

Flora of the Pacific Northwest Checklist

A checklist of the Vascular Plants of the Pacific Northwest
Hosted by the University of Washington Herbarium

Family: Polygonaceae

145 terminal taxa (species, subspecies, and varieties).

The Flora of the Pacific Northwest Checklist aims to be a complete list of the native and naturalized vascular plants of the Pacific Northwest, with current classifications, nomenclature and synonymy.

Taxa included in the checklist:

- Native taxa whether extant, extirpated, or extinct.
- Exotic taxa that are naturalized, escaped from cultivation, or persisting wild.
- Waifs (e.g., ballast plants, escaped crop plants) and other scarcely collected exotics.
- Interspecific hybrids that are frequent or self-maintaining.
- Some unnamed taxa in the process of being described.

Family classifications follow [APG IV](#) for angiosperms, PPG I (J. Syst. Evol. 54:563-603. 2016.) for pteridophytes, and Christenhusz et al. (Phytotaxa 19:55-70. 2011.) for gymnosperms, with a few exceptions. Nomenclature and synonymy at the rank of genus and below follows the [2nd Edition of the Flora of the Pacific Northwest](#) except where superseded by new information.

Accepted names are indicated with **blue type**, synonyms with **gray type**.

Native species and infraspecies are marked with **bold-face type**.

*Non-native and introduced taxa are preceded by an asterisk.

Please note: This is a working checklist, continuously updated. Use it at your discretion.

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Available online at <https://burkeherbarium.org/pnwflora/>

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Dicots:

Polygonaceae [FNA5, HC, HC2] Buckwheat Family

The family Polygonaceae is treated in Volume 5 of the Flora of North America series. Significant taxonomic and nomenclatural changes were made in that treatment. Efforts to incorporate those changes here are ongoing (November, 2007).

Bistorta [FNA5, HC2]

Meth. Pl.. 24. 1754.

bistort

Bistorta bistortoides (Pursh) Small [FNA5, HC2]

Bull. Torrey Bot. Club. 33: 57. 1906.

American bistort, western bistort

Polygonum bistortoides Pursh [HC]

Polygonum glastifolium Greene

Polygonum linearifolium

Polygonum vulcanicum Greene

FNA5: "Infrequent specimens of *Bistorta bistortoides* have basal leaf blades that are lance-ovate and abruptly contracted at the bases, and petioles distinctly winged distally, similar to those of *B. officinalis*."

Bistorta vivipara (L.) Delarbre [FNA5, HC2]

Fl. Auvergne, ed. 2. 2: 516. 1800.

alpine bistort, serpent-grass

Bistorta vivipara (L.) Delarbre ssp. *macounii* (Small ex J.M. Macoun) Soják

Persicaria vivipara (L.) Ronse Decr.

Polygonum viviparum L. [HC, ILBC4]

Polygonum viviparum L. var. *macounii* (Small ex J.M. Macoun) Hultén

FNA5: "*Bistorta vivipara* is highly variable morphologically and cytologically. Robust plants with large leaves, compact spikes, and persistent bulblets have been named subsp. *macounii*. Abortion of stamens, production of bulblets, and the rarity of fruits suggest that reproduction is largely asexual; fruits and seedlings are produced rarely (N. Söyrintki 1989). B. Jonsell and T. Karlsson (2000+, vol. 1) summarized chromosome numbers that include $2n = 66$, ca. 77, ca. 80, 88, 99, ca. 100, 110, 120, and ca. 132."

Chorizanthe [FNA5, HC, HC2]

Trans. Linn. Soc. London. 17: 416, plate 17, fig. 11; plate 19. 1836.

chorizanthe, spineflower

Chorizanthe brevicornu Torr. [FNA5, HC, HC2]

Rep. U.S. Mex. Bound. 2(1): 177. 1859.

brittle chorizanthe, brittle spineflower

var. *spathulata* (Small ex Rydb.) C.L. Hitchc. [FNA5, HC, HC2]

Vasc. Pl. Pacif. N.W. 2: 103. 1964.

Chorizanthe watsonii Torr. & A. Gray [FNA5, HC, HC2]

Proc. Amer. Acad. Arts. 8: 199. (as *watsoni*). 1870.

five-tooth spineflower, Watson's spineflower

FNA5: "*Chorizanthe watsonii* is widely distributed in the cold desert of the Great Basin and in the northern part of the warmer Mojave Desert. Plants in the northern part of the range (especially on the Palouse Prairie of south-eastern Washington) usually have three stamens."

Eriogonum [FNA5, HC, HC2]

Fl. Bor.-Amer. 1: 246, plate 24. 1803.

buckwheat, wild buckwheat, eriogonum, sulfur flower, umbrella-plant

Eriogonum androsaceum Benth. [FNA5, HC, HC2]

Prodr. 14: 9. 1856.

androsace buckwheat, rock-jasmine buckwheat

****Eriogonum annuum*** Nutt. [FNA5, HC, HC2]

Trans. Amer. Philos. Soc. n. s. 5: 164. 1835.

Eriogonum baileyi S. Watson [FNA5, HC, HC2]

Proc. Amer. Acad. Arts. 10: 348. 1875.

Bailey's buckwheat

var. *baileyi* [FNA5, HC2]

Proc. Amer. Acad. Arts. 10: 348. 1875.

Bailey's buckwheat

Eriogonum vimineum Douglas ex Benth. var. *multiradiatum* S. Stokes

Eriogonum vimineum Douglas ex Benth. var. *porphyreticum* (S. Stokes ex M.E. Jones) S. Stokes

Eriogonum vimineum Douglas ex Benth. var. *restioides* (Gand.) S. Stokes

FNA5: "Variety *baileyi* basically is a taxon of arid regions of the far West, being found primarily in California and Nevada northward through eastern Oregon to eastern Washington. Isolated populations are known from south-central Idaho and from Beaver County, Utah."

var. *praebens* (Gand.) Reveal [FNA5, HC2]

Taxon. 32: 294. 1983.

Eriogonum caespitosum Nutt. [FNA5, HC, HC2]

J. Acad. Nat. Sci. Philadelphia. 7: 50, plate 8, fig. 2. 1834.

mat buckwheat

Eriogonum calcareum (S. Stokes) Grady & Reveal [HC2]

Harper wild buckwheat

Eriogonum ochrocephalum S. Watson var. *calcareum* (S. Stokes) M. Peck [FNA5, HC]

Eriogonum capistratum Reveal [HC2]

capped wild buckwheat

Eriogonum cernuum Nutt. [FNA5, HC, HC2]

Proc. Acad. Nat. Sci. Philadelphia. 4: 14. 1848.

nodding buckwheat

Eriogonum cernuum Nutt. ssp. *tenue* (Torr. & A. Gray) S. Stokes

Eriogonum cernuum Nutt. var. *cernuum* [JPM]

Eriogonum cernuum Nutt. var. *psammophilum* S.L. Welsh

Eriogonum cernuum Nutt. var. *tenue* Torr. & A. Gray

Eriogonum cernuum Nutt. var. *viminale* (S. Stokes) Reveal

FNA5: "*Eriogonum cernuum* is widely distributed, being infrequent to common or even abundant and weedy. It is common throughout most of its range in southeastern Oregon, eastern California, southern Idaho, Nevada, Utah, northern Arizona, and New Mexico. The species is rare in southeastern Washington (Franklin County). It is less common and more widely scattered in Colorado, Wyoming, and Montana, and on the northern Great Plains in southern Alberta and Saskatchewan, western South Dakota, and western Nebraska. The northern Great Basin phase, with sessile involucre, has been called var. *viminale*, but this difference now appears to be ecologic rather than genetic.

Seeds of the nodding wild buckwheat were gathered by the Navajo (Diné) people, pounded into a meal, and eaten dry or made into a porridge (P. A. Vestal 1952; L. C. Wyman and S. K. Harris 1951).

Eriogonum codium Reveal, Caplow & K. A. Beck [FNA5, HC2]

Rhodora. 97: 350, fig. 1. 1997.

basalt desert buckwheat, Umtanum buckwheat

Endemic to Benton Co. FNA5: "*Eriogonum codium* is a potentially endangered species known from a single site on volcanic bluffs overlooking the Columbia River in Hanford Research National Monument in Benton County. It is worthy of cultivation as a rock-garden plant, although little or no sexual reproduction is known in the natural population. The Umtanum Desert wild buckwheat is a candidate for federal listing and

is considered an endangered species by the state of Washington. Much of the population was destroyed in a man-caused fire in 1997. The species is in the Center for Plant Conservation's National Collection of Endangered Plants."

Eriogonum compositum Douglas ex Benth. [FNA5, HC, HC2]

Edwards's Bot. Reg. 21: plate 1774.
arrow-leaf buckwheat, northern buckwheat

var. *compositum* [FNA5, HC, HC2]

Edwards's Bot. Reg. 21: plate 1774.
northern buckwheat

Eriogonum compositum Douglas ex Benth. var. *citrinum* S. Stokes

Eriogonum compositum Douglas ex Benth. var. *pilicaule* H. St. John & F.A. Warren

Eriogonum johnstonii

Eriogonum pilicaule

FNA5: "Variety *compositum* is widespread and common from central-northern Washington and west-central Idaho south through Oregon to northern California."

var. *lancifolium* H. St. John & F.A. Warren [FNA5, HC, HC2]

Res. Stud. State Coll. Wash. 1: 88. 1929.
wild buckwheat

Eriogonum compositum Douglas ex Benth. ssp. *lancifolium* (H. St. John & F.A. Warren) S. Stokes

FNA5: "Variety *lancifolium* is local and usually uncommon in the mountains of Chelan, Kittitas, Okanogan, and Yakima counties in eastern Washington."

var. *leianthum* Hook. [FNA5, HC, HC2]

Hooker's J. Bot. Kew Gard. Misc. 5: 264. 1853.
smooth arrow-leaf wild buckwheat

FNA5: "Variety *leianthum* is mostly occasional to locally common in eastern Washington, northwestern and west-central Idaho, and northeastern Oregon."

Eriogonum cusickii M.E. Jones [FNA5, HC, HC2]

Contr. W. Bot. 11: 10. 1903.
Cusick's buckwheat

Eriogonum douglasii Benth. [FNA5, HC, HC2]

Prodr. 14: 9. 1856.
Douglas's buckwheat
(see also *Eriogonum sphaerocephalum*)

var. *douglasii* [FNA5, HC, HC2]

in A. P. de Candolle and A. L. P. de Candolle, Prodr. 14: 9. 1856.
Douglas' buckwheat

Eriogonum caespitosum Nutt. var. *douglasii* (Benth.) M.E. Jones

FNA5: "Variety *douglasii* is widespread in scattered, disjunct populations in southeastern Washington (Columbia, Douglas, Ferry, Kittitas, Klickitat, and Yakima counties) and northeastern Oregon (Baker, Gilliam, Grant, Jefferson, Malheur, Sherman, Union, Wallowa, and Wasco counties)."

