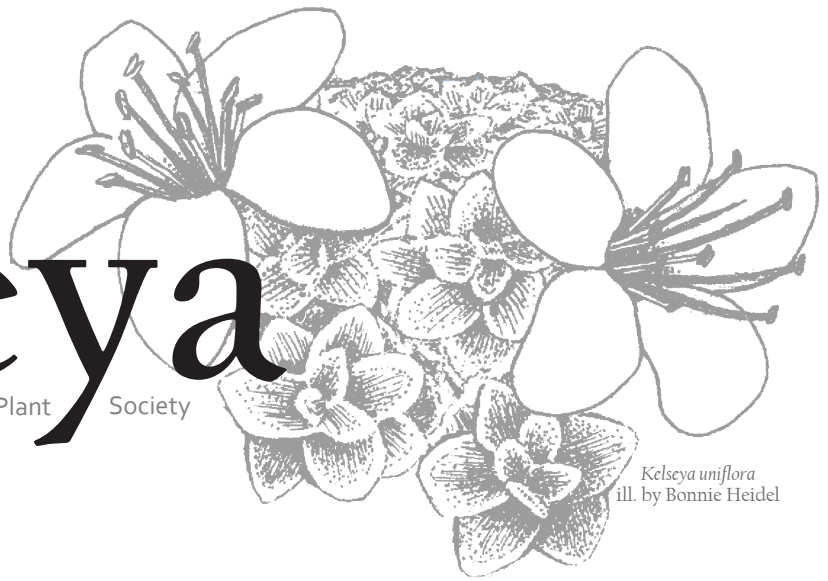


Kelseya

Newsletter of the Montana Native Plant Society



Kelseya uniflora
ill. by Bonnie Heidel

Western Clematis: Clever, Clingy Native

by Cathie Jean and Jay Frederick, Valley of Flowers Chapter

[The following is one of a number of botanical articles written by Kelsey Chapter members, past and present, for publication in the Helena Independent Record. As such, they may reference local populations of the species but the information applies to Montana in general—Ed.]

Western clematis, also known as virgins bower, white clematis or, if you prefer, *Clematis ligusticifolia*, is a semi-woody, herbaceous vine found in western North America. The natural range for this species includes all of the states west of the Continental Divide, and extends as far east as Oklahoma, Nebraska and the Dakotas. Western clematis typically is found in riparian and riverine habitats, preferring deep, moist, loamy soils, generally in shady environments. It's often associated with broad-leaved deciduous trees and shrubs, such as red osier dogwood, serviceberry, alder, chokecherry, rose and snowberry.

In Montana, western clematis is one of only a few plants with a vine growth habit. This native grows as a woody vine often more than 10 meters long, rapidly climbing and twining into the canopy of shrubs and trees. This growth strategy allows clematis to exploit sunlight through gaps in the forest canopy without the investment required to produce the rigid support structure of a woody trunk or bole.

This habit is impossible to ignore as conspicuous fruits remain affixed to the vine through the winter. Western clematis has a flower with no petals, but white- to cream-colored petal-like sepals. As with other members of the buttercup family, the flower is composed of numerous pistils. Each forms a long-tailed, plumed achene with a single seed. After flowering in late June through August, the fruit matures and the achenes



Clematis ligusticifolia Patrick J. Alexander @ USDA-NRCS PLANTS Database

become more obvious, looking like masses of cottonballs. The previous year's fruits are easily seen in the spring, though looking a little weathered.

The structural form of the clematis vines entwined in branches of riparian shrubs and deciduous trees provide security for nesting birds and undoubtedly hosts numerous insects. However, clematis is not known to be a major food source for wildlife species and is generally avoided by livestock.

As with other members of the Ranunculaceae Family, clematis is considered poisonous by some sources. Members of this family contain alkaloids that can cause gastrointestinal distress, depression and nervous symptoms. In extreme cases, ingestion may cause paralysis of the central nervous system and even death.

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Chapter Events

Calypso Chapter

Sunday, 7/27, 8:30 am. Branham Lakes Field Trip. Enjoy the cool, scenic beauty of this area at 8,790 feet in the Tobacco Root Mountains on this easy to moderate hike for all abilities. The first half-mile provides spectacular wildflower viewing, the second half-mile climbs to the saddle with cushion plants and a stop for lunch. A further climb to Thompson Peak is possible depending on weather. Bring layered clothing/rain gear, water, lunch and snacks. RSVP by July 20. Info: Kelly Upright at 723-4416 or whereiskellyupright@yahoo.com.

