

Top 5 Most Poisonous Plants of Washington

The Adiantum School of Plant Medicine

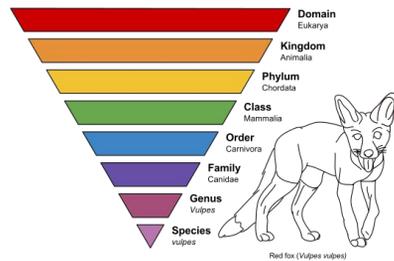


I do not recommend using these plants as medicine, or to ingest or touch them for any reason.

Are you....

1. A forager
2. A gardener
3. A hiker
4. An herbalist (or interested in herbalism)

Please answer in the chat window all that apply to you :)



Botanical names:

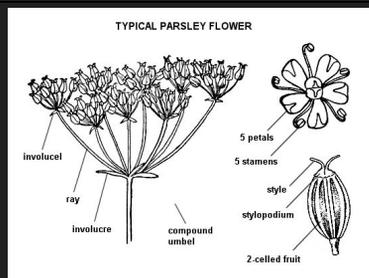
Rosa gymnocarpa

Rosa sp.

Rosa spp.

Rosa woodsii ssp. Ultramontana

Family: Rosaceae (Rose family)



Why medicinal plant families are helpful in identification... CARROT FAMILY

Poisonous vs. Toxic

Kills you

Makes you sick

When does poisoning usually happen?

- Children who eat or touch poisonous plants
- Pets or livestock that eat a poisonous plant
- Adults who misidentify a plant
- Adults who are using a poisonous plant as medicine
- Adults who are removing poisonous brush or plants for landscaping.
- Adults who burn poisonous plants on accident.



If you suspect poisoning from ingestion...

- Call poison control center immediately.
- If severe, go to the emergency room.
- Harvest a sample of the plant that was consumed (hospital will ask for this)
- Never leave the person alone
- They will likely pump your stomach with activated charcoal and give drugs to counteract fatal symptoms.
- If exposed on the skin, wash with water and soap.



How do poisons kill you?

- Most poisonous plants first cause nausea and vomiting: natural defense response.
- How they typically kill you:
 - effect heartbeat, blood pressure or heart rhythm leading to cardiac arrest.
 - Extreme nervous system sedation leading to respiratory failure
 - Sometimes from kidney failure or liver failure (less common with the plants we are looking at today)



How far from poisonous plants should I harvest?

- Dangers:
 - Accidentally harvesting a leaf or root and getting it mixed up in your bag
 - Plants share defense compounds.
- 3 foot radius AT LEAST.
- Be aware that there may be small sprouts or bits of root that you don't see.
- Some plants "borrow" heavily from other plants via soil fungi.
 - Yarrow
 - Pedicularis
- KNOW YOUR PATCH



Poison Hemlock *Conium maculatum*



Poison Hemlock

- Grows widely in Washington along roadsides and in parks
- 1 to 10 feet tall
- Irritation and rash on contact with skin
- Fumes can cause respiratory distress
- 10-20 ppl treated for poisoning in WA every year.
- Deaths are rare in WA. Maybe every 10 years
- A pea size portion of root can kill you within 3 hours
- Toxins linger in dead plant and soil for 3 years.
- Commonly sprayed with Roundup and other herbicides by city/ county.



How does poison hemlock kill you?

- "A short time after ingestion, the alkaloids produce potentially fatal neuromuscular dysfunction due to failure of the **respiratory muscles**."
- There is also ascending paralysis in the body, beginning at the feet.
- "For an adult, the ingestion of more than 100 mg (0.1 gram) of conium (about six to eight fresh leaves, or a smaller dose of the seeds or root) may be fatal."

'If Asses chance to feed much upon Hemlock, they will fall so fast asleep that they will seeme to be dead, in so much that some thinking them to be dead indeed have playd off their skins, yet after the Hemlock had done operating they have stirred and wakened out of their sleep, to the griefe and amazement of the owners.'

