

Columbines School of Botanical Studies  
 Summer Apprenticeship Program  
 Trip #15, 16 Economic Botanical Survey

August 7-8, 2021

Middle Elevation Coniferous Woods and Riparian 4200'-4800'

<http://www.botanicalstudies.net/botany/plantlists.php>

| Uses                             | Name                                      | Notes               | Seen                |
|----------------------------------|---|---------------------|---------------------|
| <b>Food: Roots</b>               |   |                     |                     |
|                                  | Calochortus sp.                           | Cat's Ear's         |                     |
|                                  | Cirsium remotifolium (C. callilepis)      | Mountain Thistle    | x                   |
|                                  | Dodecatheon jeffreyi                      | Shooting Star       | x                   |
|                                  | Hypochaeris radicata                      | False dandelion     |                     |
|                                  | Lilium columbianum                        | Tiger Lily          | No Pick             |
|                                  | Lilium washingtonianum                    | Cascade Lily        | No Pick             |
|                                  | Osmorhiza berteroi (O. chilensis)         | Sweet Cicely        |                     |
|                                  | Platanthera dilatata (Habenaria d.)       | White Rein Orchid   | No Pick x           |
|                                  | Platanthera stricta (Habenaria saccata)   | Green Rein Orchid   | No Pick x           |
|                                  | Xerophyllum tenax                         | Beargrass           |                     |
| <b>Food: Greens and Potherbs</b> |   |                     |                     |
|                                  | Achlys triphylla                          | Vanilla Leaf        | x                   |
|                                  | Calochortus sp.                           | Cat's Ear's         |                     |
|                                  | Caltha biflora                            | Marsh Marigold      | Cooked x            |
|                                  | Castilleja miniata                        | Paintbrush          | Concentrates Toxins |
|                                  | Chamaenerion angustifolium (Epilobium a.) | Fireweed            |                     |
|                                  | Cirsium remotifolium (C. callilepis)      | Mountain Thistle    | x                   |
|                                  | Claytonia perfoliata (Montia p.)          | Miner's Lettuce     | x                   |
|                                  | Claytonia sibirica (Montia s.)            | Candyflower         |                     |
|                                  | Cornus unalaschkensis (C. canadensis)     | Bunchberry          | x                   |
|                                  | Dodecatheon jeffreyi                      | Shooting Star       | x                   |
|                                  | Epilobium glandulosum                     | Willow Herb         | Turions             |
|                                  | Erythranthe guttata (Mimulus g.)          | Yellow Monkeyflower |                     |
|                                  | Erythranthe moschata (Mimulus moschatus)  | Musk Monkeyflower   |                     |
|                                  | Gallium oreganum                          | Bedstraw, Cleavers  |                     |
|                                  | Gallium triflorum                         | Bedstraw, Cleavers  | x                   |
|                                  | Hydrophyllum tenuipes                     | Waterleaf           |                     |
|                                  | Hypochaeris radicata                      | False dandelion     |                     |
|                                  | Leucanthemum vulgare (Chrysanthemum l.)   | Ox Eye Daisy        |                     |
|                                  | Ligusticum grayi                          | Oshala              |                     |
|                                  | Lilium columbianum                        | Tiger Lily          | No Pick             |
|                                  | Lilium washingtonianum                    | Cascade Lily        | No Pick             |
|                                  | Osmorhiza berteroi (O. chilensis)         | Sweet Cicely        |                     |
|                                  | Phacelia sp.                              | Phacelia            |                     |

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|---|---------------------|---------|------|
| Plantago major                          | Plantain            |         | x    |
| Platanthera dilatata (Habenaria d.)     | White Rein Orchid   | No Pick | x    |
| Platanthera stricta (Habenaria saccata) | Green Rein Orchid   | No Pick | x    |
| Prunella vulgaris                       | Self Heal, Heal All |         |      |
| Rosa sp.                                | Wild Rose           |         |      |
| Rumex acetosella                        | Sheep Sorrel        |         |      |
| Stachys cooleyae                        | Hedge Nettle        |         | x    |
| Trifolium longipes                      | Native Clover       |         |      |
| Trillium ovatum                         | Trillium            | No Pick |      |
| Viola adunca                            | Field Violet        |         |      |
| Viola glabella                          | Woods Violet        |         | x    |
| Viola orbiculata                        | Dark Woods Violet   |         |      |
| Viola sp.                               | Violet              |         |      |
| Xerophyllum tenax                       | Beargrass           |         |      |

