

Washington Flora Checklist

A checklist of the Vascular Plants of Washington State

Hosted by the University of Washington Herbarium

Family: Saxifragaceae

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

The Washington Flora Checklist aims to be a complete list of the native and naturalized vascular plants of Washington State, 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synonymy at the rank of genus and below follows the [2nd Edition of the Flora of the Pacific Northwest](#) except where superseded by new information.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 font; synonyms with black font.
Native species and infraspecies are marked with **boldface** font.

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

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

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Dicots:

Saxifragaceae [FNA8, HC, HC2] Saxifrage Family

Synonyms: (none)

FNA8: "Classification of Saxifragaceae has been varied and controversial (e.g., A. Cronquist 1981; H. G. A. Engler 1930; J. Hutchinson 1973; G. K. W. Schulze-Menz 1964b; A. L. Takhtajan 1997; R. F. Thorne 1992). Molecular phylogenetic data (D. R. Morgan and D. E. Soltis 1993; Soltis et al. 1993, 2001; Angiosperm Phylogeny Group 1998, 2003) reveal that genera of Saxifragaceae in the broad sense are allied with at least ten separate, often distantly related families of flowering plants. These data also suggest that Saxifragaceae in the narrow sense as treated here consists of about 38 genera worldwide, equivalent to subfamily Saxifragoideae, one of the 15 subfamilies recognized by Engler and one of the 17 recognized by Schulze-Menz of the broadly defined Saxifragaceae. Molecular phylogenetic data (Soltis et al. 2001) show that the narrowly defined Saxifragaceae fall into two major groups: Saxifraga, and the heucheroid clade encompassing all other genera. Molecular data further show that Saxifraga, as traditionally understood, is polyphyletic, comprising two distinct lineages (treated here as Saxifraga and Micranthes) and the monospecific North American Cascadia. The major split between Saxifraga and the heucheroid clade is supported not only by molecular data from six DNA regions but by differences in patterns of floral morphology. Saxifraga has a relatively uniform floral morphology (radially symmetric flowers, with bilateral symmetry restricted to one Asian group of species, which consistently have the same number of sepals, petals, stamens, and carpels). Almost all of the variation in the family in numbers of sepals, petals, stamens, and carpels occurs in the heucheroid clade. Radially symmetric flowers predominate there, but some bilateral flowers are found in Bensoniella, Micranthes, Tolmiea, and some species of Heuchera." NOTE: Past and contemporary research have indicated that Mitella is a polyphyletic group best treated as multiple genera. The treatment here reflects that view, which is also consistent with how these taxa were treated by Abrams in "Illustrated Flora of the Pacific States". FNA8: "Mitella is treated here in the broad sense; phylogenetic data indicate that it is polyphyletic (D. E. Soltis et al. 1990; Soltis and R. K. Kuzoff 1995). Historically, four or five genera have been recognized (including Mitella, Ozomelis Rafinesque, Pectiantia Rafinesque). Formal restructuring of generic boundaries is complicated by the presence of nearly a dozen Asian species (M. Wakabayashi 2001) and lack of a comprehensive understanding of the genus relative to the rest of Saxifragaceae. Mitella nuda and M. diphylla, both with ten stamens, form a clade that would comprise a narrowly defined Mitella. A second clade composed of M. diversifolia, M. stauropetala, M. trifida, and Conimitella williamsii would form a second, distinct genus. Molecular data suggest that M. breweri, M. caulescens, and M. pentandra also form a distinct clade and perhaps a third, distinct genus. The relationships of M. ovalis are less certain; some analyses suggest that it may be sister to the genus Tolmiea (Soltis and Kuzoff; Kuzoff and Soltis, unpubl.)."

References: (none)

Bolandra [FNA8, HC, HC2]

Proc. Amer. Acad. Arts. 7: 341. 1868.
bolandra

Bolandra oregana S. Watson [FNA8, HC, HC2]

Proc. Amer. Acad. Arts. 14: 292.
northern false coolwort

Bolandra oregana S. Watson var. *imnahaensis* (M. Peck) M. Peck

FNA8: "Bolandra oregana is found in northern Oregon and southern Washington in the vicinity of the Columbia River gorge and in the Snake River region of eastern Oregon and Idaho."

Boykinia [FNA8, HC, HC2]

J. Acad. Nat. Sci. Philadelphia. 7: 113. 1834.
boykinia

Boykinia intermedia (Piper) G.N. Jones [FNA8, HC2]

Bot. Surv. Olympic Penins. 168.
greater boykinia, Sierran brookfoam

Boykinia major A. Gray [FNA8, HC, HC2], misapplied
Boykinia major A. Gray var. *intermedia* Piper [HC]

FNA8: "Specimens considered to represent *Boykinia intermedia* from northern Idaho (R. Bacigalupi 1952; F. D. Johnson and R. Steele 1978) were regarded as *B. major* by R. J. Gornall and B. A. Bohm (1985); they require further study. *Boykinia intermedia* differs from that species in its stoloniferous habit, smaller stipules, a campanulate rather than saucer-shaped hypanthium, a shorter free-hypanthium, petals tapered rather than contracted abruptly to a claw and with plane rather than undulate margins, a more pyramidal inflorescence, and an absence of polymethylated flavonols."

***Boykinia occidentalis* Torr. & A. Gray [FNA8, HC2]**

Fl. N. Amer. 1: 577.
coastal brookfoam

Boykinia cincinnata (Rosend. & Rydb.) Fedde

Boykinia elata (Nutt.) Greene [HC]

Boykinia vancouverensis (Rydb.) Fedde

Therofon cincinnatum Rosend. & Rydb.

FNA8: "The nomenclature of *Boykinia occidentalis* has been reviewed by R. J. Gornall and B. A. Bohm (1985). It is a polymorphic species but is not as variable as the extensive synonymy might suggest. Taxa have been described on the basis of variation in inflorescence shape, pubescence, stem color, and sepal orientation. It has been shown that these characters are subject to phenotypic plasticity or developmental age and, as such, provide no grounds for dividing the species (Gornall and Bohm). It is sometimes grown in gardens."

