

12 Trail Maintenance

Various structures are used along trails to maintain safety and prevent resource damage. The rock line and shallow ditch forms a water bar, diverting water and minimizing trail damage. Switchbacks are built into trails on steep inclines. The trails zigzag across the hillside making the climb and descent easier. You can prevent erosion by staying on the trails rather than taking shortcuts across the switchbacks.

13 Forest Wildlife

The porcupine (*Erethicea dorsatum*) and the Abert's squirrel (*Sciurus aberti*) are residents of the ponderosa pine forest. Watch for stripped bark, evidence that they have been feasting on the trees. The Abert's squirrel is characterized by its dark fur and tasseled ears. It nests in the pine trees, foraging on the pine cone seeds, young buds, and inner bark.



14 View of Fort Collins

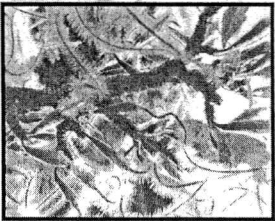
Fort Collins began as a military settlement in 1864, providing protection for the Overland Stage Route. Today, Fort Collins and other Front Range cities continue to expand, with an increasing number of people moving into habitat formerly occupied by wildlife. Lory State Park, bordering urban sprawl, is a small but critical area for local wildlife.

15 Douglas Fir

Notice the douglas fir tree (*Pseudotsuga menziesii*). There are differences between the fir and the ponderosa pine. Douglas fir needles grow singularly from the branch and are flatter, softer, and shorter than the ponderosa needles. The cones are unique with a three-pronged bract between each scale. What do you think these bracts look like?

16 Shrubland Community

Lory's shrub zone forms a patchy belt between the grasslands and the montane forest. Notice the mountain mahogany (*Cercocarpus montanus*) with its feather-like seeds. The hard and heavy wood was used by Native Americans for tools. Mule deer thrive on the leaves and small twigs. Look for the deer during dawn and dusk when they are most active.



17 Water Patterns

Looking below, notice the distinctive vegetation patterns. Cottonwood and willow (*Salix sp.*) trees line the bay of Horsetooth Reservoir. Intermittent streams flow toward the reservoir, lined with chokecherry and wild plum trees. These dense patches of woody vegetation sharply contrast the dry, open grasslands.

18 Arthur's Rock

On the western ridge of the park lies Arthur's Rock, a 1.7 billion year old mass of granite. The harsh elements of wind, rain, snow, and ice have not significantly broken this resistant rock down. Arthur's Rock, at 6,780 feet is one of the highest elevations in Lory State park.

19 Sandstone Hogbacks

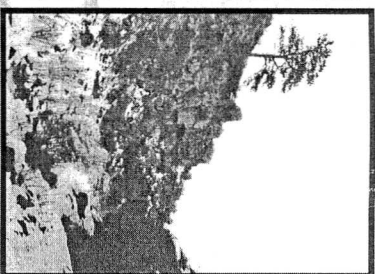
Take a look at the red sandstone hogbacks near the eastern edge of the park; the first wrinkle of the Rocky Mountains. These rocky ridges are named after the slope of a razorback hog's bristly back. In the late 1880's, sandstone quarries prospered along those slopes, supporting the town of Stout; the original location of Stout now lies beneath the south end of Horsetooth Reservoir. The two sets of hogbacks form a large valley (an ideal place for a reservoir). Constructed in the 1940's, Horsetooth Reservoir provides irrigation water to northeastern Colorado.

20 Homestead Picnic Area

An old homestead once stood in this area. John Kimmons claimed this land in 1891; Kimmons traded his land to John and Ruth Howard in 1897. The Howard family established a cattle and horse ranch and lived on the site until 1963. A small pipeline, still visible in Well Gulch, provided fresh water from a natural spring to the Howard family. With careful observation you can find evidence of the homestead. The old flagstones, originally leading to the front porch, are by the three juniper trees near the road. In addition, the area hosts blue spruce trees planted by the homesteaders.

Well Gulch

Self-Guided Nature Trail



Self-Guided Nature Trail

The Well Gulch self-guided nature trail is an enjoyable 1.5 mile hike. The 1 1/2 to 2 hour hike winds through a gently sloping trail with an occasional incline. Restroom facilities and water are not available along the trail, so come prepared!

While on the trail please observe the following:

- Keep all pets on a 6' or shorter leash.
- Do not collect the parks plants or rocks.
- Help keep the park clean by not littering and picking up any trash along the way.

