



CFO Annual Convention

Pueblo, Colorado

May 19-23, 2022

Program

Schedule

Thursday May 19, 2022

7:00 am - 4:00 pm	Pre-convention field trips	
3:00 pm - 7:45 pm	Welcome picnic w/ packet pick up	City Park, Rotary #43 Pavilion
	Catering starts at 5pm	
8:00 pm - 9:00 pm	Attendee packet pick up	Hotel Meeting Room
8:00 pm	Rails field trip leaves	Hotel Lobby
8:00 pm	Silent auction bidding starts	Hotel Meeting Room

Friday May 20, 2022

5:00 am - 4:00 pm	Field trips (full day trips)	Hotel Lobby
5:00 am - 6:30 am	Breakfast/lunch pick up	Hotel Meeting Room
5:00 am - 7:00 am	Silent Auction bidding open	Hotel Meeting Room
5:00 am - 7:00 am	Registration/packet pick up	Hotel Meeting Room
10:00 am - 9:00 pm	Silent Auction bidding open	Hotel Meeting Room
10:00 am - 9:00 pm	Registration/packet pick up	Hotel Meeting Room
4:00 pm - 9:00 pm	Exhibitors/vendors	Hotel Meeting Room
4:30 pm - 7:30 pm	Presidents' Social	Brues Ale House

Saturday May 21, 2022

5:00 am - 4:00 pm	Field trips (half & full day trips)	Hotel Lobby
5:00 am - 6:30 am	Breakfast/lunch pick up	Hotel Meeting Room
5:00 am - 7:00 am	Silent Auction bidding open	Hotel Meeting Room
8:00 am - 10:00 am	Public Bird Walk	City Park, Pueblo
10:00 am - 5:00 pm	Silent Auction bidding -last chance!	Hotel Mtg Room - Side A
1:00 pm - 5:30 pm	Exhibitors/vendors open	Hotel Mtg Room - Side A
1:30 pm - 4:30 pm	Scientific paper session	Hotel Mtg Room - Side B
5:00 pm - 5:30 pm	Silent Auction payment/pickup	Hotel Meeting Room
5:00 pm - 8:45 pm	Banquet & CFO Annual Meeting	Carriage House
	Food is served at 6pm	
8:45 pm - 10:00 pm	Silent Auction payment/pickup	Hotel Meeting Room

Sunday May 22, 2022

5:00 am - 4:00 pm	Field trips (half & full day trips)	Hotel Lobby
5:00 am - 6:30 am	Breakfast/lunch pick up	Hotel
12:00 pm - 8:00 pm	Exhibitors/vendors open	Hotel Meeting Room

Monday May 23, 2022

7:00 am - 4:00 pm	Post-convention field trips	Hotel Lobby
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Venue Locations

Convention HQ Hotel: Hampton Inn & Suites Pueblo/North
4790 Eagleridge Cir, Pueblo, CO 81008,
(719) 543-6500

Welcome Picnic: City Park, Rotary #43 Pavilion
3445 Nuckolls Ave, Pueblo, CO 81003 ([Google Map](#))

Presidents' Social: Brue's Alehouse Brewing Company
120 Riverwalk Place, Pueblo, CO 81003

Banquet: Olde Towne Carriage House
102 S Victoria Ave, Pueblo, CO 81003,
(719) 543-1012

Annual Meeting Banquet Schedule

Attendees must have registered for a banquet ticket and **bring the colored banquet entree selection ticket with them.**

5:00 pm	Pre-banquet socializing starts
6:00 pm	Banquet opening statements, food starts to be served
6:45 pm	CFO Annual Meeting
7:15 pm	Keynote by Mike Parr
8:15 pm	Q&A with Mike Parr
9:00 pm	Banquet concludes

Mike Parr, American Bird Conservancy

Mike Parr, President of the American Bird Conservancy, will speak on bird conservation across the Americas. Mike joined American Bird Conservancy in 1996 after graduating from the University of East Anglia, UK, and working for BirdLife International. He has coauthored several books including: Parrots - A Guide to the Parrots of the World, Important Bird Areas in the United States, and The American Bird Conservancy Guide to Bird Conservation, along with numerous articles and papers. He is Chair of the Alliance for Zero Extinction and a member of the Board of Directors of the Sustainable Forestry Initiative.



Field Trips

General Information

All field trips will meet in the lobby of the Hampton Inn & Suites, 4790 Eagleridge Circle, Pueblo unless otherwise noted. **Start times are the wheels up time, please arrive to meet your group 15 minutes prior to departure!** Make sure you have picked up or brought your breakfast and/or lunch for the full day trips.

Masks should be worn in the cars during carpooling unless everyone decides otherwise. Plan for the carpool group to reimburse the driver at the rate of 50 cents per mile. The driver is included in the calculations when figuring out the per person costs.