### Food: Fruits

|  |                            |           |   |
|--|----------------------------|-----------|---|
| Amelanchier alnifolia                      | Serviceberry               |           |   |
| Calochortus sp.                            | Cat's Ear's                |           |   |
| Chamaenerion angustifolium (Epilobium a.)  | Fireweed                   |           |   |
| Chimaphila menziesii                       | Baby Pipsissewa            | Unripe    |   |
| Chimaphila umbellata                       | Pipsissewa                 | Unripe    | x |
| Chrysolepis chrysophylla                   | Golden Chinquapin          |           | x |
| Cornus unalaschkensis (C. canadensis)      | Bunchberry                 |           | x |
| Dodecatheon jeffreyi                       | Shooting Star              |           | x |
| Epilobium glandulosum                      | Willow Herb                | Turions   |   |
| Fragaria sp.                               | Wild Strawberry            |           | x |
| Gaultheria ovatifolia                      | Baby Salal                 |           | x |
| Lilium columbianum                         | Tiger Lily                 | No Pick   |   |
| Lilium washingtonianum                     | Cascade Lily               | No Pick   |   |
| Lonicera involucrata                       | Twinberry                  | Edible    |   |
| Maianthemum racemosum (Smilacina racemosa) | Large False Solomon's Seal | Cathartic |   |
| Maianthemum stellatum (Smilacina stellata) | Small False Solomon's Seal | Cathartic | x |
| Orthilia secunda (Pyrola s.)               | One-sided Pyrola           |           |   |
| Prosartes hookeri (Disporum h.)            | Fairy Bells                |           |   |
| Pyrola picta                               | White-veined Pyrola        |           |   |
| Ribes bracteosum                           | Stinking Black Currant     |           |   |
| Ribes lacustre                             | Swamp Currant              |           |   |
| Ribes sp.                                  | Currant, Gooseberry        |           |   |
| Ribes viscosissimum                        | Sticky Currant             |           |   |
| Rosa sp.                                   | Rosehips                   |           |   |
| Rubus lasiococcus                          | Dwarf Bramble              |           | x |

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|------------------------------------|-----------------------|---------|------|
| Rubus leucodermis                  | Blackcap Raspberry    |         | x    |
| Rubus nutkanus (R. parviflorus)    | Thimbleberry          |         | x    |
| Rubus spectabilis                  | Salmonberry           |         | x    |
| Rubus ursinus                      | Blackberry            |         | x    |
| Sorbus scopulina                   | Mountain Ash          |         | x    |
| Streptopus lanceolatus (S. roseus) | Rosy Twisted Stalk    |         |      |
| Trillium ovatum                    | Trillium              | No Pick |      |
| Vaccinium membranaceum             | Mountain Huckleberry  |         | x    |
| Vaccinium ovalifolium              | Oval-Leaf Huckleberry |         | x    |
| Vaccinium uliginosum               | Bog Huckleberry       |         | x    |
| Xerophyllum tenax                  | Beargrass             |         |      |

### Food: Spices/Teas

|                                   |                     |        |   |
|-----------------------------------|---------------------|--------|---|
| Achlys triphylla                  | Vanilla Leaf        |        | x |
| Angelica arguta                   | Angelica            |        |   |
| Angelica genuflexa                | Angelica            |        |   |
| Asarum caudatum                   | Wild Ginger         |        | x |
| Fragaria sp.                      | Wild Strawberry     |        | x |
| Heracleum maximum (H. lanatum)    | Cow Parsnip         | Strong | x |
| Ligusticum grayi                  | Oshala              |        |   |
| Osmorhiza berteroi (O. chilensis) | Sweet Cicely        |        |   |
| Prunella vulgaris                 | Self Heal, Heal All | Simple |   |
| Rosa sp.                          | Wild Rose           |        |   |
| Rubus lasiococcus                 | Dwarf Bramble       |        | x |
| Rubus leucodermis                 | Blackcap Raspberry  |        | x |
| Rubus nutkanus (R. parviflorus)   | Thimbleberry        |        | x |
| Rubus spectabilis                 | Salmonberry         |        | x |
| Rubus ursinus                     | Blackberry          |        | x |
| Trifolium longipes                | Native Clover       |        |   |

