actually use it?

To find out, state biologists installed motion-sensing cameras inside the tunnel, enabling researchers at Portland State University to monitor wildlife activity. Early assessments of camera data show red-

legged frogs, including juveniles and egg-laden females, using the tunnel more than 300 times between December 2024 and June 2025. While analysis is ongoing, at least 20 additional species have been recorded using the tunnel, including a native tree frog and at least three species of salamanders, as well as mammals, reptiles and birds.

The project could inform future endeavors. “There aren’t a lot of examples of crossing projects specifically designed to benefit frogs,” says Jason Smith of the Columbia River Estuary Study Taskforce, one of many groups involved.

All parties agree there is no silver bullet for amphibian road mortality. But combined mitigation efforts, like the Harborton Frog Shuttle and the Palensky Wildlife Crossing, can give sensitive wildlife a much-needed boost.

“It’s more than just frogs getting across the road,” Smith says. “It’s a long-term investment in biodiversity and healthier ecosystems.” ■

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*A master’s student at Portland State University, Alyson Yates assisted with camera monitoring at the Palensky Wildlife Crossing and frog tracking at Palensky and Harborton.*