Saturday, 8/2, 9:30 am. Goat Flats Wildflower Heaven. This is a moderately difficult, seven-mile round-trip hike with some altitude gain. We're heading for alpine meadows with a variety of wildflowers you won't find at lower elevations. Camp overnight at the meadows or just come for the day. Bring layered clothing/rain gear, water, lunch and snacks for a full-day outing. Meet at Storm Lake trailhead by 9:30, or at the Montana Tech parking lot below the greenhouse at 8:00 for carpooling. Info and to RSVP: Sherry Vogel at 560-6184

Clark Fork Chapter

Sunday, 7/6, 9:00 am. Sun River Orchid Excursion. Join Wayne Phillips on this trip to see the highest concentration of orchid species in Montana. There will be two hikes: the first is approximately two miles/hours; the second, perhaps four mile/hours. Both are over relatively gentle terrain with some bushwacking and unstable footing; options available. We could possibly find a dozen or more species, including the uncommon sparrow's egg lady slipper, *Orchis rotundifolia*, *Cypripedium calceolus*, *C. montanum*, *Epipactis gigantea*, etc. Meet at the Lewis & Clark National Forest Home Gulch campground (about 20 miles west of Augusta on Sun Canyon Rd.) We will carpool from there. Go to Facebook.com/MNPSClarkForkChapter for maps and potential lodging in the area. Info: Wayne at 453-0648 or Clare at 728-0189.

Date and time TBA. West Fork Buttes Weeds and Species of Concern. Learn about invasive weed management and help look for vulnerable native plant species with Ken Cook, BLM range technician, at this near-pristine parcel of BLM land along the West Fork of Rock Creek. Carpool from Missoula. Info: Clare at 728-0189 or Facebook.com/MNPSClarkForkChapter.

Saturday, 9/6, 8:00 am. Late Flowers of Pyramid Pass. Celebrate the 50th anniversary of the Wilderness Act with this hike to moist meadows around Pyramid Lake on the west edge of the Bob Marshall Wilderness. Dave Hanna and Peter Lesica will lead this eight-mile round-trip hike that climbs 1,600 feet. Bring water and lunch. Meet in the parking lot of Lindsey's Prime Steakhouse in Seeley Lake. Group size is limited. This trip is sponsored by MNPS and the Montana Wilderness Association. Sign up by email (lesica.peter@gmail.com) after September 1.

Thursday, 10/9, 7:30 pm. Bring your favorite or unusual plant identification or other botany books to show friends at The Festival of the Botany Book. This is an opportunity to find the best moss, lichen or vascular plant books for your purposes, talk to the people who own them, and show the ones you have. Rm 202, Natural Sciences (Botany) Bldg., UM Campus. Info: Clare at 728-0189.

Flathead Chapter

Tuesday, 7/22, 10:00 am. Sprunger-Whitney Nature Trail. Learn about plants, birds and wildlife habitats with botanist/naturalist Anne Morley along this gentle, two-mile trail through low-elevation old-growth forest in the Swan Valley. Meet at Point Pleasant campground south of Swan Lake. Info: Anne at 888-2242.

Tuesday, 7/29, 10:00 am. Glacier National Park Weed Blitz. Join other citizens in removing invasive plants from priority sites in GNP. Park biologist Dawn LaFleur will train participants on identification and effective hand-pulling techniques for targeted weed species. Meet at the West Glacier Community Building; space is limited. Info and to sign up: Dawn, dawn_lafleur@nps.gov.

Kelsey Chapter

Contact Patrick Plantenberg, m2andp2@mt.net, or Bob Person, bob.person@mcn.net, for information on Chapter events. They welcome any program ideas or other input from Chapter members.

Maka Flora Chapter

Saturday, 7/12, noon. Prairie Potholes. Start at the "ghost town" of Comertown, MT, and explore the surrounding prairie pothole country. Bring water and lunch. Meet at the abandoned town site. Info and to confirm trip: Libby at 774-3778, rek@midrivers.com.

Sunday, 8/10, noon. Brush Lake State Park. Come for our annual clean-up around the lake and plant ID walks. Bring garbage bags, gloves and something for a potluck picnic. There's good swimming and camping is allowed. Info and to confirm trip: Libby at 774-3778, rek@midrivers.com.

Saturday, 9/13, time TBA. Fort Peck Lake Exploration. This hike is tentatively scheduled. It would be a strenuous hike in sand arroyo country about 15 miles south of the town of Fort Peck. Info and to confirm trip: Libby at 774-3778, rek@midrivers.com.

