FEBRUARY 2023

Sacajawea Audubon News

Sacajawea Audubon Society builds on an interest in birds to promote the conservation of our natural environment through enjoyment, education, and action.

Monday, Feb. 13th, 2023, 6:30 PM, ***Hagar Auditorium, Museum of the Rockies***

"Community-led Conservation in the Northern Great Plain"

with Aaron Clausen, World Wildlife Fund

Aaron Clausen

The Northern Great Plains is one of the largest still-intact grassland ecosystems in the world. In spite of this, threats to this ecoregion remain—largely in the form of land conversion for crop production. An average of 400,000 acres of shortgrass prairies continue to be irreversibly converted each year. To help stem the loss of these bastions for wildlife, World Wildlife Fund's (WWF) Sustainable Ranching Initiative supports individual ranchers and ranching communities to develop and achieve sustainable land management goals.

Because much of the Northern Great Plains—especially those areas at risk of conversion—are privately held, there are no viable conservation strategies exclusive of local communities. WWF is providing support to the many local communities in Montana that are leading the charge towards the synergy of sustainable food production, agricultural community vitality, and thriving grassland habitats. WWF believes in the ethic of community-led conservation—supporting the goals of communities and the individuals that live in and care for these ecosystems—as the most durable approach to protecting these landscapes. Aaron Clausen will present the outcomes of several years of this approach, success stories from working with ranchers and communities, and share examples of food production benefiting wildlife species that rely on shortgrass prairie ecosystems.

As the Senior Program Officer for World Wildlife Fund's Sustainable Ranching Initiative, Aaron is coordinating grasslands conservation efforts across Montana with ranchers, communities, and many partners. Aaron grew up among the grasslands and rivers of South Dakota's prairie ecosystems. He earned bachelor's and master's degrees from the University of South Dakota and Eastern Washington University, respectively, and has spent the last ten years working towards durable, collaboratively-led conservation in Montana, mostly on private lands.

The in-person meeting will be held Monday, February 13th. **PLEASE NOTE THE CHANGE OF VENUE.** The in-person meeting will be held in the **Hagar Auditorium at the Museum of the Rockies**. A social begins at 6:30 PM; the program begins at 7:00 PM. Attendees are encouraged to bring their own cups. Drinks and snacks are not permitted inside the Hagar Auditorium.

To attend virtually please register at: https://attendee.gotowebinar.com/register/1329908120735021911. After registering, you will receive a confirmation email containing information about joining the webinar.

Attendees—whether in person or virtual—are encouraged to share their bird sightings at this and every monthly program.

SAS monthly programs are free and open to the public, featuring a special guest speaker the 2nd Monday of each month, September through May. For more information, contact Kyle Moon at programs@sacajaweaaudubon.org.

A herd of red angus grazes native rangelands in the Northern Great Plains.

Pine Siskin feeding on Rudbeckia laciniata. Photo by Lou Ann Harris.

Message *from* SAS President Chris Nixon

I hope you were able to attend the recent January 6th presentation—*Nature's Best Hope* — by Doug Tallamy (also the title of his 2019 book) at the Emerson Cultural Center. The evening was a smashing success with more than 400 attending in person and more than 450 joining online. I was one of those very pleased online attendees.

Bringing Doug to Bozeman was the joint effort of Gallatin Valley Earth Day (GVED), Sacajawea Audubon Society (SAS), Valley of the Flowers Chapter of the Montana Native Plant Society (VOF MNPS), and several sponsoring local businesses. Doug Tallamy's message of the importance of landscaping with plants native to a local area, and his idea of creating what he calls "Homegrown National Park" to reduce the amount of sterile lawns and provide important habitat for pollinators, wildlife, birds, and—most importantly—the larvae of *lepidopterans* (moths and butterflies) right outside our doors is bringing inspiration and hope to those who hear him speak. He has been one of my personal gurus since I stumbled upon his earlier book, *Bringing Nature Home* (2007), several years ago.

If you were unable to attend the program, or if you want to watch or share a recording of the event, there are links to the video on both the SAS website and the Gallatin Valley Earth Day website (https://www.gallatinvalleyearthday.org). There is also an earlier recording of Doug's virtual presentation for SAS from the December 2021 SAS membership meeting on the SAS website. Both are worth watching again!

I am thrilled that the collaboration of so many local organizations with shared visions have enabled us to bring such nationally and internationally recognized speakers to Bozeman. I really appreciate all the "cross pollination" going on around here between SAS, GVED, and VOF MNPS. Please visit their websites for useful information and future events they are sponsoring. Please visit and patronize all the generous local businesses (see the GVED website) that sponsored and helped fund "Bringing Doug Tallamy Home to Bozeman."

We thank each of you who have taken and now plan to take the efforts to convert your lawn and landscape into the fabric of Homegrown National Park.

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SACAJAWEA AUDUBON SOCIETY

INDRELAND AUDUBON WETLAND PRESERVE UPDATE: FEB. 2023

THE WETLAND PRESERVATION PROJECT (WPP) was initiated to accomplish Sacajawea Audubon Society's mission to protect and restore increasingly rare wetland and riparian habitats in our region, and to provide educational opportunities and enjoyment for generations to come. The IAWP is the first of our wetland protection projects.

Avian Point Count Report for Indreland Audubon Wetland Preserve 2022

This is an excerpt from the First Annual Progress Report 2022 by Victoria Ann Saab, Sacajawea Audubon Society Board Member & Scientist Emeritus, USDA Rocky Mountain Research Station. See https://sacajaweaaudubon.org/iawp-avian-point-count-report-2022 *for the full report*

The IAWP is being considered by the U.S. Army Corps of Engineers (COE) for the establishment of the Sacajawea Wetland Bank.

