



Field Guide

LOS LUCEROS

HISTORIC SITE

CREATED BY
Cat Sixbey and C. L. Kieffer

Thanks to my partner Mikaela Ashton, for listening to me prattle about plants for a whole summer, and to the folks at Los Luceros for always being up for a chat when I passed by.

-Cat

Special thanks to Troy Bradley for turning our words and photos into the vision we had for this book. Also, thanks to Dr. Margaret DePond for editing all the descriptions.

-Kieffer

INTRODUCTION

This field guide is designed as an easy-to-use reference for plants found at Los Luceros Historic Site. These plants have been divided into four categories based on their most distinctive features: wildflowers, plants and herbs, cacti, and trees and shrubs. These categories are not meant to represent any botanical distinction, but instead divide plants by the features that stand out to an unpracticed eye. As such, “Wildflowers” includes any small and non-woody plant with distinctive flowers. The section “Plants and Herbs” includes plants that either do not have flowers or have distinguishing features that are more prevalent than their flowers. This section

also includes some of the common garden plants that do not grow in the wild at Los Luceros. “Cacti” is the smallest category and includes the two kinds of cacti found at Los Luceros. Finally, included in “Trees and Shrubs” are any large and woody species. As this guide is designed for ease of use, the plants in each section are in order of commonality. There are also subdivisions for each group, which will be addressed at the beginning of the sections.

While every attempt has been made to include all plants of note, this guide is not exhaustive and certain species have been inevitably left off. Apologies for any notable exclusions.

A NOTE ON NON-NATIVE VERSUS INVASIVE:

In the context of this field guide, a distinction between non-native and invasive has been made to represent the different relationship each individual plant has with their environment. Non-native plants are those that, although not a native part of an ecosystem, do not actively unbalance or threaten native plants and animals. Invasive plants, however, pose an active threat to the native ecosystem.

A NOTE ON TERMINOLOGY:

Although we steer away from the majority of technical terminology, there are some places where it has been used for simplicity. Here is a quick guide to some of the terminology you will encounter using this field guide. Knowledge of these terms is not necessary to use of this guide, but it will enhance the reader's experience.

Leaves can be described as **lobed** or **unlobed**.

The edges of a leaf can also be described as toothed or entire. A leaf is toothed if it has notches on the edge as can be seen in the mulberry leaf above, and it is entire if it has no notches like that of the catalpa leaf above.

Leaves can be described as growing oppositely, or alternately.



The leaf of a Mulberry Tree is **lobed**.



The leaf of a Northern Catalpa Tree is **unlobed**.



Here are the leaves of a netleaf hackberry, which are **alternate**.



Here is an example of the **opposite** leaves of common lilac.

Wildflowers

The blooms of this guide are sorted by their colors: yellow, white, purple/pink, and finally red/orange.

If you are having trouble finding a bloom in the purple/pink section that is pinkish but perhaps on the edge of being red, it is recommended to check red/orange (and vice-versa). The divisions of colors will always have a subjective aspect, and colors can vary widely between individual plants.



Hairy Golden Aster

Heterotheca villosa

Asteraceae Family

Formerly, *Chrysopsis villosa*

Found in the fields and bosque

Native



Description: With numerous yellow rays around a yellow flower center, this plant has gray-green stems and distinctly hairy leaves. It grows eight to twenty inches high.

Native Americans sometimes used the flowers and stems as a medicine. The plant was boiled for a long time, into an end result called a decoction, or an herbal medicinal preparation.



Curlytop Gumweed, or Rayless Gumweed

Grindelia aphanactis, or
Grindelia nuda

Asteraceae Family

Found across the site

Native



Description: This plant grows up to sixteen inches tall and is topped with yellow flowers without any rays. The bracts are shingled and curled distinctively downwards into semi-circles.

There are many different types of gumweed and it is disputed by scientists where the lines between species should be drawn.

The name “gumweed” refers to the milky sap that gathers on the heads of the flowers which has been used for a wide variety of medicinal purposes.



Yellow Sweet Clover

Melilotus officinalis

AND

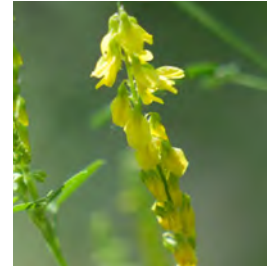
White Sweet Clover

Melilotus alba

Fabaceae (legume) Family

Located throughout the site

Invasive



Description: This is a tall, shrublike plant. While not in the genus trifolium, it still has distinctively trifoliate leaves, which are more elongated than those of traditional clover. Flowers are small and numerous in racemes (long flower cluster where individual flowers each bloom on a small stalk along a common, larger, central stalk) at the end of stalks.



Black Medic

Medicago lupulina

Fabaceae (legume) Family

Located in fields

Non-native, sometimes invasive



Description: This is a very low growing plant, with trifoliate leaves and clusters of miniscule yellow flowers, half an inch in size at most.

It can sometimes take over large areas when the soil is low in nitrogen. It outcompetes other species due to the symbiotic relationship with a bacteria that supplies the plant with atmospheric nitrogen.

Although incredibly similar to hop clover (*Trifolium campestre*), black medic has a small tooth at the apex of each leaf that hop clover does not. Hop clover generally grows in a bush-like fashion while black medic remains low to the ground.



Hopi Tea, Greenthread, or Cota

Thelesperma megapotamicum

Asteraceae Family

Found in sandy soil at the
borders of paths and roads

Native



Description: Hopi Tea is a rounded yellow flower with no rays, with blooms at the top of slender, light green stems.

The name “greenthread” comes from the thread-like appearance of the stems and leaves. Hopi tea was used by many Native Americans for a great variety of medicinal and food-related purposes. Most notably, it was commonly used for tea, leading to the common name of Hopi tea.



Yellow Spiny Daisy

Haplopappus spinulosus

Asteraceae Family

Found in sandy soil at the borders of paths and roads

Native



Description: This plant has flowers about an inch wide, with yellow rays surrounding a yellow center. The leaves are gray green and distinctive from similar plants by their spiny but malleable leaves.

Yellow spiny daisies have the smallest known number of chromosomes (the cellular structure which carries genetic information) in any plant. Humans have forty-six and most plants have around twenty, but this plant only has four.



Sunflower

Helianthus annuus

Asteraceae Family

Found in fields

Native



Description: Sunflowers can grow up to ten feet tall and have one or multiple stems at the top that bear flowers three to five inches across with dark centers and bright yellow rays. The stems and leaves are coarse and hairy, and the leaves are broad and triangular with toothed edges.

Sunflowers have been cultivated by Native Americans in the Southwest for thousands of years. These hard-to-miss flowers bloom late in the summer season.



Tall Goldenrod

Solidago altissima

Asteraceae Family

Found in fields and bosque

Native



Description: This plant grows a singular, erect stalk between two and six feet tall with opposite lance shaped leaves which become smaller along the length of the stem. The flowers are yellow and grow in bright plumes.

There are several species of Goldenrod that are very similar in appearance, but *Solidago altissima* is distinguished by the hairiness of the stem and lack of teeth on the leaves. Goldenrod is often blamed for hay fever, which is generally caused by the less conspicuous ragweed which blooms at the same time.



Common Dandelion

Taraxacum officinale

Asteraceae Family

Located in fields

Non-native



Description: A bright yellow flower sits at the top of a leafless stalk.

Dandelions are native to Eurasia, and while often considered a frustrating weed are only listed as an invasive species in Alaska and Oregon. It is generally believed that European colonists brought dandelions with them due to their wide variety of uses in cooking and medicine. The flowers can be eaten, or made into tea, wine, and jelly. The young leaves are edible with a bitter and peppery taste.



Tumble Mustard, or Jim Hill Mustard

Sisymbrium altissimum

Brassicaceae (mustard) Family

Located in the bosque and near
the front gate

Invasive



Description: This bushy, hip-height plant grows from a single thick stalk at the base, branching into spread out stalks with small four petaled flowers, yellow or sometimes white.

Over time, the main stem becomes brittle, breaks off, and becomes a tumbleweed. Despite tumbleweeds being a landmark species of the West, they are originally native to Russia.