Valley of Flowers Chapter

The Chapter is hosting the MNPS Annual Meeting June 27-29 at Luccock Park Camp. Info: www.mtnativeplants.org

Members will be notified by email if other field trips arise later in the summer. VoF Chapter member Tom Forwood, the Lewis and Clark Caverns State Park naturalist, is leading a number of intriguing trips there during the summer. Info: Tom at 287-3541 or fwptforwood@gmail.com.



Eastern At-Large

Saturday, 7/12, 9:00 am. Ear Mountain Outstanding Natural Area and Yeager Flats Hike. Travel through limber pine savannah, narrow-leafed cottonwood groves, sagebrush, Douglas-fir/Englemann spruce forest and a portion of the 2000 Ear Mountain fire to end up in a vast, high-elevation native fescue prairie near the base of Ear Mountain. See a variety of shrubs, grasses and forbs, including bitterroot and several orchid species. This is also good bird and other wildlife habitat, plus goes along a short portion of the Old North Trail and by a Metis cemetery on the return leg. The trip is a moderately difficult five miles round trip. Meet at the Choteau Information Center at the north end of town on Hwy 89. Info: Dave Shea at 466-2161.

Saturday, 8/9, 8:00 am. Preston Park Hike in Glacier National Park. This moderately difficult, seven-mile round-trip hike on the east side of GNP winds upward through subalpine fir forest and scattered openings to lush meadows at 7,200 feet at the base of Mt. Siyeh. The different habitats of coniferous forest, woodland openings, wet meadows, and subalpine and alpine areas offer a chance to see varied plant and animals species. Meet at the St. Mary Visitor Center and take a Park shuttle to the trailhead. Info: Dave at 466-2161.

Western At-Large

Jon Reny (Libby) is working on activities for the year and would love to hear your thoughts. You can reach him at 334-0459, jreny@kvis.net.

MNPS 2014 Annual Meeting

You'll find complete coverage of this year's Annual Meeting in the next issue of *Kelsey*. In the meantime, organizers have planned workshops on grasses, other plants and native bee pollinators, all approved for continuing education credits, as well as a plethora of field trips. Roy Renkin, distinguished Forest Scientist from Yellowstone National Park, is the guest speaker, discussing post-fire plant community succession in the Greater Yellowstone. A silent auction, raffle, plant ID contest, and great food and company also are on the docket. Don't miss out!

Do You Like Us?

Never let it be said that MNPS is not living in the 21st century. The statewide organization now is on Facebook. Chapters can easily communicate with each other about events, state-wide topics and other pertinent information via the page, and non-members have another way to find out about who we are and what we do. Find us at www.facebook.com/MTNativePlantSociety.

You can also follow individual chapters; the Clark Fork Chapter has its own page at www.facebook.com/MNPSClarkForkChapter and other Chapter pages will be coming soon.

For information about MNPS and Facebook, contact Clare Beelman at clare.beelman@gmail.com.

Botany Resources: New from High Country Apps of Bozeman, MT

High Country Apps has released an updated Flora of the Yellowstone Region and also Glacier Wildflower interactive apps for smart phone or tablet. Together the apps contain information on more than 700 wildflowers, trees, shrubs and grasses commonly found in Yellowstone and Glacier National Parks and their surrounding regions.

Designed for experts and beginners alike, these guides present the plants in a clear, informative format with photos and botanical illustrations, distinctive field marks, and tidbits on the plant's ecology and cultural use. An innovative, easy-to-use search function allows the user to select flower color, leaf type or other characteristics to quickly identify unknown plants. Using the search function, you select what you know about the plant and all species matching your description will be displayed.

High Country Apps teamed up with the Yellowstone Park Foundation (www.ypf.org) and the Glacier National Park Conservancy (www.glacierconservancy.org) in developing the apps, and a portion of some sales goes to support native plant conservation in the state. The apps are \$7.99 each; visit www.highcountryapps.com or search the Apple App Store, Android Market or Amazon.com to learn more. Similar downloads are available for Yosemite National Park, Colorado Rocky Mountains, Utah's Wasatch, and the states of Oregon and Washington.



News & Notes



The primary purpose of the Montana Native Plant Society is the preservation, conservation and study of the native plants and plant communities of Montana and the education of the public about the values of the native flora and its habitat. Quite a tall order! We have taken it upon ourselves to be protectors, caretakers and guardians of our flora. Our task is to safeguard the plants we love.

