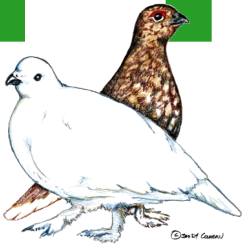


# PTARMIGAN



## FORT COLLINS AUDUBON SOCIETY

P.O. Box 271968 • Fort Collins, CO 80527-1968 • [www.fortcollinsaudubon.org](http://www.fortcollinsaudubon.org)

Promoting the appreciation, conservation, and restoration of ecosystems, focusing on birds and other wildlife through education, participation, stewardship, and advocacy.

**March 2022**

**Volume 54, Issue 3**

### FCAS Hosts

**CSU Professor Randall Boone, Department of Ecosystem Science and Sustainability**

**Presenting: "Climate Change and Avian Responses"**

**Thursday, March 10**

**7 p.m., Announcements; 7:20 p.m., Program**

**Fort Collins Senior Center, 1200 Raintree Dr.**

**Masks Requested**

**\*\*\*This program also will be on Zoom\*\*\***

**Enter the following link to join the meeting virtually:**

**<https://us02web.zoom.us/j/895009271FGH02>**

More than 150 years ago, it was anticipated that our atmosphere would warm because of increasing CO<sub>2</sub> concentrations. Professor Randall Boone, CSU, will address the nature of greenhouse gases and the means by which they warm the atmosphere, and review observed and anticipated changes from our changing climate. He will describe some changes seen in bird geographic ranges, the timing of events in their life histories, and ways that bird species may interact in a changing climate. Prof. Boone will briefly describe the scope of changes needed to re-



**"Where has all the snow gone?" Snowy Owl by Jeff Ott.**

duce emissions, for which he remains optimistic.

Randall Boone is a Professor in the Department of Ecosystem Science and Sustainability, and Senior Research Scientist within the Natural Resource Ecology Laboratory.

**Note:** Due to the unpredictable nature of the pandemic, it may be necessary to cancel the in-person portion of our meeting and conduct the meeting entirely via Zoom.

Please check our website, Instagram, or Facebook page the day of the meeting for latest meeting updates.

Join us on March 10. The public is welcome.

**FCAS welcomes new National Audubon Society members** by sending one complimentary copy of our newsletter. Join us at our monthly programs on the second Thursday of the month to find out more about FCAS. National dues do not cover the cost of printing and mailing the newsletter, so to keep receiving it, please support your local chapter and subscribe. See details on the last page of the newsletter or on our website at [www.fortcollinsaudubon.org](http://www.fortcollinsaudubon.org).

In February, for the first time in two years, I traveled back to Maryland for business and to visit my brother and two sisters. The trip was long overdue and much anticipated, but there was only one day when all the siblings could be together. We wanted that day to be fun



Shenot clan from left: Jeff Shenot, Chris Shenot, Kathy Chetelat, John Shenot.

and meaningful and memorable.

We discussed a few ideas for what to do, but the list of options narrowed as a cold front and light snow blew

across Maryland the night before our day together. What to do? To my surprise, the answer — on which all four of us agreed — was handed down by fate (or what I sometimes call “the bird gods”). A Snowy Owl had been seen an hour from my sister’s home, in Cambridge — a pleasant, historically rich town on a river flowing into

the Chesapeake Bay. We had our destination and our purpose. Even my sister Kathy, who is not into birds, thought it might be fun.

It was cold and windy when we arrived in Cambridge, and there was no sign of the owl

in the location where it had been seen. Eventually, we decided to go to a waterfront restaurant and eat some fresh seafood. It started snowing again while we ate. But after the meal, we all agreed to look one more time to see if the owl had shown up. The bird gods smiled on us. When we got out of the car, Kathy turned to me and pointed and said, “Wait — I think I see it — is that it?” The magnificent beast had returned and was perched for us to admire. Kathy was thrilled and we all drove home that evening with smiles on our faces and memories of our time together.

What’s this have to do with FCAS? Just this: it was another reminder for me that the best birding moments are those I spend with other people, including those who aren’t birders. Almost any person you know can be amazed and delighted when the circumstances are right. Snowy Owls are scarce, of course, but show your neighbor an American Dipper plunging into a river or a Broad-tailed Hummingbird sitting on a nest, and I suspect they will be amazed and delighted. Share your passion for the natural world and we will all be better off!



