

# **2019 Corral Bluffs Open Space Bioblitz Report**

**UPDATED FROM 2018 REPORT  
to include Bishop parcel**



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## Abstract

As additional property is acquired for Corral Bluffs Open Space, the Trails, Open Spaces and Parks (TOPS) Department plans to be proactive in documenting all resources in the property in order to be prepared for the future Master Planning process. Data from the 2019 mini bioblitz is recorded here and added to a grand total for the entire Corral Bluffs Open Space and Jimmy Camp Creek Park. This science-only event was held on June 8-9, 2019 at what was previously the Bishop Property, and is now the central portion of Corral Bluffs Open Space. Most of the same biologists have continued on the Bioblitz Science Team since 2017.

A total of 662 observations were recorded on iNaturalist by 16 observers yielding 371 different species.

## Introduction

Corral Bluffs Open Space was chosen for this year's bioblitz because of ongoing purchases of Corral Bluffs property by the City, and to collect explicit ecological data for use in future master planning.

Science teams were led by and represented by specialists from several regional establishments according to their specialty.

- **Mammals** Bats: Colorado Parks and Wildlife- April Estep
- **Birds** Aiken Audubon Society: Anna Joy Lehmicke
- **Botany** Melissa McCormick
- **Insects** Mile High Bug Club- Eric Eaton, Bell Mead
- **Reptiles and Amphibians** Lauren Livo; Max Canestorp
- **Education and General** TOPS Stewardship Rangers

The bioblitz was scheduled for June 8-9, however some teams surveyed the area on earlier dates or on more than one occasion. Each team determined their field time and team members. No public events were held during this bioblitz. The property is not open to the public beyond guided hikes at this time, and access is not conducive to a large event.

## Environment

The environment of Corral Bluffs is unique in the region. Primarily shortgrass and mixed grass prairie ecosystems, the bluffs create a micro-climate semi-desert habitat due to erosion, slope, soil, and orientation. Temperatures at Corral Bluffs can be 10 degrees warmer than in the city of Colorado Springs, or can feel significantly colder due to winds. Because of this there may be species, especially plants, exclusive to Corral Bluffs in Colorado Springs.

The Bishop parcel holds the largest section of flatland prairie habitat in all of the Corral Bluffs Open Space properties.



## Conditions and Limitations

Time is still the greatest limitation when it comes to documenting a complete list of species. The iNaturalist webpage for this project has been kept without date constraints so observations before and after the Bioblitz date can be added.

Precipitation was ample in spring and early summer of 2019 and as such wildflowers were profuse during the Bioblitz.

Our wildlife biologists were unable to attend to capture and collect data on small mammals.

## Objectives

- To create a baseline of resource information with which to develop future natural and cultural resources and public use management strategies
- To be proactive in collecting data to be used in the Master Planning process
- To discover and celebrate the resources in our parks and open spaces
- To find out what we have, what we need to protect, and what we need to improve
- To find out how Corral Bluffs changes over time
- To use the information gathered for educational purposes



## Methodology

Leaders of each team gathered their own expert team members. Team sizes ranged from 2-10 members and procedures varied according to specialty. Teams used several different methods for collecting observations, including paper/pencil, global positioning system (GPS) attributes, photographs, and iNaturalist. For consistency, all data were eventually recorded at iNaturalist.org, an online web and smart phone application that records observations, photos, locations and assists in the identification of unknown species.

## Results

The following shows the bioblitz species total and the grand total records as of December 16, 2019. For comparison purposes data from previous Corral Bluffs bioblitz locations are included. The "total" column includes all observations before, during and after the dates of the bioblitz. Because it is typically included as part of Corral Bluffs, Jimmy Camp Creek Park Bioblitz data are included for comparison purposes.

	<b>Corral Bluffs Bishop Bioblitz 2019</b>	<b>Corral Bluffs Open Space Bioblitz 2018</b>	<b>Total to date all parcels of Corral Bluffs</b>	<b>Jimmy Camp Creek Park 2019 UPDATE</b>
<b>Birds</b>	38	42	<b>76 (ebird 99)</b>	138 (ebird)
<b>Mammals</b>	9	11	<b>11</b>	13
<b>Reptiles &amp; Amphibians</b>	5	8	<b>9</b>	8
<b>Plants</b>	141	92	<b>197</b>	112
<b>Insects and spiders</b>	171	216	<b>317</b>	207
<b>Fungi</b>	3	2	<b>4</b>	4
<b>Misc. invertebrates</b>		1	<b>3</b>	1
<b>Total Species</b>	371	501	<b>639</b>	483

Please note, these numbers only reflect observations recorded to species level. Observations that are identified to genera or family are not included. Species that are duplicated from one Corral Bluffs Bioblitz to another are only counted once, so the total column does not show species from 2018 added to 2019.