How do we do that? Within MNPS people involved in committees are working toward our goal. The Conservation Committee diligently follows legislative action and provides comments and feedback on legislation that impacts flora. They organize conferences to provide opportunities to network and share information concerning conservation efforts in Montana and neighboring states. The Landscape Committee works to keep the public informed about sources of native seeds and plants, and promotes the use of natives in gardening and landscaping. The Small Grants Committee funds projects that further our mission. Our webmaster keeps the public informed about our activities and provides information about native plants. Our Facebook page and this newsletter keep native plants in

the 'news' and spreads information about events, activities and blooming plants.

Each of us makes personal contributions to the mission of MNPS by talking about native plants, growing native plants and participating in Montana Native Plant Society events. Some of us garden with native plants that help inform friends and neighbors about the value and beauty of native plants. Others volunteer to lead hikes. Those with photography skills share photographs of the incredible plants around us.

Your enthusiasm and dedication to Montana's flora is what makes MNPS continue to have an impact and furthers its mission of preserving, conserving and studying the native plants and plant communities of Montana. Thank you!

— Kathy Settevendemie

Montana Grasses

The College of Agriculture at Montana State University and High Country Apps have partnered to produce this new field guide app for iOS and Android devices. Montana Grasses provides images, species descriptions, range maps and other information for more than 100 grasses and grass-like plants inhabiting agricultural landscapes in Montana and adjacent states and provinces.

Montana Grasses will appeal to anyone, beginner and expert alike, who wants to identify grasses and learn more about them. The app does not need an Internet connection to run, so you can use it no matter where your wanderings take you.

Users can browse the species list or search for specific plants by common or scientific name. In addition, the app's identification feature provides 13 sets of characteristics to help define your search, including

overall appearance, seed head, blade width, auricle, habitat, elevation and origin (native or introduced). Select the characteristics you know—a click of a button returns a list of thumbnail images and species that match your search.

Montana Grasses also includes a "favorites" feature that allows users to select a custom list of species for future reference and sharing via email and social networks. Lastly, detailed information on grass identification basics, sources and resources, as well as a glossary of botanical terms and diagrams of grass anatomy are provided.

Montana Grasses is available for \$4.99 at Amazon, Apple and Google app stores. The app will be updated on a regular basis to add new species and other content which will be available to users at no additional charge. A portion of revenues from the app will be dedicated by High Country Apps to support plant conservation in Montana.

Looking Ahead

Here's a heads up for 2016: the Calypso Chapter and the American Penstemon Society are co-hosting the 2016 MNPS Annual Meeting at Fairmont Hot Springs near Anaconda, June 24-26. Plan ahead, even though it's two years away; you'll want to schedule vacation time to join us. We especially encourage families with children to attend, since Fairmont is a great family resort and we will have many kid-friendly activities. Join us in 2016!



Calypso Chapter Members Take to the Streets in Dillon

Catherine Cain, Chapter Representative

We all know the saying “seize the moment” and the Calypso Chapter did just that when the Dillon Garden Club put out a request for help with four median beds on Helena Street in downtown Dillon.

Our members agreed that this was an excellent opportunity to showcase Montana native plants as a civic demonstration. We decided to use MNPS funds that were allocated last year for our Chapter but not used, and the Garden Club paid the rest of the costs with a later small contribution from the Chapter for replacement plants. Previously the median beds mostly featured annuals, such as petunias and pansies, that had to be replanted every year. This is the busiest street in town and it is a point of civic pride to have the medians be beautiful all summer. Since Dillon is on the Lewis and Clark Trail, we decided to include as many hardy natives described by the explorers as possible, in order to reflect the heritage of the site.

The Calypso Chapter adopted the bed at the intersection of Helena and Montana Streets. This is a very exposed site with lots of wind; it measures 175 feet by four feet, is sided with wood rails and has eight inches of dirt on top of the asphalt roadway. The plot was full of weeds and some previous perennial plantings, such as *Bergenia*, had taken over. We designed a planting plan with 13 native species that would not grow taller than three feet, which is the State Highway specification for a median, and tried to mix textures and flower colors and mature heights.

On May 17 five Calypso members weeded and planted the median with the assistance of the UM Western Youth Challenge Core. We planted 148 plants and positioned rocks, driftwood and two birdhouses that previously had been in the bed. On June 7 I had to plant 15 more plants of two additional species to fill in where mortalities had occurred, giving us a total of 15 species. There is a timer drip system the length of the median and we tinkered with that to get a watering balance. Now the challenge will be to keep it weeded. After an initial thorough weeding we spread mulch to keep the weeds down. Many plants are already blooming and we have had very positive comments from the public. By August it should look great and be very colorful for the Labor Day Rodeo weekend.

