WILD ONES®
Front Range

Weidemeyer's Admiral (*Limenitis weidemeyerii) — photo by Pam Schulz*

February 2025

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Compost and The Native Plant Garden

By Kristine Johnson *(article link)*

What is compost?

Compost is the "managed, aerobic (oxygen-requiring) biological decomposition of organic materials by microorganisms." While we know that everything living eventually breaks down and returns nutrients to the earth, the process of composting can speed up decomposition, benefit certain decomposers, conserve nutrients, and yield a uniform product useful in gardening.

Handful of compost from my yard.

Why is compost useful?

Organic materials like kitchen scraps, weeds, leaves and yard trimmings can be composted. Without composting, these resources end up in landfills, where the decomposition process vastly differs. Landfills contain so much organic material piled so deeply that all oxygen gets consumed by microorganisms very quickly, and anaerobic decomposition takes over (decomposition in the absence of oxygen). This produces methane, a very powerful greenhouse gas and a contributor to climate change. Nitrogen, a critical plant nutrient, may also be lost from landfills as nitrous oxide, an even more powerful greenhouse gas, or it may be lost through the leaching of nitrate, causing groundwater pollution. Composting, as opposed to landfilling, creates a valuable resource, conserves plant nutrients and circumvents greenhouse gases.

How can I turn my organic materials into compost?

Many of us have access to curbside composting services or convenient drop-off sites. (Check Litterless for curbside pickups and drop-offs.) There are also ways to connect with hobbyist composters and small farmers who need organic material for their

compost. Check out the app MakeSoil, ask your Community Supported Agriculture farmer, post an inquiry on NextDoor, Craigslist and Freecycle.

You can also make your own compost. There is a great deal of information about how to compost online, at the library and through hands-on classes. Try to stick with trusted, research-based resources, like CSU Extension, Denver Urban Gardens, and the wide selection of books at your library. One really easy way to start is by making leaf mold.

A simple and tidy way to make leaf mold.

For bulkier organic materials, make a brush pile. Gather branches, thick stems and small logs into a pile. While this pile breaks down very slowly, it will offer shelter for birds, toads, rabbits, insects and more. It's best to choose an "invisible" site where neighbors with sensitive aesthetics can't see your pile and complain. Alternatively, do a web search for the many arty, pleasing organic sculptures some have created with what others consider trash (search "brush pile" "habitat pile" "wildlife brush shelter" etc).

Woodhouse's toad (Anaxyrus woodhousii) near my brush pile.

How do I use compost in a native plant garden?

Two truths exist: compost is fairly low in plant nutrients and Colorado native plants have low nutrient needs. Another truth can apply: the soil in many yards in Colorado, especially those with recent heavy disturbance such as that from construction or big landscaping projects, is even lower in both plant nutrients and soil organic matter. A little top dressing of compost to newly planted or existing wildflower beds helps feed soil microbes, replenish soil organic matter, and improve infiltration of water. How much is appropriate? I bareroot plant new plantings and top "mulch" around the plants with an inch or two of homemade compost. When I am "feeding" established areas in the spring or fall, I am aiming for less than half an inch of compost. That's not a lot! The key is to do this consistently over years.

How do I find good compost?

Colorado does not have great legal requirements for compost. Use this resource from Colorado State University Extension for a primer. Seek out plant-based compost (no manure, especially from feedlots; no biosolids), to ensure compost low in or free of pathogens, salts, PFAs and heavy metals. If you buy compost, read the label and be picky. Read any provided analytics (good ones are seed germination and seedling vigor but scan the whole document). Avoid pH lower than 6 or above 8. Odors, especially of a manure-y nature, or of ammonia betray unbalanced and unfinished compost that can harm your plants. When in doubt, skip it.

How does compost support biodiversity?

Compost "feeds" the soil, providing food for soil flora (microbes like bacteria and fungi) and fauna (little creatures like worms, mites, nematodes, insects and insect relatives). Increasing soil organic matter can both help soil retain more water and drain more appropriately by improving its texture. Compost feeds plants nutrients in low, steady amounts that don't contribute to air or water pollution. Healthier soils support more balanced insect communities and in turn support more songbirds. Healthier soils grow healthier plants.

Red wiggler earthworm (Eisenia fetida) helping to break down organic matter.

Inky cap mushrooms in my compost.

How does compost lower your impact on the planet?

All waste must go somewhere. By handling it in the right way and putting it in the right place, we mimic the circularity found in nature, save money, save landfill space, support cleaner air and water, and create an incredibly useful and valuable tool to enrich our gardens and care for our local soil and the Earth itself.

Health, Happiness - and Gardening!