Also, discrepancies regarding totals between columns may also be due to the change in format in data collection in iNaturalist between 2017 and 2019.

Because the end date for all of the Corral Bluffs and Jimmy Camp Bioblitzes has been left open-ended, observations will continue to be added and species data will change. ebird\* data is also continually updated.

\*ebird is a citizen science website that maintains daily bird counts and data over time

**Threatened Species:** According to iNaturalist the following threatened species were documented during the Red Rock Canyon Bioblitz:

- Cooper's Hawk: listed as vulnerable in Colorado
- Loggerhead Shrike: listed as near vulnerable
- American Bumble Bee: listed as vulnerable

Colorado Natural Heritage Program lists the following:

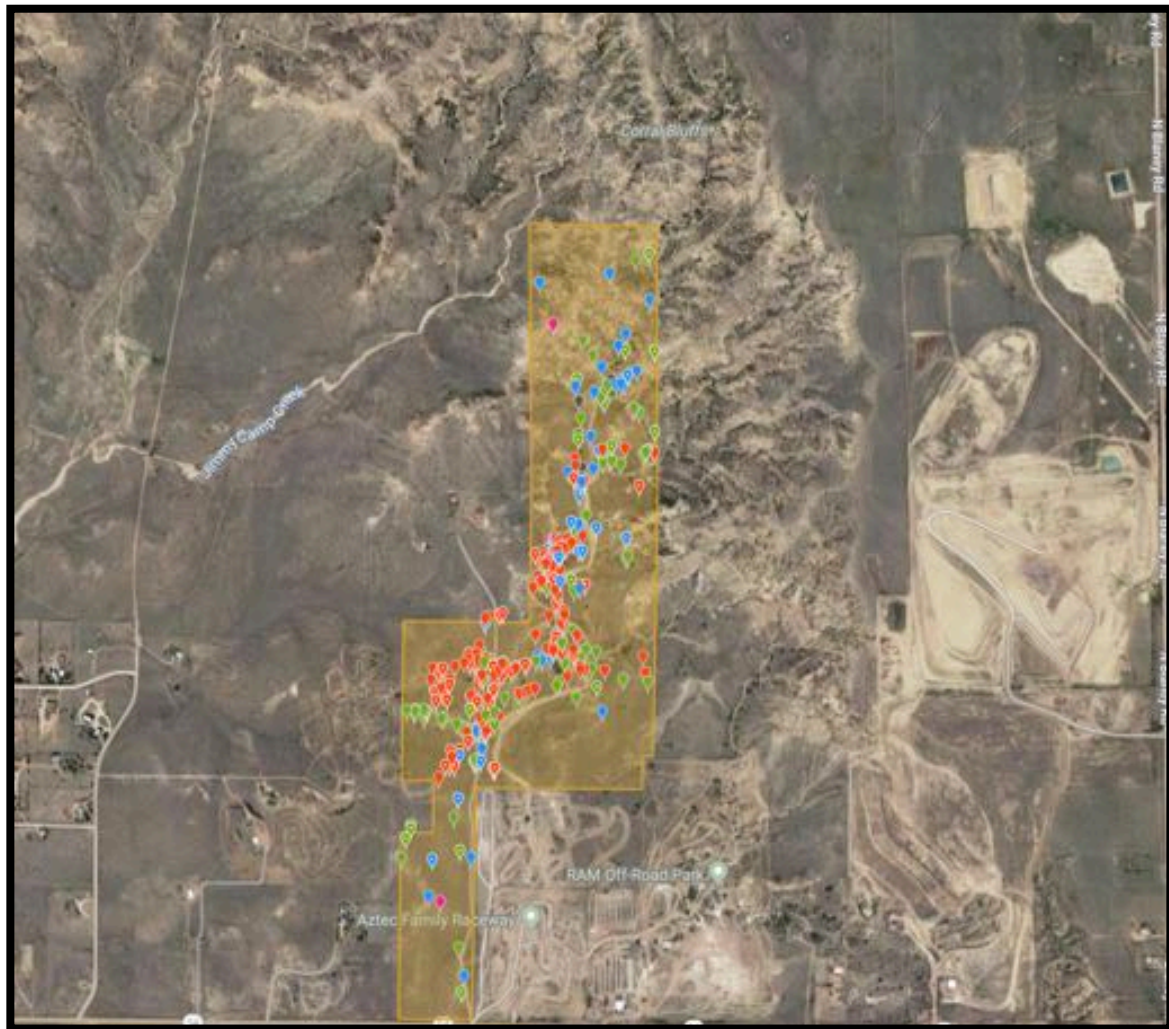
- Rocky Mountain Phacelia (plant): fully tracked species. Status unknown due to lack of information
- Marsh Muhly grass: fully tracked
- Texas Horned Lizard (observed at Kyle parcel during previous bioblitz) is considered vulnerable. Fully tracked
- Long-billed curlew (bird): imperiled. Although not seen on Corral Bluffs property it has been documented less than one mile away. Fully tracked
- American Peregrine Falcon: imperiled. Observed at Jimmy Camp by ranger and at Corral Bluffs by DMNS paleontologists. Fully tracked
- Ferruginous Hawk: vulnerable. Fully tracked
- Eastern Red Bat: vulnerable to imperiled (documented at Jimmy Camp); watchlisted
- Hoary Bat: vulnerable; watchlisted
- Black-tailed Prairie Dog: vulnerable; partially tracked