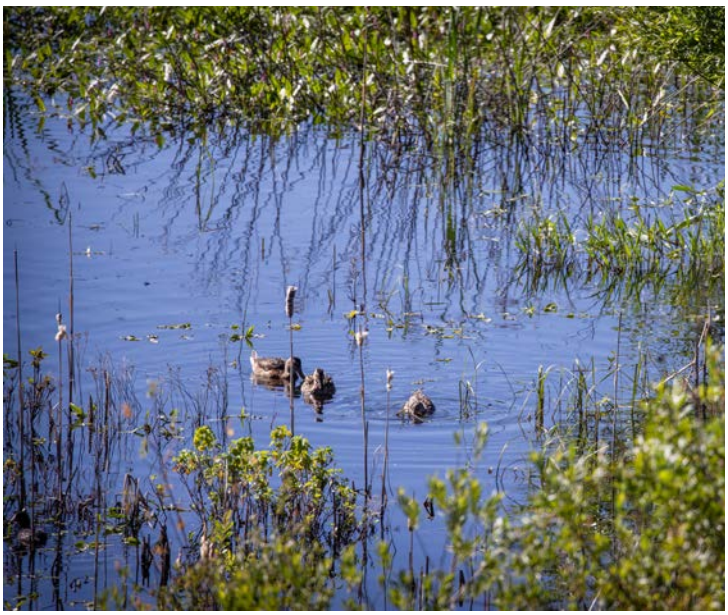
Bird point count monitoring for at least a five-year period is one requirement by the COE for designation of the wetland mitigation bank.

Paulette Epple, John Parker, Rich McEldowney, and John Edwards assisted with the initial set-up of point count locations. Rich McEldowney of Confluence Consulting Inc. [CCI] created the maps of the study area and point count locations. CCI employees placed permanent rebar posts at point count centers. Victoria Saab, John Parker, and Oakley Strauss assisted with training observers to conduct point count surveys and with eBird data entry.

Sixty-seven bird species and 1,908 individuals were recorded during 15 point-count surveys in 2022.

Victoria Saab (center) and John Parker (right) assisted with training observers including Stephanie Nelson (left) to conduct point count surveys at the IAWP. Photo by Lou Ann Harris.

Black-necked Stilts wade at the IAWP. Photo by Terri Narotzky.



Mallards at the IAWP. Photo courtesy of Studio McLeod.

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IAWP BUSY BEAVER UPDATE

By Tess Parker, Gallatin Watershed Council

At the end of the year, IAWP Busy Beavers gathered to learn all about septic systems, including their impact on groundwater and how residents can maintain their own systems. The workshop, *Septic Systems: What Happens After the Flush,* was hosted by the Gallatin Watershed Council and Sacajawea Audubon Society, and led by the Gallatin Local Water Quality District's hydrogeologist, Meggie Olson. The informative, hands-on workshop had attendees build their own septic models. They also learned about local issues and about the negative effects of unmaintained septic systems on groundwater.

There are more than 19,000 septic systems around Gallatin County. The average life of a maintained septic system is 20-30 years, and the average age of septic tanks around the valley is 25-28 years old. These systems are necessary for the proper treatment and disposal of domestic wastewater, but poor maintenance can contribute pollutants to groundwater, which can be linked to public health and pollution issues.

Groundwater is the water found below ground in the cracks and spaces in soil, sand and rock. It exists and moves slowly underground in these saturated areas. The upper surface of the saturated zone is the water table. In the confines of the Gallatin Valley, groundwater levels range from one foot to 50 feet below the surface of the ground. In the realm of hydrology, shallow groundwater is considered to be less than 50 feet below the surface.

Why is groundwater important? The USGS reports that "Groundwater is the source of about 37 percent of the water that county and city water departments supply to households and businesses (public supply). It provides drinking water for more than 90 percent of the rural population who do not get their water delivered to them from a county/city water department or private water company." Nationwide and locally, groundwater is an important resource to protect.

Groundwater always flows downhill, following the gradient of the landscape. Groundwater seepage is important and responsible for keeping water in rivers during times of low or no rainfall (base flow conditions). Montana is a headwaters state, and the Gallatin, Madison, and Jefferson Rivers converge in Three Forks to form the Missouri River, which flows into the Mississippi and eventually feeds into the Gulf of Mexico in the Atlantic Ocean. Although impacts are often observed on a neighbor-by-neighbor level, it's also important to consider downstream impacts.

Meggie Olson shows IAWP Busy Beavers how to use septic models to determine how long it takes a system to begin to leak after overloading. Photo by Heather Priest.

What can you do as a septic owner? Educate yourself on your tank and how to maintain it. Not all septics are created equally! Common signs that your tank is leaking include the ponding of water or bright green grass above your septic system.

Resources can be found at the Gallatin Local Water Quality District office or on its website, https://glwqd.org, which includes *A Montana Homeowner's Guide to Septic Systems*.

1. Inspect your system (every year) and pump your tank as necessary (generally every 3 to 5 years)
2. Be mindful of your water use; reduce whenever possible
3. Don't dispose of household hazardous wastes in sinks or toilets
4. Care for your drainfield

For questions regarding your septic system and its maintenance, please reach out to Meggie Olson at meggie.olson@gallatin.mt.gov. To be notified of opportunities like this workshop, join the IAWP Busy Beaver volunteer team and contact Heather Priest at heather@gallatinwatershedcouncil.org

Stephanie Nelson glasses for winter birds. Photo by Lou Ann Harris.

