# City of Louisville Open Space BioBlitz Summary Report

**October 2025**

COLORADO NATURAL HERITAGE PROGRAM

*CNHP's mission is to advance the conservation of Colorado's native species and ecosystems through science, planning, and education for the benefit of current and future generations.*

Report Prepared by:
Jessica Cheadle

**Colorado Natural Heritage Program**
Warner College of Natural Resources
Colorado State University
1475 Campus Delivery
Fort Collins, CO 80523
(970) 491-7331

Report Prepared for:
City of Louisville Open Space Division
749 Main St
Louisville, CO 80027

October 31st, 2025

Citation: Cheadle, J., 2025. City of Louisville Open Space BioBlitz Summary Report. Colorado Natural Heritage Program, Colorado State University, Fort Collins, Colorado

# Executive Summary

This report documents the Colorado Natural Heritage Program's (CNHP) 2025 surveys of the City of Louisville Open Space **(Map 1)**. Sampling was taken during the Louisville BioBlitz, conducted June 9–13, 2025. The BioBlitz was a collaborative biodiversity assessment effort between CNHP and the City of Louisville to document species occurrences across multiple open space properties. Field surveys were conducted over three days, ending with a public open house on June 13th to showcase findings.

Surveys were led by six CNHP staff experts: Dr. Jennifer Ackerfield (Botanist and Professor at CSU), Tristan Kubik (Entomologist), Brenda Wichmann (Ecologist), John Sovell (Zoologist), Hanna Mohr (Wetland Ecologist), and Luke Knaggs (Wetland Ecologist). Media and outreach was led by CNHP's Julie Kallenberger (Outreach and Communications Specialist) and the City of Louisville Parks, Recreation, and Open Space's Ginger Cross (Senior Marketing Specialist). Event Coordination was led by Jessica Cheadle (Program and Volunteer Coordinator) and the City of Louisville Parks, Recreation, and Open Space/ Open Space Division's Nathaniel Goeckner (Natural Resource Supervisor). CNHP scientists were supported by community volunteers and members of the 2025 Siegele Conservation Science Internship cohort, CSU students participating in CNHP's summer field training program. Additional surveyors volunteered their time to survey for one day of the bioblitz, including My-Lan Le (Botanist, Denver Botanic Gardens), Barbara Thiers (Bryology), Mo Ewing (Bryology), and Ed Lubow (Mycology).

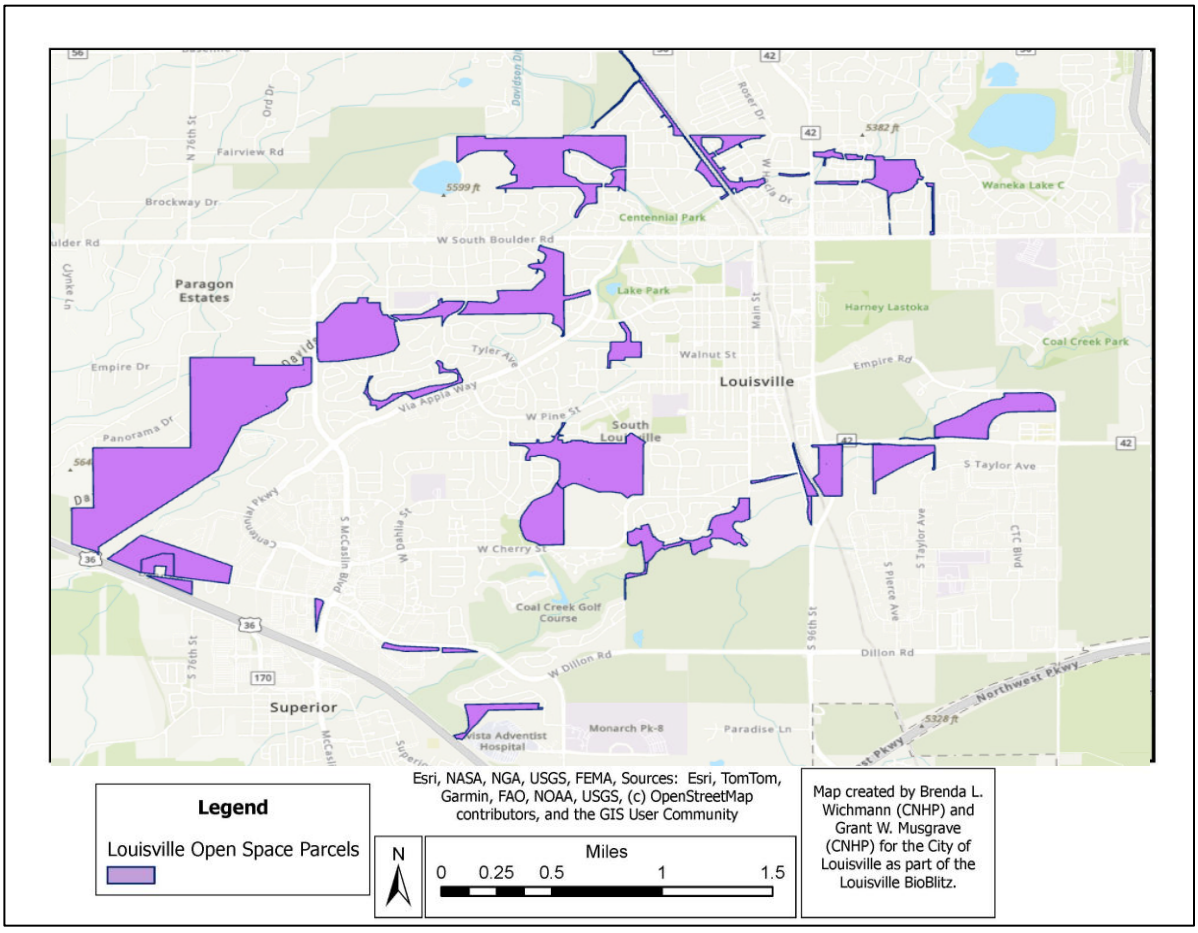
Field teams prioritized open space sites with the highest likelihood for biodiversity, culminating in the following sites being surveyed most heavily: Hecla Lake, Davidson Mesa, Harper Lake, and those along Coal Creek Trail (Avista, Dutch Creek, CTC, and Aquarius). Surveys included botanical inventories, arthropod and pollinator inventories, amphibian and mollusk inventories, bird inventories, mammal inventories, mycology inventories, bryophyte inventories, riparian inventories, and ecological community mapping. Data was primarily recorded using iNaturalist, with a few exceptions being recorded on tablets with GPS, Survey123, and ESRI Field Maps applications.

Volunteer engagement was coordinated through SignUpGenius, which allowed efficient scheduling and communication with participants. A total of 106 volunteers attended 14 field sessions. Sessions focused on birding, plant identification, insect identification, and ecology were the most popular, each reaching capacity within days of registration opening.

The BioBlitz was supported by a coordinated communications effort, led by CNHP and the City of Louisville Open Space, which included a formal press release, social media campaigns, and media coverage by Denver7, KUNC Radio, and CSU SOURCE. Posts from CNHP and City of Louisville's social media accounts reached over 15,000 viewers, increasing public awareness of local biodiversity and community science. The BioBlitz concluded with a Public Open House

held June 13, 2025, at the Louisville Recreation and Senior Center, where attendees met with CNHP scientists and interns, viewed specimens, and discussed preliminary findings.

In total, CNHP made over 1216 species observations across 15 sites**.** The project successfully met its objectives of expanding biodiversity data, strengthening community engagement, and contributing to ongoing conservation planning for the City of Louisville's natural areas.




**Map 1:** The City of Louisville's Open Space parcels: Aquarius Open Space, Bullhead Gulch Open Space, Coyote Run Open Space, CTC Open Space, Damyanovich Open Space, Daughenbaugh Open Space, Davidson Mesa Open Space, Dutch Creek Open Space, Gateway Open Space, Hecla Lake Open Space, Hillside Open Space, Leon A. Wurl Wildlife Sanctuary (Harper Lake), North Open Space, Walnut Open Space, Warembourg Open Space.

## Acknowledgements

The help and generosity of the City of Louisville's Open Space staff is greatly appreciated. Nathaniel Goeckner, our primary contact for this project, played a critical role in event management and land access with the help of Kayla Corcelli. Additionally, Ginger Cross and Lauren Finamore played valuable roles in media outreach to City of Louisville citizens. Lastly, thank you to all City of Louisville Open Space staff for their time, supervision, and collaboration in organizing materials and managing volunteers.

# Table of Contents

# Table of Maps

# Table of Figures



# Table of Tables

# 1.0 Media and Outreach

In alignment with the outreach goals outlined in the project scope, CNHP's Julie Kallenberger and the City of Louisville's Ginger Cross collaborated to produce a comprehensive communications campaign designed to engage the public, promote volunteer participation, and highlight biodiversity discoveries. Efforts spanned press outreach, digital media campaigns, news coverage, and public engagement events. This culminated in a strong regional response in the BioBlitz's participation as well as community awareness of the BioBlitz's scientific, conservation, and citizen science value. A special thank you to CSU's Warner College of Natural Resources Communications staff and interns and CNHP volunteer, Amy Hahn, for their work on event communications and outreach.

## 1.1 Press and Public Communications

A formal press release **(Figure 1)**, titled "Discover the Wild Side of Louisville!", was issued jointly by the City of Louisville and CNHP on May 20, 2025. It announced the weeklong BioBlitz (June 9–13, 2025) and invited the public to participate in documenting species across 800 acres of open space. The release emphasized the event's scientific rigor and its contribution to Colorado's statewide biodiversity database.

The release also included statements from Nate Goeckner (City of Louisville Open Space) and Jess Cheadle (CNHP) on the event's importance. Details for volunteer registration, and the public open house on June 13, 2025, were included, as well as links to the official event page (www.LouisvilleCo.gov/BioBlitz), which included further details about registering and biographies of the participating scientists.

## 1.2 Social Media Campaign and Analytics

The City of Louisville's Ginger Cross and CNHP's Julie Kallenberger coordinated social media outreach via Instagram (@cnhp_social and @citylouisvilleco) and Facebook (Colorado Natural Heritage Program and City of Louisville, Colorado Government). Campaign posts reached thousands of viewers across platforms, combining educational messaging with calls to action for volunteer recruitment and event participation.
Highlights from the analytics report include:

- "Explore The Wild Side of Louisville!" — 2,648 views / 1,464 accounts reached / 61 likes
- "Discover The Wild Side of Louisville" — 2,614 views / 1,765 accounts reached / 31 likes

Collaboration posts with @citylouisvilleco and @csuwarnercollege received up to 4,613 views and 168 likes. Overall engagement exceeded 15,000 combined views and hundreds of likes and shares across reels and grid posts **(Figure 2)**.

City of Louisville
COLORADO • SINCE 1878

WARNER COLLEGE OF NATURAL RESOURCES
COLORADO STATE UNIVERSITY

**PRESS RELEASE**

**FOR IMMEDIATE RELEASE**
**May 20, 2025**

**MEDIA CONTACTS**
**Ginger Cross**
**720-296-7939 / gcross@louisvilleco.gov**

---

**Discover the Wild Side of Louisville!**
**City of Louisville and Colorado Natural Heritage Program Partner for Weeklong Biodiversity Survey**

LOUISVILLE, CO– The City of Louisville and the Colorado Natural Heritage Program (CNHP) at Colorado State University are partnering for a weeklong BioBlitz to uncover the diverse species that call Louisville's Open Space home. Taking place June 9–13, 2025, this large-scale scientific survey will span more than 800 acres of natural land and engage both professional scientists and local volunteers.

A BioBlitz is an intensive biological inventory in which experts and community members work together to document all living species—plants, animals, and invertebrates—within a designated area and timeframe. What sets this event apart is its scientific rigor: field surveys will be led by biologists using standardized protocols, producing high-quality data with long-term value for conservation planning.

"This is a rare opportunity to do real science alongside expert biologists," said Nate Goeckner, natural resource supervisor for the City of Louisville. "The data collected will fill critical gaps in our biodiversity records and contribute to statewide and national databases."

"We're thrilled to work with a community like Louisville that is embracing science to guide conservation," said Jess Cheadle, ecologist/botanist with CNHP. "This data will also contribute to CODEX the state's official biodiversity database."

**How it works**
Teams will use wildlife cameras, acoustic monitors, insect traps, plant transects, and visual surveys to collect data across a range of habitats. The findings will help:

- Fill data gaps in Colorado's biodiversity records
- Identify rare or imperiled species
- Support open space policy and restoration planning
- Provide Louisville's first official biodiversity baseline

**Figure 1:** City of Louisville Open Space BioBlitz Press Release 2025, written by Ginger Cross and Julie Kallenberger.

**Join the effort: Community participation & volunteer opportunity**
Public participation is at the heart of this effort. Community members can assist with surveys, species identification, event logistics, and more. Space is limited to 40-50 volunteers per day. Advanced registration will be required. Learn more and register at www.LouisvilleCo.gov/bioblitz

**Public Event: BioBlitz Open House**
Friday, June 13 at the Louisville Recreation & Senior Center (900 W Via Appia Way, Louisville CO). Hear from biologists, explore field data, and celebrate a week of scientific discovery!

---

**EVENT DETAILS**
What: Louisville BioBlitz 2025
When: June 9–13, 2025
Where: Various Louisville Open Space properties
Public Event: Open House, June 13 at the Louisville Recreation & Senior Center How to Get Involved: Learn more and register at www.LouisvilleCo.gov/bioblitz Contacts:

- Questions about City of Louisville Open Space and properties: Nate Goeckner – NGoeckner@LouisvilleCo.gov
- Questions about volunteering, event logistics, and registration: Jess Cheadle - jess.cheadle@colostate.edu

Event website: www.LouisvilleCo.gov/bioblitz

**About the City of Louisville Open Space**
The City of Louisville's Open Space Division is committed to protecting and enhancing the natural areas that make our community special. These lands provide recreational opportunities for residents and visitors, support diverse wildlife and plant communities, and create visual buffers between Louisville and neighboring municipalities. Through stewardship, education, and collaboration, Open Space staff works to preserve biodiversity and promote a deep connection to the outdoors.

**About the Colorado Natural Heritage Program**
CNHP is a non-academic department housed within CSU's Warner College of Natural Resources and is Colorado's member of the NatureServe Network, an international network of programs that provides the foundational data and guidance for monitoring the status of species and natural plant communities from state, national and global perspectives. By collecting and analyzing ecological data, CNHP helps land managers, governments, and conservation organizations protect Colorado's biodiversity through science-based decision-making. Learn more at cnhp.colostate.edu.

**Figure 1.** (Continued)

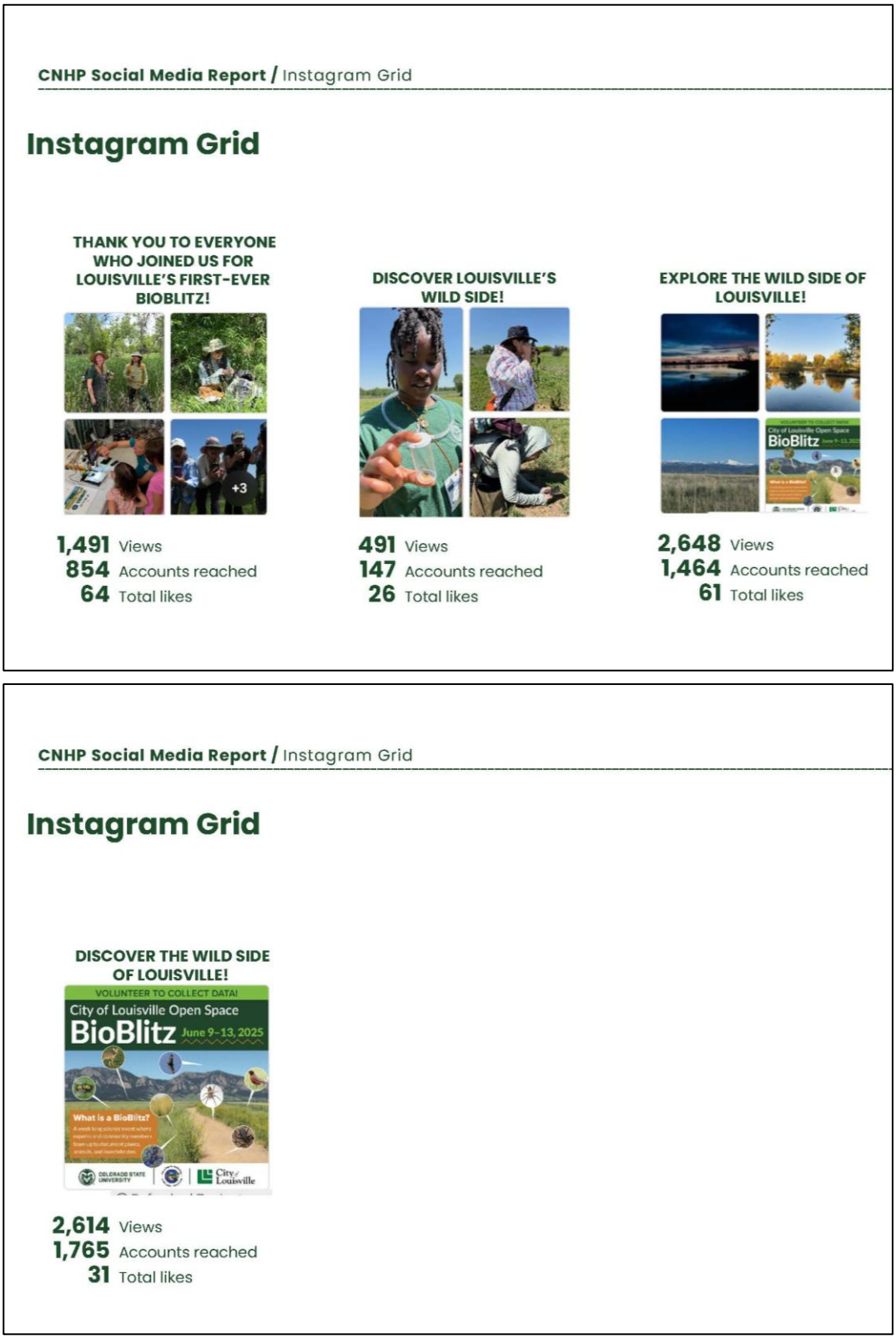
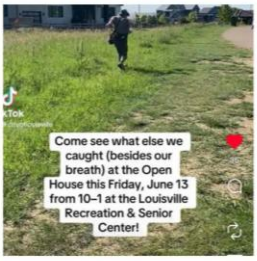



