

Common Non-Native Vegetation Found In Eldorado That You'd Rather Not Have

This document is created from monthly articles that appeared in 2021 Vistas

Vistas March 2021

Coming Attractions: Weeds You'd Rather Not Have

All of us look forward to spring when tiny young plants emerge from the warming soil. Unfortunately, within a short time many of these adorable baby plants turn into the monsters we call weeds. In those rare years when we are blessed with moisture, we may reap an abundance of weeds. Even in dry years the weeds still show up. Some of us fight them with varying degrees of success or failure. Others seem not to notice or care, but more often than not we don't know what they are or whether they're harmful.

Over the years, the ECIA Conservation Committee has heard concerns from the community about the spread of introduced Eurasian plants such as cheatgrass, common mullein, tumble or Jim Hill mustard, kochia, and Russian thistle. They spread in the ECIA common properties, Community Preserve, greenbelts and, along the roadsides and the residential lots. These weeds can starve the diverse native vegetation of moisture, light and nutrients, and after they have successfully taken over, they die, dry out and can become a fire hazard. They degrade the habitat our local birds and other wildlife need to survive. Some weeds are also harmful to pets and livestock and are a problem for gardeners, landscapers, and people trying to sell their houses.

Starting in April, some *Vistas* issues will feature a Monster Weed article by the Conservation Committee, describing and illustrating one of our favorite nemeses as it emerges and the reasons why it should be controlled. We will also discuss the best practices for discouraging and managing weeds while at the same time supporting the regrowth of native vegetation. In the meantime, let us hope for rain, and maybe invest in some new gloves in preparation for our role as stewards of Eldorado's beautiful landscape.



Russian thistle

—Thomas Bredenberg, Conservation Committee

Photo: "tumbleweeds/Russian Thistle" by Derell Licht is licensed with CC BY-ND 2.0.

Vistas April 2021

Cheatgrass

This first of a series of articles from of the ECIA Conservation Committee targets a common Eldorado weed— Cheatgrass (also Downy Brome). Cheatgrass comes up early in the growing season, but can pop up later depending on weather conditions so it's important to monitor your land regularly during the growing season. Our goal is to help property owners identify the key culprits early when they're small, easy to remove, and haven't caused so much harm to our native habitat.

The word "cheat" conjures up negatives, and seeing "cheatgrass" should do the same. When it first comes up in the spring, I think of it as a flame that can easily get away and should be immediately extinguished. This species got its name from "cheating" livestock of nutritious forage, just as it cheats wildlife of the native vegetation they need to survive.

Cheatgrass (*Bromus tectorum*) is on the New Mexico Noxious Weed List. It originated in Southern Europe, northern Africa and southwestern Asia and germinates early in the spring (get it out then!)

CHARACTERISTICS:

- Annual, reproduces by seed;
- Favors dry, disturbed ground;
- Drooping inflorescence with nodding spikelets and sharp awns;
- Is inconspicuous when young and green, thus most people don't notice it until it turns purplish—and by then it is difficult to pull out and the seeds have matured.

WHY IS IT A THREAT:

- It aggressively invades our local habitats, outcompeting the native grasses and flowering plants that make Eldorado beautiful and support its wildlife;
- It's very flammable when mature. One spark from a cigarette or a power tool could start a wildfire which can threaten property and wildlife habitat;
- Its ripe awns lodge in clothing and pet hair. They can pierce a dog's skin, become embedded and cause infection;
- A property with cheatgrass is less attractive. Although this is a widespread species in New Mexico, that does not mean it is impossible to eliminate or that you shouldn't try. On the contrary, because we have less of it here, mostly along roadsides and in disturbed areas where it will rapidly spread across properties, it is easy to pull out in its early stage so your yard can be spared a major invasion of it.

HOW TO MANAGE IT:

- Proactively avoid and minimize any soil disturbance on your property—this is a delicate habitat, easily damaged and hard to restore;
- Pull by hand when the plant first germinates and is small and green, before seeds are produced;
- Tamp down the soil around where you pulled to minimize invasion by other weeds that favor disturbed soil;
- Continue to check the site through the growing season and every year to make sure more seeds don't germinate. Native grasses and forbs, both perennial or annual, will come in over time;
- Don't use chemicals; they are unnecessary and ineffective, and will harm native plants and animals.