Eriogonum elatum Douglas ex Benth. [FNA5, HC, HC2]

Trans. Linn. Soc. London. 17: 413. 1836.
rush buckwheat, tall buckwheat

var. *elatum* [FNA5, HC2]

Trans. Linn. Soc. London. 17: 413. 1836.
tall buckwheat

FNA5: "Variety *elatum* is found mainly along the eastern edge of the Cascade Ranges in Washington south into northern Oregon, and skips to the Siskiyou/Trinity mountains of southwestern Oregon and northwestern California."

Eriogonum flavum Nutt. [FNA5, HC, HC2]

Cat. Pl. Upper Louisiana. no. 34. 1813.
yellow buckwheat

var. flavum [FNA5, HC, HC2]

Eriogonum flavum Nutt. var. *linguifolium* Gand.
Eriogonum flavum Nutt. var. *polyphyllum* (Small ex Rydb.) M.E. Jones [HC]

var. piperi (Greene) M.E. Jones [FNA5, HC, HC2]

Contr. W. Bot. 11: 7. 1903.
Piper's buckwheat, yellow buckwheat

Eriogonum flavum Nutt. ssp. *piperi* (Greene) S. Stokes
Eriogonum piperi Greene

FNA5: "Variety *piperi* is the common and widespread phase of the species, found mainly west of the Continental Divide in southern Alberta, southern British Columbia, eastern Washington, northern Idaho, and western Montana south into northeastern Oregon and northwestern Wyoming. It is only slightly variable, the major exception being depauperate individuals at high elevations in harsh exposures; these have been recognized by some as var. *polyphyllum*. The length of the stipelike base shortens from west to east, but only rarely are individuals in Montana troublesome to place either here or in var. *flavum*. The plants do well in cultivation and are now widely available."

Eriogonum heracleoides Nutt. [FNA5, HC, HC2]

J. Acad. Nat. Sci. Philadelphia. 7: 49, plate 7. 1834.
bractless parsnip-flowered wild buckwheat, parsnip-flowered buckwheat, parsnip-flowered eriogonum

Eriogonum angustifolium Nutt.
Eriogonum caespitosum Nutt. ssp. *ramosum* (Piper) S. Stokes
Eriogonum heracleoides Nutt. var. *angustifolium* (Nutt.) Torr. & A. Gray [HC]
Eriogonum heracleoides Nutt. var. *heracleoides* [FNA5, HC]
Eriogonum heracleoides Nutt. var. *leucophaeum* Reveal [FNA5]
Eriogonum heracleoides Nutt. var. *minus* Benth. [HC]

FNA5: "Variety *heracleoides* is widespread and usually common. It is highly variable. Narrow-leaved populations of southern British Columbia, northern Washington, Idaho, and northwestern Montana occasionally are segregated as var. *angustifolium*, but plants in southeastern Oregon and northeastern Nevada can have narrower leaves during years of limited precipitation, and the same condition is found in scattered populations elsewhere. Plants found farther to the east consistently have broader leaves. This expression of the species is most frequently seen in cultivation."

****Eriogonum inerme*** (S. Watson) Jeps. [FNA5, HC2]

Fl. Calif. 1: 406. 1914.
unarmed wild buckwheat

***var. inerme** [FNA5, HC2]

Eriogonum maculatum A. Heller [FNA5, HC, HC2]

Muhlenbergia. 2: 188. 1906.
spotted buckwheat

Eriogonum angulosum Benth. ssp. *maculatum* (A. Heller) S. Stokes
Eriogonum angulosum Benth. var. *maculatum* (A. Heller) Jeps.
Eriogonum angulosum Benth. var. *rectipes* Gand.

Known only from historical record (1884) in Yakima Co., and considered extirpated in Washington.

Eriogonum mancum Rydb. [FNA5, HC, HC2]

Fl. Rocky Mts. 220, 1061. 1917.
imperfect wild buckwheat

Eriogonum marifolium Torr. & A. Gray [FNA5, HC, HC2]

Proc. Amer. Acad. Arts. 8: 161. 1870.
marum-leaf wild buckwheat, mountain buckwheat

No specimens of this species from WA are known.

var. marifolium [FNA5, HC2]

Proc. Amer. Acad. Arts. 8: 161. 1870.
marum-leaf wild buckwheat, mountain buckwheat

Eriogonum marifolium Torr. & A. Gray var. *apertum* S. Stokes

FNA5 says that this taxon occurs in Yakima County. Both H&C and JPM state range to OR. FNA5: "Variety *marifolium* occurs in widely scattered locations, often on volcanic peaks, in Washington (Yakima County), Oregon (Crook, Deschutes, Douglas, Hood River, Jackson, Jefferson, Klamath, Lane, Linn, and Marion counties), and north-central California (to Shasta County)". No specimens of this species from WA are known.

***Eriogonum microtheca* Nutt. [FNA5, HC, HC2]**

Proc. Acad. Nat. Sci. Philadelphia. 4: 15. (as *microtheca*). 1848.
slender buckwheat

Eriogonum microthecum Nutt., orthographic variant

From IPNI: "Nuttall used the epithet "*microtheca*" as a noun in apposition," and this spelling is, therefore, grammatically correct." Furthermore, an attempt to overturn the original orthography was not recommended by the Nomenclature Committee for Vascular Plants, Applequist, Taxon 63(6): 1368 (2014), nor by the General Committee.

var. *laxiflorum* Hook. [FNA5, HC, HC2]

Hooker's J. Bot. Kew Gard. Misc. 5: 264. (as *microtheca*). 1853.
Great Basin slender buckwheat, Great Basin wild buckwheat

Eriogonum confertiflorum Benth.

Eriogonum microtheca Nutt. ssp. *confertiflorum* (Benth.) S. Stokes

Eriogonum microtheca Nutt. ssp. *laxiflorum* (Hook.) S. Stokes

Eriogonum microthecum Nutt. var. *laxiflorum* Hook., orthographic variant

FNA5: "Variety *laxiflorum* is the common expression of the species in the northern part of the species' range. It occurs in northern Arizona, eastern California, western Colorado, central and southern Idaho, southwestern Montana, Nevada, eastern Oregon, northern and western Utah, eastern Washington, and southwestern Wyoming. It overlaps morphologically with var. *simpsonii* in northern Arizona. The variety is the primary host plant for the rare Mattoni blue butterfly (*Euphilotes rita mattoni*)."

var. *microtheca* [FNA5, HC, HC2]

Eriogonum microtheca Nutt. var. *ambiguum* (M.E. Jones) Reveal [FNA5]

Eriogonum microthecum Nutt. var. *microthecum*, orthographic variant

var. *simpsonii* (Benth.) Reveal [FNA5, HC2]

Taxon. 32: 293. 1983.

Eriogonum microthecum Nutt. var. *simpsonii* (Benth.) Reveal, orthographic variant

***Eriogonum niveum* Douglas ex Benth. [FNA5, HC, HC2]**

Trans. Linn. Soc. London. 17: 414. 1836.
snow buckwheat

Eriogonum niveum Douglas ex Benth. ssp. *decumbens* (Benth.) S. Stokes

Eriogonum niveum Douglas ex Benth. ssp. *dichotomum* (Douglas ex Benth.) S. Stokes

FNA5: "*Eriogonum niveum* is a highly variable species with a multitude of minor expressions that do not appear to have any biogeographic or taxonomic significance. The species is found mainly on the grassy plains east of the Cascade Range in southern British Columbia, west-central Idaho, northeastern Oregon, and eastern Washington. Some populations closely approach *E. strictum* var. *proliferum*, but the densely lanate leaves and semileaflike to leaflike bracts nearly always distinguish *E. niveum* from that taxon where their ranges overlap. It may well prove that *E. niveum* would be better treated as a subspecies of *E. strictum*, but the nomenclatural combination is not available and it is not suggested here. The plants do well in cultivation."

***Eriogonum nudum* Douglas ex Benth. [FNA5, HC, HC2]**

Trans. Linn. Soc. London. 17: 413. 1836.
bare-stem buckwheat, naked buckwheat

var. nudum [FNA5, HC2]

Trans. Linn. Soc. London. 17: 413. 1836.

barestem buckwheat, naked buckwheat

Eriogonum latifolium Sm. var. *parvulum* S. Stokes

FNA5: "Variety nudum is the low-elevation tetraploid expression of the species, found mainly in the Coast Ranges and interior valleys from southern Washington through Oregon to California. It is replaced by var. deductum at higher elevations in the Sierra Nevada. Yellow-flowered populations occur rarely in the Siskiyou Mountains of California and Oregon."

var. oblongifolium S. Watson [FNA5, HC2]

Proc. Amer. Acad. Arts. 12: 264. 1877.

Harford's wild buckwheat

Eriogonum ovalifolium Nutt. [FNA5, HC, HC2]

J. Acad. Nat. Sci. Philadelphia. 7: 50, plate 8, fig. 1. 1834.

cushion buckwheat, oval-leaved eriogonum

var. depressum Blank. [FNA5, HC, HC2]

Sci. Stud. Montana Coll. Agric., Bot. 1: 49. 1905.

dwarf cushion wild buckwheat

var. nivale (Canby ex Coville) M.E. Jones [FNA5, HC, HC2]

Contr. W. Bot. 11: 8. 1903.

Sierra cushion buckwheat

Eriogonum nivale Canby ex Coville

Eriogonum rhodanthum A. Nelson & P.B. Kenn.

FNA5: "Variety nivale is the common high-elevation expression of the species in desert ranges of the Great Basin and in the Sierra-Cascade cordillera. In northwestern Washington, some plants of var. nivale have scapes to 13 cm (especially in Chelan County). They are well removed from var. purpureum, and have the dense, almost brilliant white tomentum of var. nivale."

var. ovalifolium [FNA5, HC, HC2]

J. Acad. Nat. Sci. Philadelphia. 7: 50, plate 8, fig. 1. 1834.

cushion wild buckwheat

Eriogonum ovalifolium Nutt. var. *multiscapum* Gand.

Eriogonum ovalifolium Nutt. var. *nevadense* Gand.

FNA5: "Variety ovalifolium is found in eastern California, northwestern Colorado, Idaho, Montana, Nevada, eastern Oregon, Utah, eastern Washington, and Wyoming. It is less widespread than var. purpureum and generally tends to flower earlier than that variety. The two sometimes occur together but do not seem to intergrade, although in some cases the only distinguishing feature is flower color. It is important to note that the yellowish hue of var. ovalifolium will fade in some herbarium material, making identification of older or less well-preserved material difficult."

var. pansum Reveal [FNA5, HC2]

Phytologia. 66: 259. 1989.

branched cushion wild buckwheat

var. purpureum (Nutt.) Durand [FNA5, HC2]

Trans. Amer. Philos. Soc. n. s. 11: 175. 1860.

purple cushion wild buckwheat

Eriogonum davisianum S. Stokes

Eriogonum orthocaulon Small

Eriogonum ovalifolium Nutt. ssp. *purpureum* (Nutt.) A. Nelson ex S. Stokes

Eriogonum ovalifolium Nutt. var. *celsum* A. Nelson [HC]

Eriogonum ovalifolium Nutt. var. *orthocaulon* (Small) C.L. Hitchc.