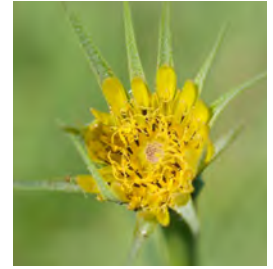
Yellow Salsify

Tragopogon dubius

Asteraceae Family

Located in the fields

Non-native



Description: This plant has tall, hollow stems which grow sixteen to thirty-two inches high. When in flower, bright yellow flowers nestle in the cup created by the bracts (the leaf-like structure on the underside of the flower head), which are longer than the petals.

The roots, stems, and leaves are edible, particularly when the plant is still young. Native Americans used yellow salsify for a variety of medicinal purposes in both humans and animals.



Cowpen Daisy or American Dogweed

Verbesina encelioides

Asteraceae Family

Found in ditches and fields

Native



Description: Bushy plant growing between two and four feet tall with serrated triangular leaves, topped with many vibrant yellow-orange flowers with large individual petals and notched tips.

In years with plenty of rainfall, these plants can cover wide fields with a multitude of bright yellow blooms. This vibrant native flower is also vitally important as a source of food and pollen for many bugs and bees.



Charlock Mustard

Sinapis arvensis
(currently accepted)

Sometimes used as a synonym:
Brassica kaber

Brassicaceae Family

Located in fields

Non-native



Description: One to three feet tall, with broad leaves at the base branching into mostly leafless stalks crowned by groups of four-petaled bright yellow flowers.

As implied by the name, charlock mustard is in the same family as the plant which provides us table mustard. Most plants in this family have distinctive peppery sap and have four petals which are symmetrical around a central radius.



Smallflower Desert Chicory, or Texas Dandelion

Pyrrhopappus pauciflorus

Asteraceae Family

Found in the orchard

Native



Description: This plant has bright yellow flowers on a hollow stalk with very milky sap. While similar to common dandelion, it is often larger with distinct dark anthers in the center. Stalks grow between six and eighteen inches tall.

The flowers open in the morning and close before noon. Smallflower desert chicory was used by Native Americans for several medicinal purposes.



Hooker's Evening Primrose

Oenothera hookeri, or *Oenothera elata*

Onagraceae (evening primrose)
Family

Found at the edges of well-irrigated areas

Native



Description: This plant is a biennial (a plant which lives for two years). In its first year it grows as a basal rosette and in its second year it grows into a stalk three to six feet tall with long, lance-shaped, alternately growing leaves. The flowers are large, about three inches across, and yellow with four petals.

The beautiful yellow blooms of Hooker's evening primrose open at dusk and remain open overnight, closing the next morning as the day begins to warm.



Goathead

Tribulus terrestris

Zygophyllaceae (caltrops)
Family

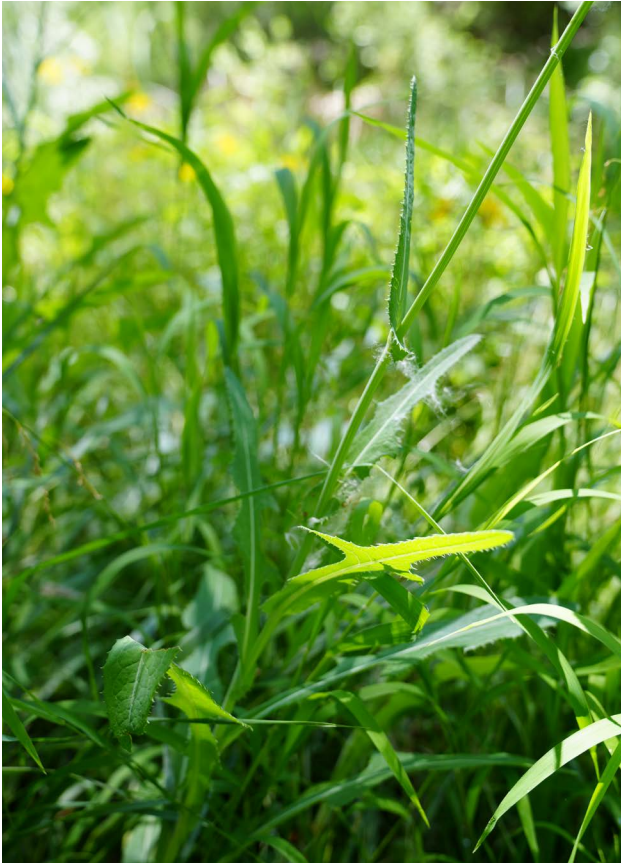
Found near front gate

Invasive



Description: This is a low-growing plant with dark green leaflets. The flowers are small and yellow, with five petals each.

Goathead can dominate in sandy soils, forming dense mats that prevent the growth of other plants. It also has very sharp burrs that not only cause injury to humans and livestock, but also stick to fur and clothing to aid the spread of this nuisance.



Field Sowthistle

Sonchus arvensis

Asteraceae Family

Found along ditch edges

Non-native



Description: This plant has clumps of dandelion-like flowers on long stems above a large basal rosette of leaves. It can grow up to five feet tall.

This species has a very large taproot, sometimes reaching up to ten feet in depth and just less than that in width. The leaves of sowthistles can be used in a similar manner to those of dandelions.



Field Bindweed

Convolvulus arvensis

Convolvulaceae (morning glory)
Family

Located in grassy fields

Invasive



Description: Creeping vine with small, funnel shaped flowers about one inch across. Flowers are either white or white with pink tinges. Mostly low to the ground, one to three inches high, but sometimes the flowers are seen higher up where they have climbed other plants.

Bindweed was introduced to the Americas in the 1700s as a decorative plant. Since then, it has become one of the ten worst weeds in the world. The winding and twisting properties of its growth patterns allow it to choke out other plants.



English Plantain

Plantago lanceolata

Plantaginaceae (plantain) Family

Located in grassy areas and fields

Non-native



Description: Long slender stalks are topped with a small stalk of miniscule white flowers, English plantain grows from a lush clump of long flat leaves at the base.

“Plantain” comes from the Latin word *planta*, meaning “sole of the foot,” and refers to the flat, broad, low-lying leaves of certain species.



Spreading Fleabane

Erigeron divergens

Asteraceae Family

Located in fields

Native



Description: Flowers grow around one inch at the end of each stem. Flowers have yellow centers with numerous petals surrounding them. Petals are usually white but can also be pink or lavender.

The genus *Erigeron* contains a great number of similar daisy-like flowers, all distinguished by their small size, numerous rays, and the bracts (the leaf-like structure on the underside of the flower head) underneath the flower of even length and spacing. (In contrast, the bracts of asters are overlapping, like the shingles on a roof.) While there is great variety in how the bracts of a plant present themselves, in this case they are the leaf-like structure on the underside of the flower head.



Horsetail Milkweed, or Poison Milkweed

Asclepias subverticillata

Apocynaceae (dogbane/
milkweed) Family

Located in fields and bosque

Native



Description: Full of small clusters of delicate white flowers, the leaves of this plant are very narrow, growing leaves all along the length of the stem. The horsetail milkweed found at Los Luceros tends to be significantly smaller than showy milkweed, the other species which grows on the property, generally growing less than a foot tall.



American Licorice

Glycyrrhiza lepidota

Fabaceae (legume) Family

Located extensively throughout the site, primarily in fields

Native



Description: This shrub-like plant grows two to four feet tall. The flowers are similar to white clover, but more elongated along length of stem. It has distinctive green seed pods with reddish hairs.

American licorice was used for a wide variety of medicinal purposes by Indigenous Americans. Generally, these treatments involved use of the root, which was prepared variably as a tea, applied as a poultice, or simply chewed.

The roots were also eaten after preparation which involved removing the woodiest parts.



White Sweet Clover

Melilotus alba

Fabaceae (legume) Family

Found across site

Invasive



Description: This is a tall, shrublike plant. While not in the genus trifolium, it still has distinctively trifoliate leaves, which are more elongated than those of traditional clover. Flowers are small and numerous and grow in racemes (long flower cluster where individual flowers each bloom on a small stalk along a common, larger, central stalk). Incredibly similar to Yellow Sweet Clover (*Melilotus officinalis*) but has white flowers instead of yellow.

Sweet Clover has multiple medicinal and food related usages. However, if prepared incorrectly it can be dangerous due to the coumarins it contains.