Get Ready for the Great Backyard Bird Count: February 17–20, 2023

For four days each February, the world comes together for the love of birds. The **Great Backyard Bird Count** (GBBC) is an inter-organizational effort between the Cornell Lab of Ornithology, National Audubon Society, and Birds Canada.

Launched in 1998 by the Cornell Lab of Ornithology and National Audubon Society, the GBBC was the first online citizen-science project to collect data on wild birds and to display results in near real time. Participating is easy, fun to do alone or with others, and can be done anywhere you find birds.

Step 1: Decide where you will watch birds.

Step 2: Watch birds for 15 minutes or more, at least once over the four days, February 17–20, 2023.

Step 3: Identify all the birds you see or hear within your planned time/location and use the best tool (below) for sharing your bird sightings.

If you are a beginning bird admirer and new to bird identification, try using the **Merlin Bird ID app** (https://merlin.allaboutbirds.org) to help determine what birds you are seeing or hearing.

If you have participated in the count before and want to record numbers of birds, try the **eBird Mobile app** or enter your bird list on the **eBird website** (desktop/laptop) at https://www.birdcount.org/ebird-on-computer/

Northern Saw-whet Owl at Story Mill. Photo by Lou Ann Harris.

If you already contribute to Merlin or eBird, continue what you are doing! All entries over the four days count towards GBBC.

These observations help scientists better understand global bird populations before one of their annual migrations. SAS members can be proud of the fact that Gallatin County participants have consistently been among the top checklist submitters to GBBC from Montana.

BIRD NOTES

by John Parker

Thank you to all of the folks who helped with the Christmas Bird Counts around our area! This winter's participants enjoyed relatively mild conditions compared to some of the counts in recent years. The nice weather contributed to high species totals on several of the counts.

A snow storm preceding the Ennis count did prevent several people from making the trip to Ennis. With the clearing weather on count day, the Ennis counters were able to find 61 species of birds within the count circle. New high-count totals were set for **Gadwall**, **Merlin**, and—thanks to Ed Harper's early morning foray to Jeffers—**Great Horned Owls**. Nothing too unusual was seen on the count, though **Tundra Swans** and **Red Crossbills** were seen for only the seventh and sixth time, respectively.

A high level of participation and mild weather certainly contributed to the third highest species total (72) on the Bozeman count. One new species was seen on the count—**Lesser Goldfinch**! The team of Patty Bartholomew, Paulette Epple, and Cherie Barth found the goldfinch along the west end of Boylan Street. Some of the more uncommon birds seen on the 2022 count were **Northern Shoveler**, **Hooded Merganser**, **Pileated Woodpecker**, **Snow Bunting**, and **Spotted Towhee**. This was only the fifth time Snow Bunting has been seen on the count, and the first time in 26 years.

After two straight years with high winds on count day, Livingston had a bit of a reprieve with only occasional gusty winds. Thanks to the efforts of the diligent bird finders, a new high count of 69 species was tallied for the day, including one new species. New to the counts was the **Gyr Falcon** seen by the Paradise Valley team. The same group also spotted a **Peregrine Falcon** in the same area, with a freshly killed duck. Other highlights included 20 **Sharp-tailed Grouse** and six **Golden Eagles**.

The Yellowstone and Gardiner counters had an excellent day of counting with 39 species of birds, which is five above the average for the count. Both **Bufflehead** and **Western Meadowlark** were seen for only the second time in the 50-year history of the count. The 70 **Common Goldeneye** set a new abundance record, and two other species equaled their previous high counts. Other uncommon birds seen on the count included **Virginia Rail**, **Harris's Sparrow**, and **White-crowned Sparrow**. Virginia Rails probably turn up on the Yellowstone count more frequently than on any other local count. The hot runoff streams from the Mammoth Terraces in lower Mammoth are a very attractive over-wintering location for the rails.

Snow Bunting photo by John Parker.

Even though the weather for the Three Forks count was extremely mild, the count totals may have suffered from the previous week's record-breaking cold temperatures. Only 47 bird species were seen during the count, which is considerably lower than recent year's totals. Large numbers of blackbirds, including one **Yellow-headed Blackbird**, were seen taking advantage of the feedlots near Willow Creek.

Two other interesting birds have been reported recently. During the first week of the new year, Brian Cassell reported that a flock of **Bohemian Waxwings**, including one leucistic bird, was hanging around the Arrowleaf Hills subdivision east of Bozeman. On December 27th, Steve Dubois had a **Spotted Towhee** poking around the bushes in his yard north of Bozeman.

IAWP photo courtesy of Studio McLeod.

The resident beaver at the IAWP will be celebrated on World Wetlands Day. Photo by Kyle Moon.

Celebrate World Wetlands Day *with* Hot Chocolate, Beaver Teeth, *and* Beaver Tales *on* February 2*nd*

Join Sacajawea Audubon Society at the Indreland Audubon Wetland Preserve (IAWP) on February 2, 2023 (also GroundHog Day), at 4:00 PM as we discuss the role of the beaver in celebration of World Wetlands Day 2023.