**Introduced and Invasive Species:**

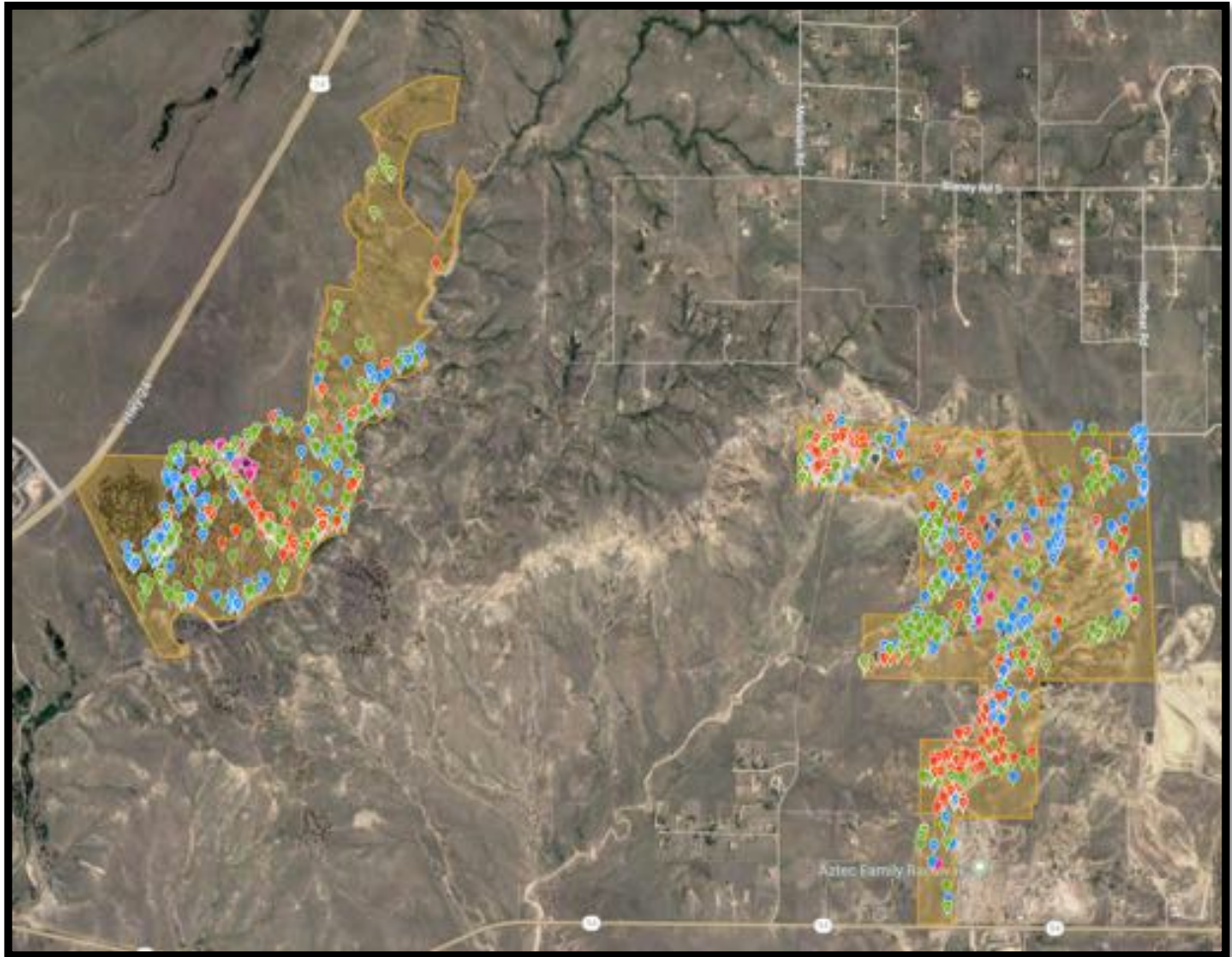
- Field Bindweed (*Convolvulus arvensis*) CLASS C Noxious Weed
- Summer-Cypress (*Bassia scoparia*)
- Yellow Salsify (*Tragopogon dubius*)
- Common Dandelion (*Taraxacum officinale*)
- Prickly Lettuce (*Lactuca serriola*)
- Creeping Thistle AKA Canada Thistle (*Cirsium arvense*) CLASS B Noxious weed
- Tumbleweed (*Salsola tragus*)
- Yellow Sweetclover (*Melilotus officinalis*)
- Salt Cedar (*Tamarix ramosissima*) CLASS B Noxious weed