Brewerimitella

Taxon 70(2): 263?285.
bishop's-cap

***Brewerimitella breweri* (A.Gray) R.A.Folk & Y.Okuyama [WTU]**

Taxon 70(2): 263?285.
feathery bishop's-cap, Brewer's mitrewort

Mitella breweri A. Gray

Pectiantia breweri (A. Gray) Rydb.

***Brewerimitella ovalis* (Greene) R.A.Folk & Y.Okuyama [WTU]**

Taxon 70(2): 263?285.
coastal bishop's-cap, coastal mitrewort

Mitella ovalis Greene

Pectiantia ovalis (Greene) Rydb.

***Cascadia* [FNA8, HC2]**

Amer. J. Bot. 14: 38, figs. 1, 2. 1927.

***Cascadia nuttallii* (Small) A.M. Johnson [FNA8, HC2]**

Corr. Status *Saxifraga nuttallii* [textus s.n.].
Nuttall's saxifrage

Saxifraga nuttallii Small [HC]

FNA8: "Johnson placed *Saxifraga nuttallii* in his monotypic genus *Cascadia* based on the unusual habit, free carpels, and spiny seeds. Molecular phylogenetic data (M. E. Mort and D. E. Soltis 1999; Soltis et al. 2001) placed *Cascadia* as sister to the southern South American (Tierra del Fuego) *Saxifragodes* D. M. Moore, both sister to *Micranthes*. Mort and Soltis considered the ovary of *Cascadia* to be superior because the two carpels are distinct to their bases; the hypanthium, fused to each carpel, gives the ovaries a semi-inferior appearance. Ovules in *Cascadia* are bitegmic, as in *Saxifraga*; those of *Micranthes* are usually unitegmic. *Cascadia nuttallii* is found from the coastal mountains to the western slopes of the Cascade Range, from extreme northwestern California to southwestern Washington. The accepted species name was validated in a correction slip attached to reprints of Johnson's article describing *Cascadia*."

***Chrysosplenium* [FNA8, HC, HC2]**

Sp. Pl. 1: 398. 1753; Gen. Pl. ed. 5, 189. 1754.
golden-carpet, golden-saxifrage, water-carpet

***Chrysosplenium glechomifolium* Nutt. [FNA8, HC2]**

Fl. N. Amer. 1: 589.

Pacific golden-saxifrage, Pacific watercarpet

Chrysosplenium glechomaefolium Nutt. [HC], orthographic variant

Chrysosplenium oppositifolium L. var. *scouleri* Hook.

Chrysosplenium scouleri (Hook.) Rose

***Chrysosplenium tetrandrum* Th. Fr. [FNA8, HC, HC2]**

Bot. Not. 1858: 193.

northern golden-saxifrage

Chrysosplenium alternifolium L. ssp. *tetrandrum* (Th. Fr.) Hultén

Chrysosplenium alternifolium L. var. *tetrandrum* (Th. Fr.) N. Lund ex Malmgren

FNA8: "As treated here, *Chrysosplenium tetrandrum* is circumpolar. In North America, disjunct populations occur in subalpine and alpine habitats in the Bitterroot Range of Idaho and Montana, and in the Front Range of Colorado. Some specimens from northern Europe and the Russian Far East that have been referred to *C. alternifolium* appear to be morphologically indistinguishable from *C. tetrandrum*."

***Elmera* [FNA8, HC, HC2]**

N. Amer. Fl. 22: 97. 1905.

elmera

***Elmera racemosa* (S. Watson) Rydb. [FNA8, HC, HC2]**

N. Amer. Fl. 22: 97. 1905.

elmera

Heuchera racemosa S. Watson

FNA8: "*Elmera racemosa* is found at and above timberline in the Cascades of southwestern British Columbia, in the Okanogan and Cascade ranges, on the Olympic Peninsula, Mount Rainier, and Mount Adams in Washington, and in the Oregon Cascades south to northern Klamath County and adjacent Douglas County. It is occasionally cultivated." Hitchcock recognized two varieties based on the nature of the glandular pubescence in the inflorescence, petioles, and lower stems. Close examination of specimens assigned to these varieties shows the primary difference to be one of length and density of pubescence. Glandular pubescence in var. *racemosa* is longer and tends to often be broader at the base.

var. ***puberulenta* C.L. Hitchc. [HC, HC2]**

fuzzy elmera

var. ***racemosa* [HC, HC2]**

In N. L. Britton et al., N. Amer. Fl. 22: 97.

common elmera

***Hemieva* [HC2]**

***Hemieva ranunculifolia* (Hook.) Raf. [HC2, JPM2]**

Flora Telluriana 2: 70. [1837]

buttercup-leaf mock brookfoam

Boykinia ranunculifolia (Hook.) A. Gray

Saxifraga ranunculifolia Hook.

Suksdorfia ranunculifolia (Hook.) Engl. [FNA8, HC]

FNA8: "*Suksdorfia ranunculifolia* is found in the Cascade, Rocky, and Siskiyou mountains of the Pacific Northwest, near sea level in coastal British Columbia, and on Vancouver Island." "*Suksdorfia* has been split into three monospecific genera by different authors. The work of R. J. Gornall and B. A. Bohm (1980, 1984, 1985) emphasized the similarities of the species in supporting a single genus concept. More recent, molecular data (D. E. Soltis et al. 1993; L. A. Johnson and Soltis 1994) suggest that *S. violacea* is more closely related to species of *Bolandra*, that *S. ranunculifolia* is more closely related to species of *Boykinia*, and that the two North American species indeed should be placed into monospecific genera. The South American species is *S. alchemilloides* (Grisebach) Engler of northern Argentina and Bolivia."