The beaver may not have its own nationally recognized day, but, hey…they are critical to many of the world's wetlands. The planet's two extant (remaining) beaver species, *Castor canadensis* (American beaver) and *Castor fiber* (European beaver)—very similar species—were the architects of many of the world's wetlands in the northern climes. Even though both species were pushed way too close to extinction, their importance in creating and maintaining wetlands on the North American and European continents is now being recognized.

We will serve hot chocolate and provide the opportunity to see and touch a real beaver skull, teeth, and pelt so that you can see how their physical adaptations enable beavers to survive even this year's cold winter and still have a meal under the ice. Hopefully we will see the steam rising above one of the lodges of the resident beaver at the IAWP—indicating that someone is indeed home under that mound of sticks, mud, and snow.

World Wetlands Day was first celebrated in 1997. February 2nd also marks the anniversary of the Convention on Wetlands, which was adopted as an international treaty in 1971 in Ramsar, Iran. More recently, on August 30, 2021, the United Nations General Assembly adopted Resolution 75/317, which established 2 February as World Wetlands Day.

Nearly 90% of the world's wetlands have been degraded since the 1700s, and we are losing wetlands three times faster than forests. Yet, wetlands are critically important ecosystems that contribute to biodiversity, climate mitigation and adaptation, freshwater availability, world economies, and more.

It is urgent that we raise national and global awareness about wetlands in order to reverse their rapid loss and encourage actions to conserve and restore them.

Wetland Restoration is the theme for World Wetlands Day 2023 and highlights the urgent need to prioritize wetland restoration. Helping restore and maintain our local wetland functions at the IAWP is exactly what the beaver should do now that they have been allowed to return to the area.

For more information, visit https://www.worldwetlandsday.org/about

SACAJAWEA AUDUBON SOCIETY 2022 BLUEBIRD TRAIL SUMMARY

Article and photos by Lou Ann Harris

Overall, 2022 was a great year for our Mountain Bluebirds. A total of 444 bluebirds fledged from the Rocky Mountain Rd. and Dry Creek/Pass Creek trails, compared to 286 last year. The biggest story of the season was the number of bluebirds fledged from the Dry Creek/Pass Creek section. Janne Hayward's trail set a new record of 264 fledglings, breaking the old record of 190 set in 2017. This is also the fifth year Janne's section bested the Rocky Mountain Rd. section, which has traditionally fledged more bluebirds each year. Depredation was way down this year, and there were lots of successful second nests on both trails.

Lou Ann, Janne, and Stephanie Nelson (in photo below) banded a total of 279 bluebirds: 253 nestlings and 26 adult females. They also recaptured 21 adult female bluebirds. One of those recaps was originally banded in 2018 as a nestling on the Dry Creek Trail, making her four years old. She nested in a box on Rocky Mountain. Rd. and successfully fledged six young. It's also possible she raised a second brood of five. It's interesting to note that she has been recaptured in the same box in 2020 and 2021 and has raised a total of at least 16 young.

One of the boxes on Rocky Mountain Rd.(#82) held a record-breaking nine warm bluebird eggs on June 1st. On June 15th, the same box had six nestlings and three unhatched eggs. Then on June 30th, there were broken egg shells and no sign of nestlings in an intact nest, which indicated depredation by a snake. It was an unfortunate end for this bluebird family.

Another sad note on the Dry Creek Trail: an empty nest box was defended by a pair of previously banded bluebirds. They paid with their lives when a House Sparrow pecked them to death in the box. The male bluebird had been banded in 2021 as a nestling and the female had been banded in 2020 as an adult on eggs. House Sparrows are not a friend of bluebirds! This is why we stress the need to prevent them from using nest boxes.

Tree Swallows had a better year as well, with 89 fledged from 20 boxes. One House Wren nest produced four fledglings. House Sparrows nested in four of Janne's boxes. Each of these nests and eggs were legally removed (House Sparrows are not federally protected songbirds and considered an invasive species).

The three bluebird trails monitored by Roger and Noreen Breeding on Trail Creek Rd. and Eagle Rock also did very well this year. They fledged more bluebirds than any year in the 15 years the Breedings have been monitoring. A total of 143 Mountain Bluebirds and 139 Tree Swallows fledged from their boxes. This is attributed to a lack of a killing frost during the birds' first nest attempt. The Breeding's noted that the bluebirds seemed to prefer boxes at lower elevations and those that face south. The boxes on the Park County section of Trail Creek are lower in elevation as well as south-facing. As a result, they fledged the majority of the bluebirds (100 total).

SPONSOR A BLUEBIRD BOX IN 2023!

Sacajawea Audubon Society offers a fun way to support our chapter's conservation projects. We are giving members and friends the opportunity to sponsor one of the bluebird boxes that we monitor.

Sponsorship costs $20 per year per box, and you can sponsor as many boxes as you like. Once you have signed up, we will assign you a box number, and as the bluebird nesting season begins you will receive emailed updates and photos. At the end of the season, we will send a complete list of all the boxes, including their sponsor's name and the nesting results.

A bluebird box sponsorship makes a great eco-friendly gift or you can sponsor a box in memory of a loved one. The money raised will fund the expenses of maintaining the bluebird trails, as well as Sacajawea Audubon Society's other conservation projects, such as the Kestrel Nest Box project and the Burdock Eradication Project.

To sign up for a bluebird box sponsorship, donate online at: https://sacajaweaaudubon.org/bluebirdboxsponsorform, or fill out the form below and send with a check to:

Sacajawea Audubon Society
PO Box 1711
Bozeman, MT 59771

BLUEBIRD BOX SPONSORSHIP

NAME _____

ADDRESS _____

EMAIL _____

OF SPONSORED BOXES _____ x $20/BOX = $_____ ENCLOSED

IS THIS SPONSORSHIP A MEMORIAL? ____ IN WHOSE NAME? _____

A male Mountain Bluebird poses with his catch. Photo by Lou Ann Harris.