- Siberian Elm (*Ulmus pumila*) WATCHLIST
- Cheatgrass (*Bromus tectorum*)
- Curled Dock (*Rumex crispus*)
- Diffuse Knapweed (*Centaurea diffusa*) CLASS B Noxious weed
- Common (Great) Mullein (*Verbascum Thapsus*) CLASS C Noxious weed
- Seven-spotted Lady Beetle (*Coccinella septempunctata*)
- *Porcellionides pruinosus* (arthropod)
- Western Honey Bee (*Apis mellifera*)
- Feral Pigeon (*Columba livia domestica*)

## Maps of Observations



Only observations recorded within the property boundaries are counted toward this Bioblitz. Informal observations do not contain exact location data. Many of those observations were from lists provided by botany team members and were posted to iNaturalist by the author.



The above map shows all observations to date from city property at Corral Bluffs Open Space and Jimmy Camp Creek Park.

For more information regarding the data from the bioblitz please see the Corral Bluffs Bioblitz webpage on iNaturalist: <https://www.inaturalist.org/projects/corral-bluffs-open-space-center-expansion-bioblitz-2019>





## **Conclusions**

Observations show Corral Bluffs contains a great diversity of plants and animals. Primarily based on important fossils, but also reflecting the great biological diversity, Corral Bluffs has been determined to be a Colorado Natural Area by Colorado Parks and Wildlife. This is an area that will need special consideration during the master planning process. This dry land ecosystem is fragile and requires protection.

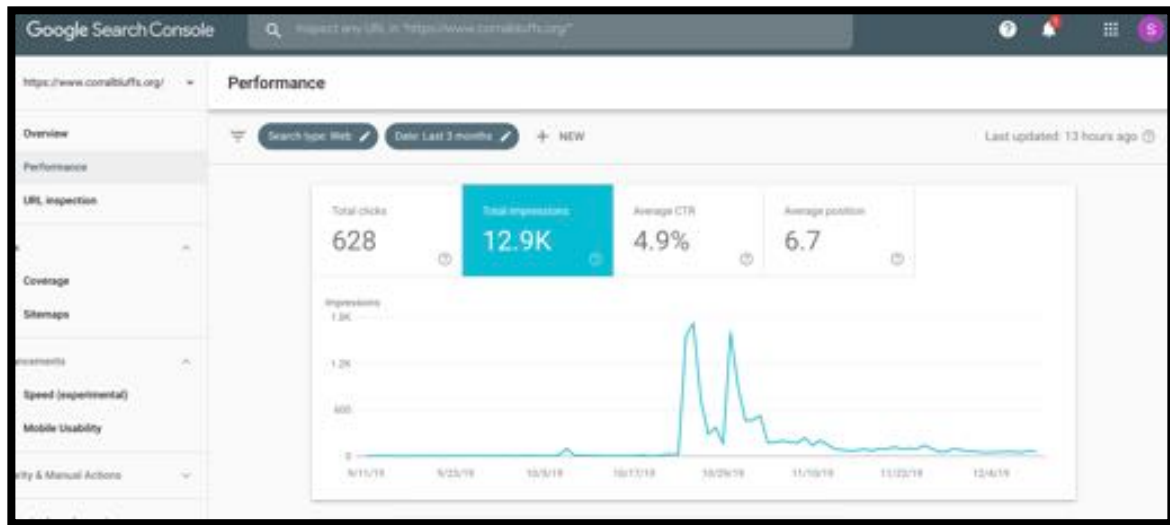
Time was again a concern for our science team leaders. Observable species can change in a matter of weeks. Ongoing documentation of the habitat, even informally, needs to continue. Also, as the open space area grows due to future property purchases the new land will need to be inventoried.

