Castilleja linariifolia

Castilleja

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130 Years Ago

Wyoming's First Plant-Based Legislation

Five years after Wyoming became a state, on February 26, 1895, Wyoming legislators enacted our first Weed Law. It didn't even fill a full page of text but designated the first two state noxious weeds: Canadian [sic] thistle, and Russian thistle. It also established a punitive system of weed control, with hefty fines of up to $5.00/day for failure to destroy noxious weeds *"…on any lands or premises owned, used, leased, occupied or controlled by such persons, association of persons or corporation…"*.

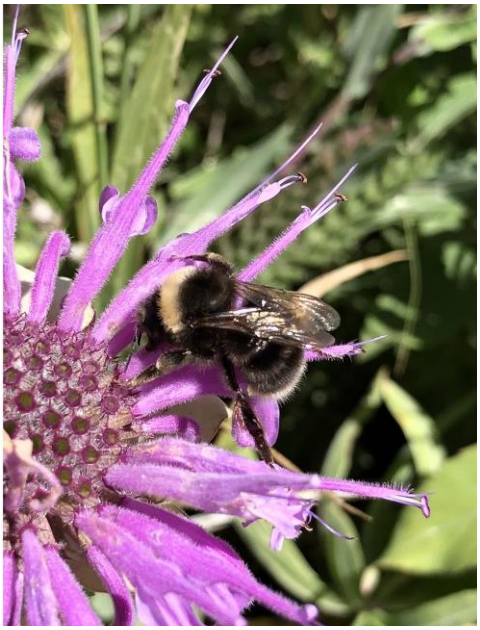
An overhaul was proposed the following year by Mr. L. H. Dewey, Assistant Botanist to the Department of Agriculture. He proposed establishing a State Weed Commission charged with preparing a plan for the eradication of weeds and a system for coordination with road supervisors, among other things (Dewey 1896).

Fast-forward 130 years - Wyoming now has 31 designated weeds (https://wyoweed.org/identify-weeds/), and a 32rd is pending Commission review. The 32nd, Cheatgrass (*Bromus tectorum*) was proposed for addition by the Wyoming Weed and Pest Council in Nov. 2024 (Cont. p. 8)

Bumble Bee Conservation through Community Science in Wyoming

Amy Dolan, Mtn States Bumble Bee Atlas Coord.

In the summer of 2024, across 20 states including Wyoming, volunteers headed outside with a net, vials, a cooler, and a camera in order to learn about and help bumble bees. These volunteers represented a diversity of backgrounds— some were biologists, botanists, or ecologists; others were garden or native plant enthusiasts; some were teachers or students; others were avid hikers and outdoor enthusiasts; and some simply wanted to help. They all decided to join a Xerces Society Bumble Bee Atlas community science project to help researchers map and conserve native bumble bees in their region.



Above: Western bumblebee (*Bombus occidentalis*) is one of five bumble bee species petitioned for listing as Threatened in Wyoming. By R. E. Newton.

Wyoming is part of the Mountain States Bumble Bee Atlas, launched in June 2024 for the states of Wyoming, Utah, Colorado, and Nevada (Cont. p. 6).

In this Issue:

WYNPS News

2025 Annual Meeting: 30 May – 1 June

Join an Eastern Wyoming Wildflower Foray and Annual Meeting convergence in Fort Laramie, WY!. This issue announces our featured fieldtrips. The Registration, banquet and speaker information will be posted shortly.

New members: Please welcome the following new member to WYNPS: Charlotte Cadow, Jackson; Ashlee Kerber, Evergreen CO; Katie Wilson, Gillette.

WYNPS Board – 2025

Co-Presidents: Joyce Evans (wyoslp@yahoo.com) and Mike Evans (iroxranch@yahoo.com), Fort Laramie
Vice-President: Kathy Lichtendal, Clark (kathylich@yahoo.com)
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Webmaster: Dorothy Tuthill
Sublette Chapter: Jill Randall, President (subwynps@gmail.com)
Teton Plants: Amy Taylor, Treasurer; (tetonplants@gmail.com). Check the chapter homepage (https://tetonplants.org/) for events.
General questions: wynps@wynps.org

Message from the Co-Presidents

You are cordially invited to beautiful Goshen County - our 2025 annual meeting is a fabulous opportunity to take a look at the role of plants in the Westward Expansion movement. Fieldtrips to Fort Laramie National Historic Site, Torrington Dunes and Sunrise Mine are windows into the past and present. *Plus* you can experience the social life of a tiny Wyoming town (you won't be able to buy groceries or fuel here, but you can get a beer) and see small town appreciation for native plants on display. Registration for our annual meeting will be posted shortly and printed in the May newsletter.