Heuchera [FNA8, HC, HC2]

Sp. Pl. 1: 226. 1753; Gen. Pl. ed. 5, 106. 1754.
alumroot, heuchera

Heuchera chlorantha Piper [FNA8, HC, HC2]

Contr. U.S. Natl. Herb. 16: 206.
green-flowered alumroot, meadow alumroot, tall alumroot

FNA8: "Heuchera chlorantha occurs in the Pacific Northwest north to the Queen Charlotte Islands of British Columbia. Inland, it occurs from the eastern base of the Cascade Mountains westward in Oregon and Washington. A putative hybrid between *H. chlorantha* and *H. micrantha* var. *diversifolia*, named *H. xeasthamii* Calder & Savile, has been reported in the Hazelton region of British Columbia. The leaf form and capsule size are intermediate between those of the two parents, both of which occur in the region."

Heuchera cylindrica Douglas [FNA8, HC, HC2]

Fl. Bor.-Amer. 1: 236.
lava alumroot, poker alumroot, roundleaf alumroot

Heuchera cylindrica Douglas var. *alpina* S. Watson [HC]
Heuchera cylindrica Douglas var. *cylindrica* [HC]
Heuchera cylindrica Douglas var. *glabella* (Torr. & A. Gray) Wheelock [HC]
Heuchera cylindrica Douglas var. *orbicularis* (Rosend., Butters & Lakela) Calder & Savile [KZ99]
Heuchera cylindrica Douglas var. *ovalifolia* (Torr. & A. Gray) Wheelock
Heuchera cylindrica Douglas var. *septentrionalis* Rosend., Butters & Lakela [KZ99]
Heuchera cylindrica Douglas var. *suksdorfii* (Rydb.) Dorn
Heuchera glabella Torr. & A. Gray
Heuchera ovalifolia Torr. & A. Gray
Heuchera ovalifolia Torr. & A. Gray var. *orbicularis* Rosend., Butters & Lakela
Heuchera ovalifolia Torr. & A. Gray var. *thompsonii* Rosend., Butters & Lakela
Heuchera saxicola E.E. Nelson
Heuchera suksdorfii Rydb.

FNA8: "Some features of *Heuchera cylindrica* show great variation, including the type and amount of indument on the leaves, petioles, and stems, lobation and shape of leaf base, difference in flower size, complicated by rapid growth of the hypanthium during and after anthesis, change in filament-to-anther ratio before and after anthesis, relative degree of development of bracts of flowering stems, degree of disc development, and relative length and degree of divergence of the beaklike styles of the fruit. We agree with P. K. Holmgren and N. H. Holmgren (1997) that there is no value in recognizing infraspecific taxa in *H. cylindrica* until a more thorough phylogenetic study can show some correlation between morphological variation and infraspecific categories. The Blackfoot Indians used decoctions of roots of *Heuchera cylindrica* for diarrhea and as an astringent. The Flathead infused or chewed roots for diarrhea and stomach cramps. The Kutenai used decoctions of roots for "aching bones" and tuberculosis. The Okanagan-Colville used decoctions of roots as a tonic for the "changing of the blood" and, especially for children and babies, to rinse out the mouth for sore throats. They applied a poultice of mashed, peeled roots to sores and cuts, and mixed roots with puffball spores as a salve for diaper rash. The Shuswap Indians took decoctions of leaves and roots for diarrhea. The Thompson Indians applied chewed leaves and roots on sores or wounds and drank an infusion of roots for liver trouble (D. E. Moerman 1998)."

Heuchera glabra Willd. ex Roem. & Schult. [FNA8, HC, HC2]

Syst. Veg. 6: 216.
alpine alumroot, smooth alumroot

FNA8: "*Heuchera glabra* occurs from near sea level in the Aleutian Islands and the Panhandle in Alaska to above the tree line on Mount Hood, Oregon, in the Cascades, Olympic Mountains, and Wenatchee Mountains in Washington, and in the Coast Mountains to the Selkirk Range in British Columbia. It intergrades with *H. micrantha* where their ranges overlap in British Columbia, and where the two species probably hybridize. It tends to occur at higher elevations than does *H. micrantha*. The Tlingit used this species to treat inflammation of the testicles from syphilis (D. E. Moerman 1998)."

Heuchera grossulariifolia Rydb. [FNA8, HC, HC2]

Mem. New York Bot. Gard. 1: 196.
gooseberry-leaved alumroot

FNA8: "<i>Heuchera grossulariifolia</i>" includes both diploids and autotetraploids. K. A. Segraves and J. N. Thompson (1999) analyzed floral traits and flowering phenology in diploid and autotetraploid plants. Overall, plant size was greater in tetraploids than in diploids; flowers of tetraploids were larger (average hypanthium 6.5 mm) than those of diploids (average hypanthium 5.5 mm) and had a slightly different shape and phenology, but the diploids and tetraploids were not assigned taxonomic status in their study. Diploids and tetraploids were mixed in some populations, where characters intergraded (D. E. Soltis, pers. comm.). The autotetraploids have had two to seven independent origins from diploid progenitors, and do not represent a monophyletic lineage (Segraves and Thompson; Segraves et al. 1999)."

var. ***grossulariifolia*** [HC, HC2]

gooseberry-leaved alumroot

var. ***tenuifolia*** (Wheelock) C.L. Hitchc. [HC, HC2]

Vasc. Pl. Pacif. N. W. [C.L. Hitchcock & al.] 3: 13.

gooseberry-leaved alumroot

Heuchera tenuifolia (Wheelock) Rydb.

Heuchera micrantha Douglas ex Lindl. [FNA8, HC, HC2]

Edwards's Bot. Reg. 15: plate 1302.

crevice alumroot, small-flowered alumroot

var. ***diversifolia*** (Rydb.) Rosend., Butters & Lakela [FNA8, HC, HC2]

Minnesota Stud. Pl. Sci. 2: 42.

small-flowered alumroot

Heuchera diversifolia Rydb.