The real test of this experiment will be what happens to the beds over the winter when the street is sprayed with a potassium salt solution to melt the snow. We hope the plants survive and come back next year, but that remains to be seen. It is a difficult environment but we

think that it is important to try this sort of planting to see if native perennials can work for such a civic project. Stay tuned for our update next spring!



Calypso Chapter members Karen Porter, Steve Sherman, Jessie Salix and Catherine Cain show off their hard work. Photo by Bill Cain.

Welcome New Members!

The Montana Native Plant Society welcomes the following new members:

Calypso Chapter:

Michael Garverick, Sara Maslen, Cindie Green, Patrick Broderick and Susan Stout

Clark Fork Chapter:

Erin Law, Mary Laporte, Nicole Hupp, Karen Short, Sherri Sweet, Ryan Gwidt, Patrick Burke and Steve Holden

Flathead Chapter:

Stacy Jacobsen-Burgard

Kelsey Chapter:

Elizabeth Fournier, Erica Campeau, Mike Bishop, Joann Wright and Sascha Jeffers

Maka Flora Chapter:

Joy Barsotti

Valley of Flowers Chapter:

Susan Sewell, Michael Garverich, Deborah Pontarelli and Dirk Adams

State-Western-At-Large:

Elaine Hammer and Marilyn McDougall

State-Eastern-At-Large:

Lynn Hill, Mary Jane Cowdrey, Meredith Albers and Sandra Carpenter



In Memoriam: Wally E. Albert

[The following was compiled from an article by Sheila Morrison that appeared in the Friends of the University of Montana Herbarium newsletter, Spring 2008, and the obituary that appeared in the Missoulian, May 6, 2014.]



Wally Albert, 86, of Corvallis, passed away Saturday, May 3, 2014 at the Marcus Daly Hospice and Palliative Care Center in Hamilton, MT. He was born the only child of Nora S. and Frank J. Albert on February 12, 1928.

Named after his birthplace of Wallace, Idaho, Wally spent most of his life in the Missoula area. His father, a railroad fireman and engineer, moved the family to the Lower

Rattlesnake neighborhood when Wally was only a few weeks old, and he lived in the house at the corner of Cherry and Monroe streets for 57 years. As a child, he fished Rattlesnake Creek, which at that time had plentiful fish. He contracted polio at the age of 12, which made it impossible for him to continue to play the sports he loved.

As Wally grew older, he did pursue his outdoor interests of hunting and trapping despite physical difficulties. However, there came a time when he looked through his rifle scope at a beautiful buck and wondered, "Why would I want to kill that animal?" That ended his hunting days, and a similar experience ended his trapping pursuits.

Looking for other ways to enjoy the outdoors, Wally became a serious birder and soon began wondering as well about the plants he encountered on his outings. A neighbor who worked at the University of Montana offered to take his discoveries to botanists there for identification. Eventually she recommended that he contact Klaus Lackschewitz for help. This began a close association with the noted horticulturalist and chronicler of Montana native plants that included a number of trips together in search of rare plants. Once, Wally called Klaus about a rare plant he had found in the Skalkaho drainage and Klaus showed up at his door at 5:00 a.m. the next morning ready to go look at it!

Peter Stickney, a botanist with the U. S. Forestry Sciences Lab, became another important source for help with plant identification and also remained a friend of Wally's for many years. Although he eventually became proficient at finding and identifying plants himself, Wally had almost no formal botanical training. He had earned a bachelor's degree in psychology from

the UM but later was allowed to take the UM "Flora of Montana" class without charge, since he could help other students. The primary advantage for Wally was access to the microscopes and other botany equipment.

As Wally became more knowledgeable, he identified and collected plants from many locations, including the Sapphire Mountains, Bitterroot Mountains, East and West forks of the Bitterroot River, Rock Creek (near Missoula), the Salmon River/Challis areas of Idaho, Drummond, the Skalkaho drainage, the Blackfoot River area, the Swan Valley, and Browns Lake and Georgetown Lake for aquatics. One of his favorite locations was the Lost Horse drainage in the Bitterroots, where during one trip he reported seeing 18 moose. As Wally grew more familiar with places and plants, he was able to take U.S. Forest Service personnel on numerous field trips.

