# **Ferns of Nova Scotia** Identification key



April Kerr Flora of Nova Scotia BIOL 3293 Alain Belliveau

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### <u>Key Start</u>

## Is the main stem divided into a trophophore (leafy, photosynthetic portion) and a sporophore / (spore-bearing portion)?

**Ophioglossaceace** Moonworts, Grape ferns & Adder's Tongue

Yes





- Simple morphology
- Initial emergence not coiled
- Thick walled sporangia with thousands of spores
- Main stem has the sporophore and the trophophore
- Lacking specialized cells around the sporangium

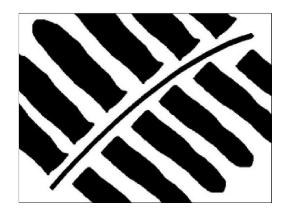
True Ferns

No



- Frond emergence in a crozier
- Thin walled sporangia
- Up to 512 spores
- Ring of specialized cells around the sporangium
- Monomorphic fertile and sterile fronds look the same
- Dimorphic fertile and sterile fronds look different

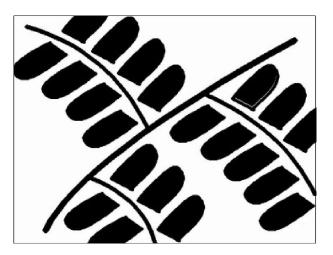
<u>True Fern Key Start - Is it once-, twice-, or</u> thrice-cut?

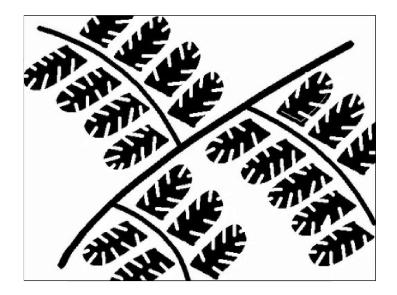


Once-cut One single stem part See page 4



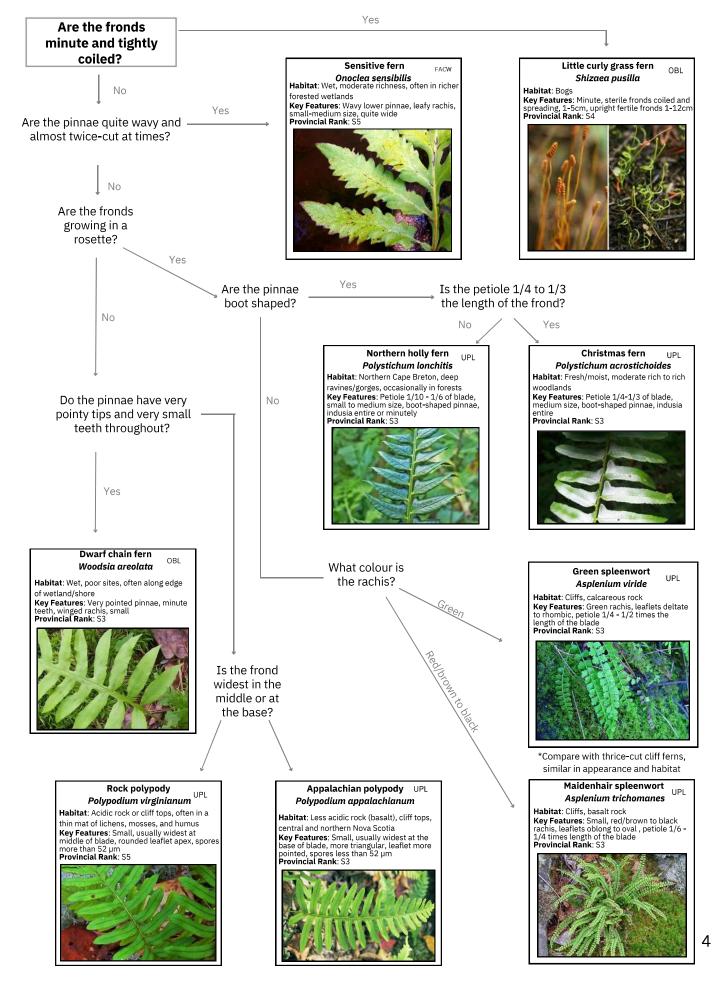
Splitting stem and simple leaves **See page 5** 



