

RANGE EXTENSIONS FOR TWO MONTANA PLANTS

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from Kelseya, Fall 2002

The rare plant *Adoxa moschatellina* (Adoxaceae) was discovered this past early June along the Smith River in Meagher County, Montana, near middle Scotty Allen Camp. This species goes by the common name of musk root or moschatel, the latter which is French for town clock. Moschatel is considered a rare plant in Montana. This recent discovery of a population of about 50 individuals was made under a dense canopy of Douglas-fir on a shady north slope along the Smith River in northern Meagher County, a few miles from the southern border of Cascade County. The plants were growing in a dense carpet of mosses and underneath fallen timber and ninebark and syringa shrubs. According to the Montana Natural Heritage program, this species was known previously from 10 localities in Montana, collections of which came from the Absaroka-Beartooth Mountains, the Madison Range, the Sapphire Mountains, and the Continental Divide area near Basin. These localities include Carbon, Granite, Jefferson, Madison, Park, and Stillwater counties. So this 11th locality along the Smith River in Meagher County represents a northeastern range extension within Montana. A small collection of three plants was made to document this find, and these plants have been placed in the plant collection in the Montana State University Herbarium.

The inflorescence of moschatel has four distinct sides, each of which bears a flower that resembles the face of a clock (hence one of the common names). Robyn Klein discovered some plant nursery literature from the UK that suggests that moschatel is a symbol of Christian watchfulness because four of the five tiny, white-green flowers face the four cardinal points and the fifth points up to heaven. Robyn suggests that moschatel leaves have medicinal properties, such

as easing digestive upset, and the root is used as a general anti-swelling agent for such things as the treatment of hemorrhoids.

Also recently discovered during a late-August Montana Native Plant Society field trip was *Trautvetteria caroliniensis* var. *borealis*, (Ranunculaceae), commonly called tassel-rue or false bugbane. The field trip participants were no more than 1 mile from the trail head of Middle Cottonwood Canyon, on the west side of the Bridger Mountains, when a population of approximately 30 individuals was observed growing at the base of a north-facing slope in the dense shade of Engelmann spruce, Rocky Mountain maple, snowberry, and honeysuckle. This species has flowers similar to *Thalictrum*, or meadow rue. There are female and male plants and no petals are produced, which render the flowers inconspicuous. A few female plants were observed with abundant fruits, and these consist of achenes bearing hooked tips. The mature female flowers with a single cluster of hooked fruits give the female plants a superficial resemblance to *Agrimonia* of the Rosaceae family, although in this latter genus it is the calyx lobes that are hooked. A single female plant was collected for a herbarium specimen, and upon closer inspection back in the MSU herbarium, the plant was discovered to belong to the genus *Trautvetteria*.

Robyn Klein has observed tassel-rue just over Lolo Pass along the north side of the highway. Pete Lesica informs us that this species is known from Flathead, Lake, Lincoln, Missoula, and Ravalli counties. According to the USDA Plants Database and the Flora of North America Online, *Trautvetteria* only comes into Montana from Lolo on up to the Canadian border. This somewhat broad distribution is apparently why this species is not on the Species of Concern plant list for the state of Montana. The distribution maps for tassel-rue suggest that it should not be east of Missoula, in Montana anyway. The nearest population of tassel-rue to those in the Bridger Range occurs in Yellowstone National Park. According to Jennifer Whipple, the Park botanist, *Trautvetteria* is only known from a couple of sites around Lewis Lake in the Wyoming portion of the Park.

Indeed, these are the only known localities for this species in Wyoming, where this species does make the state list for species of concern. In Montana, the west slope of the Bridger Range harbors more than *Trautvetteria* as a relict population. Small populations of *Cornus canadensis* and *Festuca subulata* are also found in drainages just to the north of Middle Cottonwood Canyon.