Enjoy the trail! If you have any questions or comments, feel free to contact a park ranger. Please recycle your trail guide by returning it to the dispenser.

Lory State Park

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Design by: Nick Kosin

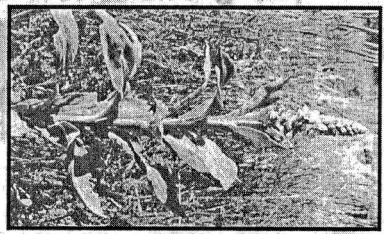
1 Grassland Community

The lower elevations of Lory State Park mark the western edge of grasslands that are characterized by a warm dry climate.

Plants adapt to this environment in unique ways. For example, grasses form a dense root system, making the best of a scarce water supply. Yucca shrubs grow long taproots to access the deep water resources. Cottontail rabbits, rodents, snakes, and badgers seek shelter and food underground, avoiding high mid-day temperatures. Hawks and eagles can be spotted hunting over the open grasslands.

2 Woolly Mullein

Look around. You might see a few 2-6' tall stalks growing. This is woolly mullein (*Verbascum thapsus*), a non-native plant that has soft, fuzzy gray/green leaves fanning out from a central point in its first year. In the second year of growth, small yellow flowers cover the stalk. Native Americans used the leaves, flowers, and roots to relieve coughs and bronchial asthma. Woolly mullein is also known as "cowboy toilet paper".



3 Riparian Community

Well Gulch is an intermittent stream that originates from springs and snowmelt. This process forms a riparian area that enables certain animals and plants to thrive. Western chokecherry (*Prunus virginiana*) and wild plum (*Prunus americana*) grow along streams providing autumn food for local black bears.

4 Plants Help Turn Rocks to Soil

The side slopes show how weathering affects the rocks. The freezing and thawing of moisture causes the rocks to crack and dust to settle in. Tiny plants can take root, pushing the rocks further apart. Look at the ancient tilted rocks; they are covered with plants!

5 Evidence of Water at Work

Well Gulch is usually a tranquil stream. However, torrential rains can erode the gulch, reshape the terrain, and possibly create pools of water. Such pools can be likened to "beads on a string". As water moves over or between large rocks, it forms pools on the downhill side. These small pools enlarge the streambed forming a "bead". Before you continue on, notice the pipe. It is from the Howard Homestead area when they "piped" water from this site to their home site, which you can see at the Homestead Picnic area.

6 Lichens

Allee Algae took a-lichen to Freddie Fungus and their relationship is on the rocks.

This saying explains the partnership between the two life forms (algae and fungus) that make lichen. Algae provides the food; fungus is the anchor and provides the minerals. These plants together create a colorful green, orange, and gray patchwork on the rocks. Lichens gradually breakdown the rocks forming soil.

7 Rock Uplift

Lory is known for its interesting geological features such as this rock outcrop. At one time, this *metamorphic* formation was deposited as horizontal layers of sediment by ancient seas. Although changed by the violent uprising of the Rocky Mountains, the steeply tilted rocks still follow the original pattern of the sedimentary layers.

8 Horsetails

In late summer, this slope is covered with mature horsetails (*Equisetum sp.*), a plant that has existed for millions of years. It has hollow, green jointed stems with cone-like structures on the ends. Its durable cell walls and abrasive cones have earned it the name *scouring brush*.

9 Cottonwood Tree

This old cottonwood tree (*Populus deltoides*) is a sign that a water source is nearby. Distinguished by its cotton-like seeds, the trees provide shelter for a variety of birds. The rufous-sided towhee sings "drink your teeeee". The black-capped chickadee sings "chick-a-dee-dee-dee". The red-breasted nuthatch produces a nasal series of honks. You may hear one of these birds singing.

10 Mountain Slopes

Slope direction or aspect determines local vegetation types. Look at the two mountain slopes that form Well Gulch. The south-facing slope receives more sunlight and is drier. Grasses, shrubs, and scattered ponderosa pine trees thrive in this warm environment. Notice the dense stand of pine, fir, and even a few aspen (*Populus tremuloides*) on the north-facing slope. This cooler slope is partly shaded during the day and retains sufficient moisture for the abundant trees.

11 Montane Forest Community

You are now in a montane forest community, dominated by ponderosa pine (*Pinus ponderosa*). The needles of the ponderosa grow in bundles of two or three and the bark has a pleasant vanilla aroma. This community continues up to the highest elevations in the park. Have you noticed a temperature change? This area is usually four degrees cooler than the grassland community.