SACAJAWEA AUDUBON SOCIETY BLUEBIRD TRAIL HISTORY

This is the fourth and final installment in a series by Lou Ann Harris on the rich history of the Sacajawea Audubon Society (SAS) Bluebird Trail Project. Photos by Lou Ann Harris.

SAS Bluebird Trail—2007 to Present

Female Mountain Bluebird held for banding.

In 2007, Mary Geis was looking for volunteers to help with bluebird trail monitoring and placed an article in the SAS newsletter. Lou Ann Harris was a new chapter member and thought it would be interesting to get involved with the bluebird project. Mary took Lou Ann out on the Rocky Mountain Rd. Trail in May, and immediately began training her to band Mountain Bluebirds and Tree Swallows.

After that first season helping Mary, Lou Ann took over as monitor of the Rocky Mountain Rd. Bluebird Trail. Mary continued to come along on nest box visits, but she was busy with her own trail on Kelly Canyon. By 2009, at the age of 84, Mary was ready to retire and turned the whole project over to Lou Ann. After Mary let her Master Banding Permit lapse, Lou Ann received her own permit in 2010 to continue banding bluebird nestlings and adult females caught on the nest. Only one adult male bluebird has ever been caught along the trails (2018). He was previously banded as a nestling in 2016 in the same area. To date, Lou Ann has banded over 1,800 bluebirds.

Over the past 10 years, more than 90 of those banded bluebirds have been recaptured, some of them multiple times. The oldest Mountain Bluebird recaptured from these bluebird trails was at least five years old. There has never been a band returned from our bluebirds' wintering grounds. We can only guess as to their wintering location. With the introduction of songbird-sized satellite tracking devices, the idea of putting a few devices on the adult females was hatched. If successful, this could answer the question of where the female Mountain Bluebirds from our area go in the winter. More research on how to make this happen is needed.

The SAS bluebird trails have hosted primarily Mountain Bluebirds and Tree Swallows. But a number of other species have used the nest boxes, including House Wrens, Mountain Chickadees, and Violet-green Swallows. The occurrence of a nesting Western Bluebird was a trail first in 2014. A female Western Bluebird supposedly mated with a male Mountain Bluebird and laid a clutch of five eggs. She was caught and banded, and recaptured a second time, still incubating eggs. The eggs were found abandoned a couple of weeks later, evidently infertile. There has been a continuing problem with House Sparrows using some nest boxes. In some cases, they have killed bluebird or swallow adults and taken over the box to build their nest and lay eggs. Whenever a House Sparrow nest is found, it is removed along with the eggs and/or nestlings. Predation of the boxes is a continuing problem. Raccoons, snakes, weasels, and kestrels are the most common predators of bluebird nests. An attempt to reduce predation

A female Mountain Bluebird carries larvae to her nestlings.

was mounted in 2021 with 20 Noel Guards installed on the worst predated boxes. At the end of the season, they were deemed mostly ineffective.

Mountain bluebirds use a variety of nesting materials, including dry grass, animal hair, and more recently, man-made items such as bits of plastic tarp and baling twine. In 2021, the first evidence of nestling mortality due to baling twine in the nest was observed. Two fully feathered nestlings were badly entangled in the twine and perished. The remainder of the nestlings from that box fledged successfully.

In December 2019, Lou Ann was contacted by Becca Rodomsky-Bish at Cornell Lab of Ornithology. Becca was in charge of digitizing the 300,000+ written nest cards in their collection (NestQuestGo!). Amazingly, a large percentage of the nest cards for Mountain Bluebirds came from the SAS bluebird trails in Gallatin County. She wanted to know what happened to the data after the 1990s, when the nest card program ended. Lou Ann told her the bluebird trail was still active and that the chapter had nesting data from the early 2000s forward. This was exciting news for Becca since it would mean the SAS bluebird trails would be one of the richest datasets of a bluebird species for one location. What followed was a months-long process of entering 14 years of nesting data for each box on the Rocky Mountain Rd. and Dry Creek/Pass Creek trails. This was accomplished by a few SAS volunteers via Cornell's NestWatch website. It is hoped that additional data will be added in the future from Trail Creek Bluebird Trail, since it was the chapter's first bluebird trail.

As of 2021, there were six monitored bluebird trails: Dry Creek/Pass Creek (62 Boxes), Rocky Mountain Rd. (53 Boxes), Sedan (80 boxes), Eagle Rock Reserve (30 boxes), Trail Creek–Gallatin Co. (23 boxes) and Trail Creek–Park Co. (28 boxes). The Kelly Canyon bluebird trail has fallen into disrepair since Mary Geis's retirement, but Ashley Martens plans to rehab the boxes and start monitoring them again in the near future.

SAS Bluebird Trail nesting box.

About Lou Ann Harris

Lou Ann returned to Bozeman in 2006 after living many years in the Seattle area. She immediately became involved in SAS, having been active in the East Lake Washington chapter in Kirkland, WA. She had been interested in the bluebird trails located east of the Cascades in Ellensburg, but there was nothing closer to Seattle. Mary Geis's call for volunteers was the opportunity she was looking for, and soon she was monitoring and banding birds on the Rocky Mountain Rd. trail. Since she took over the project in 2009, she has added yearly bluebird trail field trips for the chapter, as well as a nest box sponsorship program that raises more than $2,500 annually for bird conservation projects. She also worked with Rodger McCormick at the Bozeman Senior Center to create an improved nest box that easily opens in front for clean out. Lou Ann has presented many bluebird programs over the years, and currently gives an annual talk at Wild Birds Unlimited in Bozeman.

