
WILD
ONES®
Front Range

Time to get those summer flowers started! Photo by Kristin Laux

April 2025

In this newsletter...

- ***Chapter News***
- ***Upcoming Events: Socials; Seed Starting and Winter Sowings; and more!***

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Attracting Beneficial Insects

By Karim Gharbi *(article link)*

While I appreciate the advances in horticulture that have allowed us to feed 8 billion people, that appreciation does not extend to the pesticide industry. This idea that we can dominate nature with “quick fixes” like insecticides or herbicides is hubris. Mother Nature developed the tools to self-regulate long ago, we need only to follow her lead.

This pesticide industry arose from the colonialist mindset that the land and its inhabitants are ours to conquer and that this conquest is even possible! And we’ve packaged and bottled the “solution” for only $19.95. But the profiteers of the pesticide industry have forgotten (or ignored) that indigenous communities have long known how to enlist the services of naturally occurring organisms to control garden pests. More recently, we’ve named this indigenous practice “conservation biological control,” and I want to share that you can easily do it too.

Biological control is the practice of using one organism to control another. This usually involves mass releases of captively bred organisms to target specific pests (e.g. aphid mummy wasps to control aphids). But these organisms are costly and usually do not present a long-term solution to our pest problems.

In contrast, conservation biological control involves modifying the landscape to attract naturally occurring beneficial organisms from nearby areas. And most of you are already doing this, whether you realize it or not!

- **Flowers**
    - Simply planting flowers (especially natives) attracts beneficial insects. The protein/carbs in pollen/nectar are a valuable meal to a diversity of predators and parasitoids. Lured to your garden by the smell of your floral appetizers, they begin to patrol in search of a main course. For many parasitic wasps, pollen and nectar are filling enough. But their young can only gestate inside the many soft-bodied insects that inhabit our gardens. After filling their bellies, they look for a suitable “nursery.”

Deb Lebow Aal in her mixed native plant garden. A variety of flowers attract a diversity of predators and parasitoids. Photo by Peggy Hanson

    - Just like us, insects have favorite foods. Some beneficials prefer the aesthetics and flavor of blanketflower, coneflower, and black-eyed susans. Meanwhile, others prefer the spire-shaped flowers of gayfeather, goldenrod, and penstemon. The larger parasitic wasps need somewhere large and flat to land, like the heli-pad created by the umbel flowers of common yarrow, milkweed, and the like.

    - Not only do these beneficials have different palates, but they also have different sleep schedules! Some insects are more active in the early morning hours, while some can only be found at dusk. Similarly, different flowers have their peak nectar flow at different times of day. Encouraging floral diversity also ensures a continuous nectar supply, attracting beneficial insects from dawn till dusk.

- **Native Bee Habitat**

    - There are over 1100 species of native bees here in Colorado (and counting). This astounding diversity arises from the plethora of meso-climates created by the various valleys and canyons strewn across the Rockies.

    - As important as they are, flowers are not the only resource our beneficial insects require. There are some very simple ways you can create habitat for our astounding diversity of native bees.

    - Of these 1100 species, about 30 percent are cavity-nesters. Those are the bees nesting inside of holes in dead/dying trees. If the wood is soft enough, these bees can excavate their own nests. But they are not so proud to pass up the holes excavated by wood-boring beetles.

- Unfortunately, we often view dead/dying trees as eyesores, hacking them down. This is understandable, as dead/dying trees can be thought of as fall risks or disease reservoirs. But if your snag is neither of those things, leave it be for the bees. Besides serving as habitat to native bees, they provide food/shelter for a slew of organisms different from those it supported while alive. If it is a fall risk, consider cutting it into smaller pieces but keep those logs on site! Moving wood around isn't a great idea anyways.

- Cavity-nesting bees will also inhabit those "bee hotels" people build. But the tubes in these hotels must be replaced every year or two to prevent accumulating populations of parasitic organisms (pollen mites, fungal diseases, etc.)!

- Consider installing plants with hollow, pithy stems, as many solitary bees nest there as well. Annual sunflowers are the most popular choice, but joe pye weed and umbellifers can also work! If you go this route, please wait until mid-spring to cut back those plants. Prematurely composting plant material with native bees overwintering inside can affect their survival.

- The other 70 percent of those 1100 species are ground nesters, excavating burrows in undisturbed patches of bare, sandy soil. Despite the abundance of these types of native bees, that sort of habitat is in short supply in urban areas. We gardeners cannot bear to see bare soil, always covering it with plants, mulch, or rocks. But if you have the right place for a bare spot amidst your garden, digger bees are a treat to observe!

