Welcome to Lou's Loop.

The trail, located near the Aquaculture Center on the Grays Harbor College campus, is dedicated to **Lou Messmer**, GHC faculty member and botanist extraordinaire. Lou's classes, including "Plants of Western Washington" inspired students for over 50 years. His humor, subtle wit, and vast knowledge of natural history contribute to his status as one of Grays Harbor County's greatest resources.

Note: This tour of the Botany Loop is merely a sampling of what is to be found on the trail itself. Please come and visit in person anytime.

1. Palmate Coltsfoot

Quinault - qwai''ax
Quileute - qwai''exput

Family: **Aster (Asteraceae)**
Genus: **Petasites**
Species: **palmatus**

Botanical Description: Multi-stemmed perennial, with narrow, creeping rhizomes (horizontal, underground stem, often sends out roots or shoots from its nodes), leaves preceded by flowering stems, height to 50 cm. Deeply divided 5-7 toothed lobed heart or kidney-shaped, green, hairless above, woolly below, basal leaves. Whitish-pinkish disk flowers or off-white ray flowers 7-16 mm high. Prefers low to medium elevations, moist-wet forests, swamps, & clearings.

Ethnographic Information: Leaves used by Quinault Indians to cover berries when cooking in a pit. Root & leaves used in various medicinal preparation. Quinault smashed root & soaked as wash for swellings or sore eyes. Coltsfoot root was chewed or soaked in hot water & drank as tea for tuberculosis, chest problems, sore throat, & stomach ulcers.

2. Salal

Quinault - kwa´soitcnu´l
Quileute - ko'o´.d

Family: **Heath (Ericaceae)**
Genus: **Gaultheria**
Species: **shallon**

Botanical Description: Creeping to standing shrub, branched, hairy stems, height to 4 m. Evergreen leaves alternate, finely & sharply toothed, thick, shiny, oval, 5-10 cm long. Pinkish-whitish flowers urn-shaped, 5-15 at end of branch, 7-10 mm long. The fruit-like sepals, berries, dark-purple to reddish blue, edible, 6-10 mm broad. Prefers low to medium elevations, coniferous forest, rocky bluffs to seashore.

Ethnographic Information: For NW Coastal people it was a plentiful, important source of fruit. Fruit was mashed & dried into cakes, eaten fresh or dipped in grease. Berries were used for trading, selling, as a sweetener & thickener. Young leaves were chewed as hunger suppressant, used in various medicinal preparations.

3. Sword Fern

Chehalis - sa´xalum
Quinault - sk'e'e´tckl

Family: **Fern (Polypodiaceae)**
Genus: **Polystichum**
Species: **munitum**

Botanical Description: Large evergreen plant, straight leaves forming from thick, woody, scaly rhizome. Lance-shaped, straight to curving blades, once-pinnate, sharp-toothed, pointed, alternate leaflets. Circular, large sori (spore case on underside of fern leaf), attached centrally. Prefers low to medium elevations, moist forests.

Ethnographic Information: Eaten by most tribes. Young curled leaves chewed by Swinomish for sore throats and tonsillitis. Lummi women chewed the curled leaves to facilitate childbirth. Northwest Coastal peoples used sword ferns as a protective layer in pit oven, between food in storage boxes, baskets, and on berry-drying racks. Leaves were also used for flooring and bedding. Cooked rhizomes eaten by some people to cure diarrhea. Large rhizomes were dug in the spring, roasted over a fire or steamed then peeled and eaten as a starvation food.

4. Western Trillium

Quileute - kokots'tada´ktcl, "thieves' leaves"
Makah - tcatca'olk!us, "sad flower"

Family: **Lily (Liliaceae)**
Genus: **Trillium**
Species: **ovatum**

Botanical Description: Lovely, hairless perennial, height to 45 cm. Unstalked, triangular-oval leaves in whorls of 3 (up to 5). White 3-petaled flowers turn to pink-purple with age, with 3 green sepals (member of the outside ring of modified flower leaves), on single terminal stalk. Prefers low to medium elevations, moist-wet shaded open areas, forests, and streambanks.

