

— Anthemis\_arvensis 100 - Achillea\_millefolium Artemisia\_campestris — Hypochaeris\_glabra rbcL: 27 Lactuca\_serriola 88 | Scorzoneroides\_autumnalis Hypochaeris\_radicata Lactuca\_muralis 7<sub>I</sub>7Sonchus\_asper 91 Sonchus\_oleraceus 247 taxa Sonchus\_arvensis - Taraxacum\_officinale · Lapsana\_communis — Crepis\_capillaris Tragopogon\_porrifolius 1311 bp - Senecio\_sylvaticus Senecio\_vulgaris Bellis\_perennis - Coreopsis\_lanceolata 99 82 — Anaphalis\_margaritacea Gamochaeta\_purpurea 63 Cirsium\_arvense Cirsium\_vulgare 57 Adenocaulon\_bicolor Hedera\_helix Petroselinum\_crispum 33 Anthriscus\_caucalis Valerianella\_locusta 43 Linnaea\_borealis Sambucus\_racemosa Campanula\_rotundifolia — Ilex\_aquifolium · Veronica\_officinalis 99 Veronica\_peregrina Veronica\_serpyllifolia — Plantago\_maritima 99 Plantago\_lanceolata Plantago\_major Digitalis\_purpurea Collinsia\_grandiflora Orobanche\_californica 98 100 Prunella\_vulgaris Nepeta\_cataria Lamium\_purpureum 99 Buglossoides\_arvensis 71 Galium\_triflorum 100 56 - Galium\_aparine Sherardia\_arvensis Vinca\_major Solanum\_dulcamara ---- Arctostaphylos\_uva\_ursi 100 - Arbutus\_menziesii 72 — Gaultheria\_shallon Anagallis\_arvensis Myosurus\_minimus 82 Berberis\_aquifolium Eschscholzia\_californica 62 Amelanchier\_alnifolia 6 Cotoneaster\_franchetii Cotoneaster\_horizontalis Crataegus\_monogyna 94 Malus\_pumila Malus\_fusca 99 71 Pyrus\_communis Pyrus\_calleryana Sorbus\_aucuparia 58 Prunus\_emarginata Prunus\_avium Prunus\_cerasus Prunus\_mahaleb Prunus\_virginiana 95 Oemleria\_cerasiformis Holodiscus\_discolor 76 Fragaria\_virginiana 42 Fragaria\_vesca 60 Aphanes\_australis 97 - Potentilla\_anserina Geum\_macrophyllum Lathyrus\_aphaca - Lathyrus\_japonicus Vicia\_sativa Vicia\_cracca Vicia\_americana 86 └─ Vicia\_nigricans Vicia\_hirsuta 99 98 \_\_\_\_\_ Trifolium\_subterraneum Trifolium\_incarnatum 69 Trifolium\_repens 98 Trifolium\_dubium Lotus\_corniculatus — Lupinus\_microcarpus 6 P Betula\_papyrifera 58 Alnus\_alnobetula — Quercus\_garryana - Shepherdia\_canadensis 65 — Populus\_tremuloides — Hypericum\_perforatum 58 Geranium\_dissectum — Geranium\_carolinianum - Geranium\_molle 100 — Geranium\_robertianum Erodium\_cicutarium 100 Acer\_glabrum Acer\_macrophyllum 58 — Chamerion\_angustifolium Daphne\_laureola 83 99 — Heuchera\_micrantha Tellima\_grandiflora Micranthes\_integrifolia 99 Sedum\_album Crassula\_tillaea Ribes\_lacustre 4<del>2 Cerastium\_semidecandrum</del> Cerastium\_pumilum Cerastium\_arvense 100 Cerastium\_fontanum 97 Cerastium\_glomeratum