Art from Bane Folk
(products on society6)
@banefolk



The Death of Socrates



Historical Uses of Hemlock

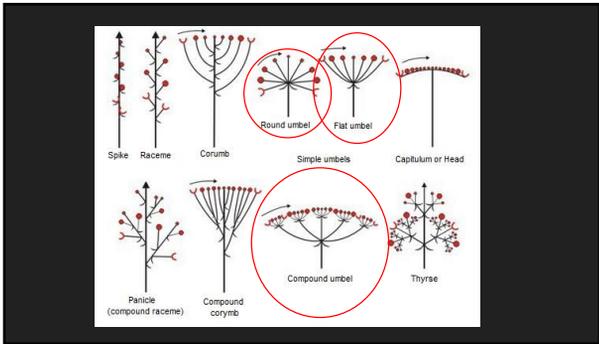
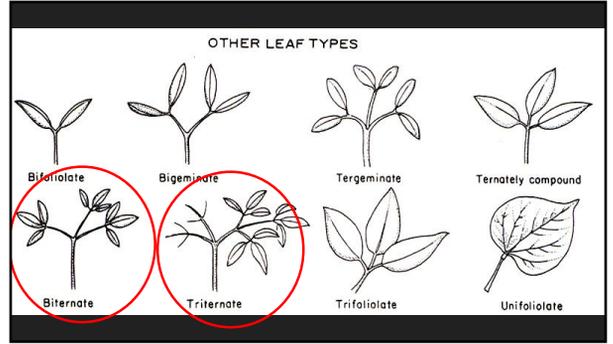
- REALLY SMALL doses
- Traditional preparation: "Succus conii": poison hemlock juice
- Overexcited nervous system (teething children listed in uses)
- Respiratory conditions that involve spasm or bronchoconstriction
- Also used for pain and to aid sleep
- Remember there was a time before pharmaceutical narcotics!



Along roadsides is the most common place to find this plant. It LOVES disturbed areas!



Photo by
Richard Old
www.ricoldservices.com



Look alikes

- Wild carrot
- osha
- Yarrow
- Carrot
- Celery
- Parsley
- Chervil
- Sweet cicely
- Angelica

 Two photographs of plants. The left one is labeled "Yarrow" and shows a cluster of small white flowers. The right one is labeled "Sweet cicely" and shows a plant with a similar inflorescence.




How to remove poison hemlock safely

1. Wear gloves and long sleeves
2. Eye protection and a mask are also recommended.
3. Put plant material in trash bag, avoiding contact with it as much as possible.
4. DO NOT COMPOST. Throw bag in the trash, sealed tightly.
5. Wash all gear that has contact with plant thoroughly.

A photograph showing a person wearing blue gloves and a purple long-sleeved shirt pulling a poison hemlock plant out of the ground. The plant has a thick, knotted root system.

Water Hemlock *Cicuta* spp.

The illustration shows two types of leaves side-by-side. On the left is the Water Hemlock, which has broad, lanceolate leaves with serrated edges. On the right is the Poison Hemlock, which has finely divided, fern-like leaves. Labels 'Water hemlock' and 'Poison hemlock' are placed above their respective illustrations.

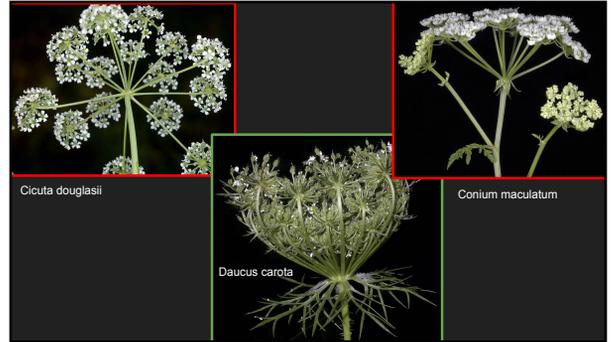
Where to watch out for water hemlock:

- marshes
- Wetlands
- Wet ditches
- Pastures
- ponds

A photograph of a water hemlock plant growing in a wetland or marshy area. The plant has a thick, knotted root system and is surrounded by other green vegetation.

