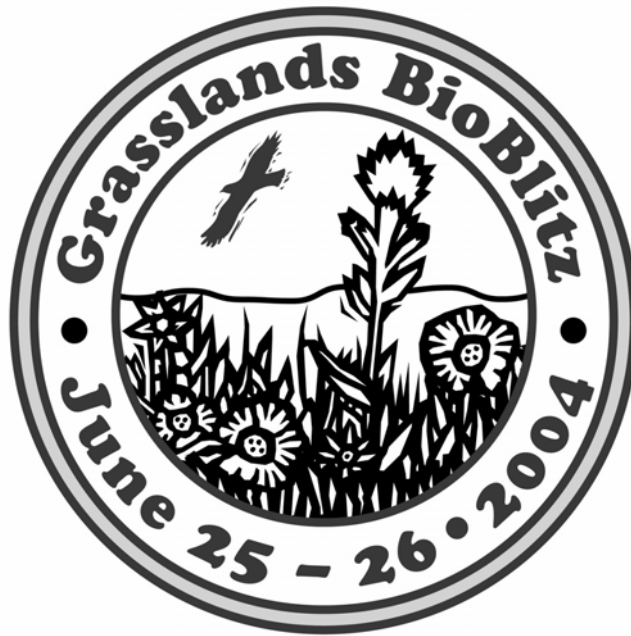


Grasslands BioBlitz 2004



**Science-In-Action
Discovery Center**

**June 25 to June 26, 2004, 12 noon to 12 noon
U. S. Department of Energy Visitor Center**



We invite you to participate with over 100 scientists in this special community event to discover the diversity of plants and animals on public-owned and managed grasslands near the border of Jefferson and Boulder counties.

Scientists will be identifying as many species as possible in a 24-hour period to create a biodiversity snapshot of about 6,000 acres of grasslands.

Here at the Science-In-Action Discovery Center see what the BioBlitz scientists are finding, ask questions & get answers from the experts, learn about the tools they use and how they determine the biodiversity of an area. Also, learn about organizations that offer educational programs and places you can go year-round to learn about grasslands and their biodiversity.

This booklet lists the scientific and community organization tables you can visit, programs presented throughout the day here at the Science-In-Action Discovery Center, scheduled trailhead hikes, and a map of the BioBlitz lands.

This event is sponsored by the Colorado Division of Wildlife, the U.S. Fish and Wildlife Service, University of Colorado Museum, University of Colorado Ecology and Evolutionary Biology Department, the U.S. Department of Energy, Jefferson County Open Space, City of Boulder Open Space and Mountain Parks, Boulder County Parks and Open Space, Colorado Native Plant Society, Audubon Society of Greater Denver, Roche Colorado, and the Boulder *Daily Camera*. Please visit our website: <http://www.grasslands-bioblitz.org> for more details.

Science Tables

Mycology (Fleshy Fungi)

Talk with mycologists to find out what they do to gather, identify, and preserve mushrooms & other fleshy fungi for their research collections.

Grasses, wildflowers and other vascular plants

Discover how botanists identify plants and press specimens for safe keeping in herbariums.

Soil Invertebrates

See how biologists extract critters from the soil and what they find. Look at a wide variety of live critters under microscopes. You may be amazed at what they find!

Invertebrates (especially mollusks & crustacea)

Learn how biologists collect these critters from the prairie ponds and streams, how sampling all these critters benefits the community, and what they look like up close.

Arachnids

Specialists will be using microscopes to look at all sorts of spiders. They will be able to tell you how and where they find different kinds, and how they sort out the different species.

Aquatic insects

Learn how entomologists collect and study insects from the wetland areas scattered throughout our prairies. Discover what they have been finding on our BioBlitz lands.

Bees

As bee experts examine bees under microscopes, they will show you what they have collected, how they tell one species from another, the roles different species play in pollination, and how they prepare these insects for their collections.

Grasshoppers, leafhoppers, & other insects

Find out what pitfall traps and malaise traps look like and how they work, how entomologists prepare insects for the museum and what information is important to keep with each specimen.

Butterflies, skippers, & moths

Learn how lepidopterists identify different species of butterflies & moths in the field, how they carefully collect them & prepare a voucher specimen, and why it's important to have collections of insect populations in museums.

Dragonflies and Damselflies

Discover the delicate parts that differentiate the many species of dragonflies and damselflies and where the different kinds live.