Snowy Owl by John Shenot.

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Visit us on Facebook:

<https://www.facebook.com/FortCollinsAudubonSociety>

## FCAS Pocket Guide to Local Birds

Is available at the following retailers who support our organization with the sales:

Wild Birds Unlimited  
3636 S. College Ave  
Ste. C  
(970) 225-2557

Jax Loveland West  
Outdoor Gear  
2665W. Eisenhower  
(970) 667-7375

Jax Outdoor Gear  
1200 N. College  
(970) 221-0544



## Conservation Technology: How Tech Might Be Conservation's Greatest Asset

Advancing technology has an unprecedented opportunity to enhance our capacity to conserve biodiversity and contend with climate change. The last decade has seen the technology landscape massively change thanks to low production costs, rapid prototyping, high computational power, and widespread access to the internet.

The reality is that, most likely, we will not meet global conservation and sustainability goals without significantly improving our capacity to monitor natural systems and wildlife populations as well as mitigate threats to biodiversity. Innovations in conservation technology, and widespread adoption of it, will be central to meeting these challenges over the next decade. Thankfully, new technologies are starting to address common challenges in conservation; for example, the discovery of critical migratory routes with miniaturized trackers.

The term conservation technology typically refers to devices, software platforms, computing resources, algorithms, and biotechnology. Breakneck advances in technology have drastically altered agriculture, mining, and other major industries, but have not been commonplace in conservation efforts. The conservation community has traditionally appropriated technologies developed for big industries like consumer electronics, infrastruc-

ture, biomedical, and the military. These services haven't been available for conservation efforts primarily due to cost, training availability, or even knowledge that the technology exists.

WILDLABS, recently published the results of survey input from 248 conservation tech users and developers across 37 countries. Their research focuses on three main areas of investigation: perceptions of existing tools' current performance and potential impact, user and developer constraints, and key opportunities for growth.

Their results indicated that to support efforts to develop conservation-targeted technology, the most pressing challenges affecting the field as a whole are competition for

limited funding, duplication of efforts, and inadequate capacity building. The technologies perceived as having the highest untapped potentials were machine learning and computer vision, eDNA and genomics, and networked sensors. Lastly, the key opportunities identified for growth were increasing collaboration and information sharing, improving the interoperability of tools, and enhancing capacity for data analyses at scale.

Conservation technologies can enhance our ability to collect, analyze, and share data on wildlife species and ecosystems, helping us understand and identify drivers of extinction and degradation as well as monitor the efficacy and efficiency of conservation actions at a global scale. Tech also can support conservation action on the ground, detecting and fighting illegal activities, mitigating threats to biodiversity, and restoring habitats at unprecedented scales.

If applied wisely, technology can play an integral role in our ability to counter environmental degradation and species extinction. However, tech is not a silver bullet. Further steps must still be taken, such as shaping conservation policy on both local and global scales, increasing funding to provide resources needed to monitor outcomes and adjust projects to achieve goals, and open-sourced sharing so successes can be replicated and expanded on by others.

While this great potential is still sorely underutilized, this conservationist remains hopeful for the future.



From Zoological Society of London.



From Alessio Soggetti on Unsplash.



Efforts to conjoin the fields of technology and conservation are currently underway. Research conducted by Colorado State University, in partnership with





## Gulls Away from the Sea

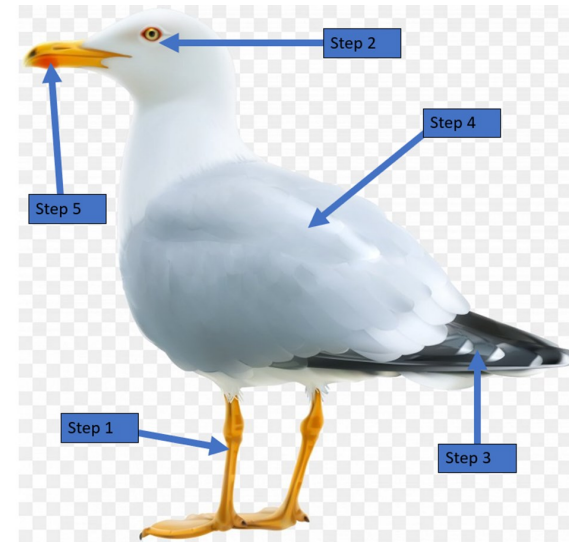
Did you know there are 54 species of gulls around the world, and 27 are found in North America? Colorado has 21 species recorded with 20 of these species being seen in the last 15 years. During that same time, 18 species have been seen within Larimer County. That is nearly half the world's known gulls and 75 percent of gull biodiversity in North America, but why Colorado?