Water hemlock: *Cicuta* spp.

- Many different species! We have *Cicuta maculata* and *Cicuta douglasii*
- Toxins concentrated in roots
- Most toxic in spring
- There are cases of death from even rubbing it on the skin
- Death of livestock can occur in 15 minutes or less if large amount is consumed
- Poison symptoms:
 - Initial symptoms: dizziness, confusion, abdominal pain, tremors, shaking, drowsiness, nausea and weakness.
 - Further on: Generalized seizure, loss of consciousness, hallucinations, tingling, numbness
- Death happens due to respiratory failure, like poison hemlock.



The Larkspurs and Monkshoods
Aconitum spp.
Delphinium spp.

ACONITE
aconitum napellus
 1. flower and leaf 2. tuberosities roots

Larkspurs (*Delphinium* spp.)

- Buttercup family
- 19 species grow in Washington



Upland larkspur: *Delphinium nuttallianum*

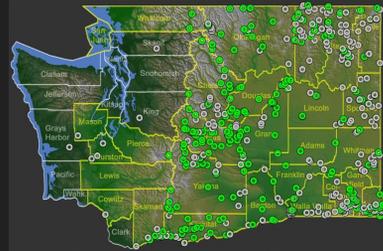


Upland larkspur: *Delphinium nuttallianum*



Upland larkspur:
Delphinium nuttallianum

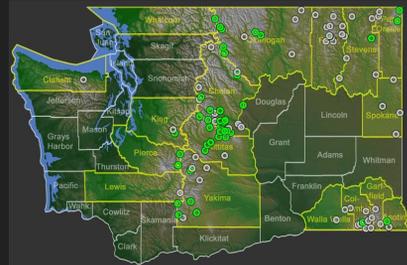
Distribution of upland larkspur



Columbian Monkshood: *Aconitum columbianum*



Distribution of *Aconitum columbianum*



Aconitum genus

- 250+ members in mountainous areas in northern hemisphere
- occasional white flowers.
- Seeds most toxic, then roots.
- *Aconitum nappellus*, aka Wolfsbane- repels werewolves
- Ink can be made from the flowers.
- Some species have been used topically for nerve pain.
- Used to coat arrow tips for hunting (India's brokpa people, Japan's Ainu people)



Poisoning symptoms: *Aconitum napellus*

- Aconitine: Neurotoxin and cardiotoxin
- Symptoms begin a few minutes to an hour after ingestion
- begins with numbness, shortness of breath, abnormal heart rate and chest pressure. Also GI symptoms like nausea, vomiting, diarrhea.
- Numb tongue and the feeling of ants crawling all over the body
- Death caused by
 - heart rhythm abnormalities (cases often present with slow or fast heart rate and abnormal heart rhythm)
 - respiratory failure (due to its sedative qualities)
- Most common poisonings are people using the plant as medicine.
- Contact with the skin may cause symptoms, but not expected to be fatal



Common Foxglove *Digitalis purpurea*

"It can raise the dead and kill the living"