Stellaria\_media Spergularia\_rubra 91 Honckenya\_peploides Silene\_gallica — Minuartia\_rubella 100 Atriplex\_prostrata 63 Chenopodium\_album 97 Sarcocornia\_perennis 77 Montia\_fontana — Claytonia\_perfoliata Opuntia\_fragilis 67 9<sub>1</sub>6Rumex\_crispus <sup>9|2</sup>Rumex\_conglomeratus 94 Rumex\_occidentalis 99 Rumex\_acetosella 89 ---- Polygonum\_aviculare — Armeria\_maritima 85 Barbarea\_orthoceras 28 Barbarea\_vulgaris B8— Cardamine\_flexuosa Cardamine\_hirsuta --- Erophila\_verna ---- Arabis\_hirsuta 83 Sinapis\_arvensis 8 Brassica\_nigra 99 98 Cakile\_edentula Cakile\_maritima ----- Brassica\_rapa 100 — Teesdalia\_nudicaulis Turritis\_glabra — Arabidopsis\_thaliana Capsella\_bursa\_pastoris ----- Lepidium\_virginicum Vitis\_vinifera ☐ <sub>Vitis\_riparia</sub> 1<del>8 A</del> Avena\_fatua — Phalaris\_arundinacea — Polypogon\_monspeliensis Agrostis\_scabra — Koeleria\_macrantha 99 — Anthoxanthum\_odoratum Dactylis\_glomerata 2 Cynosurus\_cristatus Cynosurus\_echinatus 56 - Aira\_caryophyllea Aira\_praecox Puccinellia\_nutkaensis 96 Vulpia\_bromoides 35 Festuca\_rubra 29 Agrostis\_stolonifera Vulpia\_myuros 90Festuca\_arundinacea 94 Festuca\_pratensis 58 Lolium\_perenne Poa\_bulbosa
Poa\_pratensis B Poa\_trivialis Poa\_annua Poa\_compressa — Holcus\_lanatus 9<del>0</del> Bromus\_diandrus 73 Bromus\_tectorum Bromus\_carinatus 35 Bromus\_sterilis 47 Bromus\_hordeaceus ☐ Bromus\_commutatus - Taeniatherum\_caput\_medusae 50 100 Hordeum\_brachyantherum 69 Hordeum\_jubatum Hordeum\_murinum 100 Leymus\_mollis Elymus\_trachycaulus 97 60 - Distichlis\_spicata Danthonia\_californica Carex\_deweyana Bolboschoenus\_maritimus Juncus\_bufonius 82 100 Juncus\_effusus \_\_\_\_ Juncus\_balticus Typha\_latifolia Goodyera\_oblongifolia Spiranthes\_romanzoffiana · Listera\_cordata 100 88 Calypso\_bulbosa — Corallorhiza\_maculata Epipactis\_helleborine — Lilium\_columbianum Fritillaria\_affinis Triteleia\_hyacinthina 58 92 Brodiaea\_coronaria 91 - Asparagus\_officinalis - Camassia\_leichtlinii Maianthemum\_dilatatum 60 └ Maianthemum\_racemosum Olsynium\_douglasii Iris\_germanica 99 Zostera\_marina Phyllospadix\_scouleri 97 Triglochin\_maritima Lemna\_turionifera Pinus\_contorta - Pseudotsuga\_menziesii 100 Picea\_sitchensis 92 Abies\_grandis 95 Tsuga\_heterophylla 99 Thuja\_plicata Taxus\_brevifolia Selaginella\_wallacei 100 Polypodium\_hesperium 65 Polypodium\_glycyrrhiza Dryopteris\_expansa 88 Polystichum\_munitum — Athyrium\_filix\_femina 52 Asplenium\_trichomanes Cystopteris\_fragilis 100 Pteridium\_aquilinum