Fish

Find out how many different species of fish live on the prairie, what kinds of equipment these biologists use to discover fish in diverse prairie habitats and how they handle and identify them.

Herptiles

What are herps and how & where do herpetologists find them? Discover how many different types of amphibians and reptiles these scientists are finding and what tools they use.

Bats

On Friday you can talk with bat scientists, see their mist nets, hi-tech bat detectors and infrared video cameras, and find out where and how they find bats on the grasslands. Saturday morning, find out how many different species they found during the night and what they look like!

Mammals

Check out the field equipment mammalogists use, including Sherman live traps, radio-telemetry collars and antenna, Passive Integrated Transponders and the reader to detect them, and track plates. As you examine mammal specimens, ask the experts your questions.

Community Organizations

Audubon Society of Greater Denver

<http://www.denveraudubon.org>

We strive to protect the South Platte Watershed through education, advocacy and research. Stop by to learn about what we do to help preserve important ecosystems, like grasslands, for future generations. Learn about our field trips too and begin experiencing more in nature!

Birds of Prey Foundation

<http://www.birds-of-prey.org>

Find out about raptors, our work raising over 8,000 injured, orphaned and displaced raptors, and what we have learned through our experiences about birds of prey that live on our prairies. We will have displays, brochures, and some of these incredible birds at the BioBlitz!

Boulder County Nature Association

<http://www.bcna.org/>

BCNA is a group of natural history enthusiasts committed to the research, education, and preservation of the cultural and natural history of Boulder County and adjacent areas. Be sure to pick up copies of current newsletters and brochures describing courses by local experts that explore the bats, butterflies, Arapahoe people, and geology of our area.

Boulder County Parks and Open Space

<http://www.co.boulder.co.us/openspace>

Mountain vistas, golden plains, scenic trails, diverse habitat, rich heritage... a landscape that ensures an exceptional quality of life for all. Our mission is to conserve natural, cultural and agricultural resources and provide public uses that reflect sound resource management and community values. For almost 30 years, Boulder County Parks and Open Space has been protecting significant natural resources and providing buffers between communities. Our website has more information on how to get involved.

The Butterfly Pavilion

www.butterflies.org

Join the Butterfly Pavilion and discover the world of invertebrates that live and thrive in our local grassland ecosystem. Investigate how the lives of insects and other invertebrates are connected to the native plants in a delicate balance. Learn about our nature trail along the Big Dry Creek Open Space and experience first hand the area we've restored to native grasslands.

City of Boulder Open Space & Mountain Parks

www.ci.boulder.co.us/openspace

Since its first purchase in the Chautauqua Park area in 1989, Boulder's Open Space & Mountain Parks Program has protected and preserved over 43,000 acres of land. These lands, enjoyed by over 3.5 million visitors a year, include agricultural areas, scenic vistas, unique flora and fauna habitat, and an extensive trails system. Learn more about our lands & educational programs.

Colorado Native Plant Society

<http://carbon.cudenver.edu/~shill/conps.html>

Get acquainted with our non-profit organization, dedicated to the appreciation and conservation of Colorado's native flora. Come see our very informative display, get handouts on native plants & where to get them, browse some special publications that are for sale, and talk to experts about field trips, workshops, and ways to keep learning about our diverse array of native plants!

Denver Zoo

<http://www.denverzoo.org>

The Denver Zoo is committed to the conservation of Colorado's grasslands wildlife. Come and experience the diversity of life on the high plains by exploring a variety of animal specimens and biofacts. Children will receive a free coloring page that highlights the role of prairie dogs as ecosystem engineers. Also learn about the potential return of wolves to Colorado's wild lands!

Jefferson County Open Space

<http://openspace.jeffco.us>

Jefferson County Open Space was established in 1972 when voters approved a one-half of one percent sales tax to acquire lands of scenic, natural and historic value and trails thereon. Continuing to preserve important lands as identified in our Master Plan, Jefferson County Open Space has acquired over 50,000 acres for the enjoyment of present and future generations.

Morrison Natural History Museum

<http://town.morrison.co.us/mnhm/index.shtml>

Learn about hands-on natural history opportunities available at this Jeffco gem. It's got everything from dinosaurs to native reptiles and amphibians. Visit us to meet a bull snake, or get introduced to little known grassland inhabitants, such as tiger salamanders or turtles.