—Carol Beidleman,
ECIA Conservation Committee

Photos: Left, Dr. Richard Old, www.xidservices.com;
Middle and right, "Cheatgrass. The Bad Guy of Grasses"
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Russian Thistle and Kochia - Reduce Tumbleweeds

This month we turn our attention to a Western icon, the tumbling tumbleweed. The two most common and troublesome tumbleweeds in Eldorado are Russian thistle, *Salsola tragus*, and kochia, *Kochia scoparia*, both in the Goosefoot family.

CHARACTERISTICS:

- Both plants are annuals introduced to North America from Eurasia in the 19th Century;
- They reproduce by seed, dispersed by wind-driven tumbling. Russian thistle can produce up to 200,000 seeds per plant;
- Both favor loose or disturbed ground like leach fields, construction sites, roadsides, railroad grades, and overgrazed pasture. They do well in alkaline soils and are very drought resistant. Eldorado, therefore, provides
ample opportunities for these weeds to proliferate;
- Mature Russian thistle is barbed and spherical and can grow up to six feet in diameter. Mature kochia is conical
and can grow to over five feet high;
- Russian thistle has stems that are striped with purple;
- Both species have inconspicuous flowers (which mean inconspicuous seeds).

REASONS THESE SPECIES ARE A THREAT:

- Russian thistle and kochia outcompete native perennial grasses and forbs for water, light and nutrients;
- The US Department of Agriculture considers them noxious;
- When dead and tumbling they are dry, light and flammable; Russian thistle is worse. They accumulate against junipers and structures and can serve as a ladder fuel. This can turn a minor grass fire into something far more serious. Standing dead kochia can also be a fire hazard;
- Allergic reactions to pollen and skin contact are common;
- A property with tumbleweeds will attract unwanted attention for Eldorado Covenants compliance.

HOW TO MANAGE THEM:

- Russian thistle is very easy to identify in its early growth stage, so can simply be pulled. Tamp down the soil
after pulling. Young kochia can be more difficult to identify, however; take care not to mistake immature prairie asters for immature kochia when weeding;
- Before they produce seeds, pull immature plants by hand or trim with a weedwhacker. Wear heavy gloves and
cover exposed skin;
- One can effectively manage large patches of tumbleweeds, like on leach fields, with a weed whacker with rigid
blades. If you are certain seed has not been produced yet, this can add organic matter and returns nutrients to
the soil without exposing the subsoil; otherwise, dispose of them. The weeds will grow back so repeated whacking is required throughout the growing season;
- Promptly capture, crush and dispose of any dry weeds that tumble on to your property;
- Instead of landfilling them, establish a second compost pile just for weeds. Manure and worms are locally available.



Left, young Russian thistle; Right, Russian thistle tumbleweed



Left, young kochia; Right, kochia tumbleweed in leach field

—Thomas Bredenberg, Conservation Committee

Photos: Left, young Russian thistle by Mary Ellen (Mel) Harte, Bugwood.org; Above right, mature kochia by Carol Beidleman; All other photos by Thomas Bredenberg

Vistas June 2021

Jim Hill Mustard - A Person's Name for a Weed

It's certainly easier to distinguish a plant named "Jim Hill" than "tumble" since, as we featured in last month's *Vistas* article, there are a number of weeds whose seeds are spread through "tumbling." This weed was named after James J. Hill, a railroad builder, because this species soon followed the building of the railroad. The next time you walk the Rail Trail, look for it. It is an important reminder that disturbance of the soil through human activities paves the way for non-native weed species to get a hold. If you disturb it, they will come!

Scientific Name: *Sisymbrium altissimum*

Region of Origin: Europe

Timing of Appearance: Late spring, early summer (sometimes after monsoons)

CHARACTERISTICS:

- Annual, reproduces by seed;
- Favors disturbed ground, where there has been barring of the soil;
- Seedling is a basal rosette with deeply lobed leaves, but it grows into a stout plant up to 5 feet tall;
- Pale yellow flowers which, like all mustards, have four petals.

WHY IT IS A THREAT:

- Although you may hear the term "naturalized" in association with this widespread weed, it's worth the effort to rid your yard of this invader because it's easy to identify and remove in its early stages; otherwise, it can take over your property. That sea of yellow may look pretty from a distance, but up close you'll realize you've lost your diverse native wildflowers and grasses;
- Once mature and dried, this tall plant breaks off at the base and tumbles with the wind spreading seed...with up to 1.5 million seeds per plant;
- Its presence can add to the wildfire danger on your property.

