



Klamath Tribes: Focusing on Wocus

Wocus (the Klamath and Modoc word for yellow pond lily, *Nuphar polysepalum*) once grew abundantly in Upper Klamath Lake and Upper Klamath Marsh. Highly nutritious wocus seeds provided a staple food for the Klamath and Modoc tribes, and the plants helped to maintain water quality, fish habitat and ecological balance in the headwaters of the Klamath. Today, poor environmental conditions have caused wocus to all but disappear from areas where it was traditionally harvested. Where it remains, concerns about water quality deter people from using it for food.

“In my day the pods were huge,” said one tribal elder. “Now they’re little...because the lake is so yucky.”

In late July, the Klamath Tribes Food Security Program organized an interpretive tour of wocus restoration projects and locations in and around former Tribal lands.

Restoring wocus to the wetlands of the Upper Klamath Basin poses a challenge even in areas being managed for ecosystem recovery. After purchasing a 5500-acre parcel in the Williamson River Delta 10 years ago, the Nature Conservancy (TNC) began removing 22 miles of levees. Habitat in the shallow areas has come back on its own. “The goal is to clean the lake in a natural way,” explained Heather Hendrixon of TNC. Wocus, which grows in deeper water, did not come back. TNC first tried staking wocus starts without success. More recently, TNC has partnered with the Klamath Tribes and the US Fish and Wildlife Service (USFWS) on a project using rebar staples to hold the wocus tubers on the lake bottom. After 3 years this approach shows positive results, with about 500 plants now being monitored in the area. The partners are also testing new methods for restoring wocus to the lake. Once the approach is finalized, the Klamath Tribes and USFWS plan to invite tribal youth to help out – possibly as soon as summer 2017.

In nearby Klamath Marsh, Mike Johnson, Manager of the Klamath Marsh National Wildlife Refuge, explained the Refuge's mission of managing for the needs of waterfowl, and plans to restore the riparian habitat. Currently impacted by climate change, cattle ranching and marsh drainage for agriculture, best conditions for waterfowl would also support wocus restoration. The US Fish and Wildlife Service has a plan to restore the marsh, but implementation entails resolving a number of complex issues.

While habitat restoration should ultimately have a beneficial effect on the food system, including the fish, wildlife and plants native to Upper Klamath Lake and Marsh, the focus of these projects is on ecosystem recovery rather than tribal access to traditional food resources. "Our culture is tied to our traditional foods. Our traditional foods are super foods. Prioritizing tribal access to these foods will make us stronger as individuals and as a community," said Klamath Tribes Food Security Coordinator Perri McDaniel.

For more info on the Williamson Delta wocus restoration project:

<http://www.opb.org/news/article/bringing-back-klamath-wetlands-one-wocus-at-a-time/>

For more information on the Klamath Marsh Refuge plan:

https://www.fws.gov/refuge/Klamath_Marsh/alert.html

To learn how you can get involved, contact Perri McDaniel:

perri.mcdaniel@klm.portland.irs.gov, 541-882-1487 x 235.