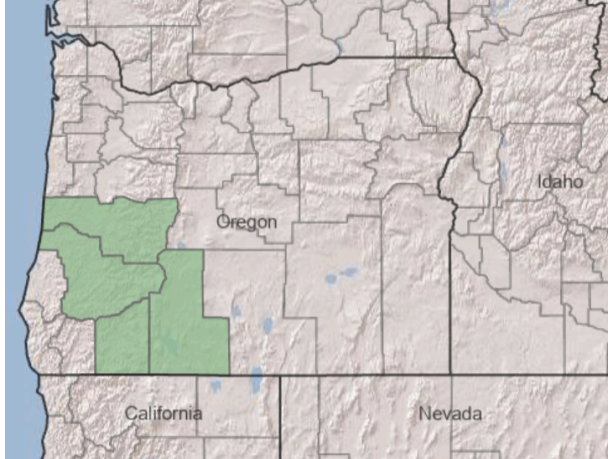


Plant Propagation Protocol for *Asarum Wagneri*

ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2026/ASWA6.pdf>

North America Distribution:


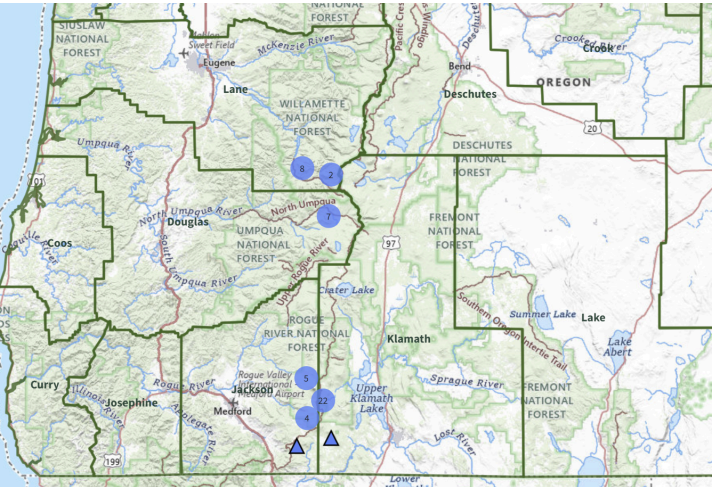


Endemic ecoregion:



Source: USDA PLANTS Database¹⁰, Oregon Flora Project⁵

| TAXONOMY | |
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| Plant Family | |
| Scientific Name | Aristolochiaceae |
| Common Name | Birthwort family |
| Species Scientific Name | |
| Scientific Name | <i>Asarum wagneri</i> K.L.Lu & M.R.Mesler |
| Varieties | |
| Sub-species | |
| Cultivar | |
| Common Synonym(s) | <i>Asarum caudatum</i> Lindl. var. <i>viridiflorum</i> M. Peck |
| Common Name(s) | Longtail wildginger, Wagner’s wildginger, Green-flowered wildginger. ^{5, 11} |
| | <i>Source 5 is based on related species Asarum caudatum</i> |
| Species Code | ASWA6 [ASCAV] |
| GENERAL INFORMATION | |
| Geographical range | Endemic to Cascades in southern Oregon |
| | <ul style="list-style-type: none"> • Eastern Foothills and Slopes (see image top right).⁵ Counties where longtail wildginger has been observed shown top left¹. Comparison of counties observed to observations with county lines shown below.^{5, 11} |
| | <i>Source 5 is based on related species Asarum caudatum</i> |

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| <p>Ecological distribution</p> | <p>Shady, moist understories of conifer forests, riparian areas, pumice slopes, meadows, or other sheltered/damp areas. Soils moist but well drained, can tolerate clay.⁴</p> |
| <p>Climate and elevation range <i>Sources 2 and 12 are based on related species Asarum caudatum</i></p> | <p>Shady areas, high moisture, Plant Hardiness zones 6A - 7B according to USDA and map of observations above. These correspond to mean minimum winter temperatures of -5 to 10 degrees F. However, microclimate is likely much warmer in forested understories and ideal habitats.¹⁰</p> <p>Precipitation primarily occurs during Winter and Spring, high humidity, and with a dry summer and fall.¹²</p> <p>Low-mid elevations (900–2600 m) [2a] (1500 - 3200m).²</p> |