State Parks Pass – Field trips that include a State Park visit, will require **the driver** to have a State Parks Pass. These can be obtained at most entrance stations or <https://cpw.state.co.us/buyapply/Pages/AnnualPassInfo.aspx>

State Wildlife Area – Field trips that include a State Wildlife Area visit, **require everyone** to have a valid hunting or fishing license or a SWA pass. Learn more about passes: <https://cpw.state.co.us/Documents/LandWater/SWA/License-Requirements-SWA-STL-Access-FAQ.pdf>

Difficulty Rating

- 1 – easy, mostly flat on solid surfaces, less than one mile walking
- 2 – medium, walking could include some moderate elevational changes at slower speeds, trails may be uneven, walking less than 2 miles
- 3 – difficult, 1000-foot elevational walking at slow speeds, uneven trails, could walk as much as three miles.

Arrival/Departure Trips

Arrival Trip from the Northern Front Range - (Th 1, 7:00 AM – 4:00 PM, Full Day, difficulty 1-2) [Leader - Nick Komar, David Wade]

Arrival Trip from the Southwest - (Th 2, 7:00 AM – 4:00 PM, Full Day, difficulty 1-2) [Leader - Eric Hynes]

Departure Trip to the Northern Front Range - (Mo 1, 7:00 AM – 4:00 PM, Full Day, difficulty 1-2) [Leader - Nick Komar]

Departure Trip to the Southwest - (Mo 2, 7:00 AM – 4:00 PM, Full Day, difficulty 1-2) [Leader - Will Anderson]

Evening Trips

Rails in the Dark – (Th 3, 8:00 PM – 10:00 PM, difficulty 1, 60 miles round trip) [Leaders - Sue Riffe, Diana Beatty, Will Anderson, and Joe Kipper]

Owls and Night Birds – (Fr 18 & Su 19, 7:00 PM – 9:30 PM, difficulty 1, 100 miles round trip) [Friday Leaders - Paul Hurtado, Helen Butts, Sue Riffe, Eric Hynes; Sunday Leaders - Van Truan and Nick Komar]

Day Trips

Brett Gray Ranch – (Fr 1 & Su 1, 5:00 AM – 4:00 PM, Full Day, difficulty 3, 278 miles round trip, \$20 fee) [Leaders Friday - Mark Peterson and Megan Jones Patterson, Leader Sunday - Mark Peterson]

John Martin and the Arkansas River Valley – (Fr 2, Sa 1, Su 2, 5:00 AM – 4:00 PM, Full Day all three days, difficulty 2, 214 miles round trip) [Leader Friday - Eric Hynes, Leader Saturday & Sunday - Duane Nelson]

Higbee and Purgatoire River Valley - (Fr 4, Su 4, 5:15 AM – 4:00 PM, Full Day difficulty 2+, 205 miles round trip) [Friday Leader - Eric DeFonso, Sunday Leader - Nick Komar]

Rocky Ford SWA and the amazing lakes of Otero and Crowley Counties - (Fr 5 & Su 5, 5:15 AM – 4:00 PM, Full Day all three days, difficulty 2, 158 miles round trip) [Friday Leader - Will Anderson, Sunday Leader - Megan Jones Patterson]

The Best of Huerfano County - (Fr 6 & Su 6, 5:15 AM – 4:00 PM, Full Day, difficulty 1, 178 miles round trip) [Friday Leader - Sue Riffe, Sunday Leader - Eric DeFonso]

The Best of Custer County - (Fr 7 & Su 7, 5:30 AM – 4:00 PM, Full Day, difficulty 1, 150 miles round trip) [Friday Leader - Nick Komar. Sunday Leader - Sue Riffe, Helen Butts]

Chico Basin Ranch - (Fr 8, Sa 3, Su 8, 5:30 AM – 4:00 PM, Full Day all three days, difficulty 2, 80 miles round trip, \$20 fee) [Friday Leaders - Brandon Percival, John Drummond. Saturday Leaders - Eric Hynes, Helen Butts, Mark Peterson. Sunday Leaders - Brandon Percival, Don Marsh, John Drummond.]

Canon City and Penrose - (Fr 9, Sa 4, Su 9, 5:45 AM – 4:00 PM, Full Day all three days, difficulty 1, 99 miles round trip) [Friday Leader - Kip Miller. Saturday Leaders - Eric DeFonso, David Wade. Sunday Leader - Mark Amershek]

Fountain Creek and Big Johnson/Bluestem Prairie - (Fr 10, Sa 5, Su 11, 6:00 AM – 4:00 PM, Full Day all three days, difficulty 2, 75 miles round trip) [Friday Leader - David Wade. Saturday Leader - Don Marsh. Sunday Leader - Joel Such]

Aiken Canyon Preserve and Brush Hollow SWA - (Fr 11 & Su 12, 6:00 AM – 4:00 PM, Full Day, difficulty 2, 99 miles round trip) [Friday Leader - Joel Such. Sunday Leader - David Wade]

Burnt Mill Road Area in SW Pueblo County - (Fr 12 & Sa 7, 6:15 AM – 4:00 PM, Full Day; Su 13, 6:00 AM – 12:00 PM, Half Day;,, difficulty 1, 60 miles round trip) [Friday Leader - Peter Gent. Saturday Leader - Paul Hurtado. Leader - Van Truan]

