

COMMON FERNS OF IVY CREEK

Ferns are ancient plants, inconceivably older than any form of flowering plant. Prolific in the Carboniferous Era, some 50 million years ago, much of the coal that is mined today comes from the remains of those ancient ferns. Their descendants today bear the same distinctive characteristics. In fact some fossil remains are virtually identical with living species — the same feathery grace, symmetry of form, and elegance of pattern - that delights contemporary fern enthusiasts.

With ferns, familiarity breeds enthusiasm. To learn even a half dozen species is a good way to start one of the most delightful and accessible pursuits in the natural world.

Christmas Fern

Polystichum acrostichoides

This handsome evergreen is the largest and most common fern at Ivy Creek and can be found along any trail. Its nature to grow in large clumps on otherwise infertile slopes helps to retard erosion and rebuild the soil -- an important ecological role.

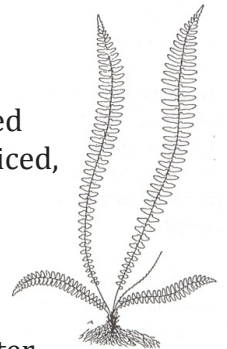
Conspicuously green in winter, it was used by settlers as a Christmas decoration, thus may be the origin of its common name.



Ebony Spleenwort

Asplenium platyneuron

Ebony Spleenwort, the smallest of the ferns, is found along wooded edges of many trails. Often unnoticed, this slender fern is a surprise beauty when examined closely. Its shiny, nearly black, rachis and sword like fertile fronds stand erect in the center of a cluster of sterile basal fronds that lie almost flat on the ground. Come autumn, the fertile fronds will wither leaving the small basal fronds to bless us with a touch of green in the winter months.



Lady Fern

Athyrium asplenoides

This strikingly beautiful fern with its delicate triangular blade is found most often at Ivy Creek along Martin's Branch.

Its J-shaped sori, found on the underside of fertile leaves, and clumped growth distinguish it from the similar Hay-scented Fern, also common at Ivy Creek.

Its slender stalk often, but not always, has a reddish hue, a sure sign that it's Lady Fern.



Hay-scented Fern

Dennstaedtia punctilobulia

This graceful fern's ability to grow equally well in sun as in shade means its found on most trails at Ivy Creek. It is easy to confuse with Lady Fern although its trailing growth pattern and round sori found on the backside of fertile fronds distinguish it from the former. In addition, the underside of the leaflets are lined with tiny hairs topped by glands that produce a "hay scent" when crushed.



Rattlesnake Fern

Botrychium virginianum

Arising in spring, this delicate lacy fern is one of many grape fern varieties. Like all grape ferns, it grows as a single leaf in moist damp woods and shady brooks. In mid-season, a second fertile frond will appear arising from the mid point of the stalk, with coiled spore capsules resembling the rattler of a rattlesnake, thus giving it its name.



Grape Fern

Botrychium obliquum

In the late summer, just as Rattlesnake Fern withers, another grape fern, *Botrychium obliquum*, appears to carry us through the winter with a welcome bit of color. The fertile frond of *B. dissectum* arises from the base of the plant, distinguishing it from *B. virginianum*.



Sensitive Fern

Onoclea sensibilis

Nearly as wide as it is tall, this rather coarse but striking fern is found along waterways and other moist, muddy areas, such as the Red Trail by the reservoir and parts of the White Trail.



Spores are produced on stalks separate from the green fronds; the fertile pinnae roll up at maturity into bead-like structures, suggesting another common name "Bead Fern."

The name "Sensitive Fern" may stem from its rapid demise at the first frost.

More ferns found at Ivy Creek Natural Area

Adder's-tongue Fern

Ophioglossum vulgatum

Blunt-lobed woodsia

Woodsia obtusa

Bracken fern

Pteridium aquilinum

Broad beech fern

Phegopteris hexagonoptera

Cinnamon Fern

Osmunda cinnamomea

Common polypody

Polypodium virginianum

Intermediate woodfern

Dryopteris intermedia

Interrupted Fern

Osmunda claytoniana

Maidenhair Fern

Adiantum pedatum

Marginal woodfern

Dryopteris marginalis

New York Fern

Thelypteris oveboracensis

Spinulose woodfern

Dryopteris spinulosa

Walking Fern

Asplenium rhizophyllum

Fern Identification

One way to begin to learn the common ferns is to familiarize yourself with the terms describing its basic structure.

The fern frond, or blade, is made up of a central rachis, off of which grow the individual leaflets, called pinna(e). The stipe (lower stalk) may or may not have scales.

However, it is the spore-producing organs, the **sori** (clusters of spores) that are the most characteristic and an important factor in classifying ferns. Fronds that have them are called fertile; those without are called sterile. Sori vary widely in their shape, size, and position. Most ferns bear spores on the backside of the pinnae of fertile fronds. Others, such as the grape ferns, send up a separate fertile frond looking quite different from the sterile frond.