100

97 — Equisetum\_arvense

Equisetum\_telmateia

Equisetum\_hyemale

0.08

100

Aspidotis\_densaPentagramma\_triangularis

10p Achillea\_millefolium 100 Anthemis\_arvensis L Artemisia\_campestris Soliva\_sessilis Gamochaeta\_purpurea
Anaphalis\_margaritacea matK: Bellis\_perennis 100 Senecio\_sylvaticus Senecio\_vulgaris 253 taxa Coreopsis\_lanceolata Tragopogon\_porrifolius 190Sonchus\_asper Sonchus\_arvensis Hypochaeris\_glabra
Hypochaeris\_radicata 1456 bp Scorzoneroides\_autumnalis Lapsana\_communis Crepis\_capillaris Taraxacum\_officinale 89─ Lactuca\_muralis Lactuca\_serriola Hieracium\_albiflorum 100 | Cirsium\_vulgare Cirsium\_arvense Adenocaulon\_bicolor Campanula\_rotundifolia 95 Cosmorhiza\_purpurea Anthriscus\_caucalis 73 Heracleum\_maximum 100 Petroselinum\_crispum 93— Perideridia\_gairdneri Oenanthe\_sarmentosa Hedera\_helix Valerianella\_locusta — Plectritis\_congesta 100 Linnaea\_borealis 96 Lonicera\_involucrata
Symphoricarpos\_albus Sambucus\_racemosa ----- Ilex\_aquifolium 100 \_\_\_\_ Veronica\_chamaedrys Veronica\_arvensis Veronica\_officinalis 100 Veronica\_peregrina Veronica\_serpyllifolia 7 Plantago\_major ----- Plantago\_maritima Plantago\_lanceolata Digitalis\_purpurea — Collinsia\_grandiflora 99 100 Prunella\_vulgaris Lamium\_purpureum — Mimulus\_guttatus Orobanche\_uniflora 100 — Myosotis\_discolor Buglossoides\_arvensis Galium\_aparine 98 ----- Sherardia\_arvensis Vinca\_major --- Solanum\_dulcamara 100 \_\_\_ Gaultheria\_shallon 100 └── Vaccinium\_parvifolium — Arctostaphylos\_uva\_ursi 100 ----- Anagallis\_arvensis ----- Primula\_pauciflora 18 Cerastium\_glomeratum 55 Cerastium\_pumilum 91 Cerastium\_semidecandrum
Cerastium\_arvense Cerastium\_fontanum 100 4<del>3 Stellaria\_crispa</del> 93 Stellaria\_media Stellaria\_nitens 100 Silene\_scouleri 5 Silene\_menziesii Silene\_coronaria 00 Silene\_gallica 100 Silene\_antirrhina 100 Spergularia\_macrotheca Spergularia\_rubra ----- Honckenya\_peploides ----- Arenaria\_serpyllifolia 100 \_\_\_\_\_ Minuartia\_rubella Sagina\_decumbens 93 Atriplex\_prostrata
Chenopodium\_album Sarcocornia\_perennis 95- Claytonia\_parviflora 95 Claytonia\_perfoliata 100 Claytonia\_exigua Calandrinia\_ciliata Montia\_parvifolia 96 Montia\_fontana Opuntia\_fragilis 48 Rumex\_occidentalis Rumex\_acetosella 100 Rumex\_crispus Rumex\_conglomeratus 100 Polygonum\_aviculare --- Armeria\_maritima <sup>9</sup>7 Malus\_fusca 5 Malus\_pumila Amelanchier\_alnifolia Crataegus\_monogyna Pyrus\_communis Sorbus\_aucuparia Cotoneaster\_franchetii Cotoneaster\_horizontalis 100 Prunus\_avium ---- Prunus\_cerasus 100 Prunus\_mahaleb Prunus\_virginiana Holodiscus\_discolor Oemleria\_cerasiformis Fragaria\_vesca

Fragaria\_virginiana Aphanes\_australis ------ Potentilla\_anserina Rubus\_ursinus 84 Shepherdia\_canadensis — Urtica\_dioica 7 — Vicia\_americana ---- Vicia\_sativa Vicia\_cracca