Ethnographic Information: Bulb used in various medicinal preparations. Pounded bulb rubbed on the body as an aphrodisiac by Makah. Quinault women dropped the bulb into the food of a man they desire as a lover. Small oil-rich appendage is attractive to ants, up to 30% of seed dispersal is done by ants. Ants bring the seed back to their nests where they eat the appendage or feed it to larvae, discarding the remaining seeds on their rubbish piles, effective mechanism for seed dispersal of forests floor plants.

5. Skunk Cabbage or Swamp Lantern

Quinault - tsule´los, “digging the roots”
Quileute - t’o´qwa, “it smells”

Family: **Arum (Araceae)**
Genus: **Lysichiton**
Species: **americanus**

Botanical Description: Odiferous perennial, height to 150 cm. Large elliptical to lance-shaped leaves, net-veined, thin, tapering to short stout stalks up to 1.5 m long by .5 m wide. Numerous green-yellow flowers on thick fleshy spike, hooded by large bright-yellow bract. Prefers low to medium elevations, wet meadows, forests, swamps & seepage areas.

Ethnographic Information: Cooked roots & lower stalk eaten by many tribes. Skokomish steamed the young leaves for eating. Steamed or roasted in times of spring famine. Leaves used for wrapping, drying salal & elder berries. Leaves used to line baskets berry-drying racks & steam pits. Leaves, roots, blossoms used in various medicinal preparation.

6. False Lily of the Valley

Quinault - kle´qwan
Quileute - tse'a'tsilput, "kind of sour"

Family: **Lily (Liliaceae)**
Genus: **Maianthemum**
Species: **dilatatum**

Botanical Description: Elegant perennial, straight stems to 40 cm. Broad heart-shaped, alternate, smooth leaves, 1-3 with long stalk. Sweet smelling, small, white, 4 petaled flowers. Light green to mottled brown then turning red, round berries to 6 mm diameter. Prefers low to medium elevations, moist-wet shady woods, riverside areas, often dominant groundcover.

Ethnographic Information: Berries are occasionally eaten. Soaked, pounded roots used by Quinault to treat sore eyes. Seldom regarded a quality food, some claimed the berries needed to be ripe and oiled or they would cause stomach pains. Leaves were heated and applied to cuts. Young leaves were eaten as a 'spring purge'. Internal injuries were treated with a root tea.

7. Western Hemlock

Quileute - ti´la; te-e-thlu
Quinault - kuhwa'lp

Family: **Pine (Pinaceae)**
Genus: **Tsuga**
Species: **heterophylla**

Botanical Description: Tree up to 60 m tall, with a narrow droopy crown, branches sweep down with delicate, feathery foliage, Bark rough, scaly, furrowed, thick and reddish-brown. Leaves are short, blunt, flat needles, irregularly spaced & of unequal lengths, yellowish-green on top & whitish below. Oblong seed cones purplish-green turning brown at maturity, numerous pollen cones. Prefers low to middle elevations, fairly dry to wet sites, adapted to growing on decaying wood, (see nurse log behind this tree!), shade tolerant.

Ethnographic Information: Quinaults made a yellow-orange paint from mashed hemlock bark mixed with salmon eggs. Quileute used hemlock bark for tanning hides. A reddish dye made from the bark was used to camouflage fish nets. Smell of the dye reportedly attracts salmon. Haida people made large feast bowls from wood of bent hemlock trunks. Many tribes used boughs for bedding. Pitch was used for face paint, to prevent chapping & sunburn, & to rid the hair of vermin. Various medicinal preparations were made from the bark.

8. Red Alder

Quinault - malp
Klallam - s'ko'niltc

Family: **Birch (Betulaceae)**
Genus: **Alnus**
Species: **rubra**

Botanical Description: Deciduous tree, bark-thin grey, smooth, with white lichen patches, rusty-red inner bark & wood. Leaves- alternate, elliptic, vibrant green, smooth topped, w/ sharp-pointed base & tip, wavy, toothed edges that roll under - to 15 cm long. Cylindrical, spiked catkins appear before leaves. 2 cm long cones in clusters. Prefers low elevations, moist woods, stream banks, & disturbed areas.

Ethnographic Information: Widely used for woodworking, e.g., feast bowls, masks, rattles, canoe bailers & paddles. Fuel wood for smoking salmon & other fish. Bark used to line pots, make reddish brown dye to camouflage fish nets, for antibiotic & as a treatment for tuberculosis. Fixes atmospheric nitrogen into soil, improves disturbed soils.

