Compiled September 1, 2018

These species pages has been valuable and loved for over a decade by WNPS members and the PNW plant community. Untouched since 2007, these pages have been archived for your reference. They contain valuable identifiable traits, landscaping information, and ethnobotanical uses. Species names and data will not be updated.

To view updated taxonomical information, visit the UW Burke Herbarium Image Collection website at http://biology.burke.washington.edu/herbarium/imagecollection.php. For other useful plant information, visit the Native Plants Directory at www.wnps.org.
About Ann Lennartz


Resources developed by Starflower Foundation included an array of educational materials, plant ID cards, project case studies, and this image herbarium. All resources contain Western Washington native plant information and images for use in education, restoration and landscaping projects. As mutually agreed upon with Starflower Foundation, Washington Native Plant Society has made Starflower’s learning and education materials available on our website.
Adiantum aleuticum

Maidenhair Fern, Aleutian maidenhair, western maidenhair, serpentine maidenhair

At a Glance: Small to medium-sized delicate, deciduous fern with a fan-shaped arrangement of five to seven fingerlike branchlets each bearing many toothed leaflets.

- Height: 6-43 inches (15-110 cm).
- Growth Form: Herb or fern.
- Stems: Stems are shiny and wiry, ranging in color from dark brown to purplish or black.
- Leaves: Leaves are deciduous and palmately branched to form an open umbrella with fan-shaped segments that are smooth and flat on the lower margin and cleft into ragged rectangular lobes on the upper margin (Pojar, 425); size: 10-40 cm (4-16 in) across; color: light to bright green. Spore-bearing and sterile leaves are similar in appearance. Leaves are resistant to wetting and shed rain.
- Flowers: No flowers; Spore-bearing sori are found on the underside of the leaf, protected by indusium-like inrolled leaf margins.
- Flowering Period: none.
- Spores are produced in the summer and fall.

Ethnobotanical Uses and Other Facts
Material Uses: Used in basketry and as a screen to dry berries.
Medicinal Uses: Hesquiat people used as a medicine for strength/endurance. Europeans used it as a cough medicine and for its emetic properties.
Name Info: The genus name, Adiantum, comes from the Greek meaning "without wetting", referring to its rain-shedding leaves. The common name "maidenhair" could refer to either the thin black stems or the hair-like fibrous root clusters.
Adiantum aleuticum, continued

Sun/Shade Tolerance
Prefers cool, shady sites.
- partial sun and shade 40%-60%
- mostly shady 60%-80%
- full shade > 80%

Hydrology
Prefers moist soils.

Elevation Range
- low elevation
- mid elevation

Soil Preferences
Prefers humus rich soils and well-drained, moist sites. Tolerant of serpentine soils.
- well drained soils
- humic soils
- nutrient rich soils
- organic soils

Habitat Preferences
Aquatic and Wetland:
- Swales or wet ditches
- Forested wetlands
- Seeps, springs

Shorelines and Riparian:
- Bog margins
- Stream or river banks
- Riparian corridors

Rocky or Gravelly Areas:
- Cliffs
- Rocky slopes

Forests and Thickets:
- Forests and woods
- Coniferous forests
- Old growth forests

Meadows and Fields:
- Mossy areas
**Athyrium filix-femina**

**Lady Fern**

At a Glance: Tall, delicate, light-green fronds from a basal cluster.

- **Height:** Grows 3-6 feet (2 meters) tall.
- **Growth Form:** Fern.
- **Leaves:** Each lance-shaped leaf consists of 20-40 pairs of leaflets; color: light to dark green.
- **Flowers:** None; produces spores.
- **Flowering Period:** None.
- **Landscape Uses:** Aggressive in the garden; easily spreads by spores wherever mossy mineral soil is exposed.