Summary

The SAS Bluebird Trail Project is in good hands for the future. Of more concern is the continued growth of the Gallatin Valley population, and more people building houses out in rural areas. This development of the open areas where bluebirds thrive causes more traffic on county roads where nest boxes are located. In 2021, two deceased bluebird fledglings, which had been hit by a vehicle, were found. We have also seen the impact of climate change and the use of pesticides in declining bluebird and swallow nest success. All of these issues will continue to be a problem. However, the bluebird trail will continue to provide nest locations for these beautiful songbirds. Our hope is that more people will realize their impact on the environment, and do what they can in their daily lives to minimize that impact.

ADDENDUM
Historical Notes from SAS Board Minutes

Spring 1973: 14 bluebird boxes were put up from the Pass Creek area west. Some are already beginning to be used and one was noted with 4 eggs.

Feb. 1974: Proposed Hillcrest Retirement Home bluebird trail. Discussed at monthly meeting. Louis Moos was to attend the Women's Club meeting to get their ideas.

Aug. 1985: boxes at Hillcrest were repaired.

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SAS BLUEBIRD TRAIL HISTORY

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1974: A bluebird house contest was held in 1974 with cash prizes ($2.00 for 3rd, $3.00 for 2nd, $5.00 for 1st). Ten bird houses were entered by students. Information on the importance of keeping good nesting records (nesting cards) was shared with contestants. It was reported that fall that none of the students' boxes were occupied by bluebirds.

1979: 68 boxes now on Trail Creek Rd. About the same number on Pass Creek trail. Louis Moos banded 106 bluebirds in June and July.

Nov. 1980: Louis Moos to contact the District Forest Ranger to find out what help the FS can give SAS in building more bluebird houses. After contact, the chapter was offered the district's warehouse as a place to construct bird houses. No wood has been found yet for the project.

Oct. 1981: Bluebird banding report by Louis Moos. 185 birds were banded this year. More bluebirds are using boxes on Pass Creek Trail. More wrens and swallows on Trail Creek Trail. More help is needed to make more nest boxes.

Nov. 1982: Louis Moos was reimbursed for his mileage on the bluebird trail at 10 cents per mile ($22 total).

Jan. 1983: Louis Moos found more grain chutes to use for bluebird houses.

Jan. 1986: Louis Moos looked into getting funds from the Non-Game Check-off for the bluebird house maintenance project.

Sept. 1987: It was reported that the Mountain Bluebird Trail Association is promoting bluebird houses on Highway 200 across MT. Hope to put up 4 boxes per mile and have them up by centennial year 1989. 2,500 boxes were made last winter and more may be made this winter.

SAS Bluebird Trail Volunteers (Past & Present)

- **Louis Moos:** *Project Founder/monitor/bander, 1969-1990*
- **Cliff Davis**
- **Ray Hays**
- **George & Mae Gable**
- **Clyde Border**
- **John Fisher:** *Bluebird Trails Committee*
- **Marjorie Leigh:** *Bluebird Trails Committee*
- **Andy Stolzenburg:** *Bluebird Trails Committee*
- **Mary Geis:** *Kelly Canyon/ Bridger Canyon (monitor/ bander), 1977-2009, Project Leader(?), 2009*
- **Fred & Pam Boettcher**
- **Jim & Jean Waldo:** *Willow Creek (monitors)*
- **Harry Cockrum**
- **Jean Thorson**
- **Ginnie Havens:** *Tepee Ridge (monitor), Sedan Trail*
- **Ethel Fogelsong:** *Trail Creek, Sedan, Pass Creek/ Rocky Mtn. Rd. (monitor)*
- **Ranie Fogelsong:** *Trail Creek, Sedan, Pass Creek/ Rocky Mtn. Rd.*
- **Ron & Mary Ahlers**
- **Shannon Lenz-Wall**
- **Shelly Sechrist**
- **Joan Rhyshavy**
- **Carolyn York**
- **Tove Hunter:** *Sedan Trail (monitor)*
- **Irmeli Smith**
- **Vivian Mazzola**
- **Neil Travis:** *Trail Creek–Park Co (monitor/bander)*
- **Mitch Hurt:** *Trail Creek –Park Co./Gallatin Co. (bander)*
- **Isabelle Fischer:** *Rocky Mountain Rd. (monitor)*
- **Roger & Noreen Breeding:** *Trail Creek, Eagle Rock (monitors, 2007-present)*
- **Markie Nathan:** *Sedan Trail (monitor)*
- **Jinny Goodman:** *Sedan Trail*
- **Lou Ann Harris:** *Rocky Mtn. Rd. (monitor/bander, 2007-present*
- **Janne Hayward:** *Dry Creek/ Pass Creek (monitor/bander, 2010-present)*
- **Diane Gresham**
- **Stephanie Nelson**

World Migratory Bird Day will be Saturday May 13, 2023. This year's theme is **WATER**.

"Water is fundamental to life on our planet. The vast majority of migratory birds rely on aquatic ecosystems during their life cycles. Inland and coastal wetlands, rivers, lakes, streams, marshes, and ponds are all vital for feeding, drinking, or nesting, and also as places to rest and refuel during their long journeys."

