

OSU MG Study Group Diagnostic Show-and-Tell Highlights: April 1, 2019

Prepared and photographed by Elizabeth Price

Join our friendly OSU MG Study Group on the first Monday of each month from 1 to 3 pm for Diagnostic Show-and-Tell.

Have fun while learning! We explore bugs, diseases and more.

Below are a few samples of what MGs brought to our last session.

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Japanese-cedar (*Cryptomeria japonica*)

Judy brought in foliage and seed cone samples of a Japanese-cedar, a conifer in the cypress family (Cupressaceae). It is the sole species in *Cryptomeria* but not a true cedar as it is not in the *Cedrus* genus.

Japanese-cedar is probably most easily confused with the giant sequoia (*Sequoiadendron giganteum*)--they are both large trees with awl-like foliage and stringy reddish-brown bark. To differentiate between the two, note the color, size and feel of the awls. Also look for the female and male cones, which are typically set in large numbers.

Japanese-cedar awls are larger, less prickly, more of a true green and held more loosely against the twig; giant sequoia awls are VERY prickly, narrower, more blue-green and attach to the twig more tightly.

The female cones of both species are green when immature and brown at maturity. At about one inch in diameter, Japanese-cedar cones are roundish with pointy extensions on the scales. Giant sequoia seed cones are up to three inches long with smooth diamond-shaped scales.

Both species develop pollen cones at the branch ends in winter. However, as you can see in the images, those of the Japanese-cedar set in clusters, while giant sequoia pollen cones are set singly. For more information: [OSU plant ID](#)

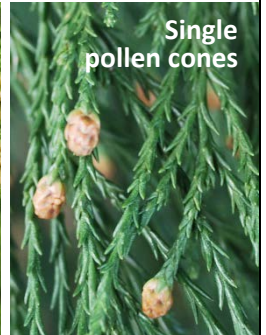
Close-up of awls



JAPANESE-CEDAR



GIANT SEQUOIA



Somewhat prickly, green awls

Very prickly, blue-green awls



1", roundish, extensions on scales



To 3", smooth scales

Haircap moss (*Polytrichum* sp.)

Moss sex 101

Spring is a great time for observing moss, as many species are so small they go unnoticed when not sexually active. Species in *Polytrichum*, the haircap moss genus, make particularly good study subjects as they have large (for moss) easy-to-see parts.

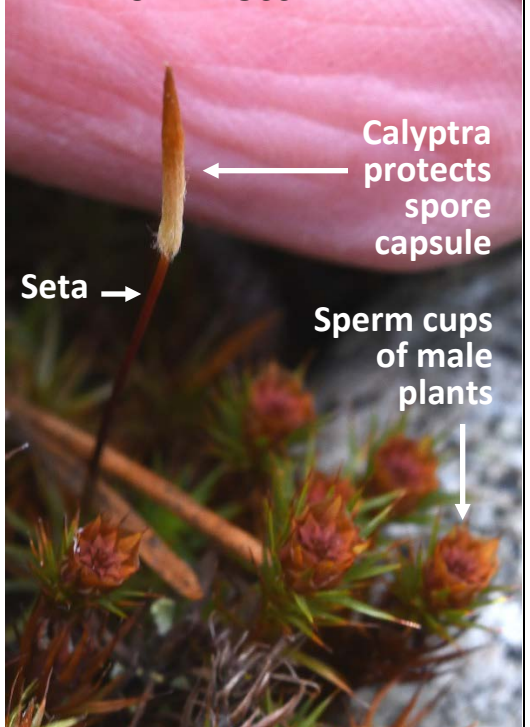
Haircap moss are known for their large flower-like sperm cups. Rain splashes biflagellated sperm out of the cups and, if they're lucky, on a trajectory that lands them in the sex organs of receptive females nearby. After fertilization, the female produces a sporophyte: a stalk (seta) that supports a capsule of developing spores, protected by a sheath (calyptra) shed in advance of spore release. (The haircap moss genus is named for its fibrous sheath.) Spores landing on an appropriate and moist substrate, germinate into a filamentous algae-like structure out of which new plants bud. In most species, the sperm cup is too small to see with the naked eye or a loupe; however, in all species female plants form visible sporophytes.

Moss also reproduce asexually; a fragment from any part of the moss can generate a new plant. Elizabeth's all-male haircap moss colony grew to many times its original size without the aid of females. A couple of years ago the colony went co-ed when Elizabeth introduced a handful of female plants, which now number in the dozens.

The red-tipped leaves with smooth edges of this specimen probably mean this is a colony of Juniper haircap moss (*P. juniperinum*).

For more information: [Moss biology](#) [Haircap mosses](#)

HAIRCAP MOSS



Love is in the air!