



Townsendia exscapa, Easter Daisy
Photo by Sally and Andy Wasowski, courtesy of the Lady Bird Johnson Wildflower Center

# **April 2024**

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Become a member today!

# **Colorado Pollinator Study**

## By Pam Sherman

# Hot off the press: Colorado's first-ever study on the health of our Native Pollinating Insects is out!

How are they doing? What can we do? This well-researched, comprehensive study provides the first-ever baseline of pollinating insect communities' health in Colorado's grasslands, cities, forests, farms and ranches, along with recommendations for best practices in conservation and restoration.

It is engaging, eye-opening and fundamental to our goals at Wild Ones Front Range.

Finally we have some answers to how our different native pollinators (insects, that is) are doing in different habitats – even if the best answer is an honest "We don't know. More studies needed."







Photos by Pam Schulz

To read a thumbnail of the report and then access the whole thing, go here. Even just scrolling through for the stunning photos of our native plant-pollinator communities and the graphics can be a pleasure. Please do take a look! The gorgeous cover illustration by Wild Ones Front Range Chapter member, and Denver-based artist and high-school teacher, Faith Williams Dyrsten, embodies the collaborative nature of the entire study and hope for the future of pollinator research and conservation.

# Colorado Native Pollinating Insects Health Study



Steve Armstead, Adrian Carper, Deryn Davidson, Megan Blanchard, Jennifer Hopwood, Raven Larcom, Scott Black, Christy Briles, Rebecca Irwin, Garret Jolma, Julian Resasco, Seth Davis, John Mola, and David Inouye.

The report makes clear that although there are areas of Colorado with intact, healthy pollinator communities, climate change, among many other things, is stressing pollinators in many parts of the state. Shortly after the study was published, Colorado lawmakers proposed a bill (HB24-117) that would fund additional research on why pollinator populations are stressed, and better understand what has to happen in the near future to help them.

# Colorado Native Plant Gardening: Should We Import Ladybugs?

# By Karen Hamilton and Karim Gharbi

Are you delighted when you see a red, round, polka-dotted beetle crawling the stems and leaves of your garden? Not only are they darn cute but they are generally seen as beneficial insects in our native Colorado landscapes.

We typically want lots of ladybugs or lady beetles (correctly, ladybird beetles) in our native plant gardens, as we have heard that they eat aphids and all sorts of other insects we typically view as pests.



Ladybird beetle is the entymologically correct name for what are commonly known as ladybugs in North America and ladybirds in the United Kingdom.

Did you know there are 80 species of lady beetles in Colorado? Seeing netted bags of lady beetles for sale in a local nursery, I consulted with Karim Gharbi, an entomologist and horticulture agent at the Denver County Extension Office to find out the value of buying these insects for my garden.

Simply put, Karim told me, releasing the lady beetles bought at a nursery or other source benefits neither the gardener nor the beetles. The species most frequently sold is the convergent lady beetle, a native insect. However, these beetles are not captively bred. They are harvested from their communal overwintering sites, depleting natural populations. Furthermore, lady beetles tend to disperse far away immediately after release. Besides, there are other insects which are superior to lady beetles in controlling aphids, such as lacewing larvae and myriad parasitic wasps.

Having answered that question, Karim enthusiastically emphasized that native plants are the foundation of the fascinating diversity of life you will find in any of Colorado's natural areas - and your own garden. A complex interdependence among the organisms you see - and those you don't - developed over eons of co-evolution. Each plant has its herbivores, each animal has its predators, fitting together like an intricate puzzle, unique to its climate and geography.



So, when we humans begin intentionally and unintentionally introducing non-native plants and animals, the system can become unbalanced. While exotic species did make their way into new habitats prior to human activity, humans have introduced too many species at rates too fast for many ecosystems to adjust. Everyone is familiar with some horror story or more of introduced organisms! Certainly, some of us pick the invasive Japanese beetle from our gardens every day. In their native ranges, the abundance of plants and animals is determined by predators, climate, habitat availability, and competition, but many of these factors are often absent in places where plants and animals are introduced.