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| <p>Local habitat and abundance <i>Sources 2 and 12 are based on related species Asarum caudatum</i></p> | <p>Endemic to the Eastern Slopes and Foothills of the Cascades in Southern Oregon, rare species though likely to be abundant when found.^{2,4}</p> <p>Often found in the understory of <i>Abies</i> forests and in boulder fields of <i>Tsuga</i> forests close to the timber line.²</p> <p>Commonly associated species include: grand fir (<i>Abies grandis</i>), Douglas-fir (<i>Pseudotsuga menziesii</i>), white fir (<i>Abies concolor</i>), Pacific yew (<i>Taxus brevifolia</i>), western white pine (<i>Pinus monticola</i>), big huckleberry (<i>Vaccinium membranaceum</i>), Rocky Mountain maple (<i>Acer glabrum</i>), twinflower (<i>Linnaea borealis</i>), Oregon boxwood (<i>Paxistima myrsinites</i>), lady fern (<i>Athyrium filix-femina</i>), queencup beadlily (<i>Clintonia uniflora</i>), pioneer violet (<i>Viola glabella</i>), western sword fern (<i>Polystichum munitum</i>), oak fern (<i>Gymnocarpium dryopteris</i>), drops of gold (<i>Disporum hookeri</i>), American trailplant (<i>Adenocaulon bicolor</i>), and threelobed foamflower (<i>Tiarella trifoliata</i>).^{11, 12}</p> |
| <p>Plant strategy type / successional stage <i>Sources 2 and 12 are based on related species Asarum caudatum</i></p> | <p>Stress-tolerators and late-successional perennials, but can be found across mid-late successional stages.^{2, 11, 12}</p> |
| <p>Plant characteristics <i>Source 2 is based on related species Asarum caudatum</i></p> | <p>Deciduous, rhizomatous, perennial herb (forb).¹</p> <p>Roots spread by horizontal rhizomes are sometimes buried deep. Internodes are ~0.5 - 2.1cm long.^{2,4}</p> <p>Each leaf has a petiole 3 - 15cm long, sometimes with coarse, curly hairs. Leaf blade is not variegated [multi-colored]/is monochrome, and generally kidney to heart-shaped. Blades are roughly 3 - 8cm long and 4-11cm wide. The leaf tip shape spans from blunt to rounded. The underside of the leaves have a few hairs while the surface is mostly smooth (some hairs along leaf veins).^{2,4}</p> <p>The flowers stand upright or angle upward with peduncles (short stalks) ~0.8 - 3cm long. The false calyx (outer floral cup) is rounded to an urn-shape, light green on the outside, and sparsely - moderately hairy. Inside (sepal) is light green to white, commonly</p> |

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| | <p>with purple borders or stripes and purple hairs. The sepal spreads outwards then bends upwards. It is about 8-20mm long, with a narrow pointed tip. Pollen sacs are small (1 - 2mm) and the inner stamens have a dark red sterile tip (0.25 - 1mm) shorter than its pollen sacs.^{2,4}</p> <p>The flowers bloom from spring to mid-summer.^{2,4}</p> |
| PROPAGATION DETAILS: FROM SEED | |
| Ecotype | N/A |
| Propagation Goal | Plants |
| Propagation Method | Seed |
| Product Type | Plant |
| Stock Type | Bareroot |
| Time to Grow | 1 year (6 months germination, 6 months growth) |
| Target Specifications | Established flowering plant/rhizome system |
| Propagule Collection Instructions <i>Source 7 is based on related species Asarum caudatum</i> | Best done during mid-late Summer months during flowering when seeds ripen, mature seeds can be difficult to collect, but the plant seeds itself often. ^{1,7} |
| Propagule Processing/Propagule Characteristics <i>Source 3 is based on related species Asarum canadense</i> <i>Source 7 is based on related species Asarum caudatum</i> | Seeds must be stored or sown soon after harvest due to low longevity. ⁷ Best planted immediately, but can be stored in a cool, damp environment. ³ Can be shipped maintaining these conditions. |
| Pre-Planting Propagule Treatments <i>Sources 7 and 12 are based on related species Asarum caudatum</i> | Seeds must be washed and cleaned properly to germinate. ⁷ Seeds should be sown directly following harvest, ideally moved to a cold frame to induce stratification. Stored seeds will require 3 weeks of cold stratification. ¹² |
| Growing Area Preparation / Annual Practices for Perennial Crops | Prepare a moist, warm bed with humus-dense, loamy soil for seedlings to germinate in. ¹ Keep soil moist and periodically reapply mulch. ¹ |
| Establishment Phase Details <i>Source 3 is based on related species Asarum canadense</i> | Sow seeds on the surface of the ground barely covered. Moist media is preferred in a warm area. ¹ Plant seeds 12-24" apart. ⁹ These seedlings require a temperature fluctuation to germinate, thus outdoor planting is convenient. ³ |