Eucycla purpurea Nutt.

FNA5: "Variety purpureum is the most widespread and common expression of the species, being found in southern British Columbia and southwestern Alberta, and in northern Arizona, eastern California, western Colorado, Idaho, western Montana, Nevada, northwestern New Mexico, eastern

Oregon, Utah, southeastern Washington, and Wyoming. It approaches var. *depressum* both geographically and morphologically in the Yellowstone National Park area, and a clear distinction is not always possible. The name var. *ovalifolium* was long misapplied to what is here termed var. *purpureum*."

Eriogonum pauciflorum Pursh [FNA5, HC, HC2]

Fl. Amer. Sept. 2: 735. 1813.
few-flowered buckwheat

var. *pauciflorum* [HC, HC2]

Eriogonum prociduum Reveal [FNA5, HC2]

Aliso. 7: 417. 1972.
prostrate wild buckwheat

Eriogonum pyrolifolium Hook. [FNA5, HC, HC2]

Hooker's J. Bot. Kew Gard. Misc. 5: 395, plate 10. (as *pyrolaefolium*). 1853.
alpine buckwheat, oarleaf buckwheat, Shasta wild buckwheat

Eriogonum pyrolifolium Hook. var. *bellingeranum* M. Peck

Eriogonum pyrolifolium Hook. var. *coryphaeum* Torr. & A. Gray [FNA5, HC]

Eriogonum pyrolifolium Hook. var. *pyrolifolium* [FNA5, HC]

Eriogonum scopulorum Reveal [FNA5, HC2]

Phytologia. 23: 170. 1972.
cliff wild buckwheat

Eriogonum soliceps Reveal & Björk [FNA5, HC2]

Brittonia. 56: 296, fig. 1. 2004.
Railroad Canyon wild buckwheat

Eriogonum spergulinum A. Gray [FNA5, HC, HC2]

Proc. Amer. Acad. Arts. 7: 389. 1868.
spurry buckwheat

var. *reddingianum* (M.E. Jones) J.T. Howell [FNA5, HC, HC2]

Leafl. W. Bot. 6: 79. 1950.

Eriogonum sphaerocephalum Douglas ex Benth. [FNA5, HC, HC2]

Trans. Linn. Soc. London. 17: 407. 1836.
rock buckwheat, round-headed eriogonum

var. *fasciculifolium* (A. Nelson) S. Stokes [FNA5, HC2]

Eriogonum. 104. 1936.

Eriogonum fasciculifolium A. Nelson

var. *halimioides* (Gand.) S. Stokes [FNA5, HC, HC2]

Eriogonum. 104. 1936.
rock buckwheat

Eriogonum fruticosum S. Stokes

Eriogonum halimioides Gand.

FNA5: "Variety *halimioides* is common and widespread in three areas of concentration. The northernmost is east of the Cascade Range in central Washington (Douglas, Kittitas, Klickitat, and Yakima counties). The middle series of populations occurs from central Oregon (Gilliam, Jefferson, Union, Wallowa, and Wasco counties) east into Idaho (Blaine, Elmore, Gem, Gooding, and Washington counties). The southernmost series is in central-southern Oregon (Baker, Grant, Harney, Jackson, Klamath, Lake, Malheur, and Wheeler counties), northeastern California (Lassen, Modoc, Shasta, and Siskiyou counties), and northwestern Nevada (Humboldt and Washoe counties). Variety *halimioides* is highly variable, and a clear distinction between it and some populations assigned here to *E. douglasii* var. *douglasii* is not always possible. Of particular concern are those plants of var. *halimioides* in northeastern Oregon and adjacent southeastern Washington with capitate rather than umbellate inflorescences. Much of what has passed for *E. douglasii* (especially its sublineare phase) in that area actually may be var. *halimioides*."

var. *sphaerocephalum* [FNA5, HC, HC2]

Trans. Linn. Soc. London. 17: 407. 1836.

rock buckwheat

Eriogonum sphaerocephalum Douglas ex Benth. var. *geniculatum* (Nutt.) S. Stokes

FNA5: "Variety *sphaerocephalum* is common and widespread in eastern Washington, eastern Oregon, and southwestern Idaho, less so in northern and central-western Nevada, and infrequent in California. A collection supposedly obtained in 1883 from the "Flathead region" of Montana (Ayres s.n., NY) is discounted as to location."

var. *sublineare* (S. Stokes) Reveal [FNA5, HC2]

Harvard Pap. Bot. 9: 197. 2004.

scabland wild buckwheat

Eriogonum douglasii Benth. var. *sublineare* (S. Stokes) Reveal

Eriogonum douglasii Benth. var. *tenue* (Small) C.L. Hitchc. [HC]

FNA5: "Variety *sublineare* is found in south-central Washington and adjacent north-central Oregon. It is frequently confused with *Eriogonum douglasii*."

Eriogonum strictum Benth. [FNA5, HC, HC2]

Trans. Linn. Soc. London. 17: 414. 1836.

strict buckwheat

var. *anserinum* (Greene) S. Stokes [FNA5, HC, HC2]

Fl. Idaho. 249. 1952.

Goose Lake wild buckwheat

Eriogonum anserinum Greene

Eriogonum ovalifolium Nutt. ssp. *flavissimum* (Gand.) S. Stokes

Eriogonum proliferum Torr. & A. Gray ssp. *anserinum* (Greene) Munz

Eriogonum strictum Benth. ssp. *anserinum* (Greene) S. Stokes

Eriogonum strictum Benth. var. *flavissimum* (Gand.) C.L. Hitchc.

FNA5: "Variety *anserinum* is the yellow-flowered phase of the species; it and var. *proliferum* are only occasionally found together. This taxon is widely scattered in most of its range in northeastern California, southwestern Idaho, northern Nevada, eastern Oregon, and eastern Washington. It is common mainly from south-central Oregon south into northwestern Nevada and eastern California. The plants are attractive and are occasionally seen in cultivation."

var. *proliferum* (Torr. & A. Gray) C.L. Hitchc. [FNA5, HC, HC2]

Vasc. Pl. Pacif. N.W. 2: 132. 1964.

strict buckwheat

Eriogonum fulvum S. Stokes

Eriogonum proliferum Torr. & A. Gray

Eriogonum strictum Benth. ssp. *bellum* (S. Stokes) S. Stokes

Eriogonum strictum Benth. ssp. *proliferum* (Torr. & A. Gray) S. Stokes [HC]

Eriogonum strictum Benth. var. *argenteum* S. Stokes

FNA5: "Variety *proliferum* is widespread and often rather common throughout its range. The largest concentration is found in a gentle arc from northeastern Washington to southern Idaho and western Montana. The variety is widely distributed also in central and eastern Oregon, northern California, and Nevada. In portions of central Idaho and western Montana, some individuals clearly approach *Eriogonum ovalifolium* var. *pansum*."

var. *strictum* [FNA5, HC2]

Trans. Linn. Soc. London. 17: 414. 1836.

strict buckwheat

Eriogonum strictum Benth. ssp. *strictum* [HC]

Eriogonum strictum Benth. var. *glabrum* C.L. Hitchc. [HC]

FNA5: "Variety *strictum* is infrequent and widely scattered throughout its range in west-central Idaho (Adams, Nez Perce, and Washington counties), northeastern Oregon (Douglas, Morrow, Umatilla, Union, and Wallowa counties), and southeastern Washington (Benton, Columbia, Douglas, Grant,

Kittitas, and Yakima counties). Its greatest concentration is in the Blue Mountains of northeastern Oregon and extreme southeastern Washington."

***Eriogonum thymoides* Benth. [FNA5, HC, HC2]**

Prodr. 14: 9. 1856.

thyme buckwheat, thyme-leaf wild buckwheat

Eriogonum sphaerocephalum Douglas ex Benth. ssp. *minimum* (Small) S. Stokes

Eriogonum thymoides Benth. ssp. *congestum* S. Stokes

FNA5: "Eriogonum thymoides is an exquisite species concentrated in three regions of the Pacific Northwest. The first is along the eastern edge of the Cascade Range from near Wenatchee, Washington (Adams, Benton, Chelan, Douglas, Franklin, Grant, Kittitas, Klickitat, Lincoln, and Yakima counties), to near the Dalles in extreme north-central Oregon (Union County). The second is from Baker and northern Malheur counties, Oregon, to Adams, Canyon, and Washington counties, Idaho. A third series of populations is in the Mount Bennett Hills area of Gooding County, Idaho, and just over the borders in Blaine, Camas, Elmore, and Lincoln counties. Staminate plants tend to have yellow flowers that quickly fade after pollen release. Pistillate plants tend to have white to pale yellow flowers that persist and greatly elongate as the achene matures."

***Eriogonum umbellatum* Torr. [FNA5, HC, HC2]**

Ann. Lyceum Nat. Hist. New York. 2: 241. 1827.

sulfur buckwheat, sulfurflower

var. *aureum* (Gand.) Reveal [FNA5, HC2]

Taxon. 17: 532. 1968.

golden sulfur flower

Eriogonum umbellatum Torr. var. *intectum* A. Nelson [HC]

var. *desereticum* Reveal [FNA5, HC2]

Great Basin Naturalist. 35: 365. 1976.

deseret sulfur flower

var. *devestivum* Reveal [FNA5, HC2]

Great Basin Naturalist. 32: 115. 1972.

emperor's sulfur flower

var. *dichrocephalum* Gand. [FNA5, HC2]

Bull. Soc. Roy. Bot. Belgique. 42: 199. 1906.

bicolor sulfur flower

var. *ellipticum* (Nutt.) Reveal [FNA5, HC2]

Taxon. 32: 294. 1983.

starry sulfur flower

Eriogonum ellipticum Nutt.

Eriogonum umbellatum Torr. var. *chrysanthum* Gand. [HC]

Eriogonum umbellatum Torr. var. *croceum* (Small) S. Stokes

Eriogonum umbellatum Torr. var. *stellatum* (Benth.) M.E. Jones [HC]

FNA5: "Variety ellipticum is widely scattered but locally common in the mountains of the Pacific Northwest. It has long been known as var. stellatum, the name being altered to var. ellipticum only for technical nomenclatural reasons. This is the northern phase of the species, with compound inflorescences. Considerable variation in plant size is retained within the circumscription adopted here. Plants from northeastern Oregon and adjacent west-central Idaho are large and showy, and it is this phase (called Eriogonum croceum or E. umbellatum var. chrysanthum) that occasionally is seen in cultivation."

var. *haussknechtii* (Dammer) M.E. Jones [FNA5, HC2]

Contr. W. Bot. 11: 6. (as hausknechtii). 1903.