HOW TO MANAGE IT:

- Proactively avoid and minimize any soil disturbance on your property—this is a delicate habitat, easily damaged and hard to restore;

- Pull the single taproot out by hand when the plant first germinates and is a small basal rosette, before the flowering stalk is produced. You don't want to have to fight this tall stiff plant once it has seed pods;
- Tamp down the soil around where you pulled to minimize invasion by other weeds that favor disturbed soil;
- Continue to check the site throughout the growing season and every year to make sure more seeds don't germinate after favorable conditions. Native plants, being perennial or annuals via seeds in the soil, will come in over time;
- Don't use chemicals; they are unnecessary and ineffective, and will harm native plants and animals.



Basal rosette Jim Hill Mustard seedling with lobed leaves



Dried mature Jim Hill Mustard



Flowering Jim Hill Mustard

—Carol Beidleman, Conservation Committee

Photos: Top left, by J.A. Kropf, WSU Extension Hortsense; Bottom left, courtesy Methow Conservancy; Above, courtesy Southwest Colorado Wildflowers.

Vistas July 2021

Common Mullein

If there's anything positive about one of the most common weeds found in Eldorado, it's that it's also one of the most recognizable. Few of us are confident about weed identification; however Common Mullein is one that most people can identify accurately at any stage.

Scientific Name:

Verbascum thapsus

Common Name(s): Common Mullein

Region of Origin: Native of Asia, introduced from Europe

Timing of Appearance: Rosettes in late spring/early summer; stout stalk(s) in summer

CHARACTERISTICS:

- Biennial, with basal rosette the first year and tall stem the second year;
- Leaves are famously fuzzy to the touch; hence it's often nicknamed the "toilet paper plant";
- Spikes of yellow flowers emerge at the top of the stalks, which can grow to over 6 feet tall;
- Favors disturbed ground, particularly along roads and driveways.

MYTHS:

Many people assume this is a native species because they have heard it was used by Native Americans; however it was brought here hundreds of years ago. It is also touted as having many medicinal purposes but, while the list of attributed remedies is long, it is best to think of this plant as an undesirable invasive that should be removed from our landscape.

WHY IT IS A THREAT:

- If you have ever wrestled with a mature mullein plant you will know why it is wise to remove them when they're in the small rosette stage. Any delay allows this weed to consume space and water which your more beautiful native grasses and flowering forbs need;
- With up to 200,000 seeds per plant, each of which can survive over 80 years, you don't want a single plant to go to seed;
- Once established along roadways and driveways, this weed then will invade into properties;
- The dried stalks are an eyesore, and make a property look abandoned.

HOW TO MANAGE IT:

- Dig up the rosettes when they first appear, getting the taproot;
- If the plant has been left until it is tall with flowering spikes, carefully cut the stalk below any flowers and bag and remove the flowering portion; the rest of the plant can be pulled or cut at the base and left on the ground to desiccate. Arm yourself with a clipper, lopper, and paper weed bag for seed heads;
- Tamp down the soil around where you pulled to minimize invasion by other weeds;
- If you see dead mullein stalks from last year, or accidentally let yours come to seed this year, continue to check that site in subsequent years to remove the inevitable rosettes.



Common Mullein rosette



Mature Common Mullein flowering spikes

—Article and photos by Carol Beidleman,
Conservation Committee

Weed Potpourri

As the growing season comes to a close, there are a few remaining weedy forbs we want you to be aware of. All of these will crowd out your native grasses and flowers.

Field Bindweed (*Convolvulus arvensis*): This white to pinkish funnel-shaped flower growing along our roads or on your septic field should not be a welcome sight. Bindweed is a very aggressive perennial from Europe, hard to eradicate given its extensive root system. About all you can do, but you should do it, is to tear it out carefully (it will be wrapped around other plants) as soon as it comes up, and keep after it through the growing season. Over time it will lose some vigor. As you tackle its tangle, you will understand how it got its name!

Scotch Thistle (*Onopordum acanthium*) and **Musk Thistle** (*Carduus nutans*): There are some beautiful native thistles in New Mexico, but mostly what we see are those from Eurasia. Scotch Thistle is a Class A species on the New Mexico Noxious Weed List, for which preventing new and eradicating existing infestations is the highest priority, and Musk Thistle, less common in Eldorado, is a Class C species. Identification of these similar purple-flowered species can be made by looking for the spiny wings on the stems of Scotch Thistle and the nodding flower heads of Musk Thistle. Their spines and prickly bracts make them nasty to handle, but since both are biennials they can be easily dug up and removed at their first-year rosette stage. If you find a mature plant with blooms (they can grow to 6-8 feet tall), cut off the flower heads and buds and bag them for disposal, then cut the stalk if it's too robust to pull out.