Dogbane, or Indian Hemp

Apocynum cannabinum

Apocynaceae (dogbane/
milkweed) Family

Located in fields

Native



Description: Growing two to six inches tall, dogbane has a red-brown stem and dark green leaves with distinctly light veins. Flowers that cluster at the top of the stem are very small, white, and delicate.

Poisonous to dogs, cats, horses, and humans.

The fibers were traditionally used for rope, nets, and rough cloth. It has been estimated that it takes five stalks of Indian hemp (or dogbane) to make a singular foot of cordage.



White Clover

Trifolium repens

Fabaceae (Legume) Family

Located in grassy areas and fields

Non-native



Description: Low-growing plant with clusters of three leaves and round heads about half an inch wide with numerous small flowers. Flowers are usually white but can sometimes be pale pink.

Three-leaf clover, the most common name you hear for this plant, comes from the scientific name “trifolium.” Tri meaning three, and folium meaning leaf.



Common Mallow, or Cheeseweed

Malva neglecta

Malvaceae (mallow) Family

Located at the edges of fields

Non-native



Description: This low-growing plant has rounded leaves which are toothed at the edges. The flowers have five petals and are small and white with lightly purple veins.

Often prepared as a poultice for a variety of medicinal uses.



Hoary Cress, or White Top

Lepidium draba (sometimes used as a synonym: *Cardaria draba*)

Brassicaceae Family

Located in fields

Invasive



Description: The flowers are very small and numerous, with four petals to each individual flower. The seed pods are heart shaped.

Not only does Hoary Cress outcompete native plants, but it also contains chemicals which are toxic to cattle.



Redwhisker Clammyweed

Polanisia dodecandra

Capparaceae (caper) Family

Found at the borders of roads
and paths

Native



Description: Clammyweed grows between four and thirty-two inches tall from a singular erect stem. The white flowers bloom in a clump at the top and have long reddish stamens. Greenish, erect seed pods branch out and curve back towards the plant.

This plant earned the name Clammyweed due to the stickiness of its sap.



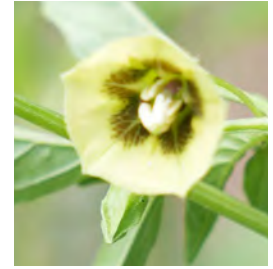
Common Ground-Cherry, or Long Leaf Ground- Cherry

Physalis longifolia

Solanaceae (nightshade) Family

Found in Orchards

Native



Description: This is a nondescript plant with lance-like leaves, and can be easy to miss without the presence of large berries, since the flowers nod towards the ground. The flowers are greenish white, with a darker brown center. Berries are distinctive and notable for their large protective papery shell.

Charred ground-cherry seeds have been found in the archeological record of this region going back as far as 298 AD, suggesting that this plant has been a source of food for humans here for many centuries.



Heath Aster

Symphotrichum ericoides

Asteraceae Family

Found in fields

Native



Description: A spindly plant with small needle-like leaves, growing between two and four feet tall. Small flowers with white rays and yellow centers bloom at the top.

Heath aster is favored by many as a hardy native garden plant.



Carolina Horsenettle

Solanum carolinense

Solanaceae (nightshade) Family

Found in fields

Native



Description: The flowers are star-shaped and generally white but sometimes tinged purple, with bright yellow stamens growing on stems reaching up to four feet tall. Small, sharp thorns are present on stems and leaves.

This is a highly poisonous variety of horsenettle, with all parts of the plant, but especially the ripe berries, being dangerous to livestock and humans if ingested. Wild turkeys and quail, however, feast on the berries in the fall.



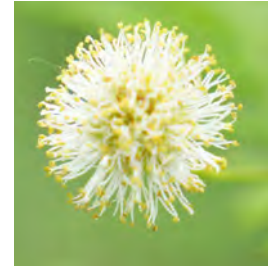
Illinois Bundleflower

Desmanthus illinoensis

Fabaceae (legume) Family

Found in fields

Native



Description: Erect stalks growing between one to three feet tall show off fan-like leaves with many miniscule rays. The flowers are rounded, with many white rays surrounding a greenish center and tipped with yellow. It has brown, twisted, and leathery seed pods.

Illinois bundleflower is considered among the most important native legumes to the American prairie. It has been researched as a potential grain crop for humans that would help farmers mimic the natural cycle of a prairie ecosystem.



Alfalfa, Lucerne, or Purple Medic

Medicago sativa

Fabaceae (legume) Family

Located in fields

Non-native



Description: Alfalfa can be grass-like or shrub-like. It has trifoliate leaves and flowers ranging from deep purple to nearly white in rounded clusters at the end of stems.

Alfalfa plays a complicated role in the ecosystem of the United States. Despite being non-native (and sometimes even invasive), alfalfa is a very important agricultural crop. Its nitrogen-fixing qualities and deep taproots (which allow better filtration of air and water), increase soil quality and encourages the growth of other plants.



Red Clover

Trifolium pratense

Fabaceae (legume) Family

Located in fields

Non-native



Description: This is a larger species of clover, generally one to three inches tall. Flowers are numerous and small around the central head. Despite the name, red clover is almost always the purple color pictured here.

Red clover has a symbiotic relationship with a rhizomatic bacteria that allows it to thrive in ground low on nitrogen environment, and even add nitrogen back into the ground to the benefit of other plants.



Silverleaf Nightshade, or White Horsenettle

Solanum elaeagnifolium

Solanaceae (nightshade) Family

Located in the fields

Native



Description: Growing in small patches, this plant is distinguishable by the blue-gray color of the stems and leaves. Leaves have wavy edges, and the stems are topped with silvery-purple starlike flowers with bright yellow anthers in the center.

Despite the beauty of the flower, silverleaf nightshade can be a frustrating weed to deal with due to its aggressively spreading roots. It is poisonous to livestock and can be poisonous to humans. However, when prepared correctly this plant can be used in a wide variety of medicinal ways.



Showy Milkweed

Asclepias speciosa

Apocynaceae (dogbane/
milkweed) Family

Located in fields

Native



Description: Large clumps of pretty, star-like flowers sit at the top of a large stalk, one to four feet tall. Leaves are large, grayish and velvety; generally distinctive even without blooms.

Milkweeds are the only plants that can be eaten by Monarch caterpillars. Having large stands of milkweed is crucial to the continued survival of Monarch butterflies. The effects of urbanization and climate change on the native milkweed population is the main reason that Monarch populations are in danger today.



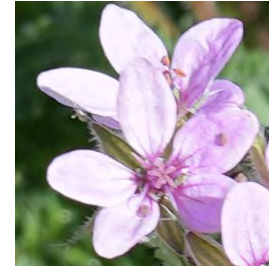
Common Stork's Bill, Redstem Stork's Bill

Erodium cicutarium

Geraniaceae (geranium) Family

Located in low-growing fields

Non-native



Description: The common stork's bill is a small plant with clusters of five-petaled purple flowers at the end of red-brown stems.

One of the first non-native plants introduced to North America, introduced by the Spanish in the 1700s. Because of this, the presence or absence of stork's bill pollen in the fossil record has been used as a dating technique. Today, this plant provides good forage for livestock in certain parts of the West.



Heart-leaf four o'clock, or Wild four o'clock

Mirabilis nyctaginea

Nyctaginaceae (four o'clock)
Family

Found in orchard

Native



Description: This plant grows two to four feet tall with heart-shaped leaves growing oppositely along the stem. Topped with greenish clusters, the flowers bloom for less than a day, and are a dark purple color.

The bright flowers bloom in the afternoons, and close in the morning of the next day, earning the name of “four o'clock.”



Ivy-leaved Morning Glory

Ipomoea hederacea

Convolvulaceae (morning glory)
Family

Found in fields

Invasive



Description: This is a creeping vine with light blue/purple funnel shaped flowers and three to five lobed leaves that are dark green and ivy-like.

The native range of ivy-leaved morning glory is highly disputed, some arguing that it is native only to South America, with other authorities stating that eastern North America is also part of its native range. Either way, it has spread to New Mexico and is generally considered a weed here.



Wood's Rose

Rosa woodsii

Rosaceae (rose) Family

Found up by the untilled field
through the gate

Native, aggressive



Description: The shrub grows in dense thicket, three to six feet tall. It has pink flowers with five petals.