9. Salmonberry

Chehalis - ye´twanl
Quinault - k'wklaxnix

Family: **Rose (Rosaceae)**
Genus: **Rubus**
Species: **spectabilis**

Botanical Description: Straight, branching shrub to 4 m tall, twigs bent with prickles; shredding, golden-brown bark. Deciduous, dark green, sharply-toothed alternate leaves in 3 leaflets. Large pink to reddish-purple flowers 4 cm across, up to 4 on short branches. Mushy, raspberry-looking, yellow-reddish berries. Prefers low to subalpine elevations, moist-wet forests, stream sides, avalanche tracks, disturbed sites.

Ethnographic Information:

- Berries eaten fresh by all tribes
- Berries not dried because of their high-water content
- Roasted new sprouts eaten with dried salmon
- Spring stem sprouts gathered as a green vegetable, peeled & eaten raw, or steamed
- Branch used for pipe stems
- Bark & leaves used in various pain-relieving preparations
- Ripening salmonberries associated with the song of Swainson's thrush, in many languages called, the "salmonberry bird"

10. Red Elderberry

Chehalis - k'la´lx.anl
Quinault - k'lo´manix

Family: **Honeysuckle (Caprifoliaceae)**
Genus: **Sambucus**
Species: **racemosa**

Botanical Description: Shrub to small tree, pithy, soft twigs with dark reddish brown, lumpy bark, height to 6 m. Large, opposite, deciduous, sharply -toothed, lanced-shaped leaves divided into 5-7 leaflets. Small, whitish, smelly flowers in multiple rounded clusters. Hard covered, bright-red berries with 3-5 seeds. Prefers low to medium elevations, stream banks, moist clearings and forests.

Ethnographic Information: Very important food for north and central coast peoples. Steamed berries, packed and buried for winter eating. Berries are small, seedy, and must be cooked, raw berries cause nausea. Archeologists have found caches of red elderberries dating back hundreds of years. After cooking made into jelly, wine or sauces. New stems, bark, leaves and roots are toxic, they contain cyanide-producing glycosides.

11. Oxalis or Wood Sorrel

Quinault - qwoi'ets'stap, "sour"
Quileute - ka'a·´lats

Family: **Wood Sorrel (Oxalidaceae)**
Genus: **Oxalis**
Species: **oregana**

Botanical Description: Large clover-look-alike perennial, sour, watery juice, brownish hairy flowering stems, scaly rhizomes, height to 15 cm. Compound, heart-shaped leaves, 3 folded, narrow-ended, basal leaflets, attached to stalks. Reddish veined, white-pale pink flowers, 12-20 mm long. Prefers low to medium elevations, moist, forested sites.

Ethnographic Information:

- Northwest Coastal people ate the leaves of the redwood sorrel
- Juice from the plant or roots applied to sore eyes
- Quileute used wilted leaves to draw boils
- Plants contain oxalic acid, gives it a sour, tangy taste, in large quantities, is potentially harmful.

12. Devil's Club

Klallam - pokltc
Cowlitz - sqaipqa´ipas

Family: **Ginseng (Araliaceae)**
Genus: **Oplopanax**
Species: **horridus**

Botanical Description: Thick stemmed, sprawling plant to 3 m tall, with large, yellowish spines. Big, alternate, deciduous maple-shaped, 7-9 sharply pointed, toothed, spiny under-sided leaves. Multiple, compact, small, whitish, flower heads, arranged in pyramidal shape from base. Shiny, bright-red, flattened berries in big, flashy pyramidal clusters. Prefers low to medium elevations, moist-wet woods, seepage areas, and stream sides.

Ethnographic Information:

- Considered one of the most important medicinal plants.
- Lummi use it to make face paint.
- Perfume, deodorant, and baby talc made from dried, pulverized bark.
- Cowlitz regarded the plant as a poison.
- Used in numerous medicinal preparations (closely related to ginseng).
- Roots used for treating arthritis, ulcers and digestive tract ailments and diabetes.
- Considered to protect against evil (perhaps due to the abundant spines) and used as a protective charm.
- Berries were rubbed on the scalp to combat lice, dandruff & to make hair shiny.
- Rheumatism & tuberculosis were treated with the inner bark.