Science Discovery

www.colorado.edu/ScienceDiscovery/index.html

Science Discovery, a K-12 outreach program of the University of Colorado at Boulder, has been an important resource for students and teachers in Colorado since 1983. Find out about our exciting hands-on classes for students ages 4 through 16 (over 200!), wilderness camps, classroom presentations in all topics of science, teacher training workshops, trips and travel adventures, and how to make a difference for the environment by volunteering.

South Platte Park

<http://www.ssprd.org>

Find out about what we've done to reclaim a gravel pit, re-established plant communities, and attract greater animal diversity. Stop in to see plant guides, photos, planting mix and restoration descriptions, and information on naturalist-guided exploration programs for families throughout the year.

University of Colorado Museum

<http://cumuseum.colorado.edu>

With more than four million artifacts and specimens, the CU Museum houses one of the most extensive and respected natural history collections in the Rocky Mountain and Plains region, making it one of the top university natural science museums in US. Get acquainted with the learning opportunities we offer and our hands-on, interactive Discovery Corner.

Scheduled Presentations in the Science-In-Action Center

Friday, June 25, 2004

1 – 2 PM **Anita Boehm, *Prairies to Peaks***

This presentation of the ecosystems of Colorado is geared toward audiences of all ages. Learn what diverse life can be found from the grasslands up through the alpine tundra.

2:15 – 3:15 PM **Mary Taylor Young, *Land of Grass and Sky***

This renowned Colorado author and naturalist presents the prairie as an overlooked landscape with life lessons to teach us.

3:30 –4:30 PM **Julie Ambrose, *Bat Tales***

Are you curious about Colorado's only flying mammals? What are the habits of these creatures of the night? This presentation is especially suitable for young children.

4:45 – 5:45 PM **Tina Jungwirth, *Reptiles and Amphibians of the Plains***

The grasslands host most of Colorado's reptile and amphibian populations. A wealth of life is just underfoot!

6 – 7 PM **Ken Morgan, *Grassland Ecology and Private Lands***

The ability to conserve the biodiversity of the grasslands lies in the ability of public and private interests to work together. The future of many species is on private lands. Ken will share the latest thoughts on cutting edge partnership programs between landowners and the Colorado Division of Wildlife.

Friday, June 25, 2004 (continued)

7:15 – 8:15 PM **Mike Weismann, *Butterflies and Moths of Colorado***

It's amazing how many butterflies and moths are found in Colorado. Learn about these species and how they impact our daily lives. Mike will follow his talk by setting up light traps in the parking lot to attract moths – a great activity for families and curious naturalists of all ages.

Saturday, June 26, 2004

9 – 9:50 AM **Pete Palmer, *Earth HAS a History***

Following a video he produced, Pete will provide an introduction to the geology of the Boulder Valley. In particular he will discuss the importance of our landscape in understanding the concept of "deep time".

10 – 10:50 AM **Sarada Krishnan, *Restoration of Shortgrass Prairie***

Sarada Krishnan, the Butterfly Pavilion's Horticulture Director, will present a brief introduction about the shortgrass prairie and details about the Butterfly Pavilion's ongoing prairie restoration project.

11 – 11:50 AM **Sigrid Noll Ueblacker, *From the Egg to the Sky***

Sigrid, Director of the Birds of Prey Foundation, will tell about her experiences raising orphaned raptors for release. They have released to the wild 64% of the birds they've worked with over their 24 years.

TRAILHEAD PROGRAMS

Drop-in programs are available at all three trailheads (See map) on Friday from 1 to 8 p.m. and on Saturday from 8 a.m. to noon. Drop-in programs do not require registration.

Scheduled hikes listed below require registration.

Friday Afternoon Scheduled Hikes

(These programs require reservations)

1. Ranson/Edwards site:

Prairie Hike, 2:00 pm – 4:00 pm

Join naturalists from Jefferson County Open Space/Lookout Mountain Nature Center as we journey through the rich diverse Ranson/Edwards property at Coal Creek. Wonder at the vast amount of native xeric tallgrass prairie plants and the wildlife these resources attract. Discuss management of these spaces from an agency perspective and what you can do to protect these pockets of richness in urban and suburban areas.