Haussknecht's sulfur flower

Eriogonum haussknechtii Dammer

Eriogonum montanum Howell

Eriogonum umbellatum Torr. ssp. *haussknechtii* (Dammer) S. Stokes

Eriogonum umbellatum Torr. var. *hausknechtii* (Dammer) M.E. Jones [HC]

FNA5: "Variety *hausknechtii*, as here circumscribed, is a high-elevation taxon found mainly on volcanic peaks in north-central Oregon (Benton, Clackamas, Hood River, and Wasco counties) and south-central Washington (Kittitas and Yakima counties). It is common on Mt. Hood and Mt. Adams. It typically grows with *E. marifolium*, and mixed collections often are found in herbaria; the two taxa have in common a distinctive olive green color of the adaxial leaf surfaces. *Hausknechtii*'s sulphur flower is not always clearly distinct from var. *modocense*."

var. *hypoleium* (Piper) C.L. Hitchc. [FNA5, HC, HC2]

Vasc. Pl. Pacif. N.W. 2: 135. 1964.

Kittitas sulfur flower

Eriogonum umbellatum Torr. ssp. *hypoleium* Piper

FNA5: "Variety *hypoleium* is restricted to Chelan and Kittitas counties, Washington, extending from the Mt. Stuart Range south to the Bald Mountain area west of Ellensburg. It is doubtfully distinct from var. *aureum*, although geographically well isolated."

var. *majus* Hook. [FNA5, HC2]

Hooker's J. Bot. Kew Gard. Misc. 5: 264. 1853.

subalpine sulfur flower

Eriogonum subalpinum Greene

Eriogonum umbellatum Torr. ssp. *majus* (Hook.) Piper

Eriogonum umbellatum Torr. ssp. *subalpinum* (Greene) S. Stokes

Eriogonum umbellatum Torr. var. *subalpinum* (Greene) M.E. Jones [HC]

FNA5: "Variety *majus* is widespread and common in the Rocky Mountains. These plants are often locally common in Idaho and northern Utah, but they are rather rare in the Cascade Range of Washington. The high-elevation plants in Washington are often markedly different from similarly situated Rocky Mountain plants, having smaller leaves and flowers, and tighter, more compact, umbellate inflorescences. Variety *majus* is distinct from and often grows with var. *umbellatum* in Colorado, leading many local taxonomists to distinguish the two at species rank. In Wyoming and Montana, however, var. *majus* occasionally is difficult to differentiate from var. *dichrocephalum*. Variety *majus* often occurs with *Eriogonum heracleoides*, and mixed collections occasionally are encountered. Care must be taken in the herbarium to differentiate the narrow-leaved *E. heracleoides* var. *leucophaeum* from the broader-leaved *E. umbellatum* var. *majus*, although the two do not grow together."

var. *sandbergii* Reveal [FNA5, HC2]

Phytologia. 86: 154. 2004.

Sandberg's sulfur flower

var. *stragulum* Reveal [FNA5, HC2]

Phytologia. 86: 156. 2004.

spreading sulfur flower

var. *umbellatum* [FNA5, HC, HC2]

common sulphur flowering

Eriogonum umbellatum Torr. var. *modocense* (Greene) S. Stokes [FNA5]

Eriogonum vimineum Douglas ex Benth. [FNA5, HC, HC2]

Trans. Linn. Soc. London. 17: 416. 1836.

broom buckwheat

Eriogonum shoshonense A. Nelson

Eriogonum vimineum Dougl. ex Benth. ssp. *shoshonense* (A. Nelson) S. Stokes

Eriogonum vimineum Douglas ex Benth. var. *shoshonense* (A. Nelson) S. Stokes [HC]

Eriogonum vimineum Douglas ex Benth. var. *vimineum* [HC]

FNA5: "*Eriogonum vimineum* is widespread and common to abundant or even locally weedy from southeastern Washington southward through central and eastern Oregon and western Idaho to northeastern California and northern Nevada. Except for occasional populations in northeastern California, where it can be confused with *E. luteolum*, this species is distinct, albeit variable, throughout its range."

***Eriogonum watsonii* Torr. & A. Gray [FNA5, HC, HC2]**

Proc. Amer. Acad. Arts. 8: 182. 1870.

Watson's buckwheat

****Fagopyrum* [FNA5, HC2]**

Gard. Dict. Abr., ed. 4. vol. 1. 1754.

[name conserved]

****Fagopyrum esculentum* Moench [FNA5, HC2]**

Methodus. 290. 1794.

garden buckwheat

Fagopyrum sagittatum Gilib.

Fagopyrum vulgare T. Nees

Polygonum fagopyrum L.

Native to Eurasia. FNA5: "Fagopyrum esculentum is a heterostylous, obligate out-crosser. Morphological, allozyme, and molecular data suggest that the cultivated plants are most closely related to wild ones in northwestern Yunnan, China. Common buckwheat is an important pseudocereal crop in China, the Russian Federation, Ukraine, Kazakhstan, and Poland; it is grown in many other countries. It is planted frequently in wildlife food plots, as a catch or cover crop, and as a honey plant in North America. Hulls from the achenes are used for pillow filling, which manufacturers claim has health benefits over traditional foam, polyester, or down fillings."

****Fallopia* [FNA5, HC2]**

Fam. Pl. 2: 277, 557. 1763.

false buckwheat, fleecflower, knotweed

****Fallopia baldschuanica* (Regel) Holub [FNA5, HC2]**

Folia Geobot. Phytotax. 6: 176. 1971.

Bukhara fleecflower, Chinese fleecvine, mile-a-minute vine

Bilderdykia aubertii (L. Henry) Moldenke

Fallopia aubertii (L. Henry) Holub

Polygonum aubertii L. Henry [KZ99]

Polygonum baldschuanicum Regel

****Fallopia xbohemica* (Chrtek & Chrtková) J.P. Bailey [FNA5, HC2]**

Watsonia. 17: 443. 1989.

hybrid knotweed

Polygonum xbohemicum (Chrtek & Chrtková) Zika & Jacobson

Reynoutria xbohemica Chrtek & Chrtková

An aggressive weed in lowland Washington, especially in riparian corridors, where it is the most common member of the complex.

****Fallopia convolvulus* (L.) Á. Löve [FNA5, HC2]**

Taxon. 29: 300. 1970.

black bindweed, climbing bindweed, ivy bindweed

Bilderdykia convolvulus (L.) Dumort.

Fallopia convolvulus (L.) Á. Löve var. *subulata* (Lej. & Courtois) D.H. Kent

Polygonum convolvulus L. [HC, JPM]

Polygonum convolvulus L. var. *convolvulus* [KZ99]

Reynoutria convolvulus (L.) Shinnars

Tinaria convolvulus (L.) Webb & Moq. ex Webb & Berthel.

FNA5: "Fallopia convolvulus can be an aggressive weed in crop fields. Rare plants with winged fruiting perianths have been named var. *subalata*; that characteristic often varies within populations."

****Fallopia japonica* (Houtt.) Ronse Decr. [FNA5, HC2]**

Bot. J. Linn. Soc. 98: 369. 1988.

itadori knotweed

Polygonum cuspidatum Siebold & Zucc. [HC]

Polygonum cuspidatum Siebold & Zucc. var. *compactum* (Hook. f.) L.H. Bailey
Reynoutria japonica Houtt.

An aggressive weed in lowland Washington, especially in riparian corridors.

*var. *japonica* [FNA5, HC2]
Japanese knotweed

**Fallopia sachalinensis* (F. Schmidt) Ronse Decr. [FNA5, HC2]

Bot. J. Linn. Soc. 98: 369. 1988.
giant knotweed

Polygonum sachalinense F. Schmidt [HC]

Koenigia davisiae (W.H. Brewer ex A. Gray) T.M. Schust. & Reveal [WTU]

Taxon 64(6): 1201. 2015.
Newberry's fleecflower

Aconogonon davisiae (W.H. Brewer ex A. Gray) Soják
Aconogonon davisiae (W.H. Brewer ex A. Gray) Soják var. *davisiae*
Aconogonon davisiae (W.H. Brewer ex A. Gray) Soják var. *glabrum* (G.N. Jones) S.P. Hong
Polygonum davisiae W.H. Brewer ex A. Gray
Polygonum newberryi Small
Polygonum newberryi Small var. *glabrum* G.N. Jones
Polygonum newberryi Small var. *newberryi*

Koenigia phytolaccifolia (Meisn. ex Small) T.M. Schust. & Reveal [WTU]

Intermount. Fl. [Cronquist et al.] 2A: 252. 2012.
alpine fleecflower

Aconogonon phytolaccaefolium (Meisn. ex Small) Rydb., orthographic variant
Aconogonon phytolaccaefolium (Meisn. ex Small) Rydb. var. *phytolaccaefolium*, orthographic variant
Aconogonon phytolaccifolium (Meisn. ex Small) Rydb.
Aconogonon phytolaccifolium (Meisn. ex Small) Rydb. var. *glabrum* S.P. Hong [FNA5, HC2]
Aconogonon phytolaccifolium (Meisn. ex Small) Rydb. var. *phytolaccifolium* [FNA5, HC2]
Polygonum phytolaccaefolium Meisn. ex Small, orthographic variant
Polygonum phytolaccifolium Meisn. ex Small

Oxyria [FNA5, HC, HC2]

Veg. Syst. 10: 24, plate 24, fig. 2. 1765.
mountain sorrel

Oxyria digyna (L.) Hill [FNA5, HC, HC2]

Hort. Kew. 158. 1768.
mountain-sorrel

Rumex digynus L.

FNA5: "Morphological and physiological differences between arctic and alpine populations of *Oxyria* in North America have been documented (H. A. Mooney and W. D. Billings 1961). Arctic plants (Alaska, northern Canada, and Greenland) taken from the field and grown in controlled environments tend to bear inflorescences with more branches, leaves with blades that are wider, and flowers with a more stable number of stamens as compared to alpine plants from populations in the south (California, Colorado, Montana, and Wyoming). Northern plants also have a greater tendency to reproduce asexually, often producing rhizomes and exhibiting relatively lower seed production."

Oxytheca [FNA5, HC, HC2]

Proc. Acad. Nat. Sci. Philadelphia. 4: 18. 1848.
oxytheca, puncturebract

Oxytheca dendroidea Nutt. [FNA5, HC2]

Proc. Acad. Nat. Sci. Philadelphia. 4: 19. 1848.
treelike puncture-bract

Oxytheca dendroides Nutt. [HC], orthographic variant

ssp. *dendroidea* [FNA5, HC2, JPM]

Proc. Acad. Nat. Sci. Philadelphia. 4: 19. 1848.

treeline puncturebract

FNA5: "Subspecies *dendroidea* is common and widespread in western North America from southeastern Oregon to southwestern Wyoming southward into eastern California (as far south as Inyo County), Nevada (to Nye County), but surprisingly unknown from northern Utah. Populations in Washington and Wyoming are extensions of the Snake River Plains populations found in Idaho."

