

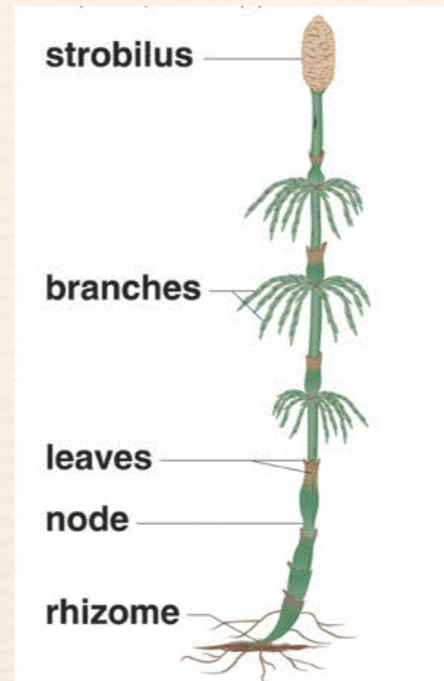
# *Equisetum*

*by Jamie Rose*

*Biology F331*

# Equisitaceae

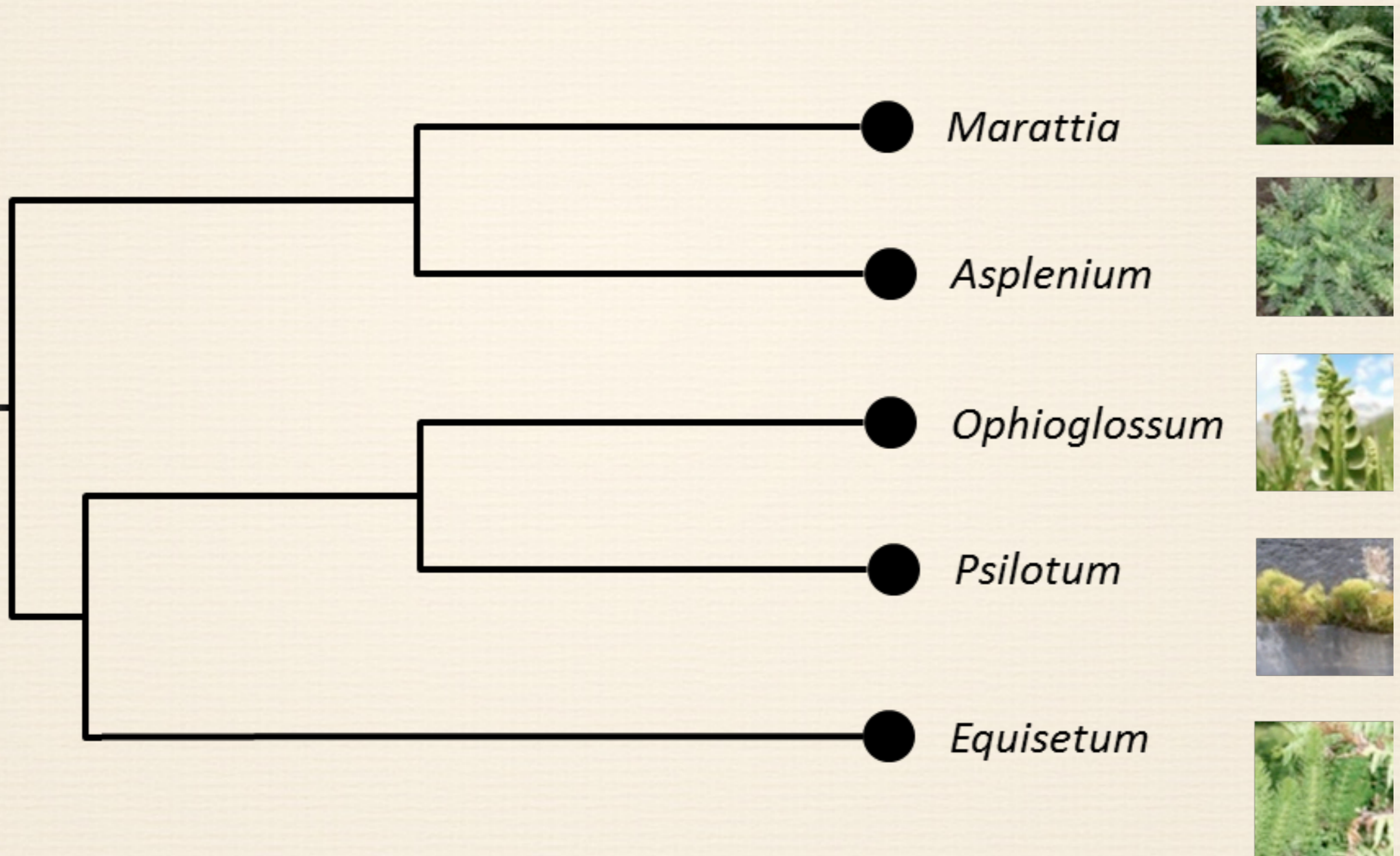
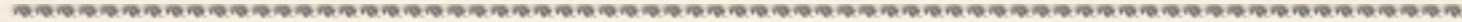
- ❖ vascular
- ❖ reproduce via spores on strobili
- ❖ one living genus: Equisetum