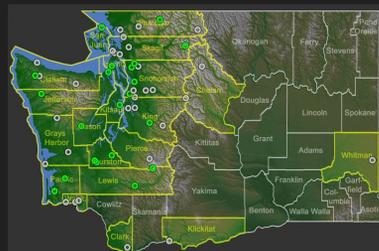


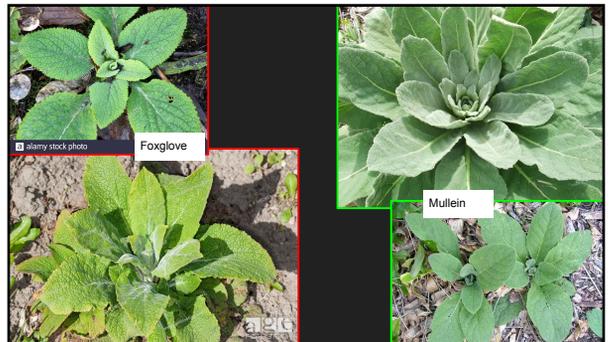
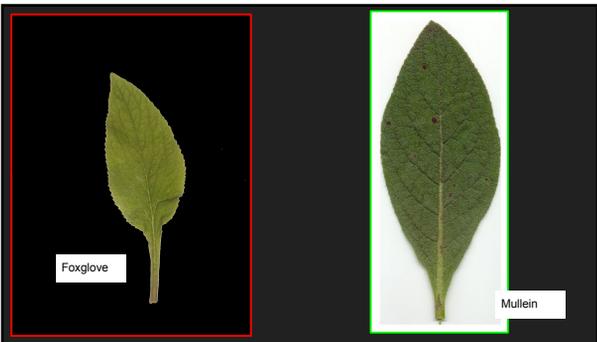
Foxglove Poisoning Symptoms

- Contains various cardiac glycosides.
- Fast or slow pulse, abnormal heart rhythm
- Nausea, Digestive disturbances
- May cause visual disturbances, including halos and colors.
 - Van Gogh's yellow period
- There are reports of recoveries from poisonings, which is more likely if you know it was foxglove that poisoned you.



Distribution of Common foxglove in WA



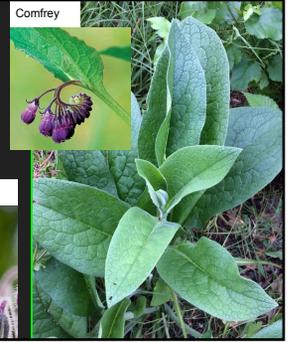


Foxglove Folklore

- Oldest name is "folks-glove" ("folks" = fairies)
- Associated with fairies
- Early flower language: riddles, conundrums and secrets
- Victorian flower language: insincerity



More foxglove look alikes



False hellebore *Veratrum spp.*



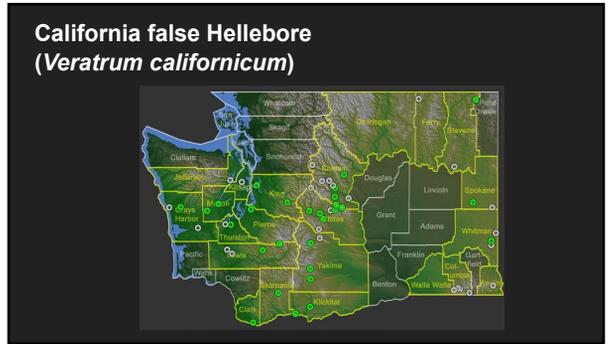
Symptoms and Cautions

- Aka "corn lily"
- high elevations in the cascades and olympics.
- Toxic compound is a steroidal alkaloid: veratridine
- Causes cardiac failure
- Symptoms: nausea and vomiting, sweating, low heart rate, cardiac arrhythmia, seizures.
- Root and rhizomes are most poisonous
- Symptoms 30 mins- 4 hours after ingestion
- Be careful of associated parasitic plants
 - Yarrow and pedicularis



American false Hellebore (*Veratrum viride*)





Other toxic plants

Not so worrisome but still good to know.





Giant hogweed
(*Heracleum mantegazzianum*)

Cow Parsnip *Heracleum maximum*

- Similar to *H. mantegazzianum*
- Shorter
- Also causes rash
- Used for food and medicine by first nations folks (peeled, of course)



Cow parsnip (*Heracleum maximum*)

Furanocoumarin rashes

- Highest in leaves
- Compounds are "phototoxic"
- Activated when exposed to UV rays
- Causes boils and hyperpigmentation
- Scars can last for years
- Wear GLOVES and SLEEVES when handling.



Creeping Buttercup (*Ranunculus repens*)

- Mild GI distress
- Very common weed
- No danger of dermatitis or contact reactions

Photo Credit

- Most pictures from Burke Herbarium Image Collection
 - <https://biology.burke.washington.edu/herbarium/imagecollection.php>



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