**Figure 2:** CNHP's Louisville BioBlitz social media posts and analytics.

**CNHP Social Media Report /** Instagram Grid

## Instagram Reels

**COLLAB WITH LOUISVILLECOPROS / CITYLOUISVILLECO**




**2,755** Views
**1** Comments
**35** Total likes
**10** Share

**COLLAB WITH LOUISVILLECOPROS / CSUWARNERCOLLEGE**

**3,796** Views
**2** Comments
**170** Total likes
**4** Share

**COLLAB WITH LOUISVILLECOPROS**

**1,942** Views
**0** Comments
**48** Total likes
**10** Share

**CNHP Social Media Report /** Instagram Grid

## Instagram Reels

**COLLAB WITH CSUWARNERCOLLEGE / CITYLOUISVILLECO**


**4,613** Views
**7** Comments
**168** Total likes
**13** Share

**COLLAB WITH LOUISVILLECOPROS**

**774** Views
**0** Comments
**29** Total likes
**2** Share

**COLLAB WITH LOUISVILLECOPROS / CITYLOUISVILLECO**


**2,190** Views
**1** Comments
**53** Total likes
**8** Share

**Figure 2:** (Continued)

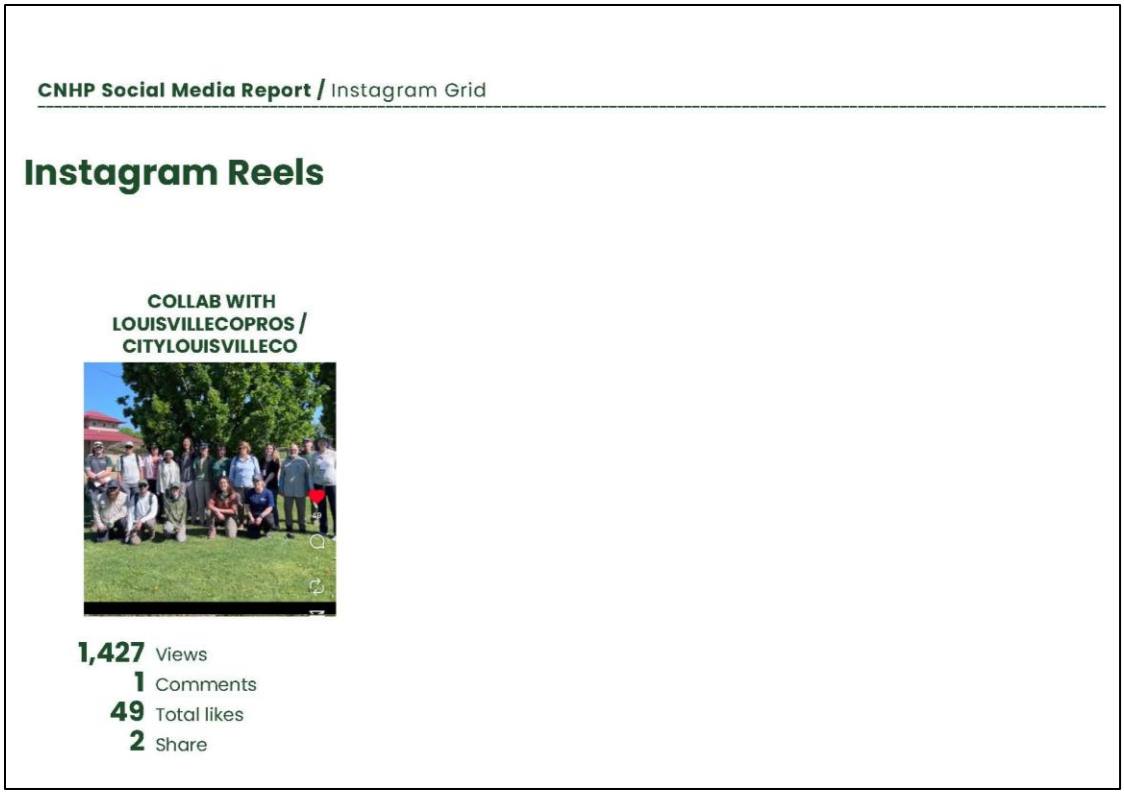



**Figure 2:** (Continued)

## 1.3 Community Participation

Community participation **(Table 1)** for the Louisville BioBlitz (June 10–11, 2025) was managed using SignUpGenius, which enabled participants to pre-register for specific field events, reducing day-of-site congestion and ensuring balanced team sizes (typically 8-10 per session). Community members and scientists met at specified staging areas for their sessions, where water, bathrooms, and maps were provided. Harper Lake Trailhead was the staging area for the following open space parcels: Davidson Mesa, Harper Lake, Coyote Run, Gateway, and Damyanovich. Community Park was the staging area for the following open space parcels: Daughenbaugh, Warembourg, Dutch Creek, Avista, Aquarius, and CTC. Hecla Lake was the staging area for Hecla Lake and Bullhead. Keith Helart Park was the staging area for North Open Space. Each site maintained printed sign-in sheets with confirmed registrants and waitlisted registrants, as well as photo release documentation. Registrants were emailed upon signing up, as well as the day before, all necessary information including meetup location, safety information, and what to bring for their session. A total of 15 different sessions were held, covering the topics of ecology, entomology, botany, zoology, and wetland ecology. The session averaged, 2-3 hours in length.

**Table 1:** Summary of community participation at the Louisville BioBlitz 2025 including date, location, time, session title, and confirmed and waitlisted counts.

| Date | Staging Location | Session / Activity | Time Slot | Participants | Waitlist |
|---|---|---|---|---|---|
| June 10, 2025 | Hecla Lake | Bug Walk | 8–10 a.m. | 8 | 0 |
| June 10, 2025 | Keith Helart Park | Bug Walk | 10 a.m.–12 p.m. | 8 | 0 |
| June 10, 2025 | Davidson Mesa / Harper Lake | Birding | 7–10 a.m. | 7 | 8 |
| June 10, 2025 | Davidson Mesa / Harper Lake | Ecology | 9 a.m.–12 p.m. | 8 | 5 |
| June 10, 2025 | Davidson Mesa / Harper Lake | Plant Walk | 9 a.m.–12 p.m. | 8 | 5 |
| June 10, 2025 | Davidson Mesa / Harper Lake | Amphibian & Mollusk Surveys | 10 a.m.–12 p.m. | 8 | 4 |
| June 10, 2025 | Davidson Mesa / Harper Lake | Plant Walk | 1–3 p.m. | 7 | 4 |
| June 10, 2025 | Davidson Mesa / Harper Lake | Ecology | 3–5 p.m. | 7 | 4 |
| June 11, 2025 | Keith Helart Park | Birding | 8–10 a.m. | 8 | 3 |
| June 11, 2025 | Hecla Lake Open Space | Birding & Amphibian/Mollusk Surveys | 10–11 a.m. | 6 | 5 |
| June 11, 2025 | Davidson Mesa / Harper Lake | Bug Walk | 8 a.m.–12 p.m. | 8 | 3 |
| June 11, 2025 | Community Park | Ecology | 9–12 p.m. | 8 | 2 |
| June 11, 2025 | Community Park | Wetland Surveys | 9 a.m.–12 p.m. | 6 | 2 |
| June 11, 2025 | Community Park | Ecology | 1–3 p.m. | 6 | 2 |
| June 11, 2025 | Community Park | Wetland Surveys | 1-5pm | 3 | 0 |
| **TOTAL** | | | | **106** | **47** |

In total, 106 community members participated across 15 sessions, with 47 individuals on waitlists. Most sessions reached capacity, reflecting strong community interest and engagement in land stewardship. Most participants were Louisville residents or Front Range community members, joined by a handful of CNHP staff, interns, and repeat volunteers active across multiple sessions.

## 1.4 Public Event: BioBlitz Open House

The BioBlitz Open House held June 13, 2025, at the Louisville Recreation & Senior Center, served as the culminating outreach event. Attendees met with CNHP scientists and interns, viewed plant/insect specimens and field data, and discussed findings in an informal, educational setting. Other presenters at the event were City of Louisville Noxious Weeds, City of Louisville Open Space, the Butterfly Pavilion, and Colorado Parks and Wildlife. The event drew hundreds of participants, and successfully connected community members, city staff, and the scientific team—enhancing transparency and enthusiasm for future community conservation efforts.

## 1.5 Media Coverage

The BioBlitz achieved significant regional visibility through multiple news outlets, including:

- **"**Scientists, local volunteers take part in BioBlitz to catalog plants, insects in Louisville**"—** KUNC Radio
- "A Wild Partnership: Colorado Natural Heritage and City of Louisville bring science and discovery to urban natural areas" — CSU SOURCE, Author Amy Hahn
- "Scientists, volunteers to catalog all living species that call Louisville's open space home" — Denver7 (ABC News)

These stories highlighted the collaborative nature of the project, the hands-on involvement of community members, and the contribution to statewide biodiversity data.

# 2.0. Methods

## 2.1 Botany

Botanical surveys for the 2025 City of Louisville Open Space BioBlitz were conducted on Monday, June 9, and Tuesday, June 10, 2025, by CNHP botanist Dr. Jennifer Ackerfield and Denver Botanic Gardens botanist My-Lan Le, with assistance from CNHP staff, Siegele Conservation Science Interns, and community volunteers. Community volunteers joined only for June 10. Monday June 9 was used as a scouting and 'researchers only' surveying day. The primary objective of the botany surveys was to build a comprehensive plant species list for Louisville's open space network using the iNaturalist platform as the primary data collection tool.

Botany observations were made at Daughenbaugh Open Space, Warembourg Open Space, Avista Open Space, Dutch Creek Open Space, CTC Open Space, Aquarius Open Space, Davidson Mesa, and Harper Lake. At each site, participants documented all identifiable vascular plant species encountered. Observations were photographed and uploaded to iNaturalist in real time, where identifications were reviewed and verified by CNHP botanists and the broader iNaturalist community.

## 2.2. Entomology

Entomological surveys for the 2025 City of Louisville Open Space BioBlitz were conducted to document arthropod diversity across a range of aquatic and terrestrial habitats within the City's open space system. Surveys were conducted on Monday, June 9th, Tuesday, June 10, 2025, and Wednesday June 11, 2025. Community volunteers joined only for June 10 and June 11. Monday June 9 was used as a scouting and 'researchers only' surveying day. The surveys were led by CNHP entomologist Tristan Kubik, with assistance from CNHP staff, Siegele Conservation Science Interns, and trained community volunteers. The primary objective was to build a comprehensive arthropod species list representing the diversity of insects and related taxa observed during the BioBlitz.

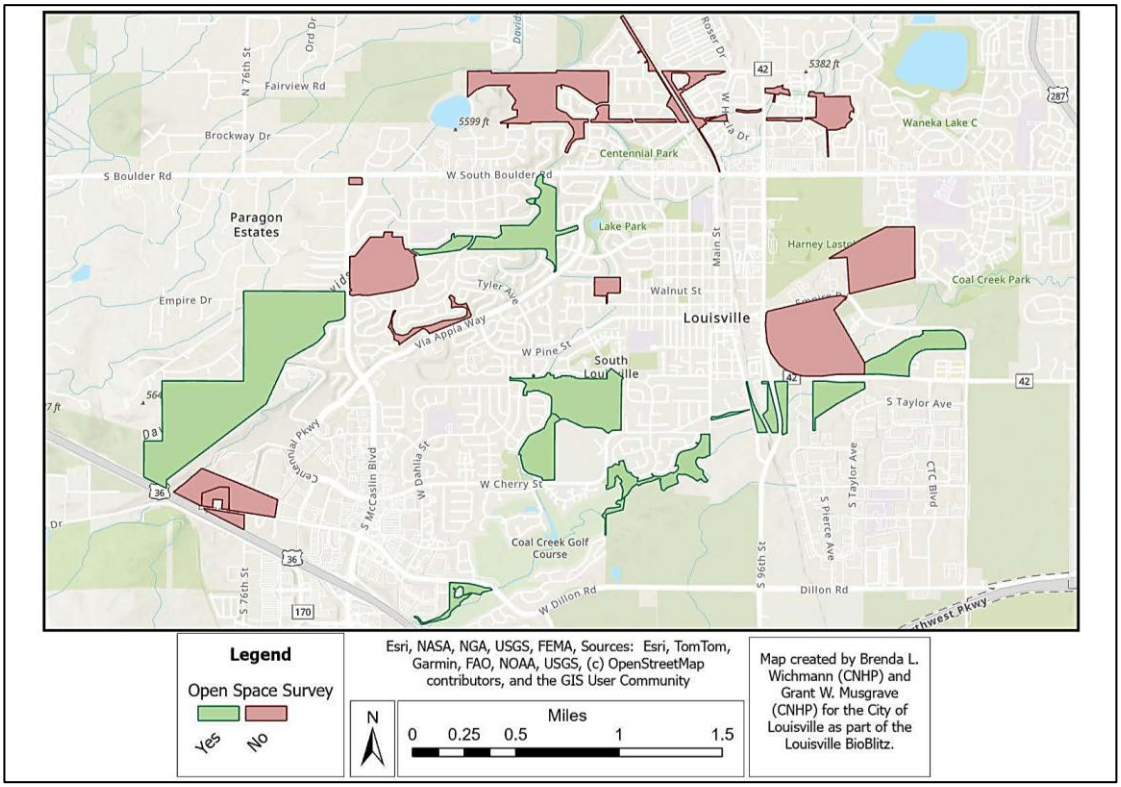
Surveys were conducted at Daughenbaugh Open Space, Warembourg Open Space, Dutch Creek Open Space, Avista Open Space, CTC Open Space, Hecla Lake, North Open Space, Davidson Mesa, and Harper Lake. Field activities included both terrestrial and aquatic sampling, employing multiple collection methods to capture a wide range of taxa and microhabitats. Terrestrial insects were collected using aerial sweep nets and aquatic invertebrates were sampled using dip nets in ponds, creeks, and wetland margins. Nocturnal sampling was also conducted using ultraviolet light traps, which attracted moths, beetles, and other night-active insects. All specimens were temporarily stored for identification and were photographed and uploaded to iNaturalist in real time where identifications were reviewed and verified by CNHP botanists and the broader iNaturalist community.

## 2.3 Vegetation Ecology

A cursory survey of the vegetation of Louisville Open Space properties was conducted by the CNHP and Bioblitz participants on June 9–11, 2025. An additional rapid assessment was conducted by Brenda L. Wichmann on September 4, 2025. Surveys were conducted at Davidson Mesa, Daughenbaugh Open Space, Warembourg Open Space, Dutch Creek Open Space, Coyote Run Open Space, CTC Open Space, a portion of the Coal Creek Regional Trail Corridor, and a portion of Aquarius Open Space **(Map 2).** Vegetation surveys were not conducted at North Open Space, Helca Lake, or Damyanovich Open Space **(Map 2)**.

In addition to the cursory surveys, one vegetation plot was sampled on June 9th following methods outlined in Peet et al. (1998) and Lee et al. (1998), which meet the U.S. National Vegetation Classification (USNVC) standard (Jennings et al. 2009; Federal Geographic Data Committee Vegetation Subcommittee 2008). The protocol guide for this methodology is presented in **(Appendix A. Protocol Guide for USNVC Methodology)** and the plot data collected are presented in **(Appendix A. Protocol Guide for USNVC Methodology)**.

The purpose of these surveys was to identify and map plant associations (natural plant communities) on Louisville Open Space properties as defined in the USNVC. Vegetation types were determined and mapped by CNHP Ecologist Brenda L. Wichmann and CNHP Botanist Grant Musgrave.




**Map 2:** Louisville Open Space parcels that were and were not surveyed for vegetation.

## 2.4 Zoology

Zoological fieldwork for the 2025 City of Louisville BioBlitz was led by CNHP Zoologist John Sovell, with assistance from CNHP staff, Siegele Conservation Science Interns, and City of Louisville Open Space personnel and community members. The objective of the zoology surveys was to document the presence and diversity of vertebrate wildlife species—including birds, amphibians, reptiles, small mammals, and mollusks—across representative open space properties within the City of Louisville.

Surveys were conducted from June 9–11, 2025, across multiple open space properties selected to represent a range of habitats within the Louisville landscape. Community volunteers joined only for June 10 and 11. Monday June 9 was used as a scouting and 'researchers only' surveying day. Sampling sites included:

- Coal Creek Riparian Corridor – bird surveys, acoustic bat monitoring, and mollusk, amphibian, and reptile surveys
- Dutch Creek Open Space and Davidson Mesa – small mammal trapping and bird surveys
- Aquarius Open Space and Davidson Mesa – prairie-dog colony and burrowing owl observations
- Leon A. Wurl Wildlife Sanctuary (Harper Lake) and Coyote Run Open Space – bird surveys and amphibian and mollusk surveys.
- Hecla Lake - birding, mollusk, and amphibian surveys.
- North Open Space - birding

Fieldwork was conducted using a combination of direct observation, auditory detection, and physical evidence recording. Wildlife occurrences were recorded through GPS waypoints and manual field notes, capturing the precise locations of all detected species.

- Avian Surveys: Conducted primarily during early morning hours using binoculars.
- Amphibian and Mollusk Surveys: Visual encounter searches were performed in riparian corridors, ponds, and wetlands.
- Small Mammal Surveys: Observations were made via small mammal traps which were placed overnight.
- Prairie Dog and Burrowing Owl Observations: Conducted via direct observation and GPS mapping of active burrows, colonies, and potential owl nesting sites.
- Bat Observations: Acoustic bat recorders were placed overnight.

All species detections were georeferenced using handheld GPS units and supplemented with manual field notes recorded in field notebooks. Location points and species information were later digitized and integrated into CNHP's spatial database. Verified records will be entered into CNHP's Biotics Database.

## 2.5 Wetland Ecology, Mycology, and Bryology

Surveys targeting bryophytes, fungi, and wetland vegetation were conducted during the 2025 City of Louisville BioBlitz to document non-vascular plant, fungal, and wetland community diversity across multiple open space properties. These efforts were led by CNHP field scientists and supported by Siegele Conservation Science Interns. The primary goal was to build baseline species lists and document habitat types that support moisture-dependent and decomposer taxa across the Louisville Open Space system.

### *Bryology Surveys*

Bryophyte (moss and liverwort) surveys were performed in riparian corridors, shaded slopes, and moist lowland areas where microhabitats favored bryophyte establishment. Barbara Thiers and Mo Ewing conducted visual searches along streambanks, seeps, and under shaded vegetation, documenting species presence. Observations were photographed and entered into iNaturalist, where identifications were verified by bryology specialists.

### *Mycology Surveys*

Fungal surveys were conducted concurrently with botanical efforts, focusing on identifying macrofungi (mushrooms, conks, and cup fungi) visible during early summer conditions. Mycologist Ed Ludbow searched decaying wood, soil, and leaf litter across diverse habitat types, including grassland edges, riparian woodlands, and shaded open space parcels. Fungal fruiting bodies were photographed and uploaded to iNaturalist for community-based identification and verification.

### *Wetland Ecology Surveys*

Wetland ecology surveys were conducted in and around ponds, marshes, and riparian corridors along Coal Creek Corridor to identify hydrophytic species. Hanna Mohr and Luke Knaggs completed transects and vegetation observations in Survey123 and iNaturalist. These data will inform CNHP's broader wetland inventory and support vegetation mapping and conservation prioritization for the City of Louisville.

# 3.0 Results

In total, during the BioBlitz 1216 observations were taken by 47 observers. Presently, of those observations, 179 iNaturalist identifiers have found 459 different species. The most observed species from the BioBlitz were *Potentilla recta*, *Asclepias speciosa*, *Amorpha fruticosa*, *Salix exigua*, *Tradescantia occidentalis*, and *Linum lewisii*. The full species list is available on the iNaturalist BioBlitz page at City of Louisville Open Space BioBlitz · iNaturalist.

## 3.1 Botany

In addition to the observations made during the BioBlitz, vascular plant iNaturalist data was pulled on June 12 for the City of Louisville to better understand the full diversity and threats to Louisville's Open Space. This resulted in a list of 468 different plant species. Of these species, in the City of Louisville there are 23 Colorado listed noxious weed species. There are also six species of concern that CNHP tracks, *Allium schoenoprasum*, *Ammannia robusta*, *Asclepias stenophylla*, *Cardamine breweri*, *Crataegus chrysocarpa*, and *Cyperus bipartitus* **(Table 3, Appendix B. CNHP Tracked Species of Concern in Louisville, CO)**.

See **Table 6**, **Appendix C. Plant Species in Louisville, C** for a list of all plant species observations (BioBlitz observations included) in the City of Louisville, along with if they are a listed noxious weed, CNHP tracked species, and their global and state rankings. To see a comprehensive and evolving plant species list for Louisville, with location coordinates and number of observations, see the iNaturalist page here: Observations · iNaturalist.

## 3.2. Entomology

In addition to the observations made during the BioBlitz, arthropod iNaturalist data was pulled on June 12 for the City of Louisville to better understand the full diversity and threats to Louisville's Open Space. This resulted in a list of 480 species, of which *Bombus occidentalis* and *Sympetrum madidum* are CNHP tracked species of concern. These species were found along Davidson Mesa Open Space **(Table 4**, **Appendix B. CNHP Tracked Species of Concern in Louisville, CO)**.