By Deb Lebow Aal *(article link)*

Numerous studies show gardening increases health and happiness. Photo by Mike Erskine on Unsplash

Everyone is concerned with health these days. We consume inordinate amounts of media on keeping ourselves healthy and buy enough supplements to fill bathtubs. But there's more to keeping healthy than taking vitamin D and Ozempic (does that make you healthy?) and getting a gym membership. Turns out that getting your hands dirty in the soil is actually good for your immune system. There are scientific studies that show that gardening can improve your physical and mental health.

A study published in 2019 from the Harvard T.H. Chan School for Public Health

showed that women surrounded by homes with lots of plants (do not read grass!) had higher life expectancies and better mental health than women whose homes and yards had less greenery or fewer plants. Women with bountiful green spaces were 34% less likely to die of respiratory disease and 13% less likely to die of cancer than women with less green space. And, yes, the study did take into account other things that might have accounted for these differences. These are astounding numbers.

Two additional studies, one done in 2004 and one in 2007, showed that microbes in the soil are good for your gut, your immune system, and your mental health. The first study showed that a certain soil microbe (Mycobacterium vaccae) could prolong the lives of lung cancer patients. Patients were injected with this common, non-harmful soil bacterium, and while it did not prevent or help the patients with their lung cancer, it made them much happier. Yes, happier! In fact they were not just happier, but they had more vitality and better cognitive functioning as well. The second study confirmed these findings, but with mice. Turns out there are microbes in the soil that interact with your gut and with serotonin levels in the brain. While that is a monumental simplification, that is the gist of these studies. We need to play in the dirt, e.g., garden, for our mental and immune system health.

A more recent study showed that access to green space may help prevent cognitive decline, a concern to many of us. And, the National Library of Science synthesized data from many recent scientific studies and this is what they concluded:

“Our meta-analysis has provided robust evidence for the positive effects of gardening on health. With an increasing demand for reduction of health care costs worldwide, our findings have important policy implications. The results presented here suggest that gardening can improve physical, psychological, and social health, which can, from a long-term perspective, alleviate and prevent various health issues facing today's society. “

Early childhood communing with one of Colorado’s Hesperidae (Skippers)

Playing in the dirt may help with asthma as well. Scientific research suggests that exposure to dirt, particularly during neo-natal and early childhood periods, may have a protective effect against developing asthma. The theory is that reduced exposure to microbes in a clean environment can lead to an overactive immune system, increasing allergy and asthma risk. Studies have shown that children raised on farms, with regular exposure to soil microbes, have lower rates of asthma compared to urban populations. Exposure to soil introduces harmless microbes to our systems, and we probably pick up a few good guys to add to our flora.

I am no doctor or scientist, but I do know that gardening makes me inordinately

happier, stronger, and wiser. Happy to be doing something that benefits the environment, assuming I am gardening sustainably, leaving those leaves, designing with native plants, etc. Stronger and wiser because it obviously entails strenuous but not mindless activity. There is an endless amount of learning to do to plant wisely, and understand, if we can, the wisdom of the plant world. And, maybe gardening also saves you money. I do not need to spend on a gym membership because when I am gardening, I am lifting, hauling, squatting, etc. (okay, that might be a bit of a stretch, which hey, also improves my flexibility…).

Garden exercise can benefit all ages!

Those of you with little to no outside space of your own have lots of options to get your hands dirty. You can volunteer at Denver Botanic Gardens or another local garden; get a plot in a community garden; have lots of greenery indoors or on a balcony; help a friend or family member with their yard; volunteer with a CSA (Community Supported Agriculture) program; or get into our parks and recreation areas and truly immerse yourself in the green beauty.

There is also the opportunity to build community when you garden. You can join a club or an organization (such as Wild Ones!), or take on a neighborhood project. Garden in your front yard, and use it as an opportunity to socialize with your neighbors and people walking by. It's a heck of a lot better for your psyche than sitting in front of your computer or television.

So, if you're not someone already playing in the dirt, maybe think about it. Surround yourself with plants, and yes, please take out some of your lawn! And, if you are someone already deep into gardening, know that you are nourishing your body and your soul, as well as the earth.

Chapter News

Join us at the Landscaping with Colorado Native Plants Conference!

March 8, 2025
8:00 am - 4:00 pm
Colorado State University
Fort Collins

This year's theme is Beyond the Box - Growing a Culture of Native Plant Landscaping.

The conference offers a full day of educational programming that promotes the cultivation and maintenance of native plants in the landscape. Speakers include Jennifer Jewel, Jim Tolstrup, Maggie Gaddis, Joyce Kennedy, and our own Danna Liebert on topics related to native plant restoration, breeding cultivars, native plant availability, and many others.

For more information and to register, click here.

Denver-Boulder City Nature Challenge — SAVE THE DATE!