Persicaria [FNA5, HC2]

Gard. Dict. Abr., ed. 4. vol. 3. 1754.

knotweed, smartweed, tearthumb

Persicaria amphibia (L.) Gray [FNA5, HC2]

Nat. Arr. Brit. Pl. 2: 268. 1821.

water smartweed

Polygonum amphibium L. [HC]

Polygonum amphibium L. var. *coccineum* (Muhl. ex Willd.) Farw.

Polygonum amphibium L. var. *emersum* Michx. [JPM, ILBC4]

Polygonum amphibium L. var. *stipulaceum* N. Coleman [JPM, ILBC4]

Polygonum coccineum Muhl. ex Willd. [HC]

Polygonum natans Eaton

FNA5: "*Persicaria amphibia* is widespread in the Northern Hemisphere and naturalized in Mexico, South America, and southern Africa. It is highly polymorphic and the most hydrophytic of the native North American smartweeds (R. S. Mitchell 1976). In recent decades, botanists have tended to follow Mitchell (1968) in recognizing two endemic, intergrading North American varieties. Studies by G. Turesson (1961) and Mitchell (1968, 1976) have shown that phenotypic extremes in the species are part of a cline of nearly continuous morphological variation that is strongly correlated with submergence, but also with some genetic integrity. Formal recognition of varieties is even less tenable when Eurasian elements also are considered. Aquatic-adapted plants, which bloom in water or are sometimes stranded on land, have been called var. *stipulacea* (although that epithet may not be the oldest one available for the taxon). They produce ovoid-conic to short-cylindric inflorescences 10-40(-60) mm, prostrate aerial stems, and leaf blades that are glabrous with acute to rounded apices. Terrestrial forms of this ecotype usually are spreading-pubescent and often bear ocreae that are foliaceous, green, and flared distally, characters found only in North American plants (R. S. Mitchell 1968). Terrestrial-adapted plants, referred to var. *emersa*, bloom on moist soil and produce short- to elongate-cylindric inflorescences 40-110(-150) mm, spreading or erect aerial stems, and leaf blades that are appressed-pubescent with acute to acuminate apices. They produce ocreae that are entirely chartaceous and not flared distally. Emergent and terrestrial plants of this ecotype exhibit less phenotypic plasticity and a lower frequency of heterostyly than do plants of the aquatic ecotype (R. S. Mitchell 1968). R. S. Mitchell and J. K. Dean (1978) and H. R. Hinds (2000) recognized var. *amphibia*, the Eurasian element, as introduced in New York and New Brunswick, respectively. These plants are morphologically intermediate between the North American ecotypes and often indistinguishable from North American plants (Mitchell and Dean)."

****Persicaria hydropiper*** (L.) Spach [FNA5, HC2]

Hist. Nat. Vég. 10: 536. 1841.

smartweed, mild water-pepper

Polygonum hydropiper L. [HC]

Polygonum hydropiper L. var. *projectum* Stanford

FNA5: "Herbarium specimens of *Persicaria hydropiper* often are misidentified as *P. punctata*. In addition to its minutely roughened and dull achenes, *P. hydropiper* differs from *P. punctata* frequently in bearing flowers enclosed in the ocreae, the inflorescences thus appearing somewhat leafy. By contrast, inflorescences of *P. punctata* generally appear terminal and leafless."

Persicaria hydropiperoides (Michx.) Small [FNA5, HC2]

Fl. S.E. U.S. 378. 1903.

water pepper, swamp smartweed

(see also *Persicaria setacea*)

Persicaria opelousana (Riddell ex Small) Small
Persicaria paludicola Small
Polygonum hydropiperoides Michx. [HC, ILBC4, JPM]
Polygonum hydropiperoides Michx. var. *adenocalyx* (Stanford) Gleason
Polygonum hydropiperoides Michx. var. *asperifolium* Stanford
Polygonum hydropiperoides Michx. var. *breviciliatum* Fernald
Polygonum hydropiperoides Michx. var. *buschianum* Stanford
Polygonum hydropiperoides Michx. var. *digitatum* Fernald
Polygonum hydropiperoides Michx. var. *hydropiperoides* [HC]
Polygonum hydropiperoides Michx. var. *opelousanum* (Riddell ex Small) W. Stone
Polygonum hydropiperoides Michx. var. *psilostachyum* H. St. John
Polygonum opelousanum Riddell ex Small
Polygonum opelousanum Riddell ex Small var. *adenocalyx* Stanford

FNA5: "The extreme variability in *Persicaria hydropiperoides* is reflected in its extensive synonymy. Among the segregates most often recognized in floras and checklists is *P. opelousana*, which C. B. McDonald (1980) showed to be broadly sympatric and highly interfertile with *P. hydropiperoides*. Consistent with this conclusion, R. S. Mitchell (1971) found that *P. hydropiperoides* and *P. opelousana* are unique among native North American smartweeds in consistently possessing multicellular plate-glands on the abaxial surface of their leaves. Such glands also are found on *P. maculosa*, an introduced European species. Herbarium specimens of *Persicaria hydropiperoides* sometimes are misidentified as *P. maculosa*, especially when the roots are missing. The former species may be distinguished reliably by its achenes all trigonous (trigonous and biconvex achenes are mixed in the inflorescences of *P. maculosa*) and bristles on the margins of the ocreae that average longer. M. L. Fernald (1922c) reported hybrids with *P. robustior* from Nova Scotia."

***Persicaria lapathifolia* (L.) Gray [FNA5, HC2]**

Nat. Arr. Brit. Pl. 2: 270. 1821.
dock-leaf smartweed, pale smartweed, willow weed

Polygonum incanum F.W. Schmidt
Polygonum incarnatum Elliott
Polygonum lapathifolium L. [HC]
Polygonum lapathifolium L. var. *salicifolium* Sibth.
Polygonum linicola Sutulov
Polygonum nodosum Pers.
Polygonum scabrum Moench
Polygonum tomentosum Willd.

FNA5: "*Persicaria lapathifolia* is a morphologically variable complex with more than two-dozen infraspecific taxa described in the New World and Old World. An allozyme study by L. L. Consaul et al. (1991) did not support recognition of elements often referred to *Polygonum lapathifolium* var. *salicifolium* or *P. scabrum*, which are synonymized here. Yang J. and Wang J. W. (1991) reached a similar conclusion regarding var. *salicifolium* and *P. nodosum* based on their morphometric analysis."

****Persicaria longiseta* (Bruijn) Kitag. [FNA5, HC2]**

Rep. Inst. Sci. Res. Manchoukuo. 1: 322. 1937.
bristly lady's thumb

****Persicaria maculosa* Gray [FNA5, HC2]**

Nat. Arr. Brit. Pl. 2: 269. 1821.
heartweed, lady's-thumb, spotted lady's-thumb, redshank

Polygonum persicaria L. [HC]

FNA5: "An allozyme study by L. L. Consaul et al. (1991) provided evidence of the allotetraploid origin of *Persicaria maculosa*, with *P. lapathifolium* as one of the parents. Plants with stems spreading-hairy and peduncles stipitate-glandular have been named *P. maculosa* subsp. *hirsuticaulis* (Danser) S. Ekman & Knutsson. Material referable to this subspecies has not been seen among North American specimens. Hybrids between *P. maculosa* and *P. minor* have been documented in Europe (R. H. Roberts 1977)."

****Persicaria minor* (Huds.) Opiz [FNA5, HC2]**

Seznam. 72. 1852.

small waterpepper

**Persicaria nepalensis* (Meisn.) H. Gross [FNA5, HC2]

Bot. Jahrb. Syst. 49: 277. 1913.

Nepal knotweed

**Persicaria orientalis* (L.) Spach [FNA5, HC2]

Hist. Nat. Vég. 10: 537. 1841.

Kiss-me-over-the-garden-gate, princess-feather

Polygonum orientale L.

The specimen record of this species in Washington does not suggest that it is established in the flora. It is considered excluded until additional specimens are deposited documenting its establishment and persistence.

FNA5: "Persicaria orientalis was introduced as a garden ornamental. It often persists around homesteads and barnyards, and occasionally escapes and becomes weedy in moist waste places."

**Persicaria pensylvanica* (L.) M. Gómez [FNA5]

Anales Inst. Segunda Enseñ. 2: 278. 1896.

**Persicaria perfoliata* (L.) H. Gross [FNA5, HC2]

Beih. Bot. Centralbl. 37(2): 113. 1919.

Persicaria punctata (Elliott) Small [FNA5, HC2]

Fl. S.E. U.S. 1903.

dotted knotweed, dotted smartweed, water smartweed

Polygonum acre Kunth

Polygonum acre Kunth var. *leptostachyum* Meisn.

Polygonum punctatum Elliott [HC, ILBC4, JPM]

Polygonum punctatum Elliott var. *confertiflorum* (Meisn.) Fassett [KZ99]

Polygonum punctatum Elliott var. *ellipticum* Fassett

FNA5: "N. C. Fassett (1949) proposed a complicated classification for *Persicaria punctata* with 12 varieties in North America and South America. He also identified numerous specimens that he considered to be morphologically intermediate between various varieties. M. Dalci (1972) documented a wide range of phenotypic and genotypic variation throughout the range of *P. punctata* and extensive overlap in many of the features used by Fassett to distinguish varieties. Consequently, recognition of varieties does not seem warranted. *Persicaria punctata* and its close relatives *P. robustior* and *P. glabra* are unique among native North American smartweeds in possessing complex glands called valvate chambers in their epidermises. *Persicaria punctata* is confused most frequently with *P. hydropiper*; the achenes are diagnostic."

**Persicaria sagittata* (L.) H. Gross [FNA5, HC2]

Beih. Bot. Centralbl. 37(2): 113. 1919.

arrow-vine, arrow-leaved tearthumb

**Persicaria wallichii* Greuter & Burdet [FNA5, HC2]

Willdenowia. 19: 41. 1989.

garden knotweed

Aconogonon polystachyum (Wall. ex Meisn.) M. Král

Pleuroteropyrum polystachyum (Wall. ex Meisn.) Munshi & G.N. Javied

Polygonum polystachyum Wall. ex Meisn. [HC]

Reynoutria polystachya (Wall. ex Meisn.) Moldenke

Rubrivena polystachya (Wall. ex Meisn.) M. Král

FNA5: "*Persicaria wallichii* is an ornamental that escapes infrequently in the flora area. A population in Nova Scotia apparently was ephemeral. Plants with leaf blades sparsely to densely pubescent abaxially and pedicels glabrous are var. *wallichii*, to which naturalized North American plants appear to be referable. Plants with leaf blades brownish-tomentose abaxially and pedicels usually pubescent are var. *tomentosa* S. P. Hong, which may be in cultivation in North America."