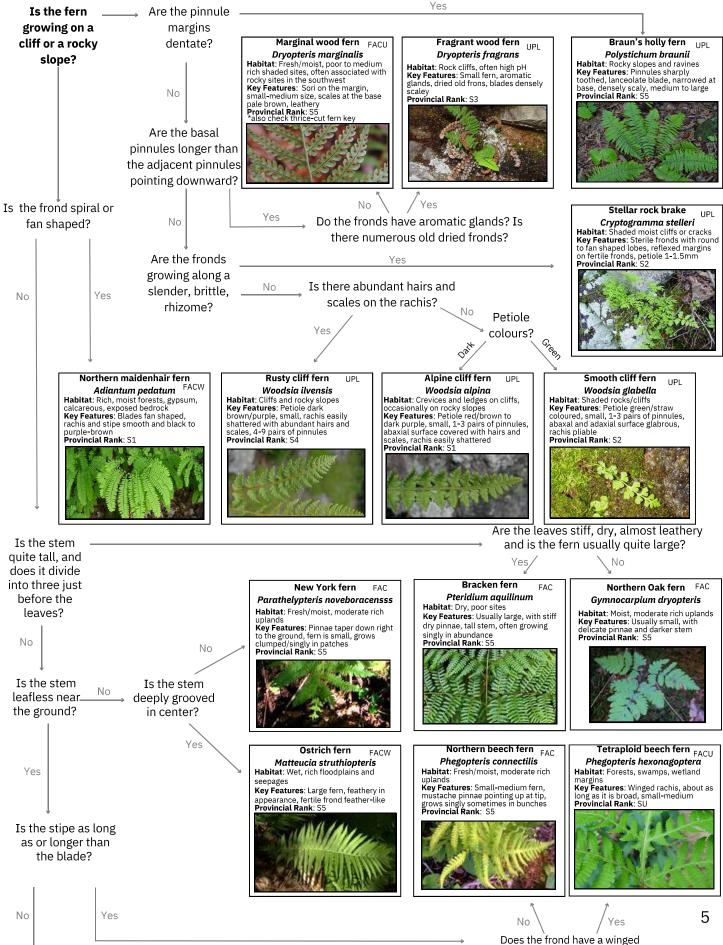


Thrice-cut

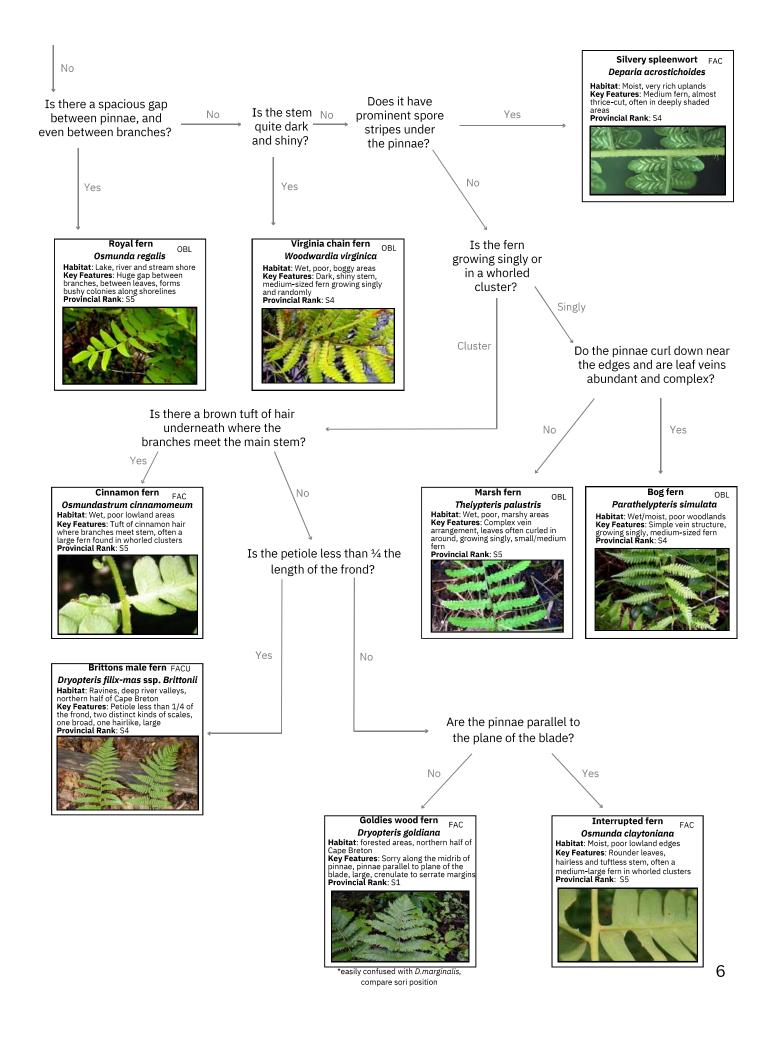
Splitting stem and complex leaves See page 7