Further observations should be taken north of the Aztec Raceway and in the far north end south ends of the Bishop parcel.

Six noxious weed species should be monitored or eradicated: Canada Thistle, Salt Cedar, Field Bindweed, Diffuse Knapweed, Common Mullein and Siberian Elm.

Interested parties may sign up for public, guided hikes at Corral Bluffs Open Space and Jimmy Camp Creek Park. Due to recently released paleontological discoveries, public hikes on Corral Bluffs and Jimmy Camp have increased by 200%. Hike routes should be alternated to avoid damage to the prairie ecology. Increased ranger presence and monitoring should occur to protect the resources of Corral Bluffs as well as to ensure safety of possible intruders.

Of interest, Corral Bluffs website ([www.corralbluffs.org](http://www.corralbluffs.org)) visitors have increased from zero to 628 in three months and the website has appeared during web searches as shown below, highlighting the need for continued or increased patrolling of the property by TOPS rangers.



Included from 2018 Corral Bluffs Bioblitz report:

Eric Eaton, one of the leaders of the Insect Team, made an interesting point that should be highly reflected upon. "We can't have little islands of parks and open spaces, we need \*corridors\* and in the case of prairies, vast undeveloped parcels around the protected spaces." The 2014 Park System Master Plan does address this point. In the map on the following page Jimmy Camp, Corral Bluffs and Bluestem Prairie Open Spaces are connected. It is encouraging to see the foresight that has gone into this document, but it will take a great deal of cooperation, effort and money to make it happen. The Parks Department should request considerable input from the science and conservation community in this endeavor.

From the number of participants, both on science teams and the public, it is evident there is enthusiasm regarding Corral Bluffs Open Space. Controlled hiking opportunities and other public events on the property should be encouraged. Future land purchases on the east side of town will require public support. The public cannot be supportive if they have no knowledge of the area and its rich diversity of resources.

Master planning for Jimmy Camp/Corral Bluffs will require concentration on the biological, archaeological, geological and paleontological resources of the area. More so than at other city-owned properties, input from members of the scientific community will be essential for proper conservation as well as recreational planning for this property. The development of the Corral Bluffs Management Plan will need to be creative and perhaps quite different from other parks and open spaces.



*While maintaining existing land resources is a priority of this plan, so too is continuing to implement the vision held by the City's founders by continuing to expand conservation lands. Open space lands protect natural resources and provide recreational outlets for a growing population.*

**Candidate Open Space Areas**

- ① Mountain Shadows
- ② Cheyenne Cañon / Cheyenne Mountain
- ③ Rock Creek
- ④ Bluestem Prairie
- ⑤ Jimmy Camp / Corral Bluffs
- ⑥ Corral Bluffs Expansion

## Science Team Leader Contact Information

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## Resources

Bioblitz Organizational Guide, University of Connecticut  
<https://web2.uconn.edu/mnh/bioblitz/BioBlitzGuide.pdf>

Corral Bluffs Alliance (CoBA) website: [www.corralbluffs.org](http://www.corralbluffs.org)

iNaturalist [www.inaturalist.org](http://www.inaturalist.org)

iNaturalist Corral Bluffs this project <https://www.inaturalist.org/projects/corral-bluffs-open-space-bishop-bioblitz-2019>

City of Colorado Springs Park System Master Plan:  
[https://coloradosprings.gov/sites/default/files/parks\\_recreation\\_and\\_cultural\\_services/cos\\_masterplandocument\\_140923-view.pdf](https://coloradosprings.gov/sites/default/files/parks_recreation_and_cultural_services/cos_masterplandocument_140923-view.pdf)

eBird <https://ebird.org/home>

Colorado Natural Heritage Program: <https://cnhp.colostate.edu>

Colorado Department of Agriculture, Noxious Weed Species:  
<https://www.colorado.gov/pacific/agconservation/noxious-weed-species>