**Sun/Shade Tolerance**
- Partial sun and shade 40%-60%
- Mostly shady 60%-80%
- Full shade > 80%

**Hydrology**
- Wet
- Moist

**Soil Preferences**
- Deep soils
- Basic soils
- Humic soils
- Nutrient rich soils

**Elevation Range**
- All elevations except alpine.
- Low elevation
- Mid elevation
- Sub-alpine

**Habitat Preferences**

**Aquatic and Wetland:**
- Sloughs
- Swales or wet ditches
- Marshes or swamps
- Forested wetlands
- Bogs, fens

**Shorelines and Riparian:**
- Lake shores
- Bog margins
- Stream or river banks
- Riparian corridors

**Forests and Thickets:**
- Forests and woods
- Open forests
- Old growth forests
- Forest edges, openings, or clearings
Blechnum spicant

Deer Fern

At a Glance: Dark green fern leaves grow in tufts from short, stout rhizomes.

- **Height**: Up to 40 inches (1 meter) tall.
- **Growth Form**: Fern.
- **Leaves**: Dark green, once pinnately divided, the divisions have smooth margins.
- **Flowers**: None; produces spores on special modified leaves held upright above the vegetative leaves.
- **Flowering Period**: None.

**Sun/Shade Tolerance**
Prefers shady areas.
- ☑ mostly shady 60%-80%
- ☑ full shade > 80%

**Hydrology**
- ☑ moist

**Elevation Range**
- ☑ low elevation
- ☑ mid elevation

**Soil Preferences**
- ☑ humic soils
- ☑ mineral soils
- ☑ organic soils

**Habitat Preferences**
**Aquatic and Wetland:**
- ☑ Forested wetlands
- ☑ Seeps, springs
**Dryopteris expansa**

**Spiny Wood Fern**

![Sun/Shade Tolerance](image)

At a Glance: A semi-evergreen fern of woodland areas with triangular fronds from a stout rhizome.

- **Height:** To 3 feet (1 meter) tall.
- **Growth Form:** Fern.
- **Leaves:** 3 times pinnate; leaflets 5-20 pairs, the lowest pair broadly triangular and asymmetrical. Tapering toward tip, bottom half of stem bare; shape: blades broadly triangular; size: 20-50 cm (1 m) long; color: green.
- **Flowering Period:** none.
- **Sori round,** partially covered by the round indusium. Indusium horseshoe-shaped.

**Ethnobotanical Uses**

**Food Uses:** The pineapple-like rootstocks of some forms of spiny wood fern were an important starchy food.

**Landscape Uses:** Takes to westside gardens well, thriving in partial shade. Does well from spores; well dug small plants establish well.

**Ecological Importance:** Commonly growing on logs.

<table>
<thead>
<tr>
<th>Sun/Shade Tolerance</th>
<th>Hydrology</th>
<th>Elevation Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔️ partial sun and shade 40%- 60%</td>
<td>✔️ wet</td>
<td>✔️ low elevation</td>
</tr>
<tr>
<td>✔️ mostly shady 60%-80%</td>
<td>✔️ moist</td>
<td>✔️ mid elevation</td>
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</table>

**Soil Preferences**

- ✔️ organic soils

**Wetland Indicator Status:**

FACW (facultative wetland)

**Habitat Preferences**

- ✔️ Forests and woods
- ✔️ Open forests
- ✔️ Coniferous forests
- ✔️ Old growth forests
- ✔️ Nurse logs
Equisetum arvense

Field Horsetail

At a Glance: Succulent, hollow, jointed stems with whorls of branches.