During his many explorations Wally liked to camp out, sleeping in the back of his truck and never bothering to stop for or even eat lunch. In about 1985, he sold the family home in Missoula and moved to Stevensville, where he regularly rode his bike to the Lee Metcalf National Wildlife Refuge. The manager at the time, Margaret Anderson, recognized his expertise and enlisted his help to record the plants growing on the refuge. For three years, Wally worked on this project, covering much of the refuge in all seasons. Also while he lived in Stevensville, he met Judy Hoy and did botany work on her ranch southeast of Stevensville, identifying some plants that were new to Montana, including the little annual, *Ipomopsis minutiflora*. Part of this land is now known as the Willoughby Bluff Natural Area, protected by the Nature Conservancy for the unique plants growing there.

Later Wally moved to a home in the foothills west of Stevensville and after that to a place on Harvey Lane near Corvallis. He continued seriously identifying and collecting plants, bringing some specimens not previously known in Montana to Peter Stickney at the U.S. Forestry Sciences Lab. Eventually Wally donated his private collection of more than 100 botanical specimens to the UM Herbarium.

Graveside services were held for Wally on May 8 at Missoula Cemetery.



Recollections of a Field Companion

By Craig Odegard, Botanist, Lolo National Forest

Wally had a gentle determination and knack for finding overlooked plants. I had the pleasure of joining Wally on several field trips in the 1990s while working as a seasonal botanist on the Bitterroot National Forest. In his compact, canopied pickup truck, covered with dust and dings from frequent botanical forays, he would arrive at a destination, don his floppy sun hat and day pack, grab a sturdy wooden cane and was ready to botanize. Often he often became so engrossed in the plants he would forget to eat.

My co-workers, Deborah Goslin and Linda Pietarinen, and I were humbled by his skill in finding the tiniest of specimens. Wally once introduced us and Lolo National Forest botanists to western pearlflower (*Heterocodon rariflorum*), a Forest Service sensitive species, at a vernal seepage site in the hills west of Victor. The pearlflower plants were only an inch tall with a few small leaves and green, petal-less flowers—very difficult to spot in a carpet of other annuals and mosses. Somebody suggested Wally had an advantage in finding them—that being fairly short, he was closer to the ground—and he laughed as loud as the rest of us. In truth, his advantages were patience, a deep desire to learn more about the natural world, and his habit of kneeling down with his face and hand lens pressed to the ground in search of diminutive plants.

Wally botanized frequently with fellow naturalist Judy Hoy. One year, Wally and Judy asked us to join them at Dam Lake in a subalpine basin near Skalkaho Pass. Dam Lake is used to store irrigation water. After a recent drawdown, the dam operator had excavated sediment from the lake outlet and dumped it below the dam on the Bitterroot's only known population of arrowgrass (*Triglochin palustre*), burying many of the plants. Wally and Judy hoped the Forest Service would prevent further damage to the population. While we crouched to look at the arrowgrass plants, a loud yodeling/wailing noise erupted from atop the dam. Judy had recently seen loons at Dam Lake and was trying to mimic their call. Wally glanced at her and grinned. "Never a dull moment," he said. Nearby they pointed out to us marsh felwort (*Lomatogonium rotatum*), a rare plant not previously known from Ravalli County. Wally thought it had been overlooked because it blooms so late in the summer.

Wally made many contributions to our knowledge of the Bitterroot flora and always ensured that we kept an eye on the little species. He will be greatly missed.

A Special List: Favorite plants of Wally Albert

Wally had a number of favorite plants, many of which he identified as firsts for the state of Montana, including:

<i>Azolla mexicana</i>	<i>Mimulus suksdorfii</i>
<i>Brasenia schreberi</i>	<i>Monotropa uniflora</i>
<i>Carex pallescens</i>	<i>Muhlenbergia minutissima</i>
<i>Centaurea solstitialis</i>	<i>Najas guadalupensis</i>
<i>Centunculus minimus</i>	<i>Navarretia intertexta</i>
<i>Crepis setosa</i>	<i>Oenothera pallida</i> var. <i>lateriflora</i>
<i>Cyperus rivularis</i>	<i>Parietaria pennsylvanica</i>
<i>Dipsacus sylvestris</i>	<i>Penstemon lemhiensis</i>
<i>Drosera anglica</i>	<i>Pimpinella saxifraga</i>
<i>Elatine brachysperma</i>	<i>Rotala ramosior</i>
<i>Elatine californica</i>	<i>Salicornia rubra</i>
<i>Elatine triandra</i>	<i>Schedonnardus paniculatus</i>
<i>Floerkea proserpinacoides</i>	<i>Scirpus maritimus</i>
<i>Glossopetalum nevadense</i>	<i>Scirpus pendulus</i>
<i>Hypochaeris radicata</i>	<i>Sparganium minimum</i>
<i>Idahoia scapigera</i>	<i>Stellaria aquatica</i>
<i>Ivesia gordonii</i>	<i>Trifolium microcephalum</i>
<i>Lomatogonium rotatum</i>	<i>Ventanata dubia</i>
<i>Medicago falcato</i>	<i>Wolffia columbiana</i>
<i>Microseris troximoides</i>	



Linda Pietarinen, Klaus Lackschewitz and Wally, prior to a field outing in 1990.
Photo by Ken McBride.