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| Length of Establishment Phase <i>Source 12 is based on related species Asarum caudatum</i> | Fall to the following Spring (~4-6 months). ⁹ Germinate after 1 - 4 weeks at 65 degrees. ¹² |
| Active Growth Phase | Germinated seedlings should immediately be placed outdoors in media to begin growing. ¹ Keep soils moist with mulching and regular watering. ⁸ |
| Length of Active Growth Phase | ~3 - 6 months (germination in spring - beginning of dormancy in late summer/early fall). ^{1,8} |
| Hardening Phase | If propagating in a nursery, plants must be effectively transitioned into cold temperatures to properly undergo hardening and the die off of above-ground tissues. Also minimizing water and nutrient inputs. ^{1,8} |
| Length of Hardening Phase | ~4 - 6 months from Fall/Winter - Spring. ¹ |
| Harvesting, Storage and Shipping | No information |
| Length of Storage | No information |
| Guidelines for Outplanting / Performance on Typical Sites | Survival rates vary with seed lots and slower growth than vegetative propagation. ¹ Grow up to 6 - 8 inches tall and 12 - 18 inches wide. ³ |
| Other Comments <i>Source 12 is based on the related species Asarum caudatum.</i> | Do not harvest wild longtail wildginger for Propagation. ^{11, 12} |
| PROPAGATION DETAILS: VEGETATIVE | |
| Ecotype | N/A |
| Propagation Goal | Plants / Rhizomes |
| Propagation Method | Vegetative |
| Product Type | Rhizomes |
| Stock Type | Stock plants |
| Time to Grow | 3-4 months |
| Target Specifications | Established individuals (flowering and rhizome system established) |
| Propagule Collection Instructions <i>Source 5 is based on related species Asarum caudatum</i> | 6-8 inch intervals of rhizomes should be made with a spade. These can be transplanted to produce a new plant. These are best taken late summer to early fall when the parental plant is no longer flowering and has entered dormancy. ^{1,5} |

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| | Rhizomes also need to be stored in a cool, damp environment and can be shipped maintaining this environment. ³ |
| Propagule Processing/Propagule Characteristics <i>Source 6 is based on related species Asarum caudatum</i> | Rhizomes can remain viable in a dormant state for a up to a year following root division. ⁶ |
| Pre-Planting Propagule Treatments | Remove loose soil, separate into segments with at least 1 bud. ¹ |
| Growing Area Preparation / Annual Practices for Perennial Crops | Prefer loamy, humus rich soils. ⁵ Plant individuals 12-24 inches apart in groups. ⁹ Rhizomes should be planted ~1cm deep with the tip at the level of the soil. Cover with mulch to maintain moisture. Initially grow in sand until rooting. ⁸ |
| Establishment Phase Details | Keep soil moist and sufficiently mulched. ⁴ |
| Length of Establishment Phase | No information available |
| Active Growth Phase <i>Source 3 is based on related species Asarum canadese.</i> | Maintain soil moisture without overwatering. Apply mulch as needed. ^{3,8} |
| Length of Active Growth Phase | 4-6 months (Spring - Late Summer/Fall). ^{1,7} |
| Hardening Phase <i>Source 3 is based on the related species Asarum caudatum.</i> | Keep soil evenly moist ^{3,4,8} . Relatively low maintenance required. Retain the required temperature fluctuation imitating annual temperate seasons if propagating in a nursery to properly trigger hardening. ³ |
| Length of Hardening Phase | ~4-6 months (early Fall - Spring). ¹ |
| Harvesting, Storage and Shipping | Products and propagules processing, storage, and characteristics are identical. |
| Length of Storage <i>Source 3 is based on the related species Asarum caudatum.</i> | Rhizomes: Short-term, a few weeks or months. ³ Plants: No information |
| Guidelines for Outplanting / Performance on Typical Sites <i>Sources 5 and 7 are based on related species Asarum caudatum</i> | Rhizome: Prefer loamy, humus rich soils. ⁵ Plant individuals 12-24 inches apart in groups. ⁹ Rhizomes should be planted ~1cm deep with the tip at the level of the soil. Cover with mulch to maintain moisture. Initially grow in sand until rooting. ⁸ |
| Other Comments | Do not harvest wild longtail wildginger for propagation due to rarity. ^{7,11} |