Dalmation Toadflax (*Linaria dalmatica*): This native of Europe and its relative the Yellow Toadflax (*Linaria vulgaris*) were often planted as ornamentals because of their yellow snapdragon-like flowers. Both are Class A species on the New Mexico Noxious Weed List. They are easy to identify and pull.

Sweet Clover (*Melilotus officinalis*; yellow, white): You may have heard farmers sing the praises of sweet clover, as a cover crop good for soil-building and fixing nitrogen, or as a green manure option. However, this Eurasian species is aggressive, consumes space and water, and can take over properties. They often come up along roadsides, then spread inward from there. This is a difficult species to pull, so get them out while they are small. Their leaves, which are divided into three leaflets, are diagnostic.

We will close out our 2021 weed series in September and October, with some notorious invasive and water-consuming shrubs and trees.



Field Bindweed



Musk Thistle displays its nodding flower head



Scotch Thistle is distinguished by spiny wings on the stem



Sweet Clover

—Carol Beidleman,
Conservation Committee

Photos: left, Carol Beidleman; Right, education.mdc.mo.gov; idahoweeawareness.org; Carol Beidleman

Vistas September 2021

Salt Cedar—Don't Let Good Looks Fool You

This month we look at an invasive perennial shrub or small tree, salt cedar (*Tamarix* spp.). Also called tamarisk, salt cedar is a fairly common sight in the Eldorado area. A deciduous tree, it has flat, spray-like branches and attractive pink flowers. Many prize it as a pleasant addition to their landscaping, however it is a very problematic species.

Native to drier areas of Eurasia and Africa, salt cedar was introduced to North America in the late 19th-century for erosion control and shade, particularly in the arid Southwest. That was a regrettable decision as it now occupies over a million acres, mostly along water courses, outcompeting native species such as willows. It is listed as an invasive plant by the U.S. Department of Agriculture, is on the Noxious and Troublesome Weeds of New Mexico list, and a commercial nursery will not sell one.

Salt cedar has a very long taproot (30 to 100 feet) that can tap into brackish water. In saline soils, it excretes salt through glands in the bark which increases surface soil salinity. It can out-reproduce its native competition from seeds, spread by wind and carried downstream, and by new growth from cut stumps. Branch cuttings can also root easily.

By the late 1990's, salt cedar along with Russian olive had spread throughout the Galisteo watershed, replacing the native willows and cottonwoods. Ecologists were concerned about this threat, and ranchers and farmers regarded it as a pest that required intervention.

The Kewa (formerly Santo Domingo) Pueblo and U.S. Army Corps of Engineers applied the herbicide arsenal over some of their affected lands, and goats were used in part of the Galisteo Dam area. The U.S. Department of Agriculture released a tamarisk beetle that was successful in some areas. Earth Works Institute, and later Ecotone, obtained funding to remove tamarisk and Russian olive trees by root extraction and replant native trees in the Galisteo bosque. The wetland restoration project in the 200-trail system of the Eldorado Community Preserve, which took place 2005–2012, became part of Earth Works Institute's efforts.

Today the ECIA Conservation Committee continues to control tamarisk in the Community Preserve. We uproot seedlings and cut new stump growth back several times a year. We continue to plant native trees. If cottonwoods and willows have moisture at the right time, they will grow alongside tamarisks, even outcompeting them. Since the area is a wetland and a source for domestic wells, chemical herbicides are not used. A solution of vinegar and citric acid is under consideration as a limited additional control measure.



Salt cedar crowds out other plants and can increase soil salinity.



Season regrowth from stump

—Thomas Bredenber, Conservation Committee
Prepared with assistance from Jan-Willem Jansens, Ecotone
Photos: Left, Carol Beidleman; Above, Thomas Bredenber

Vistas October 2021

Russian Olive – October Weed (er...Tree)

How is it that something so familiar and prolific in the landscape around Eldorado does not belong here? Our community is peppered with Russian Olive, which stands out against the native vegetation with its pale green leaves. But it, and another familiar tree here, the Siberian Elm (*Ulmus pumila*), are Class C species on the New Mexico Noxious and Troublesome Weeds of New Mexico List. Class C means they are widespread, so management decisions are to be determined at the local level.

Introduced as an ornamental, Russian Olive was planted for shade, erosion control and as a windbreak. Now widespread across the U.S., its escape from cultivation has become the bane of land managers, especially along riparian areas where it outcompetes the native cottonwoods and willows.

