

A Western gray squirrel peers out of a trap after being captured in Training Area 10. Biologists estimate that there are only about 25 squirrels left on the installation.



Tracking Western grays at Fort Lewis

Fish and Wildlife monitors movements of squirrels

By Rachel Young
Northwest Guardian

With an antennae mounted on a broom stick, Fort Lewis Fish and Wildlife Biologist Todd Zuchowski walked slowly through the Debalon Oak Stand, pausing occasionally to listen for the faint beep over the radio he carried. He paused, turned to the right, then to the left, then moved in the direction of the strongest pulse. The closer he got to one particular Douglas fir, the louder the tone became and he knew he had found what he was looking for: the Western gray squirrel.

Zuchowski completes this exercise three times a week, tracking the furry critters through radio telemetry collars. "One of the things we want to study... is how the Western gray squirrel is using the habitat in this area and how they are possibly competing with the Eastern gray squirrel," Zuchowski said. "Our whole objective in this is to try to augment this population by quite possibly bringing on squirrels from the other two populations in Washington," he said.

The Western gray is a species of concern. There are only about three distinct populations of Western gray squirrels in Washington. One is in Klickitat County, one in Okanogan County and one at Fort Lewis. Orth estimates a population of 25 to 50 Western grays on post.

"I'm leaning toward the lower end of that, actually," Orth said.

Because the populations are so isolated from one another, there is very little genetic diversity in the Fort Lewis population, Orth said.

"Less genetic diversity means that the animals have less capability of dealing with any environmental changes that take place," he said. "They are more prone towards mutation — it can wipe out a population over time."

Western gray squirrels are native to Washington, while Eastern grays, a smaller species, are exotic and were introduced to the state, Zuchowski said. The Eastern gray is more prevalent in western Washington, but biologists do not know exactly how their presence impacts the Western gray, which is one of the things the biologists hope to find out from this study.

"When (the Eastern gray) comes into an area that has had Westerns, the Western population goes down," said Gene Orth, fish and wildlife biologist for Washington State Department of Fish and Wildlife. "So there is something going on, we're just not sure how it's happening."

Another issue for the Western gray is habitat.

Western grays like a mixed oak and conifer woodlands habitat, one that has dwindled since the ice age, Zuchowski said.

"There are very few pockets of oak woodlands left in western Washington, and Fort Lewis has some of the last remaining chunks of that land," he said.

But, to protect and increase the population, biologists need to know more than just what kind of habitat the squirrels like. Zuchowski, in partnership with Washington State Department of Fish and Wildlife, is studying things like how the squirrels use the habitat, how far they travel within the habitat, what their reproductive cycle is and how they compete with the Eastern gray.

To do that, Orth, Zuchowski and University of Washington graduate student Aaron Johnston go out weekly to trap and study the Western grays. They have been trapping for about a year and plan to continue until September. The biologists hope to start introducing squirrels from other populations to Fort Lewis in the fall.

To catch the critters, the biologists bait live traps with walnuts and strategically place them in areas where squirrels are known to be active.

The biologists check the traps frequently throughout the day to limit the amount of time the animal spends in the trap.

Orth uses a special denim cone to work with the squirrels. The bell shaped end is placed over the opening of the cage. When the squirrel enters the cone and runs down to the end, Orth twists the fabric, essentially immobilizing the squirrel. Velcro flaps allow for easy access to the animal's ears and underside. Orth takes tissue samples, tags the ear, weighs the animal, determines gender and places a radio collar on the squirrel before setting it free.

The more squirrels that have the radio collars, the more information Zuchowski can gather when he tracks them every week. Armed with this information, the biologists will work to improve the Fort Lewis habitat to make it as Western gray squirrel friendly as possible.

This is done in a variety of ways. Scotch broom mowing, planting trees and shrubs that provide food for the squirrels and removing Eastern grays from the area where the Westerns will be introduced are some of the things the departments are working on.

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Photos by Jason Kaye

Gene Orth, a biologist for the Washington State Department of Fish and Wildlife, weighs a Western gray squirrel that was trapped in Training Area 10.



Populations of Western gray squirrels are found in three areas in Washington. At left: 1. Fort Lewis, 2. Klickitat County and 3. Okanogan County.

Courtesy of Washington State Dept. of Fish and Wildlife



Todd Zuchowski carries a trap containing a Western gray squirrel in Training Area 10.



At left: Gene Orth tags the ear of a Western gray squirrel.

Below: Todd Zuchowski tracks a Western gray squirrel in Training Area 10.