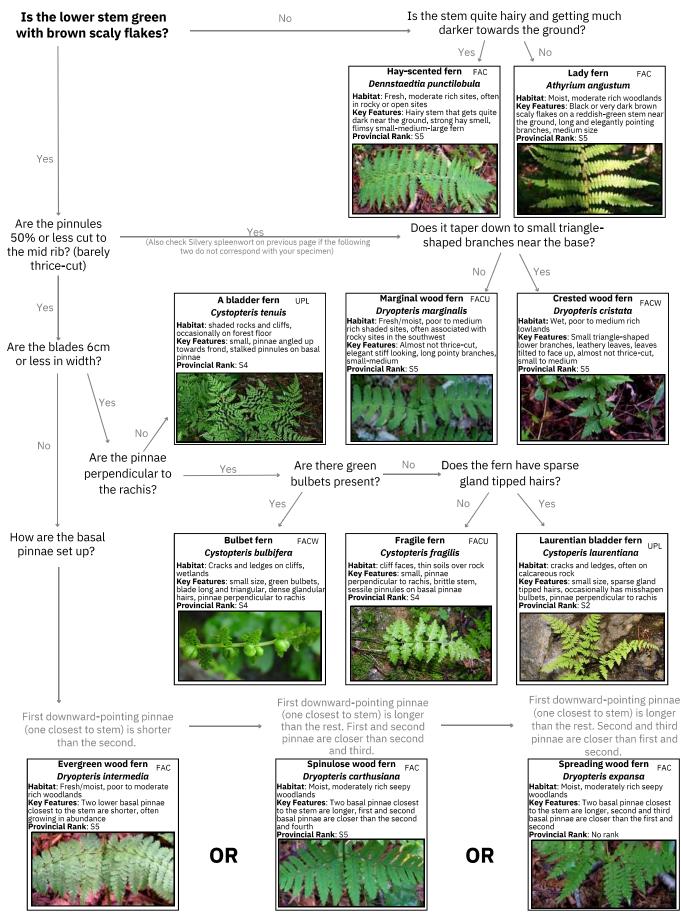
#### **Twice-cut Key Start**



Does the frond have a wingec rachis connecting all pinnae?



#### **Thrice-cut Key Start**



7

#### **Picture sources**

A bladder fern; Robbin Moran (2024) Alpine cliff fern; Frank Le Driant (2024) Appalachian polypody; Marile Lovit (2024) Brauns holly fern; Arthur Haines (2024) Brittons male fern; Donald Cameron (2024) Bulbet fern; Glen Mittelhauser (2024) Common moonwort; Glen Mittelhauser (2024) Fragile fern; Arthur Haines (2024) Fragrant wood fern; Arthur Haines (2024) Goldies wood fern; Donald Cameron (2024) Green spleenwort; Arthur Haines (2024) Laurentian bladder fern; Arthur Haines (2024) Little curly grass; Uli Lorimer (2009) Maidenhair spleenwort; Arthur Haines (2024) Marginal wood fern; Donald Cameron (2024) Northern Adder's tongue; Peter Dzuik (2006) Northern holly fern; Al Schneider (n.d.) Northern maidenhair fern; Donald Cameron (2024) Rusty cliff fern; Donald Cameron (2024) Silvery spleenwort; New England Wildflower Society (2024) Slender rock brake; Arthur Haines (2024) Smooth cliff fern; Arthur Haines (2024) Tetraploid beech fern; Arthur Haines (2024)