It all comes down to migration and human expansion. Many of the species in Colorado are migratory vagrants flying over Colorado's large reservoirs from the arctic and subarctic regions of North America. These gulls historically used to migrate to the coasts of Texas and Mexico, and used Colorado as a stopping location. Human development, such as the construction of larger reservoirs and availability of food through trash, has encouraged many gulls to take up winter residence in Colorado, including Glaucous-winged Gulls, Iceland Gulls, and Sabine's Gulls. Colorado also has become a year-round home for some species as well, including the Ring-billed Gull and Franklin's Gull. Some of the rarest gulls seen are the Kelp Gull, Ross's Gull, and the Black-legged Kittiwake.

With all these species, gulls are some of the most difficult birds to identify for new birders. That is completely understandable, especially here in Colorado where gull species vary from year to year. So, the best way is to

develop a pattern for identification. Grab your bird guide and play around with it.

Step 1: Look at the feet. Gulls in North America have three distinct foot colors: black, pink, and yellow. This is a quick way to identify California Gull and smaller Ring-billed Gull that are the two yellow-footed gulls in Colorado.



Step 2: Head and eye-color.

Most gulls have white or black heads, and the color of the eyes are very helpful for identification. However, these only work for breeding adults as head and eye color typically change from breeding to non-breeding.

Step 3: Wingtips. The wingtips of gulls come in three colors: black, white, and bluish grey (glaucous). The wingtips have two color patterns: diamonds and solids.

Step 4: Wing color. When looking at dorsal wing color there are three colors: pale, glaucous, and black. You can see this on

the gulls' backs when they are standing.

Step 5: The color of the bill spot or ring. You may or may not have noticed that all gulls seem to have a permanent-colored part on their yellow bill. This is slightly different between gull species with some being simple, such as the Herring Gull, while others are complex, like the California Gull.

Good Luck and Happy Birding!

### FCAS Welcomes New and Renewing Members

Carolyn Anich  
Hetty Bixby  
Liz Bower  
Joan Craig  
Kenneth Dunnington  
Susan J. Emond  
Vickie Helton  
Nancy & Thomas Hill  
Barbara Jones  
Andrew & Carol Klingensmith  
David Landers  
Hildy Morgan  
Larry Moskowitz  
Elizabeth Pruessner  
Andrew Rosen  
Linda Squires  
Richard Valerio

Thank you for  
your  
membership  
and support!



Ring-billed Gull by John Shenot.



## Upcoming Field Trips

All field trips are free (unless otherwise noted), are currently open to the public, and all experience levels are welcome. Bring snacks or lunch, water, binoculars, and spotting scopes. Changes to dates, meeting times, locations, and trip leaders are occasionally unavoidable. Register at [www.facebook.com/groups/123106328705](https://www.facebook.com/groups/123106328705), <https://www.instagram.com/fcaudubon/>, or [fortcollinsaudubon.org](http://fortcollinsaudubon.org). Registrants will be posted one week before the scheduled trip. Due to Covid, attendance is limited to a maximum of 14 individuals. Waitlisted individuals will be sent a link for the next available trip. All Bobcat Ridge surveys will not require registration.

### Mar. 13, Sunday, Post-Fire and Post-Covid Bobcat Ridge Survey.

Leader: Denise Bretting, [dbretting@swloveland.com](mailto:dbretting@swloveland.com) or 970-402-1292. FCAS will be resuming our monthly bird surveys at Bobcat Ridge. The survey looks at bird populations and helps local scientists better understand bird dynamics. The hike is a little more than four miles covering moderate to flat terrain. The survey lasts a couple of hours.

No registration required and there is no participation limit, but please email or text Denise that you plan to attend. Meet at 7:30 a.m. in Bobcat Ridge parking lot.

**Mar. 20, Sunday, Fossil Creek Reservoir Natural Area.** Leader: Sirena Brownlee, [sirena.brownlee@hdrinc.com](mailto:sirena.brownlee@hdrinc.com), 970-980-6184. Join Sire-



Sharp-shinned Hawk by Ron Harden.

na for a walk along the Cattail Flats Trail for waterfowl and maybe early migrant songbirds and raptors. Plan for a 2-mile walk. All levels are welcome and a spotting scope will be available. Meet at 9:30 a.m. in the parking lot. This trip will still have a registration and limit.