Together, these datasets documented a broad spectrum of arthropod diversity across Louisville's open spaces. See **Table 7, Appendix D. Arthropod Species in Louisville, C** for a list of all arthropod species observations (BioBlitz observations included) in the City of Louisville, along with their global and state rankings and if they are a CNHP tracked species. To see a comprehensive and evolving arthropod species list for the City of Louisville, with location coordinates, see the iNaturalist page here: Observations · iNaturalist.

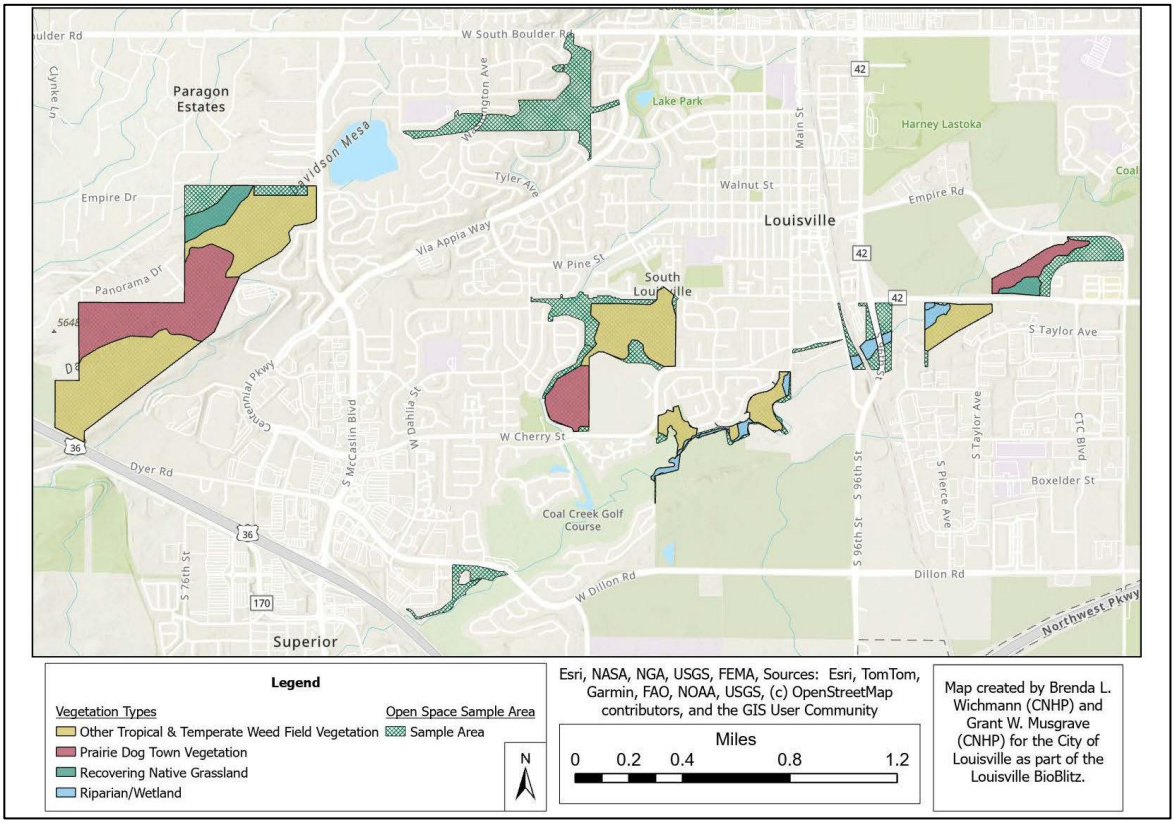
## 3.3 Vegetation Ecology

### *Results and Discussion*

A map of City of Louisville Open Space properties is presented in **(Map 2)**. The vegetation of surveyed parcels is presented in **(Map 3)** and described below.

The vegetation of City of Louisville Open Space reflects its location within the Front Range Urban Corridor of Colorado. Historically, this area supported farming, including plowed agricultural fields. Today, the landscape is fragmented, supporting residential and commercial development, as well as open spaces and parks managed primarily for recreation. Non-native species such as smooth brome (*Bromus inermis*), cheatgrass (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), Siberian elm (*Ulmus pumila*), and crack willow (*Salix × fragilis*) occur in varying abundance across City of Louisville's Open Space parcels.

No examples of intact natural plant associations were found on the surveyed parcels, primarily due to the abundance of non-native species. The most intact example of native vegetation occurs on the northwest-facing slope of Davison Mesa, where plot data were collected **(Appendix A. Protocol Guide for USNVC Methodology)**.




**Map 3:** Vegetation map of surveyed parcels in the City of Louisville's Open Space

### *Davidson Mesa Open Space*

Davidson Mesa is a gravel-capped pediment surface. The parcel is composed primarily of upland vegetation, with a small area of riparian and wetland vegetation associated with Davidson Ditch. The northwest-facing slope of this parcel supports the most intact example of native vegetation observed within Louisville Open Space.

The flat plateau of the mesa supports patchy and variable vegetation, influenced by past and current land use, soil rockiness, and the presence of prairie dog colonies. Native grasses indicative of natural grassland communities are present but scattered and in low abundance. The dominant vegetation consists of exotic grasses and forbs such as *Bromus inermis* (smooth brome), *Bromus japonicus* (Japanese brome), and *Rumex crispus* (curly dock). Additional exotic forbs include *Convolvulus arvensis* (field bindweed), *Salsola tragus* (tumbleweed), *Centaurea diffusa* (diffuse knapweed), *Bassia scoparia* (kochia), *Linaria dalmatica* (dalmatian toadflax), *Verbascum thapsus* (mullein), and *Medicago sativa* (alfalfa).

Native grasses present in scattered abundance include *Pascopyrum smithii* (western wheatgrass), *Schizachyrium scoparium* (little bluestem), and *Aristida purpurea* (purple threeawn). Native forbs include *Opuntia macrorhiza* (prairie pricklypear), *Artemisia ludoviciana* (silver wormwood), *Gutierrezia sarothrae* (broom snakeweed), *Liatris punctata* (dotted blazing star), and *Verbesina encelioides* (cowpen daisy).

The northwest-facing slope harbors the most intact native vegetation. Plot data documented 59 taxa, including 47 native to Colorado and 12 non-native species. Notable native grasses include *Andropogon gerardii* (big bluestem), *Hesperostipa comata* (needle-and-thread), *Koeleria macrantha* (prairie junegrass), *Aristida purpurea* (purple threeawn), and *Bouteloua curtipendula* (sideoats grama). Other characteristic species include *Yucca glauca*, *Heterotheca villosa* (hairy false goldenaster), *Gutierrezia sarothrae* (broom snakeweed), *Liatris punctata*, *Opuntia fragilis* (brittle pricklypear), and *Carex inops* ssp. *heliophila* (sun sedge). Full plot data are provided in **(Appendix A. Protocol Guide for USNVC Methodology)**

The composition of native grasses such as *Andropogon gerardii*, *Pascopyrum smithii*, *Hesperostipa comata*, and *Bouteloua curtipendula* suggests that Davidson Mesa may once have supported natural communities classified under the globally vulnerable (G3) Southern Great Plains Mixedgrass Prairie (USNVC Group G133). However, due to the high abundance of non-native species and the patchy, scattered distribution of native taxa, the vegetation no longer represents a natural community. The best fit within the USNVC is "Other Tropical & Temperate Weed Field Vegetation" (CSG031), which represents semi-natural vegetation including both native and non-native species.

Because the northwest-facing slope supports a relatively natural distribution of native species and fewer non-natives, it is mapped here as *recovering native grassland*. Areas

dominated by prairie dog colonies are mapped as Prairie Dog Town Vegetation. Riparian and wetland vegetation along Davidson Ditch was not surveyed.

### *Dutch Creek Open Space and Coal Creek Trail*

Dutch Creek Open Space contains primarily upland vegetation with smaller areas of riparian and wetland vegetation. Riparian vegetation occurs along Dutch Creek and extends onto adjacent properties not owned by the City of Louisville. The canopy consists of both native and non-native species, including *Populus deltoides* (eastern cottonwood), *Fraxinus pennsylvanica* (green ash), *Salix exigua* (narrowleaf willow), and *Symphoricarpos occidentalis* (western snowberry), along with non-natives such as *Salix × fragilis* (crack willow), *Ulmus pumila* (Siberian elm), *Catalpa speciosa* (northern catalpa), and *Elaeagnus angustifolia* (Russian olive). The dominance of crack willow indicates this vegetation is not representative of a natural community. No USNVC type directly applies, and it is mapped as Riparian and Wetland Vegetation.

Small wetlands along Dutch Creek support native graminoids such as *Schoenoplectus pungens* (three-square bulrush) and *Carex nebrascensis* (Nebraska sedge), along with non-native species. Due to their small extent and prevalence of exotics, these are also mapped as *Riparian and Wetland Vegetation.*

Upland fields are dominated by *Bromus inermis* with scattered patches of *Pascopyrum smithii*, *Panicum virgatum* (switchgrass), and *Calamovilfa longifolia* (sand reedgrass). Native forbs include *Gutierrezia sarothrae*, *Grindelia squarrosa* (curlycup gumweed), and *Helianthus petiolaris* (prairie sunflower). These uplands are mapped as Other Tropical & Temperate Weed Field Vegetation (CSG031).

### *Daughenbaugh Open Space*

Most of Daughenbaugh Open Space is occupied by a prairie dog colony, where vegetation is sparse and bare soil is common. Non-native species include *Rumex crispus* (curly dock), *Marrubium vulgare* (white horehound), *Saponaria officinalis* (common soapwort), *Cynoglossum officinale* (hound's-tongue), and *Bassia scoparia* (kochia). Scattered native forbs include *Verbesina encelioides* (cowpen daisy), *Brickellia eupatorioides* (false boneset), *Dieteria canescens* (hoary tansyaster), *Oenothera suffrutescens* (scarlet gaura), *Erigeron canadensis* (horseweed), and *Ambrosia psilostachya* (western ragweed). A small island of woody vegetation includes *Populus deltoides* (cottonwood), *Prunus* spp., and *Crataegus* spp. Areas along Goodhue Ditch were not surveyed. Surveyed areas are mapped as Prairie Dog Town Vegetation.

### *Warembourg Open Space*

Warembourg Open Space is dominated by *Bromus inermis* and is mapped as Other Tropical & Temperate Weed Field Vegetation (CSG031). Areas along Goodhue Ditch were not surveyed.

### *Coyote Run Open Space*

Coyote Run Open Space contains riparian and wetland vegetation dominated by a mix of native and non-native trees and shrubs, including *Populus deltoides* (cottonwood), *Salix exigua* (narrowleaf willow), *Fraxinus pennsylvanica* (green ash), and *Ribes* spp., along with non-natives such as *Malus domestica* (apple), and *Bromus inermis* (smooth brome). There were also patches of *Typha* spp. (cattails). This area is mapped as Riparian and Wetland Vegetation.

### *CTC Open Space*

CTC Open Space is relatively small, with sloping uplands and a corner of riparian vegetation. The uplands are dominated by *Bromus inermis*, with scattered patches of *Pascopyrum smithii* and *Asclepias speciosa* (showy milkweed). The riparian zone supports *Populus deltoides* (cottonwood), *Fraxinus pennsylvanica* (green ash), and *Salix × fragilis* (crack willow). A small wetland dominated by *Typha angustifolia* (narrowleaf cattail) is also present.

### *Aquarius Open Space*

The southwestern section of Aquarius Open Space was surveyed. The upland slope supports a mix of native and non-native grasses and forbs. Non-natives include *Bromus inermis* (smooth brome), *Bromus tectorum* (cheatgrass), and *Agropyron cristatum* (crested wheatgrass). Native grasses include *Aristida purpurea* (purple threeawn), *Pascopyrum smithii* (western wheatgrass), *Bouteloua gracilis* (blue grama), *Buchloe dactyloides* (buffalograss), and *Koeleria macrantha* (prairie junegrass). Native forbs include *Artemisia dracunculus* (tarragon), *Artemisia frigida* (fringed sagebrush), *Liatris punctata*, *Opuntia* spp. (pricklypear), *Chenopodium* spp. (goosefoot), *Eriogonum effusum* (spreading buckwheat), *Xanthisma spinulosum* (spiny goldenweed), and *Gutierrezia sarothrae*. The noxious weed *Centaurea diffusa* (diffuse knapweed) was also present.

The upland slope is mapped as recovering native grassland, while the lower slope, supporting a prairie dog colony, is mapped as Prairie Dog Town Vegetation.

### *Rare Plant Occurrences*

Two CNHP tracked plants *Asclepias stenophylla* and *Crataegus chrysocarpa,* were found within the City of Louisville Open Space and added to Biotics **(Table 4**, **Appendix B. CNHP**

**Tracked Species of Concern in Louisville, CO)**. For additional information on the population and habitat of these two species, see **Appendix B. CNHP Tracked Species of Concern in Louisville, CO**.

### *Summary*

City of Louisville's Open Space parcels contain upland fields and grasslands, as well as riparian and wetland vegetation. Because no intact natural plant associations were found, vegetation could not be fully classified and mapped according to the USNVC's natural vegetation hierarchy. However, the USNVC also defines cultural or semi-natural vegetation types, which were applied here.

Most upland grasslands and fields are classified as Other Tropical & Temperate Weed Field Vegetation (CSG031). Two areas are mapped as recovering native grassland: the northwest slope of Davidson Mesa and the upland slope of Aquarius Open Space. Both support a relatively natural distribution of native species, with non-natives in lower abundance.

Riparian and wetland vegetation occupies the Coal Creek and Dutch Creek corridors, as well as along anthropogenic ditches (not surveyed in detail). These areas support native species such as *Populus deltoides*, *Populus angustifolia*, *Fraxinus pennsylvanica*, *Acer negundo*, *Salix exigua*, *Prunus virginiana*, and *Symphoricarpos occidentalis*. However, heavy dominance of non-natives such as *Salix × fragilis* and *Elaeagnus angustifolia* indicates alteration by human activity. Consequently, these areas are mapped as Riparian and Wetland Vegetation rather than as natural USNVC associations.

Native grasses recorded at Davidson Mesa, including *Andropogon gerardii*, *Pascopyrum smithii*, *Hesperostipa comata*, and *Bouteloua curtipendula*, suggest the site may once have been representative of the globally vulnerable Southern Great Plains Mixedgrass Prairie (G133). However, due to non-native dominance and altered conditions, no natural USNVC associations can currently be applied.

## 3.4 Zoology

In addition to the observations made during the BioBlitz **(Table 8, Appendix E. Animal Species in Louisville, CO**), mammal and herpetofauna iNaturalist data was pulled on June 12 for the City of Louisville to better understand the full diversity and threats to Louisville's Open Space **(Table 7, Appendix E. Animal Species in Louisville, CO)**. Of these lists, three CNHP tracked species of concern were found *Cynomys ludovicianus, Lasionycteris noctivagans,* and *Lasiurus cinereus* **(Table 5, Appendix B. CNHP Tracked Species of Concern in Louisville, CO)**.

To see a comprehensive and evolving animal species list for Louisville, with location coordinates and number of observations, see the iNaturalist page here: Observations · iNaturalist.

## 3.5 Wetland Ecology, Bryology, and Mycology

### *Wetland Ecology*

For wetland ecology plant results, please also see **Table 1**, **Appendix C. Plant Species in Louisville, C**.

### *Bryology*

Three mosses were found, *Brachythecium erhthorrhizon and Amblystegium serpens*, and *Cratoneuron felicinum*.

### *Mycology*

For a list of moss and lichen species found in Louisville, CO, please see **(Table 10, Appendix F. Fungi Species in Louisville, CO)** as well as read the excerpt from Ed Ludbow below:

"On Monday afternoon, as part of the Louisville Biloblitz, Ikuko and I along with Nick and Jamie, found an extremely unusual mushroom in a cottonwood grove. Growing from wood, it had a blue stem and clear blue tints on the cap. Initially i guessed that it would be a Leptonia, a rare subgenus in Colorado of Entoloma - there are only three collections at DBG. On Thursday I made a quick microscope slide and took it into the herbarium and examined it. The spores from this collection are not what would be expected from a Leptonia, so I consulted with Roy Halling and he contacted an expert on that group to see what their thoughts might be. Their initial guess is that this may be an Entocybe, a recently described genus (2011) that has not yet been seen in Colorado, and, given some of the odd features, it has a reasonable chance of being an undescribed species."

To see a comprehensive and evolving fungi species list for Louisville, with location coordinates and number of observations, see the iNaturalist page here: Observations · iNaturalist.

# 4.0 References

Jennings, M.D., Faber-Langendoen, D., Loucks, O.L., Peet, R.K. and Roberts, D., 2009. Standards for associations and alliances of the US National Vegetation Classification. *Ecological Monographs*, *79*(2), pp.173-199.

Lee, M.T., Peet, R.K., Roberts, S.D., and Wentworth, T.R. 2008. CVS-EEP protocol for recording vegetation. Available from http://cvs.bio.unc.edu/protocol/cvs-eep-protocol-v4.2-lev1-5.pdf [accessed 2 January 2025].

Musgrave, Grant, Brenda Wichmann, and Nico Tate. 2025. Colorado Natural Heritage Program Field Survey.

Peet R.K., Wentworth T.R., and White P.S. 1998. A flexible, multipurpose method for recording vegetation composition and structure. Castanea, **63**(3): 262–274.

Sovell, John. 2025. Colorado Natural Heritage Program Field Survey

Subcommittee, V., 2008. National vegetation classification standard, version 2.

Wichmann, Brenda. 2025. Colorado Natural Heritage Program Field Survey.

# **Appendix A.** Protocol Guide for USNVC Methodology

To meet the U.S. National Vegetation Classification (USNVC) standards, specific data fields are required during field data collection. These data fields are outlined below and encompass vegetation characteristics, site information, and metadata.

**Vegetation Data**

*Species List and Taxon Cover*:

- A comprehensive list of all taxa observed in the plot, with cover class assignments, is presented in **Table 2**. Taxa are ordered by highest total cover class, then alphabetically.

*Stratum Information*:

- Herbaceous stratum: total cover = 83%; Predominant height = 1 m
- Tree and shrub strata: absent

**Site Information**

*Location*:

- Country/State/County: USA, Colorado, Boulder County
- Habitat: Rocky upland slope with grassland vegetation within urban open space.
- Geographic Location: Northwest-facing slope of Davidson Mesa, within the City of Louisville Open Space system, Boulder County, Colorado.
- Stand History: Past land use included farming on Davidson Mesa. However, it is likely that the northwest-facing slope where the plot was collected escaped plowing due to its slope and rocky surface. Current land use is recreation, and the property is managed by the City of Louisville as Open Space.

*Abiotic Factors*

- Elevation: 1,709 m (5,607 ft)
- Slope: 12°
- Aspect: 326° (NW)
- Topographic Position: hill
- Landform and Geology: Gravel-capped pediment surface of Davidson Mesa, underlain by Quaternary alluvial gravels over Cretaceous sedimentary bedrock of the Denver Basin.

*Soil and Water Features*

- Soil Drainage: well-drained (presumed, soil profile not obtained).
- Soil Texture: loamy surface with gravelly inclusions
- Hydrology: upland

*Site Conditions*

- Landscape Context: Rocky upland mesa at the transition between the Great Plains and the Front Range foothills; managed as Louisville Open Space for recreation, wildlife habitat, and conservation, within a wildland–urban interface.

- Land use: recreation
- Former land use: farming.
- Homogeneity of Vegetation: homogeneous stand
- Phenological Phase: typical growing season
- Stand Maturity / Successional Status: Late-successional grassland, considered mature, though altered by past land use and invasion by non-native species; best described as semi-natural grassland.
- Physiognomy: herbaceous
- Evidence of Disturbance: Presence of non-native, introduced species.