### Alteratives incl. Diaphoretics and Diuretics

|                                  |                    |              |   |
|----------------------------------|--------------------|--------------|---|
| Achillea millefolium             | Yarrow             | Diaphoretic  | x |
| Angelica arguta                  | Angelica           | Reproductive |   |
| Angelica genuflexa               | Angelica           |              |   |
| Asarum caudatum                  | Wild Ginger        | Diaphoretic  | x |
| Chimaphila menziesii             | Baby Pipsisewa     | Diuretic     |   |
| Chimaphila umbellata             | Pipsisewa          | Diuretic     | x |
| Gallium oreganum                 | Bedstraw, Cleavers | Diuretic     |   |
| Gallium triflorum                | Bedstraw, Cleavers | Diuretic     | x |
| Ligusticum grayi                 | Oshala             |              |   |
| Oplopanax horridum (O. horridum) | Devil's Club       | Alterative   | x |
| Orthilia secunda (Pyrola s.)     | One-sided Pyrola   | Diuretic     |   |

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|------------------------|-----------------------|-------------|------|
| Pyrola picta           | White-veined Pyrola   | Diuretic    |      |
| Rudbeckia occidentalis | Coneflower            | Diuretic    | x    |
| Sambucus racemosa      | Red Elder             | Diaphoretic | x    |
| Vaccinium membranaceum | Mountain Huckleberry  | Diuretic    | x    |
| Vaccinium ovalifolium  | Oval-Leaf Huckleberry | Diuretic    | x    |
| Vaccinium uliginosum   | Bog Huckleberry       | Diuretic    | x    |

### Aromatic/Bitters

|                                   |                 |        |   |
|-----------------------------------|-----------------|--------|---|
| Achillea millefolium              | Yarrow          |        | x |
| Angelica arguta                   | Angelica        |        |   |
| Angelica genuflexa                | Angelica        |        |   |
| Asarum caudatum                   | Wild Ginger     |        | x |
| Heracleum maximum (H. lanatum)    | Cow Parsnip     | Strong | x |
| Ligusticum grayi                  | Oshala          |        |   |
| Osmorhiza berteroi (O. chilensis) | Sweet Cicely    |        |   |
| Pedicularis bracteosa             | Cobrahead       | Bitter | x |
| Pedicularis groenlandica          | Elephant's Head | Bitter | x |
| Pedicularis racemosa              | Parrot's Beak   | Bitter | x |

### Astringents

|  |                                |  |   |
|--|--------------------------------|--|---|
| Anaphalis margaritacea                                     | Pearly Everlasting             |  | x |
| Bistorta bistortoides (Polygonum b.)<br>cf. Potentilla sp. | Mountain Bistort<br>Potentilla |  |   |
| Chamaenerion angustifolium (Epilobium a.)                  | Fireweed                       |  |   |
| Chimaphila menziesii                                       | Baby Pipsissewa                |  |   |
| Chimaphila umbellata                                       | Pipsissewa                     |  | x |
| Cornus unalaschkensis (C. canadensis)                      | Bunchberry                     |  | x |
| Fragaria sp.   | Wild Strawberry                |  | x |
| Gaultheria ovatifolia                                      | Baby Salal                     |  | x |
| Geum macrophyllum  | Geum, Avens                    |  | x |
| Orthilia secunda (Pyrola s.)                               | One-sided Pyrola               |  |   |
| Pyrola picta   | White-veined Pyrola            |  |   |
| Ribes bracteosum   | Stinking Black Currant         |  |   |
| Ribes lacustre   | Swamp Currant                  |  |   |
| Ribes sp.  | Currant, Gooseberry            |  |   |
| Ribes viscosissimum  | Sticky Currant                 |  |   |
| Rosa sp.   | Wild Rose                      |  |   |
| Rubus lasiococcus  | Dwarf Bramble                  |  | x |
| Rubus leucodermis  | Blackcap Raspberry             |  | x |
| Rubus nutkanus (R. parviflorus)                            | Thimbleberry                   |  | x |
| Rubus spectabilis  | Salmonberry                    |  | x |
| Rubus ursinus  | Blackberry                     |  | x |

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|------------------------|-----------------------|-------|------|
| Salix sp.              | Willow                |       |      |
| Sorbus scopulina       | Mountain Ash          |       | x    |
| Spirea douglasii       | Spirea                |       |      |
| Stachys cooleyae       | Hedge Nettle          |       | x    |
| Vaccinium membranaceum | Mountain Huckleberry  |       | x    |
| Vaccinium ovalifolium  | Oval-Leaf Huckleberry |       | x    |
| Vaccinium uliginosum   | Bog Huckleberry       |       | x    |