Meanwhile, we can take heart that we have weathered most of the winter already! It's been a dry and windy one so far in Goshen County. Some of our topsoil and sand has relocated to Nebraska but our native flora and the rest of us are firmly affixed and await your visit – we look forward to seeing you!

~Joyce & Mike Evans

Next issue: Please send articles and announcements for the next newsletter by 15 April to:

Wyoming Native Plant Society
P.O. Box 2449
Laramie, WY 82073

Treasurer's Report: Balance as of 14 February: Scholarship = $2,504; General = $11,621; Total = $14,125.

Contributors to this Issue: Erin Bentley, Amy Dolan, Mike & Joyce Evans, Bonnie Heidel, Meredith Taylor, Dorothy Tuthill.

Announcing: EASTERN WYOMING WILDFLOWER FORAY AND ANNUAL MEETING

2025 Annual Meeting – May 30-June 1

SPRING into action as we converge in eastern Wyoming where plant life gets a head start! The Community Center of Fort Laramie (town) is central to this Wyoming wildflower weekend, gathering place for fieldtrips, workshops, keynote talks, and with free camping (no hookups) and use of facilities for all who register; plus a special Saturday night banquet.

Events start late on Friday and fieldtrips kick off on Saturday:

Scout nearby Fort Laramie National Historic Site (NHS) on Saturday morning, heralded as "Crossroads of a Nation" expanding westward. It lies at the junction of two river valley travel routes (the North Platte River and Laramie River) taken by explorers and wagon trains, also at the junction of two main upland routes within Wyoming Territory. Prairie bluffs above the North Platte River are crossed by wagon ruts tracing one Wyoming Territory travel route. It connects human history and natural history, with a full-blown flora of 426 species (posted at: https://irma.nps.gov/NPSpecies/Search/SpeciesList).

Explore Torrington Dunes on Saturday afternoon, the easternmost sand dunes in Wyoming with some sand-loving plants found nowhere else in the state. They include among the only locations for Sand milkweed (*Asclepias arenaria*) and a sand-dwelling variety of Broadbeard beardtongue (*Penstemon angustifolius* var. *caudatus*), and with other striking sand-loving plants such as Veiny dock; also called Wild begonia (*Rumex venosus*), and Painted milkvetch (*Astragalus ceramicus* var. *filifolius*).

Sunday morning offers a tour of the Sunrise Mine in the Hartville Uplift, an arch connecting the Black Hills to the Laramie Range, just north of Guernsey. People have been mining iron ore and red ochre there since Paleoindian times. After Europeans arrived, new ways to extract iron and transport it were employed. The town of Sunrise was a company town, now owned by an individual who, together with a non-profit organization, makes tours possible. The Hartville Uplift geology supports a flora far different from surroundings so this tour offers a walk rich in history and in botany.

Look for a full schedule and registration information online (http://www.wynps.org/) and in the May newsletter.

Wyoming's 1rst Plant-Based Legislation - continued from p. 1

Information resources on Cheatgrass are available from both Extension and Rocky Mountain Herbarium (see inset).

The punitive system of 1895 is replaced by a statewide support system of state Weed and Pest Offices, state Conservation Districts, and federal National Resource Conservation Service Offices, some with an incentive system. Noxious weed control in Wyoming has even garnered gubernatorial attention (Office of the Wyoming Governor 2020). Invasive plants are pervasive threats to intact Wyoming landscapes and agricultural economy (Nagler et al. 2024). The topics of weeds and weed legislation help us understand threats faced by native plants, and the agricultural arena as framework for many native plant discussions. BH

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Office of the Wyoming Governor. 2020. Final Report: Governor's Invasive Species Initiative, October 2020. https:// wyoweed.org/wp-content/uploads/2024/04/GISIFinalReportOct2020-1.pdf .