The Best of Pueblo - (Fr 13, Su 14, 6:15 AM – 4:00 PM, Full Day, difficulty 1, 37 miles round trip) [Friday Leader - Don Marsh. Sunday Leader - Paul Hurtado]

Beulah Valley and the Wet Mountains – (Fr 16 & Su 17, 6:45 PM – 4:00 PM, Full Day; Sa 10, 6:15 AM – 12:00 PM, Half Day; difficulty one, mileage 110 round trip). [Friday Leader - Van Truan. Saturday Leader - Nick Komar Sunday Leader - Eric Hynes]

Trinidad Lake and Fishers Peak State Parks - (Sa 6 & Su 10, 5:45 AM – 4:00 PM, Full Day, difficulty 3, 188 miles round trip) [Saturday Leader - Diana Beatty. Sunday Leader - Chuck Hundertmark]

Venetucci Farm and Cross Creek Park - (Sa 8, 6:00 AM – 12:00 PM, Half Day, difficulty 2, 74 miles round trip, \$20 fee) [Saturday Leader - David Rudin]

Aiken Canyon Preserve and Brush Hollow SWA - (Sa 9, 6:00 AM – 12:00 PM, difficulty 2, 99 miles round trip) [Saturday Leader - Mark Amershek]

The Best of Pueblo - (difficulty 1, 37 miles round trip) [Saturday Leader - Brandon Percival]

Cheyenne Mountain State Park - (Sa 14 is 6:45 – 12:00 PM, Su 18 is 7:00 AM – 12:00 PM, Half Day, difficulty 2, 76 miles round trip) [Saturday & Sunday Leader - Debbie Barnes]

Pueblo Mountain Park - (Sa 15, 7:00 AM – 12:00 PM, Half Day, difficulty 1, 70 miles round trip) [Saturday Leader - Peter Gent]

Migrating Hotspots of Lamar - (Su 3, 5:00 AM – 4:00 PM, Full Day, difficulty 2, 246 miles round trip) [Sunday Leader - Joe Kipper]

Science Session

Saturday May 21, 1:30pm - 4:30pm
Hampton Inn Meeting Room - Side B

Schedule

- 1:30pm** **Kaily Meek and Drew Bender** - Environmental Conditions That Promote Large Aggregate Feeding Behavior in Northern Shovelers
- 1:47pm** **Richard Harness** - Avian Collisions with Utility Infrastructure: Technologies to Monitor and Mitigate
- 2:05pm** **Brandon A. Skerbetz** - Aural Identification of Individual Mexican Spotted Owls
- 2:22pm** **Zoe Erkenbeck** - Investigating the genomics of Mountain Plover (*Charadrius montanus*)
- 2:40pm** **BREAK (15 minutes)**
- 2:55pm** **Kyle Carlsen** - Dim the lights for birds at night: the impact of light pollution on migratory birds
- 3:12pm** **Edward Landi** - Spatial Partitioning of Cassin's Sparrow Territories
- 3:30pm** **Cassey Weissburg** - Understanding the effects of trophic interactions on Mountain Plover brood habitat selection and survival
- 3:48pm** **Karina Sanchez** - Development drives song changes but has little effect on reproductive success in American Robins (*Turdus migratorius*)
- 4:06pm** **Claire V. Ramos** - Effects of drought on two species of shortgrass prairie sparrows in southern Colorado

4:30pm - 5:00pm LAST BIDS on silent auction!

Proceeds of the silent auction support avian research through CFO's Grants & Scholarships Program

Abstracts

Environmental Conditions That Promote Large Aggregate Feeding Behavior in Northern Shovelers

KAILY MEEK kmeek@regis.edu and **DREW BENDER** dbender6@msudenver.edu, *Regis University, Denver, and Metropolitan State University, Denver*
Co-Authors: DR. CHRISTY CARELLO, *Metropolitan State University, Denver*; LAURA BERRYMAN FARNSWORTH, *Metropolitan State University, Denver*

Northern Shovelers (*Spatula clypeata*) overwinter in Colorado. Between November and March, these ducks have been routinely observed feeding in large groups, often exceeding several hundred individuals. They aggregate in large circles and display a massive whirling behavior while feeding. Whirling feeding behavior is observed consistently in the same water bodies throughout the winter but is not observed in other lakes that are nearby. It is unclear why these ducks choose some lakes over others. The objective of our study is to verify where shovelers frequently display this mass feeding behavior and where they do not. A second objective is to identify what properties, both biotic and abiotic, promote this behavior. In the winter of 2020/2021, we repeatedly sampled 4 lakes near each other and determined that the mass feeding behavior regularly occurred at only one of the lakes. In the winter of 2021/2022, we expanded this study to include approximately 20 lakes. Of the 20 lakes, only two lakes consistently had over 100 shovelers mass feeding 100% of the time and this behavior was never witnessed on the other lakes. The lakes where whirling behavior was observed shared similarities in surface area that were not shared by the other lakes. Additional metrics, such as lake depth and water chemistry will be evaluated before the breeding season to establish a correlation between lake properties and feeding behavior. Northern Shovelers are experiencing population decline and our findings will provide valuable information on the specific requirements for winter feeding.

