



Project Briefing: Conservation Planning for the Newton Creek Wetland Complex, Benton County, Oregon.

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Introduction

The Oregon Wildlife Institute (OWI) is collaborating with The Marys Peak Natural Resource Interpretive Center, the Marys River Watershed Council, and a team of natural resource specialists to prepare a conservation plan for the Newton Creek Wetlands Complex in Benton County, Oregon. The plan will address site-specific limiting factors for rare and threatened species and develop prescriptions for management and restoration activities in native prairies, Oregon white oak woodlands, wetlands, and ponds that occur on the site.



2007 Activities

OWI conducted a pilot study on the demography and movements of western pond turtles (*Emmys marmorata marmorata*) in Newton Creek wetlands during spring and summer of 2007. Twenty-six turtles were trapped and permanently marked with a unique identifier for long-term population monitoring. Nine turtles (6 females, 3 males) had small radio transmitters glued to their carapaces to permit us to study their movements through aquatic and terrestrial habitats. Based on turtle activities and habitat conditions we observed during the study, we were able to map two locations that are highly probably turtle nesting areas. We continued to monitor turtles during fall and winter using radio-telemetry. In December we tracked a female to an underground burrow in an oak woodland. We have not yet received signals from the other over-wintering turtles but will continue to monitor the site.

During fall, we observed acorn woodpeckers to identify roosts, granaries, and foraging areas. The acorn woodpecker is unusual in that it fly-catches airborne invertebrates rather than excavates wood-burrowing insects. During fall and winter, acorn woodpeckers gather thousands of acorns in communal caches called granaries. The hoarded mast is shared among family members. We identified the location of 60 granary trees and many potential nesting cavities with the assistance of ecology students from Philomath High School. Important resources for acorn woodpeckers were mapped to facilitate habitat management for the species.

Visual encounter searches for reptiles and amphibians were also conducted last fall. Twelve species of herpetofauna were detected (5 amphibian, 7 reptiles). Perhaps the most interesting discovery were two clouded salamanders (*Aneides ferruueus*) found under a piece of wet plywood.



The clouded salamander is reportedly strongly associated with old-growth conifer forests, a habitat type not found in Newton Creek wetlands. It is possible that a number of clouded salamanders were transported from Coast Range forests on logs being delivered to the mill, then were able to establish a local population at the site.



Botanists, fisheries biologists, and hydrologists also performed surveys and mapping at Newton Creek wetlands during 2007.

Future Activities

OWI will perform searches for Northwestern red-legged frog (*Rana aurora aurora*) egg masses and larvae during March 2008 and surveys for other herpetofauna species in early spring. Breeding bird surveys will be conducted during May and June.

Information gathered from wildlife inventories will be synthesized with findings from other natural resource surveys to provide a foundation for management planning at Newton Creek wetlands. The team of specialists will place special emphasize on conservation plans for plant and animal species at particular risk of population declines. Restoring a more natural hydrological regime and maintaining biodiversity in terrestrial ecological communities are also a priority. The final conservation plan is due to be completed in summer 2008.

The Author

David G. Vesely-- Dave has been a wildlife ecologist for more than 12 years, specializing in the assessment of human land use affects on wildlife populations and their habitats. His interests include restoration planning for wildlife, natural resource inventory and monitoring designs, and modeling approaches to understand land management effects on wildlife habitats. Dave has also been investigating the use of dogs to detect rare wildlife and plants.

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