

## **Common Ferns of the Eastern Mountains and Piedmont**

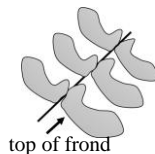


\*Caution-This is a limited species key  
NWPL

1. Ferns with dimorphic fronds, distinct sterile and fertile leaflets on the same frond or on two separate and distinct fronds\*.
  2. Ferns with two separate types of fronds (dimorphic), sterile and fertile.
    3. Fronds once cut.\*
      4. Leaflets opposite .....*Onoclea*
      4. Leaflets alternate.....*Woodwardia* (in part)
    3. Fronds twice cut.\*
      5. Fronds grow from a blackish knobbed base, stems and leaflets mostly lacking hairs.....*Matteuccia*
      5. Fronds lacking blackish knobbed base, stems and underside of leaflets very hairy.....*Osmundastrum*

2. Ferns with fronds that have separate sterile and fertile leaflets on the same frond.

6. Fronds once cut.
  7. Stalk green; all pinnae with a thumb-shaped base .....*Polystichum*
  7. Stalk dark brown; basal pinnae with a thumb-shaped base.....*Asplenium*



6. Fronds twice cut .....*Osmunda*

1. Ferns with only one type of frond, fertile and sterile fronds, and leaflets similar, sometimes the fronds of an individual fern may lack any fertile sori.

8. Fronds twice cut.
  9. Stalked, fan-shaped pinnules..... *Adiantum* (in part)
  9. Pinnules not on stalks, various shapes.
    10. Sori elongated in chain like structures\*\*  
.....*Woodwardia* (in part)
    10. Sori circular or crescent shaped but not in elongated chain like arrangements.

11. Lower two pinnae (leaflets) pointing downward.....*Phegopteris*
11. Lower two pinnae more or less at right angle to stem.





12. Fronds broadest at base, stem wire-like and black, leaf edges rolled....*Thelypteris*

12. Fronds tapered at both ends, stems thin, brown to green.....*Parathelypteris*



8. Fronds thrice cut.

13. Fronds with very scaly bases.....*Dryopteris*

13. Fronds with very few scales or scales lacking.

14. Fronds divided from the base, forming a cluster of fronds.



15. Fronds wider than 6 inches and taller than 1 foot  
.....*Athyrium*

15. Fronds smaller than 6 inches wide and 1 foot tall  
.....*Cystopteris*

14. Fronds divided from a central stalk and/or from near base but not forming clusters of fronds.

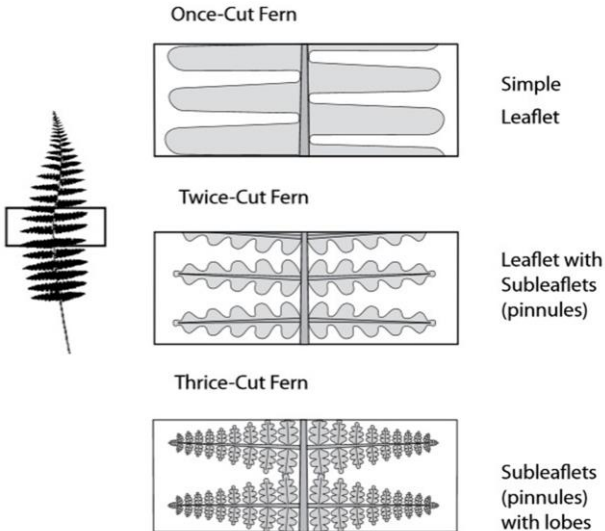
16. Fronds divided into a circular or semi-circular shape with black forked stalks, 1 – 1.5 feet tall  
.....*Adiantum* (in part)

16. Fronds divided into a three parted triangle stalks green to pale brown; 1.5 – 5 feet tall  
.....*Pteridium*

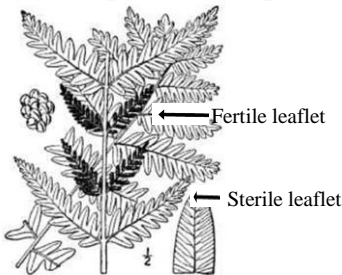


\* Frond(s) is equal to saying leaf or leaves. The smaller leaf units on a frond are referred to as pinnae or leaflets. See below for types of dimorphic fronds.