Avian Collisions with Utility Infrastructure: Technologies to Monitor and Mitigate

RICHARD HARNESS rharness@edmlink.com, *EDM International, Inc, Fort Collins*

Avian collisions with overhead power lines are a global conservation concern (APLIC 2012). Determining the scope of collisions and the effectiveness of mitigating measures is challenging, and thus several technologies have been developed. For example, Pandey et al. (2008) used Bird Strike Indicators developed by the Electric Power Research Institute (EPRI) and the California Energy Commission to remotely monitor transmission lines at a wildlife refuge and found 68% (n = 154) of documented avian collisions involved the upper most static wires. Additionally an intelligent, video-based sensing and recording tool, named the Animal Activity Monitor (AAM), is under development by EPRI to allow visual review of such events. Prototype units have been tested in Colorado and at a major raptor migratory route. Bird collisions are often mitigated through marking power lines to increase visibility of overhead lines to birds (Beaulaurier 1981). Line marking is sometimes accomplished via an expensive and potentially dangerous process of hovering a helicopter within 1 m of a wire and

installing line markers by hand. To reduce this risk an Unmanned Aerial Vehicle (UAV) was developed to mark lines, offering a less dangerous, less costly alternative. This technology was developed in partnership with EDM International, Inc. (EDM) and Colorado State University. A line crawling robot is also available from another Colorado company, Power Line Sentry. Although line markers increase the visibility of power lines to birds in flight, they are limited in effectiveness at night, when many collisions occur. To address this concern, the Avian Collision Avoidance System (ACAS) was developed in Colorado to illuminate at-risk power lines. The ACAS uses near-ultraviolet light (UV) with a peak at 390 nm to illuminate power lines with a wavelength of light that many birds see, but that most humans do not. The ACAS nearly eliminated Sandhill Crane (*Antigone canadensis*) collisions in two studies at a major migratory stopover site. This presentation will go over each technology and discuss strengths and weaknesses.

Aural Identification of Individual Mexican Spotted Owls

BRANDON A. SKERBETZ brandon.skerbetz@western.edu , Western Colorado University, Gunnison, and Bureau of Land Management, Royal Gorge FO

Identification of individuals in wildlife populations is a critical component to several types of biological investigations. Standard methods being used to achieve individual identification generally involve capturing and marking individuals with brands, paint, tags, collars, and/or bands. Although these techniques often successfully produce informative results, the process can be highly invasive and potentially lead to negative effects on the captured wildlife. In effort to mitigate these negative impacts, I have implemented a newly developed technique of individual identification using passive acoustic monitoring data for Mexican spotted owls. Autonomous recording units were deployed in six sites with recent detections of Mexican spotted owls to capture their vocalizations. Successfully recorded male four-note calls were measured and analyzed. The results from this analysis indicate that it is possible to distinguish individual owls using their vocalizations alone. It is important to note that there are some limitations to using this method, but the technique is in its infancy and still offers a practical use to wildlife researchers. This study shows support for the development of a novel means to individually recognize vocal animals in a non-invasive manner.

Investigating the genomics of Mountain Plover (*Charadrius montanus*)

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University of Colorado, Denver

Co-Author: DR. MICHAEL WUNDER, University of Colorado, Denver

The mountain plover (*Charadrius montanus*) is a species of special concern in Colorado and the state may encompass over half of the breeding population. However, little sequencing has been performed on the species and we have a poor understanding of the species genomics, it's relationship with other plover species and possible variation between breeding populations within the species. Within *Charadrius* plover species chromosomal structure seems to be highly conserved so by full genome sequencing of the mountain plover and alignment to the

chromosome level assembly of the European golden plover (*Pluvialis apricaria*) I investigated the chromosomal structure of Mountain Plover. I used alignments of mitochondrial sequences for 14 available Charadriiformes plovers to the mitochondrial contigs for mountain plover and compared to previously published phylogenies to investigate and suggest the relationships between species. In addition to comparative genomics between species, ongoing work is investigating possible variation of breeding populations in the species. Samples from 4 breeding locations in Colorado and up to 4 additional locations outside of Colorado will be used to define within and between population levels of variation.

Dim the Lights for Birds at Night: the Impact of Light Pollution on Migratory Birds

KYLE CARLSEN kcarlsen@environmentamericas.org, *Environment for the Americas and World Migratory Bird Day*

Most birds migrate at night. These nocturnal migrants include ducks and geese, plovers and sandpipers, and songbirds of all kinds. However, the night sky is under threat. Artificial light is increasing globally by at least two percent a year, presenting a problem for birds. Light pollution from homes, businesses, and other infrastructure attracts and disorients migrating birds, making them more likely to land in areas where they are more vulnerable to collisions and other dangers. Artificial light also disrupts foraging, nesting, and other vital behaviors in birds. The impact of light pollution is the focus of this year's World Migratory Bird Day, an annual global campaign that celebrates the migration of birds across countries and continents. This presentation examines the impact of light pollution on migratory birds, highlights recent research, and explores the ways in which individuals and communities can take action for birds at night.

