



PNWAS NEWS BULLETIN 159

**WELCOME TO
PNWAS Winter**

talks and Thanksgiving!!!!

We believe 2022-2023 will be a Promising New Year and with vaccinations/boosters we return to some outdoor activities! Our weekend campout at Hoko August 26-28 brought together 44 PNWAS members and families to camp and attend the first opening of Makah Days in two years!

We have purchased a PRO ZOOM account, so we can safely continue to bring our membership together. AND if you missed past PNWAS ZOOM YouTubes we have set up a PNWAS ZOOM Channel at:
<https://www.youtube.com/user/SeattlePNWAS>.

The recent talk by our PNWAS Board member, Scott Williams reports the NEW DISCOVERIES:

October 13th, 2022:

Oregon's Beeswax Wreck: New Summer Finds and Project Updates

By Scott Williams, President of the Maritime Archaeological Society

Read *current news* about the Beeswax Shipwreck in national publications below:

National Geographic

<https://www.nationalgeographic.com/history/article/legendary-spanish-galleon-shipwreck-discovered-on-oregon-coast>

Smithsonian Magazine

<https://www.smithsonianmag.com/smart-news/rare-timbers-from-17th-century-spanish-shipwreck-discovered-off-oregon-coast-180980290/>

If a current member (2022, see PWNAS schedule/membership form attached), you will get an invitation to join the ZOOM meeting through an e-mail shortly before each talk. Talks are on Thursday evenings and start at 6:30 pm.

WINTER PNWAS, December 15, 2022

A Quarter of a Million Salal Berries and Potential for 2.5 Million Acorns from Central Northwest Coast Archaeological Wet Sites—Time to Recognize their Past Plant Food Significance



***By Dale R. Croes, WSU and
PNWAS***

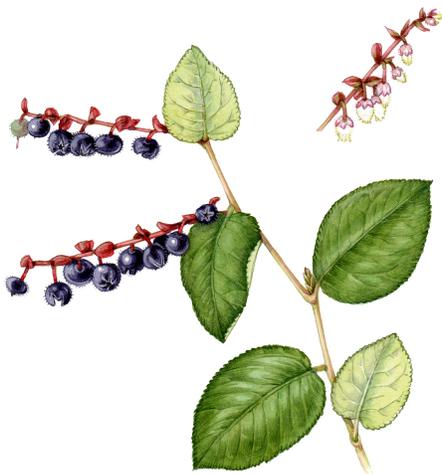
Three Central Northwest Coast wet sites have begun to highlight the significance of berries and nuts, particularly salal and acorns, to ancient subsistence practices. At the Ozette site, mudslide encased houses and middens dating to 300–450 years ago produced flotation samples of 250,000 seeds of Salal. At the Sunken Village site, located on Sauvie Island, Oregon, over 100 hemlock-lined acorn leaching pits dated to 150–700 years ago have been recorded. It is estimated that these leaching pits may represent processing of 2,500,000 acorns in a season. Finally, at the Qwu?gwæs site, located on South Puget Sound, Washington, reanalysis of macrobotanical artifacts lead to the discovery that acorns were also abundant in the site midden. Acorn remains were seven times

more common than hazelnut remains here, indicating that acorns might have been the most ubiquitous plant food at this south Salish Sea site.



Map of Northwest Coast wet sites reflecting use of salal berries and acorns as major part of subsistence (and years excavated)

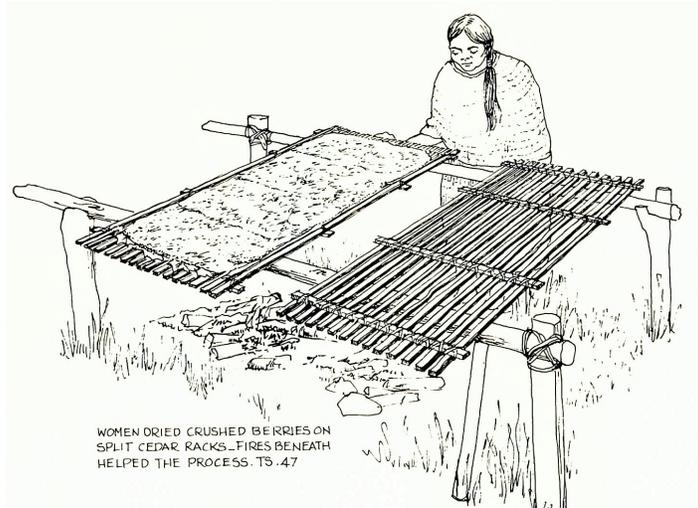
Northwest Coast archaeological wet sites, preserving wood and fiber materials, have begun revealing new insights on the use of plant foods by ancestral peoples not well recognized in the recent anthropological literature. I will discuss two main “crops” that reflect these archaeological acumens, salal berries (*Gaultheria shallon*, above top) and acorns (*Quercus garryana*, above bottom).



Salal berries along stems that were picked off to prune the bush to enhance future growth.