### Past Field Trips

**Feb. 7, Arapahoe Bend Natural Area.** Leader: Nolan Bunting.

It was a quiet trip with not many birds. Highlights included Com-

mon Goldeneyes, Black-capped Chickadees, a Red-tailed Hawk, and a flying Greater Scaup.

**Interested in leading a birding trip?** Have an idea for a trip? Email [nbunting@rams.colostate.edu](mailto:nbunting@rams.colostate.edu) if you would like to volunteer or suggest a trip.

## Species Highlight



Black-capped Chickadee by Roger Wieck.

To celebrate the New Year and 25<sup>th</sup> Great Backyard Bird Count, we are highlighting a bird species in each newsletter this year, and on Facebook and Instagram. Want to submit a suggestion or photo? Email [nbunting@rams.colostate.edu](mailto:nbunting@rams.colostate.edu).

This month's highlight is the Black-capped Chickadee, which is a member of the family Paridae, containing the chickadees and titmice. Chickadees and their relatives are found throughout the northern hemisphere. These birds are important ecologically

due to their establishing mixed foraging flocks known as bird parties or bird waves. These multispecies flocks tend to follow the movements of the chickadees and react to their alarm calls. One could say chickadees put the party in "Paridae."

## Your Photos Wanted!

Do you have bird photos that you would like to share with fellow birders? FCAS is always looking for pictures to feature in the newsletter.

There are three easy ways to submit photos for the chapter newsletter: 1) On our website's photo gallery at <http://www.fortcollinsaudubon.org/pages/gallery.php>.

2) Post your photos via our Instagram account at <https://www.instagram.com/accounts/login/?next=/fcaudubon/>. 3) Share your photos on our photo archive on Google Drive at [https://drive.google.com/drive/folders/1mnLM9aF\\_Pq6zqHqVbaVREbxfDfDPZJ0](https://drive.google.com/drive/folders/1mnLM9aF_Pq6zqHqVbaVREbxfDfDPZJ0).

Please always be sure to identify the bird, include a description, and name the photographer.



American White Pelicans fishing alongside Spring Creek Trail by Liz Pruessner.



Fort Collins Audubon Society  
PO Box 271968  
Fort Collins, CO 80527-1968



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### Membership Application

Join Fort Collins Audubon Society (FCAS), National Audubon Society (NAS), or both.

- |                          |   |         |  |
|--------------------------|---|---------|--|
| <input type="checkbox"/> | New or renewing FCAS Chapter Member<br>Receive the FCAS <i>Ptarmigan</i> by email | \$ 20   | Name: _____  |
| <input type="checkbox"/> | New or renewing FCAS Chapter Member<br>Receive the FCAS <i>Ptarmigan</i> by mail  | \$ 30   | Address: _____   |
| <input type="checkbox"/> | Lifetime FCAS Chapter Member<br>Receive FCAS <i>Ptarmigan</i> by mail or email    | \$750   | City: _____ State: _____ Zip: _____  |
| <input type="checkbox"/> | Additional support for FCAS programs  | \$ ____ | Phone: _____   |
| <input type="checkbox"/> | Additional support for Alex Cringan Fund<br>(natural history education grants)    | \$ ____ | Email: _____   |
| <input type="checkbox"/> | New NAS member<br>Receive the NAS <i>Audubon</i> by mail                          | \$ 20   | May we send you FCAS email alerts if updates occur for field trips, programs, etc.? Yes or No                                  |
| <input type="checkbox"/> | Renewing NAS member<br>Receive the NAS <i>Audubon</i> by mail                     | \$ 35   | May we contact you for volunteer activities such as helping at events or contacting legislators on important issues? Yes or No |

**Total Enclosed:** \$ \_\_\_\_

Please make your tax-exempt check payable to FCAS and mail with this form to FCAS, P.O. Box 271968, Fort Collins, CO, 80527-1968. Your cancelled check is your receipt. All renewals are due in January. New memberships begun after August 31 extend throughout the following year. Applications can be completed at [www.fortcollinsaudubon.org](http://www.fortcollinsaudubon.org).