On top of being used by Native Americans for a wide variety of food-related and medicinal purposes, Wood's rose also provides dried rose hips, an important source of food for animals. Animals subsist on the plant far into the cold winter months.

Wood's rose has a massive contiguous range, covering all of Canada down into Mexico, and distributed across most of the western states. This plant grows in thickets which protect a great number of small creatures.



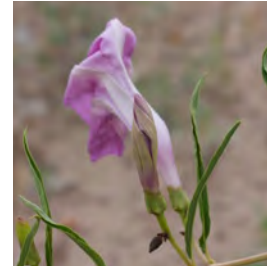
Bush Moonflower

Ipomoea leptopylla

Convolvulaceae (morning glory)
Family

Located near the front gate

Native



Description: As one of the few members of the morning glory family which grow as a bush, instead of a vine, it has a funnel-shaped flower with a bright purple or sometimes pink color. The leaves are long, thin, and growing almost directly upwards from the stem.

Large specimens of bush moonflower have massive taproots (Main root of root system, some of the most common vegetables are taproots, including carrots, beets, and turnips), which can reach between six to twenty-four inches in width. These taproots were sometimes used as a starvation food source for Native Americans.



Purple Loco, or Lambert's Crazy Weed

Oxytropis lambertii

Fabaceae (legume) Family

Located by the River House

Native



Description: Dense clusters of purple pea flowers are found above blue-green leaves.

While very pretty, these flowers are incredibly poisonous to livestock due to swainsonine, a chemical that builds up in an animal's cells and inhibits its ability to function. It can cause permanent damage over time.

Native Americans used the plant medicinally.



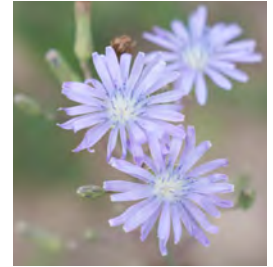
Blue Lettuce

Lactuca tatarica

Asteraceae Family

Found in orchard

Native



Description: Many purple-blue rays surround a lighter center with numerous stamens in this lettuce variety. The flowers bloom at the end of long stalks, two to four feet tall.

Like most kinds of lettuce, the sap of blue lettuce contains lactucarium, a chemical with a wide variety of medicinal uses.



Common Teasel, or Wild Teasel

Dipsacus fullonum

Dipsacaceae (teasel) Family

Found in fields

Invasive



Description: This tall plant stands erect with prickly stems, topped with ovular heads and numerous small purple flowers. Spiny bracts curl around the head of the flower.

In New Mexico, common teasel presents a threat to the Sacramento Mountain thistle (*Cirsium vinaceum*), a threatened native thistle whose range is restricted to the Sacramento Mountain range of south-central New Mexico.



Strawberry Clover

Trifolium fragiferum

Fabaceae (legume) Family

Found in low grassy areas

Non-native



Description: Strawberry clover has trifoliate leaves and flowers typical of other clover varieties. Comparable to white clover in size, it has light pink flowers and tiny, strawberry-like fruits.

Strawberry clover is most often used as a pasture crop. The variety 'Fresa' was developed by New Mexico State University and is a low-growing variety which remains green year-round.



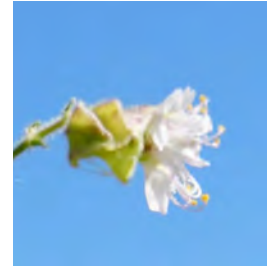
Narrowleaf Four o'clock

Mirabilis linearis

Nyctaginaceae (four o'clock)
Family

Found in the bosque

Native



Description: This plant grows two to three feet tall and has erect branching stems with linear leaves. The flowers bloom in the afternoon and persist until the next morning and range from light pink to purple.

The roots of Narrowleaf four o'clock were historically used medicinally.



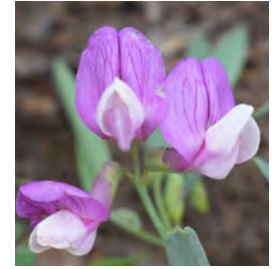
Bush Vetchling, or Purple Peavine

Lathyrus eucosmus

Fabaceae (legume) Family

Located along ditches

Native



Description: The large upper petal of the bush vetchling, called the banner, is purple. Two smaller petals are cupped together beneath and are generally white.

Amongst other medicinal uses, this plant was used by Diné (Navajo) for the treatment of injured horses.



Narrowleaf Globemallow

Sphaeralcea angustifolia

AND

Scarlet Globemallow

Sphaeralcea coccinea

Malvaceae (mallow) Family

Located in fields

Native



Description: These plants have bright orange or red flowers with five petals, about an inch across.

Telling different kinds of globemallows apart is hard. The narrowleaf and scarlet globemallow are the two main kinds found here at Los Luceros. If the flowers are found in the leaf axils (the meeting point of the leaf to the stem) and are scattered along the length of the stem, it is likely a narrowleaf globemallow. In contrast, a scarlet globemallow's flowers generally cluster together at the end of the stem.



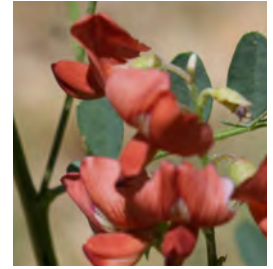
Austrian Peaweed, Alkali Swainsonpea, or Red Bladder Vetch

Sphaerophysa salsula

Fabaceae (legume) Family

Located in fields and the bosque

Non-native, invasive



Description: This plant is distinguishable by its the bright red-orange flowers that eventually turn into dry, bladder-like seed pods.

It is listed as invasive in many states because the seeds are indistinguishable from alfalfa seeds, a major food source for livestock.



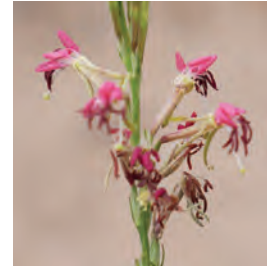
Scarlet Beeblossom, or Scarlet Gaura

Oenothera suffrutescens

Onagraceae (evening primrose)
Family

Located along ditches

Native



Description: Small, delicate flowers bloom along the scarlet beeblossom's stalk, with four petals arranged towards the top and bright red anthers. The petals are bright white when they first bloom, withering to a vibrant scarlet over the course of time.

The white petals attract nocturnal moths, which act as the main source of pollination for scarlet beeblossom. Native Americans used the plant to treat stomach issues.



Velvetweed

Oenothera curtiflora

Onagraceae (evening primrose)
Family

Found in dry, sandy soil

Native



Description: A scraggly plant, velvetweed has one or multiple woody stems branching from the base which can grow up to six feet tall. These are tipped with spikes of delicate flowers, with four pinkish petals arranged toward the top and long stamens tipped with brownish anthers.

Velvetweed has been used historically for multiple medicinal and food-related purposes.

Plants & Herbs

(Wild)



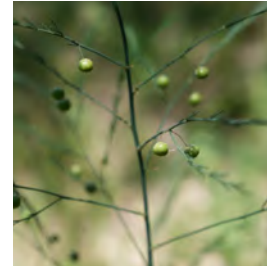
Asparagus

Asparagus prostratus

Asparagaceae (asparagus)
Family

Found scattered in the fields and
the bosque

Non-native



Description: The plant is hip to shoulder height with a strong central stalk and stems branching out alternately from it. Individual leaves are small and thin, shaped like lances. It has globular green berries. A singular asparagus plant grows ten to fifteen stalks from its roots, and if those are not harvested, they will continue to grow into the large, fern-like plant pictured here. Ferning out is essential to the continued success of an asparagus plant, as the leaves collect energy from sunlight and allow the plant to store that energy in the roots and direct it to the production of new spears the next year.



Horsetail, or Smooth Scouring Rush

Equisetum laevigatum

Equisetaceae (horsetail) Family

Found in the fields, especially lining the acequia ditches

Native



Description: The plant has a singular upright stem, with regular segments, marked off by rings of small black teeth. This plant reproduces with spores released from the brown spots at the top of the stem. Horsetail can grow up to five feet tall, but most at Los Luceros are one to two feet tall. It earned the name scouring rush because it was used by Native Americans and colonists to scour pots and pans. Horsetails are the remaining living members of the ancient family of plants that included the tree-sized plants which form much of our current-day coal deposits.