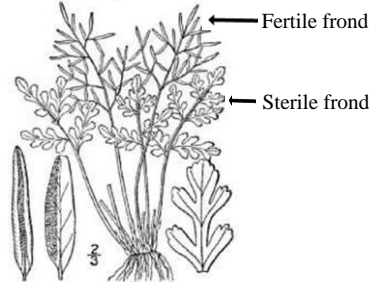
\* **Leaflet Shapes**



**Dimorphic leaflets/pinnae**

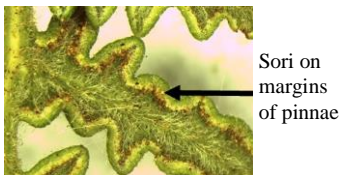


**Dimorphic fronds**



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of the northern United States, Canada and the British Possessions. 3 vols. Charles Scribner's Sons, New York. Vol. 1: 32.

\*\* Sori are clusters of sac like structures known as sporangia that contain spores, a reproductive unit of ferns.



8. © Gerald D. Carr

*Adiantum capillus-veneris*  
Southern Maidenhair (FACU)



**Species Key:**

Leaflets about as long as wide.....  
*A. capillus-veneris*

**-OR-**

Leaflets about 3 times as long as wide.....*A. pedatum*

*Adiantum pedatum*  
Northern Maidenhair (FACU)



*Asplenium platyneuron*  
Ebony Spleenwort (FACU)



*Athyrium angustum*  
Northern Lady Fern (FAC)



*Cystopteris protrusa*  
Lowland Bladder Fern (FAC)



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**Species Key:**

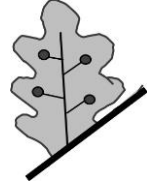
- 1. Sori in between leaflet margin and midvein (Fig A.)
  - 2. Fronds dying in winter.....*D carthusiana*
  - 2. Fronds green through winter.....*D. intermedia*
- 1. Scales at base in dense tufts; sori near leaflet margin (Fig B); fronds twice to thrice cut and green through winter.....*D. marginalis*

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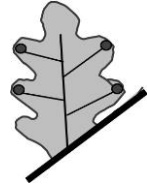
*Dryopteris carthusiana*  
Spinulose Wood Fern (FACW)



**Fig. A**



**Fig. B**



*Dryopteris intermedia*  
Evergreen Wood Fern (FACU)





*Dryopteris marginalis*  
Marginal Wood Fern (FACU)



*Matteuccia struthiopteris*  
Ostrich Fern (FACW)



*Onoclea sensibilis*  
Sensitive Fern (FACW)



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*Osmunda spectabilis*  
Royal Fern (OBL)



**Species Key:**

Fertile (spore bearing) leaflets at the top of frond; infertile leaflets below fertile leaflets .....*O. spectabilis*

**-OR-**

Infertile leaflets above and below fertile leaflets.....*O. claytoniana*

*Osmunda claytoniana*  
Interrupted Fern (FAC)



*Osmundastrum cinnamomeum*  
Cinnamon Fern (FACW)



*Parathelypteris noveboracensis*  
New York Fern (FAC)



*Phegopteris hexagonoptera*  
Broad Beech Fern (FACU)



*Polystichum acrostichoides*  
Christmas Fern (FACU)



*Pteridium aquilinum*  
Northern Bracken Fern (FACU)



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*Thelypteris palustris*  
Eastern Marsh Fern (OBL)



5. © 2016 Glen Mittelhäuser

*Woodwardia areolata*  
 Netted Chain Fern (OBL)



**Species Key:**

Fronds of two different types, sterile and fertile (dimorphic). Leaflets once cut, alternate. Veins of pinnae united...*W. areolata*

**-OR-**

*Woodwardia virginica*  
 Virginia Chain Fern (OBL)



Sterile and fertile fronds look the same. Leaflets twice cut, alternate. Veins of pinnae do not meet/unite

.....*W. virginica*



USDA-NRCS PLANTS  
 Database / Britton,  
 N.L., and A. Brown.  
 1913

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1. Lovit, Marilee. 2016. *Athyrium angustum*. Copyright © Marilee Lovit 2016. New England Wild Flower Society. Web. <<https://gobotany.newenglandwild.org>>.
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4. Patterson, Bruce. 2016. *Matteuccia struthiopteris*. Copyright © Bruce Patterson 2016. New England Wild Flower Society. Web. <<https://gobotany.newenglandwild.org>>.
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8. Carr, Gerald. 2013. *Woodwardia fimbriata*. Digital image. Oregon Flora Image Project. University of Hawaii: Botany Department. Web. 2 Feb. 2016. <[http://www.botany.hawaii.edu/faculty/carr/ofp/woo\\_fim.htm](http://www.botany.hawaii.edu/faculty/carr/ofp/woo_fim.htm)>.