Camas Prairie Restoration Project

Alice Smith, District Botanist Sweet Home Ranger District

When European settlers arrived in Oregon around 1850, wetland prairies covered one third of the Willamette Valley, an estimated 400,000 acres. Less than one percent, about 1000 acres of historical wetland prairie exists today because of extensive ranching and agriculture. Wetland prairies occur on alluvial soils deposited by floods, typically separated from streams and rivers. The underlying clay soils prevent drainage of winter rains resulting in shallowly flooded prairies until summer. This unique habitat has a high diversity of plants some of which are endemic to the Willamette Valley. Much of these prairies were burned annually by Native Americans to maintain an open landscape that improved conditions for hunting and harvesting edible plant species.

In 1994, the Willamette National Forest acquired a 14-acre parcel of fallowed ranchland that hardly resembled a native wetland prairie. The meadow was full of invasive weeds such as European blackberry, Scotch broom, and Queen Anne’s-lace, and Oregon ash trees were colonizing it. Alice Smith, Botanist at the Sweet Home Ranger District, surveyed the parcel and found camas lilies and other indicator species such as meadow checkermallow, hyacinth brodiaea, suggesting this was a remnant wet prairie in dire need of restoration. Archeological surveys discovered considerable lithic scatter of obsidian and heat cracked rocks suggesting that Native Americans used the site to harvest and prepare camas bulbs, which were an important food source. These discoveries led to the re-naming of the site, Camas Prairie, and the beginning of an interagency, intergovernmental collaboration aimed at restoring the degraded wetland, promoting camas production and other native wet meadow species, and restoring the traditional cultural landscape.

The Camas Prairie Restoration Project began with the re-introduction of fire. Traditionally, camas prairies were burned frequently at low intensity in late summer when the meadows were dry and the seeds released into the soil, eliminating competing vegetation, and encouraging the spread of camas. Tribal fire crews cut down encroaching ash trees and later burned the site in the fall of 1998. The following summer, Alice Smith headed up the collection of tens of thousands of camas seeds with the help of Lane Community College students, tribal members, and volunteers in order to reseed after prescribed fires. Some of the seed was planted at a private nursery to be grown out and replanted at Camas Prairie.

Camas Prairie has been burned every two years and seeds have been collected yearly for the past decade with remarkable success. Since the restoration project began, camas plants have almost tripled in number and invasive plants have decreased by half. Other native species have been reintroduced to the site such as native tufted hairgrass, meadow barley, western red cedar trees, and hazelnut. Restoration efforts continue with the help of the Siletz Indian Nation, Grand Ronde Indian Nation, BLM, Oregon State University, Lane Community College, Youth Conservation Corps, Linn County Sheriffs’ Correction Crews and the Sweet Home Ranger District.

Tribes and forest service team up to restore camas

By PATRICK LAIR
For the Gazette-Times
Sep 23, 2005

SWEET HOME - After a 150-year gap, the Confederated Tribes of the Grand Ronde are picking camas bulbs again.

In a unique partnership, the tribes and the U.S. Forest Service are restoring camas to a 30-acre meadow in the Willamette National Forest.

"It's good to see these communities working together," said Leslie Riggs, cultural project assistant for the tribes.

This week, the Forest Service burned 5 acres of the prairie and scattered 75,000 camas seeds.

The project began 10 years ago, when the Forest Service acquired property along Highway 20 and the South Santiam River in a land exchange with a private owner.

The property turned out to be about 1,000 feet in elevation, a rarity in the Willamette National Forest, which mostly starts at the 2,500-foot level.

The meadow, which had once been a hay field, was overgrown with blackberries and mountain ash. On closer inspection, workers were surprised to find a large presence of camas plants.

The camas plant, once found in abundance in the Willamette Valley, has over the past 150 years lost ground to farming and agriculture.

On finding the plants, the Forest Service conducted an archaeological study of the area. They uncovered stone tools and evidence of food processing dating back 6,000 years.

According to Tony Farque, Sweet Home Ranger District archaeologist, the area was a rest stop at the river along the Molalla Trail, a major trading route for native people that connected the Crater Lake area to the Mount Hood area.

After they realized what they had found, the Forest Service asked the Confederated Tribes if they would be interested in restoring camas to the meadow.

The tribes agreed and the restoration began nine years ago. It is now referred to as Camas Prairie.

Workers from the tribes cleared the meadow of mountain ash and burned off much of the blackberry plants. Thousands of camas seeds were then planted.

Every other year, the Forest Service burns away the brush and plants more seeds. This year, nearly 75,000 seeds will be scattered over a 5-acre portion of the meadow.

According to Alice Smith, Sweet Home Ranger District botanist, it takes three to five years to cultivate a flowering camas plant.

At first, she was skeptical about whether the plants would flourish in the meadow.

Now, on the prairie's fourth burn, she finds anywhere from 20 to 110 camas bulbs per square meter.

"Camas thrives from fire," Smith said.

Ultimately, the group hopes to restore the camas prairie to something like its original appearance. The tribes will use the plants for educational and cultural practices, harvesting the bulbs and baking traditional foods.

The raw camas bulb is not very tasty, Farque said. However, the cooked bulb can be quite palatable.

"Camas was the complex carbohydrate of the Pacific Northwest for natives," Farque said.

At one time there were 140 camas growths between Brownsville and Albany along the banks of the Calapooia River. Some were more than 300 feet wide. The bulbs were baked and ground into large cakes, or camas wheels, that native traders then transported by canoe up and down the coast or throughout the valley.

Ten camas sites remain today around Tangent and Shedd.

Along with a huckleberry restoration site in the same area, Camas Prairie will provide the Confederated Tribes a chance to revive some traditional cultural practices.

"We're not encouraging the tribes to come out at this point. It needs a little more work yet," said Kahni Schultz, cultural resource director for the tribes.

For now, the tribes are picking just a few bulbs for ceremonial purposes. They hope to harvest camas on bigger scale later.