*Soil Surface Characteristics (% cover)*:

- Litter: 2%
- Rock (gravel/cobble): 4%
- Bare ground: 3%
- Coarse woody debris: 0%
- Fine woody debris: 2%
- Duff: 0%
- Bryophyte: 0%
- Water: 0%

*Soil Composition (%)*:

- Mineral soil: 96%
- Gravel/cobble: 4%
- Boulder: 0%
- Bedrock: 0%
- Histosol: 0%

**Geographic Data**

- Essential for accurately locating and referencing the plot.
- *Coordinates (WGS 84 / NAD83 datum)*:
- Latitude: 39.97791
- Longitude: –105.172
- UTM Zone: 13N
- Easting: 485297
- Northing: 4425338
- Location Accuracy: 9 m
- Field Coordinates: Original coordinates and datum used: 39.97791, –105.172, WGS 84
- Narrative Information: Plot is located on the mid-upper slope, below and north of the maintained gravel trail, and west-northwest of the foot trail that diagonally bisects the slope.

**Metadata**

*Project Information*:

- Plot Number: 200-01-01
- Project Name: Louisville Bioblitz
- Plot Area: 1,000 m² (0.1 ha)
- Sampling Level: 4
- Effort Level: very thorough
- Vascular Taxonomic Accuracy: high
- Bryophyte Taxonomic Accuracy: not sampled.
- Lichen Taxonomic Accuracy: not sampled.
- Taxonomic Standard: Ackerfield (2022)

*Sampling Methodology*:

- Peet R.K., Wentworth T.R., and White P.S. 1998. A flexible, multipurpose method for recording vegetation composition and structure. Castanea, **63**(3): 262–274. Plots were laid out following standard relevé plot dimensions (20 × 50 m).

*Floristic Data Gathering*:

- Very thorough; all vascular taxa observed were recorded.

*Cover Scale and Strata Types*:

- Species cover was estimated visually using cover classes described by Peet et al. (1998).

*Personnel*:

- Grant Musgrave, Nicholas Tate, Brenda L. Wichmann, Louisville Bioblitz volunteers

*Observation Date*:

- June 9, 2025

*Stand Selection*:

- Representative of vegetation found on NW-facing slope of Davison Mesa. Stand size 3–10× plot size.

*Homogeneity*:

- Plot placed in a homogeneous stand reflecting typical species co-occurrence under common environmental and historical conditions.

*Temporal Considerations*:

- Sampled during typical growing season; repeat visits may be needed to fully capture species composition

**Table 2.** Plot data including species list and taxon cover.
A comprehensive list of all taxa observed in the plot is presented. Taxa are ordered by highest total cover class, then alphabetically. *CTotal* = cover class for the entire plot; *C2, C3, C8, C9* = cover class by modules 2, 3, 8, and 9, respectively; *CR* = cover class for the residual module. Methodology follows Peet et al. (1998); see Peet et al. and Lee et al. (2008) for more information.

| CTotal | Taxon Name | C2 | C3 | C8 | C9 | CR | Native/Exotic |
|---|---|---|---|---|---|---|---|
| 6 | *Heterotheca villosa* | 5 | 5 | 7 | 6 | - | Native |
| 5 | *Agropyron cristatum* | - | 6 | - | 4 | - | Exotic |
| 5 | *Andropogon gerardii* | 6 | - | 2 | 6 | - | Native |
| 4 | *Hesperostipa comata* | 5 | 2 | 2 | 4 | - | Native |
| 3 | *Aristida purpurea* | 4 | 2 | - | 4 | - | Native |
| 3 | *Carex inops* | 4 | 2 | 2 | 4 | - | Native |
| 3 | *Erigeron canadensis* | - | 4 | 2 | - | - | Native |
| 3 | *Koeleria macrantha* | 3 | - | 2 | 4 | - | Native |
| 3 | *Yucca glauca* | 4 | 4 | 4 | 3 | - | Native |
| 2 | *Alyssum sp.* | 2 | - | - | - | - | Exotic |
| 2 | *Ambrosia psilostachya* | 2 | 2 | 2 | 2 | - | Native |
| 2 | *Antennaria sp.* | - | - | - | - | 2 | Native |
| 2 | *Argemone polyanthemos* | 2 | 2 | | 3 | - | Native |
| 2 | *Artemisia campestris* | - | - | - | - | 2 | Native |
| 2 | *Artemisia dracunculus* | 2 | - | - | 3 | - | Native |
| 2 | *Artemisia frigida* | | 2 | 1 | - | - | Native |
| 2 | *Artemisia ludoviciana* | - | - | - | - | 2 | Native |
| 2 | *Bouteloua curtipendula* | - | - | - | 3 | - | Native |
| 2 | *Bromus inermus* | 4 | - | - | - | - | Exotic |
| 2 | *Bromus tectorum* | - | - | 2 | 2 | - | Exotic |
| 2 | *Camelina alyssum* | 2 | - | - | - | - | Exotic |
| 2 | *Chenopodium album* | 2 | - | - | 2 | - | Exotic |
| 2 | *Chenopodium berlandieri* | 2 | 2 | 1 | 2 | - | Native |
| 2 | *Dalea purpurea* | 2 | - | - | 2 | - | Native |
| 2 | *Echinocereus viridiflorus* | 2 | 1 | 1 | 2 | - | Native |
| 2 | *Ellisia nyctelea* | 2 | 1 | 1 | - | - | Native |
| 2 | *Erigeron flagellaris* | 2 | 2 | 2 | 3 | - | Native |
| 2 | *Gutierrezia sarothrae* | - | - | - | - | 2 | Native |
| 2 | *Lactuca serriola* | 2 | 1 | 1 | 2 | - | Exotic |
| 2 | *Lappula occidentalis* | - | 2 | 2 | 2 | - | Native |

**Table 2.** Plot data including species list and taxon cover.
A comprehensive list of all taxa observed in the plot is presented. Taxa are ordered by highest total cover class, then alphabetically. *CTotal* = cover class for the entire plot; *C2, C3, C8, C9* = cover class by modules 2, 3, 8, and 9, respectively; *CR* = cover class for the residual module. Methodology follows Peet et al. (1998); see Peet et al. and Lee et al. (2008) for more information.

| CTotal | Taxon Name | C2 | C3 | C8 | C9 | CR | Native/Exotic |
|---|---|---|---|---|---|---|---|
| 2 | *Liatris punctata* | 4 | - | - | - | - | Native |
| 2 | *Lomatium orientale* | 2 | - | 1 | 2 | - | Native |
| 2 | *Mirabilis linearis* | - | - | 2 | 2 | - | Native |
| 2 | *Oenothera serrulata* | 2 | - | - | 3 | - | Native |
| 2 | *Oenothera suffrutescens* | 3 | 2 | - | - | - | Native |
| 2 | *Opuntia fragilis* | 2 | - | - | 2 | - | Native |
| 2 | *Opuntia macrorhiza* | 2 | 2 | 2 | 2 | - | Native |
| 2 | *Pascopyrum smithii* | - | - | 2 | - | - | Native |
| 2 | *Pediomelum tenuiflorum* | 2 | 2 | 2 | 2 | - | Native |
| 2 | *Physalis pumila* | - | - | - | - | 2 | Native |
| 2 | *Poa pratensis* | 3 | - | - | 3 | - | Exotic |
| 2 | *Rosa arkansana* | - | - | - | - | 2 | Native |
| 2 | *Silene antirrhina* | 2 | 2 | 2 | 2 | - | Native |
| 2 | *Sisymbrium altissimum* | - | - | - | 2 | - | Exotic |
| 2 | *Symphyotrichum sp.* | - | - | - | 2 | - | Native |
| 2 | *Thelesperma megapoticum* | 2 | 2 | 2 | 3 | - | Native |
| 2 | *Tradescantia occidentalis* | 2 | 2 | 2 | 3 | - | Native |
| 2 | *Tragopogon dubius* | 2 | 2 | 2 | 2 | - | Exotic |
| 2 | *Verbascum thapsus* | 2 | - | - | - | - | Exotic |
| 2 | *Viola nuttalianus* | 2 | - | 1 | 2 | - | Native |
| 1 | *Asclepias stenophylla* | 2 | - | - | - | - | Native |
| 1 | *Cirsium sp.* | - | 1 | 1 | - | - | Native |
| 1 | *Comandra umbellata* | 1 | - | - | - | - | Native |
| 1 | *Eriogonum effusum* | 2 | 2 | - | - | - | Native |
| 1 | *Festuca octoflora* | - | - | - | - | 1 | Native |
| 1 | *Mertensia lanceolata* | - | - | - | - | 1 | Native |
| 1 | *Penstemon sp.* | - | - | 1 | - | - | Native |
| 1 | *Plantago patagonica* | - | - | - | 1 | - | Native |
| 1 | *Taraxacum officinale* | - | 1 | - | - | - | Exotic |

# **Appendix B.** CNHP Tracked Species of Concern in Louisville, CO

**Table 3:** CNHP tracked plant species of concern found in Louisville, CO, including location coordinates and global and state rarity ranks.

| Scientific Name | Common Name | Location | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|
| *Allium schoenoprasum* | Chives | Not Public Information | G5 | S1 |
| *Ammannia robusta* | Grand Redstem | Not Public Information | G5 | S2 |
| *Asclepias stenophylla* | Narrow-leaved Milkweed | Not Public Information | G4G5 | S2 |
| *Cardamine breweri* | Brewer's Bittercress | Not Public Information | G5 | S1 |
| *Crataegus chrysocarpa* | Fireberry Hawthorn | Not Public Information | G5 | S2 |
| *Cyperus bipartitus* | Slender Flatsedge | Not Public Information | G5 | S2 |

### *Extra Plant Element Occurrence Record Data*

***Asclepias stenophylla***- Number of individuals: 1 (3 stems). Phenology: fruit. Reproductive success: three stems each with one fruit, additional peduncles on plant without fruit and appear to have aborted, damaged, or been eaten. No obvious signs of disease, predation, or injury. This occurrence supports one individual in one mapped area [Musgrave et al. 2025]. Location is Davidson Mesa, a popular recreation area, however, this individual is removed from trails on slope. Unlikely that it will face threats from recreation; however, it is likely to be threatened by cattle grazing or mowing [Musgrave et al. 2025] [Wichmann 2025]. Habitat is rocky grasslands, north-west facing slope. Dominant plant community: disturbed grassland; the northwest-facing slope of Davidson Mesa includes native and non-native, introduced plant taxa. Plot data documented 59 taxa, including 47 native to Colorado and 12 non-native species. Notable native grasses include *Andropogon gerardii* (big bluestem), *Hesperostipa comata* (needle-and-thread), *Koeleria maranta* (prairie junegrass), *Aristida purpurea* (purple threeawn), and *Bouteloua curtipendula*

(sideoats grama). Other characteristic species include *Yucca glauca* (small soapweed), *Heterotheca villosa* (hairy false goldenaster), *Gutierrezia sarothrae* (broom snakeweed), *Liatris punctata* (dotted blazing star), *Opuntia fragilis* (brittle pricklypear), and *Carex inops ssp. heliophila* (sun sedge). Aspect: 326 degrees. Slope: 12%. Slope shape: open. Moisture: dry. Geomorphic landform: slope of gravel-capped pediment surface [Wichmann 2025]. Somewhat disturbed Andropogon gerardii mixed grass prairie on slope between heavily weedy flat mesa and depressional wetland. Topographic position: midslope. Slope shape: straight. Light exposure: open. Geology: Laramie Formation and Fox Hills Sandstone. Geomorphic landform: mesa [Musgrave et al. 2025].

***Crataegus chrysocarpa-*** Number of individuals: 1-3. Reproductive success: immature fruit. Found along the riparian corridor of Coal Creek.

**Table 4:** CNHP tracked arthropod species of concern found in Louisville, CO, including location coordinates and global and state rarity ranks.

| Scientific Name | Common Name | Location | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|
| *Bombus occidentalis* | Western Bumble Bee | 39.97506, -105.16878 | G3 | S3S4 |
| *Sympetrum madidum* | Red-veined Meadowfly | 39.99010, -105.15940 | G5 | S2 |

**Table 5:** CNHP tracked animal species of concern found in Louisville, CO, including location coordinates and global and state rarity ranks.

| Scientific Name | Common Name | Location | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|
| *Cynomys ludovicianus* | Black-tailed Prairie Dog | 39.97598, -105.17205 | G4 | S3 |
| *Cynomys ludovicianus* | Black-tailed Prairie Dog | 39.9675, -105.1467 | G4 | S3 |
| *Cynomys ludovicianus* | Black-tailed Prairie Dog | 39.9762, -105.1214 | G4 | S3 |
| *Lasionycteris noctivagans* | Silver-haired Bat | 39.97756, -105.16245 (Location obscured 48m) | G5 | S4 |
| *Lasiurus cinereus* | Hoary Bat | 39.99741, -105.11659 | G5 | S4 |

| | | | | |
|---|---|---|---|---|
| | | (Location obscured 244m) | | |

### *Extra Animal Element Occurrence Record Data*

***Cynomys ludovicianus (Davidson Mesa Colony)-***Davidson Mesa: Number of individuals: 36. Ages: 25 adults, 11 juveniles. Only the individuals on Louisville Open Space property were counted. This colony includes more individuals in area off the open space that were not counted. The colony was large with what appeared to be high reproductivity. Reproductive evidence: yes, juveniles were observed. Evidence of disease, predation, or injury: no. [Sovell 2011]

***Cynomys ludovicianus (Daughenbaugh Colony)***-Number of individuals: 37. Ages: 27 adults, 10 juveniles. The colony was densely populated and seemed to have a high reproductive rate. Reproductive evidence: yes, juveniles were observed. Evidence of disease, predation or injury: no. The population of the colony was large and healthy. [Sovell 2025]

***Cynomys ludovicianus (Aquarius Colony)***-Number of individuals: 14. Ages: 12 adults, 2 juveniles. Only the individuals on Aquarius Open Space property were counted. This colony includes more individuals on Mayhoffer Open Space that were not counted. Reproductive evidence: yes, juveniles were observed. Evidence of disease, predation or injury: no. The population of the colony seemed small with few juveniles. [Sovell 2025]