*var. *wallichii* [FNA5, HC2]

garden knotweed, Himalayan knotweed

Polygonum [FNA5, HC, HC2]

Sp. Pl. 1: 359. 1753. Gen. Pl. ed. 5, 170. 1754.

doorweed, knotweed, smartweed

(see also *Aconogonon*, *Bistorta*, *Fallopia*, *Persicaria*)

Polygonum achoreum S.F. Blake [FNA5, HC, HC2]

Rhodora. 19: 232. 1917.

Blake's knotweed

Polygonum erectum L. ssp. *achoreum* (S.F. Blake) Á. Löve & D. Löve

FNA5: "Polygonum achoreum frequently is confused with *P. erectum*. It can be distinguished by its usually homophyllous leaves, its perianth, which is enlarged at the base and constricted above the fruit, its longer perianth tube, and its yellow-green to tan, tubercled achenes."

Polygonum austinae Greene [FNA5, HC, HC2]

Bull. Calif. Acad. Sci. 1: 212. (as *austinae*). 1885.

Austin's knotweed

Polygonum douglasii Greene ssp. *austinae* (Greene) E. Murray [JPM, ILBC4]

Polygonum douglasii Greene var. *austinae* (Greene) M.E. Jones

Polygonum aviculare L. [FNA5, HC, HC2]

Sp. Pl. 1: 362. 1753.

common knotweed

*ssp. *aviculare* [FNA5, HC2]

Sp. Pl. 1: 362. 1753.

common knotweed, yard knotweed

Polygonum aviculare L. ssp. *heterophyllum* Asch. & Graebn.

Polygonum aviculare L. ssp. *maximum* (Lindm.) Asch. & Graebn.

Polygonum aviculare L. ssp. *monspeliense* (Thiéb.-Bern. ex Pers.) Arcang.

Polygonum aviculare L. var. *vegetum* Ledeb.

Polygonum heterophyllum Lindm.

Polygonum monspeliense Thiéb.-Bern. ex Pers.

*ssp. *buxiforme* (Small) Costea & Tardif [FNA5, HC2]

Sida. 20: 988. 2003.

American knotweed, prairie knotweed

Polygonum aviculare L. var. *littorale* (Link) Mert.

Polygonum buxiforme Small [ILBC4, KZ99]

Polygonum littorale Link

FNA5: "Although apparently it has a North American origin, subsp. *buxiforme* is considered part of the *Polygonum aviculare* complex because it intergrades with subsp. *aviculare* (M. Costea and F. J. Tardif 2003)."

*ssp. *depressum* (Meisn.) Arcang. [FNA5, HC2]

Comp. Fl. Ital. 583. 1882.

common knotweed, oval-leaf knotweed

Polygonum aequale Lindm.

Polygonum arenastrum Boreau [JPM, ILBC4]

Polygonum aviculare L. ssp. *aequale* (Lindm.) Asch. & Graebn.

Polygonum aviculare L. ssp. *calculatum* (Lindm.) Thell.

Polygonum aviculare L. ssp. *microspermum* (Jordan ex Boreau) Berher

Polygonum aviculare L. var. *depressum* Meisn.

Polygonum calcatum Lindm.

Polygonum microspermum Jordan ex Boreau

Polygonum montereyense Brenckle

FNA5: "Plants referable to *P. arenastrum* in the narrow sense are the most commonly encountered form of the subspecies in North America."

*ssp. *neglectum* (Besser) Arcang. [FNA5, HC2]

Comp. Fl. Ital. 583. 1882.
narrow-leaf knotweed

Polygonum aequale Lindm. ssp. *oedocarpum* Lindm.
Polygonum aviculare L. ssp. *rectum* Chrtek
Polygonum neglectum Besser

***Polygonum californicum* Meisn. [FNA5, HC, HC2]**

Prodr. 14: 100. 1856.
California knotweed

Duravia californica (Meisn.) Greene
Polygonum greenii S. Watson

***Polygonum cascadense* W.H. Baker [FNA5, HC, HC2]**

Madroño. 10: 62, plate 1, fig. 1. 1949.
Cascade knotweed

***Polygonum douglasii* Greene [FNA5, HC, HC2]**

Bull. Calif. Acad. Sci. 1: 125. 1885.
Douglas' knotweed, Douglas's knotweed

Polygonum douglasii Greene ssp. *douglasii* [JPM]
Polygonum douglasii Greene var. *douglasii* [HC]
Polygonum douglasii Greene var. *latifolium* (Engelm.) Greene [HC]
Polygonum emaciatum A. Nelson

H&C treats *Polygonum douglasii* var. *douglasii* and var. *latifolium* as distinct varieties. FNA5: FNA5: "Five taxa that have been included in *Polygonum douglasii* (E. Murray 1982; J. C. Hickman 1984; J. T. Kartesz and K. N. Gandhi 1990) are treated here as distinct species: *P. austiniae*, *P. majus*, *P. nuttallii*, *P. sawatchense*, and *P. spergulariiforme*. Hickman noted extensive intergradation and numerous intermediate specimens among those sympatric elements, but qualitative or quantitative characters allow reliable discrimination in most cases (M. Costea and F. J. Tardif 2005), and species are here circumscribed similar to C. L. Hitchcock (1964). Greene described var. *latifolium* as having leaf blades and achenes broader than those of var. *douglasii*. C. L. Hitchcock (1964) recognized the former, but the characters used to distinguish it appear to vary continuously, and reliable separation is not possible."

***Polygonum engelmannii* Greene [FNA5, HC, HC2]**

Bull. Calif. Acad. Sci. 1: 126. 1885. (as *engelmanni*).
Engelmann's knotweed

***Polygonum erectum* L. [FNA5, HC, HC2]**

Sp. Pl. 1: 363. 1753.
erect knotweed

Polygonum aviculare L. var. *erectum* (L.) Roth ex Meisn.

***Polygonum fowleri* B.L. Rob. [FNA5, HC, HC2]**

Rhodora. 4: 67, plate 35, figs. 14, 15. 1902.
Fowler's knotweed

ssp. *fowleri* [FNA5, HC2]

Rhodora. 4: 67, plate 35, figs. 14, 15. 1902.
Fowler's knotweed

Polygonum allocarpum S.F. Blake

***Polygonum gabrielae* Costea & Tardif [HC2]**

Gabriela's knotweed

***Polygonum heterosepalum* M. Peck & Ownbey [FNA5, HC, HC2]**

Madroño. 10: 250. 1950.
dwarf desert knotweed

***Polygonum majus* (Meisn.) Piper [FNA5, HC, HC2]**

Fl. Palouse Reg. 63. 1901.
Palouse knotweed, wiry knotweed

Polygonum coarctatum Douglas ex Meisn. var. *majus* Meisn.
Polygonum douglasii Greene ssp. *majus* (Meisn.) J.C. Hickman [JPM, ILBC4]

Polygonum minimum S. Watson [FNA5, HC, HC2]

Botany (Fortieth Parallel). 315. 1871.
leafy dwarf knotweed, zigzag knotweed

Polygonum torreyi S. Watson

Polygonum nuttallii Small [FNA5, HC, HC2]

Mongr. Amer. Sp. Polygonum. 132, plate 53. 1895.
Nuttall's knotweed

Polygonum douglasii Greene ssp. *nuttallii* (Small) J.C. Hickman [ILBC4]
Polygonum intermedium Nutt. ex S. Watson

FNA5: "C. L. Hitchcock (1964) suggested that *Polygonum nuttallii* is but a small-flowered form of *P. spergulariiforme*. Although morphologically similar, *P. nuttallii* differs from *P. spergulariiforme* in some respects, including its wiry, purplish stems, short and funnelliform ocreae, adaxially glaucous leaves, longer bracts, shorter fruiting perianth, and achenes."

Polygonum paronychia Cham. & Schtdl. [FNA5, HC, HC2]

Linnaea. 3: 51. 1828.
beach knotweed, black knotweed

Polygonum parryi Greene [FNA5, HC, HC2]

Bull. Torrey Bot. Club. 8: 99. 1881.
Parry's knotweed, prickly knotweed

****Polygonum patulum*** M. Bieb. [FNA5, HC2]

Fl. Taur.-Caucas. 1: 304. 1808.

This species is known from Washington by a single collection in an urban setting. It is not considered established in the flora.

****Polygonum plebeium*** R. Br. [FNA5, HC2]

Prodr. 420. 1810.
Asian knotweed

****Polygonum polycnemoides*** Jaub. & Spach [HC, HC2]

Polygonum polygaloides Meisn. [FNA5, HC, HC2]

Prodr. 14: 101. 1856.
white-margined knotweed

ssp. *confertiflorum* (Nutt. ex Piper) J.C. Hickman [FNA5, HC2]

Madroño. 31: 251. 1984.
close-flowered knotweed

Polygonum confertiflorum Nutt. ex Piper [HC]

Polygonum kelloggii Greene var. *confertiflorum* (Nutt. ex Piper) Dorn

Polygonum watsonii Small [HC]

ssp. *esotericum* (L.C. Wheeler) J.C. Hickman [FNA5, HC2]

Madroño. 31: 251. 1984.
Modoc County knotweed

ssp. *kelloggii* (Greene) J.C. Hickman [FNA5, HC2]

Madroño. 31: 251. 1984.
white-margin knotweed

Polygonum kelloggii Greene [HC]

Polygonum minutissimum L.O. Williams

Polygonum unifolium Small ex Rydb.

ssp. *polygaloides* [FNA5, HC2]

In A. P. de Candolle and A. L. P. de Candolle, Prodr. 14: 101. 1856.
pokeweed fleecflower, white-margined knotweed

Polygonum polygaloides Meisn. var. *montanum* Brenckle

Polygonum ramosissimum Michx. [FNA5, HC, HC2, JPM]

Fl. Bor.-Amer. 1: 237. 1803.

branched knotweed

ssp. *prolificum* (Small) Costea & Tardif [FNA5, HC2]

Sida. 20: 995. 2003.

proliferous knotweed

Polygonum prolificum (Small) B.L. Rob.

Polygonum prolificum (Small) B.L. Rob. var. *autumnale* (Brenckle) Brenckle

Polygonum prolificum (Small) B.L. Rob. var. *profusum* Brenckle

Polygonum ramosissimum Michx. var. *prolificum* Small [ILBC4]

ssp. *ramosissimum* [FNA5, HC2]

Fl. Bor.-Amer. 1: 237. 1803.

bushy knotweed

Polygonum atlanticum (B.L. Rob.) E.P. Bicknell

Polygonum exsertum Small [HC]

Polygonum interior Brenckle

Polygonum latum Small ex Rydb.

Polygonum leptocarpum B.L. Rob.