Heuchera micrantha Douglas ex Lindl. var. *pacifica* Rosend., Butters & Lakela

FNA8: "Variety *diversifolia* occurs in the Coast Ranges, Cascade Range, and Klamath and Santa Lucia mountains."

var. ***hartwegii*** (S. Watson ex Wheelock) Rosend. [FNA8, HC2]

Bot. Jahrb. Syst. 37(2, Beibl. 83): 77.

Hartweg's small-flowered alumroot

Heuchera hartwegii (S. Watson ex Wheelock) Rydb.

Heuchera pilosissima Fisch. & C.A. Mey. var. *hartwegii* S. Watson ex Wheelock

FNA8: "Variety *hartwegii* occurs in the Coast Ranges."

var. ***micrantha*** [FNA8, HC, HC2]

Edwards's Bot. Reg. 15: plate 1302.

small-flowered alumroot

FNA8: "Variety *micrantha* occurs in the Coast Range, Cascade Range, Blue and Klamath mountains, northern Sierra Nevada, and the Columbia River gorge, and on wooded banks of the Columbia and its tributaries."

Leptarrhena [FNA8, HC, HC2]

Chlor. Melvill. 15. 1823.

false saxifrage, leatherleaf saxifrage

Leptarrhena pyrolifolia (D. Don) R. Br. ex Ser. [FNA8, HC, HC2]

Prodr. 4: 48.

leatherleaf saxifrage

Lepuropetalon amplexifolium (Sternb.) Ser.

Saxifraga amplexifolia Sternb.

Saxifraga pyrolifolia D. Don

FNA8: "The Aleuts of Alaska use an infusion of *Leptarrhena pyrolifolia* leaves to treat influenza, and the Thompson Indians of British Columbia apply a poultice of chewed leaves to wounds (D. E. Moerman 1998)."

Lithophragma [FNA8, HC, HC2]

Fl. N. Amer. 1: 583. 1840.

fringecup, lithophragma, prairiestar, woodlandstar

***Lithophragma glabrum* Nutt. [FNA8, HC2]**

Fl. N. Amer. 1: 584.

bulbiferous prairie star, bulbous woodland star

Lithophragma bulbifera Rydb. [HC]

Lithophragma glabra Nutt. [HC], orthographic variant

Lithophragma glabrum Nutt. var. *bulbiferum* (Rydb.) Jeps.

Lithophragma glabrum Nutt. var. *ramulosum* (Suksd.) B. Boivin

Lithophragma tenellum Nutt. var. *floridum* Suksd.

Tellima bulbifera (Rydb.) Fedde

Tellima glabra (Nutt.) Steud.

FNA8: "The presence or absence of bulbils is the only feature distinguishing *Lithophragma glabrum* and *L. bulbiferum*; for this reason *L. bulbiferum* is not recognized in this treatment. Bulbil production is extremely variable within the same clone in *L. heterophyllum* (R. L. Taylor 1965)."

***Lithophragma parviflorum* (Hook.) Nutt. [FNA8, HC2]**

Fl. N. Amer. 1: 584.

small-flower prairie star, small-flower woodland star

Lithophragma parviflora (Hook.) Nutt. [HC], orthographic variant

Lithophragma parviflorum (Hook.) Nutt. var. *parviflorum* [KZ99]

Tellima parviflora Hook.

FNA8: "*Lithophragma parviflorum* is easily identified throughout its range, although morphological variation is apparent when comparing specimens from different habitats and elevations in western North America. Some authors treat *L. trifoliatum* as a variety of *L. parviflorum*."

***Lithophragma tenellum* Nutt. [FNA8, HC2]**

Fl. N. Amer. 1: 584.

slender prairie star, slender woodland star

Lithophragma australe Rydb.

Lithophragma brevilobum Rydb.

Lithophragma rupicola Greene

Lithophragma tenella Nutt. [HC], orthographic variant

Lithophragma tenella Nutt. var. *tenella* [HC], orthographic variant

Lithophragma tenella Nutt. var. *thompsonii* (Hoover) Hitchc. [HC]

Lithophragma tenellum Nutt. var. *thompsonii* (Hoover) C.L. Hitchc.

Lithophragma thompsonii Hoover

Tellima tenella (Nutt.) Steud.

FNA8: "*Lithophragma tenellum* usually occurs on the eastern side of the Cascade Mountains and in the Rocky Mountains, Nevada, and Utah into western North America. Taxonomy of *Lithophragma tenellum* is poorly understood because there are few collections from widely divergent geographical areas. The northwestern population (Washington, British Columbia) has been separated as a distinct species (*L. thompsonii*) based on the extent of the basal leaf lobation, which often shows considerable variation in all species. However, other populations in the Rocky Mountains, Nevada, and Utah have been observed with this lobation, as has Washington-British Columbia material having the more typical leaf form."

***Micranthes* [FNA8, HC2]**

Syn. Pl. Succ. 320. 1812.

saxifrage

***Micranthes apetala* (Piper) Small [FNA8, HC2]**

N. Amer. Fl. 22: 135.

Tiny swamp saxifrage, western swamp saxifrage

Saxifraga apetala Piper [KZ99]

Saxifraga columbiana Piper var. *apetala* (Piper) Engl. & Irmsch.

Saxifraga integrifolia Hook. var. *apetala* (Piper) M.E. Jones [HC]

***Micranthes ferruginea* (Graham) Brouillet & Gornall [FNA8, HC2]**

J. Bot. Res. Inst. Texas. 1: 1020.
rusty saxifrage

Saxifraga ferruginea Graham [HC]
Saxifraga ferruginea Graham var. *ferruginea* [HC]
Saxifraga ferruginea Graham var. *foliacea* A.M. Johnson
Saxifraga ferruginea Graham var. *macounii* Engl. & Irmscher [HC]
Saxifraga ferruginea Graham var. *vreelandii* (Small) Engl. & Irmscher [KZ99]
Saxifraga vreelandii (Small) Fedde ex Just

FNA8: "Plants with bulbils replacing flowers are more common in the southern part (southern Alberta and British Columbia southwards) of the range of *Micranthes ferruginea* and have been called *Saxifraga ferruginea* var. *macounii*."