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| <p>Source 7 is based on related species <i>Asarum caudatum</i></p> | |
| <p>INFORMATION SOURCES</p> | |
| <p>References</p> | <p>¹Deno, Norman C. 1993. Seed Germination Theory and Practice. State College, PA</p> <p>²Flora of North America Editorial Committee. <i>Asarum caudatum</i>. In Flora of North America North of Mexico. http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500173.</p> <p>³Gardenia. “Asarum canadense (Canadian Wild Ginger).” https://www.gardenia.net/plant/asarum-canadense.</p> <p>⁴Meyers, Stephen C., Thea Jaster, Katie E. Mitchell, Tanya Harvey, and Linda K. Hardison, eds. Flora of Oregon. Volume 2: Dicots A–F. Fort Worth, TX: Botanical Research Institute of Texas Press, 2020, 151.</p> <p>⁵Oregon Flora Project. <i>Asarum caudatum</i>. https://oregonflora.org/taxa/index.php?taxauthid=1&taxon=3014&cl=12099.</p> <p>⁶Pettinger, April and Brenda Costanzo. 1993. <i>Native Plants in the Coastal Garden: A Guide for Gardeners in British Columbia and the Pacific Northwest</i>. Whitecap Books, North British Columbia, Canada.</p> <p>⁷Plants For A Future. <i>Asarum caudatum</i>. https://pfaf.org/user/Plant.aspx?LatinName=Asarum+caudatum.</p> <p>⁸Robin Rose, Dr.; Caryn E C Chachulski; Diane L Haase, 1998. Propagation of Pacific Northwest native plants. Oregon State University Press, Corvallis, OR.</p> <p>⁹University of Wisconsin–Madison Division of Extension. “Wild Ginger (<i>Asarum</i> spp.)” https://hort.extension.wisc.edu/articles/wild-ginger-asarum-spp/.</p> |

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| | <p>¹⁰U.S. Department of Agriculture. "Plant Hardiness Zone Map." https://planthardiness.ars.usda.gov/.</p> <p>¹¹U.S. Department of Agriculture, Natural Resources Conservation Service. <i>Asarum wagnerii</i> (ASWA6). PLANTS Database. https://plants.sc.egov.usda.gov/plant-profile/ASWA6.</p> <p>¹²U.S. Forest Service. "Asarum caudatum." Fire Effects Information System (FEIS). https://research.fs.usda.gov/feis/species-reviews/asacau.</p> |
| Other Sources Consulted | <p>Phillips, Harry R. Growing and Propagating Wildflowers. 1985. University of North Carolina Press, Chapel Hill and London.</p> <p>Pojar, Jim and Andy Mackinnon. 1994. Plants of the Pacific Northwest Coast. Lone Pine Publishing, Redmond, Washington</p> <p>"Asarum wagneri". Consortium of Pacific Northwest Herbaria. https://www.pnwherbaria.org/data/results.php?DisplayAs=WebPage&ExcludeCultivated=Y&GroupBy=ungrouped&SortBy=Year&SortOrder=DESC&SearchAllHerbaria=Y&QueryCount=1&Genus1=asarum&Species1=wagneri&IncludeSynonyms1=Y&Zoom=4&Lat=55&Lng=-135&PolygonCount=0. Accessed April 29, 2026.</p> <p>Native Plant Network. "Propagation." National Native Seed System / U.S. Forest Service & Plant Materials Center. https://nnp.rngr.net/nnp/propagation. Accessed April 29, 2026.</p> |
| Protocol Author | William Fitzgerald |
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