- Height: 6-24 inches (15-60 cm).
- Growth Form: Fern.
- Stems: Stems have regularly spaced nodes or joints; two stem types - sterile stems, which are more common and last longer with 10-12 ridges, and fertile stems, which produce spores in early spring and soon whither.
- Leaves: Reduced to tiny scales that are fused into 6-14 sheaths at stem nodes. Dense whorls of branches (often mistaken for leaves) form at stem nodes; branches are 1-1.5 mm thick, sometimes branch again.
- Flowers: Horsetails reproduce by spores, and do not have flowers; green spores are produced in flesh-colored cone at tip of fertile stem.
- Fertile stems appear before sterile stems, unbranched; spore cone at tip. New shoots emerge mid-February to early May; shape: blunt-tipped cone-like features; size: fertile stems 30 cm (12 in) tall, 8 mm thick; cones-like features 2-3.5 cm long; color: whitish to flesh colored (become brownish just before withering).

Sun/Shade Tolerance
✅ partial sun and shade 40%-60%
✅ mostly shady 60%-80%
✅ full shade > 80%

Hydrology
✅ wet
✅ moist

Soil Preferences
✅ sandy soils
✅ clay soils

Elevation Range
Below 3000 meters.

✅ low elevation
✅ mid elevation

Habitat Preferences
Aquatic and Wetland:
✅ Swales or wet ditches
✅ Marshes or swamps
✅ Forested wetlands
✅ Seeps, springs

Shorelines and Riparian:
✅ Lake shores
✅ Stream or river banks
✅ Riparian corridors

Rocky or Gravelly Areas:
✅ Rocky slopes

Meadows and Fields:
✅ Pastures or fields
✅ Meadows or grassy areas

Disturbed Areas:
✅ Roadsides
✅ Trailsides
✅ Disturbed sites
Equisetum arvense, continued

Ethnobotanical Uses and Other Facts

Material Uses: The silicated stems were used by Native Americans (and still used by some people today) to start hand-drilled fires.

Food Uses: Some people cook and eat the young fertile shoots as a sort of asparagus substitute, its best to eat other early spring wild plants. Ancient Romans ate young, fertile shoots as if they were asparagus. They also used them to make tea and as a thickening powder. Toxicity: Toxic to horses.

Ecological Importance: Often exists in thick stands of shoots that can choke other plants. Requires prolonged effort to remove from sites due to rhizomes. The fertile stems of common horsetail appear in early spring before the vegetative stems have grown tall enough to block spore dispersal by the wind. The spores have appendages on them that curl when wetted and uncurl when dried, which helps disperse the spores and move them deeper in the soil.

Name Info: *arvense* means of the fields. Horsetails are named for a fanciful resemblance between a horses tail and the plants sterile green stems with whorls of wire-like branches.

Interesting Facts: One of the most widespread plants in the world. Often considered a bad garden weed. Horsetails, also known as scouring rushes, have silica in their tissues, which makes them gritty. A ton of horsetails can accumulate as much as 4.5 ounces of gold in its cells, but profitable harvesting is impossible. Can be used as an emery board substitute or crumple in your hands to make a gentle scour, like fine-textured sandpaper, for dishes. Herbalists have used it, though not to a great extent, to heal broken bones. The first vascular plant to send green shoots up through the debris of the 1980 eruption of Mt. St. Helens.
Equisetum telmatiea

Giant Horsetail

At a Glance: More robust and larger than common horsetail. Sheaths around its sterile stems have 14-18 teeth.

- Height: 3-7.5 (10) feet tall; 1-2.3 (3) meters tall
- Growth Form: Fern.
- Stems: Proportionately stouter, and always erect - never sprawling weakly. Fertile stems appear before sterile stems, unbranched, to 60 cm (2 ft) tall; spore cone at tip. New shoots emerge mid-February to early May.
- Leaves: Reduced to tiny scales that are fused into 20-30 sheaths at stem nodes. Dense whorls of branches (often mistaken for leaves) form at stem nodes; shape: sterile stems branched, hollow; size: sheaths to 2.5 cm (1 in) long; color: green.
- Flowers: Horsetails reproduce by spores, and do not have flowers; green spores are produced in flesh-colored cone at tip of fertile stem.
- Flowering Period: none.
- Blunt-tipped cone-features up to 10 cm (4 in) long; color: whitish to flesh colored (become brownish just before withering).