Canaigre Dock, or Desert Rhubarb

Rumex hymenosepalus

Polygonaceae (buckwheat/
knotweed/smartweed) Family

Found in the fields

Native



Description: This plant is a small bush with broad, curly edged or toothed leaves at the base, and large, distinctive clusters of dark red flowers above. Individual flowers are very small. It is a relative of garden rhubarb. The stalks and leaves are used by foragers in similar ways to rhubarb. The tannin found in the roots was historically used for tanning hides.



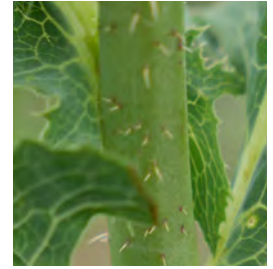
Prickly Lettuce

Lactuca serriola

Asteraceae (daisy) Family

Found in fields

Non-native



Description: This plant has one large stem, two to four feet tall, with prickly leaves growing directly from the main stem, larger at the bottom and smaller at the top. Young shoots can be eaten like regular lettuce (those spikes make it evident why young shoots are preferable).



Virginia Creeper

Parthenocissus quinquefolia

Vitaceae (grape) Family

Found along ditches

Non-native, aggressive



Description: A creeping vine with clusters of five roughly serrated leaves distributed around a central axis. The leaves turn bright red in fall. Like other creeping vines, Virginia creeper has the potential to slowly block off all light from a host tree, slowly killing it over time. Native Americans sometimes used the bark for medicinal purposes. The berries are a good source of food for songbirds and other small mammals, however they are highly toxic to humans.



Buffalo Gourd

Cucurbita foetidissima

Cucurbitaceae (cucurbits/gourd)
Family

Found in the dry field near the
front gate

Native



Description: This plant is easily identified by its wide, sprawling growth pattern, with large, triangular, blue-gray leaves, which fold in towards themselves and can reach up to a foot in length. The flowers are large and yellow with a fused corolla (i.e. there are no individual petals.) The fruit is small and round. The fruits are used today primarily for artistic purposes and were historically prepared into a variety of medicines. The roots and outside of the fruit are rich in saponins, organic chemicals. They are toxic, but foam when added to water and can be used in soaps and shampoos.



Woolly Mullein, or Common Mullein

Verbascum thapsus

Scrophulariaceae (figwort)
Family

Found scattered around the
bosque

Non-native



Description: This plant has long, fuzzy leaves growing from a central stalk. Woolly mullein is a biennial (a plant which lives two years), so while it is small in its first year it can grow up to seven feet tall when it flowers in its second year. The flowers are yellow and only bloom for one day.



Hooker's Bur Ragweed, Annual Bursage

Ambrosia acanthicarpa

Asteraceae Family

Found throughout site

Native



Description: This plant can grow up to two feet tall with multiple hardy stems holding deeply lobed leaves. In late summer, spikes of small and inconspicuous flowers bloom at the tip of each stem, along with numerous small burrs.

The genus name, “ambrosia,” refers to the sweet smell of the leaves when crushed. The plants in this genus are geographically centered around the southwestern United States and have the most variety and complexity in this region.



Adonis Blazingstar

Mentzelia multiflora

Loasaceae (stick-leaf) Family

Found near front gate

Native



Description: Bushy plant usually around two and a half feet tall. Leaves deeply lobed, and sticky, hairy, and velcro-like on both sides. Flowers are yellow, generally with ten petals and numerous long stamens. They bloom in late afternoon and close the next morning.

Adonis blazingstar is known most for the sticky quality of its leaves, which reportedly were used by the Tewa Indians to assist young children with staying on a horse the first time they rode.



Arrowhead, Wapato, Duck Potato

Sagittaria latifolia

Alismataceae (water plantain)
Family

Found in irrigation ditches

Native



Description: Leaves shaped like arrowheads at the top of stalks beginning underwater. Occasional flowers with three white petals and rounded yellow-green centers.

Arrowheads produce root tubers under the muddy soil they grow in. These are often eaten by ducks, earning this plant the name “Duck Potato.” But it’s not just ducks who enjoy these tubers- they were also historically used as a food source by Native Americans.



Cattail

Typha latifolia

Typhaceae (cattail) Family

Found in irrigation ditches

Native



Description: Long, unbranching leaves growing four to ten feet out of water, which grow corndog shaped brown spikes composed of numerous tiny flowers. Over time, these spikes disintegrate into white fluffy seeds which can spread through the wind.

All parts of a cattail are edible when harvested at the right time and processed correctly, making them an invaluable plant for Native populations. Even the fluffy seeds had various uses as stuffing and padding, and the leaves could be used for weaving.

Plants & Herbs

(Garden)



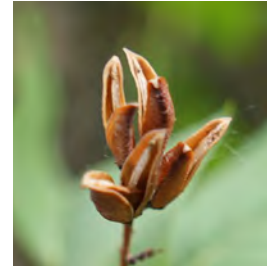
Common Lilac

Syringa vulgaris

Oleaceae (olive/lilac) Family

Found scattered around the
Historic District

Non-native



Description: This plant is a bush with oppositely branching leaves and large clumps of fragrant, pink to purple flowers. Generally prized for the flowers, lilac was brought to the Americas by colonists in the 1600s.



Eastern Catmint, or Raceme Catnip

Nepeta racemose

Lamiaceae (mint) Family

Found scattered around the
Historic District

Non-native



Description: This plant is low growing, gray green with delicate purple flowers. Leaves are fuzzy and toothed, growing opposite each other along stem. Catnip affects cats because of the chemical nepetalactone. This chemical acts as an insect repellent for cats, which is why they love to roll in catnip.

It is listed as invasive in many states because the seeds are indistinguishable from alfalfa seeds, a major food source for livestock.



Soapwort, or Bouncingbet

Saponaria officinalis

Caryophyllaceae (carnation)
Family

Found in Historic District

Non-native



Description: Smooth stalk growing erect, one to three feet tall. Dark green leaves growing oppositely along stalk, larger at base. White or pink flowers with five petals grow in a rounded clump at the tip of the stalk.

Generally grown as an ornamental. The genus name, *Saponaria*, refers to the saponins contained in the plant, which lather when mixed in water.



Trumpet Vine

Campsis radicans

Bignoniaceae (bignonias/
trumpet vine) Family

Found in Historic District

Non-native, aggressive



Description: Creeping vine with bright orange-red tubular flowers.

Even native plants can be frustrating weeds. Trumpet Vine grows very aggressively and can create dense thickets. Technically, it is native to the Southeastern United States, and was likely brought to New Mexico as a garden plant.



Yarrow

Achillea 'Moonshine'

Asteraceae Family

Found in Historic District

Native (certain varieties)



Description: This plant can grow up to three feet tall, with soft, fern-like leaves at the base, topped with clumps of yellow flowers.

The yarrow here at Los Luceros is a cultivated garden variety. The genus name “Achillea” comes from the story that Achilles used yarrow leaves to treat his soldier’s wounds.



Lamb's Ear

Stachys byzantia

Lamiaceae (mint) Family

Found in Historic District

Non-native



Description: Low-growing plant with clumps of gray-green soft and fuzzy leaves on long stems, with distinctively long and silvery hair on the leaves.

Lamb's Ear is a favorite for gardening, due to its distinctive soft leaves. Due to their absorbency and medicinal properties, the leaves were historically used to treat wounds.

Cacti

This section includes plants with succulent or fleshy stems and spines instead of leaves.



Prickly Pear

Opuntia polyacantha

Cactaceae (cactus) Family

Found in fields with low-growing grasses

Native



Description: This low-growing cactus has round, flattened pads. Bright yellow flowers bloom in early summer.

Prickly pear cacti provide valuable protection for small animals from predators. Native Americans utilized prickly pear in many ways, including use of the flesh as an adhesive and the fruit as a food and dye.



Tree Cholla, or Cane Cholla

Opuntia imbricata

Cactaceae (cactus) Family

Found in areas with dry, sandy soil.

Native



Description: A large and bushy cactus, the cholla has rounded spiky stems. It flowers bright purple blooms that cluster on the ends of stems.

An overabundance of cholla is generally indicative of overgrazing from cattle. Because of cholla's ability to thrive in dry soil that has been depleted of nutrients, it can dominate over time as smaller, greener plants are depleted by cattle grazing.