***Micranthes fragosa* (Suksd. ex Small) Small [FNA8, HC2]**

N. Amer. Fl. 22: 137. 1905.
Clayton's saxifrage

Saxifraga claytoniifolia Canby ex Small
Saxifraga fragosa Suksd. ex Small
Saxifraga fragosa Suksd. ex Small ssp. *claytoniifolia* (Canby ex Small) Bacig.
Saxifraga integrifolia Hook. var. *claytoniaefolia* (Canby) Rosend. [HC]
Saxifraga nidifica Greene var. *claytoniifolia* (Canby ex Small) Elvander [KZ99]

FNA8: "*Micranthes fragosa* is restored to specific status here because a review of its differences with *M. nidifica* shows it to be more distinctive than previously thought, and for consistency in the application of criteria for species recognition within the rest of the genus. In the southernmost part of its range, *M. fragosa* converges in appearance with *M. californica*."

***Micranthes gormanii* (Suksd.) Brouillet & Gornall [FNA8, HC2]**

J. Bot. Res. Inst. Texas. 1: 1020.
Gorman's saxifrage

Saxifraga gormanii Suksd.
Saxifraga occidentalis S. Watson var. *dentata* (Engl. & Irmscher) C.L. Hitchc. [HC]

***Micranthes idahoensis* (Piper) Brouillet & Gornall [FNA8, HC2]**

J. Bot. Res. Inst. Texas. 1: 1020.
Idaho saxifrage

Saxifraga idahoensis Piper
Saxifraga marshallii Greene ssp. *idahoensis* (Piper) D.L. Krause & Beamish
Saxifraga marshallii Greene var. *idahoensis* (Piper) Engl. & Irmscher
Saxifraga occidentalis S. Watson var. *idahoensis* (Piper) C.L. Hitchc. [HC]

FNA8: "*Micranthes idahoensis* appears to hybridize with *M. occidentalis* where their ranges overlap. Intermediates are abundant in some populations along the Idaho-Montana border and in Montana. This phenomenon may explain the range of filament shapes found in *M. occidentalis*, from flattened to slightly club-shaped. The issue of the status of *M. idahoensis* with respect to *M. marshallii* (D. L. Krause and K. I. Beamish 1972) is best deferred until a thorough study of the whole complex over its entire range is done."

***Micranthes integrifolia* (Hook.) Small [FNA8, HC2]**

N. Amer. Fl. 22: 137.
Columbian saxifrage, swamp saxifrage, whole-leaf saxifrage
(see also *Micranthes apetala*, *Micranthes fragosa*, *Micranthes nidifica*)

Saxifraga integrifolia Hook. [HC]
Saxifraga integrifolia Hook. var. *integrifolia* [HC]
Saxifraga laevicarpa A.M. Johnson

FNA8: "The occasional occurrence of sterile pollen has been noted in this as well as in other species of *Micranthes* (as *Saxifraga*, K. I. Beamish 1961). Some populations exhibit gynodioecism (P. E. Elvander 1982)."

***Micranthes lyallii* (Engl.) Small [FNA8, HC2]**

N. Amer. Fl. 22: 143. 1905.

Lyall's saxifrage, red-stemmed saxifrage

Saxifraga lyallii Engl. [HC]

Saxifraga lyallii Engl. ssp. *hultenii* (Calder & Savile) Calder & Savile [KZ99]

Saxifraga lyallii Engl. ssp. *lyallii* [KZ99]

Saxifraga lyallii Engl. var. *hultenii* Calder & Savile

Saxifraga lyallii Engl. var. *laxa* Engl.

FNA8: "Although they have nearly disjunct sets of populations, the subspecies of *Micranthes lyallii* are difficult to distinguish from each other. The more northern plants tend to be larger with wider leaves and often have been called *Saxifragalyallii* subsp. or var. *hultenii*. Apparent hybrids with *M. odontoloma* occur in Alberta, British Columbia, and northern Idaho, and near Glacier National Park, Montana."

***Micranthes nelsoniana* (D. Don) Small [FNA8, HC2]**

N. Amer. Fl. 22: 147.

dotted saxifrage

Saxifraga punctata L. [HC]

var. ***cascadensis*** (Calder & Savile) Gornall & H. Ohba [FNA8, HC2]

J. Bot. Res. Inst. Texas. 1: 1020.

Cascades dotted saxifrage, Nelson's saxifrage

Saxifraga nelsoniana D. Don ssp. *cascadensis* (Calder & Savile) Hultén

Saxifraga punctata L. ssp. *cascadensis* Calder & Savile

Saxifraga punctata L. var. *cascadensis* (Calder & Savile) C.L. Hitchc. [HC]

FNA8: "Variety *cascadensis* has sometimes been confused with *Micranthes odontoloma*, probably because the petal spots of var. *cascadensis* fade on herbarium specimens. The more deeply toothed leaves, the compactness of the inflorescence, and the tangled inflorescence hairs clearly distinguish it from *M. odontoloma*. This variety is present in the Coast and Cascade ranges."

***Micranthes nidifica* (Greene) Small [FNA8, HC2]**

N. Amer. Fl. 22: 134.

Columbia saxifrage, swamp saxifrage

Micranthes plantaginea (Small) Small

Saxifraga columbiana Piper

Saxifraga integrifolia Hook. var. *columbiana* (Piper) C.L. Hitchc. [HC]

Saxifraga integrifolia Hook. var. *leptopetala* (Suksd.) Engl. & Irmscher [HC]

Saxifraga montana (Small) Fedde

Saxifraga nidifica Greene [KZ99]

Saxifraga plantaginea Small

FNA8: "*Micranthes nidifica* is polymorphic and merges to some extent with *M. fragosa* in limited areas of southern Washington and northern Oregon."