Many of these bees line their nests with sections of leaves/flowers that they cut themselves. If you've seen C-Shaped cuts on the edges of your leaves, now you know who's responsible. These bees prefer plants with soft, pliable leaves/flowers, such as ash, buckthorn, lilac, lambsquarters, roses, alfalfa, serviceberry hostas, and more!

Despite the few species that plague our gardens, the overwhelming majority of insects are a gardener's best friend. They are working behind the scenes not only to control pests, but to enrich the soil and plant microbiome. They enrich our lives as well. It is an egregious disservice to oneself to deprive yourself of the joy of observing the myriad beings that call our gardens their homes. I hope that this sermon has convinced you of that!

Karim Gharbi is a Horticulture Specialist with CSU Extension, Denver Office.

Toolkit Highlight: Plant This Not That!

by Deb Lebow Aal

The bloom on the native Yucca glauca outshines the non-native Blue Avena Grass, while they both have a similar leaf and form.

It is early spring and many of you are thinking about what Colorado native plants to plant in your landscapes. In our Coloradoscaping Toolkit, we have two documents that propose native alternatives to the common non-native plant species you see your neighbors' yards. These native plant alternatives do many, if not all, of the same things those non-native plants do. I know many of you plant a shrub like a lilac because it has purple flowers in the spring. Well, you can plant a native shrub that has purple flowers AND does so much more for the environment (here's a document in our toolkit that explains what native plants do for the environment. I am guessing if you are reading this, you know, but it never hurts to make this point again and again!) Of course, the plant characteristics between the non-native and native plant alternative don't exactly match up. They are different plants. But they will either bloom at the same time, or have the same habit, and/or be equally beautiful. Of course, beauty is subjective…I happen not to like lilacs. I don't find them attractive 50 weeks of the year, they take up a lot of real estate and I don't like their smell! I know that is blasphemy, and I'm happy to hear your rebuttal.

Try native Indiangrass (Sorghastrum nutans) *instead of Miscanthus or Feather Reed Grass.*

Why do we have two documents with the same title? Well, we have a long version that is more than 10 pages long and has pretty pictures of all the plants. That is not the one we want to give out at events. So, we have a version that is one page long that is printer-friendly.

I have heard many a gardener perusing the list say, "I wish I didn't have so many of the 'Don't Plant plants' in my yard." Yeah, we know. Don't feel bad.

*Plant the native Blanketflower (*Gaillardia aristata*) over common zinnias.*

And, while we are on the subject, and you are thinking about what to plant come spring, here's another document from our toolkit, titled: Native Plants No Colorado Garden Should

be Without. We tried to limit ourselves to 10 or so, but couldn't, so the list contains 19 or 20 that we really love. Maybe you should just wander over to the Toolkit and find out what else is there!

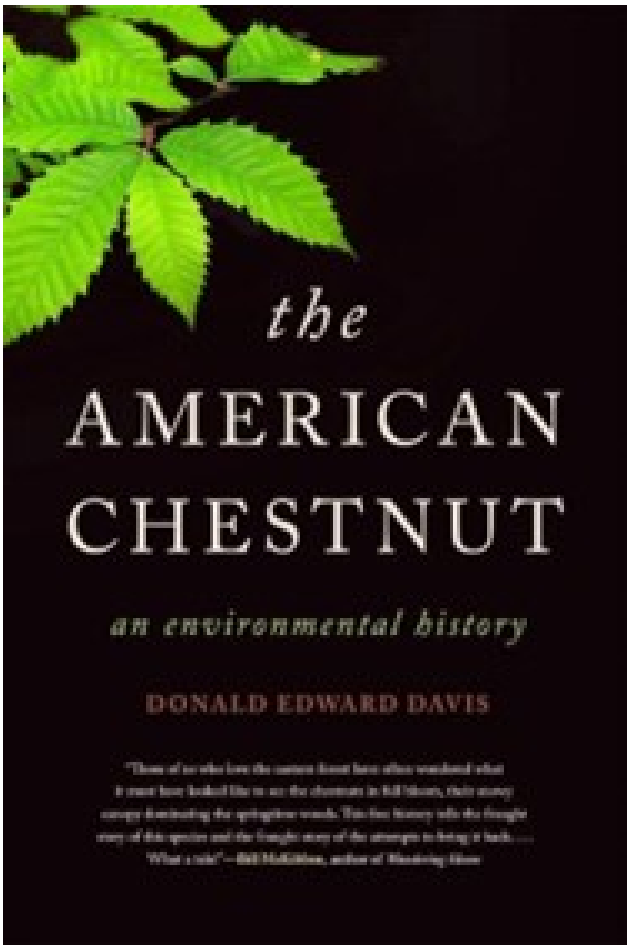
I do want to note that there are lots of other Plant This, Not That lists out there. There is a handout done by CSU Professor Jennifer Bousselot a few years ago, which has many of the same plants on it and is very good. The one in our toolkit includes our favorite Colorado native plants, many of which are keystone species and very important to the ecosystem.