100 Vicia\_nigricans 100 Lathyrus\_japonicus 2 Lathyrus\_aphaca └── Vicia\_hirsuta 10<del>0</del> Trifolium\_microcephalum 10 Trifolium\_repens 99 Trifolium\_subterraneum
Trifolium\_incarnatum 100 Trifolium\_dubium Oxytropis\_campestris Lotus\_corniculatus 95– Alnus\_rubra 5 Alnus\_alnobetula Corylus\_cornuta — Chamerion\_angustifolium Populus\_tremuloides Hypericum\_perforatum Paxistima\_myrsinites 100 Geranium\_dissectum Geranium\_molle ——— Geranium\_carolinianum 100 --- Geranium\_robertianum ----- Erodium\_cicutarium 84 100 F Barbarea\_vulgaris 74 Barbarea\_orthoceras Cardamine\_flexuosa
Cardamine\_hirsuta 77 Turritis\_glabra ---- Capsella\_bursa\_pastoris Arabidopsis\_thaliana — Lepidium\_virginicum Cakile\_edentula
Cakile\_maritima 100 Brassica\_nigra 100 Sinapis\_arvensis Brassica\_rapa 100 Arabis\_hirsuta Erophila\_verna Teesdalia\_nudicaulis Daphne\_laureola 100 Vitis\_riparia Vitis\_vinifera 100 r Tiarella\_trifoliata 99 Tellima\_grandiflora --- Micranthes\_integrifolia Ribes\_lacustre 98 ---- Crassula\_tillaea 100Ranunculus\_uncinatus Ranunculus\_occidentalis L Ranunculus\_californicus — Myosurus\_minimus Aquilegia\_formosa Berberis\_aquifolium Eschscholzia\_californica 9₿ Festuca\_rubra Yulpia\_bromoides 98 Vulpia\_myuros 95 Vulpia\_microstachys 100 Festuca\_pratensis Festuca\_arundinacea Cynosurus\_echinatus Cynosurus\_cristatus Holcus\_lanatus Dactylis\_glomerata 99 Poa\_compressa
99 Poa\_trivialis
Poa\_pratensis Poa\_annua
Poa\_bulbosa 84 100 Aira\_praecox Aira\_caryophyllea Puccinellia\_nutkaensis 97— Trisetum\_cernuum 98 Koeleria\_macrantha
44 Avena\_fatua Anthoxanthum\_odoratum 48 82 Agrostis\_stolonifera 100 Agrostis\_scabra Agrostis\_exarata ☐ Polypogon\_monspeliensis Phalaris\_arundinacea 7<sub>1</sub>6Elymus\_repens 8 Lolium\_perenne
8 Elymus\_trachycaulus
4 Taeniatherum\_caput\_medusae Leymus\_mollis 95 Hordeum\_jubatum Hordeum\_brachyantherum Hordeum\_murinum 92 Bromus\_hordeaceus 100 Bromus\_commutatus
Bromus\_diandrus L Bromus\_sterilis 100 \_\_\_\_\_ Distichlis\_spicata ——— Danthonia\_californica 100 Juncus\_bufonius 100 100 Juncus\_effusus Bolboschoenus\_maritimus Eleocharis\_palustris Typha\_latifolia Erythronium\_oregonum
Fritillaria\_affinis 100 | Maianthemum\_dilatatum Maianthemum\_racemosum 100 —— Asparagus\_officinalis 100 \_\_\_\_\_ Brodiaea\_coronaria Triteleia\_hyacinthina ——— Camassia\_leichtlinii Narcissus\_pseudonarcissus Iris\_germanica Olsynium\_douglasii Corallorhiza\_maculata Calypso\_bulbosa 7——— Listera\_cordata Epipactis\_helleborine 100 Zostera\_marina Triglochin\_maritima Lemna\_turionifera 100 ——— Thuja\_plicata 100 Taxus\_brevifolia ---- Pinus\_contorta Equisetum\_arvense

0.2