# **Appendix C.** Plant Species in Louisville, CO

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Acer negundo* | Boxelder | | | | |
| *Acer saccharinum* | Silver Maple | | | | |
| *Acer tataricum* | Tatarian Maple | | | | |
| *Achillea filipendulina* | Fern-Leaf Yarrow | | | | |
| *Achillea millefolium* | Common Yarrow | | | | |
| *Aesculus hippocastanum* | Horse-Chestnut | | | | |
| *Agoseris glauca* | Pale Agoseris | | | | |
| *Agropyron cristatum* | Crested Wheatgrass | | | | |
| *Alcea rosea* | Hollyhock | | | | |
| *Alliaria petiolata* | Garlic Mustard | Watch List | | | |
| *Allium schoenoprasum* | Chives | | Tracked | G5 | S1 |
| *Allium textile* | Textile Onion | | | | |
| *Alyssum* | Alyssum | | | | |
| *Alyssum desertorum* | Desert Madwort | | | | |
| *Alyssum simplex* | Field Alison | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Ambrosia psilostachya* | Western Ragweed | | | | |
| *Ambrosia trifida* | Giant Ragweed | | | | |
| *Amelanchier alnifolia* | Saskatoon | | | | |
| *Ammannia robusta* | Grand Redstem | | Tracked | G5 | S2 |
| *Amorpha fruticosa* | False Indigo Bush | | | | |
| *Andropogon gerardi* | Big Bluestem | | | | |
| *Anemonoides blanda* | Greek Anemone | | | | |
| *Anemopsis californica* | Yerba Mansa | | | | |
| *Aphyllon fasciculatum* | Clustered Broomrape | | | | |
| *Apocynum cannabinum* | Hemp Dogbane | | | | |
| *Aquilegia coerulea* | Blue Columbine | | | | |
| *Arctium minus* | Common Burdock | List C | | | |
| *Argemone polyanthemos* | Thistle Poppy | | | | |
| *Aristida purpurea* | Purple Threeawn | | | | |
| *Artemisia dracunculus* | Tarragon | | | | |
| *Artemisia frigida* | Fringed Sagebrush | | | | |
| *Artemisia ludoviciana* | Silver Wormwood | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Artemisia tridentata* | Big Sagebrush | | | | |
| *Asclepias incarnata* | Swamp Milkweed | | | | |
| *Asclepias pumila* | Plains Milkweed | | | | |
| *Asclepias speciosa* | Showy Milkweed | | | | |
| *Asclepias stenophylla* | Narrow-leaved Milkweed | | Tracked | G4G5 | S2 |
| *Asclepias tuberosa* | Butterfly Milkweed | | | | |
| *Asclepias viridiflora* | Green Comet Milkweed | | | | |
| *Asparagus officinalis* | Wild Asparagus | | | | |
| *Asperugo procumbens* | Madwort | | | | |
| *Astragalus agrestis* | Field Milkvetch | | | | |
| *Astragalus canadensis* | Canadian Milkvetch | | | | |
| *Astragalus cicer* | Chickpea Milkvetch | | | | |
| *Astragalus crassicarpus* | Ground-Plum | | | | |
| *Astragalus drummondii* | Drummond'S Milkvetch | | | | |
| *Astragalus flexuosus* | Flexible Milkvetch | | | | |
| *Astragalus shortianus* | Early Purple Milkvetch | | | | |
| *Astragalus tridactylicus* | Foothill Milkvetch | | | | |
| *Atriplex canescens* | Fourwing Saltbush | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Barbarea vulgaris* | Garden Yellowrocket | | | | |
| *Bassia scoparia* | Summer-Cypress | | | | |
| *Berberis aquifolium* | Oregon Grape | | | | |
| *Berberis repens* | Creeping Mahonia | | | | |
| *Berteroa incana* | Hoary Alyssum | Watch List | | | |
| *Borago officinalis* | Borage | | | | |
| *Bouteloua curtipendula* | Sideoats Grama | | | | |
| *Bouteloua dactyloides* | Buffalograss | | | | |
| *Bouteloua gracilis* | Blue Grama | | | | |
| *Brickellia suaveolens* | Great Plains False Boneset | | | | |
| *Bromus inermis* | Smooth Brome | | | | |
| *Bromus japonicus* | Japanese Brome | | | | |
| *Bromus tectorum* | Cheatgrass | List C | | | |
| *Buglossoides arvensis* | Corn Gromwell | | | | |
| *Callirhoe involucrata* | Winecup Mallow | | | | |
| *Camelina microcarpa* | Littlepod False Flax | | | | |
| *Campanula glomerata* | Clustered Bellflower | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Campanula petiolata* | Western Harebell | | | | |
| *Campanula rapunculoides* | Creeping Bellflower | | | | |
| *Campsis radicans* | American Trumpet Vine | | | | |
| *Capsella bursa-pastoris* | Shepherd's-Purse | | | | |
| *Caragana arborescens* | Siberian Peashrub | | | | |
| *Cardamine breweri* | Brewer's Bittercress | | Tracked | G5 | S2 |
| *Carduus nutans* | Musk Thistle | List B | | | |
| *Carex brevior* | Shortbeak Sedge | | | | |
| *Castilleja miniata* | Giant Red Indian Paintbrush | | | | |
| *Castilleja sessiliflora* | Downy Paintbrush | | | | |
| *Catalpa speciosa* | Northern Catalpa | | | | |
| *Centaurea cyanus* | Cornflower | | | | |
| *Centaurea diffusa* | Diffuse Knapweed | List B | | | |
| *Centaurea stoebe* | Spotted Knapweed | List B | | | |
| *Cerastium arvense* | Field Chickweed | | | | |
| *Ceratocephala testiculata* | Curveseed Butterwort | | | | |
| *Cercocarpus montanus* | Alderleaf Mountain Mahogany | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Chamaebatiaria millefolium* | Fernbush | | | | |
| *Chamaenerion angustifolium* | Fireweed | | | | |
| *Chenopodiastrum simplex* | American Maple-Leaved Goosefoot | | | | |
| *Chenopodium album* | Common Lambsquarters | | | | |
| *Chorispora tenella* | Crossflower | | | | |
| *Cichorium intybus* | Chicory | List C | | | |
| *Cirsium arvense* | Creeping Thistle | List B | | | |
| *Cirsium ochrocentrum* | Yellowspine Thistle | | | | |
| *Cirsium undulatum* | Wavyleaf Thistle | | | | |
| *Cirsium vulgare* | Bull Thistle | List B | | | |
| *Claytonia rosea* | Madrean Springbeauty | | | | |
| *Cleomella serrulata* | Rocky Mountain Beeplant | | | | |
| *Coeloxylosteum* | Eurasian Bush Honeysuckles | | | | |
| *Collomia linearis* | Narrow-Leaf Mountain Trumpet | | | | |
| *Comandra umbellata* | Bastard Toadflax | | | | |
| *Conium maculatum* | Poison Hemlock | List C | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Convallaria majalis* | European Lily Of The Valley | | | | |
| *Convolvulus arvensis* | Field Bindweed | List C | | | |
| *Coreopsis tinctoria* | Plains Coreopsis | | | | |
| *Coreopsis verticillata* | Whorled Coreopsis | | | | |
| *Cornus sericea* | Red Osier Dogwood | | | | |
| *Cosmos bipinnatus* | Garden Cosmos | | | | |
| *Cota tinctoria* | Golden Marguerite | | | | |
| *Cotinus coggygria* | Smokebush | | | | |
| *Cotinus obovatus* | American Smoketree | | | | |
| *Crataegus chrysocarpa* | Fireberry Hawthorn | | Tracked | G5 | S2 |
| *Crataegus douglasii* | Black Hawthorn | | | | |
| *Crataegus marshallii* | Parsley Hawthorn | | | | |
| *Crocosmia masoniorum crocosmia paniculata* | Giant Zigzag Montbretia | | | | |
| *Cucurbita moschata* | Squash | | | | |
| *Cylindropuntia imbricata* | Tree Cholla | | | | |
| *Cynoglossum officinale* | Hound's-Tongue | List B | | | |
| *Cyperus bipartitus* | Slender Flatsedge | | Tracked | G5 | S2 |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Cyperus squarrosus* | Bearded Flatsedge | | | | |
| *Dactylis glomerata* | Orchard Grass | | | | |
| *Dalea candida* | White Prairie Clover | | | | |
| *Dalea purpurea* | Purple Prairie Clover | | | | |
| *Dasiphora fruticosa* | Shrubby Cinquefoil | | | | |
| *Datura wrightii* | Sacred Datura | | | | |
| *Daucus carota* | Queen Anne'S Lace | | | | |
| *Delphinium carolinianum* | Wild Blue Larkspur | | | | |
| *Delphinium carolinianum virescens* | Prairie Larkspur | | | | |
| *Delphinium geyeri* | Plains Larkspur | | | | |
| *Delphinium nuttallianum* | Upland Larkspur | | | | |
| *Descurainia sophia* | Flixweed | | | | |
| *Dianthus armeria* | Deptford Pink | | | | |
| *Dipsacus fullonum* | Common Teasel | List B | | | |
| *Dipsacus laciniatus* | Cutleaf Teasel | List B | | | |
| *Draba verna* | Common Whitlowgrass | | | | |
| *Dyssodia papposa* | Fetid Marigold | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Echinocereus viridiflorus* | Green-Flower Hedgehog Cactus | | | | |
| *Echinocereus viridiflorus viridiflorus* | Green-Flower Hedgehog Cactus | | | | |
| *Echinochloa crus-galli* | Barnyardgrass | | | | |
| *Elaeagnus angustifolia* | Russian Olive | List B | | | |
| *Ellisia nyctelea* | Aunt Lucy | | | | |
| *Elymus elymoides* | Squirreltail | | | | |
| *Elymus smithii* | Western Wheatgrass | | | | |
| *Epilobium ciliatum* | Fringed Willowherb | | | | |
| *Epilobium hirsutum* | Great Willowherb | | | | |
| *Equisetum laevigatum* | Smooth Horsetail | | | | |
| *Eragrostis cilianensis* | Stinkgrass | | | | |
| *Eragrostis minor* | Little Lovegrass | | | | |
| *Eremogone fendleri* | Fendler'S Sandwort | | | | |
| *Ericameria nauseosa* | Rubber Rabbitbrush | | | | |
| *Erigeron canadensis* | Horseweed | | | | |
| *Erigeron divergens* | Spreading Fleabane | | | | |
| *Eriocoma hymenoides* | Sand Ricegrass | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Eriogonum alatum* | Winged Buckwheat | | | | |
| *Eriogonum effusum* | Spreading Buckwheat | | | | |
| *Erodium cicutarium* | Redstem Stork's-Bill | List C | | | |
| *Erysimum asperum* | Prairie-Rocket Wallflower | | | | |
| *Erysimum capitatum* | Western Wallflower | | | | |
| *Eschscholzia californica* | California Poppy | | | | |
| *Escobaria missouriensis* | Missouri Foxtail Cactus | | | | |
| *Euphorbia brachycera* | Horned Spurge | | | | |
| *Euphorbia davidii* | David'S Spurge | | | | |
| *Euphorbia esula* | Leafy Spurge | List B | | | |
| *Euphorbia maculata* | Spotted Spurge | | | | |
| *Euphorbia marginata* | Snow-On-The-Mountain | | | | |
| *Euphorbia myrsinites* | Myrtle Spurge | List A | | | |
| *Euphorbia prostrata* | Prostrate Sandmat | | | | |
| *Euphorbia serpens* | Matted Sandmat | | | | |
| *Euphorbia serpillifolia* | Thymeleaf Sandmat | | | | |
| *Euphorbia virgata* | Slender Leafy Spurge | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Euphrosyne xanthiifolia* | Marshelder | | | | |
| *Euthamia occidentalis* | Western Goldenrod | | | | |
| *Evolvulus nuttallianus* | Shaggy Dwarf Morning-Glory | | | | |
| *Fallugia paradoxa* | Apache Plume | | | | |
| *Frasera speciosa* | Monument Plant | | | | |
| *Fraxinus pennsylvanica* | Green Ash | | | | |
| *Fumaria vaillantii* | Few-Flowered Fumitory | | | | |
| *Gaillardia grandiflora* | Hybrid Blanketflower | | | | |
| *Gaillardia aristata* | Great Blanketflower | | | | |
| *Gaillardia pulchella* | Firewheel | | | | |
| *Galium aparine* | Catchweed Bedstraw | | | | |
| *Gentiana affinis* | Pleated Gentian | | | | |
| *Geranium caespitosum* | Pinewoods Geranium | | | | |
| *Geum aleppicum* | Yellow Avens | | | | |
| *Gilia clokeyi* | Clokey'S Gilia | | | | |
| *Glandularia bipinnatifida* | Dakota Mock Vervain | | | | |
| *Glycyrrhiza lepidota* | Wild Licorice | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Grimmia pulvinata* | Grey-Cushioned Grimmia | | | | |
| *Grindelia squarrosa* | Curlycup Gumweed | | | | |
| *Grindelia subalpina* | Subalpine Gumweed | | | | |
| *Gutierrezia sarothrae* | Broom Snakeweed | | | | |
| *Gymnocladus dioicus* | Kentucky Coffeetree | | | | |
| *Halerpestes cymbalaria* | Alkali Buttercup | | | | |
| *Helianthus annuus* | Common Sunflower | | | | |
| *Helianthus pumilus* | Little Sunflower | | | | |
| *Heliomeris multiflora* | Showy Goldeneye | | | | |
| *Hesperis matronalis* | Dame's Rocket | List B | | | |
| *Hesperostipa comata* | Needle-And-Thread Grass | | | | |
| *Heterotheca villosa* | Hairy False Goldenaster | | | | |
| *Hibiscus trionum* | Flower-Of-An-Hour | | | | |
| *Hordeum jubatum* | Foxtail Barley | | | | |
| *Humulus neomexicanus* | Western Hops | | | | |
| *Hylotelephium mottramianum* | Autumn Joy | | | | |
| *Hypericum perforatum* | Common St. John's Wort | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Iris germanica* | Bearded Iris | | | | |
| *Iris pallida* | Sweet Iris | | | | |
| *Iris pseudacorus* | Yellow Flag Iris | List A | | | |
| *Juglans nigra* | Eastern Black Walnut | | | | |
| *Juncus balticus* | Baltic Rush | | | | |
| *Juncus compressus* | Flattened Rush | | | | |
| *Juncus torreyi* | Torrey's Rush | | | | |
| *Juniperus communis* | Common Juniper | | | | |
| *Juniperus scopulorum* | Rocky Mountain Juniper | | | | |
| *Koeleria macrantha* | Prairie Junegrass | | | | |
| *Koelreuteria paniculata* | Golden Rain Tree | | | | |
| *Krascheninnikovia lanata* | Winterfat | | | | |
| *Lactuca pulchella* | Common Blue Lettuce | | | | |
| *Lactuca serriola* | Prickly Lettuce | | | | |
| *Lamium amplexicaule* | Henbit Deadnettle | | | | |
| *Lamium galeobdolon argentatum* | Variegated Yellow Archangel | | | | |
| *Lappula occidentalis* | Flatspine Stickseed | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Lathyrus latifolius* | Broad-Leaved Sweet Pea | | | | |
| *Lemna minor* | Common Duckweed | | | | |
| *Leonurus cardiaca* | Common Motherwort | | | | |
| *Lepidium latifolium* | Pepperweeds | | | | |
| *Lepidium campestre* | Field Peppergrass | | | | |
| *Lepidium chalepense* | Lens-Podded Hoary Cress | | | | |
| *Lepidium draba* | Hoary Cress | List B | | | |
| *Lepidium latifolium* | Broadleaved Pepperweed | | | | |
| *Lepidium perfoliatum* | Clasping Pepperweed | | | | |
| *Leucanthemum vulgare* | Oxeye Daisy | List B | | | |
| *Leucocrinum montanum* | Common Starlily | | | | |
| *Liatris punctata* | Dotted Gayfeather | | | | |
| *Ligustrum vulgare* | Common Privet | | | | |
| *Linaria dalmatica* | Dalmatian Toadflax | List B | | | |
| *Linaria maroccana* | Annual Toadflax | | | | |
| *Linaria vulgaris* | Yellow Toadflax | List B | | | |
| *Linum lewisii* | Lewis Flax | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Linum perenne* | Perennial Flax | | | | |
| *Linum pratense* | Meadow Flax | | | | |
| *Lithospermum incisum* | Narrowleaf Puccoon | | | | |
| *Lithospermum multiflorum* | Manyflowered Gromwell | | | | |
| *Lithospermum occidentale* | Western False Gromwell | | | | |
| *Lolium perenne* | Perennial Ryegrass | | | | |
| *Lomatium orientale* | Oriental Desert-Parsley | | | | |
| *Lonicera tatarica* | Tatarian Honeysuckle | | | | |
| *Lotus corniculatus* | Bird'S-Foot Trefoil | | | | |
| *Lotus tenuis* | Narrow-Leaf Bird'S-Foot Trefoil | | | | |
| *Lunaria annua* | Annual Honesty | | | | |
| *Lupinus argenteus* | Silvery Lupine | | | | |
| *Lycium barbarum* | Matrimony Vine | | | | |
| *Lycopus americanus* | American Bugleweed | | | | |
| *Lygodesmia juncea* | Rush Skeletonplant | | | | |
| *Lysimachia ciliata* | Fringed Loosestrife | | | | |
| *Lythrum salicaria* | Purple Loosestrife | List A | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Machaeranthera tanacetifolia* | Tahoka Daisy | | | | |
| *Maianthemum racemosum amplexicaule* | Western Solomon'S Plume | | | | |
| *Maianthemum stellatum* | Star-Flowered Lily-Of-The-Valley | | | | |
| *Malus domestica* | Apple | | | | |
| *Malva neglecta* | Dwarf Mallow | | | | |
| *Marrubium vulgare* | White Horehound | | | | |
| *Matricaria discoidea* | Pineapple-Weed | | | | |
| *Medicago lupulina* | Black Medick | | | | |
| *Medicago sativa* | Alfalfa | | | | |
| *Melilotus albus* | White Sweetclover | | | | |
| *Melilotus officinalis* | Yellow Sweetclover | | | | |
| *Melissa officinalis* | Lemon Balm | | | | |
| *Mertensia lanceolata* | Prairie Bluebells | | | | |
| *Mirabilis jalapa* | Marvel Of Peru | | | | |
| *Mirabilis linearis* | Narrowleaf Four O'Clock | | | | |
| *Mirabilis nyctaginea* | Wild Four O'Clock | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Monarda fistulosa* | Wild Bergamot | | | | |
| *Monarda pectinata* | Plains Beebalm | | | | |
| *Muscari armeniacum* | Garden Grape-Hyacinth | | | | |
| *Musineon divaricatum* | Leafy Wildparsley | | | | |
| *Nassella viridula* | Green Needlegrass | | | | |
| *Nasturtium officinale* | Watercress | | | | |
| *Nepeta cataria* | Catnip | | | | |
| *Nepeta racemosa* | Eastern Cat-Mint | | | | |
| *Nothocalais cuspidata* | Prairie False Dandelion | | | | |
| *Nuttallanthus texanus* | Texas Toadflax | | | | |
| *Nymphaea odorata* | American White Waterlily | | | | |
| *Oenothera albicaulis* | White-Stem Evening Primrose | | | | |
| *Oenothera cespitosa* | Fragrant Evening Primrose | | | | |
| *Oenothera curtiflora* | Velvetweed | | | | |
| *Oenothera gaura* | Biennial Beeblossom | | | | |
| *Oenothera howardii* | Howard's Evening Primrose | | | | |
| *Oenothera macrocarpa* | Bigfruit Evening Primrose | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Oenothera nuttallii* | White-Stemmed Evening-Primrose | | | | |
| *Oenothera serrulata* | Yellow Sundrops | | | | |
| *Oenothera suffrutescens* | Scarlet Beeblossom | | | | |
| *Oenothera villosa* | Hairy Evening Primrose | | | | |
| *Onobrychis viciifolia* | Sainfoin | | | | |
| *Onopordum acanthium* | Scotch Thistle | List B | | | |
| *Opuntia cymochila* | Grassland Pricklypear | | | | |
| *Opuntia fragilis* | Brittle Pricklypear | | | | |
| *Opuntia macrorhiza* | Prairie Pricklypear | | | | |
| *Opuntia polyacantha* | Plains Pricklypear | | | | |
| *Oxalis corniculata* | Creeping Woodsorrel | | | | |
| *Oxalis dillenii* | Slender Yellow Woodsorrel | | | | |
| *Oxybasis glauca* | Oak-Leaved Goosefoot | | | | |
| *Oxytropis lambertii* | Lambert'S Locoweed | | | | |
| *Packera plattensis* | Prairie Groundsel | | | | |
| *Panicum capillare* | Witch Grass | | | | |
| *Panicum virgatum* | Switchgrass | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Papaver orientale* | Oriental Poppy | | | | |
| *Papaver rhoeas* | Common Poppy | | | | |
| *Parthenocissus quinquefolia* | Virginia Creeper | | | | |
| *Pediocactus simpsonii* | Mountain Ball Cactus | | | | |
| *Pediomelum tenuiflorum* | Slimflower Scurfpea | | | | |
| *Penstemon angustifolius* | Broadbeard Beardtongue | | | | |
| *Penstemon grandiflorus* | Large-Flowered Beardtongue | | | | |
| *Penstemon secundiflorus* | Sidebells Penstemon | | | | |
| *Penstemon strictus* | Rocky Mountain Beardtongue | | | | |
| *Penstemon virgatus* | Upright Blue Beardtongue | | | | |
| *Penstemon virgatus asa-grayi* | Gray's Beardtongue | | | | |
| *Persicaria amphibia* | Water Smartweed | | | | |
| *Persicaria maculosa* | Lady'S Thumb | | | | |
| *Phalaris arundinacea* | Reed Canary Grass | | | | |
| *Phemeranthus confertiflorus* | Rocky Mountain Fameflower | | | | |
| *Phlox multiflora* | Flowery Phlox | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Phyla cuneifolia* | Wedgeleaf Frogfruit | | | | |
| *Physalis longifolia* | Long-Leaved Groundcherry | | | | |
| *Physaria montana* | Mountain Bladderpod | | | | |
| *Picea pungens* | Blue Spruce | | | | |
| *Pilosella aurantiaca* | Orange Hawkweed | List A | | | |
| *Pinus contorta* | Lodgepole Pine | | | | |
| *Pinus edulis* | Colorado Pinyon | | | | |
| *Pinus scopulorum* | Rocky Mountains Ponderosa Pine | | | | |
| *Plantago lanceolata* | Ribwort Plantain | | | | |
| *Plantago major* | Greater Plantain | | | | |
| *Plantago major major* | Common Plantain | | | | |
| *Plantago patagonica* | Woolly Plantain | | | | |
| *Poa bulbosa* | Bulbous Bluegrass | | | | |
| *Poa compressa* | Canada Bluegrass | | | | |
| *Polygonum aviculare* | Prostrate Knotweed | | | | |
| *Populus acuminata* | Lanceleaf Cottonwood | | | | |
| *Populus alba* | White Poplar | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Populus deltoides* | Eastern Cottonwood | | | | |
| *Populus deltoides monilifera* | Plains Cottonwood | | | | |
| *Populus tremuloides* | Quaking Aspen | | | | |
| *Portulaca oleracea* | Common Purslane | | | | |
| *Potamogeton nodosus* | Longleaf Pondweed | | | | |
| *Potentilla indica* | Mock Strawberry | | | | |
| *Potentilla recta* | Sulphur Cinquefoil | List B | | | |
| *Prunella vulgaris* | Common Selfheal | | | | |
| *Prunus americana* | American Plum | | | | |
| *Prunus padus* | Bird Cherry | | | | |
| *Prunus tomentosa* | Nanking Cherry | | | | |
| *Prunus virginiana* | Chokecherry | | | | |
| *Pseudotsuga menziesii* | Douglas Fir | | | | |
| *Quincula lobata* | Purple Groundcherry | | | | |
| *Ranunculus aquatilis* | Common Water-Crowfoot | | | | |
| *Ranunculus sceleratus* | Cursed Crowfoot | | | | |
| *Ratibida columnifera* | Upright Prairie Coneflower | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Ratibida pinnata* | Grey-Headed Coneflower | | | | |
| *Rayjacksonia annua* | Viscid Camphor-Daisy | | | | |
| *Rhamnus cathartica* | Common Buckthorn | | | | |
| *Rhaponticum repens* | Russian Knapweed | List B | | | |
| *Rhus* | Sumacs | | | | |
| *Rhus aromatica* | Fragrant Sumac | | | | |
| *Rhus glabra* | Smooth Sumac | | | | |
| *Rhus trilobata* | Skunkbush Sumac | | | | |
| *Rhus typhina* | Staghorn Sumac | | | | |
| *Ribes alpinum* | Mountain Currant | | | | |
| *Ribes aureum* | Golden Currant | | | | |
| *Ribes cereum* | Wax Currant | | | | |
| *Robinia pseudoacacia* | Black Locust | | | | |
| *Rosa arkansana* | Prairie Rose | | | | |
| *Rosa woodsii* | Woods' Rose | | | | |
| *Rubus deliciosus* | Rocky Mountain Raspberry | | | | |
| *Rubus idaeus* | Red Raspberry | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Rudbeckia hirta* | Black-Eyed Susan | | | | |
| *Rumex* | Docks And Sorrels | | | | |
| *Rumex crispus* | Curly Dock | | | | |
| *Rumex fueginus* | Golden Dock | | | | |
| *Rumex venosus* | Winged Dock | | | | |
| *Sagittaria* | Common Arrowheads | | | | |
| *Sagittaria latifolia* | Broadleaf Arrowhead | | | | |
| *Sagittaria sagittifolia* | Sagittifolia Group | | | | |
| *Salix amygdaloides* | Peachleaf Willow | | | | |
| *Salix exigua* | Narrowleaf Willow | | | | |
| *Salix exigua exigua* | Narrow-Leaved Willow | | | | |
| *Salsola tragus* | Russian Thistle | | | | |
| *Salvia floriferior* | Russian Sage | | | | |
| *Salvia pratensis* | Meadow Sage | | | | |
| *Salvia reflexa* | Mintweed | | | | |
| *Sambucus canadensis* | American Black Elderberry | | | | |
| *Sambucus nigra* | European Black Elderberry | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Saponaria ocymoides* | Rock Soapwort | | | | |
| *Saponaria officinalis* | Common Soapwort | | | | |
| *Scabiosa columbaria* | Small Scabious | | | | |
| *Schizachyrium scoparium* | Little Bluestem | | | | |
| *Schoenoplectus pungens* | Three-Square Bulrush | | | | |
| *Schoenoplectus tabernaemontani* | Soft-Stemmed Bulrush | | | | |
| *Scilla luciliae* | Boissier'S Glory-Of-The-Snow | | | | |
| *Scorzonera laciniata* | Mediterranean Serpent-Root | | | | |
| *Scutellaria brittonii* | Britton'S Skullcap | | | | |
| *Securigera varia* | Purple Crownvetch | | | | |
| *Sedum lanceolatum* | Lanceleaf Stonecrop | | | | |
| *Senecio integerrimus* | Tall Western Groundsel | | | | |
| *Senecio spartioides* | Broom-Like Ragwort | | | | |
| *Senecio vulgaris* | Common Groundsel | | | | |
| *Setaria pumila* | Yellow Foxtail | | | | |
| *Setaria viridis* | Green Bristle Grass | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Shepherdia argentea* | Silver Buffaloberry | | | | |
| *Silene antirrhina* | Sleepy Catchfly | | | | |
| *Silene drummondii* | Drummond'S Campion | | | | |
| *Silene latifolia* | White Campion | | | | |
| *Sisymbrium altissimum* | Tall Tumblemustard | | | | |
| *Solanum nigrum* | Black Nightshade | | | | |
| *Solanum rostratum* | Buffalo-Bur | | | | |
| *Solanum triflorum* | Cutleaf Nightshade | | | | |
| *Solidago missouriensis* | Missouri Goldenrod | | | | |
| *Solidago rigida* | Stiff-Leaved Goldenrod | | | | |
| *Sonchus oleraceus* | Common Sow-Thistle | | | | |
| *Sophora nuttalliana* | Silky Sophora | | | | |
| *Sphaeralcea coccinea* | Scarlet Globemallow | | | | |
| *Stachys byzantina* | Woolly Hedgenettle | | | | |
| *Stigeoclonium* | | | | | |
| *Symphoricarpos occidentalis* | Western Snowberry | | | | |
| *Symphyotrichum ciliatum* | Rayless Annual Aster | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Symphyotrichum ericoides* | White Heath Aster | | | | |
| *Symphyotrichum lanceolatum* | Panicled Aster | | | | |
| *Symphytum officinale* | Common Comfrey | | | | |
| *Syringa vulgaris* | Common Lilac | | | | |
| *Tamarix ramosissima* | Saltcedar | List B | | | |
| *Tanacetum parthenium* | Feverfew | | | | |
| *Taraxacum officinale* | Common Dandelion | | | | |
| *Thelesperma megapotamicum* | Rayless Greenthread | | | | |
| *Thermopsis rhombifolia* | Golden Bean | | | | |
| *Thinopyrum intermedium* | Intermediate Wheatgrass | | | | |
| *Thlaspi arvense* | Field Penny-Cress | | | | |
| *Toxicodendron rydbergii* | Western Poison Ivy | | | | |
| *Tradescantia occidentalis* | Western Spiderwort | | | | |
| *Tragopogon dubius* | Yellow Salsify | | | | |
| *Tragopogon porrifolius* | Purple Salsify | | | | |
| *Tribulus terrestris* | Puncture Vine | List C | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Trifolium fragiferum* | Strawberry Clover | | | | |
| *Trifolium hybridum* | Alsike Clover | | | | |
| *Trifolium pratense* | Red Clover | | | | |
| *Trifolium repens* | White Clover | | | | |
| *Tripleurospermum inodorum* | Scentless Mayweed | | | | |
| *Triticum aestivum* | Bread Wheat | | | | |
| *Typha* | Cattails | | | | |
| *Typha angustifolia* | Narrow-Leaved Cattail | | | | |
| *Typha latifolia* | Broad-Leaved Cattail | | | | |
| *Ulmus americana* | American Elm | | | | |
| *Ulmus pumila* | Siberian Elm | List C | | | |
| *Verbascum blattaria* | Moth Mullein | List B | | | |
| *Verbascum thapsus* | Common Mullein | List C | | | |
| *Verbena bracteata* | Bigbract Verbena | | | | |
| *Verbena hastata* | Blue Vervain | | | | |
| *Verbesina encelioides* | Cowpen Daisy | | | | |
| *Veronica anagallis-aquatica* | Blue Water-Speedwell | | | | |