2. Flatiron Vista Trailhead:

The incredible Prairie Dog! 2:00 pm – 3:30 pm

What animal has the biggest impact on the well being of the prairie? Most likely it's the prairie dog! Find out how these animals communicate, and affect so many other animals of the prairie. Learn the importance of prairie dogs to one very special animal called the Black-footed Ferret. Join park ranger and former Black-footed Ferret scientist from the City of Boulder Open Space and Mountain Parks, for a hike and some fun activities to learn more about the powerful prairie dog.

3. South Boulder Creek Trailhead:

Prairie Nature Hike, 2:00 – 3:30 pm

The prairie is a fascinating and diverse landscape worth exploring, even though it's not a rainforest! Join naturalists from Boulder County Parks and Open Space for a nature hike through Boulder's unique prairie lands, exploring the plants and animals that call this place home.

Friday Evening Scheduled Hikes

(These programs are open to the public; RSVP requested but not required.)

1. Ranson/Edwards site:

Prairie Nature Hike, 6 pm – 7 pm

Join naturalists from Jefferson County Open Space/Lookout Mountain Nature Center as we journey through the rich diverse Ranson/Edwards property at Coal Creek. Wonder at the vast amount of native xeric tallgrass prairie plants and the wildlife these resources attract. Discuss management of these spaces from an agency perspective and what you can do to protect these pockets of richness in urban and suburban areas.

2. Flatirons Vista trailhead:

Flower Hike, 6:00 pm – 8:00 pm

Enjoy an early evening hike onto the rocky mesa of the Flatirons Vista Trail and see the colorful and diverse summer wildflowers of the plains. Join naturalists from City of Boulder Open Space and Mountain Parks for this lovely hike.

3. South Boulder Creek Trailhead:

Bats! 8:00 pm – 9:30 pm

Explore the mysteries of the world's only flying mammals. We will discuss how important these creatures are to humans, and dispel some of the myths surrounding bats. Using a bat detector, we will listen for echolocation signals – the sound waves emitted by bats to locate prey. You will also learn about habitat, behavior, and the ecology of bats that inhabit this grassland-foothills transition zone. All ages are welcome to this hike offered by staff from Boulder County Parks and Open Space.

Saturday Morning Scheduled Hikes:

(These programs are open to the public; RSVP requested but not required.)

1. Ranson/Edwards site:

Prairie Wonders, 9:00 am – 11:00 am

Join naturalists from Jefferson County Open Space/Lookout Mountain Nature Center as we journey through the rich diverse Ranson/Edwards property at Coal Creek. Wonder at the vast amount of native xeric tallgrass prairie plants and the wildlife these resources attract. Discuss management of these spaces from an agency perspective and what you can do to protect these pockets of richness in urban and suburban areas.

2. Flatirons Vista trailhead:

The Uniqueness of Boulder's Prairie Lands, 8:00 am – 10am

Boulder's prairies are cloaked with dozens of native grass species, providing homes for ground nesting birds. Jungle-like, to its insect inhabitants, the plains house the huge Carolina wolf spider, who carries her babies on her back, and the giant, prehistoric-looking Luber grasshopper. Globally rare tallgrass communities, lively prairie dog colonies, brilliant butterflies, and early summer wildflowers will be a few of the highlights of our hike.

Butterflies of the Prairie, 10:00 am – 12:00 pm

Grasslands provide an ideal habitat for butterflies with abundant sunshine, food plants for caterpillars, and flowers to fuel the flights of adults. We'll learn about butterfly identification, how they depend on grasslands for habitat, how to be good stewards of grasslands, and what in turn butterflies can tell us about grasslands.

3. South Boulder Creek Trailhead:

Birding on the Plains, 7:00 am – 9:00 am

Listen for the song of the early bird on this prairie birding adventure. We will explore the birds' lives and how City of Boulder Open Space and Mountain Parks studies and manages their vital habitat in the plains, lead by staff and volunteers from City and County of Boulder.

The Plains Cottonwood, 10:00 am – 12:00 pm

In a land of little water, the majestic plains cottonwood stands out in the landscape. This water-loving tree has long been treasured by native peoples, pioneers, and wildlife for food, shade, and habitat throughout the grasslands of the western Great Plains. Join Boulder County Parks and Open Space for this short and easy walk in the South Boulder Creek floodplain to learn more of the story of the sentinel of the prairie. All ages welcome.