Spatial Partitioning of Cassin's Sparrow Territories

EDWARD LANDI Edward.landi@pack.csupueblo.edu

Colorado State University Pueblo

Co-Author: DR. CLAIRE RAMOS Claire.ramos@csupueblo.edu, *Colorado State University Pueblo*

North American grasslands are one of the most threatened ecosystems in the world. Grassland bird populations have declined by 53% in the last 50 years. Species like the Cassin's Sparrow (*Peucaea cassinii*) declined by 43%. Male Cassin's Sparrows select breeding territories with resources like dispersed shrubs on grasslands for nests and insects to feed their offspring. Due to their elusive nature, little about resource selection on their breeding grounds has been quantified. Male Cassin's Sparrows breed in high densities on sites with highly selected resources and can incur fitness costs from intrasexual competition between territorial males. Spatial partitioning of territories may be used to reduce competition because neighboring males may not overlap their areas of high resource selection. Areas of high resource selection may contain high grasshopper biomass and shrub cover. To address this hypothesis, we

evaluated movement patterns of neighboring male Cassin's Sparrows in Southeast Colorado during the summer of 2021. We used an automated telemetry system and solar powered LifeTags by Cellular Tracking Technologies to track locations of 13 Cassin's Sparrow. We measured two resources on the study site: vegetation cover and grasshopper abundance. We quantified shrub cover from 0-100% cover over all territories using satellite imagery. We found Cassin's Sparrows selected Low Shrub Cover (1 -20%) the most compared to other shrub cover classes (0% and 21-100%). Low shrub cover had the highest predicted probability of selection at 27%. Our research supports the need for shrubs to be present and not the dominant cover on Cassin's Sparrow territories.

Understanding the Effects of Trophic Interactions on Mountain Plover Brood Habitat Selection and Survival

CASEY M. WEISSBURG casey.weissburg@pack.csupueblo.edu, *Colorado State University Pueblo*

The Mountain plover provides a unique opportunity to examine predator-prey interactions, inhabiting prairie ecosystems with varying suites of predators and vegetation features as well as differing seasonal phenology. Chick survival has been shown as the vital rate that affects Mountain plover population growth the most after adult survival during migration, and so this research focuses on the brood-rearing phase of this species as a lens to examine the impacts of these trophic interactions. We hypothesize that Mountain plover brood habitat selection patterns, as well as chick survival rates, depend on variation in predation risk, mediated by forage availability and vegetation structure. Brood monitoring is conducted for every known brood from hatching day or discovery until fledging or death was confirmed, with daily locations obtained by VHF radio-transmitting tags deployed on one chick per brood. Data is collected on mammalian and avian encounter rates, insect and grasshopper biomasses, and percent bare ground, groundcover height, and shrub density, to evaluate the three environmental covariates of predation risk, forage availability, and vegetation structure, respectively. During 2021, the first of two field seasons, we monitored 25 broods between our two study sites. Brood habitat selection was evaluated through mixed-model resource selection functions and chick survival from estimated daily survival rates, both in series of a priori models. Preliminary results will be presented.

Development Drives Song Changes but has Little Effect on Reproductive Success in American Robins (*Turdus migratorius*)

DR. KARINA SANCHEZ karina.sanchez@unco.edu, *University of Northern Colorado, Greeley*

Co-Author: DR. LAURYN BENEDICT, *University of Northern Colorado, Greeley*

Urbanization has altered ecosystems across the globe. Research shows that urban environments support less biodiversity than native ones but the mechanisms leading to this decrease are unknown. Urban birds have been observed to alter their songs, an important behavior for reproduction, to avoid masking by anthropogenic noise. Other studies found that

urban birds alter the time of singing in areas with light pollution. These changes may be strategies to cope with the presence of noise and light to maintain effective communication. However, little is known about the benefits of these changes on reproduction. Furthermore, much of these changes have been attributed to noise, but noise is not the only urban characteristic that can shape acoustic signals. To better understand the effects of urbanization on song behavior and reproduction, we measured three key urban characteristics; noise light and development, to test for effects on song and reproduction of American Robins (*Turdus migratorius*). We hypothesized that birds in areas with more development and noise would have higher minimum frequency songs and that all three urban characteristics would negatively affect reproductive success. We found that American Robins are successful in several habit-types with no significant effects on reproductive output, though landscape was present in most models of best fit. Minimum frequencies were significantly affected by landscape but not anthropogenic noise. Understanding the selective pressures that shape birdsong in a world of rapid land changes is necessary to anticipate and plan for the ecological and evolutionary consequences of species in areas of rapid urbanization.