**Table 6:** Plant species observed in Louisville, Colorado and their noxious weed status, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | CO Noxious Weed Status | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Veronica persica* | Bird'S-Eye Speedwell | | | | |
| *Viburnum lantana* | Wayfaring-Tree | | | | |
| *Viburnum opulus* | Guelder-Rose | | | | |
| *Vicia americana* | American Vetch | | | | |
| *Vinca major* | Greater Periwinkle | | | | |
| *Vinca minor* | Lesser Periwinkle | | | | |
| *Viola canadensis* | Canada Violet | | | | |
| *Viola nuttallii* | Nuttall's Violet | | | | |
| *Vitis vinifera* | Wine Grape | | | | |
| *Xanthisma spinulosum* | Spiny Goldenweed | | | | |
| *Xanthium strumarium* | Rough Cocklebur | | | | |
| *Yucca glauca* | Great Plains Yucca | | | | |
| *Zinnia elegans* | Elegant Zinnia | | | | |

# **Appendix D**. Arthropod Species in Louisville, CO

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Acanalonia bivittata* | Two-striped Planthopper | Insecta | | | |
| *Aciurina bigeloviae* | Cotton-gall Tephritid | Insecta | | | |
| *Aciurina trixa* | Bubble-gall tephritid | Insecta | | | |
| *Acrolophitus hirtipes* | Green Fool Grasshopper | Insecta | | | |
| *Acronicta americana* | American Dagger | Insecta | | | |
| *Adalia bipunctata* | Two-spotted Lady Beetle | Insecta | | | |
| *Adelphocoris lineolatus* | Alfalfa Plant Bug | Insecta | | | |
| *Aedes nigromaculis* | Pasture Mosquito | Insecta | | | |
| *Aedes vexans* | Inland Floodwater Mosquito | Insecta | | | |
| *Aelia americana* | Cereal Bug | Insecta | | | |
| *Aeshna palmata* | Paddle-tailed Darner | Insecta | | | |
| *Agelenopsis* | Grass Spiders | Arachnida | | | |
| *Ageneotettix deorum* | White-whiskered grasshopper | Insecta | | | |
| *Aglais milberti* | Milbert's Tortoiseshell | Insecta | | | |
| *Agonopterix alstroemeriana* | Poison hemlock moth | Insecta | | | |
| *Agroiconota bivittata* | Two-banded Tortoise Beetle | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Agrotis venerabilis* | Venerable Dart | Insecta | | | |
| *Allonemobius allardi* | Allard's Ground Cricket | Insecta | | | |
| *Amara aenea* | Common Sun Beetle | Insecta | | | |
| *Amphion floridensis* | Nessus Sphinx | Insecta | | | |
| *Amydria obliquella* | Acrolophid Moth | Insecta | | | |
| *Anagrapha falcifera* | Celery Looper Moth | Insecta | | | |
| *Anasa tristis* | Squash Bug | Insecta | | | |
| *Anatis labiculata* | Fifteen-spotted Lady Beetle | Insecta | | | |
| *Anatis lecontei* | LeConte's Giant Lady Beetle | Insecta | | | |
| *Anatrytone logan* | Delaware Skipper | Insecta | | | |
| *Anavitrinella pampinaria* | Common Gray | Insecta | | | |
| *Anax junius* | Common Green Darner | Insecta | | | |
| *Andrena sp.* | Mining Bees | Insecta | | | |
| *Andrena milwaukeensis* | Milwaukee Mining Bee | Insecta | | | |
| *Antheraea polyphemus* | Polyphemus Moth | Insecta | | | |
| *Anthidium manicatum* | European Woolcarder Bee | Insecta | | | |
| *Anthophora urbana* | Urbane Digger Bee | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Anthrenus sp.* | Carpet Beetles | Insecta | | | |
| *Antistrophus pisum* | Rush Skeletonplant Pea Gall Wasp | Insecta | | | |
| *Apamea amputatrix* | Yellow-headed Cutworm Moth | Insecta | | | |
| *Apamea devastator* | Glassy Cutworm Moth | Insecta | | | |
| *Aphis nerii* | Oleander Aphid | Insecta | | | |
| *Apiomerus montanus* | Mountain Bee Assassin | Insecta | | | |
| *Apiomerus spissipes* | Plains Bee Assassin | Insecta | | | |
| *Apis mellifera* | Western Honey Bee | Insecta | | | |
| *Aquarius remigis* | North American Common Water Strider | Insecta | | | |
| *Aradus quadrilineatus* | Fungus Bug | Insecta | | | |
| *Araneus gemmoides* | Cat-faced Orbweaver | Arachnida | | | |
| *Archilestes grandis* | Great Spreadwing | Insecta | | | |
| *Argia alberta* | Paiute Dancer | Insecta | | | |
| *Argia vivida* | Vivid Dancer | Insecta | | | |
| *Argynnis aphrodite* | Aphrodite Fritillary | Insecta | | | |
| *Argynnis edwardsii* | Edwards's Fritillary | Insecta | | | |
| *Argynnis mormonia* | Mormon Fritillary | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Armadillidium vulgare* | Common Pill Woodlouse | Crustacea | | | |
| *Arphia conspersa* | Speckle-winged Rangeland Grasshopper | Insecta | | | |
| *Ascalapha odorata* | Black Witch | Insecta | | | |
| *Asteromyia carbonifera* | Carbonifera goldenrod gall midge | Insecta | | | |
| *Athysanus argentarius* | Silver Leafhopper | Insecta | | | |
| *Attulus fasciger* | Asiatic Wall Jumping Spider | Arachnida | | | |
| *Autographa californica* | Alfalfa Looper | Insecta | | | |
| *Bactericera maculipennis* | Bindweed Psylilid | Insecta | | | |
| *Banasa euchlora* | Juniper Stink Bug | Insecta | | | |
| *Batyle suturalis* | Sutured Longhorn Beetle | Insecta | | | |
| *Belostoma sp.* | | Insecta | | | |
| *Bembix americana* | American Sand Wasp | Insecta | | | |
| *Bleptina caradrinalis* | Bent-winged Owlet | Insecta | | | |
| *Boisea sp.* | Boxelder Bugs | Insecta | | | |
| *Boisea trivittata* | Eastern Boxelder Bug | Insecta | | | |
| *Bombus appositus* | White-shouldered Bumble Bee | Insecta | | | |
| *Bombus bimaculatus* | Two-spotted Bumble Bee | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Bombus centralis* | Great Basin Bumble Bee | Insecta | | | |
| *Bombus fervidus* | Golden Northern Bumble Bee | Insecta | | | |
| *Bombus fraternus* | Southern Plains Bumble Bee | Insecta | | | |
| *Bombus griseocollis* | Brown-belted Bumble Bee | Insecta | | | |
| *Bombus huntii* | Hunt's Bumble Bee | Insecta | | | |
| *Bombus nevadensis* | Nevada Bumble Bee | Insecta | | | |
| *Bombus occidentalis* | Western Bumble Bee | Insecta | Tracked | G3 | S3S4 |
| *Bombus pensylvanicus* | American Bumble Bee | Insecta | | | |
| *Bombus rufocinctus* | Red-belted Bumble Bee | Insecta | | | |
| *Brachymelecta californica* | California Digger-cuckoo Bee | Insecta | | | |
| *Brachymelecta interrupta* | Interrupted Digger-cuckoo Bee | Insecta | | | |
| *Brachystola magna* | Plains Lubber Grasshopper | Insecta | | | |
| *Burnsius communis* | Common Checkered-Skipper | Insecta | | | |
| *Caenurgina erechtea* | Forage Looper Moth | Insecta | | | |
| *Caliroa cerasi* | Cherry Slug Sawfly | Insecta | | | |
| *Calliphora vicina* | Blue Blowfly | Insecta | | | |
| *Calopteryx maculata* | Ebony Jewelwing | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Calvia quatuordecimguttata* | Cream-spotted Ladybird | Insecta | | | |
| *Cassida rubiginosa* | Thistle Tortoise Beetle | Insecta | | | |
| *Catocala amatrix* | Sweetheart Underwing | Insecta | | | |
| *Ceratocapsus apicalis* | Plant Bug | Insecta | | | |
| *Ceratomia undulosa* | Waved Sphinx | Insecta | | | |
| *Ceroxys latiusculus* | Narrow-Banded Picture-Winged Fly | Insecta | | | |
| *Chalcoela iphitalis* | Sooty-winged Chalcoela Moth | Insecta | | | |
| *Chalybion californicum* | Common Blue Mud-dauber Wasp | Insecta | | | |
| *Charidotella sexpunctata* | Golden Tortoise Beetle | Insecta | | | |
| *Chauliognathus basalis* | Colorado Soldier Beetle | Insecta | | | |
| *Chelymorpha cassidea* | Argus Tortoise Beetle | Insecta | | | |
| *Chinavia hilaris* | Green Stink Bug | Insecta | | | |
| *Chlorion aerarium* | Steel-blue Cricket-hunter Wasp | Insecta | | | |
| *Chlorochroa ligata* | Conchuela Bug | Insecta | | | |
| *Chlorochroa sayi* | Say's Stink Bug | Insecta | | | |
| *Chlorochroa uhleri* | Uhler's Stink Bug | Insecta | | | |
| *Chortophaga viridifasciata* | Green-striped Grasshopper | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Chrysis sp.* | | Insecta | | | |
| *Chrysochus auratus* | Dogbane Leaf Beetle | Insecta | | | |
| *Chrysolina flavomarginata* | | Insecta | | | |
| *Chrysopa nigricornis* | Black-horned Green Lacewing | Insecta | | | |
| *Chrysopa oculata* | Golden-eyed lacewing | Insecta | | | |
| *Chrysoteuchia topiarius* | Topiary Grass-veneer | Insecta | | | |
| *Cicindela sp.* | | Insecta | | | |
| *Cicindela duodecimguttata* | Twelve-spotted Tiger Beetle | Insecta | | | |
| *Cicindela punctulata* | Punctured Tiger Beetle | Insecta | | | |
| *Cicindela purpurea* | Purple Tiger Beetle | Insecta | | | |
| *Cicindela repanda* | Bronzed Tiger Beetle | Insecta | | | |
| *Cicindela scutellaris* | Festive Tiger Beetle | Insecta | | | |
| *Cicindela scutellaris scutellaris* | Festive Tiger Beetle | Insecta | | | |
| *Cicindela tranquebarica* | Oblique-lined Tiger Beetle | Insecta | | | |
| *Clepsis clemensiana* | Clemens' Clepsis Moth | Insecta | | | |
| *Clogmia albipunctata* | Bathroom Moth Fly | Insecta | | | |
| *Coccinella novemnotata* | Nine-spotted Lady Beetle | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Coccinella septempunctata* | Seven-spotted Lady Beetle | Insecta | | | |
| *Coccinella transversoguttata* | Transverse Lady Beetle | Insecta | | | |
| *Coelioxys sp.* | Sharptail Bees | Insecta | | | |
| *Coelotanypus concinnus* | N/A | Insecta | | | |
| *Coenus delius* | N/A | Insecta | | | |
| *Coleomegilla maculata* | Spotted Pink Lady Beetle | Insecta | | | |
| *Colias eurytheme* | Orange Sulphur | Insecta | | | |
| *Colias philodice* | Clouded Sulphur | Insecta | | | |
| *Colladonus belli* | N/A | Insecta | | | |
| *Collops bipunctatus* | N/A | Insecta | | | |
| *Colpa pollenifera* | N/A | Insecta | | | |
| *Condylostylus caudatus* | N/A | Insecta | | | |
| *Conocephalus fasciatus* | Slender Meadow Katydid | Insecta | | | |
| *Crangonyx floridanus* | N/A | Crustacea | | | |
| *Crioceris duodecimpunctata* | Spotted Asparagus Beetle | Insecta | | | |
| *Crossidius pulchellus* | Beautiful Long-horned Beetle | Insecta | | | |
| *Cucujus puniceus* | N/A | Insecta | | | |
| *Cucullia dorsalis* | N/A | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Cuerna alpina* | N/A | Insecta | | | |
| *Cuerna costalis* | Lateral-lined Sharpshooter | Insecta | | | |
| *Cuerna striata* | Striped Leafhopper | Insecta | | | |
| *Cuterebra lepusculi* | N/A | Insecta | | | |
| *Cyclosa turbinata* | Humped Trashline Orbweaver | Arachnida | | | |
| *Cydia pomonella* | Codling Moth | Insecta | | | |
| *Cyphocleonus achates* | Knapweed Root Weevil | Insecta | | | |
| *Danaus gilippus* | N/A | Insecta | | | |
| *Danaus plexippus* | Monarch | Insecta | | | |
| *Dargida diffusa* | Wheat Head Armyworm | Insecta | | | |
| *Decantha tistra* | N/A | Insecta | | | |
| *Deloyala guttata* | Mottled Tortoise Beetle | Insecta | | | |
| *Delphinia picta* | Common Picture-winged Fly | Insecta | | | |
| *Dermacentor variabilis* | American Dog Tick | Arachnida | | | |
| *Dermestes lardarius* | Larder Beetle | Insecta | | | |
| *Dermestes undulatus* | N/A | Insecta | | | |
| *Diabrotica cristata* | Black Diabrotica | Insecta | | | |
| *Diabrotica undecimpunctata* | Spotted Cucumber Beetle | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Diabrotica virgifera* | Western Corn Rootworm | Insecta | | | |
| *Dinothenarus badipes* | N/A | Insecta | | | |
| *Dione vanillae* | Gulf Fritillary | Insecta | | | |
| *Diplolepis ignota* | N/A | Insecta | | | |
| *Diplolepis rosae* | Mossy Rose Gall Wasp | Insecta | | | |
| *Disholcaspis quercusmamma* | Oak Rough Bulletgall Wasp | Insecta | | | |
| *Dissosteira carolina* | Carolina Grasshopper | Insecta | | | |
| *Dolichovespula* | Aerial Yellowjackets | Insecta | | | |
| *Dolichovespula arenaria* | Common Aerial Yellowjacket | Insecta | | | |
| *Dolichovespula maculata* | Bald-faced Hornet | Insecta | | | |
| *Dolomedes scriptus* | Striped Fishing Spider | Arachnida | | | |
| *Dysdera crocata* | Woodlouse Spider | Arachnida | | | |
| *Echinargus isola* | Reakirt's Blue | Insecta | | | |
| *Eleodes carbonaria* | N/A | Insecta | | | |
| *Eleodes carbonaria obsoleta* | N/A | Insecta | | | |
| *Eleodes hispilabris* | Rough-lipped Darkling Beetle | Insecta | | | |
| *Eleodes suturalis* | Red-backed Darkling Beetle | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Embaphion muricatum* | N/A | Insecta | | | |
| *Embaphion planum* | N/A | Insecta | | | |
| *Emmelina monodactyla* | Morning-glory Plume Moth | Insecta | | | |
| *Enallagma carunculatum* | Tule Bluet | Insecta | | | |
| *Enallagma civile* | Familiar Bluet | Insecta | | | |
| *Enicospilus purgatus* | N/A | Insecta | | | |
| *Enoclerus cordifer* | N/A | Insecta | | | |
| *Enoclerus spinolae* | Handsome Yucca Beetle | Insecta | | | |
| *Entomobrya atrocincta* | Dimorphic Springtail | Hexapoda | | | |
| *Epargyreus clarus* | Silver-spotted Skipper | Insecta | | | |
| *Epicauta pensylvanica* | Black Blister Beetle | Insecta | | | |
| *Epimelissodes obliqua* | Oblique Longhorn bee | Insecta | | | |
| *Eratigena agrestis* | Hobo Spider | Arachnida | | | |
| *Eratigena atrica* | Giant House Spider Complex | Arachnida | | | |
| *Eriophyes cerasicrumena* | Black Cherry Leaf Gall Mite | Arachnida | | | |
| *Eriophyes tiliae* | Red Nail Gall Mite | Arachnida | | | |
| *Eristalis arbustorum* | Eurasian Drone Fly | Insecta | | | |
| *Eristalis stipator* | Yellow-shouldered Drone Fly | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Eristalis tenax* | Common Drone Fly | Insecta | | | |
| *Eritettix simplex* | Velvet-striped Grasshopper | Insecta | | | |
| *Erythemis collocata* | Western Pondhawk | Insecta | | | |
| *Erythroneura elegans* | N/A | Insecta | | | |
| *Estigmene sp.* | Ermine Moths | Insecta | | | |
| *Estigmene acrea* | Salt Marsh Moth | Insecta | | | |
| *Eumenes sp.* | Typical Potter Wasps | Insecta | | | |
| *Eumorpha achemon* | Achemon Sphinx | Insecta | | | |
| *Eupeodes volucris* | Large-tailed Aphideater | Insecta | | | |
| *Euphoria inda* | Bumble Flower Beetle | Insecta | | | |
| *Euphoria kernii* | Kern's Flower Scarab | Insecta | | | |
| *Euptoieta claudia* | Variegated Fritillary | Insecta | | | |
| *Euura proxima* | Willow Redgall Sawfly | Insecta | | | |
| *Euxoa auxiliaris* | Army Cutworm Moth | Insecta | | | |
| *Exitianus exitiosus* | Gray Lawn Leafhopper | Insecta | | | |
| *Exochomus aethiops* | Ebony Shield Lady Beetle | Insecta | | | |
| *Fallceon quilleri* | N/A | Insecta | | | |
| *Faxonius sp.* | N/A | Crustacea | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Faxonius immunis* | Calico Crayfish | Crustacea | | | |
| *Faxonius virilis* | Virile Crayfish | Crustacea | | | |
| *Feltia herilis* | Master's Dart | Insecta | | | |
| *Feltia jaculifera* | Dingy Cutworm Moth | Insecta | | | |
| *Fieberiella florii* | Privet Leafhopper | Insecta | | | |
| *Forficula auricularia* | European Earwig Complex | Insecta | | | |
| *Galasa nigrinodis* | Boxwood Leaftier Moth | Insecta | | | |
| *Gastrophysa cyanea* | Blue Dock Beetle | Insecta | | | |
| *Geolycosa missouriensis* | Missouri Burrowing Wolf Spider | Arachnida | | | |
| *Geolycosa wrighti* | Black-bellied Burrowing Wolf Spider | Arachnida | | | |
| *Gerris sp.* | Water Striders | Insecta | | | |
| *Glischrochilus quadrisignatus* | Four-spotted Sap Beetle | Insecta | | | |
| *Graphocephala lugubris* | N/A | Insecta | | | |
| *Grotea lokii* | N/A | Insecta | | | |
| *Gryllus pennsylvanicus* | Fall Field Cricket | Insecta | | | |
| *Gryllus veletis* | Spring Field Cricket | Insecta | | | |
| *Gyponana octolineata* | Eight-lined Leafhopper | Insecta | | | |
| *Hadrotettix trifasciatus* | Three-banded | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| | Grasshopper | | | | |
| *Haematopis grataria* | Chickweed Geometer Moth | Insecta | | | |
| *Halictus ligatus* | Ligated Furrow Bee | Insecta | | | |
| *Halictus rubicundus* | Orange-legged Furrow Bee | Insecta | | | |
| *Halyomorpha halys* | Brown Marmorated Stink Bug | Insecta | | | |
| *Harmonia axyridis* | Asian Lady Beetle | Insecta | | | |
| *Harpalus amputatus* | N/A | Insecta | | | |
| *Harrisina metallica* | Western Grapeleaf Skeletonizer Moth | Insecta | | | |
| *Hecatera dysodea* | Small Ranunculus | Insecta | | | |
| *Helicoverpa zea* | Corn Earworm Moth | Insecta | | | |
| *Helophilus fasciatus* | Narrow-headed Marsh Fly | Insecta | | | |
| *Helophilus latifrons* | Broad-headed Marsh Fly | Insecta | | | |
| *Hemaris diffinis* | Snowberry Clearwing | Insecta | | | |
| *Herpyllus ecclesiasticus* | Eastern Parson Spider | Arachnida | | | |
| *Hetaerina americana* | American Rubyspot | Insecta | | | |
| *Heterosilpha ramosa* | Garden Carrion Beetle | Insecta | | | |
| *Hippodamia convergens* | Convergent Lady Beetle | Insecta | | | |
| *Hippodamia parenthesis* | Parenthesis Lady Beetle | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Hogna carolinensis* | Carolina Wolf Spider | Arachnida | | | |
| *Homoglaea carbonaria* | N/A | Insecta | | | |
| *Hoplitis fulgida fulgida* | N/A | Insecta | | | |
| *Hylaeus leptocephalus* | Slender-faced Masked Bee | Insecta | | | |
| *Hyles lineata* | White-lined Sphinx | Insecta | | | |
| *Hypera postica* | Alfalfa Weevil | Insecta | | | |
| *Hypsopygia costalis* | Clover Hayworm Moth | Insecta | | | |
| *Ichneumon ambulatorius* | N/A | Insecta | | | |
| *Idaea demissaria* | Red-bordered Wave | Insecta | | | |
| *Idaea dimidiata* | Single-dotted Wave | Insecta | | | |
| *Idia aemula* | Common Idia Moth | Insecta | | | |
| *Ischnura damula* | Plains Forktail | Insecta | | | |
| *Ischnura verticalis* | Eastern Forktail | Insecta | | | |
| *Jadera haematoloma* | Red-shouldered Bug | Insecta | | | |
| *Japananus hyalinus* | Japanese Maple Leafhopper | Insecta | | | |
| *Jonthonota nigripes* | Blacklegged Tortoise Beetle | Insecta | | | |
| *Lampria bicolor* | N/A | Insecta | | | |
| *Larinus carlinae* | Canada Thistle Bud Weevil | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Larinus minutus* | Lesser Knapweed Flower Weevil | Insecta | | | |
| *Larinus obtusus* | Blunt Knapweed Flower Weevil | Insecta | | | |
| *Latrodectus hesperus* | Western Black Widow | Arachnida | | | |
| *Lebia bivittata* | N/A | Insecta | | | |
| *Leptoglossus clypealis* | Western Leaf-footed Bug | Insecta | | | |
| *Leptoglossus occidentalis* | Western Conifer Seed Bug | Insecta | | | |
| *Leptomantispa pulchella* | Beautiful Mantidfly | Insecta | | | |
| *Lestes congener* | Spotted Spreadwing | Insecta | | | |
| *Lestes dryas* | Emerald Spreadwing | Insecta | | | |
| *Leucania commoides* | Two-lined Wainscot | Insecta | | | |
| *Leucorrhinia intacta* | Dot-tailed Whiteface | Insecta | | | |
| *Libellula luctuosa* | Widow Skimmer | Insecta | | | |
| *Libellula pulchella* | Twelve-spotted Skimmer | Insecta | | | |
| *Libellula quadrimaculata* | Four-spotted Skimmer | Insecta | | | |
| *Libytheana carinenta* | American Snout | Insecta | | | |
| *Limenitis archippus* | Viceroy | Insecta | | | |
| *Limenitis weidemeyerii* | Weidemeyer's Admiral | Insecta | | | |
| *Limnoporus notabilis* | N/A | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Lithobius forficatus* | Brown Centipede | Myriapoda | | | |
| *Lobocleta peralbata* | Speckled Wave | Insecta | | | |
| *Lon taxiles* | Taxiles Skipper | Insecta | | | |
| *Loxostege cereralis* | Alfalfa Webworm Moth | Insecta | | | |
| *Lucilia sericata* | Common European Greenbottle Fly | Insecta | | | |
| *Lygaeus kalmii* | Small Milkweed Bug | Insecta | | | |
| *Lygaeus kalmii kalmii* | Western Small Milkweed Bug | Insecta | | | |
| *Lygus lineolaris* | North American Tarnished Plant Bug | Insecta | | | |
| *Malachius aeneus* | Scarlet Malachite Beetle | Insecta | | | |
| *Mallota bautias* | Bare-eyed Mimic Fly | Insecta | | | |
| *Manduca quinquemaculatus* | Five-spotted Hawk Moth | Insecta | | | |
| *Manduca sexta* | Carolina Sphinx | Insecta | | | |
| *Mantis religiosa* | European Mantis | Insecta | | | |
| *Mecinus janthiniformis* | Dalmatian toadflax stem weevil | Insecta | | | |
| *Megachile sp.* | Leafcutter, Mortar, and Resin Bees | Insecta | | | |
| *Megachile montivaga* | Silver-tailed Petalcutter | Insecta | | | |
| *Megachile parallela* | N/A | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Megachile perihirta* | Western Leafcutter Bee | Insecta | | | |
| *Megacyllene robiniae* | Locust Borer | Insecta | | | |
| *Megalonotus sabulicola* | Introduced Dirt-colored Seed Bug | Insecta | | | |
| *Megarhyssa macrurus* | Long-tailed Giant Ichneumonid Wasp | Insecta | | | |
| *Megatibicen dealbatus* | Plains Cicada | Insecta | | | |
| *Melanolestes picipes* | Black Corsair | Insecta | | | |
| *Melanoplus bivittatus* | Two-striped Grasshopper | Insecta | | | |
| *Melanoplus differentialis* | Differential Grasshopper | Insecta | | | |
| *Melanoplus femurrubrum* | Red-legged Grasshopper | Insecta | | | |
| *Melanoplus keeleri* | Keeler's Spur-throat Grasshopper | Insecta | | | |
| *Melanoplus lakinus* | Lakin Grasshopper | Insecta | | | |
| *Melanoplus occidentalis* | Flabellate Grasshopper | Insecta | | | |
| *Melissodes sp.* | N/A | Insecta | | | |
| *Melissodes bimaculatus* | Two-spotted Longhorn Bee | Insecta | | | |
| *Merodon equestris* | Narcissus Bulb Fly | Insecta | | | |
| *Metanema inatomaria* | Pale Metanema Moth | Insecta | | | |
| *Metator pardalinus* | Pard Grasshopper | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Microcentrum rhombifolium* | Greater Anglewing | Insecta | | | |
| *Microvelia sp.* | N/A | Insecta | | | |
| *Micrutalis calva* | Honeylocust Treehopper | Insecta | | | |
| *Mischocyttarus flavitarsis* | Western Paper Wasp | Insecta | | | |
| *Mompha eloisella* | Red-streaked Mompha Moth | Insecta | | | |
| *Musca autumnalis* | Face fly | Insecta | | | |
| *Myrmeleon sp.* | Antlions | Insecta | | | |
| *Mythimna unipuncta* | Armyworm Moth | Insecta | | | |
| *Nabis americoferus* | Common Damsel Bug | Insecta | | | |
| *Nathalis iole* | Dainty Sulphur | Insecta | | | |
| *Neoclytus acuminatus* | Red-headed Ash Borer | Insecta | | | |
| *Neoclytus caprea* | Banded Ash Borer | Insecta | | | |
| *Neoneides muticus* | N/A | Insecta | | | |
| *Neoscona crucifera* | Spotted Orbweaver | Arachnida | | | |
| *Neotephritis finalis* | Sunflower Seed Maggot | Insecta | | | |
| *Neottiglossa sulcifrons* | N/A | Insecta | | | |
| *Nephelodes minians* | Bronzed Cutworm Moth | Insecta | | | |
| *Nicrophorus tomentosus* | Tomentose Burying Beetle | Insecta | | | |