Trees & Shrubs

This section is reserved for plants that have woody stems. Trees have a central trunk and shrubs tend to have multidirectional branching stems. Shrubs also tend to stay under twenty feet tall. Although some trees are under this limit, they tend to grow beyond this as they mature.



Fremont Cottonwood

Populus fremontii

Salicaceae (willow) Family

Found throughout the site,
especially near sources of water

Native



Description: These large trees have deeply furrowed bark. The coarsely toothed-edged leaves are alternate and triangularly shaped, with a flat bottom and tapered tip.

Cottonwoods are native to New Mexico and play an integral role in our ecosystem. The name cottonwood comes from the distinctive fluffy seeds of the tree, which are released into the air in spring and summer. Like other members of the *Populus* genus, the leaves of the Fremont cottonwood have flattened stems that cause them to shake in the wind. (Notably, quaking aspens are in this same genus.)



Siberian Elm

Ulmus pumila

Ulmaceae (elm) Family

Found in the bosque and fields

Invasive



Description: There are only a few mature Siberian elms at Los Luceros. Most individuals of this plant at the site will be small and shrub-like, with dark green, toothed-edged leaves growing alternately. Siberian elms grow very quickly to form dense thickets that displace and choke out native vegetation. These trees were originally introduced as a windbreak in the West. They were desired for their resistance to Dutch Elm Disease, which has had disastrous effects on the native elm populations of North America. Siberian elms are often mixed up with Chinese elms, a species with leaves that are less symmetrical at the base and have distinctively smooth, mottled bark.



Russian Olive

Elaeagnus angustifolia

Oleaceae (olive) Family

Found in the riparian zone

Invasive



Description: Russian olives are distinctive from a distance by the silvery appearance of their leaves. In the winter, they stand out due to their thorns. The twigs are silvery while branches are red-brown. Russian olives are classified as a noxious weed in New Mexico and are especially damaging to native cottonwood and willow populations due to their ability to grow quickly and in dense thickets. Russian olives also require more water than native species and will take that water at the expense of delicate native ecosystems. Russian olive trees were originally introduced to the Southwest for windbreaks and erosion control.



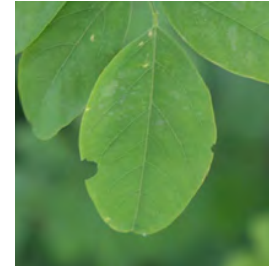
New Mexico Locust

Robinia neomexicana

Fabaceae (legume) Family

Found in the Historic District

Native



Description: This is a small tree with fan-like clumps of large ovular leaves. The attractive pink flowers bloom in spring and early summer, and hairy brown pea pods develop in the autumn. Thorns are found on new growth, dark brown and up to a half-inch long. They generally grow as an understory tree (a tree that thrives in the shade of larger trees) but can dominate regrowth soon after fires because of its enthusiastic root sprouting. Native Americans ate the flowers and cooked the seed pods for food.



One-seed Juniper

Juniperus monosperma

Cupressaceae (cypress) Family

Found in the bosque

Native



Description: Junipers are evergreens and have scale-like leaves that grow in an overlapping pattern like the shingles on a roof. This species has small blueish berries that develop close to the stem.

The junipers at Los Luceros are mostly very small, scattered in the understory of the other trees and plants of the Bosque.



White Poplar, sometimes Silver or Silverleaf Poplar

Populus alba

Salicaceae (willow) Family

Found around the Casita

Non-native



Description: White poplars are easily distinguishable from a distance by their trunks, which are dark brown and deeply furrowed at the base, but transition into smooth and white at the top. The twigs and bottoms of leaves are distinctly fuzzy, shallowly notched, and occasionally deeply lobed.

The white poplars at Los Luceros were brought there by Maria Chabot in the 1940s.



Boxelder, or Ashleaf Maple

Acer negundo

Sapindaceae (soapberry) Family

Found in the Historic District

Native



Description: This tree has checkered, gray-brown bark. Leaves develop in leaflets with three to seven individual leaves growing oppositely, which can resemble poison ivy in the trifoliate (three-pointed) form.

Boxelders grow quickly but rarely live beyond one hundred years. Native Americans had many uses for boxelders, including eating a layer of the bark called cambium (the exterior, growing layer of the trunk), using the sap to make syrup and candy, and making tea from the bark. Boxelders are also recognizable from their winged seeds, which are called samaras.



Red Mulberry

Morus rubra

AND

White Mulberry

Morus alba

Moraceae (mulberry) Family

Found in the Historic District

Red Mulberry: Native

White Mulberry: Non-native



Description: Mulberry leaves are incredibly variable and can be a simple ovular shape or have up to seven lobes. The leaf margins are toothed. Red mulberries are more common at Los Luceros. They are distinguishable by their berries, which are a deep black color when ripe, and by the coarseness of the leaves. In contrast, white mulberries ripen to a whiteish color and the leaves are smoother.



Weeping Willow

Salix babylonica

Salicaceae (willow) Family

Found in the Historic District

Non-native



Description: Weeping willows are most well known for their extreme weeping characteristics: their long, drooping leaves and twigs. They grow in well-watered areas, generally on the banks of ponds or streams. The two willows growing next to the hacienda are on the edges of where there used to be a pond.

Despite being a species native to China, weeping willows are still cultivated due to their fast growth and distinctive appearance, sometimes to the detriment of native plants and animals.



Horse Chestnut

Aesculus hippocastanum

Sapindaceae (soapberry) Family

Found in the Historic District

Non-native



Description: The individual leaves of this tree are between four and fifteen inches long, growing in radially branching leaflets in groups of seven or nine. White clusters of flowers bloom in May, and thorny nuts mature in autumn. True chestnuts do not occur naturally in the western United States. Unlike true chestnuts, the nuts of horse chestnuts are poisonous. There is only one horse chestnut tree at Los Luceros. Can you find it? Hint: Check the Historic District!



Northern Catalpa

Catalpa speciosa

Bignoniaceae (bignonias/
trumpet vine) Family

Found in the Historic District

Native



Description: This tree has large, broad, heart shaped leaves. The flowers grow in large clumps and are white with yellowed centers.

Historically, northern catalpas were used medicinally by Native Americans. Today, they are often cultivated as an ornamental tree due to their large, distinctive leaves and pretty flowers.



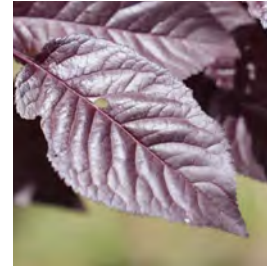
White Lilac Tree

Syringa reticulata

Oleaceae (olive) Family

Found near the Visitor's Center

Non-native



Description: This is a small tree with green ovular leaves, becoming deep purplish red over time. It produces clumps of white blooms in early spring.

A common ornamental tree, these were planted here to complement the lilac bushes.



Apple Tree

Malus pumila

Rosaceae (rose) Family

Found in orchards

Non-native



Description: Smallish tree with distinctively mottled/scaly bark. The ovular leaves grow alternately and have toothed edges. The flowers are white or slightly pinkish, developing into apples in the fall. Come to the harvest festival in late September to pick your own apples.

The apple varieties found at Los Luceros were replanted in the 1960s and include Red Delicious, Golden Delicious, and Winesap apples. At the height of apple production in the late 1800s, there were upwards of four thousand trees in the orchards. Today, only about one thousand remain.



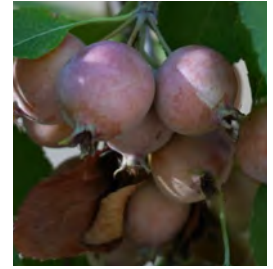
Siberian Crabapple

Malus baccata

Rosaceae (rose) Family

Found in historic district

Non-native



Description: Small tree with ovular leaves pointed at the tip with toothed edges. Flowers bloom pink in spring, and numerous small reddish fruits develop in the fall.

The crabapple trees at Los Luceros were planted in the early 2000s by Anne and Frank Cabot to provide cross pollination for the apple orchard, making them the most recent fruit trees planted on the property. While the fruit of crabapple trees are not pleasant to eat even when ripe they can be processed into a multitude of products and also provide great forage for birds.