Cheatgrass lesson plans

Cheatgrass is a challenging visitor to Wyoming! Three lesson plans centered on Cheatgrass, with accompanying resources, are available for Grades 3-5 from Rocky Mountain Herbarium. The Herbarium is a window into what grows wild in Wyoming, with authoritative records that complement weed control datasets. The assembled lesson resources offer students the information they need to understand the phenomenon of weed invasion and be ready this spring to look for Cheatgrass close to home and school.

For more information and to request the Cheatgrass Lesson Resources, visit: https://rockymountainherbarium.org/index.php/education

Upcoming Events

Tuesday, April 8, 6-7 p.m. Teton Plants Chapter - ZOOM only (will be recorded). Talk: **"Restoring Sagebrush Habitats: Insights in Plant Traits and Soil Microbes Vital for Success."** Presenters: Daniel Laughlin, Linda van Diepen, and Dillon Romero of University of Wyoming. Sagebrush steppe restoration remains a significant challenge in Jackson Hole and throughout the West. At Grand Teton National Park, efforts are underway to remove smooth brome grass and invasive species from Antelope Flats and to plant native sage, wildflowers, and grasses to create a biodiverse habitat. University of Wyoming researchers will share the latest re. on the importance of soil microbiota and the role of plant traits in supporting the growth of native species. Their work may hold the key to understanding how to best restore sagebrush ecosystems.

Saturday, April 26, 9-12 am. Volunteer Workday: "Stalking the Saltcedar Invaders". Lead by local WYNPS member. Get outdoors to set the stage for Salt cedar (*Tamarisk chinensis*) removal from Hutton Lake NWR. Volunteers will map and record occurrence data on datasheets. Data will be provided to the USFWS to allow for development of treatment plan. Kicks off with a quick training and overview by local expert, and mapping will be conducted in pairs or small groups. Bring water, snacks, hiking boots and long pants to walk long distances, among cactus, and in variable weather. Datasheets and maps will be provided. There are no restrooms on site.

Left: Monarch butterfly (*Danaus plexippus*). See p. 10

Announcing:
2025 Native Plant Poster Contest

Wyoming Native Plant Society is again co-sponsoring a poster contest for all 6th-8th grade students. The theme of the contest this year is: "Wyoming Native Plants and Pollinators: Better Together." We encourage students to learn and creatively illustrate how native plants and their pollinators are essential to one another.

We are also arranging to have rotating statewide displays in collaboration with cooperating County Libraries! Three students and their teachers will each receive a $250 cash prize. The winning students will also receive a framed poster of their original artwork and their posters will be featured on the Wyoming Native Plant Society website, shared on social media and displayed in participating libraries across the state. Entries must be **received** by April 21, 2025. For contest details and entry requirements, see the wynps homepage (www.wynps.org).

Also happening in Wyoming: **Thursday-Monday, June 12-16**.
North American Rock Gardeners Society will converge on Cheyenne this year, for tours of public and private Wyoming and Colorado rock gardens,…and nature's rock gardens! Registration is open only to NARGS members ($45/yr) and costs $495 for early registration (by 12 May) through Cheyenne Botanic Garden (https://www.botanic.org/event/nargs-conference/).

YOU are Essential!!

Bonnie Heidel, Editor

(Editor's Note: *The mission of WYNPS is to promote the appreciation and conservation of Wyoming's native plants and plant communities. This does not happen without an engaged membership or the professional botany community. Less than 5% of WYNPS membership are federal botanists, but their work is vital and potentially at risk.*)

Early in the 2020 covid pandemic, Wyoming's workforce was binned into two categories to limit prospective spread of the virus: Essential and Nonessential. Now that the virus contagion has passed, we face a new divisive binning.

This new era of dividing up the workforce targets federal employees as though most were nonessential, an injustice to the people and agency. Staff in new positions are most vulnerable. Wyoming stands to be more profoundly affected by these actions than any other state. Recent data on the federal workforce shows that Wyoming has 6,174 federal fulltime employees (CRS 2024)[1]. Only 5 states have fewer. But compared to the total state workforce, Wyoming has the highest proportion of federal employees; about 4% of the whole workforce.