Nodding Onion

by Andrea Pipp, Kelsey Chapter

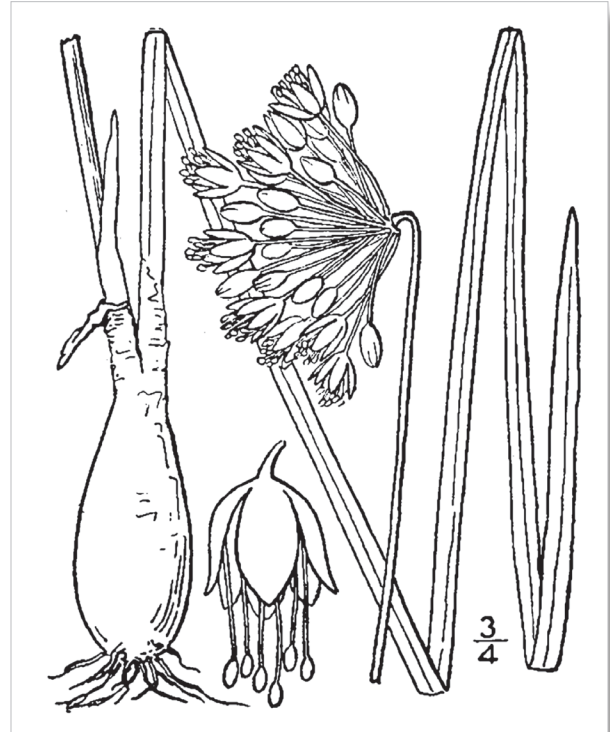
[The following is one of a number of botanical articles written by Kelsey Chapter members for publication in the Helena Independent Record. As such, they reference local populations of the species, but the information applies to Montana in general—Ed.]

Onions share the genus *Allium* with garlic, chives and leeks, and are members of the lily family. On Mt. Helena you can find two of the 130 native *Allium* species in North America. Textile onion (*A. textile*) grows in the vicinity of Reeder's Village on Mt. Helena, while nodding onion (*A. cernuum*) grows fairly abundantly on both north and south aspects of Mt. Helena.

Nodding onion is not only a very beautiful flower, as I will describe, but also an excellent choice for planting into rock gardens and flower beds. It also serves to enhance the flavor of any recipe that calls for onion. On your hikes this summer, look for a single stem that terminates in an umbel of nodding pink or white flowers.

Nodding onion is a perennial bulbous plant that often forms small clumps. The underground bulb is long and narrow and, as with all onions, is composed of swollen leaf bases that give the vegetable its succulence. True roots arise from the base of the bulb, while the top tapers

into a fleshy stem. Leaves arise from the base of the stem and are long, narrow and channeled, measuring less than half an inch wide and up to eight inches long. The stem may grow up to eight inches high and ends in the umbel of flowers that bend toward earth, earning it the Latin name of "cernuum."



The parts of *Allium cernuum*. Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*.

Each flower consists of six separate sepals and petals that range from light to dark pink or white. The six stamens, male portions of the flower that produce pollen, are longer than the petals. In the center of each flower you will find the female pistil housing the seeds in three internal chambers. The style of the pistil that receives the pollen may be the "tallest" of its flower parts. As the seeds mature, the nodding umbel slowly turns upright before shedding the hard black seeds. Along with the nodding flowers, the leaves and bulb of this plant produce the distinctive onion smell.

There are other bulbous plants that grow on Mt. Helena, such as meadow death camas, but none have that aroma. You can find nodding onion scattered along the Prospect Shafts, 1906 and Prairie Trails.

Perhaps because of its broad distribution, nodding onion was a reliable food source for native people. The leaves and bulb were either eaten raw or the entire plant was boiled with red meat or fish in soups and stews. Some groups dried the bulbs and used them



A clump of pink nodding onion. Al Schneider @ USDA-NRCS PLANTS Database.

clematis, continued

Contact with fresh plant material may cause skin irritation, blistering or ulceration in some individuals.