The 2023 campaign "….will highlight the importance of water for migratory birds and identify key actions for protecting water resources and aquatic ecosystems." https://www.worldmigratorybirdday.org/news/2022/world-migratory-bird-day-2023-focus-water

This is another illustration of the importance of wetlands and an opportunity to celebrate the IAWP.

We'd like a volunteer to coordinate our event. You will have plenty of resources and help!

If interested, or to learn more about the possibilities, contact Travis at education@sacajaweaaudubon.org) or Emma at sec@sacajaweaaudubon.org.

THANK YOU!

SAS Book Club News

Our next SAS Book Club meeting will be held on February 15th at Hope Lutheran Church from 6:30 to 7:45 PM. We hope you can join us in person or virtually for a discussion of *The Bird Way: A New Look at How Birds Talk, Work, Play, Parent and Think* by Jennifer Ackerman (2022). February-themed desserts will be provided. Please bring your own hot drink.

This volume was an outgrowth of Ackerman's research for her book *The Genius of Birds* (2016). A sign of avian intelligence is the ability to devise novel solutions to challenging problems – ideally situations that birds encounter in the real world, not just in the laboratory – and to pivot and improvise when past behaviors are no longer successful.

While writing *The Bird Way*, Ackerman combed scientific journals for examples of original behaviors performed by birds of many different species when faced with novel and confounding circumstances in the field. Ackerman organizes these behavioral episodes in chapters focusing on avian communication, work such a food-getting, play, bonding, raising young, and "thinking," especially problem-solving exhibiting qualities like purpose, flexibility, and persistence.

One example of avian resourcefulness described by the author is the family of hooded crows whose members regularly stole fish from ice fishermen by grasping a line by the beak, walking the line across the ice, securing each new stretch of line with a claw to avoid slippage, while patiently reeling in dinner. In another vignette, a western gull nesting in San Francisco repeatedly hitched a round-trip ride in a garbage truck to procure food for her young at an organic composting facility in Modesto, 75 miles from the nest.

By sharing the published field observations of naturalists and scientists throughout the world, and her own inspired story-telling, Ackerman reminds us just how widespread and awe-inspiring the intelligence of birds is. Her work is another reminder that human exceptionalism is overrated.

Awards: NPR's A Best Science Book of 2020; Finalist for PEN/E.O. Wilson. Cost: $12

If you would like to be included in monthly email reminders or to attend the meeting virtually, please email Elisabeth Swanson at elsswa@gmail.com or call her at (406) 570-8325. For other questions, you can email Hilary Johnson at ralphhilary@gmail.com, or call her at (406) 599-1446.

Animal Tracking in the Snow Workshop *with* Cedar Mathers-Winn Saturday, Feb. 18, 2023, *from* 12–3PM *at* Jackson Creek Trail

This workshop is sponsored by **Gallatin Valley Earth Day** in partnership with **Sacajawea Audubon Society**. Limited class size. Cost: $25. Register for the workshop at **gallatinvalleyearthday.org**

Join **Cedar Mathers-Winn** for a fun day out in the snow! Winter and its canvas of snow offer an unmatched window into the natural world—if you know how to look.

This field session will demonstrate not only how to identify the animals that have passed through an area, but also how to see their signs as a story of the landscape itself. Come prepared to be off-trail!

Note: No skis permitted in this workshop, but you can definitely bring snowshoes. We will be traveling at a slow pace, so it won't be too strenuous.

Cedar is a biologist, naturalist, and educator. He has studied animals and their behavior all over the world, and enjoys nothing more than sharing what he's learned through many years spent patiently watching and learning from animals and their environments. Cedar prides himself in being able to show his students fascinating things in nature that most people don't even notice. He also has a Master's degree in ecology, and teaches Montana Outdoor Science School's Bozeman Master Naturalist Course as well as other classes in natural history.

WINTER BIRDING CLASSES *with* ASHLEY MARTENS

NEW Sacajawea Audubon Society Introduction to Birding Classes

Curious about birding but not sure if you're ready to commit to our 3-week Beginning Birding Session in springtime? Want to learn some common birds without the overwhelm of spring migrants? This class is for you! We begin with a classroom session to learn some basics and then venture out for a field trip.

Classroom: Thurs., Feb. 23rd, at Wild Birds Unlimited.

Field Trip: Sat., Feb. 25th, or Sat., March 4th (we'll choose based on weather), at Story Mill and Cherry River Parks.

Cost: $45 for Sacajawea Audubon Society members; $55 for non-members. **Maximum 8 students.** Supply lists will be provided upon registration. Binoculars available to borrow.

Register at: https://secure.lglforms.com/form_engine/s/3U9FGQ4-5-vMoit2a3a0rg

WOW! Wonders of Winter: Bird/Plant Relationships

Explore the ecology and whimsey of three of our fascinating winter birds and their relationships to native plants. Learn how to identify each species, discover its unique lifestyle, and engage in mindful activities for deeper connection.

Bohemian Waxwing photo by Jerry Taylor

Townsend's Solitaire & Juniper: Fri., Feb. 3rd, 2–4 PM at the "M."

Bohemian Waxwing & Mountain Ash: Fri., March 3rd, at Gardner Park.

Canada Jay & Engelmann Spruce: Fri., March 31st, 2–4 PM, in the Bridgers on snowshoes.

Cost: $30 each for SAS members; $40 for non-members.