Into our Colorado landscape, the European aesthetic of the manicured lawn and garden was also imported along with the plants that make up those gardens. This creates two problems:

- 1) Some exotic plants may be less subject to herbivory by native insects because native insects were not evolved to use them. Such exotics may be appealing to some gardeners in part because they may maintain a pristine appearance if they don't attract native herbivore insects. But without a beneficial relationship between insects and plants of the broad landscape, native wildlife of all kinds that depend on the insects, from the smallest arachnid predators to large songbirds, decline. Such effects ripple throughout the ecosystem in ways we are still learning about.
- 2) In attempt to maintain the manicured aesthetic, absent from any insect damage, some gardeners resort to tools that harm a wide range of insect species. These attacks disrupt the connection between plants and the rest of the food web. Native plants are usually subject to higher rates of herbivory because the native herbivores of Colorado have evolved to handle the unique combinations of defensive compounds in native plants. So landscaping with native plants that support native invertebrates may look less perfect than the European ideal.

An earlier Wild Ones Front Range newsletter article described how chew holes (not the ravages of Japanese beetles!) can be a good sign of an interdependent ecosystem in your own yard – an aesthetic that is delighted by signs of robust connections between plants and animals. Indeed, I no longer attempt to reduce the aphid population that seems to love parts of my currant bush. I'm sure their soft bodies are yummy to other invertebrates and birds. They don't damage the bush or any other plants. Some leaves just aren't perfect. Even my ancient plum tree, its upper reaches of leaves skeletonized by Japanese beetles, soldiers on, even if it is decrepit looking.

Back to the lady beetles.



Hippodamia convergens, Convergent lady beetle (top left); Harmonia axyridis, Asian lady beetle (top right); Adalia bipunctata, Twospotted lady beetle (bottom)

It's not only the commercial harvesting of the native convergent lady beetle that's not helpful; the imported Asian lady beetle is much worse. The Asian lady beetle was intentionally introduced to control aphids for agriculture. Which they did. But these exotic lady beetles have directly and indirectly afflicted our last native beetles. Native lady beetle species prey almost exclusively on aphids, whereas the Asian lady beetle feeds on aphids, caterpillars, mites, and other beneficial insects. The Asian lady beetles can outcompete our natives by exploiting a wider menu of resources, and eat the native adults, eggs, and larvae. Asian lady beetles come in a variety of colors but the black "M" on their face distinguishes them (as shown in the photo above); feel free to squish them while wearing gloves.

#### **Supporting Native Lady Beetles**

According to this Colorado State University Extension <u>fact sheet on lady beetles</u>, you can attract some of the 80 species of lady beetles present in Colorado (such as the Twospotted lady beetle, a common native species marked with two spots on its reddish wing covers) "by providing plants that adults use as nectar/pollen sources, sustaining levels of aphids or other prey, and using insecticides with care." *Asclepias tuberosa* is one Colorado native plant that attracts lady beetles, as do all plants with pollen-rich blooms.



You can also help native lady beetles by participating in <u>The Lost Ladybug Project</u> and <u>iNaturalist</u>. These projects seek to document populations of native lady beetle species through observations submitted by nature enthusiasts across the country. If we can find out where our lady beetles have gone, we can try to prevent other native species from declining. Next time you see that cute, round, red, dotted insect in your garden, have a close look - is it an Asian lady beetle or, perhaps, an uncommon native?

This is not a preaching of native purism. Most non-natives are not as damaging as the ones we've described. When possible, we do encourage that you select native plants and tolerate some insect damage of your plants, native or exotic. Whether you have a garden solely of native plants, or one like mine where peonies grow next to Apache plume, embrace your love of growing plants. Revel in the diversity of life your horticulture practices support, noticing the variety of organisms you find: daddy long legs, lacewings, tiny jumping spiders and orb-weaver spiders, dragon flies and damsel flies, centipedes and ants, bees and flies, moths and butterflies. And, of course, native lady beetles.