Why bring this up as a native plant issue? Wyoming's greatest number of botanists in natural resources are federal employees. That holds true if sticking to Botanist or Ecologist job titles, but especially true if considering all fields that relate to the Plant Kingdom (forestry, range, wildlife habitat, planning, and weeds).

There are pitfalls in public perception. "Government" is sometimes lumped into one bin and Wyoming was reported as exceeding all other states in having the largest public workforce- over 25% in 2016 (compared to national averages of about 15%) as reported by the Bureau of Labor Statistics (Buckrail 2017). However, federal employees in Wyoming are greatly outnumbered by state, county and municipal employees, and they make up less than 10% of the net government workforce (in the total of 72,419 Wyoming government employees).

Wyoming's 6,174 federal employees are also outnumbered by the collective employment numbers of the industries such as mining and tourism that need their work. But they do outnumber full-time employees at Walmart, said to have 5,000 Wyoming employees, and the workforce at the University of Wyoming with 4,323 employees as the next largest employers in the state. Wyoming citizens would not willingly cripple our largest retailer, largest educational institution or critical economy sectors. Nor should we endorse wanton slashing of the federal workforce.

There is no single cloister of federal employees (though numbers in Cheyenne are highest). They are the most widely dispersed workforce in Wyoming, the foot soldiers of public service, public lands and support system for private landowners located in every county and many hundreds of communities. As such, slashing the federal workforce is highly dispersed damage to hardworking people, local economies and to the state for years to come.

Of all the federal employees based in Wyoming, less than 10 hold Botanist/Ecologist titles – close to half are in new positions. Plant conservation doesn't happen without people. Federal employees are crucial to our economy, wellbeing and plants. These people are our neighbors, coaches and school board candidates. No matter who we work for, we all have a choice in reaching out to colleagues, legislators, or news media if we see this as relevant to our individual roles in Wyoming's future. WYNPS is about community, the power of connection, and sharing resources with one another. That remains true today.

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Buckrail. 2017. Wyoming has highest percentage of government employees of any state. Posted at: https://buckrail.com/wyoming-has-highest-percentage-of-government-employees-of-any-state/ (May 25, 2017).

Congressional Research Service. 2024. Current Federal Civilian Employment by State and Congressional District (last updated December 2024). Posted at: https://crsreports.congress.gov/product/pdf/R/R47716.

U.S. Bureau of Labor Statistics. 2024. Economy at a Glance – Wyoming (last updated Dec. 2024) Posted at: https://www.bls.gov/eag/eag.wy.htm

[1] Other figures of 8000+ presumably full-time federal workers are reported in the media that I have not found in posted statistics. Getting the number right helps understand proportions of the issues. In any case, the total number of federal employees in Wyoming includes app. 1000 civilian employees in the U.S. Dept. of Defense.

Bumble bee atlas - continued from p 1.

Atlas volunteers were trained by either attending an in-person event or using online resources. After training, they adopted a 50-square-kilometer grid cell and committed to conducting at least two surveys during the summer field season. The most exciting part was the surveys themselves— volunteers searched for bumble bees for 45 minutes, netted them, placed them in vials on ice to chill and immobilize them (without causing harm), then took a series of photographs of each bee before it warmed up and flew away. The photographs and survey data were uploaded to the Bumble Bee Watch website. In the project's first year, Mountain States Atlas volunteers conducted 177 surveys, observed over 1,700 bumble bees, and documented 23 species across the four-state region. This work will continue in 2025 with more volunteers, more surveys, and an abundance of new data!

But why are we doing this? Why are volunteers heading out to net bumble bees? Every gardener and native plant lover knows about pollinators— butterflies, bees, hummingbirds, even beetles, flies, and bats. We recognize their importance, welcome them into our gardens, marvel at their diversity, and enjoy sharing pictures of them on our favorite flowers. Among pollinators, bumble bees are especially lovable. Large, colorful, fuzzy, and active from early spring until late fall, they are easy to recognize and appreciate. Unfortunately, a suite of compounding factors have been working against them, causing drastic declines in range and abundance. Habitat loss, pathogens, pesticides, competition from non-native bees, and climate change have all played a role. Over the past several decades, researchers have documented alarming declines in once-common bumble bee species. At least 25% of the nearly 50 North American species have experienced population declines, shrinking ranges, or both. A few western U.S. species haven't been seen in years.