Effects of Drought on Two Species of Shortgrass Prairie Sparrows in Southern Colorado

DR. CLAIRE V. RAMOS claire.ramos@csupueblo.edu, Colorado State University Pueblo
Co-Authors: ALEXANDRIA SINKER, Colorado State University Pueblo; NATALIA WICKER, Colorado State University Pueblo

The North American prairies are perhaps the most imperiled ecosystem on this continent. Shortgrass prairie is threatened by conversion to agriculture use, changes in fire and grazing regimes, fragmentation, and increasingly, climate change. Climate models indicate increased probability of hotter, dryer summers across much of the region. Prairie birds are experiencing steep declines, more dramatic than for any other community of birds. Despite this, shortgrass prairie birds remain significantly understudied. Here we studied the reproductive behavior and success of two declining shortgrass prairie sparrows, Cassin's Sparrow (*Peucaea cassinii*) and Lark Bunting (*Calamospiza melanocorys*) at the US Army Pueblo Chemical Depot, a relatively undisturbed shortgrass prairie ecosystem in southern Colorado. Over the 4 years of this study (2017-2020), southern Colorado experienced two summer droughts and two summers with above average rainfall. Cassin's Sparrows and Lark Buntings responded to these variable rainfall conditions differently. Lark Buntings were only present and breeding at the Pueblo Chemical Depot during wet summers. In dry summers, they were entirely absent from the site after migration. Cassin's Sparrows, in contrast, bred at the site every year, however, their reproductive success tended to be lower in drought years than in wet years. These differences in response to drought may reflect differences in behavioral plasticity, which may make Lark Buntings better able to adjust to the effects of climate change, whereas Cassin's Sparrows may be more sensitive to these effects. Findings from this study could be critical in determining future management strategies to conserve these declining species.

Silent Auction

Benefiting the CFO Grants and Scholarships Program

Location: Convention Headquarters Hampton Inn, Meeting Room

Bidding Starts: Thursday May 19th 8:15 pm

Bidding Ends: Saturday May 21st 5:00 pm

The silent auction is open for bidding during all hours the convention meeting room is open between the silent auction start and end times above. Please see the convention schedule for specific times the meeting room is open.

How to Bid

All items have an opening bid amount and minimum bid increments are \$5 unless otherwise specified on specific items. Use the number on your conference badge as your bidder number. Write your bidder number very clearly in the next available row. Only bid as much as you intend to win across the auction – in it to win it!

Did I Win?!!

Winning bids and their number will be displayed at the Annual meeting/Banquet venue and in the meeting room at the hotel. Individual winners will be sent a notification text message at approximately 5:15pm on Saturday (at the cell phone number provided at registration).

Pick-up and Payment Hours

Winners must pay and pick-up their items at the convention. Items will NOT be shipped or delivered to winners!

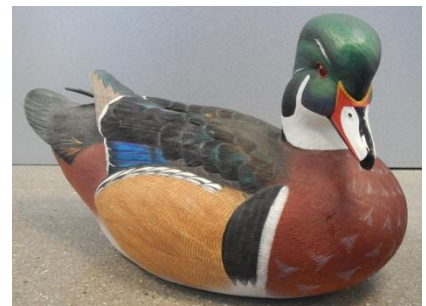
Payment may be made by cash, check (preferred), or credit/debit card at the time of item pick up in the meeting room at the Hampton Inn. Pick up and Payment will occur **only** Saturday 5:15p - 5:30p or 8:45p - 10:00p, Sunday 5:00a - 8:00a, or by contacting Irene Fortune ifortune@cobirds.org for special arrangements.

Item No. 1 Mandarin Duck Decoy

By George Kruth

This vintage piece is a beautiful duck decoy by George Kruth for his Danbury Mint Collection. It measures 13" long by 6" high. In perfect condition, this Mandarin Duck Decoy is painted with exquisite detail of individual feathers of the duck's distinguishing face and white accents along its chest. Its colors are true to what would be seen in nature.

Opening Bid \$ 60



Item No. 2 Pintail Duck Decoy

Vintage, life-sized Pintail decoy by sculptor George Kruth for his Danbury Mint Collection. It measures 13.5" in length. The superb detail of posture and precision of feathers painted across the duck's distinctive back finishing in the characteristic pintail. Painted in colors that are true to what would be seen in nature.

Opening Bid \$ 60



Item No. 3 Screech Owl Otus asio

by Ray Harm

This is a framed, limited edition, autographed lithograph print by renowned wildlife artist Ray Harm created in 1976. Many of these prints have been ruined over the years due to fire and water damage, and harsh sunlight on badly framed prints, making the remaining available prints undoubtedly undervalued. Beautifully framed under glass in a wood frame, this print depicts east and west morphs of Screech Owl.

Opening Bid \$ 70



Item No. 4 Cedar Waxwing Bombycilla cedrorum

by Ray Harm

Authentic, signed lithograph print by renowned American wildlife artist Ray Harm created in 1968. The print features the artist's name in-plate signature with a signature in ink by the artist himself. This print shows both ventral and dorsal plumage of a Cedar waxwing pair.

Opening Bid \$ 60



Item No. 5 Ruffed Grouse Bonasa umbellus

by Ray Harm

Authentic, signed lithograph print by renowned American wildlife artist Ray Harm created in 1972. The print features the artist's name in-plate signature with a signature in ink by the artist himself. This print captures the postures of a ruffed grouse drumming an old log so well you can almost hear it.

