Washington Flora Checklist

A checklist of the Vascular Plants of Washington State
Hosted by the University of Washington Herbarium

Family: Dryopteridaceae

19 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and synonymy at the rank of genus and below follows the 2nd Edition of the Flora of the Pacific Northwest except where superceded by new information.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.

Created from the Washington Flora Checklist database on July 12th, 2025 at 8:46am PT.
Available online at https://burkeherbarium.org/waflora/

Comments and questions should be addressed to the checklist administrators:
David Giblin (dgiblin@uw.edu)
Peter Zika (zikap941@gmail.com)

Suggested citation:

Weinmann, F., P.F. Zika, D.E. Giblin, B. Legler. 2002+. Checklist of the Vascular Plants of Washington State. University of Washington Herbarium. https://burkeherbarium.org/waflora/. Accessed Jul 12, 2025.

Ferns and Lycophytes:

Dryopteridaceae [FNA2, HC2] Wood Fern Family

Dryopteris [FNA2, HC, HC2]
Fam. Pl. 2: 20, 551. 1763.
wood-fern

Dryopteris arguta (Kaulf.) Maxon [FNA2, HC, HC2]
Amer. Fern J. 11: 3. 1921.
coastal fern, marginal wood fern

Aspidium argutum Kaulf.

FNA gives authorship as (Kaulf.) Maxon, a 1921 combination; Watt published in 1866. FNA2: "Dryopteris arguta is somewhat variable. It has been suggested that more than one taxon is involved. No hybrids involving D . arguta are known."

Dryopteris carthusiana (Vill.) H.P. Fuchs [FNA2, HC2]
Bull. Soc. Bot. France. 105: 339. 1959.
spinulose wood-fern, toothed wood-fern

Dryopteris austriaca (Jacq.) Schinz & Thell. var. *spinulosa* (O.F. Muell.) Fiori
Dryopteris spinulosa (O.F. Muell.) Watt
Polypodium carthusianum Vill.
Polypodium spinulosum O.F. Muell.

D. austriaca is European. FNA2: "Dryopteris carthusiana is tetraploid. Dryopteris intermedia is one parent, as indicated by chromosome pairing in their hybrid D . × triploidea Wherry. The other parent is the hypothetical missing ancestral species " D . semicristata " (see discussion for D . cristata). Dryopteris carthusiana hybridizes with five species; hybrids can be separated from D . intermedia by the lack of glandular hairs and by having 2-pinnate leaves."

Dryopteris cristata (L.) A. Gray [FNA2, HC, HC2]
Manual. 631. 1848.
shield fern, crested wood-fern

Polypodium cristatum L.

Dryopteris expansa (C. Presl) Fraser-Jenk. & Jermy [FNA2, HC2]
Brit. Fern Gaz. 11: 338. 1977.
northern fern, spreading wood-fern

Dryopteris assimilis S. Walker
Dryopteris campyloptera (Kunze) Clarkson [FNA2], misapplied
Dryopteris dilatata (Hoffm.) A. Gray [Abrams, Peck], misapplied
Dryopteris dilitata (Hoffm.) A. Gray var. *americana* (Fisch.) Hultén
Nephrodium expansum C. Presl

FNA2: "Dryopteris expansa is diploid and is one of the parents of D . campyloptera . Where their ranges overlap in eastern Canada, these two species are very difficult to distinguish except by chromosome number. The growth habit (D . expansa leaves are more erect) is useful in the field. Three hybrids involving D . expansa are known; all are very rare."

Dryopteris filix-mas (L.) Schott [FNA2, HC, HC2]
Gen. Fil. plate 67. 1834.
male fern

Polypodium filix-mas L.

FNA2: "The taxonomy of Dryopteris filix-mas is not well understood. In North America, this fern has been considered both an auto- and an allopolyploid and may be composed of at least two closely related taxa. Plants in the northeast and northwest are tetraploid. These differ morphologically and ecologically from a

taxon of unknown chromosome number in the southwestern Rocky Mountains. The Rocky Mountain taxon closely resembles the Mexican D . pseudofilix-mas (Fée) Rothmaler. Dryopteris filix-mas also occurs in Europe, and it is known to be an allopolyploid of D . caucasica (A. Braun) Fraser-Jenkins & Corley × oreades Fomin."

Polystichum [FNA2, HC, HC2]
Tent. Fl. Germ. 3: 31, 69. 1799.
holly-fern, sword-fern

Polystichum andersonii M. Hopkins [FNA2, HC, HC2]
Amer. Fern J. 3: 116, plate 9. 1913.
Vancouver holly-fern, Anderson's sword-fern

Polystichum braunii (Spenner) Fée ssp. *andersonii* (M. Hopkins) Calder & Roy L. Taylor
Polystichum braunii (Spenner) Fée var. *andersonii* (M. Hopkins) Hultén

FNA2: "Polystichum andersonii is an allotetraploid (D. H. Wagner 1979); its diploid parents are P . munitum and P . kwakiutlii . The triploid cross, P . munitum × andersonii , has been analyzed cytologically (W. H. Wagner Jr. 1973). It is the only sterile hybrid in the genus that develops large colonies through vegetative propagation by its bulblets. Hybrids look very much like some of the more deeply incised forms of Polystichum munitum except that they have abundant filiform scales, abortive sori, and nearly triangular lowermost pinnae with Â± equally incised acroscopic and basiscopic auricles."