| **Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked. | | | | | |
|---|---|---|---|---|---|
| **Scientific Name** | **Common Name** | **Class** | **CNHP Tracked Status** | **Global Rarity Rank** | **State Rarity Rank** |
| *Noctua pronuba* | Large Yellow Underwing | Insecta | | | |
| *Nomada sp.* | Nomad Bees | Insecta | | | |
| *Norvellina chenopodii* | N/A | Insecta | | | |
| *Norvellina scitula* | N/A | Insecta | | | |
| *Nymphalis antiopa* | Mourning Cloak | Insecta | | | |
| *Ochlodes sylvanoides* | Woodland Skipper | Insecta | | | |
| *Oecanthus rileyi* | Riley's Tree Cricket | Insecta | | | |
| *Oncopeltus fasciatus* | Large Milkweed Bug | Insecta | | | |
| *Onthophagus orpheus* | Green-bronze Dung Beetle | Insecta | | | |
| *Ophiogomphus severus* | Pale Snaketail | Insecta | | | |
| *Ophraella americana* | American Goldenrod Leaf Beetle | Insecta | | | |
| *Orchesella cincta* | N/A | Hexapoda | | | |
| *Otiorhynchus cribricollis* | Cribrate Weevil | Insecta | | | |
| *Otiorhynchus ovatus* | Strawberry Root Weevil | Insecta | | | |
| *Otiorhynchus rugosostriatus* | Rough strawberry root weevil | Insecta | | | |
| *Pachydiplax longipennis* | Blue Dasher | Insecta | | | |
| *Pachypsylla celtidismamma* | Hackberry Nipplegall Psyllid | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Pachysphinx occidentalis* | Western Poplar Sphinx | Insecta | | | |
| *Paonias excaecata* | Blinded Sphinx | Insecta | | | |
| *Papilio multicaudata* | Two-tailed Swallowtail | Insecta | | | |
| *Papilio polyxenes* | Black Swallowtail | Insecta | | | |
| *Papilio polyxenes asterius* | Eastern Black Swallowtail | Insecta | | | |
| *Papilio rutulus* | Western Tiger Swallowtail | Insecta | | | |
| *Pardalophora apiculata* | Coral-winged Grasshopper | Insecta | | | |
| *Paropomala wyomingensis* | Wyoming Toothpick Grasshopper | Insecta | | | |
| *Pelecinus polyturator* | American Pelecinid Wasp | Insecta | | | |
| *Pelegrina galathea* | Peppered Jumping Spider | Arachnida | | | |
| *Pelochrista scintillana* | Spangled Pelochrista | Insecta | | | |
| *Perillus bioculatus* | Two-spotted Stink Bug | Insecta | | | |
| *Perillus exaptus* | N/A | Insecta | | | |
| *Perithemis tenera* | Eastern Amberwing | Insecta | | | |
| *Phalangium opilio* | European Harvestman | Arachnida | | | |
| *Phanogomphus militaris* | Sulphur-tipped Clubtail | Insecta | | | |
| *Phidippus apacheanus* | Apache Jumping Spider | Arachnida | | | |
| *Phidippus audax* | Bold Jumping Spider | Arachnida | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Phidippus octopunctatus* | N/A | Arachnida | | | |
| *Phidippus pius* | N/A | Arachnida | | | |
| *Phigalia titea* | Half-wing Moth | Insecta | | | |
| *Pholcus phalangioides* | Long-bodied Cellar Spider | Arachnida | | | |
| *Phyciodes pulchella* | Field Crescent | Insecta | | | |
| *Phyllophaga lanceolata* | Lanceolated Chafer | Insecta | | | |
| *Phymata americana* | Jagged Ambush Bug | Insecta | | | |
| *Pieris rapae* | Cabbage White | Insecta | | | |
| *Pigritia murtfeldtella* | N/A | Insecta | | | |
| *Piruna pirus* | Russet Skipperling | Insecta | | | |
| *Plathemis lydia* | Common Whitetail | Insecta | | | |
| *Platycryptus californicus* | California Flattened Jumping Spider | Arachnida | | | |
| *Plodia interpunctella* | Indian-Meal Moth | Insecta | | | |
| *Plutella xylostella* | Diamondback Moth | Insecta | | | |
| *Pogonomyrmex occidentalis* | Western Harvester Ant | Insecta | | | |
| *Polistes aurifer* | Golden Paper Wasp | Insecta | | | |
| *Polistes dominula* | European Paper Wasp | Insecta | | | |
| *Polites peckius* | Peck's Skipper | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Polydrusus impressifrons* | N/A | Insecta | | | |
| *Polygonia satyrus* | Satyr Comma | Insecta | | | |
| *Polyphylla decemlineata* | Ten-lined June Beetle | Insecta | | | |
| *Pontia protodice* | Checkered White | Insecta | | | |
| *Popillia japonica* | Japanese Beetle | Insecta | | | |
| *Prionus californicus* | California Root Borer | Insecta | | | |
| *Psyllobora vigintimaculata* | Twenty-spotted Lady Beetle | Insecta | | | |
| *Pyralis farinalis* | Meal moth | Insecta | | | |
| *Pyropyga nigricans* | Dark Firefly | Insecta | | | |
| *Pyrrharctia isabella* | Isabella Tiger Moth | Insecta | | | |
| *Rabdophaga strobiloides* | Willow Pinecone Gall Midge | Insecta | | | |
| *Reduvius personatus* | Masked Hunter | Insecta | | | |
| *Reesa vespulae* | Undertaker Carpet Beetle | Insecta | | | |
| *Rhagovelia sp.* | Braod-shouldered wate striders | Insecta | | | |
| *Rhaxonycha carolina* | Carolina Cantharid | Insecta | | | |
| *Rhinocyllus conicus* | Nodding Thistle Receptacle Weevil | Insecta | | | |
| *Rhionaeschna multicolor* | Blue-eyed Darner | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Rhopalapion longirostre* | Hollyhock Weevil | Insecta | | | |
| *Sassacus vitis* | Buttonhook Leafbeetle Jumping Spider | Arachnida | | | |
| *Saucrobotys futilalis* | Dogbane Saucrobotys Moth | Insecta | | | |
| *Sceliphron caementarium* | Yellow-legged Mud-dauber Wasp | Insecta | | | |
| *Schinia jaguarina* | Jaguar Flower Moth | Insecta | | | |
| *Schinia mortua* | N/A | Insecta | | | |
| *Scyphophorus acupunctatus* | Sisal Weevil | Insecta | | | |
| *Sitochroa chortalis* | Dimorphic Sitochroa Moth | Insecta | | | |
| *Sitona hispidulus* | Clover Weevil | Insecta | | | |
| *Sminthurinus elegans* | N/A | Hexapoda | | | |
| *Solenopsis sp.* | Solenopsis Fire Ants and Thief Ants | Insecta | | | |
| *Sosipatra rileyella* | N/A | Insecta | | | |
| *Spharagemon equale* | Say's Grasshopper | Insecta | | | |
| *Sphenophorus cicatristriatus* | Rocky Mountain Billbug | Insecta | | | |
| *Sphenophorus parvulus* | Bluegrass Billbug | Insecta | | | |
| *Sphex ichneumoneus* | Great Golden Digger Wasp | Insecta | | | |
| *Sphragisticus nebulosus* | N/A | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Spilosoma virginica* | Virginian Tiger Moth | Insecta | | | |
| *Spodoptera ornithogalli* | Yellow-striped Armyworm Moth | Insecta | | | |
| *Steatoda triangulosa* | Triangulate Combfoot | Arachnida | | | |
| *Stenolophus lecontei* | LeConte's Seedcorn Beetle | Insecta | | | |
| *Stenomorpha opaca* | N/A | Insecta | | | |
| *Stenotus binotatus* | Two-spotted Grass Bug | Insecta | | | |
| *Stomoxys calcitrans* | Stable Fly | Insecta | | | |
| *Strymon melinus* | Gray Hairstreak | Insecta | | | |
| *Subcoccinella vigintiquatuorpunctata* | Alfalfa Lady Beetle | Insecta | | | |
| *Sympetrum corruptum* | Variegated Meadowhawk | Insecta | | | |
| *Sympetrum danae* | Black Meadowhawk | Insecta | | | |
| *Sympetrum internum* | Cherry-faced Meadowhawk | Insecta | | | |
| *Sympetrum madidum* | Red-veined Meadowhawk | Insecta | Tracked | G5 | S2 |
| *Sympetrum obtrusum* | White-faced Meadowhawk | Insecta | | | |
| *Sympetrum pallipes* | Striped Meadowhawk | Insecta | | | |
| *Sympetrum semicinctum* | Band-winged Meadowhawk | Insecta | | | |
| *Sympetrum vicinum* | Autumn Meadowhawk | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Synanthedon exitiosa* | Peachtree Borer Moth | Insecta | | | |
| *Syritta pipiens* | Common Compost Fly | Insecta | | | |
| *Tabanus punctifer* | Western Black Horse Fly | Insecta | | | |
| *Talavera minuta* | Minute Jumping Spider | Arachnida | | | |
| *Tapinoma sessile* | Odorous House Ant | Insecta | | | |
| *Tegenaria domestica* | Barn Funnel Weaver | Arachnida | | | |
| *Tetramorium immigrans* | Immigrant Pavement Ant | Insecta | | | |
| *Tetraopes annulatus* | Ringed Long-horned Beetle | Insecta | | | |
| *Tetraopes femoratus* | Red-femured Milkweed Borer | Insecta | | | |
| *Thanatophilus lapponicus* | Common Carrion Beetle | Insecta | | | |
| *Tharsalea helloides* | Purplish Copper | Insecta | | | |
| *Thecabius populimonilis* | Bead-like Cottonwood Gall aphid | Insecta | | | |
| *Thyanta custator accerra* | N/A | Insecta | | | |
| *Tibellus oblongus* | Oblong Running Spider | Arachnida | | | |
| *Tigrosa grandis* | N/A | Arachnida | | | |
| *Tigrosa helluo* | Wetland Giant Wolf Spider | Arachnida | | | |
| *Timulla vagans* | N/A | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Toxomerus marginatus* | Margined Calligrapher | Insecta | | | |
| *Trachyrhachys kiowa* | Kiowa Grasshopper | Insecta | | | |
| *Tramea lacerata* | Black Saddlebags | Insecta | | | |
| *Tramea onusta* | Red Saddlebags | Insecta | | | |
| *Tremex columba* | Pigeon Horntail | Insecta | | | |
| *Trichodes nuttalli* | Red-blue Checkered Beetle | Insecta | | | |
| *Trichosirocalus horridus* | Thistle Crown Weevil | Insecta | | | |
| *Trirhabda nitidicollis* | Rabbitbrush Beetle | Insecta | | | |
| *Trochosa sp.* | Wolf spiders | Arachnida | | | |
| *Tyta luctuosa* | Four-spotted Moth | Insecta | | | |
| *Ulolonche orbiculata* | Orbiculate Quaker | Insecta | | | |
| *Urophora affinis* | Knapweed Gall Fly | Insecta | | | |
| *Urophora cardui* | Thistle Stem Gall Fly | Insecta | | | |
| *Vanessa sp.* | Ladies and Related Admirals | Insecta | | | |
| *Vanessa atalanta* | Red Admiral | Insecta | | | |
| *Vanessa cardui* | Painted Lady | Insecta | | | |
| *Vespula pensylvanica* | Western Yellowjacket | Insecta | | | |
| *Virbia aurantiaca* | Orange Virbia Moth | Insecta | | | |