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# **Chapter Updates**

# **Toolkit Spotlight**

#### Colorado Native Plants that Tolerate Shade

One of the most often asked question we get is what native plants grow in shade? Well, we happen to have an entry on **Shade Tolerant** 

## Native Plants in our toolkit.





Shade tolerant *Mirabilis multiflora*, Colorado Four O'Clock (photo by Sally and Andy Wasowski, courtesy of Lady Bird Johnson Wildflower Center)

### **Species Spotlight**

### The Beaver, Masterful Water Harvester

### By Pam Sherman



Photo courtesy of Janeenga at Pixabay

### Why bother with beavers?

If you are living in a dry, hot climate like the Front Range plains, you may wish for any way to increase the water available to your gardening and landscaping efforts. Supporting the beavers living in your area is one important way to do this. Beavers lived here long before humans did. Beavers do naturally what we native habitat gardeners and landscapers are working so hard at: restoring the native ecosystem. No animal or human can beat a beaver at this. The more we learn from beavers how to do this and the more we support resident beavers when they find homes in urban and suburban areas, the closer to Wild Ones' goals of habitat restoration we will all be.

In addition, it behooves us as stewards of the land, to broaden our horizons and think

beyond the little patch of land we are trying to nourish, and understand the larger landscape.

Imagine the broad mountain valley or gentle forest stream closest to you, awash in biodiversity, teeming with pollinators, native insects, birds, fish, and plants you never knew existed, bordered by fast-growing willows, alders, cottonwood, aspen and other riverine plants. Here, rivers and streams do not rush furiously in a single gully-like channel to the sea; rather, they meander on their floodplains, saturating soils, bringing this paradise to life from mountain headwaters down to their valleys.

Beaver used to live in almost every year-round stream in America...

Want to learn more incredible beaver history and facts?

Read the full article here!

# **Help Our Chapter Thrive**

#### **Volunteer With Us**

Help us educate more people about creating and promoting native plant Coloradoscapes by sharing your time and talents with us. We're a volunteer-run chapter, so every member willing to help makes a meaningful impact. Plus, it's fun to work with and learn from other people who are passionate about our mission! Check out our Volunteer Opportunities page to see position descriptions for each.

#### **Donate to Our Chapter While You Shop at King Soopers**

WOFR is a member of the King Soopers Community Rewards Program. <u>Learn how to set up your account</u> and begin donating to our chapter whenever you shop at King Soopers!



#### Become a Member, if You're Not One Already!

We are a membership-based and member-led chapter. Please show your support for helping more Front Range residents convert their outdoor spaces into native plant Coloradoscapes by becoming a member today. Household memberships start at just \$40, with Limited Income/Student memberships available for \$25.

Additional benefits of becoming a Wild Ones Front Range member include:

Join today!

- Discounts on and early notification of educational programs
- Invites to member-only local gatherings
- Access to our member-only Facebook group

# **Members' Corner**

#### Gratitude and Farewell to Jen Smith

Jen Smith, our incredible Chapter President is stepping down. She has been an enormous driver of the chapter's exponential growth with her skills in so many areas, which have helped the chapter run more efficiently and effectively. She will be sorely missed. Thankfully, Jen is not stepping away entirely - she will remain active in the Northern Colorado WOFR region. While a huge loss for our chapter, no doubt her more regionally focused efforts will ripple outward and continue making our chapter stronger.

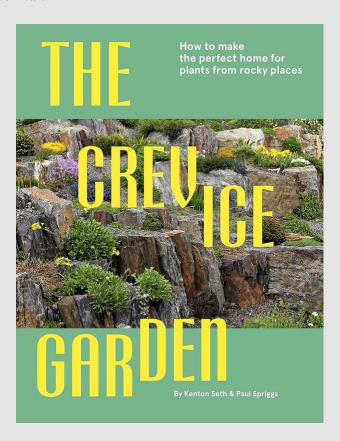
### **Chapter Bylaws Update**

Over the past year, we have partnered with Wild Ones National to update <u>WOFR's bylaws</u>, which govern how our chapter operates. The bylaws are also linked in the footer of our chapter website for easy reference.

