

6,000 and 9,000 feet and are often lined with narrowleaf cottonwood, river birch, alder, willows, and the state tree, Colorado blue spruce. Typical birds of this habitat include American dipper, hermit thrush, and yellow-rumped and Wilson's warblers. Butterflies include Weidemeyer's admiral and several species of swallowtail.

Perhaps the arid conditions that exist in Southern Colorado, the shape of the valley floor, and the stream flow of Monument Creek contribute to it being more like that of a low-altitude riparian ecosystem than that of a medium-altitude zone. Those who have tried to grow a blue spruce or river birch tree in this area can attest to many challenges and more often than not, they lose them to a bad winter or insect infestation. I have yet to see an American dipper or catbird here, but I commonly see the yellow and Wilson's warblers.

Montane forest ecosystem

The name "Montane Forest" is a very broad designation that applies to several forest types that grow between 6,000 and 9,000 feet. Many forest types exist along our cross-section, including aspen groves and fir trees found on the slopes of Mount Herman and the ponderosa pine forests found in Woodmoor. Although the lodgepole pine of the Black Forest is farther south from our cross-section, it too exists in this region.



Above; Black-billed magpie: Resides in Montane forest. *Illustration by Elizabeth Hacker.*

Ponderosa pine is typically the dominant tree from about 6,000 to 8,000 feet. A few species of birds, including the pygmy nuthatch, Steller's jay, and black-billed magpie, are so strongly associated with the ponderosa pine forests in this region that they are rarely found elsewhere. The Abert's squirrel was once common here, but I

haven't seen one in years. The common gray squirrel has taken over, which often happens in areas that have been developed. Common understory plants include kinnikinnick, lupine, and yarrow along with many wildflowers.

Stands of quaking aspen grow on the slopes of the Rampart Range, and aspen is one of Colorado's most unmistakable trees. Many mammals, birds, and insects rely on cavities in aspens for nesting, and it's a great place to look for woodpeckers and other cavity nesting species.

Montane shrubland ecosystem

The museum defines montane shrublands as large areas of the foothills in the southern and western parts of Colorado that are covered by a mix of deciduous shrubs, including 10- to 15-foot-high scrub oak, manzanita, serviceberry, mountain mahogany, skunkbrush, snowberry, and bitterbrush.

Many remnants of shrubland still exist in the Tri-Lakes region. Because of unstable loose granitic soils associated with shrublands, they are often challenging to develop and unsuitable for agriculture. A largely untouched stand of shrublands exists near Monument Rock in the National Forest Preserve. Here it is possible to observe nesting western scrub-jays, blue-gray gnatcatchers, spotted towhees, various flycatchers, western tanagers, and prairie falcons.



Above; Blue-gray gnatcatcher: Nests in the Montane shrublands. *Illustration by Elizabeth Hacker.*

Grassland ecosystem

Grasslands in the Tri-Lakes region have been or will at some point be developed. For generations, ranchers in northern El Paso County grazed cattle and coexisted with the wildlife native to this region. Small

grassland remnants remain but are not of a size suitable to support most of the birds and animals that once thrived here.

According to the museum, Colorado's native prairie once covered nearly half the state. Plants and animals on the eastern plains of Colorado thrived under good grazing practices. At one time, private landowners provided habitat for more than 70 percent of the



Above; Mountain plover: Once seen on grazing land in association with prairie dogs. *Illustration by Elizabeth Hacker.*

wildlife species in the state. Today, with the exception of a few commercial enterprises, bison have disappeared, but other animals including pronghorn, mule deer, and jackrabbit are occasionally seen here. For some reason, coyotes abound.

A few prairie dogs still exist but generally are considered to be varmints and eradicated. As the prairie dog habitat disappeared, so did habitat for the mountain plover and burrowing owl.

Also included in the grassland ecosystem, but not along our cross-section, are spiky yucca plants found in dry and rocky areas along I-25 between the Air Force Academy and Colorado Springs, where breeding Cassin's sparrows can be found.