Polystichum braunii (Spenner) Fée [FNA2, HC2]
Mém. Foug., 5. Gen. Filic. 278. 1852.
Braun's holly-fern

Single specimen from Pend Oreille County at ID with accurate identification confirmed.

Polystichum californicum (D.C. Eaton) Diels [FNA2, HC, HC2]
Nat. Pflanzenfam. 1(4): 191. 1899.
California sword-fern

Aspidium californicum D.C. Eaton
Polystichum aculeatum (L.) Roth var. *californicum* (D.C. Eaton) Jeps.

FNA2: "Polystichum californicum is an allopolyploid, the evolutionary roots of which include P . dudleyi as the 2-pinnate ancestor. Morphologic and ecological data indicate P . imbricans is ancestor to the northern forms and P . munitum is ancestor to southern forms, suggesting P . californicum is an amalgam of interfertile tetraploids with polyphyletic origins (D. H. Wagner 1979). Cytological analysis corroborates this (A. D. Callan 1972; W. H. Wagner Jr. 1973), but chloroplast DNA studies have detected only the involvement of P . imbricans in the ancestry of P . californicum (P. S. Soltis et al. 1991). The more xeric, rock-inhabiting members of the complex (showing the parental influence of P . imbricans) occupy the northern half of the range whereas plants of more mesic habitats are found to the south. Hybrids with both P . dudleyi and P . munitum are found frequently, because these three species are often sympatric (W. H. Wagner 1973). The hybrid with P . dudleyi (a triploid) will key to that species. The hybrid with P . munitum resembles a less-incised form of P . californicum with aborted sporangia. Polystichum californicum × imbricans has been found only once, in Oregon (A. D. Callan 1972). Another hybrid that will key here, based on its overall appearance, is P . munitum × scopulinum . It lacks filiform microscales and also has malformed sporangia. Such a specimen was the basis of the report of Polystichum californicum in eastern Washington (C. L. Hitchcock et al. 1955--1969, vol. 1). The sterile diploid hybrid between P . dudleyi and P . munitum is indistinguishable from P . californicum except for aborted sporangia and chromosome number (W. H. Wagner Jr. 1973)."

Polystichum californicum (D.C. Eaton) Diels × ***Polystichum munitum*** (Kaulf.) C. Presl

Polystichum imbricans (D.C. Eaton) D.H. Wagner [FNA2, HC2]
Pteridologia. 1: 50. 1979.
imbricate sword-fern, rock sword-fern

ssp. *imbricans* [FNA2, HC2]
Pteridologia. 1: 50. 1979.
imbricate fern, narrow-leaved sword fern

Polystichum munitum (Kaulf.) C. Presl ssp. *nudatum* (D.C. Eaton) Ewan

Polystichum munitum (Kaulf.) C. Presl var. *imbricans* (D.C. Eaton) Maxon [HC, Peck]

FNA2: "Polystichum imbricans subsp. imbricans grows in the Coast Ranges and the Sierra-Cascade axis. It is isolated in the Wallowa Mountains of eastern Oregon. Sun forms of Polystichum munitum are often mistaken for P . imbricans ; characteristics of the distal petiolar scales and indusial margins are more reliable than gross morphologic features for distinguishing them. Polystichum imbricans has narrow distal petiolar scales that fall off early; P . munitum has wide distal petiolar scales (the largest more than 1 mm wide) that are persistent. Polystichum imbricans hybridizes readily with P . munitum , the hybrids usually being sterile but in some places forming hybrid swarms because of partial fertility of the hybrids (D. H. Wagner 1979). The hybrids with P . californicum are discussed under that species."

Polystichum kruckebergii W.H. Wagner [FNA2, HC, HC2]

Amer. Fern J. 56: 4. 1966.

holly fern, Kruckeberg's sword fern fern

FNA2: "Polystichum kruckebergii is widely but sporadically distributed in small numbers in both the Sierra-Cascade and Rocky Mountain systems. Populations sometimes consist of only two or three dwarfed plants that are difficult to distinguish from P . scopulinum , with which they may occur. The spreading teeth of equal size at the pinna apex will usually distinguish this species. Polystichum kruckebergii is a tetraploid presumed to be of hybrid origin, with P . lonchitis and P . lemmonii as its diploid progenitors (W. H. Wagner Jr. 1973), although this hypothesis has not been confirmed. The hybrid with P . munitum has been found in Washington (P. S. Soltis et al. 1987) with both parents, and it is distinguished by intermediate morphology and abortive sporangia."