Apricot Tree

Prunus armeniaca

Rosaceae (rose) Family

Found near the Visitor's Center

Non-native



Description: Apricot trees are small, with bright green ovular leaves that are pointed at the tips. Flowers bloom pinkish-white in early spring, developing into a multitude of apricots in the summer.

Apricots are also sometimes called Armenian plums, and they were originally thought to have originated from Armenia. This is where the scientific name *armeniaca* comes from.



Peach Tree

Prunus persica

Rosaceae (rose) Family

Found near the Visitor's Center
and in the orchards

Non-native



Description: The lance-shaped leaves of the peach tree curve inwards with toothed margins. Flowers bloom in spring, and are pinkish. Fruits mature in late summer.

Peach trees can be a risky fruit to grow in New Mexico, because the blooms are especially sensitive to any late season frosts.



American Plum

Prunus Americana

Rosaceae (rose) Family

Found on borders of orchards

Native



Description: Small tree or shrub having ovular leaves growing alternately with toothed edges. Flowers are white with five petals, and the fruit is small, rounded, and reddish-purple.

The plums can be eaten fresh, but the fruit is of middling quality and thus is often processed into other products.



Fruiting Quince

Cydonia oblonga

Rosaceae (rose) Family

Found in Hacienda Garden

Non-native



Description: Small tree with lumpy, pear-shaped fruits.

Quince Trees in this area were brought by the Spanish due to their hardiness during the winter and the use of the fruits, which were generally prepared for use by removing the outer fuzz and boiling to soften the hard flesh.



Sandbar Willow, or Narrowleaf Willow

Salix exigua

Salicaceae (willow) Family

Found along ditches and the Rio Grande

Native



Description: This shrub grows to about twenty feet tall with no central trunk. The leaves are long and very narrow, covered in fine hairs, and are gray green above and whiteish on the underside.

As implied by the name and location, this willow thrives in sandy and often flooded soil at the edges of a river or arroyo. This species is the most widely distributed willow in North America. The stems and branches are prized for their use in basket weaving.



Stretchberry, or New Mexico Olive

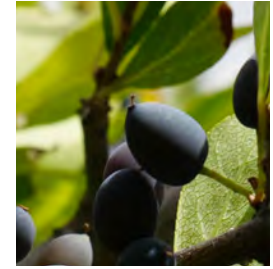
Forestiera pubescens

Sometimes, *Forestiera neomexicana*

Oleaceae (olive) Family

Found across site

Native



Description: Large multi-stemmed shrub growing ten to fifteen feet tall, with oblong leaves growing in clumps. Dark blue berries develop close to the stems in August and September.

Stretchberry plays an important role as a native bush that can be used in conservation as a natural fence or windbreak. Furthermore, this small shrubby plant provides good cover for small birds and other animals, and is also a source of food through the berries.



Fourwing Saltbrush

Atriplex canescens

Chenopodiaceae (goosefoot)
Family

Found in dry, sandy soil

Native



Description: This large shrub is distinguished by its gray-green lance or spoon-shaped wings.

Fourwing saltbrush is mostly dioecious, only having either male or female flowers on each plant. However, the sex of each plant is not fixed and can change based on environmental cues. As a result, differences in the suitability of the environment can cause the sexual distribution of fourwing saltbrush to become partially segregated along lines of different environmental conditions.



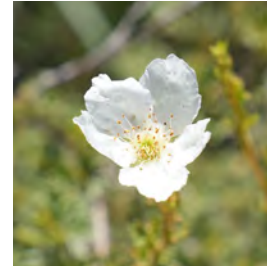
Apache Plume

Fallugia paradoxa

Rosaceae (rose) Family

Found in bosque

Native



Description: Scraggly evergreen shrub with white blooms having five petals each and seeds that form pink-white feathery plumes.

The flowers of Apache plume are an important source of nectar for native bees and butterflies, while birds and occasionally even deer enjoy eating the seeds. The low-growing habitat of this plant also provides invaluable protection for small plants and animals.



Sand Sagebrush

Artemisia filifolia

Asteraceae (daisy) Family

Found in dry sunny areas

Native



Description: A small gray-green shrub with lance-shaped leaves, sand sagebrush blooms in August and September with numerous yellow-brown flowers.

Often indicative of sandy soil, this plant thrives in dry, rocky patches of ground where other plants struggle to survive. It was used for several medicinal purposes by Native Americans.



Netleaf Hackberry

Celtis reticulata

Cannabaceae (hemp) Family

Found in the Historic District

Native



Description: The netleaf hackberry can either grow into a tree or shrub (the ones at Los Luceros are shrubs) with leathery leaves that grow alternately and are uneven at the base. Most kinds of hackberries have distinctly warty or lumpy bark.

The berries were historically eaten by Native Americans, and still provide valuable sustenance today for birds and small mammals.



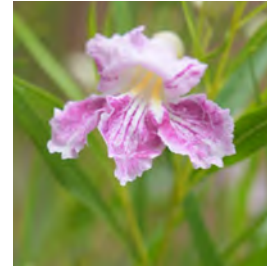
Desert Willow

Chilopsis linearis

Bignoniaceae (bignonias/
trumpet vine) Family

Found in the Historic District

Native



Description: A shrub that can grow up to thirty-five feet tall, the desert willow has long and very narrow leaves with white and pink flowers.

Despite the name, desert willows are not true members of the willow family, and instead are more closely related to the trumpet creepers and catalpa tree also found in the historic district. Desert willows are well suited to riparian zones and are often found in arroyos. They are sought out for use in gardens and landscaping due to their hardiness and beautiful flowers, which is likely how they came to be planted here at Los Luceros.



Salt Cedar, or Tamarisk

Tamarix pentandra

Tamaricaceae (tamarisk) Family

Found in the Historic District

Invasive



Description: A bush with scaly leaves tipped with large clusters of small pink flowers in the spring and summer, making the plant look wispy and feathery.

Salt cedars are an invasive shrub, especially when established in riparian zones where they grow in dense thickets that crowd out native species. Furthermore, the amount of water these shrubs require can be enough to alter the flow of rivers, having disastrous effects on a multitude of plants and animals. Thankfully, salt cedars have been removed from the riparian zone on the Los Luceros property. The only remaining one is in the hacienda garden, where it does not pose a threat to native flora.

Reflecting Questions and Activities

Leaf rubbings and pressing plant specimens are great ways to look closer at a plant specimen. We encourage you to do this with leaves and plant parts that have already fallen off the plants. Please do not pick any leaves or plants while on the site.

Find two plants and describe and/or draw them.

Why do you think these plants have similarities and differences?

Look at two different areas (aka ecosystems) of the site (example bosque and fields).

Compare the quantity and type of plants you see in each ecosystem.

What resources do you think are contributing to the similarities and differences in these ecosystems?

Plants are vital resources to animals. While walking through the site, how do you see animals

interacting with the local plant life? How do they rely on the plants for life and sustenance?

Plants are just like animals and humans in that we need a variety of resources to not just survive, but thrive. Where on the site do you see the most plants? Where do you see the greatest diversity of plants? What resources in these areas do you think affect plants' ability to thrive?

Reflecting Questions and Activities Continued

Compare the upper side of a leaf to the underside (please do not pick the leaves, but look at them while they are on the plant). Which side are the veins easier to see? Is the underside rougher or smoother? Is it hairy or fuzzy? Is one side darker than the other? Why do you think these differences exist?

From a distance a tree trunk may seem unchanging, but up close they are full of life and

offer homes to many species of moss, lichen, insects, birds, and animals. Up close, what do you see happening on a trunk? Find another tree species and examine it closely. How the two are different and how they are similar?

Not all plants require the same resources to thrive. Look at a plant in a shady area and one in a sunny area. How are they different? How are they the same? What about their

appearance do you think makes them better suited for where they are growing?

Why do you think a variety of plants is necessary for an ecosystem to thrive?

Patterns are all around us. These can range from larger patterns within an ecosystem or habitat to patterns on a specific plant or flower. What patterns do you see and why do you think they exist?

Reflecting Questions and Activities Continued

While walking through the site with others, consider having a competition to see who can find the largest or tallest specimen of a particular species. For example the horsetail or smooth scouring rush: Why do you think that one is the largest or tallest? Do you see a pattern in where they grow? Can you return later in the summer and find one that's even taller?