Opening Bid \$ 80



Item No. 6 *Acrulocercus apicalis*

from Aves Hawaiienses: The birds of Sandwich Islands by F. W. Frohawk

Beautiful hand-colored lithograph print by F. W. Frohawk (1861-1945) of the extinct *Acrulocercus apicalis* aka *Moho apicalis* aka the O'ahu Oo, black honeyeater of the island of O'ahu. These framed lithographs are a rare exquisite find, published by Scott B. Wilson and A. H. Evans .

Opening Bid \$ 150 Minimum Increment \$ 10



Item No. 7 *Drepanis pacifica*

from Aves Hawaiienses: The birds of Sandwich Islands by F. W. Frohawk

Beautiful hand-colored lithograph print by F. W. Frohawk (1861-1945) of the extinct *Drepanis pacifica* aka the Hawai'i Mamo endemic to the island of Hawai'i. These framed lithographs are a rare exquisite find, published by Scott B. Wilson and A. H. Evans.

Opening Bid \$ 150 Minimum Increment \$ 10



Item No. 8 *Hemignathus procerus*

from Aves Hawaiienses: The birds of Sandwich Islands by F. W. Frohawk

Beautiful hand-colored lithograph print by F. W. Frohawk (1861-1945) of the presumed extinct *Hemignathus procerus* aka the Kauai 'akialoa, endemic to the island of Kauai, last confirmed sighting in 1969. These framed lithographs are a rare exquisite find, published by Scott B. Wilson and A. H. Evans.

Opening Bid \$ 150 Minimum Increment \$ 10



Item No. 9 Bobwhite Quail

by William Zimmerman

This is a limited-edition print by William Zimmerman. Signed and numbered print with an edition size of 1750. It was published in 1977. This print nicely depicts the elegantly dappled plumage of these quails that offer excellent camouflage.

Opening Bid \$ 50



Item No. 10 Western Tanager pair

by Don Radovich

This is a limited-edition print by Don Radovich. Signed and numbered print 771 with an edition size of 1250. A favorite of the western US, this print exemplifies the striking red head and brilliant yellow body of a male western tanager said to be like looking at a flame, and the somewhat dimmer though just as striking yellow-green plumage of a female or immature bird.

Opening Bid \$ 50



Item No. 11 Western Bluebird pair

by Narca Moore-Craig

This original-colored pencil drawing of western bluebirds is an art piece by contemporary artist Narca Moore-Craig. Superb detail and accuracy in the depiction of these bluebirds come from Narca's 30 years of experience leading trips for clients including the Smithsonian Institute, Harvard Museum of Comparative Zoology, California Academy of Science, World Wildlife Fund, The Nature Conservancy, and American Association for the Advancement of Science.

Opening Bid \$ 150



Item No. 12 Peregrine Falcon Oil Painting

by Craig Pursley

Original oil painting by American artist Craig Pursley, chosen as Nebraska's Outstanding Young Artist at 17, has been featured in American Art Collector, Southwest Art, and International Artist magazines, and can be seen in the Ronald Reagan Presidential Library and Museum, the National Baseball Hall of Fame for his portraiture, and the Saint-Gaudens National Historic Site as well as in private collections. Though not his typical portraiture, he captures superb detail of this peregrine falcon.

Opening Bid \$ 350

Minimum Increment \$ 20



Item No. 13 Evening Grosbeak Drawing

by David Mooney

A beautiful color pencil drawing of an Evening Grosbeak by American artist David Mooney, this is one of his earlier pieces as his art gradually moved from realistic depictions of natural objects to visions of the natural world with an underlying message. His work spans a broad scope of subjects from dinosaurs, knights, insects, wildlife, and landscapes in book illustrations, painted murals, and play sets along with canvas and paper mediums. He is the creator of the Whiskerland characters of gypsy mice that originated in murals painted for a day-care center.

Opening Bid \$ 150



Item No. 14 Harpy Eagle

by Carol Snow

Beautiful black and white pencil drawing of the striking gaze of a Harpy Eagle by Carol Snow. The Harpy Eagle is a neotropical species of eagle and among the largest extant species of eagles in the world.

Opening Bid \$ 50



Item No. 15 Blue-Gray Gnatcatcher

by Michael James Riddet

Using a Trompe L'oeil 'illusionist' painting technique dictates that in order to carry off the illusion of reality all the objects must be painted life size. This little but fierce blue-gray gnatcatcher is a perfect example of American/British artist Michael James Riddet's unique style which has been exhibited in over 60 museums in the US and abroad.

Opening Bid \$ 70



Item No. 16 White-eared Hummingbird pair

by James Landenberger

White-eared hummingbirds are birds of high tropical mountains and are rare breeders in the United States. Wildlife artist James F. Landenberger (1938-2003) was the first three-time winner of the Iowa outdoor stamp design contests. His original watercolors and limited-edition prints such as this 61st of 100 artist's proof are a lasting legacy to his craft.