<http://592f46.medialib.glogster.com/media/e751cb7733d81bdf94888d6af4a69d87fcae82ac2142d75748299a4ac4622b2f/tail.jpg>

<https://www.flickr.com/photos/stephenbuchan/4731172430/>

# Phylogeny



# Species: *Equisetum*...

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## Keying Difficulties:

❖ *fluviatile*

❖ *palustre*

❖ *scirpoides*

❖ *variegatum*

❖ *hyemale*

❖ *arvense*

❖ *pratense*

❖ *sylvaticum*

central cavity = 1/8th, 1/6th diameter of stem, etc.

Can be difficult or time consuming to judge this with a dried and flattened specimen!

using “cones” - what if stem is not in fertile phase and this can't be used to identify?

stems branched or unbranched? Some are both!

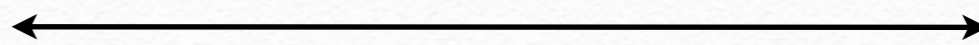
several hybrids, subspecies

# Dichotomous Key

A. Stems branched and/or unbranched

B. Fertile and sterile stems similar, fertile stems green/fleshy, first internode shorter than stem sheath

C. Central cavity more than half the width of stem, sheaths with 15-20 dark teeth



*E. fluviatile*

B. Fertile and sterile stems not alike, first internode longer than stem sheath, coning stem not fleshy

D. Stem sheath teeth brown, broad, and flared; papery



*E. sylvaticum*

D. Stem teeth dark and stiff

E. Branches spreading, not ascending



*E. pratense*

*Equisetum fluviatile*



161192



*Equisetum fluviatile*

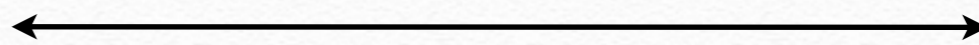


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*Equisetum sylvaticum*

33311



*Equisetum sylvaticum*



174792

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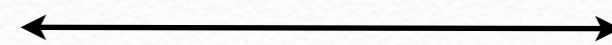
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*E. pratense*



*Equisetum pratense*



*Equisetum pratense*

12630



Steffi Ickert-Bond









35675

*Equisetum pratense*



# Summary

	<i>E. sylvaticum</i>	<i>E. fluviatile</i>	<i>E. pratense</i>
Fertile Stem			
Sheaths			
Appearance	up to 70 cm long, stomata in 2 bands, loose sheaths, found in woods	up to 1 m high, mostly unbranched, more ridges, often in water	up to 50 cm long, whorled branches, in moist woods, meadows

# Museum Specimens

Studebaker, Stacy. 3 July 2007. Kodiak National Wildlife Refuge, ALAAC: V161192. Equisetaceae: *Equisetum fluviatile*. Examined 28 March 2015.

Viereck, Leslie A. 17 July 1964. Kantishna River Quad, ALAAC: 60151. Equisetaceae: *Equisetum fluviatile*. Examined 28 March 2015.

Harms, Vernon L. 7 July 1965. Tanana Valley Harding Lake, ALAAC: 33311. *Equisetum sylvaticum*. Examined 28 March 2015.

Studebaker, Stacy. 13 July 2014. Kodiak Island, ALAAC: V174792. Equisetaceae: *Equisetum sylvaticum*. Examined 28 March 2015.

Harms, Vernon L. 6 July 1965. Big Delta Quad Mile 300 Richardson Highway, ALAAC: 35675. Equisetaceae: *Equisetum pratense*. Examined 28 March 2015.



# Literature Cited

- Hulten, Eric. 1968. *Flora of Alaska and Neighboring Territories: A Manual of the Vascular Plants*. Stanford University Press, Stanford, CA.
- Cody, William J. 2000. *Flora of the Yukon Territory, Second Edition*. NRC Research Press, Ottawa.

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