One of the best things anyone can do to help bumble bees— and other pollinators— is to provide habitat. Bees survive solely on nectar and pollen from flowers so they need floral resources from early spring until late fall. Bumble bees often nest in abandoned cavities like rodent burrows or rock piles while queens hibernate a few inches deep in soil, leaf litter, or compost. Maintaining "messy" areas of a yard or garden can provide this vital nesting and overwintering habitat. The best bee habitat is chemical-free, so it's important to carefully consider if and how pesticides are used.

Unlike many other native bees that prefer hot and dry conditions, bumble bees are adapted for cooler, montane environments. This makes the Mountain West a fun place to observe them! Based mostly on historic data and museum specimens, researchers know of 26 bumble bee species with ranges in Wyoming. This makes Wyoming one of the most bumble-bee-diverse states in the U.S.! It is possible that other species' ranges extend into the state and have not yet been detected. Additionally, the common eastern bumble bee (*B. impatiens*) could be found here, though an observation of this species would likely be an escapee from a commercial colony.

Much of the data that we have about bumble bees are old. Bumble bee records from Wyoming go as far back as the 1880s and the Wyoming Natural Diversity Database and iNaturalist are effective tools for documenting new records. But we haven't yet systematically searched for bumble bees in all parts of the state since some regions are remote, rugged, and difficult for humans to access. Landscape conditions have changed drastically in the past few decades due to things like agriculture, urbanization, drought, desertification, and fire. We need more comprehensive, up-to-date information on where bumble bee species currently are, the types of habitats they're utilizing, and the flowers they're relying on. This information is essential if we want to make informed conservation decisions to help bumble bee populations recover.

That's where the Bumble Bee Atlas comes in. This project is all about data collection. The Atlas relies on community science volunteers following a standardized protocol to collect data at a large regional scale. The data collected will support and build on the work of local researchers and land managers but will also contribute to an understanding of bumble bees on a larger, regional scale. This is important since bumble bee ranges extend across multi-state regions. All observations are verified by a bumble bee expert and are publicly available so we can continue to support local, regional, and national efforts.

The Xerces Society for Invertebrate Society is inviting passionate volunteers across the Mountain States to join this community science project for the 2025 field season. Anyone can join; no experience is necessary. Our four-state region is huge with 371 grid cells that need to be surveyed (96 in Wyoming) so we need all the help we can get! (Cont. p. 5)

To learn more about the project, check out the website at BumbleBeeAtlas.org or contact Amy, the Atlas coordinator, at mtnstatesbba@xerces.org. If you are unable to conduct surveys yourself, you can still help! Incidental observations of bumble bees can be uploaded to BumbleBeeWatch.org. Anyone can plant flowers, provide habitat, and spread awareness about these important and imperiled animals. There will be several different opportunities to learn more about Wyoming's bumble bees and the Bumble Bee Atlas project over the next few months, including the 2025 Mountain States Bumble Bee Atlas virtual training webinar on March 11 or April 23 and in-person workshops and field trainings starting in June. Join the Mountain States Atlas e-news mailing list and keep an eye on the Atlas events page to learn about these events as they are scheduled.

Kaleidoscope Science

Erin Bentley, Lars Roeder, Dr. David Tank

Science and Art aren't exclusive, they're just lenses through which we view the world. –Tristan Duke

The idea of science/art transdisciplinary work and research is not a new one, especially in herbaria. Herbaria have long been repositories of collections from famous artists and poets, including Emily Dickinson and George Crabbe, and the process of pressing and mounting specimens is, in itself, an act of creating art. This crossover between an important scientific resource and public interest in art and the humanities creates a space that is rich with history, culture, science, and art. *Kaleidoscope Science,* a transdisciplinary outreach project developed for the purpose of utilizing this space, was founded in 2023 through a collaboration with the Rocky Mountain Herbarium and the Visual Arts Department at the University of Wyoming. With the importance of herbaria being called into question at some major universities, this transdisciplinary space can be utilized to curate public support for herbaria, inform the public about native plants, and holistically build approaches to conduct meaningful outreach and research that reaches broad audiences.