Planning for the 2025 Denver-Boulder City Nature Challenge (CNC) has started! The CNC, part of a global competition among cities to document biodiversity using iNaturalist (a community science platform), is an incredible way to foster connections within the local community to nature, improve trust in science, and contribute to our scientific understanding of our local flora and fauna! This year is the 10th anniversary!

This event takes place in two parts:

***April 25–28*:** Make observations of wild plants, fungi, animals, insects, etc by taking

images with your smartphone or camera

***April 29–May 4*:** Upload your observations and identify on iNaturalist.

Anyone, anywhere, with a smartphone (or a camera and internet access) can participate in this community science project! The organizers of the global City Nature Challenge have amazing tools on their website for more information, including an educational toolkit, stats from previous events, and information on how these observations impact scientific research. Wild Ones Front Range encourages anyone who is interested to participate.

Plant Profile

Rocky Mountain Juniper

By Karen Vanderwall (article link)

I know, just the thought of planting a juniper (*Juniperus scopulorum*) on purpose in or near your garden of all places seems unlikely – or at least way down on the list of interesting plants you're "pining" for. But you may want to give the humble native juniper some consideration. *Juniperus scopulorum*, also known as Rocky Mountain/Western/Colorado Red Cedar and Western Juniper, is an important native conifer that provides habitat for many species of wildlife, acts as a larval host, and furnishes excellent erosion control, as it often grows on hillsides.

The humble juniper (photo by Leslie McLachlan).

In their native environment, junipers are found in the western part of the Great Plains and through the Rocky Mountains where they often grow on prairie hillsides, dry rocky outcrops, exposed bluffs, butte tops and open forests. They range in size from shrub to

tree. A sister species, one-seed juniper (*Juniperus monosperma*) is a major component of the piñon-juniper woodlands which dominate western Colorado.

Native plant gardeners may consider the Rocky Mountain Juniper a graceful evergreen with a columnar or round shape and drooping blue-green foliage. Its growth form is that of a tree or shrub. Like all evergreens, it provides year-round structure and habitat in the garden. Junipers have flat, fan-like 'leaves' and produce dark blue "berries" in the fall, usually between September and October. The pretty reddish gray bark can appear as if it is shedding. The USDA's hardiness zones for this plant are 3-7. In addition to amazing wildlife benefits, this juniper is very tough and an all-around workhorse.

Some fun facts about this juniper are that many people confuse this tree with the cedar which is a member of the pine family, and junipers have been used for cedar chests! However, junipers are actually members of the cypress family. Another is that those beautiful blue 'berries' that we all love about the junipers are not berries at all but are actually cones, meaning yes, junipers are conifers! You may notice that the 'berries' are not on all of the trees; most of the time, Rocky Mountain Junipers grow as single-species plants (they are dioecious, with separate male and female specimens). 'Berries' are female, and the very small pollen cones are male.

Herman, D.E., et al. Provided by ND State Soil Conservation Committee. United States, North Dakota

I also love learning why plant species are given the names they have. In this instance, scopulorum is latin for "of rocky cliffs" which is a reference to the fact that it is often found in rocky areas.

For us, the most important facts about *Juniperius scopulorum* are related to how beneficial the species is to wildlife and pollinators. The leaves and twigs are used by mule deer and elk in the winter for food and cover. Many bird species eat the berrylike cones such as the cedar waxwing, evening grosbeaks, grouse, Townsend's solitaire, and wild turkeys. The branches provide shelter and nesting sites for chipping sparrows, juncos towhees, warblers and many more.

Uniquely, the Rocky Mountain Juniper is the host plant for the uncommon juniper hairstreak butterfly. The larvae of this iridescent olive-green butterfly eat the leaves of the Rocky Mountain juniper and then overwinter on or near it in as pupae. The adult male butterflies are usually found on or around the trees waiting for females. Exciting!