Common name: Russian Olive

Scientific Name: *Elaeagnus angustifolia*

Region of Origin: Native to Eurasia

CHARACTERISTICS

- Perennial small to large tree (up to 40+ feet), sometimes a shrub;
- Narrow leaves light green on the upper surface and silvery white on the lower surface;
- Stems may have woody spines;
- Fruit resembles a small olive, silver-white to red-brown;
- Flowers are yellow and fragrant;
- Extensive roots, as deep as 40 feet;
- Commonly found in yards, floodplains, along water courses and irrigation ditches.

MYTHS

Because our native birds and mammals often eat the fruits, one might assume this is an important tree to retain in our landscape. However, these wildlife have simply become unwitting players in the spread of this non-native tree, which provides inferior habitat.

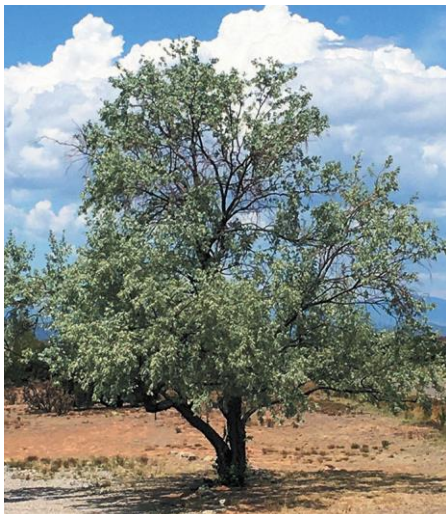
WHY IT IS TROUBLESOME

- Invades, crowds out and dominates native vegetation;
- Consumes water at higher rate than native trees; can drop the water table in wetter areas four feet when leafing out in spring;
- Reduces availability of nutrients in soil;

- Fast growing, up to 6 feet per year;
- Tolerates salinity and alkalinity, flooding and drought;
- Reproduces by seeds, carried by water, and sprouts from root crown, stem pieces, and suckers;
- Very difficult to control.

HOW TO MANAGE IT

- Don't be deterred by this tree's survivability: it can be successfully removed, but requires long-term attention;
- Hand-pull seedlings, dig up saplings, and cut mature trees at the base, remove remnants and properly dispose of them;
- Best timing for removal is after the end of the growing season;
- Expect regrowth the next spring, and be prepared to hand-pull, dig, or cut again;
- Although some land managers may use herbicides like Habitat in wetter sites and Garlon in drier sites, we do not recommend using chemical treatments. Just keep a constant eye on your cut stumps and repeat physical control every year to eliminate any regrowth.



Russian Olive

—Article and photo by Carol Beidleman,
Conservation Committee

Vistas November 2021

A Weed Retrospective

The Conservation Committee would like to thank *Vistas* and all who contributed to the 2021 Weed of the Month series. Everyone involved, from first draft to the final reader, has learned something.

As winter draws near, weeds may not seem as great a concern as earlier this year when they were thriving. Fall and winter present opportunities for the homeowner to continue managing unwanted vegetation for the benefit of landscape and habitat and maybe get a jump on it for next season.

Now is a good time to dig up and remove deep-rooted perennial weeds such as bindweed, biennials like mullein, and trim back the suckers of unwanted trees and shrubs. Although we do not advocate chemical herbicides, a solution of concentrated vinegar painted on the cuts could discourage their regrowth. When removing annuals and biennials in fall, care should be taken not to further disseminate seeds.

Although there may be disagreement in the community regarding the aesthetics or value of some of the plants and trees we have addressed in the series, Russian thistle, kochia and Jim Hill mustard, i.e., the tumbleweeds, have few if any defenders. These weeds are problematic from every angle: fire prevention, aesthetics, conservation, home and neighborhood appearance, and covenant enforcement. For properties

with severe infestations, mechanical intervention may be the only option. Power trimming (weed whacking) is preferable to mowing, as the birds and other wildlife depend on the native seed heads for food. It's better to manage weeds selectively.

Invasive weeds favor bare disturbed soil. The addition of mulch or compost with some native seed or clippings in those bare spots would give the wanted vegetation an advantage, particularly if there is good snowfall this winter. The addition of compost or mulch now in the spaces between blue grama "plateaus" would also encourage rhizome propagation. The best defense against invasive annuals is a healthy stand of native vegetation.

So, best wishes for the season. The weeds will be back before we know it.



Tumbleweeds



Invasive weeds

—*Thomas Bredenber,*
ECIA Conservation Committee
Photos: left, Thomas Bredenber; above, Paul Butt