Polystichum kruckebergii W.H. Wagner × ***Polystichum munitum*** (Kaulf.) C. Presl [FNA2]

hybrid holly fern

reported from WA by Soltis et al. 1987, acc. to FNA

Polystichum lemmonii Underw. [FNA2, HC2]

Native Ferns ed. 6. 116. 1900.

Lemmon's holly fern, Shasta fern

Polystichum mohrioides (Bory) C. Presl [HC], misapplied

Polystichum mohrioides (Bory) C. Presl var. *lemmonii* (Underw.) Fernald [Peck]

FNA2: "Polystichum lemmonii forms sterile hybrids with P . scopulinum and P . munitum . The first hybrid may be abundant where the two parents grow together, which they frequently do in the Wenatchee Mountains of Washington and Siskiyou Mountains of northern California and southwest Oregon. The hybrid is very similar to P . lemmonii but has malformed sporangia and slightly less divided pinnae than P . lemmonii . The P . lemmonii × P . munitum hybrid is morphologically indistinguishable from P . scopulinum ; it is a sterile diploid reported only twice from the Wenatchee Mountains of Washington (W. H. Wagner Jr. 1973; P. S. Soltis et al. 1989). It is possible that this hybrid involves P . imbricans and not P . munitum ; neither study distinguished between them. American authors have misapplied the name Polystichum mohrioides (Bory) C. Presl, a South American species, to P . lemmonii."

Polystichum lemmonii Underw. × ***Polystichum munitum*** (Kaulf.) C. Presl [FNA2]

hidden sword fern

Reported twice from Wenatchee Mountains (Wagner 1973, Soltix et al. 1989) and morphologically indistinguishable from P. scopulinum; parentage possibly P. imbricans ssp. imbricans (not P. munitum) acc. to FNA.

Polystichum lemmonii Underw. × ***Polystichum scopulinum*** (D.C. Eaton) Maxon [FNA2]

serpentine holly fern

Reported from Wenatchee Mountains in FNA; voucher at WTU.

Polystichum lonchitis (L.) Roth [FNA2, HC, HC2]

Tent. Fl. Germ. 3(1): 71. 1799.

mountain fern, northern holly fern

Polypodium lonchitis L.

FNA2: "The spiny spores of P . lonchitis are distinctive and distinguish this from dwarfed forms of other 1-pinnate species."

Polystichum munitum (Kaulf.) C. Presl [FNA2, HC, HC2]
Tent. Pterid. 83. 1836.
common sword fern, western fern
(see also *Polystichum imbricans*)

Aspidium munitum Kaulf.
Polystichum munitum (Kaulf.) K. Presl var. *munitum* [HC]

FNA2: "Polystichum munitum appears to be most closely related to P . imbricans based on morphologic (D. H. Wagner 1979) and electrophoretic (P. S. Soltis et al. 1990) analyses. The chloroplast DNA of P . imbricans , however, is divergent (G. Yatskievych et al. 1988), suggesting a chloroplast origin independent of the nuclear genome. That Polystichum munitum is related to P . acrostichoides is supported by data from chloroplast DNA analysis (G. Yatskievych et al. 1988) but contradicted by data from electrophoretic studies (P. S. Soltis et al. 1990). Polystichum munitum can be distinguished from P . imbricans by its persistent, wide (the largest wider than 1 mm) distal petiolar scales; such scales of P . imbricans are less than 1 mm wide and fall off early. From an evolutionary standpoint, Polystichum munitum is a diploid progenitor of P . andersonii , P . californicum , P . setigerum , and, perhaps, P . scopulinum . Hybrids with all except P . setigerum have been reported, all triploid, attesting to its parental role in the tetraploids (see discussion under each). Hybrids with P . braunii (A. Sleep and T. Reichstein 1967), P . kruckebergii (P. S. Soltis et al. 1987), P . dudleyi (W. H. Wagner Jr. 1973), and P . lemmonii (P. S. Soltis et al. 1989) also have been reported."

Polystichum munitum (Kaulf.) C. Presl × ***Polystichum scopulinum*** (D.C. Eaton) Maxon [FNA2]
hybrid sword fern

FNA cites eastern WA collection treated by FPNW1 as P. californicum

Polystichum scopulinum (D.C. Eaton) Maxon [FNA2, HC, HC2]
Fern Bull. 8: 29. 1900.
mountain holly fern, rock sword fern

Aspidium aculeatum (L.) Sw. var. *scopulinum* D.C. Eaton
Polystichum mohrioides (Bory) C. Presl var. *scopulinum* (D.C. Eaton) Fernald [Peck]

FNA2: "Polystichum scopulinum is widely distributed in the United States west of the 110th meridian, where it occurs in sporadic, usually small populations. The species is abundant only on montane serpentine outcrops. The populations in Newfoundland and Quebec are dramatically disjunct. Polystichum scopulinum is an allopolyploid, believed on morphologic grounds to be derived from P . imbricans × lemmonii (D. H. Wagner 1979). Based on putative hybridization between P . scopulinum and P . munitum (P. S. Soltis et al. 1989; W. H. Wagner Jr. 1973), however, P . munitum may also be involved. This hybrid is discussed under P . californicum ."