Polygonum stevensii Brenckle

Polygonum triangulum E.P. Bicknell

FNA5: "Polygonum ramosissimum exhibits considerable morphological complexity and is similar in difficulty to the *P. aviculare* complex. Further research is necessary to understand the infraspecific variability of this species (M. Costea and F. J. Tardif 2003b). Subspecies ramosissimum is heterogeneous; some additional elements may deserve recognition. It is closely related to European Polygonum bellardii Allioni, which was collected in south Boston in 1785 (B. L. Robinson 1902). The latter species has semi-open flowers, petaloid tepals with white or pink margins, and eight stamens. A distinct form of *P. ramosissimum* growing in saline marshes from California has been mistakenly identified as *P. patulum* Bieberstein (M. Costea and F. J. Tardif 2003b). The morphology of late-season achenes and the branching patterns, which have been emphasized by some authors, appear to have little taxonomic value."

Polygonum sawatchense Small [FNA5, HC, HC2]

Bull. Torrey Bot. Club. 20: 213, plate 156. 1893.

Sawatch knotweed

ssp. *oblivium* Costea & Tardif [FNA5, HC2]

Sida. 20: 1637, figs. 1b, 2b, d, f. 2003.

sublime knotweed

ssp. *sawatchense* [FNA5, HC2]

Bull. Torrey Bot. Club. 20: 213, plate 156. 1893.

Sawatch knotweed

Polygonum douglasii Greene ssp. *johnstonii* (Munz) J.C. Hickman [JPM, ILBC4]

Polygonum douglasii Greene var. *johnstonii* Munz

Polygonum exile Eastw.

Polygonum triandrum Coolidge

FNA5 lists this subspecies as occurring in WA.

Polygonum spergulariiforme Meisn. ex Small [FNA5, HC2]

Bull. Torrey Bot. Club. 19: 366. (as spergulariaeforme). 1892.

fall knotweed, spurry knotweed

Polygonum douglasii Greene ssp. *spergulariiforme* (Meisn. ex Small) J.C. Hickman [JPM, ILBC4]

Polygonum spergulariaeforme Meisn. ex Sm. [HC], orthographic variant

**Rheum* [FNA5]

Sp. Pl. 1: 371. 1753. Gen. Pl. ed. 5, 174. 1754.

rhubarb

**Rheum rhabarbarum* L. [FNA5]

Sp. Pl. 1: 372. 1753.

rhubarb

Rumex [FNA5, HC, HC2]

Sp. Pl. 1: 333. 1753. Gen. Pl. ed. 5, 156. 1754.

dock, sorrel

**Rumex acetosa* L. [FNA5, HC, HC2]

Sp. Pl. 1: 337. 1753.

alpine sorrel, common sorrel, garden sorrel, Lapland sorrel

Introduced from Eurasia. FNA5: "Rumex acetosa is morphologically uniform in North America. It sometimes is misidentified as R. hastatulus or R. acetosella. Collections from North America are few in herbaria, and this species probably is not as common in the flora area as has been generally assumed. Some literature reports for R. acetosa may refer to other taxa of the species group."

**ssp. acetosa* [HC2, ILBC4]

garden sorrel

Acetosa pratensis Mill.

Rumex acetosa L. *ssp. pratensis* (Mill.) A. Blytt & O.C. Dahl

ssp. lapponicus Hiitonen [HC2]

Suom. Kasvio, 300. 1933

alpine sorrel, Lapland sorrel

Rumex lapponicus (Hiitonen) Czernov [FNA5]

**Rumex acetosella* L. [FNA5, HC, HC2]

Sp. Pl. 1: 338. 1753.

common sheep sorrel

Acetosa acetosella (L.) Mill.

Acetosa hastata Moench

Acetosella vulgaris Fourreau

Rumex acetosella L. var. *vulgaris* W.D.J. Koch

FNA5: "Rumex acetosella in the broad sense is an extremely variable and taxonomically complicated polyploid complex, which includes diploids, tetraploids, hexaploids, and octoploids. This complex (excluding more distantly related arctic-montane R. graminifolius and its allies) probably originated and developed mostly in southern Europe and southwestern Asia. Some races of R. acetosella now are distributed almost worldwide as introduced and often completely naturalized aliens."

**Rumex britannica* L. [FNA5]

Sp. Pl. 1: 334. 1753.

**Rumex conglomeratus* Murray [FNA5, HC, HC2]

Prodr. Stirp. Gott. 52. 1770.

clustered dock, sharp dock

Rumex xacutus Sm.

FNA5: "Rumex conglomeratus often is confused with immature specimens of R. obtusifolius, as well as with other species (e.g., R. sanguineus). Its distribution in North America is insufficiently known, and some literature records may refer to R. obtusifolius. Rumex conglomeratus and R. sanguineus were placed in subsect. Conglomerati Reehinger f. (K. H. Reehinger 1937)."

**Rumex crispus* L. [FNA5, HC, HC2]

Sp. Pl. 1: 335. 1753.

curly dock, sour dock

Lapathum crispum (L.) Scop.

Rumex crispus L. *ssp. crispus* [KZ99]

FNA5: "Rumex crispus (belonging to subsect. Crispi Reehinger f.; see K. H. Reehinger 1937) is the most

widespread and ecologically successful species of the genus, occurring almost worldwide as a completely naturalized and sometimes invasive alien. It has not been reported from Greenland, but it probably occurs there. *Rumex crispus* hybridizes with many other species of subg. *Rumex*. Hybrids with *R. obtusifolius* (*Rumex xpratensis* Mertens & Koch) are the most common in the genus, at least in Europe, and have been reported for several localities in North America. *Rumex crispus* × *R. patientia* (*Rumex xconfusus* Simonkai) was reported from New York. According to R. S. Mitchell (1986, p. 47), "this hybrid is now spreading along highway shoulders, and it has replaced *R. crispus* in some local areas."* However, that information should be confirmed by more detailed studies since spontaneous hybrids between species of sect. *Rumex* usually are much less fertile and ecologically successful than the parental species. Hybrids of *Rumex* occurring in North America need careful revision. Numerous infraspecific taxa and even segregate species have been described in the *Rumex crispus* aggregate. Many seem to represent minor variation of little or no taxonomic significance, but some are geographically delimited entities that may deserve recognition as subspecies or varieties. The typical variety has inner tepals with three well-developed tubercles; the less common var. *unicallosus* Petermann, with one tubercle, occurs sporadically in North America."

**Rumex dentatus* L. [FNA5, HC, HC2]

Mant. Pl. 226. 1771.
toothed dock

**Rumex hydrolapathum* Huds. [HC2]

**Rumex longifolius* DC. [FNA5]

Fl. Franç. ed. 3. 6: 368. 1815.

ssp. *fueginus* (Phil.) Hultén [HC2]

Ark. Bot. (n. s.) 7(1): 45. 1968.

American golden dock, Tierra del Fuego dock

Rumex fueginus Phil. [FNA5]

FNA5: "*Rumex fueginus*, in spite of its similarities to *R. maritimus*, is more closely related to *R. persicarioides*. Specimens of *R. fueginus* often are misidentified as *R. maritimus*, and the name *R. persicarioides* has been applied to *R. fueginus*. This confusion obscures distribution patterns among members of the aggregate. Several varieties have been described based mostly on teeth variation. These taxa appear to have little taxonomic significance, with the possible exception of var. *athrix* (St. John) Rechinger f., which has entire or subentire inner tepals and occurs in arid regions of the southwestern United States (H. St. John 1915; K. H. Rechinger 1937). *Rumex fueginus* is known in Europe as an uncommon, casual alien."

**Rumex obtusifolius* L. [FNA5, HC, HC2]

Sp. Pl. 1: 335. 1753.

bitter dock

Rumex crispatus Michx.

Rumex rugelii Meisn.

FNA5: "*Rumex obtusifolius*, a member of subsect. *Obtusifolii* Rechinger f. (K. H. Rechinger 1937), is a polymorphic species represented in Eurasia by three or four rather distinct races often treated by European authors as subspecies or varieties. These taxa differ mostly in inner tepal dentation and geographic distribution. In North America the morphotypes often intergrade. In Eurasia this species is differentiated into predominantly western subsp. *obtusifolius* [including *R. obtusifolius* subsp. *agrestis* (Fries) Danser], eastern subsp. *sylvestris* (Wallroth) Rechinger f., intermediate central European subsp. *transiens* (Simonkai) Rechinger f., and montane subsp. *subalpinus* (Schur) Simonkai. Only subspp. *obtusifolius* and *sylvestris* occur in North America; the former seems to be more common. Subspecies *obtusifolius* differs from subsp. *sylvestris* in having larger and more prominently dentate inner tepals with one tubercle, or with three distinctly unequal tubercles; in subsp. *sylvestris* the teeth are usually less than 0.6 mm, developing only near the base of the inner tepals, and the tubercles often almost subequal."

Rumex occidentalis S. Watson [FNA5, HC, HC2]

Proc. Amer. Acad. Arts. 12: 253. 1877.

western dock

Rumex aquaticus L. ssp. *occidentalis* (S. Watson) Hultén

Rumex aquaticus L. var. *fenestratus* (Greene) Dorn [ILBC4]

Rumex bakeri Greene
Rumex confinis
Rumex fenestratus Greene
Rumex fenestratus Greene var. *labradoricus* Rech. f.
Rumex gracilipes Greene
Rumex occidentalis S. Watson var. *labradoricus* (Rech. f.) Lepage
Rumex occidentalis S. Watson var. *procerus* (Greene) J.T. Howell [HC]
Rumex procerus

FNA5: "All of the species of subsect. Aquatici Rechinger f., represented in North America by *Rumex occidentalis*, *R. arcticus*, *R. nematopodus*, and *R. tomentellus*, form a taxonomically complex aggregate with poorly delimited, often intergrading species. Extremes are evidently distinct (e.g., *R. arcticus* and *R. tomentellus*). The taxonomy and distribution of members of this aggregate are still insufficiently known. Some authors prefer to treat all or most of these taxa as subspecies or varieties of *R. aquaticus* in the broad sense. From my point of view, this does not promote a better understanding of their variability and relationships. A number of segregate species have been described and recognized in regional floras in North America. In most cases the features upon which these species are based intergrade. One of the most widely recognized segregates is *Rumex fenestratus* Greene emend. Rechinger f. [*R. aquaticus* subsp. *fenestratus* (Greene) Hultén, *R. occidentalis* S. Watson subsp. *fenestratus* (Greene) Hultén], which, according to K. H. Rechinger (1937), may be distinguished mostly by larger and more cordate fruiting inner tepals (more than 7 mm in *R. fenestratus*, usually less than 7 mm in *R. occidentalis*), and larger achenes (3 mm, and more than 3.5 mm, respectively). The morphotype of *R. fenestratus* occurs mostly along the Pacific coast from central western California to Alaska. Plants with large fruiting inner tepals [known as *R. fenestratus* var. *labradoricus* Rechinger f. or *R. occidentalis* var. *labradoricus* (Rechinger f.) Lepage] occur also in eastern Canada (Newfoundland and Quebec). In this treatment, I follow the taxonomic decision by J. E. Dawson (1979), who carefully analyzed the clinal variability of the *R. occidentalis* aggregate. However, *R. fenestratus* probably deserves recognition at least as a subspecies of *R. occidentalis*, but its taxonomic status needs additional investigation."

var. *occidentalis* [HC, HC2]

western dock

****Rumex patientia* L. [FNA5, HC, HC2]**

Sp. Pl. 1: 333. 1753.

patience dock

Lapathum hortense Lam.