These days western clematis is used as an ornamental because of its decorative flower and fruit, and its unique vine habit. Its popularity for cultivation has spread its distribution to a few eastern states. Plants are propagated by cuttings and it is sometimes used for conservation purposes as soil cover in intermittent dry land stream corridors and for roadside or other erodible sites. Clematis will also layer from nodes, sending out new adventitious roots where the plant trails on the ground.

Cathie Jean is MNPS membership chair and an ecologist with the National Park Service Greater Yellowstone Network. Jay Frederick is District Ranger, USFS Dakota, Prairie.



The nodding umbels of *Allium cernuum*. Patrick J. Alexander @ USDA-NRCS PLANTS Database.

as flavoring. In Montana, Salish people collected nodding onion from early spring until the ground froze in the fall, but apparently did not dry them for winter use. Today the plant proves a durable garden perennial. Nodding onion is native to at least 34 states and you can find it growing in full sun or the partial shade of dry open woods, exposed grassy places, rocky crevices, sandy soils and rocky limestone glades.

If you're interested in planting native species, nodding onion is an excellent choice for sunny backyards, suitable for meadows, rock gardens or as plantings at the edge of woods. It is adapted to dry conditions so won't require a lot of water or fertilizer. Nodding onion naturally blooms from May to June, but in gardens may bloom until early fall. It can be planted from seed or bulb, but requires cold temperatures to germinate thus it is best to sow seeds from October to March. Once established, nodding onion will grow vegetatively, producing new plants from the growing and dividing bulb.

Andrea Pipp works for the consulting firm Respec, and presumably still loves lichens.



Silky achenes of *Clematis ligusticifolia*. Photo by Sally and Andy Wasowski, via wildflowers.org.



The vining habit of *Clematis ligusticifolia*. Photo by Gerald D. Carr.



Chokecherries!

By Carole Mackin, Kelsey Chapter

[The following is one of a number of botanical articles written by Kelsey Chapter members for publication in the Helena Independent Record. As such, they reference local populations of the species, but the information applies to Montana in general—Ed.]

The scientific name for chokecherry is *Prunus virginiana*. *Prunus* tells us that chokecherry is related to fruit-bearing trees such as plums, peaches and apricots. Like them, chokecherry produces a seed surrounded by a relatively thick, flavorful fruit that attracts birds, bears and people. If you gather the small fruits when they are red and eat them before they ripen to a lustrous blue-black, the astringent “choke” will pucker your mouth!

Chokecherry belongs to the rose family, so it should be no surprise that its flowers are showy. Individual flowers are small, just half an inch, but the shrub packs ten to 20 white blossoms onto a long stem called a raceme, which cover chokecherry thickets in May like fat white fingers.

Chokecherry shrubs thrive in moist conditions and are most often found near streams. On Mount Helena, look for them in woody draws. The slender, dark brown branches produce toothed, elliptic leaves that are one-to four-inches long. For a close look at chokecherry features, visit the “Flora of Mount Helena” collection at the Lewis & Clark Library in Helena, or other herbaria in the state, such as the one at the University of Montana in Missoula.

Being drought tolerant, chokecherry leaves can fold in on themselves during dry times to minimize the surface area exposed to the sun. In the fall, they will be some of the first leaves to turn red.

Historically, chokecherries were an important part of pemmican, a survival food developed by native people and adopted by European hunters and trappers. Native American women added pulverized buffalo meat and fat to pounded cherries, which were crushed whole, including the seeds. The mixture was shaped into flat patties, dried in the sun and packed away in parflask containers. Pemmican kept well through the winter and needed no further preparation before being eaten.

The 1905, Montana Agricultural Experimental Station Bulletin #56, “Native Economic Plants of Montana,” encouraged early settlers to manufacture and market chokecherry marmalade and chokecherry wine. Since processed pectin was not easily available, the bulletin suggested adding plums or crabapples to the cherries to set the marmalade.

Today, enterprising wildcrafters make syrup, wine and jelly from chokecherries. The biggest problem is getting to the ripe berries before the birds and bears have stripped the trees. For many Montanans, both native and transplanted, gathering chokecherries is a rite of summer that can provide culinary delights throughout the year.

Carole Makin and her husband, Mark, grow organic medicinals and herbs near Hauser Lake.



Flowering *Prunus virginiana*. Sheri Hagwood @ USDA-NRCS PLANTS Database



Prunus virginiana. Wetland flora: Field office illustrated guide to plant species. USDA Natural Resources Conservation Service.



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