BIOL 195 - Alaska Flora

Rachel Liester

Dichotomous Key Assignment

Module 2

Bin 1

From what I understand, the best way to identify conifers is by the needles, so that's where I started.

1. Deciduous

2. Needles (2)

 2a. Needles in bundles with fascicle on branchlet (3)

 2b. Needles singly arranged on branchlet (4)

 3a. Needles in clusters of 2

 3b. Needles in clusters of 3

 3c. Needles in clusters of 5

 4a. Needles round

 4b. Needles flat

 4c. Needles quadrangular (5)

 5a. Twigs glabrous - *Picea glauca*

 5b. Twigs pubescent - *Picea mariana*

Bin 2

On this one I started with the color, shape and symmetry of the flowers and used the leaves as a secondary source of identification. I didn't know any other species to compare for the dichotomy and just used "other." However, I couldn't identify this plant without more information and/or a reference point of location.

1. Raceme inflorescence (2)

2. Other type of inforescence

 2a. Flowers white, tetrapetalous, tubular perianth with fused sepals and bi-radial symmetry (3)

 2b. Other type of flowers

 3a. Leaves are simple, alternate, linear (4)

 3b. Other types of leaves

Bin 3

This plant looked similar to the pasqueflowers I've seen on many trips to the Black Hills in South Dakota. First I looked up the genus name for pasque flower, Anemone, then worked my way through the flower morphology to determine the specific species. I used itis.org to find the correct names - *Anemone patens* (L) Mill. and *Anemone patens var. multifida* Pritz. There are several names for this species including synonyms (*Pulsatilla patens*, *Pulsatilla hirsutissima*, *Pulsatilla ludoviciana*) an illegitimate name (Anemone nuttalliana) and common names (Eastern pasqueflower for *A. patens;* cutleaf anemone, prairie smoke and prairie crocus for *A patens var. multifida.*)

1. Deeply divided basal foliage; whorled bracts on upper stem; villous stems emerging from the ground; flowers perfect, solitary, campanulate, regular (actinomorphic) symmetry; six petal-like sepals in blue, purple or white; superior ovaries; numerous stamens with yellow anthers; numerous plumose pistels; height 4-12 inches; native to Europe - *Anemone patens* *var. patens* (L.) Mill.

2. Deeply divided basal foliage; whorled bracts on upper stem; villous stems emerging from the ground; flowers perfect, solitary, campanulate, regular (actinomorphic) symmetry; six petal-like sepals in blue, purple or white; superior ovaries; numerous stamens with yellow anthers; numerous, plumose pistels; height 4-12 inches; native to North America - *Anemone patens var. multifida* Pritz.

Bin 4

Until I looked at another students dichotomous key, I had no idea as to the identification of this plant. I'm completely lost as to where to start and my brain can't seem to hold any more terms. I'll work on this next week when I've had a chance to look at other student's keys.