Rumex Ionaczevskii Klokov

Rumex patientia L. ssp. *orientalis* Danser

Introduced from Eurasia. FNA5: "Some North American specimens of *Rumex patientia* appear to belong to subsp. *orientalis* (= *R. orientalis* Bernhardt 1830, not Campderá 1819; *R. Ionaczevskii*), which differs from subsp. *patientia* in having larger inner tepals (6-10 × 8-10 mm, not 4-8 × 4-8 mm). A predominantly Asian variety with three tubercles sometimes is recognized as subsp. *callosus* (Fr. Schmidt ex Maximowicz) Rechinger f. [= var. *callosus* Fr. Schmidt ex Maximowicz; *Rumex callosus* (Fr. Schmidt ex Maximowicz) Rechinger f.]. However, the distribution of infraspecific taxa of *R. patientia* in North America has not been studied in detail."

***Rumex paucifolius* Nutt. [FNA5, HC, HC2]**

J. Acad. Nat. Sci. Philadelphia. 7: 49. 1834.

alpine sheep sorrel, alpine sorrel, mountain sorrel

Acetosa gracilescens (Rech. f.) Á. Löve & Everson

Acetosa paucifolia (Nutt.) Á. Löve

Acetosella gracilescens (Rech. f.) Á. Löve

Acetosella paucifolia (Nutt.) Á. Löve

Rumex engelmannii Meisn. var. *geyeri* Meisn.

Rumex geyeri (Meisn.) Trel.

Rumex paucifolius Nutt. ssp. *paucifolius* [KZ99]

Rumex paucifolius Nutt. var. *gracilescens* Rech. f.

FNA5: "*Rumex paucifolius* is a montane species represented by two chromosome races (diploid and tetraploid) and several ecotypes. Smaller plants from California have been described as var. *gracilescens*;

they are tetraploids and sometimes were regarded as a separate species (Å. Löve and V. Everson 1967; Löve 1986). B. W. Smith (1968) showed that both diploids and tetraploids (and even exceptional spontaneous triploids and individuals with higher polyploid chromosome numbers) occur in many other localities within the range of the species; the differences in chromosome number are not strictly correlated with distribution or morphology. Narrow-leaved ecotypes of *R. paucifolius* reported by Smith sometimes resemble other narrow-leaved taxa of subg. *Acetosella*, especially *R. beringensis*. *Rumex paucifolius* and *R. beringensis* may be regarded as morphologically and karyologically transitional between subg. *Acetosella* and subg. *Acetosa*. *Rumex paucifolius* was placed in the monotypic subsect. *Paucifoliae* Å. Löve & N. Sarkar. Later, Löve transferred it to the segregate genus *Acetosella*, based mostly on the chromosome number of the species, but morphology suggests it is a member of subg. *Acetosa*. Probably the best solution of this problem was proposed by Smith, who noted that "the composite range of vegetative, reproductive, and karyotypic characteristics of the forty-odd species now included in the diversified subgenus *Acetosa* would be only slightly extended by the addition of the five species now classified as *Acetosella*" (p. 683).

***Rumex persicarioides* L. [FNA5, HC, HC2]**

Sp. Pl. 1: 335. 1753.

seashore dock, yellow dock

FNA5: "*Rumex persicarioides* often has been treated by American botanists as a variety or synonym of *R. maritimus* (see R. S. Mitchell 1978). It and *R. fueginus* differ from Eurasian *R. maritimus* in many respects and are as distinct as many widely recognized Eurasian taxa of this aggregate (e.g., *R. palustris*, *R. rossicus* Murbeck, *R. ucranicus* Fischer ex Sprengel, *R. marschallianus* Reichenbach, *R. amurensis* Fr. Schmidt ex Maximowicz, *R. evenkiensis* Elisarjeva). When submerging *R. persicarioides* as a variety of *R. maritimus*, Mitchell noted: "Taxonomic treatment of the group from a Eurasian point of view would undoubtedly shed light on the minor problems which we face in North and South America." However, from a Eurasian point of view (see e.g., K. H. Rechinger 1937, 1949; J. E. Lousley and D. H. Kent 1981; N. N. Tzvelev 1989b), all North American native taxa of subsect. *Maritimi* are evidently specifically different from any native Eurasian ones (with the only possible exception of Pacific plants, which are discussed below). Plants similar to *Rumex persicarioides*, but with bigger tubercles and occurring along the Pacific coast from northern California to British Columbia, are, in my opinion, closer to *R. fueginus* in their habit and vegetative characters. K. H. Rechinger (1937) provisionally determined such specimens as *R. persicarioides*. J. E. Dawson (1979) noted that the Pacific plants differ from Atlantic ones in having bigger tubercles (more than 1.9 × 0.7-1 mm in western plants; less than 1.9 × 0.7 mm in eastern *R. persicarioides* in the narrow sense), and described these large-tubercled plants as a distinct variety, "*R. maritimus* var. *pacificus*", unfortunately, an invalid name. However, that taxon seems to be extremely closely related to or possibly conspecific with the northeastern Asian species, *R. ochotskius* Rechinger f., which is known in eastern Asia from northern Japan to the Okhotsk Sea region of Russian Far East (especially Sakhalin and Kuril islands). The latter species also has large (to 2-2.5 mm) botuliform tubercles with obtuse apices. In the original description Rechinger stated: "'foliorum forma *R. maritimo* simillimus", but N. N. Tzvelev (1989b) in his recent treatment of the genus in the Russian Far East noted that most of the specimens of *R. ochotskius* seen by him had leaf blades rotundate-truncate or broadly cuneate at the base. The *R. persicarioides*-like plants from the Pacific coast of the United States and Canada (as well as their most probable allies from eastern Asia) need additional study. At present I prefer to place them provisionally into *R. persicarioides*, following Rechinger's treatment."

****Rumex pulcher* L. [FNA5, HC, HC2]**

Sp. Pl. 1: 336. 1753.

fiddle dock

***Rumex salicifolius* Weinm. [FNA5, HC, HC2]**

Flora. 4: 28. 1821.

willow dock

var. *angustivalvis* Danser [HC, HC2]

Prodr. [A. P. de Candolle] 14(1): 47. 1856.

western willow dock

Rumex hesperius Greene [FNA5]

FNA5: "*Rumex hesperius* is a little-known species reported only from a localized area in Washington. According to N. M. Sarkar (1958) it is "quite distinct from other species" in its general appearance?"

small plant with large, broad leaves and compact inflorescences."

var. *denticulatus* Torr. [HC2]

California willow dock

Rumex californicus Rech. f. [FNA5]

Rumex salicifolius Weinm. var. *montigenitus* Jeps. [HC]

var. *lacustris* (Greene) J.C. Hickman [HC2]

lake willow dock

Rumex lacustris Greene [FNA5]

var. *transitorius* (Rech. f.) J.C. Hickman [HC2, KZ99]

Madroño 31: 252. 1984.

narrow-leaved dock, Pacific willow dock

Rumex transitorius Rech. f. [FNA5]

From FNA5 regarding *R. salicifolius*: "Rumex salicifolius occurs mostly in southern and central California; it has been reported also from adjacent parts of Arizona (N. M. Sarkar 1958) and Nevada (J. T. Kartesz 1987, vol. 1). The name *R. salicifolius* has been applied in a broad sense to nearly all species of subsect. *Salicifolii*, including even mostly Asian *R. sibiricus*. *Rumex salicifolius* appears to be most closely related to *R. californicus* and *R. utahensis*. J. T. Kartesz (1987, vol. 1) reported *Rumex transitorius* from Washoe County, Nevada; the morphological characters mentioned in his description suggest another taxon of the *R. salicifolius* aggregate. Records from Idaho also need confirmation."

var. *triangulivalvis* (Danser) J.C. Hickman [HC, HC2, JPM]

Madroño 31(4): 252. 1984.

triangular-valved dock, white willow dock

Rumex salicifolius Weinm. ssp. *triangulivalvis* Danser [HC]

Rumex triangulivalvis (Danser) Rech. f. [FNA5]

FNA5: "Rumex triangulivalvis is the most common and widespread species of the *R. salicifolius* group. It often occurs in ruderal habitats and may be expected outside its present range. The names *Rumex salicifolius* and *R. mexicanus* (in the broad sense) were commonly applied to this species by many North American and European authors."

var. *utahensis* (Rech. f.) Reveal [HC2]

Utah willow dock

Rumex utahensis Rech. f. [FNA5]

****Rumex sanguineus* L. [FNA5, HC, HC2]**

Sp. Pl. 1: 334. 1753.

red-vein dock

Lapathum sanguineum (L.) Lam.

Rumex condolodes M. Bieb.

Rumex nemorosus Schrad. ex Willd.

FNA5: "Distribution of *Rumex sanguineus* in North America is known insufficiently. Most reports from California, Washington, New Brunswick, Nova Scotia, Ontario, and Quebec were based on misidentified specimens of *R. conglomeratus* or immature *R. obtusifolius*. *Rumex sanguineus* is represented in Europe by at least two varieties. The uncommon, cultivated, and occasionally escaped var. *sanguineus* (redvein dock or bloodwort) has bright red or purple venation of leaves. It probably arose as a mutant from the common, wild var. *viridis* Sibthorp."

****Rumex stenophyllus* Ledeb. [FNA5, HC2]**

Fl. Altaica. 2: 58. 1830.

narrow-leaved dock, narrowleaf dock

Rumex alluvius F.C. Gates & McGregor

Rumex crispus L. var. *dentatus* Schur

Rumex obtusifolius L. var. *cristatus* Neilreich

Rumex odontocarpus Sandor ex Borbás

FNA5: "Within its native range *Rumex stenophyllus* is mostly confined to slightly saline coastal and alluvial (riparian) habitats. It has successfully colonized a wide range of ruderal and segetal habitats in both Europe and North America. Further spread of this species in the central and southwestern United States and southern Canada may be expected (D. Löve and J.-P. Bernard 1958). It was placed by K. H. Rechinger (1949) in subsect. *Stenophylli* Rechinger f. According to J. K. Morton and J. M. Venn (1990), reports of *Rumex stenophyllus* from Ontario refer to the hybrid *R. crispus* × *R. obtusifolius*, but *R. stenophyllus* may be found in the province in the future. *Rumex stenophyllus* may be distinguished from that hybrid by its fertile fruits and more uniform inner tepals."

***Rumex venosus* Pursh [FNA5, HC, HC2]**

Fl. Amer. Sept. 2: 733. 1813.

veiny dock, winged dock

FNA5: "*Rumex venosus* is a distinctive species rarely confused with any other members of the genus. However, I have seen herbarium specimens of it misidentified as *R. hymenosepalus*, and vice versa."