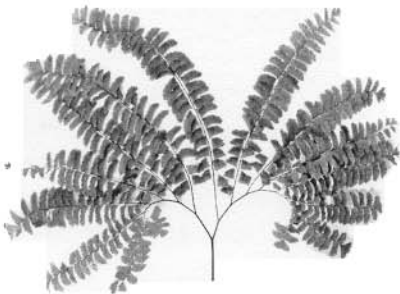


Maidenhair Fern (*Adiantum pedatum*)

Habitat: Rich, moist woodlands; often on limestone soil and under mature hardwood trees.

Description: A delicate and graceful palmately branched fern between 8-16 inches long. The stipe is thin and wiry, purplish-brown and shiny, forking at the top. The fronds are light green and almost circular. The sori are short and slightly crescent-shaped.



Other sources for fern information:

A Field Guide to the Ferns by Boughton Cobb, 1984.

Ferns of Northeastern United States by Farida A. Wiley, 1964.

Common Ferns of Vermont, Agency of Natural Resources, Department of Forests, Parks and Recreation.

This guide was created by Michelle Connair, AmeriCorps member at WVPD, 2007.



The Winooski Valley Park District is a cooperative partnership between the communities of Burlington, Colchester, Essex, Jericho, South Burlington, Williston, and Winooski. Its mission is to preserve outstanding natural areas for the purposes of conservation, stewardship education, wildlife habitat preservation, passive recreation, and as use as outdoor classrooms.

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Winooski Valley
Park District

FERN GUIDE



A field guide to twelve common ferns found at natural areas in Burlington, Colchester, Essex, Jericho, South Burlington, Williston, and Winooski

Marsh Fern (*Thelypteris palustris*)

Habitat: Wet, sunny areas in marshes, meadows and woods.

Description: A medium-sized, thin, delicate fern between 14 – 30 inches long and 4 – 7 inches wide, semi-tapered at base. The stipe is smooth, pale green above and black at the base. The sori are on rows of dots near the midvein. Fertile fronds are slightly smaller in size than infertile fronds, and their leaflet edges curl under, over the spore-bearing sori.



Cinnamon Fern (*Osmunda cinnamomea*)

Habitat: Moist woodlands, meadows, swamps, and stream banks.

Description: A large, bright green fern 2 – 5 feet long, 6 – 12 inches wide, semi-tapered at base. The stipe is round and grooved, and covered with thick, brown, woolly hairs which fall off with age to reveal a smooth, green stipe. The fiddleheads are large and covered with silvery-white hairs. The



spores grow on separate fronds which are narrow and erect and turn a rich cinnamon-brown color in the fall.

Ostrich Fern

(*Matteuccia struthiopteris*)

Habitat: Moist thickets, swamps, along streams and rivers.



(*Ostrich Fern continued*)

Description: A large, feathery fern 3 – 5 feet tall and up to 12 inches wide, semi-tapered at base, grows in vase-like clusters. The distinctive fertile frond is dense and rigid and grows in the center of the fern clump, green maturing to dark brown, persisting through the winter. The stipe is rigid, stout, green, covered with white hairs, and dark brown/deeply grooved at the base. The edible fiddlehead is the state vegetable of Vermont.

Please do not collect fiddleheads at WVPD parks.

Fronds that are Thrice-Cut

Hayscented Fern (*Dennstaedtia punctilobula*)

Habitat: Damp or dry soil in varied habitats.

Description: A lacy, pale yellow-green fern 12 – 18 inches long and 3 – 5 inches wide with droopy tips and broadest near base. Leaflets are toothed with irregularly cut margins. The stipe is dark brown at the base, has a very shallow groove, and is covered with short hairs. The sori are small and cup-like. When crushed, the fronds smell like fresh hay.



Lady Fern

(*Athyrium filix-femina*)

Habitat: Variable but prefers moist woods and partial shade.

Description: Light green, delicate, lacy fronds are 2 – 3 feet long and 8 inches wide, with upward pointing leaflets. The stipe is green and reddish above, and dark at the base. It is flat and grooved on the front and usually has tan or brown scales. Often grows in circular clusters.



Christmas Fern (*Polystichum acrostichoides*)

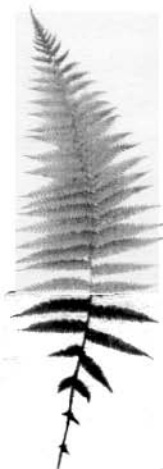


Habitat: Rich and open woods; rocky and sandy soils.

Description: A dark green, shiny, leathery, evergreen fern with leaflets shaped like mittens or stockings, typically 1 – 2 feet long and 4 – 8 inches wide, semi-tapered at base. The stipe is stout and shallowly-grooved with dense light-brown scales. Tan spore cases form in dense clusters on the shorter leaflets at the top of the blade.

Fronds that are Twice-Cut

New York Fern (*Thelypteris noveboracensis*)



Habitat: Found in woods and moist areas along banks of streams.