Look closely at a plant. Do you see any seeds or seed pods? How do you think the plant uses forces of nature, animals, and humans to disperse its seeds?

How much variation in bloom color can you find in a patch of field bindweed? The colors actually change over time, and become pinker as they dry. Can you think of or find any other plants that change color over time?

Find a singular vine of field bindweed, and see how far you can follow it. Try not to break it! Bindweed grows very effectively from root division, and you do not want to encourage it. What do you notice about the growth patterns of the vine? How do you think those patterns affect the plants around it?

Recommended Readings and Resources

Our staff loves nature and learning about nature. We encourage our guests to learn more about nature, plants, animals, and their complex

ecosystems. The following are some of our favorite books that we hope will inspire you to learn more about nature and wildlife around us.

Kids Picture Books

Peter Brown. 2009. *The Curious Garden*. Little, Brown Books for Young Readers.

Nicola Davies. 2017. *Many: The Diversity of Life on Earth*. Candlewick Press.

Allison Farrell. 2019. *The Hike*. Chronicle Books LLC.

Pamela Hickman. 2019. *Trees*. Kids Can Press.

Carole Lindstrom. 2020. *We are Water Protectors*. Roaring Book Press.

Kids Activity Books

Stacy Tornio and Ken Keffer. 2013. *The Kids' Outdoor Adventure Book: 448 Great Things to Do in Nature Before You Grow Up*. FalconGuides, Rowman & Littlefield.

Joe Rhatigan. 2003. *The Kids' Guide to Nature Adventures*. Lark Books.

Janice VanCleave. 1997. *Plants: Mind-Boggling Experiments You Can Turn into Science Fair Projects*. John Wiley & Sons, Inc.

Recommended Readings and Resources Continued

Kids Chapter Books

Peter Brown. 2016, 2020, 2023. *The Wild Robot Series*. Little, Brown Books for Young Readers.

Paul Meyer and Carlos Meyer. 2019. *Under the Cottonwood Tree: El Susto de la Curandera*. North Fourth Publishing.

Robin Wall Kimmerer and Monique Gray Smith. 2013. *Braiding Sweetgrass for Young Adults*. Milkweed Editions.

Adult Non-Fiction

Rachel Carson. 1962. *Silent Spring*. Houghton Mifflin.

Robin Wall Kimmerer. 2013. *Braiding Sweetgrass*. Milkweed Editions.

Nancy Lawson. 2017. *The Humane Gardener: Nurturing a Backyard Habitat*. Princeton Architectural Press.

Beronda L. Montgomery. 2021. *Lessons from Plants*. Harvard University Press.

Recommended Readings and Resources Continued

Field Guides

Jean-Luc Cartron, David C. Lightfoot, and Jame E. Mygatt. 2008. *A Field Guide to the Plants and Animals of the Middle Rio Grande Bosque*. University of New Mexico Press.

Robert DeWitt Ivey. 2003. *Flowering Plants of New Mexico*. R. D. Ivey.

Elbert Luther Little. 1980. *The National Audubon Society Field Guide to Trees: Western Region*. Alfred A. Knopf.

Larry J. Littlefield and Pearl M. Burns. 2015. *Wildflowers of the Northern and Central Mountains of New Mexico*. University of New Mexico Press.

Richard Spellenberg. 2001. *The Audubon Society Field Guide to North American Wildflowers: Western Region*. Alfred A. Knopf.

Recommended Nature Apps

We realize that not everyone carries field guides with them all the time. However, there are several apps you can put on your tablet or smartphone that we recommend for quick reference on the go. We highly recommend downloading them.

iNaturalist

Merlin Bird ID

PlantNet

Get Involved!

Community Science is a movement to involve interested everyone in the scientific process. Data collection and observations are ways you can help document the world around you. There are many scientists who rely on passionate individuals to advance our scientific knowledge on a variety of topics. To find a project that you can get passionate about, visit these sites:

<https://www.citizenscience.gov>

<https://www.adventurescientists.org/>

<https://www.nps.gov/subjects/citizenscience/citizen-science.htm>

Additional Web Resources

Santa Fe Botanical Garden - **<https://visitsfbg.org>**

Lady Bird Johnson Wildflower Center - **<https://www.wildflower.org/plants>**

NMSU Selected Plants of the Navajo Rangelands - **<https://navajorange.nmsu.edu>**

USDA Plants Database - **<https://plants.usda.gov/home>**

Additional Web Resources Continued

Southwest Desert Flora - <http://southwestdesertflora.com/index.html>

Native Plant Society of New Mexico - <https://www.npsnm.org/>

Natural Heritage New Mexico - <https://nhnm.unm.edu>

Minnesota Wildflowers - <https://www.minnesotawildflowers.info/>

The Nature Conservancy - <https://www.nature.org>

Native Plant Trust - <https://gobotany.nativeplanttrust.org>

Children's Nature Network - <https://www.childrenandnature.org>

Exploring Nature Science Education Resources - <https://www.exploringnature.org>

SEINet - <https://swbiodiversity.org/seinet/index.php>



NEW MEXICO HISTORIC SITES

BOSQUE REDONDO MEMORIAL AT FORT SUMNER HISTORIC SITE

3647 Billy The Kid Road, Fort Sumner, NM 88119

CORONADO HISTORIC SITE

485 Kuaua Road, Bernalillo, NM 87004

FORT SELDEN HISTORIC SITE

1280 Fort Selden Road, Radium Springs, NM 88054

FORT STANTON HISTORIC SITE

104 Kit Carson Road, Fort Stanton, NM 88054

JEMEZ HISTORIC SITE

18160 NM-4, Jemez Springs, NM 87025

LINCOLN HISTORIC SITE

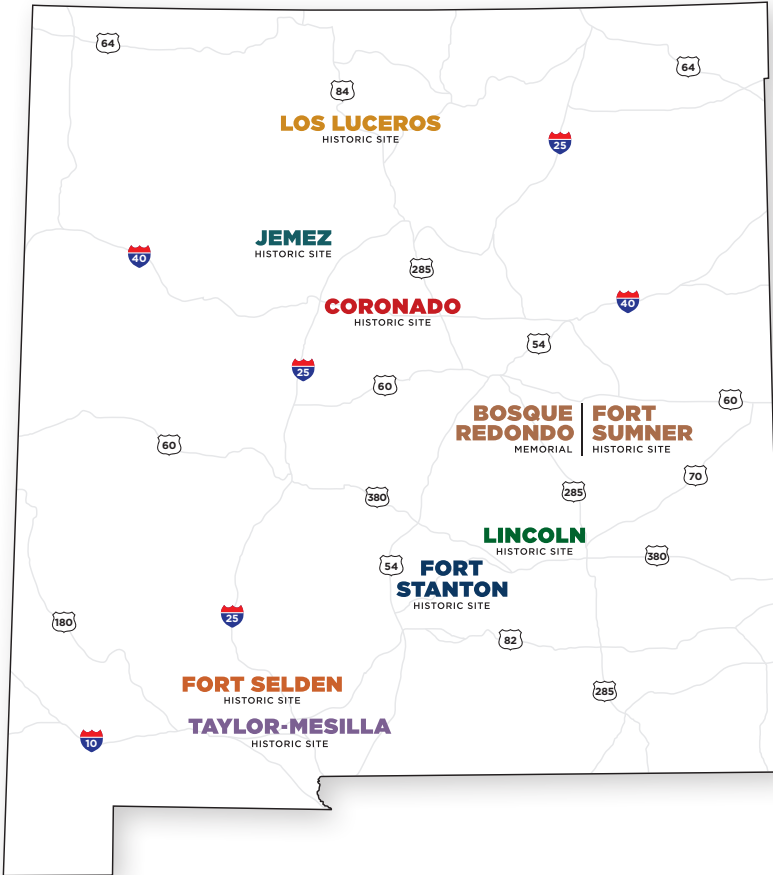
Highway 380, Mile Marker 97, Lincoln NM 88338

LOS LUCEROS HISTORIC SITE

253 County Road 41, Alcalde, NM 87511

TAYLOR-MESILLA HISTORIC SITE

Calle Principal on the Mesilla Plaza, Mesilla, NM 88046



LOS LUCEROS

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