***Micranthes occidentalis* (S. Watson) Small [FNA8, HC2]**

N. Amer. Fl. 22: 144. 1905.

mountain saxifrage, redwool saxifrage, western saxifrage

(see also *Micranthes gormanii*, *Micranthes idahoensis*, *Micranthes rufidula*)

Micranthes lata Small

Micranthes saximontana (E.E. Nelson) Small

Saxifraga occidentalis S. Watson [HC]

Saxifraga occidentalis S. Watson var. *allenii* (Small) C.L. Hitchc. [HC]

Saxifraga occidentalis S. Watson var. *occidentalis* [HC]

Saxifraga occidentalis S. Watson var. *wallowensis* M. Peck

Saxifraga reflexa Hook. ssp. *occidentalis* (S. Watson) Hultén

FNA8: "*Micranthes occidentalis* appears closely related to the little-known *M. mexicana* (Engler & Irmscher) Brouillet & Gornall from Chihuahua, Mexico. The latter is the only species of the genus that occurs in Mexico and not in the United States. *Micranthes occidentalis* is disjunct between the northern Rocky Mountains and the Cypress Hills of southeastern Alberta and southwestern Saskatchewan, and the Black Hills of South Dakota. It hybridizes with *M. idahoensis* where their ranges overlap."

Micranthes odontoloma (Piper) A. Heller [FNA8, HC2]

Muhlenbergia. 8: 60.

brook saxifrage, streambank saxifrage

Saxifraga arguta D. Don [HC]

Saxifraga odontoloma Piper [VPBC3, KZ99]

Saxifraga punctata L. ssp. *arguta* (D. Don) Hultén

Saxifraga punctata L. var. *arguta* (D. Don) Engl. & Irmsch.

Micranthes oregana (Howell) Small [FNA8, HC2]

N. Amer. Fl. 22: 138.

bog saxifrage, Oregon saxifrage

Micranthes arnoglossa Small

Micranthes brachypus Small

Saxifraga montanensis Small

Saxifraga oregana Howell [HC]

Saxifraga oregana Howell var. *montanensis* (Small) C.L. Hitchc. [HC]

Saxifraga oregana Howell var. *oregana* [HC]

Saxifraga oregana Howell var. *sierrae* (Coville) Engl. & Irmsch.

FNA8: "In both habitat and morphology, *Micranthes oregana* is similar to *M. pensylvanica*. A thorough investigation of the two species, especially the populations in Colorado that are disjunct from those in Montana, is needed to clarify relationships. The name *Saxifraga integrifolia* was misapplied to *M. oregana* by early California authors."

Micranthes rufidula Small [FNA8, HC2]

N. Amer. Fl. 22: 140.

rusty-hair saxifrage

Saxifraga aequidentata (Small) Rosend.

Saxifraga klickitatensis A.M. Johnson

Saxifraga occidentalis S. Watson ssp. *rufidula* (Small) Bacig.

Saxifraga occidentalis S. Watson var. *aequidentata* (Small) M. Peck

Saxifraga occidentalis S. Watson var. *rufidula* (Small) C.L. Hitchc. [HC]

Saxifraga rufidula (Small) Fedde [KZ99]

Saxifraga rufidula (Small) J.M. Macoun, invalid name

Micranthes tischii (Skelly) Brouillet & Gornall [FNA8, HC2]

J. Bot. Res. Inst. Texas. 1: 1021.

Olympic saxifrage

Saxifraga tischii Skelly

FNA8: "*Micranthes tischii* is known only from the Olympic Peninsula and from inland, mountainous Vancouver Island, British Columbia (Ogilvie & Beguin 798911, V). Closely related to *M. rufidula*, *M. tischii* appears to be highly specialized for its habitat. The unusual persistent, green, not clawed (versus deciduous, white, clawed) petals readily distinguish the two species."

Micranthes tolmiei (Torr. & A. Gray) Brouillet & Gornall [FNA8, HC2]

J. Bot. Res. Inst. Texas. 1: 1022. 2007.

alpine saxifrage, Tolmie's alpine saxifrage, Tolmie's saxifrage

Saxifraga tolmiei Torr. & A. Gray [HC]

Saxifraga tolmiei Torr. & A. Gray var. *ledifolia* (Greene) Engl. & Irmscher [HC]

Saxifraga tolmiei Torr. & Gray var. *tolmiei* [HC]

FNA8: Unlike those of most *Micranthes* species, the leaves of *M. tolmiei* are proximally cauline and the ovules have two integuments. The seeds have a loose, winglike testa."

Mitella [FNA8, HC, HC2]

Sp. Pl. 1: 406. 1753; Gen. Pl. ed. 5, 190. 1754.

bishops-cap, mitrewort

(see also *Mitellastra*, *Ozomelis*, *Pectiantia*)

Mitella nuda L. [FNA8, HC, HC2]

Sp. Pl. 1: 406. 1753.
bare-stemmed mitrewort

Mitella prostrata Michx.

Mitellastra [HC2]

mitrewort

Mitellastra caulescens (Nutt.) Howell [HC2, JPM2]

leafy mitrewort, star-shaped mitrewort

Mitella caulescens Nutt. [FNA8, HC]

Ozomelis [HC2]

mitrewort, ozomelis

Ozomelis diversifolia (Greene) Rydb. [HC2, JPM2]

angle-leaf bishop's-cap

Mitella diversifolia Greene [FNA8, HC]

Ozomelis stauropetala (Piper) Rydb. [HC2, JPM2]

cross-shaped mitrewort, side-flowered mitrewort

Mitella stauropetala Piper [FNA8, HC]

Mitella stenopetala Piper

FNA8: "Two varieties of *Mitella stauropetala* have been recognized. Plants from Oregon and Washington have been referred to var. *stauropetala*, characterized by hypanthium plus sepals often over 3 mm and petal blades with linear lobes. In northern Colorado, southeastern Idaho, eastern Utah, and Wyoming, var. *stauropetala* is replaced by var. *stenopetala*, with hypanthium plus sepals rarely over 3 mm and petal blades less deeply trifid (sometimes entire) and with broader lateral lobes. Variety *stenopetala* is morphologically similar in many respects to *M. trifida*. *Mitella trifida* and *M. stauropetala* require study to determine if plants referred to var. *stenopetala* are the result of hybridization or introgradation between the two species."