How many of these Colorado native plants are available in the nursery trade? Some are, but some you'll have to get at the WOFR plant swaps in the spring. Please read Peggy Hanson's note in last month's (March) newsletter on the plant swaps. Stay tuned for dates!

Book Review

The American Chestnut: An Environmental History

(article link)



by Donald Edward Davis, Ph.D.

Reviewed by Jonathan Sciarcon, Ph.D.*

Although American Chestnut (*Castanea dentata*) is not native to Colorado, Donald Edward Davis' recent book, *The American Chestnut: An Environmental History*, holds lessons for those of us who care about the role native keystone species play in Front Range ecosystems. Davis is an independent scholar who has previously published works on the environmental histories of the Southern United States and the Southern Appalachians. In *The American Chestnut*, Davis demonstrates a remarkable depth of knowledge in natural

history, deep history, Native American history, colonial American history, eighteenth, nineteenth, and twentieth century United States social and scientific history, and United States horticultural history, to explain the rapid decline of the American Chestnut and its economic, social, and ecological impacts over the course of the early to mid-twentieth century. Davis also discusses attempts to re-establish the American Chestnut in eastern, midwestern, and southern forests from the middle of the twentieth century through the 2010s.

While I would recommend the entire book to anyone interested in environmental history, chapters 1, 2, 5, 8, 9, and 11 might be of particular interest to Wild Ones Front Range members. Chapter 1 traces the evolutionary history of the Castanea species. Davis shows that over the past 50,000 years, ranges of *Castanea* species in North America shifted significantly, and sometimes abruptly, as a result of periodic changes to the climate. Chapter 2 discusses both how Native Americans interacted with the American Chestnut and how the latter continued to spread northward in eastern North America right up to the period of European contact. Taken together, Chapters 1 and 2 highlight the dynamic nature of plant migration in response to both climatic and anthropogenic pressures. Two interesting takeaways, at least for me, are that native keystone plants may be able to continue to serve as keystone species when introduced into nearby, though not necessarily adjoining, regions, assuming similar climate conditions. Second, that we may not be able to adequately classify plants as native to a particular area without conducting extensive historical pollen studies. These points are relevant for urban and suburban Front Range gardeners interested in, for example, introducing plants native to New Mexico in order to respond to a warming climate or adding regionally native trees like Bur Oak (*Quercus macrocarpa*) or Buckley Oak (*Quercus buckleyi*) to our landscapes in order to add biodiversity to our neighborhoods and local ecosystems.

Chapters 5 and 8 cover the arrival of diseases that either harmed or devastated American Chestnut populations in the nineteenth and early to mid-twentieth century. The first disease, *Phytophthora*, also called ink disease, likely entered the United States in the late eighteenth century through East Coast ports. A slow-moving pathogen, *Phytophthora* was not able to reach all populations of American Chestnuts. Thus, at the beginning of the twentieth century, while some local populations had been significantly reduced by disease, American Chestnut populations, in general, were still intact. This changed abruptly over the next quarter century as another pathogen, now classified as *Cryphonectria parasitica* (commonly referred to as Chestnut Blight), was introduced by northeastern nurseries that imported Japanese Chestnut trees (*Castanea crenata*) infected with the fungal pathogen. Forest managers took a slash and burn approach to containing the new disease, destroying healthy populations before they could become infected. As a result of both infection and pre-emptive removal, by the mid-twentieth century, American Chestnuts had largely disappeared from both landscapes and the forests of the eastern United States. As both a gardener and someone who values our Front Range ecosystems, my key

takeaway from these chapters is that we need to tread carefully when introducing plants from other continents.

Finally, Chapters 9 and 11 highlight efforts, from the mid-twentieth century through the 2010s, to re-establish American Chestnut populations in eastern forests. Notably, Davis discusses three competing efforts to breed blight resistant American Chestnut populations. The first involves crossing American Chestnuts with Chinese Chestnuts (*Castanea mollissima*), which have blight resistance. The second attempts to collect seeds from surviving American Chestnuts found in the wild, which, theoretically, may have some level of blight resistance. The third relies on genetic engineering. Davis, in my estimation, skillfully highlights the perils and promises of each approach and concludes that we should be skeptical of all of them. To conclude, Davis' book is well-researched yet accessible for a general reader and, even though it covers a plant that is not native to our ecoregion or geographical area, has much to offer to practitioners of native plant gardening along the Front Range.