### Calming Herbs, Nervines

|                                  |                              |         |   |
|----------------------------------|------------------------------|---------|---|
| Corallorhiza maculata            | Spotted Coral Root           | No Pick |   |
| Corallorhiza mertensiana         | Western or Purple Coral Root | No Pick | x |
| Hypericum anagalloides           | Bog St. John's Wort          |         |   |
| Hypericum perforatum             | St. John's Wort              |         | x |
| Hypericum scouleri (H. formosum) | St. John's Wort              |         | x |
| Pedicularis bracteosa            | Cobrahead                    |         | x |
| Pedicularis groenlandica         | Elephant's Head              |         | x |
| Pedicularis racemosa             | Parrot's Beak                |         | x |
| Stachys cooleyae                 | Hedge Nettle                 | Mild    | x |
| Valeriana sitchensis             | Valerian                     |         | x |

### Demulcents, Emollients

|  |                            |                 |   |
|--|----------------------------|-----------------|---|
| Goodyera oblongifolia                      | Rattlesnake Plantain       | No Pick         |   |
| Maianthemum racemosum (Smilacina racemosa) | Large False Solomon's Seal |                 |   |
| Mertensia paniculata                       | Oregon Bluebells           | External (PA's) |   |
| Penstemon sp.                              | Penstemon                  | Emollient       |   |
| Plantago major                             | Plantain                   |                 | x |
| Viola adunca                               | Field Violet               |                 |   |
| Viola glabella                             | Woods Violet               |                 | x |
| Viola orbiculata                           | Dark Woods Violet          |                 |   |
| Viola sp.                                  | Violet                     |                 |   |

### Analgesics, Anesthetics

|                                |             |            |   |
|--------------------------------|-------------|------------|---|
| Heracleum maximum (H. lanatum) | Cow Parsnip | Nerve Pain | x |
| Salix sp.                      | Willow      |            |   |
| Spirea douglasii               | Spirea      |            |   |

### Misc.

|                        |                    |            |   |
|------------------------|--------------------|------------|---|
| Achillea millefolium   | Yarrow             | Hemostatic | x |
| Anaphalis margaritacea | Pearly Everlasting | Pretty     | x |
| Arnica cordifolia      | Heart Leaf Arnica  | Injury     | x |

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| Uses                                    | Name                  | Notes                          | Seen |
|---|-----------------------|--------------------------------|------|
| Chimaphila menziesii                    | Baby Pipsissewa       | Root Beer, Smoke               |      |
| Chimaphila umbellata                    | Pipsissewa            | Root Beer, Smoke               | x    |
| Gallium oreganum                        | Bedstraw, Cleavers    | Burns                          |      |
| Gallium triflorum                       | Bedstraw, Cleavers    | Burns                          | x    |
| Hypericum anagalloides                  | Bog St. John's Wort   | Anti-viral                     |      |
| Hypericum perforatum                    | St. John's Wort       | Anti-viral                     | x    |
| Hypericum scouleri (H. formosum)        | St. John's Wort       | Anti-viral                     | x    |
| Leucanthemum vulgare (Chrysanthemum l.) | Ox Eye Daisy          | Allergies                      |      |
| Pedicularis bracteosa                   | Cobrahead             | Smoke                          | x    |
| Pedicularis groenlandica                | Elephant's Head       | Smoke                          | x    |
| Pedicularis racemosa                    | Parrot's Beak         | Smoke                          | x    |
| Plantago major                          | Plantain              | Drawing Poultice, Burns        | x    |
| Prunella vulgaris                       | Self Heal, Heal All   | Salve                          |      |
| Trillium ovatum                         | Trillium              | No Pick, Uterine<br>Astringent |      |
| Vaccinium membranaceum                  | Mountain Huckleberry  | Blood Sugar                    | x    |
| Vaccinium ovalifolium                   | Oval-Leaf Huckleberry | Blood Sugar                    | x    |
| Vaccinium uliginosum                    | Bog Huckleberry       | Blood Sugar                    | x    |
| Xerophyllum tenax                       | Beargrass             | Fiber                          |      |