Ozomelis trifida (Graham) Rydb. [HC2, JPM2]

, N. Amer. Fl. 22: 95.

three-toothed mitrewort

Mitella trifida Graham [FNA8, HC]

Mitella trifida Graham var. *trifida* [KZ99]

Mitella trifida Graham var. *violacea* (Rydb.) Rosend. [KZ99]

Mitella violacea Rydb.

Ozomelis anomala (Piper) Rydb.

Ozomelis micrantha (Piper) Rydb.

FNA8: "*Mitella trifida* varies in flower size, petal-blade lobing, and pubescence. Plants with relatively small flowers and petal blades entire or shallowly trifid and often purplish have been named var. *violacea*. Plants matching this description occur in British Columbia, Montana, and Washington and appear to represent a minor morphological variant that does not warrant recognition."

Pectiantia [HC2]

mitrewort

Pectiantia pentandra (Hook.) Rydb. [HC2, JPM2]

five-stamen bishop's-cap, alpine mitrewort

Mitella pentandra Hook. [FNA8, HC]

Saxifraga [FNA8, HC, HC2]

Sp. Pl. 1: 398. 1753; Gen. Pl. ed. 5, 189. 1754.

saxifrage

(see also *Cascadia*, *Micranthes*)

Saxifraga adscendens L. [FNA8, HC, HC2]

Sp. Pl. 1: 405.

wedge-leaf saxifrage

Muscaria adscendens (L.) Small

Saxifraga adscendens L. ssp. *oregonensis* (Raf.) Bacig. [KZ99, VPBC3]

Saxifraga adscendens L. var. *oregonensis* (Raf.) Breitung [HC]

FNA8: "Although the North American plants of *Saxifraga adscendens* have been known as subsp. *oregonensis*, expressions of the supposed distinguishing characters appear to overlap completely with the variation found in Europe. The plants produce bulbils on caudices."

***Saxifraga austromontana* Wiegand [HC2]**

Bull. Torrey Bot. Club 27: 389.

matted saxifrage, spotted saxifrage

Ciliaria austromontana (Wiegand) W.A. Weber

Saxifraga bronchialis L. ssp. *austromontana* (Wiegand) Piper [FNA8]

Saxifraga bronchialis L. var. *austromontana* (Wiegand) M. Peck [HC]

***Saxifraga cernua* L. [FNA8, HC, HC2]**

Sp. Pl. 1: 403. 1753.

nodding saxifrage

Saxifraga cernua L. var. *exilioides* Polunin

Saxifraga simulata Small

FNA8: "*Saxifraga cernua* plants rarely set seed; they bear bulbils among the basal leaves. Some reports of *S. sibirica* Linnaeus from Canada are misidentifications of this species."

***Saxifraga cespitosa* L. [FNA8, HC2]**

Sp. Pl. 1: 404. 1753.

tufted alpine saxifrage, tufted saxifrage

Muscaria caespitosa (L.) Haw., orthographic variant

Saxifraga caespitosa L. [HC, KZ99], orthographic variant

Saxifraga caespitosa L. ssp. *caespitosa* [KZ99], orthographic variant

Saxifraga caespitosa L. ssp. *eucaespitosa* Engl. & Irmsch., orthographic variant

Saxifraga caespitosa L. var. *emarginata* (Small) Rosend. [HC], orthographic variant

Saxifraga caespitosa L. var. *lemmonii* Engl. & Irmsch., orthographic variant

Saxifraga caespitosa L. var. *minima* Blank. [HC], orthographic variant

Saxifraga caespitosa L. var. *subgemma* (Engl. & Irmsch.) C.L. Hitchc. [HC], orthographic variant

FNA8: "The North American representatives of *Saxifraga cespitosa* are very variable. It seems futile at this time to recognize any of the infraspecific taxa that have been described, although five are frequently distinguished as either subspecies or varieties. Expressions of all of the purported distinguishing characters overlap or have little apparent geographic or ecologic correlation. The only Southern Hemisphere representatives of *Saxifraga* are closely related to *S. cespitosa*."

***Saxifraga hyperborea* R. Br. [FNA8, HC2]**

Chlor. Melvill. 16. 1823.

pygmy saxifrage

Saxifraga debilis Engelm. ex A. Gray [FNA8, HC], misapplied

Saxifraga flexuosa Sternb.

Saxifraga rivularis L. [FNA8, KZ99, WNHP], misapplied

Saxifraga rivularis L. ssp. *hyperborea* (R. Br.) Dorn

Saxifraga rivularis L. var. *flexuosa* (Sternb.) Engl. & Irmscher

Saxifraga rivularis L. var. *hyperborea* (R. Br.) Hook.

Saxifraga rivularis L. var. *purpurascens* Lange

FNA8: "Reports of *Saxifraga hyperborea* from Mount Washington, New Hampshire (e.g., Å. Löve and D. Löve 1964) require confirmation; all specimens examined from this location appear to be *S. rivularis*. C. L. Hitchcock (1961) treated all western material as *S. debilis*, including that of the Pacific Northwest that is included here. For Colorado, W. A. Weber (1990) appears to have applied the name *S. rivularis* to what we call *S. hyperborea*, and *S. hyperborea* subsp. *debilis* to what we call *S. debilis*. P. K. Holmgren and N. H. Holmgren (1997) included under their broad concept of *S. rivularis* both *S. hyperborea* and *S. debilis*,

noting that the plants had gone usually under the latter name. Both species are present in the Rockies and the Intermountain Region."