**Jonathan Sciarcon is Associate Professor, Department of History at the University of Denver*

Plant Profile

Three-Leaf Sumac, *Rhus trilobata*

By Karen Vanderwall (article link)

Every fall as I walk around the natural areas near my home, I am pleasantly surprised by the splash of red color that the sumac reveals among the subtle colors of shrubs and grasses. Seeing the narrow red tell-tale leaves of the common Smooth Sumac, I have wondered if there are other sumacs native to Colorado. So, let me introduce you to another native sumac that is just as beautiful, at home on the Front Range, and important for wildlife: The Three-Leaf Sumac, *Rhus trilobata*, also known as skunkbush or fragrant sumac.

Three-Leaf sumac is typically dioecious so the berries are seen only on the female plants. (Photo by USDA NRCS PLANTS Database).

The Three-Leaf Sumac is a great shrub for the native Colorado gardener for so many reasons. It is medium sized with a nice round shape and multiple stems, reaching 4 to 6 feet in height and width at maturity. This sumac is native to the plains and foothills regions of Colorado, as well as the plateau region of the Western Slope, growing between 3500 and 9000 feet in elevation. It grows in USDA hardiness zones of 4 through 8. The Three-Leaf Sumac reproduces mostly through seeds but also by rhizomes, which can create a thicket. And, as a native to this area with a deep tap root, it requires low supplemental water (waterwise) and is drought tolerant. So important!

Why do we love native plants? As typical of native shrubs, the Three-Leaf Sumac evolved in the climate, soils, and environmental conditions of Colorado. So as long as it is correctly sited, it can be a perfect shrub for a sustainable landscape, reducing the need for water, fertilizer and pruning. And all the while attracting wildlife and increasing biodiversity!

The leaves of this species of sumac have, as you may have guessed, three leaflets that make up a single leaf. The deep green glossy leaves turn a spectacular red-orange in the fall. They produce small, pale greenish-yellow flower spikes and clusters of small red berries. Be aware that the plant is typically dioecious, meaning that male and female flowers are borne on separate plants. Male shrubs will not produce berries.

The fall color varies from yellow to bright red. (Photo by © blueskygirl, iNaturalist)

Three-Leaf Sumac can get to 6 feet high and wide with supplemental watering. (Photo by Herman, D.E., et al. Provided by ND State Soil Conservation Committee)

Rhus trilobata provides food and habitat for many types of wildlife. Its berries are a vital food source for resident and migratory birds alike such as songbirds, quail and turkeys, and for small mammals, especially in the winter. Rabbits eat the bark and deer eat the twigs and leaves of the Three-Leaf Sumac. Being multi-stemmed, it creates great cover for wildlife both as a single shrub or as a thicket when planted en masse. Further, it can flourish under severe deer grazing.

It is worth mentioning that because of its multi-stem growth habit, the Three-Leaf Sumac can act as a windbreak and with its deep roots along with rhizomes, it could be a good choice to stabilize an area prone to erosion.

As of this writing, several sources carry the Three-Leaf Sumac such as Conservation Districts and through mail order. I am looking forward to planting one this spring!

References:
Native Shrubs for Colorado landscapes; Fact Sheet 7.422 Gardening Series: Trees and Shrubs, CSU Extension.

Colorado Plant Database, Native Plant Master Program, Colorado State University Extension.

Chapter News

Thanks to all those who attended the Member Meeting, getting us all up to speed on what this Chapter has been doing this year, and what we hope to add to our busy agendas for 2025.

Our next Board Meeting is April 16, from 6-8 pm. If you have any interest in joining our board, consider attending our meeting this month to see how we operate. Email us to get an invitation.

Upcoming Events

Check out our website's Events section for registration links and full event details!

Jeffco Regional Propagation Session-Jeffco Native Plant Share Event
April 1

Jeffco WOFR Members/City of Lakewood partnership Bumping-Up Event
April 2

Boulder County+ Region: Spring Propagation Workshop
April 5

Northern Region Social: Growing Native Plants from Seed Indoors
April 6

Douglas/Elbert Cos. Spring Sowing 2025 Make & Take Workshop
April 13

Jeffco WOFR Members/City of Lakewood partnership Bumping-Up Event
April 15

WOFR Monthly Board Meeting
April 16

Native Plant Propagation with Jan Midgley! (Zoom)
April 20

Boulder County & Garden Crawl
April 26

We love hearing from you!

If you would like to comment on anything in this newsletter or write an article, please email us your comments or ideas.

Wild Ones Front Range Chapter | https://frontrange.wildones.org/