Salal berries (*Gaultheria shallon*). Though not a Euro-american preferred food, it’s importance for Northwest Coast indigenous diets is often reflected in the literature. In Turner’s recent two-volume set, she records 32 languages that record names for salal, including 17 Salish and 7 Wakashan language families. As a berry widely eaten by Coastal peoples, she points:

Salal berries are without doubt the most plentiful and widely used fruit on the coast... They picked them in clusters in late summer and ate them fresh or dried them in cakes for winter. The Kwakwaka'wakw ate the ripe berries at large feasts; they dipped the berry clusters in Grease and ate the berries one at a time, they threw the stems in the fire.



Example of woman preparing berry cakes



Picking salalberries (*Gaultheria shallon*). *BCPM

Quercus Garryana Oregon White Oak acorns.



Oregon white oak acorns in the tree with some already fallen leaving their caps.

Erna Gunther recognized acorn as a food in her *Ethnobotany of Western Washington* (1945) as follows:

The oak occurs in this area only where there is open prairie country.

- Chehalis: sk'wi'sl; skEkslalox, little oak; kiloi, little leaves*
- Cowlitz: ts' u'nips*
- Klallam: q'aput*
- Squaxin: tca'dzats*

Food. The Nisqually, Chehalis, Cowlitz, and Squaxin, who live in sections where oak trees are most numerous, use the acorn as food, but in the true evergreen forest area that is an unknown dish. The Chehalis roast acorns in the fire. Acorns are stored in baskets of young maple bark and buried in mud of a slough all winter. In the spring when they are taken out to eat, they look as though they were spoiled, but they are delicious. The Cowlitz bury acorns in the mud to leach them. The Squaxin roast them on hot rocks. The Klallam eat the acorn as a nut without preparation. The Quinault never use them as food. Since they are eaten in such small quantities the amount of tannic acid in them is not dangerous, and the elaborate leaching process used in northwest California, where the acorn is a basic food, is not necessary.

Our recently excavated over 100 acorn leaching pits from the Sunken Village wet archaeological site, Sauvie Island, Portland, Oregon is the largest acorn pit leaching archaeological site anywhere along the entire West Coast of North America (including Oregon/California), this wet site certainly reflects the importance of this food on the Central Northwest Coast of North America.



Our experimental acorn-leaching pit as found at Sunken Village wet site; a half-pit constructed in a fish aquarium, lined with hemlock boughs and filled with acorns. Water was pumped through the model for five months, to remove tannic acid from acorns and were edible following experiment.

Once we became thoroughly introduced to acorn remains at the Sunken Village wet site, we then began to recognize their importance at the south Puget Sound *Qwu?gwes* wet site (45TN240) that the same crews had been excavating for five summer seasons. This was a true case of “You don’t see the thing because you don’t know how to look”. After two seasons at Sunken Village we knew ‘how to look’, and realized the importance of acorn remains as a source of carbohydrates at the *Qwu?gwes* wet site. Prior to this we saw them, but considered them Douglas fir cone scales, a common macroflora in the site. No doubt this not seeing them possibly has happen at all excavated wet sites along the Northwest Coast, especially in the Central Coast.

In this presentation I argue that salal and acorn ecofacts from the Central Northwest Coast represent substantial resources in the diets of this region.

***LATE WINTER PNWAS,
Thursday, February 9th, 2023***

***Our Submerged Past: The
importance of a submerged fish
weir in Shakan Bay, southeast
Alaska.***

***By Dr. Kelly Monteleone, University of
Calgary***

Southeast Alaska, specifically the continental shelf and islands on the west side of Prince of Wales Island, had a drastic sea-level rise at the end of the Last Pleistocene/Early Holocene. There was up to 176 m of sea-level rise, from -165 m to 11 m, in approximately 7000 years: an enormous change in a relatively short time. This submerged coastline would have been the along the route for early peoples journeying to the Americas. The stone fish weir confirmed on the seafloor at 52 m (currently estimated to be 11,100 cal BP) demonstrates that early land-use locations (archaeological sites) are preserved on the continental shelf, supporting the coastal migration or kelp highway hypothesis. Additionally, the Shakan Bay weir may be one of the oldest confirmed weirs in the world. The confirmation of this side-scan sonar feature can provide confirmation of other side-scan anomalies that are thought to be stone weirs structures.

Dr. Kelly Monteleone, an Underwater Archaeologist, will present this exciting find in our first 2023 PNWAS program.



Read the exciting Sealaska news release at:

<https://www.sealaskaheritage.org/node/1623>

And Alaska News release and interesting video:

<https://www.foxnews.com/science/stone-fish-trap-found-near-alaskan-coast-believed-11000-years-old-researchers-say>



Pacific Northwest Archaeological Society

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Join at <http://www.pnwas.org> and PayPal

Please Re-Join the Pacific Northwest Archaeological Society for 2023!!!!



Burning oak savannas to eliminate acorn damage by insects

Join us on **ZOOM Thursday, December 15th** at 6:30 pm for

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