Soil Preferences
- sandy soils

Habitat Preferences
Aquatic and Wetland:
- Swales or wet ditches
- Marshes or swamps
- Forested wetlands
- Seeps, springs
Shorelines and Riparian:
- Stream or river banks
- Riparian corridors
Meadows and Fields:
- Meadows or grassy areas
Disturbed Areas:
- Roadsides
Equisetum telmatiea, continued

Sun/Shade Tolerance
- ✔ full sun > 80%
- ✔ mostly sunny 60%-80%

Hydrology
- ✔ wet
- ✔ moist

Elevation Range
- Below 1000 meters.
  - ✔ low elevation
  - ✔ mid elevation

Ethnobotanical Uses and Other Facts

Food Uses: Preferred horsetail for native groups of the coast. The young spore bearing and vegetative shoots of the giant horsetail were an important springtime vegetable of some Coast Salish and Nuu-chah-nulth peoples. They were picked when young and eaten raw, sometimes with oil, after the papery sheaths head been removed.

Toxicity: Poisonous to horses and livestock. Probably poisonous to humans also, if eaten in large quantities.

Landscape Uses: Good for stabilizing or restoring disturbed or degraded (including logged or burned) areas, for erosion and slope control, for wildlife food or cover, etc. May be less suitable for garden use.

Ecological Importance: Often forms dense colonies.

Name Info: The epithet Temateia is an old name that means "of muddy water or marshes." Called Giant Horsetail because of its size.

Interesting Facts: Horsetails are a very ancient group of plants that grew to the size of trees when dinosaurs roamed the earth.
**Gymnocarpium dryopteris**

**Oak Fern**

![Oak Fern](image)

At a Glance: Delicate, deciduous fronds. Usually solitary, but often forms a mat of herbaceous cover in forests.

- **Height:** To 16 inches (40 cm).
- **Growth Form:** Fern.
- **Stems:** Stalks are thin, dark, and wiry.
- **Leaves:** Fronds with up to 20 pairs of leaflets, the ultimate segments round-toothed; shape: twice- to thrice-pinnately compound, broadly triangular, with the two lateral pinnae shorter than the central one and the lowest pinnae noticeably asymmetrical; size: to 40 cm (16 in) tall; color: dark green.
- **Flowers:** None; produces spores in small, circular, sori arranged in two rows on lower leaflets; indusia lacking.
- **Flowering Period:** None.

**Ethnobotanical Uses and Other Facts**

**Landscape Uses:** This species can form an almost continuous carpet over the forest floor on some sites. It is a very attractive fern, and it forms a beautiful, luxuriant forest understory. Small pieces dug in the wild can be easily established in shady garden spots.

**Name Info:** *Gymnocarpium* means naked fruit because these plants have no indusia. The name oak fern appears to have resulted from a translation of the species name: *Dryopteris* is Greek for oak (*drys*) fern (*pteris*). This fern does not grow near or on oaks, but oak fern is a former name for *Polypodium vulgare*, from that species habit of growing on oak branches.

**Sun/Shade Tolerance**
- ✔️ mostly shady 60%-80%
- ✔️ full shade > 80%

**Elevation Range**
Mostly found at mid-elevations.
- ✔️ low elevation
- ✔️ mid elevation

**Wildlife Value**
- ✔️ Thickets and shelter
Mammals: Forms dense herbaceous stands useful as a cover for forest wildlife.

**Hydrology**
- ✔️ wet
- ✔️ moist

**Habitat Preferences**

**Aquatic and Wetland:**
- ✔️ Forested wetlands

**Shorelines and Riparian:**
- ✔️ Stream or river banks

**Rocky or Gravelly Areas:**
- ✔️ Rocky slopes

**Forests and Thickets:**
- ✔️ Forests and woods
- ✔️ Coniferous forests
- ✔️ Old growth forests
**Polystichum munitum**

**Sword Fern**

At a Glance: A large attractive fern with erect evergreen fronds forming a circular crown.