**Table 7:** Arthropod species observed in Louisville, Colorado and their class, if they are CNHP tracked, and their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Class | CNHP Tracked Status | Global Rarity Rank | State Rarity Rank |
|---|---|---|---|---|---|
| *Willowsia nigromaculata* | N/A | Hexapoda | | | |
| *Wohlfahrtia vigil* | N/A | Insecta | | | |
| *Xanthippus corallipes* | Red-shanked Grasshopper | Insecta | | | |
| *Xanthogaleruca luteola* | Elm Leaf Beetle | Insecta | | | |
| *Xenoglossa pruinosa* | Pruinose Squash Bee | Insecta | | | |
| *Yersiniops solitarius* | Horned Ground Mantis | Insecta | | | |
| *Zelus luridus* | Pale Green Assassin Bug | Insecta | | | |

# **Appendix E.** Animal Species in Louisville, CO

**Table 8:** Animal species observations taken in the City of Louisville Open Space parcels with observation dates, location, and coordinates.

| Class | Observation Date | Location | Latitude | Longitude | Scientific Name | Common Name |
|---|---|---|---|---|---|---|
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583421 | -105.736004 | Sturnella neglecta | Western Meadowlark |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583421 | -105.736004 | Troglodytes aedon | Northern House Wren |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583421 | -105.736004 | Agelaius phoeniceus | Red-winged Blackbird |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583421 | -105.736004 | Turdus migratorius | American Robin |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583421 | -105.736004 | Poecile atricapillus | Black-capped Chickadee |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583421 | -105.736004 | Haemorhous mexicanus | House Finch |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583246 | -105.732853 | Melospiza melodia | Song Sparrow |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583147 | -105.73538 | Setophaga petechia | Yellow Warbler |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583147 | -105.73538 | Selasphorus platycercus | Broad-tailed Hummingbird |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583077 | -105.737595 | Zenaida macroura | Mourning Dove |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583021 | -105.738665 | Sturnus vulgaris | European Starling |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583021 | -105.738665 | Colaptes auratus | Northern Flicker |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583021 | -105.738665 | Quiscalus quiscula | Common Grackle |

| **Table 8:** Animal species observations taken in the City of Louisville Open Space parcels with observation dates, location, and coordinates. | | | | | | |
|---|---|---|---|---|---|---|
| **Class** | **Observation Date** | **Location** | **Latitude** | **Longitude** | **Scientific Name** | **Common Name** |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.583021 | -105.738665 | Anas platyrhynchos | Mallard |
| Aves | 6/9/2025 | CTC Open Space - off Empire Road | 39.582989 | -105.739292 | Riparia riparia | Bank Swallow |
| Mammalia | 6/10/2025 | CTC Open Space - off Empire Road | 39.583084 | -105.736595 | Peromyscus sonoriensis | Western Deer Mouse |
| Aves | 6/11/2025 | CTC Open Space - off Empire Road | 39.583089 | -105.737619 | Megaceryle alcyon | Belted Kingfisher |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Picoides pubescens | Downy Woodpecker |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Haemorhous mexicanus | House Finch |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Sturnella neglecta | Western Meadowlark |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Quiscalus quiscula | Common Grackle |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Sturnus vulgaris | European Starling |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Hirundo rustica | Barn Swallow |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Anas platyrhynchos | Mallard |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Sturnus vulgaris | Eurasian Collared-Dove |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Agelaius phoeniceus | Red-winged Blackbird |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Turdus migratorius | American Robin |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579328 | -105.848233 | Colaptes auratus | Nothern Flicker |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.578772 | -105.840516 | Mimus polyglottos | Northern Mockingbird |

| **Table 8:** Animal species observations taken in the City of Louisville Open Space parcels with observation dates, location, and coordinates. | | | | | | |
|---|---|---|---|---|---|---|
| **Class** | **Observation Date** | **Location** | **Latitude** | **Longitude** | **Scientific Name** | **Common Name** |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.578772 | -105.840516 | Troglodytes aedon | Northern House Wren |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.578772 | -105.840516 | Passer domesticus | House Sparrow |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.579296 | -105.828518 | Poecile atricapillus | Black-capped Chickadee |
| Aves | 6/9/2025 | Dutch Creek Open Space | 39.578896 | -105.822465 | Cyanocitta cristata | Blue Jay |
| Aves | 6/9/2025 | CTC Corridor at Hwy 36 | 39.573309 | -105.946201 | Troglodytes aedon | Northern House Wren |
| Aves | 6/9/2025 | CTC Corridor at Hwy 36 | 39.573309 | -105.946201 | Quiscalus quiscula | Common Grackle |
| Aves | 6/9/2025 | CTC Corridor at Hwy 36 | 39.573309 | -105.946201 | Turdus migratorius | American Robin |
| Aves | 6/9/2025 | CTC Corridor at Hwy 36 | 39.573309 | -105.946201 | Poecile atricapillus | Black-capped Chickadee |
| Aves | 6/9/2025 | CTC Corridor at Hwy 36 | 39.573309 | -105.946201 | Cinclus mexicanus | American Dipper |
| Aves | 6/9/2025 | CTC Corridor at Hwy 36 | 39.573309 | -105.946201 | Spinus tristis | American Goldfinch |
| Malacostraca | 6/9/2025 | CTC Corridor at Hwy 36 | 39.573344 | -105.946201 | Faxonius virilis | Virile Crayfish |
| Aves | 6/9/2025 | Hecla Lake, Louisville, CO, US | 39.991731 | -105.122047 | Ardea herodias | Great Blue Heron |
| Aves | 6/9/2025 | Hecla Lake, Louisville, CO, US | 39.990985 | -105.12135 | Anas platyrhynchos | Mallard |
| Aves | 6/9/2025 | Hecla Lake, Louisville, CO, US | 39.990985 | -105.12135 | Branta canadensis | Canada Goose |
| Aves | 6/10/2025 | Harper Lake, Louisville, CO, US | 39.587169 | -105.991193 | Buteo jamaicensis | Red-tailed Hawk |
| Aves | 6/10/2025 | Harper Lake, Louisville, CO, US | 39.587169 | -105.991193 | Branta canadensis | Canada Goose |
| Aves | 6/10/2025 | Harper Lake, Louisville, CO, US | 39.587169 | -105.991193 | Charadrius vociferus | Killdeer |

| **Table 8:** Animal species observations taken in the City of Louisville Open Space parcels with observation dates, location, and coordinates. | | | | | | |
|---|---|---|---|---|---|---|
| **Class** | **Observation Date** | **Location** | **Latitude** | **Longitude** | **Scientific Name** | **Common Name** |
| Aves | 6/10/2025 | Harper Lake, Louisville, CO, US | 39.587169 | -105.991193 | Sturnella neglecta | Western Meadowlark |
| Aves | 6/10/2025 | Harper Lake, Louisville, CO, US | 39.587169 | -105.991193 | Turdus migratorius | American Robin |
| Aves | 6/10/2025 | Harper Lake, Louisville, CO, US | 39.587169 | -105.991193 | Haemorhous mexicanus | House Finch |
| Aves | 6/10/2025 | Davidson Mesa Open Space, Louisville, CO, US | 39.587021 | -105.999865 | Melospiza melodia | Song Sparrow |
| Aves | 6/10/2025 | Davidson Mesa Open Space, Louisville, CO, US | 39.587021 | -105.999865 | Hirundo rustica | Barn Swallow |
| Aves | 6/10/2025 | Davidson Mesa Open Space, Louisville, CO, US | 39.586202 | -105.10321 | Pica hudsonia | Black-billed Magpie |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596484 | -105.871615 | Picoides pubescens | Downy Woodpecker |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596484 | -105.871615 | Sturnella neglecta | Western Meadowlark |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596484 | -105.871615 | Turdus migratorius | American Robin |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596484 | -105.871615 | Colaptes auratus | Northern Flicker |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596484 | -105.871615 | Quiscalus quiscula | Common Grackle |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596484 | -105.871615 | Cyanocitta cristata | Blue Jay |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596369 | -105.865033 | Poecile atricapillus | Black-capped Chickadee |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596369 | -105.865033 | Sayornis saya | Say's Phoebe |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596297 | -105.869086 | Icteria virens | Yellow-breasted Chat |

| **Table 8:** Animal species observations taken in the City of Louisville Open Space parcels with observation dates, location, and coordinates. | | | | | | |
|---|---|---|---|---|---|---|
| **Class** | **Observation Date** | **Location** | **Latitude** | **Longitude** | **Scientific Name** | **Common Name** |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596297 | -105.869086 | Agelaius phoeniceus | Red-winged Blackbird |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596297 | -105.869086 | Zenaida macroura | Mourning Dove |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596106 | -105.874987 | Pipilo maculatus | Spotted Towhee |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596106 | -105.874987 | Troglodytes aedon | Northern House Wren |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596385 | -105.877677 | Anas platyrhynchos | Mallard |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596385 | -105.877677 | Molothrus ater | Brown-headed Cowbird |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.595765 | -105.88693 | Pica hudsonia | Black-billed Magpie |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596347 | -105.902988 | Buteo jamaicensis | Red-tailed Hawk |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596347 | -105.902988 | Selasphorus platycercus | Broad-tailed Hummingbird |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596347 | -105.902988 | Tachycineta bicolor | Tree Swallow |
| Aves | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596347 | -105.902988 | Cathartes aura | Turkey Vulture |
| Amphibia | 6/11/2025 | North Open Space, Louisville, CO, US | 39.596211 | -105.866218 | Pseudacris maculata | Boreal Chorus Frog |

**Table 9:** Animal species observed in Louisville, and whether they are CNHP tracked species of concern, their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Tracked | Global Rarity | State Rarity |
|---|---|---|---|---|
| *Ambystoma mavortium* | Western Tiger Salamander | | | |
| *Anaxyrus* | North American Toads | | | |
| *Anaxyrus woodhousii* | Woodhouse's Toad | | | |
| *Apalone spinifera* | Spiny Softshell | | | |
| *Canis latrans* | Coyote | | | |
| *Castor canadensis* | American Beaver | | | |
| *Cervus canadensis* | Elk | | | |
| *Cervus canadensis canadensis* | American Elk | | | |
| *Chelydra serpentina* | Common Snapping Turtle | | | |
| *Chrysemys picta* | Painted Turtle | | | |
| *Chrysemys picta bellii* | Western Painted Turtle | | | |
| *Coluber constrictor* | North American Racer | | | |
| *Coluber constrictor flaviventris* | Eastern Yellow-bellied Racer | | | |
| *Crotalus viridis* | Prairie Rattlesnake | | | |
| *Cynomys ludovicianus* | Black-tailed Prairie Dog | Tracked | G4 | S3 |
| *Cynomys ludovicianus ludovicianus* | N/A | | | |

**Table 9:** Animal species observed in Louisville, and whether they are CNHP tracked species of concern, their global and state rarity status. Rarity status is only given if tracked.

| Scientific Name | Common Name | Tracked | Global Rarity | State Rarity |
|---|---|---|---|---|
| *Deirochelyinae* | Deirochelyine Turtles | | | |
| *Eptesicus fuscus* | Big Brown Bat | | | |
| *Felis catus* | Domestic Cat | | | |
| *Graptemys ouachitensis* | Ouachita Map Turtle | | | |
| *Lasionycteris noctivagans* | Silver-haired Bat | Watchlist | G5 | S4 |
| *Lasiurus cinereus* | Hoary Bat | Watchlist | G5 | S4 |
| *Lithobates catesbeianus* | American Bullfrog | | | |
| *Lynx rufus* | Bobcat | | | |
| *Mephitis mephitis* | Striped Skunk | | | |
| *Microtus drummondii* | Western Meadow Vole | | | |
| *Mus musculus* | House Mouse | | | |
| *Neogale vison* | American Mink | | | |
| *Odocoileus hemionus* | Mule Deer | | | |
| *Odocoileus virginianus* | White-tailed Deer | | | |
| *Ondatra zibethicus* | Muskrat | | | |
| *Peromyscus sonoriensis* | Western Deer Mouse | | | |
| *Pituophis catenifer sayi* | Bullsnake | | | |
| *Procyon lotor* | Common Raccoon | | | |

| **Table 9:** Animal species observed in Louisville, and whether they are CNHP tracked species of concern, their global and state rarity status. Rarity status is only given if tracked. | | | | |
|---|---|---|---|---|
| **Scientific Name** | **Common Name** | **Tracked** | **Global Rarity** | **State Rarity** |
| *Pseudacris maculata* | Boreal Chorus Frog | | | |
| *Sciurus niger* | Eastern Fox Squirrel | | | |
| *Sciurus niger rufiventer* | Western Fox Squirrel | | | |
| *Sylvilagus audubonii* | Desert Cottontail | | | |
| *Sylvilagus floridanus* | Eastern Cottontail | | | |
| *Sylvilagus nuttallii* | Mountain Cottontail | | | |
| *Thamnophis elegans vagrans* | Wandering Garter Snake | | | |
| *Thamnophis radix* | Plains Garter Snake | | | |
| *Thamnophis sirtalis parietalis* | Red-sided Garter Snake | | | |
| *Trachemys scripta* | Pond Slider | | | |
| *Trachemys scripta elegans* | Red-eared Slider | | | |
| *Ursus americanus* | American Black Bear | | | |
| *Vulpes vulpes* | Red Fox | | | |

# **Appendix F.** Fungi Species in Louisville, CO

**Table 10:** Fungi species found in Louisville, CO

| Scientific Name | Common Name |
|---|---|
| *Acarospora strigata* | Hoary Cobblestone Lichen |
| *Agaricus arvensis* | Horse Mushroom |
| *Agaricus bernardii* | Salt-loving Agaricus |
| *Agaricus bitorquis* | Pavement Mushroom |
| *Agaricus malangelus* | N/A |
| *Bolbitius titubans* | Yellow Fieldcap |
| *Calogaya decipiens* | Broken Yolks |
| *Candelariella rosulans* | Sagebrush Goldspeck Lichen |
| *Candelariella vitellina* | Common Goldspeck |
| *Cerioporus squamosus* | Dryad's Saddle |
| *Chlorophyllum molybdites* | Green-Spored Parasol |
| *Chlorophyllum rhacodes* | Shaggy Parasol |
| *Coprinellus micaceus* | Mica cap |
| *Coprinopsis atramentaria* | Common Ink Cap |
| *Coprinopsis nivea* | Snowy Inkcap |
| *Coprinus comatus* | Shaggy Mane |
| *Crucibulum laeve* | common bird's nest fungus |
| *Erysiphe convolvuli* | Bindweed Powdery Mildew |
| *Hohenbuehelia petaloides* | Shoehorn Oyster |
| *Leratiomyces percevalii* | Mulch Maids |
| *Mycosarcoma maydis* | Corn Smut |
| *Parasola plicatilis* | Pleated Inkcap |
| *Phallus sp.* | N/A |
| *Phallus hadriani* | Purple-egg Stinkhorn |

| | |
|---|---|
| *Phallus impudicus* | Common Stinkhorn |
| *Physcia stellaris* | Star Rosette Lichen |
| *Pleopsidium flavum* | Gold Cobblestone Lichen |
| *Pleurotus pulmonarius* | Pale Oyster |
| *Protoparmeliopsis garovaglii* | Sagebrush Rim-lichen |
| *Protoparmeliopsis muralis* | Stonewall Rim Lichen |
| *Puccinia suaveolens* | Thistle Rust |
| *Rusavskia elegans* | Elegant Sunburst Lichen |
| *Umbilicaria americana* | Frosted Rock Tripe |
| *Volvariella bombycina* | Silky Rosegill |
| *Xanthomendoza fallax* | Hooded Sunburst Lichen |
| *Xanthoparmelia cumberlandia* | Cumberland Rock Shield |