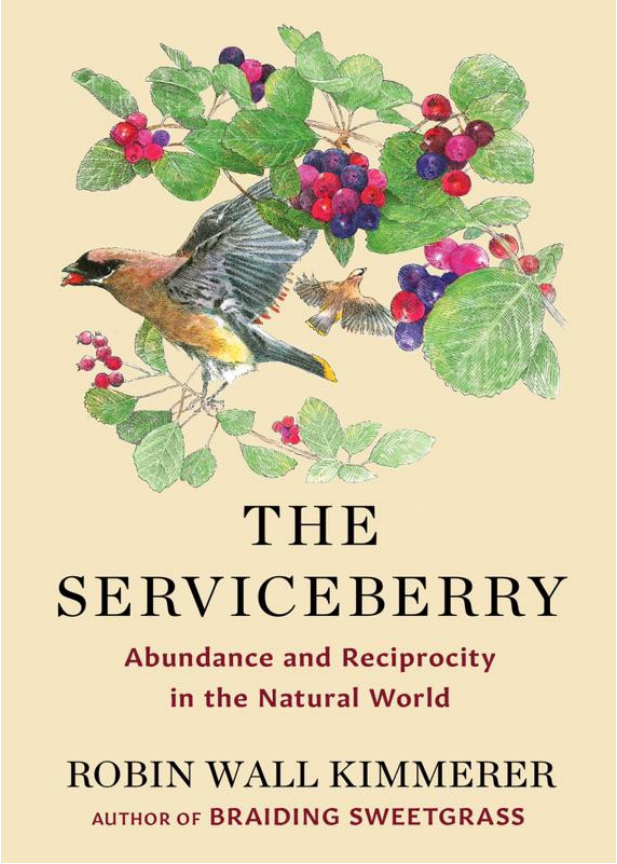
"Olive" Juniper Hairstreak (Callophrys gryneus gryneus). Photo by Megan McCarty, Creative Commons.

Junipers are getting a lot of negative attention because of their flammability. Landscaping in Colorado went through a phase of using (mostly non-native) decorative shrub junipers as ground covers to fill in large areas and as foundational plantings right next to homes. Now, in the era of climate change and increased fire risk, we know that in high risk areas (in wildland urban interfaces and other areas at increased risk of wildfire), much more precaution with plant choice should be taken, particularly in close proximity to homes (see WOFR article Designing for Fire Resilience). In high risk areas, do not plant junipers and other conifers in the zone 0-30' from structures. Most resources also advise that in the next zone, 30-100' from structures, you plant non-flammable or low flammability plants (this excludes all evergreen conifers) and that there be at 30' spacing between the crowns of trees. Trees should also be limbed up, which can make junipers look pretty awful. Well-spaced conifers, including junipers, are fine beyond 100' from structures (this may be your neighbor's yard, in which case, disregard this). While this is discouraging news for our friends living in WUIs and other high risk areas, knowledge is power. We encourage you to focus on ALL fire safety information, including that about landscaping, while realizing that many beloved species, junipers among them, may not be appropriate in all home landscapes.

Book Review

The Serviceberry: Abundance and Reciprocity in the Natural World

By Robin Wall Kimmerer



Review by Kristine Johnson

I had the privilege of hearing a conversation between beloved author and Indigenous scientist Robin Wall Kimmerer and renowned Colorado poet Camille Dungy about Kimmerer's new book, The Serviceberry, at a reading in Boulder in December. I have been thinking about the book ever since, thrusting my copy onto others to read. Why the enthusiasm? Simply put, The Serviceberry is the right book for right now. In the cold and dark of Winter 2025, many of us are facing uncertainty, loss, and division and may be seeking a path forward to light. While this book nominally might describe a beloved native plant which you definitely want in your yard, Kimmerer goes much deeper; the true theme of this book is reciprocity and the gift economy.

Kimmerer contrasts what plants like the serviceberry can do for us: they take the energy of the sun and transform it into berries which they give to the world freely, thereby supporting and participating in ecosystems. Our modern ethos, on the other hand, tilts toward a different economy; we focus too intently on concepts like scarcity, supply and demand, and hoarding. Our precious world, aching from natural disasters and strife of a dozen varieties, could use more of the gift economy modeled by the serviceberry, by Indigenous practices, and by the generosity we find in building connections and communities with others. All of these sustain and support nature, biodiversity, and even ourselves.

It occurs to me that what we do in our Wild Ones Chapter, our sharing of seeds, plants, knowledge, advice, and friendship, encapsulates a beautiful example of a gift economy. While membership fees and donations do help, in the Wild Ones Front Range Chapter, we exchange a wealth of gifts throughout the seasons. I encourage you to read this book, possibly even my copy if you happen to run into me. The Serviceberry contains a message we can and we are carrying forward through our regions and our gardens.

Upcoming Events

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

The Dirt on Soil: Exploring the Foundation of Your Native Plant Garden — Part 1
Wednesday, February 12
Online/Virtual

Pikes Peak Region Cultivating Community Social
Saturday, February 15

Northern Region Free Winter Sowing Workshop
Saturday, February 15

WOFR Board Meeting
Wednesday, February 19
Online/Virtual - Members only

National Panel Discussion: "Bees Beyond Honey: Understanding Native and Managed Pollinators"
Thursday, February 20
Online/Virtual

Pikes Peak Region Starting Native Plants from Seed with Allisa Zurbuchen
Saturday, February 22
Members only

The Dirt on Soil: Exploring the Foundation of Your Native Plant Garden - Part 2
Wednesday, February 26
Online/Virtual

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/