### **Book Review**

# The Crevice Garden by Kenton Seth and Paul Spriggs

Review by Pam Sherman



This gardening book is a great fit for Wild Ones Front Range Chapter — as well as

gardeners elsewhere in the state and even the world. The authors hail from Fruita, Colorado and British Columbia; they have studied crevice gardening with Zdenek Zvolanek of Czechia and other master crevice gardeners.\* Between them they have 35 years of experience building and teaching about crevice gardens. This book is the blossoming of their work and reveals their passion for this field.

### What is Crevice Gardening?

In the Foreward, Zvolanek writes: "A crevice is nature's first step in slowly changing the naked surface of our rocky planet into a piece of paradise. It is decorated with saxatile (rock-loving) flowers..."

The authors add: "the modern crevice garden is a style of rock gardening that employs the crevices between rocks to mimic the conditions that many difficult-to-grow plants need. These gardens... give the impression of a natural rocky outcrop... This sense of solidity requires that a a classic crevice garden is constructed with buried rocks over at least half of its surface... which offers diverse microclimates... it grows plants better than other rock gardens mainly because of the way in which it channels and conserves water... In a crevice garden's lean soil we can cultivate the plants that are native to the very edge of where life can exist."

#### How Do You Do It?

The stunning photos in this book show the "jewel box" effect of smaller crevice gardens and the brightly colored buns, mounds, and cushions luxuriously draped over angular boulders in larger gardens. Designs can imitate nature, with sheer cliffs and valleys or can take shape according to the artistic whimsy and personal goals of the gardener.

The chapters feature practices and examples from different parts of the world, several of which feature gardens on Colorado's Front Range including, of course, Denver Botanic Gardens, a leader in rock and crevice gardening internationally. The "roots [of this field] are deep in the history of rock gardening and perpetual efforts to find a better way to grow alpine plants."

Specifically, the authors discuss where these plants grow — arctic and alpine environments, steppes, deserts, "urban ruins" and more. In Colorado, crevice gardens grow plants from all these environments. Some gardeners choose to plant rare species for conservation. "Urban ruin" gardens feature re-purposed concrete, crumbling stone walls and such.

Spriggs and Seth show us how crevices are so good at growing plants; how to plan, build, and maintain a crevice garden of our choice; and what types of simple soil mixes please plants that don't like rich organic soil but treasure mineral soil.

Their Plant Profiles section describes crevice-gardening genuses from around the world but do not mention species, leaving it up to us to fill in these blanks locally as we wish.

The Crevice Garden, although coffee-table book quality, is hardy enough to take outside and consult as we plant crevice rocks with their whole different genre of native plant habitat. With this method we can extend our notions of xeriscaping (or Coloradoscaping) to include fireworks of diverse characteristics, color and beauty.

\* Kenton Seth is also an advisor of sorts to Wild Ones Front Range Chapter, and is the designer of the Front Range Garden design included on Wild Ones' national website.

# **Upcoming Events**

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

# Plan, Install, Maintain! A DIY on Low-Water, Low-Maintenance Native Plant Gardening

Wednesday, April 3 Virtual

### **Jefferson County Regional Meet and Greet!**

Saturday, April 7 *Members only* 

# Seeding + Transplanting Native Plants for NOCO Plant Exchange Wednesday, April 10

# Northern Colorado Region Meet-and-Greet

Sunday, April 14

Members Only

Douglas/Elbert Counties Region Spring Meet, Sow, and Eat Sunday, April 14 Members Only

### **WOFR April Board Meeting**

Wednesday, April 17 Members only, Virtual



Woods Boss Brewing Seed Swap (March 2024)



NOCO Seed Sow and Transplant Event (March 2024)



Pikes Peak Regional Seed Sow Event (March 2024)

Wild Ones Front Range Chapter | https://frontrangewildones.org/





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