Description: A soft, delicate, yellow-green fern that is 1 – 2 feet long. The frond tapers to a point at both ends of the blade and is as wide as 4 inches in the center. The lowest leaflets are especially small. The stipe is smooth or slightly hairy, brown and scaly at the base.

Royal Fern (*Osmunda regalis*)

Habitat: Wetlands, including wet meadows, streams, lakeshores, and bogs.

Description: A large, light green, atypical fern, up to 6 feet tall and two feet wide, semi-tapered at base. Leaflets and subleaflets are widely spaced. Stipe is hairless and variably colored –



(*Royal Fern continued*)

light green, tan, brown, or reddish brown – depending on maturity and exposure to light. Spore cases are light brown clusters that grow on the tips of the fertile darker green leaflets. Fiddleheads are smooth, stout, and burgundy.

Interrupted Fern (*Osmunda claytoniana*)



Habitat: Moist woods, meadows, and shaded roadsides.

Description: A large, majestic, bright green deciduous fern 15 – 40 inches long and 11 inches wide, semi-tapered at base. Fiddleheads are woolly and become smooth with age, and are one of the first to emerge in the spring. The stipe is ungrooved and sometimes has fuzzy tufts. Fertile fronds have 2 – 4 pairs of smaller spore-bearing leaflets that wither early, giving the fern its characteristic “interrupted” appearance.

Reminder: There is a no collecting policy at all WVPD parks. Help us preserve native animal and plant communities.

Bracken Fern (*Pteridium aquilinum*)

Habitat: Dry to wet forests, fields, and roadsides.

Description: A triangular-shaped fern with a thick, coarse texture, 2 – 4 feet tall. Each frond has three leaflets. The stipe is smooth, rigid and green; dark brown at the base. Fertile fronds have rolled edges that hide the spore cases. Often grows in dense colonies.



Ferns evolved over 400 million years ago when the first plants moved from the water to the land. There are over 50 species in Vermont, and approximately 12,000 species worldwide.

Fern Shapes



Broadest at base

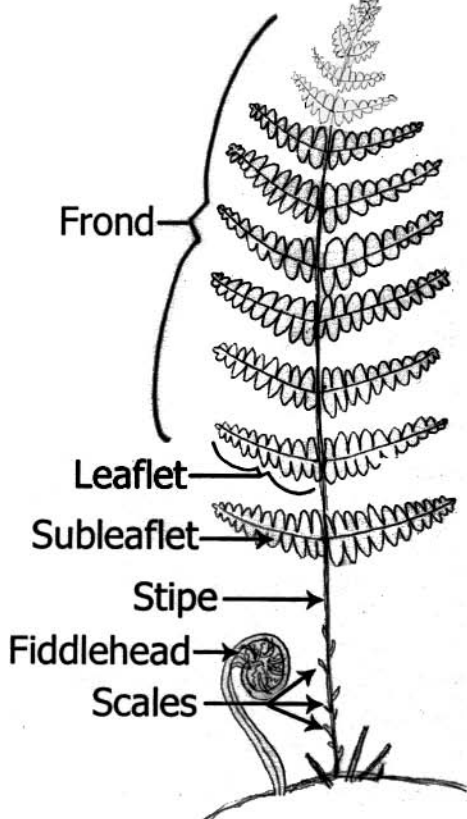


Semi-tapered at base



Tapered at base

Basic Fern Anatomy



Ferns are non-flowering plants which reproduce through spores. Figuring out what kind of spore-producing body a fern has will aid in the identification process. Many ferns produce spores on *sori*, small fruit dots that appear on the underside of fronds. Others produce spores on a specialized stalk separate from the frond.

The ferns in this guide are organized by how many times the leaflets are divided.

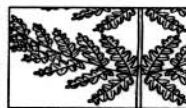
Once-cut



Twice-cut

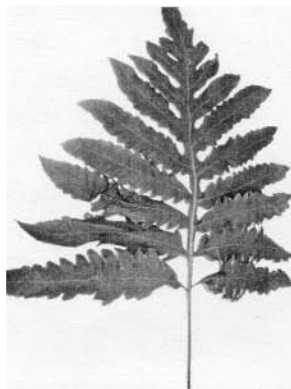


Thrice-cut



Fronds that are Once-Cut

Sensitive Fern (Bead Fern) (*Onoclea sensibilis*)



Habitat: Meadows and woods, swamps, stream banks, & roadside ditches.

Description: A coarse, leathery, almost triangular fern 12 – 20 inches tall and up to 11 inches wide, broadest at base. Fiddleheads are deep

red and new leaves have a reddish tint. The stipe is yellow-tan colored, dark brown at the base with a few scales. The fertile fronds form brown hard bead-like structures that enclose the sporangia and their spores. They are shorter than sterile fronds and persist through the winter. Sensitive fern gets its name from the tendency of the fronds to wither at the first slight frost.