

## Habitat Enhancement for an *Ophioglossum pusillum* Population

Whiterock Site, Sweet Home Ranger District, Willamette National Forest

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The Whiterock Marsh *Ophioglossum pusillum* population was first discovered in 1989 and consisted of three patches on the margins of a small pond that dries up into a sedge wetland in the summer. Monitoring over the years revealed that the population was relatively stable, in the range of 70 – 100 sporophytes in any given year up until at least the year 2000, when monitoring became more infrequent due to the perceived stability of the population.

Subsequent and infrequent monitoring revealed the population was in decline. Only seven plants were found in 2015. It appeared that competition for light may be a cause of the decline as overhanging shrubs and trees around the wetland margin were over-topping the *Ophioglossum*, more so than they had 20 years ago. There may be other reasons for the decline that are not so apparent, such as below-ground competition, changes in hydrology or mycorrhizal communities.

In hopes that too much shade is the issue, the Botany crew descended on the site in July 2015 with loppers and handsaws. We pruned back overhanging branches and cut down small trees, and pulled out about 30 small Oregon ash seedlings that occupied a former patch location. Future monitoring will determine whether this effort was successful in reversing the downward trend. It may take several years and repeated treatments for the population to respond.