The purpose of scientific outreach is to expand the influence of research, make it accessible to public, and inspire people to care about the research going on around them. In some cases, outreach can be used to inspire public support of institutions and agencies. Since launch, *Kaleidoscope Science* has had a number of primary objectives:

1. To teach the public about what a herbarium is and why it is important
2. To teach the public about native biodiversity and species of conservation concern
3. To measure public and professional perceptions of transdisciplinary approaches to science

To attain these goals, *Kaleidoscope Science* uses photo processes and printmaking to showcase the complexity of native Wyoming plants. These species are viewed through their ecology, natural history, traditional knowledge, and other scientific and cultural perspectives to engage the public in the art making process, Wyoming's native biodiversity, the Rocky Mountain Herbarium, and species of conservation concern. To highlight the different aspects of each organism, we pair a screen print designed in a certain color/set of colors with a certain perspective and a corresponding narrative.

Screen printing was chosen as the artistic medium for this process because it combines technical processes with creative decision-making to build a distinct image. Each layer is carefully considered in its design, color, and alignment, thus each component contributes to the whole. The craft reinforces the multifaceted significance of the organisms depicted. Each text piece and color palette emphasizes a distinct component, while the repetition of layers unifies the series. For example, we have conducted several community-focused events using Wyoming's state flower, *Castilleja linariifolia*, where we invite people to learn about the various uses of *C. linariifolia* in art (red), culture (blue), history (yellow), and science (orange). After their research into those areas, participants did a screen print corresponding to their areas of research and then shared what they found. Below are examples of the prints they made alongside real quotes on what they found from participants. (Continued next page)

With the support of the Wyoming Native Plant Society, as well as other small grants, *Kaleidoscope Science* was able to expand our audience this past year, taking art making and holistic collections-based research to K-12 classrooms in Laramie and Rock Springs. Planting that seed of interest in children is an important step in building a community that cares about native plants and all of the ways that we take care of them—from field-based conservation to the monitoring, research, and recordkeeping that herbaria facilitate. As Kaleidoscope Science moves into the next year, we will continue to expand, working in public venues such as farmers markets, craft fairs, and festivals, and reaching out to more K-12 schools around the state.

Our preliminary results from survey data show that after engaging in Kaleidoscope Science events, participants have a greater understanding of herbaria broadly, have learned about focal species and native plant diversity (and are often quite surprised by it!), and they are able to articulate why herbaria and herbarium specimens are important outside of academic pursuits. All of these results are promising as we continue to build and refine our approaches to outreach and education in informal and formal settings.

If you are interested in learning more about Kaleidoscope Science, seeing more of the artwork that we have produced, or learning more about our educational impact, you can visit our website at kaleidoscopescience.org, or email us at kaleidoscopescience.wyo@gmail.com.

"Most art focuses on the red species of *Castilleja*, and a red paint...was made from *Castilleja miniata*."

"Has ties to a lot of different Native American tribes, cultural and medicinal. Many uses of *C. linariifolia* were related to being a contraceptive."

"Castilleja was named for a Spanish botanist, and *C. linariifolia* became the Wyoming state flower in 1917."

"The plant will survive without parasitism but needs it to mature. It reduces root and shoot growth of the host. "

Ethnobotany - Part 13.

Aspen (*Populus tremuloides*)

By Meredith Taylor,
Certified Wyoming Naturalist

Aspen (Populus tremuloides) is found throughout North America from Canada to California, Montana, Wyoming, Colorado, and New Mexico, east to New England. The genus also includes poplars and cottonwoods; the generic name came from the trees being a popular place to gather.

Aspen is a dicotyledonous, dioecious perennial plant of the Salicaceae (Willow) family. It is found in diverse mesic environments from desert draws to alpine areas. Aspen is popular habitat for ungulate species especially for elk and moose calving or deer fawning in the spring, as well as many bird species such as mountain blue birds, sapsuckers and woodpeckers.