### Topics of Botanical Interest

|                                       |                      |                                 |   |
|---------------------------------------|----------------------|---------------------------------|---|
| Aconitum columbianum                  | Monkshood            | Very Poison                     | x |
| Actaea rubra                          | Baneberry            |                                 |   |
| Boykinia major                        | Boykinia             | Possible Valerian<br>Indicator  | x |
| Cicuta douglasii                      | Water Hemlock        | Very similar to other<br>umbels |   |
| Lysichiton americanus (L. americanum) | Skunk Cabbage        | Very Big Leaves                 | x |
| Monotropa hypopitys (Hypopitys m.)    | Hairy Pinesap        | Mycotroph                       |   |
| Senecio triangularis                  | Arrow Leaf Groundsel | PA's                            | x |
| Veratrum californicum                 | Veratrum             | Very Poison                     |   |
| Veratrum sp.                          | Veratrum             | Very Poison                     |   |
| Veratrum viride                       | Veratrum             | Very Poison                     | x |

### Animal Interactions

|  |                        |  |   |
|--|------------------------|--|---|
| Aplodontia Haying                          | Mountain Beaver Haying |  | x |
| Aplodontia Holes                           | Mountain Beaver Holes  |  | x |
| Brown Frogs, Big and Little                |                        |  |   |
| Calliope Hummingbird                       |                        |  |   |
| Caterpillar                                |                        |  |   |
| Cinnabar Moths eating Senecio triangularis |                        |  |   |

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| Uses                         | Name                         | Notes             | Seen |
|------------------------------|------------------------------|-------------------|------|
| Deer Bed                     |                              |                   |      |
| Deer Prints                  |                              |                   |      |
| Deer Scat                    |                              |                   |      |
| Deer Trails                  |                              |                   |      |
| Dissosteira carolina         | Carolina Grasshopper         | Clickity-clickity |      |
| Doe                          |                              |                   |      |
| Elk Bed                      |                              |                   | x    |
| Elk Prints                   |                              |                   |      |
| Elk Scat                     |                              |                   |      |
| Elk Trails                   |                              |                   |      |
| Gopher mounds                |                              |                   |      |
| Grouse                       |                              |                   |      |
| Raven                        |                              |                   |      |
| Red Tailed Hawk              |                              |                   |      |
| Red Tailed Hawk Tail Feather | Red Tailed Hawk Tail Feather |                   |      |
| Turd in Veratrum             |                              |                   |      |

**Columbines School of Botanical Studies**  
**Summer Apprenticeship**  
**Class Highlights Trip #15-16**  
August 7-8, 2021

**Places Visited**

- Middle Elevation Coniferous Woods, Meadows, Clearcuts, and Riparian

**Topics Covered**

- Plant Family Characteristics
- Economic Botanical Survey
- Araliaceae: Racemes or panicles of umbels
- Onagraceae: Flowers 4-merous, inferior ovary
- Keyed out *Veratrum viride* and *Chamaenerion angustifolium* (*Epilobium a.*)
- *Aplodontia* lifestyles
- Meadow locating from the *Xerophyllum*, through the *Vaccinium*, past the *Rudbeckia*, and turn right at the *Pedicularis groenlandica*. We used the water gradient for locating.
- Areas with water in spring may dry up in the summer. Use the plants as indicators of water.
- *Pedicularis groenlandica* leaves are harvestable even now, and the stands are easy to locate. The stand blooms at different times making the true population size hard to assess. The full population size is apparent now that the basal growth had thickened and the flower stems are senescent. Noticed that plants that were foraged when flowering had thicker basal leaf growth.
- Harvesting near poisons. Unidentified umbels and *Aconitum columbianum* bulbils were plentiful. Use extra caution when eating berries and harvesting and processing *Pedicularis groenlandica* or other wetland species.
- How much to harvest? Learn to limit the harvest to specific amounts to fit the processing time and supplies. For this trip, it wasn't critical, but other times one can harvest more than they are able to process or use.

**Herbs Harvested**

- Located, harvested, processed *Pedicularis racemosa* above ground parts for tincture.
- Located, harvested, processed *Pedicularis groenlandica* leaf for tincture.
- Located, harvested, processed *Heracleum maximum* (*H. lanatum*) seeds for tincture.

**Berries Tasted**

- *Vaccinium membranaceum*, mountain huckleberry
- *Vaccinium ovalifolium*, huckleberry



- *Vaccinium uliginosum*, bog huckleberry
- *Rubus nutkanus* (*R. parviflorus*), thimbleberry
- *Rubus spectabilis*, salmonberry
- *Rubus ursinus*, blackberry
- *Rubus leucodermis*, blackcap raspberry
- *Gaultheria ovatifolia*, baby salal
- *Ribes lacustre*, swamp currant
- *Fragaria* sp., wild strawberry
- *Cornus unalaschkensis* (*C. canadensis*), bunchberry