Opening Bid \$ 60



Item No. 17 Resplendent Trogon (Quetzal) pair

by John Gould

This lithograph print with original hand-coloring by John Gould is a treasure to behold. Trogons mostly inhabit tropical rainforests and get their name 'Trogon' from the Greek word for nibbling, referring to the way they gnaw holes in trees to make their nests. Assisted by his wife Elizabeth in publishing it in A monograph of the Trogonidae, or Family of the Trogons, London, 1838.

Opening Bid \$ 120

Minimum Increment \$ 10



Item No. 18 Purple-winged Roller pair

by John Gould and H. C. Richter

A hand-colored lithograph print, Plate 56, from John Gould's *The Birds of Asia*, Vol 1. (1850-1883) depicting purple-winged roller *Coracias temminckii* pair with a frog, an endemic species to the Sulawesi subregion in Indonesia.

Opening Bid \$ 80



Item No. 19 Meadowlark

Ski Country Decanter

Ski Country collectible porcelain liquor decanters are more of an art form completely hand decorated than simply a liquor container. Foss Drug produced over 195 decanter designs ranging from waterfowl and wildlife to Native Americans and rodeos, and were made in limited editions of 120 to 12,000. The Meadowlark was produced in 1980.

Opening Bid \$ 50

Item No. 20 Red-headed Woodpecker

Ski Country Decanter

Ski Country collectible porcelain liquor decanters are more of an art form completely hand decorated than simply a liquor container. Foss Drug produced over 195 decanter designs ranging from waterfowl and wildlife to Native Americans and rodeos, and were made in limited editions of 120 to 12,000. The Red-headed Woodpecker was produced in 1975, and this piece is number 609 of 2400 pieces.

Opening Bid \$ 25



Item No. 21 Red-winged Blackbird

Ski Country Decanter

Ski Country collectible porcelain liquor decanters are more of an art form completely hand decorated than simply a liquor container. Foss Drug produced over 195 decanter designs ranging from waterfowl and wildlife to Native Americans and rodeos, and were made in limited editions of 120 to 12,000. The Red-winged Blackbird was produced in 1977 and this piece is number 86 of 1200 pieces.

Opening Bid \$ 25



Item No. 22 Ring-necked Pheasant Mini

Ski Country Decanter

Ski Country collectible porcelain liquor decanters are more of an art form completely hand decorated than simply a liquor container. Foss Drug produced over 195 decanter designs ranging from waterfowl and wildlife to Native Americans and rodeos, and were made in limited editions of 120 to 12,000. The Ring-necked Pheasant mini was produced in 1981.

Opening Bid \$ 25



Item No. 23 Burrowing Owls mini

Ski Country Decanter

Ski Country collectible porcelain liquor decanters are more of an art form completely hand decorated than simply a liquor container. Foss Drug produced over 195 decanter designs ranging from waterfowl and wildlife to Native Americans and rodeos, and were made in limited editions of 120 to 12,000. The Burrowing Owls mini was produced in 1986 and is piece number 803.

Opening Bid \$ 25



Item No. 24 Cardinals in winter

Ski Country Decanter

Ski Country collectible porcelain liquor decanters are more of an art form completely hand decorated than simply a liquor container. Foss Drug produced over 195 decanter designs ranging from waterfowl and wildlife to Native Americans and rodeos, and were made in limited editions of 120 to 12,000. The Cardinals in winter was produced in 1990, and limited to 900 pieces.

Opening Bid \$ 50



Item No. 25 King Eider

Ski Country Decanter

Ski Country collectible porcelain liquor decanters are more of an art form completely hand decorated than simply a liquor container. Foss Drug produced over 195 decanter designs ranging from waterfowl and wildlife to Native Americans and rodeos, and were made in limited editions of 120 to 12,000. The King Eider was produced in 1977.

Opening Bid \$ 50



Item No. 26 Cinnamon Teal

Jim Beam Bottles

Limited edition Cinnamon Teal decanter made for the international association of Jim Beam bottle and specialties clubs. Another of the big collectible series of hand decorated art liquor decanters. The Cinnamon Teal was produced in 1993, and this piece is number 173 of 1200 pieces.

Opening Bid \$ 50

Item No. 27 Whistling Swan

Art Liquor Decanter

This piece was made in Japan with the original bottle stamp seal still intact.

Opening Bid \$ 50



Item No. 28 State Birds and Flowers Quilt

by Lillian Callendar

Handmade quilt of fabric paintings of each state bird and state flower. Truly a one-of-a-kind work of art, 50"x76" full bed size. Lillian was imaginative and skilled when it came to doing anything with cloth. A consummate professional who spent her life giving and doing for others, she made baby quilts for a mission in Kansas and hand sewn Christmas ornaments for the blind. Her love and dedication is evidenced in each patch of this quilt.

Opening Bid \$ 350

Minimum Increment \$ 20



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Donate through [CFO's online form](https://bit.ly/CFO-grants-donation) (short URL: bit.ly/CFO-grants-donation)

You can also donate by cash or check at the Annual Meeting during the Pass the Hat portion.