Aspen form clonal colonies of medium sized deciduous trees. It is considered the largest living organism by mass on Earth. The largest known aspen colony is called Pando, which has a total of 47,000 genetically identical trees that share the same root system on 106 acres in Fishlake National Forest, Utah. These trees are over 100 years old, but the roots are thought to be 80,000 years old.

Aspen trees are 3-18" diameter and 20-80' height with a white bark that has black eye-shaped scars around the branches. Clones produce either male or female catkins in early spring before the leaves emerge. Catkins are wind pollinated. The nearly-round leaves, 1.5 - 3" (1-5 cm), tremble in the wind, hence the species name tremuloides. (Tremuloides means "resembling tremula." Populus tremula is the European trembling (or quaking) aspen.) The leaves are beautiful through every season with light green in the spring, dark green in the summer, and orange, red and gold in the autumn. Aspen reproduces both sexually by seeds and asexually by root suckering.

Aspen has long been considered a valuable edible and medicinal plant by Native Americans as an anti-inflammatory blood purifier for arthritis, liver, kidney and digestion. The white chalky powder on the bark contains natural yeasts, which may be used as a sourdough culture. The inner bark that is high in Vitamin C was used as anti-scorbutic to prevent scurvy. Aspen bark is also desirable to eat by horses and ungulates and Indians harvested large quantities where the trees grew in abundance to feed their horses.

The Yellowstone National Park 1995 wolf reintroduction was a management decision to mitigate the impact elk had on the aspen and cottonwood riparian area in Lamar Valley. The effort was successful in that the wolves dispersed the elk to reduce their concentration in the trees. The result was considered a "Trophic Cascade," which dramatically improved the riparian habitat of the Lamar Valley ecosystem species e.g., nesting songbirds, beavers, moose, etc. With fewer ungulates eating the tree bark, the aspen and cottonwood trees saw increased suckering of new young saplings.

Above: *Populus tremuloides*, by Robert and Jane Dorn. In: https://www.wyndd.org/gallery/

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(*This article is for educational purposes and does not condone collecting of plants that readers can't identify with certainty. The ethics of wild plant collecting is to tread softly through the plant's habitat and only pick the occasional leaf or flower to protect plant sustainability. Check directly with the agency about their policy if you want to harvest native plants on public land.*)

Proposal to Designate Monarch Butterfly as Threatened

The U.S. Fish and Wildlife Service proposed listing the Monarch butterfly (*Danaus plexippus*) as Threatened in a Federal Register notice (50CFR Part 17, 12 Dec 2024) under the Endangered Species Act. The public comment period is open thru 12 March.

Proposed protection provisions apply to recognized eastern and western populations. Monarch sightings are reported across much of Wyoming. Detailed surveys have been conducted in eastern Wyoming (Crawford and Tronstad 2020). But Wyoming is outside the scope of regulation and recovery planning - the Monarch's eastern range reaches no farther west than South Dakota and its western reaches Idaho.

Reference

Crawford, M. and L.M. Tronstad. 2020. The status and distribution of Regal Fritillary (*Speyeria idalia*) and Monarch (*Danaus plexippus*) butterflies in eastern Wyoming. Posted at: https://www.uwyo.edu/wyndd/index.html .

WYOMING NATIVE PLANT SOCIETY MEMBERSHIP FORM

Date _____

Name _____

Address _____

Email _____

Please check all appropriate boxes:

[ ] New member
[ ] Renewing member
[ ] Check here if this an address change
[ ] Annual membership with email notification of newsletters: $10
[ ] Annual membership with mailed newsletters: $12
[ ] Annual membership with scholarship support and email notification of newsletters: $20
[ ] Annual membership with scholarship support and mailed newsletters: $22
[ ] Life membership with email notification of newsletters: $300
[ ] Life membership with mailed newsletters: $300

In addition to the statewide organization, we have two chapters. Membership in chapters is optional; chapter members must also be members of the statewide organization.

[ ] Teton Plants Chapter annual membership: $5
[ ] Sublette Chapter annual membership: $5
[ ] Additional donation of $_____

Total enclosed: _____

Please write checks to **Wyoming Native Plant Society**

Wyoming Native Plant Society
P.O. Box 2449
Laramie, WY 82073