- **Height:** 3-5 feet (1-1.5 meters).
- **Growth Form:** Fern.
- **Leaves:** Fronds are pinnately divided once with sharply toothed alternating leaflets. Each leaflet has a hilt-like lobe at base representing the hilt of a sword. Overall shape of frond is lanceolate; size: 90-150 cm (3-5 ft) long by 20-30 cm (8-12 in) across; color: dark green.
- **Flowers:** Produces spores in circular sori located halfway between the mid-vein and the margin in rows of two. Insidium is round with fringed margins.
- **Flowering Period:** none.
- **Landscape Uses:** Well suited for dry to moist shady areas in the garden.

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<tr>
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<th>Hydrology</th>
<th>Elevation Range</th>
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<tbody>
<tr>
<td>Prefers shady forest understory.</td>
<td>✔️ moist  ✔️ dry</td>
<td>✔️ low elevation ✔️ mid elevation</td>
</tr>
<tr>
<td>✔️ mostly shady 60%-80%</td>
<td>✔️ full shade &gt; 80%</td>
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</tr>
</tbody>
</table>

**Habitat Preferences**

**Aquatic and Wetland:**
✔️ Forested wetlands

**Forests and Thickets:**
✔️ Forests and woods
✔️ Coniferous forests
✔️ Old growth forests
✔️ Deciduous forests
✔️ Mixed forests
**Pteridium aquilinum**

**Bracken Fern**

At a Glance: Rhizomous perennial fern with large, much-divided solitary fronds.

- Height: Usually 3-6 feet (1-2 meters) tall, sometimes taller.
- Growth Form: Fern.
- Stems: Green to light brown at base.
- Leaves: Blades triangular, 2-3 times pinnate, hairy; stalk stout, longer than the blades; leaflets 10 or more pairs, upper ones reduces and lance-shaped, ultimate segments round toothed, margins rolled.
- Flowers: Produces spores. Sori marginal, continuous, covered by rolled leaf margin; indusium not evident.
- Flowering Period: none.
- Material Uses: Bracken fern leaves were used by Northwest Coast tribes to line traditional pit fires. The dried, chewed rhizomes were used as tinder by the Nuu-chah-nulth. Bundles of the fibers were used as torches.
- Food Uses: The rhizomes were eaten by almost all aboriginal peoples, but because they are constipating, they were consumed with fish eggs or oil.
- Toxicity: Could cause stomach cancer.
- Interesting Facts: Could be toxic, implicated in causing stomach cancer and livestock poisoning.

**Sun/Shade Tolerance**
- ✔ full sun > 80%
- ✔ mostly sunny 60%-80%
- ✔ partial sun and shade 40%-60%

**Hydrology**
- ✔ wet
- ✔ moist

**Elevation Range**
- ✔ low elevation
- ✔ mid elevation
- ✔ sub-alpine

**Soil Preferences**
- ✔ sandy soils

**Habitat Preferences**

**Shorelines and Riparian:**
- ✔ Lake shores
- ✔ Bog margins

**Sub-alpine and Alpine:**
- ✔ Avalanche tracks

**Forests and Thickets:**
- ✔ Forests and woods
- ✔ Forest edges, openings, or clearings

**Meadows and Fields:**
- ✔ Meadows or grassy areas

**Disturbed Areas:**
- ✔ Roadsides
- ✔ Logged sites
- ✔ Burned areas
- ✔ Disturbed sites
References

**Adiantum aleuticum** Suggested References


**Athyrium filix-femina** Suggested References


**Blechnum spicant** Suggested References


**Dryopteris expansa** Suggested References


**Equisetum arvense** Suggested References


**Equisetum telmatiea** Suggested References

Gymnocarpium dryopteris Suggested References


Pteridium aquilinum Suggested References