***Saxifraga mertensiana* Bong. [FNA8, HC, HC2]**

Mém. Acad. Imp. Sci. St.-Pétersbourg, Sér. 6, Sci. Math. 2: 141.

Merten's saxifrage, woodland saxifrage

Saxifraga mertensiana Bong. var. *eastwoodiae* (Small) Engl. & Irmischer

FNA8: "Plants of *Saxifraga mertensiana* bear bulbils in the axils of basal leaves."

***Saxifraga oppositifolia* L. [FNA8, HC, HC2]**

Sp. Pl. 1: 402. 1753.

purple saxifrage, twinflowered saxifrage

Antiphylla oppositifolia (L.) Fourn.

ssp. *oppositifolia* [FNA8, HC2]

Sp. Pl. 1: 402.

purple mountain saxifrage, purple saxifrage, twinflowered saxifrage

***Saxifraga tridactylites* L. [FNA8, HC, HC2]**

Sp. Pl. 1: 404.

rue-leaved saxifrage

***Saxifraga vespertina* (Small) Fedde [FNA8, HC2]**

Just's Bot. Jahresber. 33(1): 613.

matted saxifrage, spotted saxifrage

Ciliaria vespertina (Small) W.A. Weber

Leptasea vespertina Small

Saxifraga bronchialis L. ssp. *vespertina* (Small) Piper [KZ99]

Saxifraga bronchialis L. var. *vespertina* (Small) Rosend. [HC]

***Saxifragopsis* [FNA8, HC2]**

Bull. Torrey Bot. Club. 23: 19, plate 257. 1896.

strawberry saxifrage

***Saxifragopsis fragarioides* (Greene) Small [FNA8, HC2]**

Bull. Torrey Bot. Club. 23: 20.

strawberry saxifrage

Saxifraga fragarioides Greene

FNA8: "*Saxifragopsis fragarioides* is nearly limited to the Siskiyou Mountains of California and Oregon; disjunct populations have been found in Washington (S. Gage 1992, 1995). The known colonies in Washington are at about 500 meters, lower than those in California and Oregon."

***Suksdorfia* [FNA8, HC, HC2]**

Proc. Amer. Acad. Arts. 15: 41. 1879.

suksdorfia

(see also *Hemieva*)

***Suksdorfia violacea* A. Gray [FNA8, HC, HC2]**

Proc. Amer. Acad. Arts. 15: 42.

violet mock brookfoam

FNA8: "*Suksdorfia violacea* is found from the mountains of Montana to the eastern slopes of the Cascade Mountains of British Columbia and Washington and to northwestern Oregon."

***Sullivantia* [FNA8, HC, HC2]**

Amer. J. Sci. Arts. 42: 22. 1842.

coolwort, sullivantia

***Sullivantia oregana* S. Watson [FNA8, HC, HC2]**

Proc. Amer. Acad. Arts. 14: 292. 1879.

Oregon coolwort

Tellima [FNA8, HC, HC2]

Narr. Journey Polar Sea. 765. 1823.
fringecup

Tellima grandiflora (Pursh) Douglas ex Lindl. [FNA8, HC, HC2]

Bot. Reg. 14: plate, 1178.
fragrant fringecup

Mitella grandiflora Pursh
Tellima odorata Howell

FNA8: "<i>Tellima grandiflora</i> is found in moist, shaded sites from Alaska and British Columbia to California south of San Francisco. It resembles species of <i>Mitella</i> in its finely pinnatifid petals but is distinguished from most of them by the two to three conspicuous, alternate, cauline leaves in <i>Tellima</i>. It is distinguished from <i>M. caulescens</i> by the latter's basipetalous anthesis."

Tiareella [FNA8, HC, HC2]

Sp. Pl. 1: 405. 1753; Gen. Pl. ed. 5, 190. 1754.
coolwort, foamflower, laceflower, false mitrewort

Tiareella trifoliata L. [FNA8, HC, HC2]

Sp. Pl. 1: 406.
three-leaf foamflower

var. **laciniata** (Hook.) Wheelock [FNA8, HC, HC2]

Bull. Torrey Bot. Club. 23: 72.
cut-leaved foamflower

Tiareella californica (Kellogg) Rydb.
Tiareella laciniata Hook.

FNA8: "The terminal leaflet of var. *laciniata* is rhombic."

var. **trifoliata** [FNA8, HC, HC2]

Sp. Pl. 1: 406.
three-leaf foamflower

FNA8: "Variety *trifoliata* has slender roots and caudices."

var. **unifoliata** (Hook.) Kurtz [FNA8, HC, HC2]

Bot. Jahrb. Syst. 19: 378. 1894.
simple-leaved foamflower

Tiareella trifoliata L. ssp. *unifoliata* (Hook.) P.M. Kern
Tiareella unifoliata Hook.

FNA8: "Variety *unifoliata* is relatively uniform throughout its range. Locally in Alberta, it grades into a more deeply lobed leaf form."

Tolmiea [FNA8, HC, HC2]

Fl. N. Amer. 1: 582. 1840.
pig-a-back-plant, thousand mothers, youth-on-age

Tolmiea menziesii (Pursh) Torr. & A. Gray [FNA8, HC, HC2]

Fl. N. Amer. 1: 582.
piggyback-plant

Tiareella menziesii Pursh

FNA8: "Hybrids (with $2n = 21$) between *Tolmiea menziesii* and *Tellima grandiflora* have been reported from Washington (D. E. Soltis and B. A. Bohm 1985). The Cowlitz Indians applied a poultice of fresh leaves to boils and the Mahak Indians ate raw sprouts in early spring (D. E. Moerman 1998)."