Explore!

The residents of northern El Paso County are fortunate to have great biological diversity and a number of places to see the abundant wildlife. One of my favorite places to look for birds is along the Santa Fe Trail. As the trail ascends in elevation from Colorado Springs to Greenland Ranch, it is possible to see great variation in landscapes, soil types, vegetation, and wildlife. I also enjoy driving the back roads and am often surprised at what I find. I probably need to plaster my car with those bumper stickers that warn "I stop for birds!"

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High Altitude Nature and Gardening (HANG)

Trees use their forest wisdom; two-week compost for gardens

By Janet Sellers

What do trees eat? Mother Nature's forests have a wonderful history (millions of years) of creating soil just right for the local trees and species. Growth and decay are the cycle of life: The trees drop branches, wood, leaves, and sticks, and all manner of things begin their decay cycle on the forest floor and create not only mulch but the soil and specific nutrients that the forests' trees and plants will need, as well as the helpful interspecies support for wildlife.

We've had free wood-chipping days after local fire mitigation efforts—you can make a garden from this! First, put down some cardboard or newspapers—even on top of grass—in the area that you want to get growing, layer wood chips 3 to 4 or more inches thick, and add aged compost (store-bought soil is pretty sterile, so amend it with overnight compost teas: compost soaked in water, banana peel tea, etc.). Then plant seeds or plantlets and nestle with a thick pine straw (needle) mulch. Water as needed.

June gardening

Start seedlings of squash, cucumbers, and corn, using 60-day seed-to-crop varieties. "Spank the stalks" with a stick to get corn to pollinate (also good for tomatoes), strengthening the stalks and roots like summer breezes would. I always seem to get more and bigger tomatoes when I do this. Works great for container crops, too, and helps pollinate flowers and set fruit. Two-week compost

Fill up a wheelbarrow or container with green clippings ("green nitrogen manures") and add orphaned potting soil, live compost, leaves or paper micro shreds or shredded cardboard ("brown carbon manures"), and veggie kitchen scraps; turn the concoction every other day. Keep it out of hot sun and rain, but sprinkle water so it's slightly moist. If it gets cool, add grasses to start up microbes again. A good use for non-noxious green weed mitigation, too.

Microbes work in the decomposition process, multiplying with cellular action, creating soil via many generations of microbes. Wood chips/layerings allow for oxygen, facilitating microbe activity while keeping the system moist and aerated. Using only greens or kitchen scraps turns the ingredients into an anaerobic, stinky slime, requiring helpful materials



Warnings: Above: The poisonous (chartreuse green) myrtle spurge (*Euphorbia myrsinites*) is appearing locally again. This is a List A noxious weed and is designated by the Colorado Noxious Weed Act for eradication. If it's growing in your yard, you are required to remove it. The plant contains a milky sap that can blister your skin and is poisonous if ingested. Wear protective clothing—rubber gloves are recommended; pull out the weeds by hand to best delete them. Do it upon seeing the plant—seeds last eight years in soil, and the plant can spew the seeds up to 15 feet. **Right:** Also, beware of deadly poison hemlock: smooth green and purple blotchy hollow stems that grow 2 to 6 feet tall. It looks a lot like Queen Anne's lace. To differentiate, remember, "Queen Anne has hairy legs."

like the carbon of leaves or newspaper to beget fungi for creating soil.

Stay tuned for my garden tips and demos at the new weekly Farmers/Artists Market on Southwinds Fine Art Gallery's forested grounds; log in to Facebook's Monument Community Garden page where I share these and other seasonal high-altitude gardening resources.

I'm helping with the Monument Community Garden on Beacon Lite Road this year. We're demonstrating square-foot gardening, vertical gardening, sunflowers as a chemical barrier, and the ancient Southwestern Olla watering system of terracotta pots submerged in the soil. Come on by and say hi!

Janet Sellers is an avid lazy gardener, aka permaculture and food forest models for gardens. Send in your handy HANG tips to janetsellers@ocn.me.