Register at: https://secure.lglforms.com/form_engine/s/hwNcDJQ3f163a9BHGg0maQ

Good Company : Trees

Explore the ecology and wonder of three of our native trees. Learn how to identify each species, discover its unique lifestyle, and engage in mindful activities for deeper connection.

Limber Pine: Fri., Feb. 24th, 2–4 PM, at Drinking Horse.

Cost: $30 for SAS members; $40 for non-members.

Register at: https://secure.lglforms.com/form_engine/s/hwNcDJQ3f163a9BHGg0maQ

Left: Douglas Fir photo by Ashley Martens.

MAKE A DIFFERENCE IN 2023!

RENEW YOUR SAS ANNUAL LOCAL MEMBERSHIP TODAY

Sacajawea Audubon Society (SAS) encourages all of you who enjoy our field trips and monthly programs or support our conservation work to join/renew your local chapter membership. 100% of your local membership dues will ***directly*** support SAS educational and conservation programs.

Even if you belong to the National Audubon Society (NAS), we need your support through a local SAS membership. As an SAS member, you'll enjoy the benefits of membership while knowing that your annual dues are used locally for conservation right here in your own neighborhood. Please help us ensure a secure future for what remains of the wildlife and wildlands in the Greater Yellowstone Ecosystem of Montana by joining our flock as we fly high together.

SAS Members Are ...

- Protecting working lands for birds and other wildlife.
- Preserving and protecting bird species and their habitats.
- Supporting bird-friendly communities in Montana with our bird-friendly landscape program.
- Contributing to environmental education programs for all ages and abilities on birds, wildlife, and habitat.
- Partnering with other environmental groups, citizens, and local governments to protect community health.
- Advocating for environmental issues locally and regionally.

SAS Members Enjoy ...

- Opportunities to meet new people and become part of a friendly group with shared interests.
- Free monthly programs with keynote speakers.
- Free "Birding Hotspots of Gallatin Valley" guide to birding around the Gallatin Valley & beyond.
- Free monthly member e-newsletter (9 per year).
- Member-only discounts on educational courses, programs, and special events.
- Savings on purchases and access to member-only sales.
- Participation in many citizen science projects.
- Free guided birding field trips.

Sacajawea Audubon Society is an independent 501(c)(3) nonprofit organization with its own board of directors, membership, budget, and programs. SAS membership does not include membership in the National Audubon Society, although we are a NAS chapter and fully value and support their work and advocacy. Why not become a member of both!

Join or renew online: https://sacajaweaaudubon.org/give

Thank You!

Sacajawea Audubon Society's Board of Directors

SACAJAWEA AUDUBON SOCIETY MEMBERSHIP 2023

Individual or Family | January–December 2023

❒ **Basic Membership** **$25**

❒ **Supporting Membership** **$50**
(Supporting local conservation & education projects)

❒ **Thank You for Considering an Additional Donation $**_____

❒ Bridger Raptor Study
❒ Education Projects
❒ Story Mill Park Bird Feeding Station
❒ Wetland Campaign
❒ Conservation Projects
❒ Wherever is Needed

Name _____

Address _____
(Street or PO Box)

_____
(City) *(State)* *(Zip)*

Phone (_____) _____

Email _____

Sacajawea Audubon Society Newsletter is sent by email. ❒ I would like a paper newsletter mailed to me.

We do not share your information except with National Audubon Society, so your contact information is safe with us. Please check this box ❒ *if you do* ***NOT*** *want your information shared with the National Audubon Society.*

❒ **YES! I have included another $20 to join National Audubon Society**

Mail this form and your check to: Sacajawea Audubon Society, Attn: Membership
PO Box 1711, Bozeman, MT 59771-1711

Thank you for your membership and donation. We look forward to birding with you!

FEB 23 newsletter

Sacajawea Audubon Society
P.O. Box 1711
Bozeman, MT 59771-1771

Change Service Requested

Sacajawea Audubon Society, affiliated with the National Audubon Society, meets on the second Monday of each month, September through May.

Sacajawea Audubon Society's Monthly Newsletter is available electronically to all Sacajawea Audubon Society members, September through May.

Deadline for article submission is the 15th of the month preceding the month the articles will appear. Send articles electronically to newsletter@sacajaweaaudubon.org.

Change of Address: If you have a change of address or are away, please notify membership@sacajaweaaudubon.org. Undeliverable mailed newsletters are returned to us for an extra fee.

Find more at the **Sacajawea Audubon Society website** at sacajaweaaudubon.org

Winter/Spring 2023 Science Inquiry Series:

Prioritizing Wild Places in the Greater Yellowstone Ecosystem

Explore cutting-edge science topics, their latest developments, and their relevance to society through speaker presentations followed by a question-and-answer period.

Where are the remaining best natural habitats on private lands in the Greater Yellowstone area and can they be preserved? Dr. Andrew Hansen, MSU Professor and Director of the Montana Institute on Ecosystems, will discuss the status of prime habitats in the region and the role of conservation easements in preserving them for the future.

This in-person presentation will be held on **Wednesday, February 15** *at* **7 PM** *in the* **Hager Auditorium** *at the* **Museum of the Rockies**.

FREE AND OPEN TO THE PUBLIC. Seating on a first-come, first-served basis. Face masks are recommended but not required.

Sponsored by the Gallatin Valley Friends of the Sciences. Co-sponsored by the Museum of the Rockies and Hopa Mountain.

For more information, visit https://www.gallatinscience.org

Yellowstone National Park photo by J. Manning