OCTOBER 2021

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, October 11th, 2021Monthly Program—IN PERSON AND VIRTUAL:

"Preserving Western Montana's Most Ecologically Valuable Rivers through Wild and Scenic Designation" *with Scott Bosse*

In the 1950s, the idea for the federal Wild and Scenic Rivers Act was conceived in Montana when the Craighead brothers, John and Frank, were fighting the proposed Spruce Park Dam on the Middle Fork of the Flathead River along the southern border of Glacier National Park. As wildlife biologists, the Craigheads recognized that river corridors harbor the highest biodiversity of any habitat type in the West, and to preserve our wildlife heritage, the U.S. needed to create a national system of protected rivers to shield them from dams and other projects that would harm their free flow, clean water, and outstanding values. The *Wild and Scenic Rivers Act* was signed into law in 1968, and Montana got its first four Wild and Scenic Rivers in 1976, when the upper Missouri River and three forks of the upper Flathead River were added to the National Wild and Scenic Rivers System. It would take another 42 years before Montana saw another Wild and Scenic River designation, when East Rosebud Creek was protected in 2018. This summer, Senator Jon Tester (D-MT) reintroduced the *Montana Headwaters Legacy Act*, which would designate 385 miles of Wild and Scenic rivers in the upper Missouri and Yellowstone river systems. In the October 11 program, Scott will describe what the bill does, which rivers would gain protection, and how the Sacajawea Audubon Society can help get this legislation passed in the current Congress.

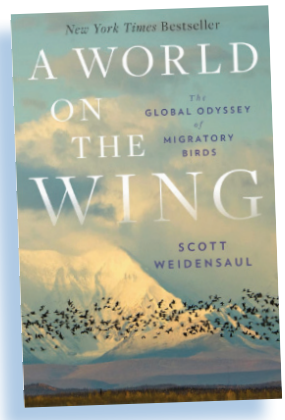
Scott Bosse is the Northern Rockies Director for American Rivers based in Bozeman, MT. Since 2009 he has overseen their projects and campaigns in Montana, Idaho, and Wyoming, as well as providing national leadership on Wild and Scenic River issues and salmon recovery issues. Before that, Scott spent nine years as Director of Aquatic Conservation for the Greater Yellowstone Coalition, where he spearheaded a campaign to create the West's first watershed-scale native fish sanctuary by getting 13 rivers and 415 river miles in the Snake River Headwaters of northwest Wyoming added to the National Wild and Scenic Rivers System. Scott's other non-profit experience includes serving as the staff scientist for Idaho Rivers United in Boise and working as a fisheries field biologist for The Nature Conservancy in the Warner Lakes Basin in Oregon. Prior to entering the non-profit sector, Scott worked as a fisheries biologist for the U.S. Bureau of Land Management in Salmon, Idaho; the National Park Service in Olympic National Park; and a private consulting firm in Idaho's Clearwater National Forest. He earned an M.S. in environmental studies from the University of Montana, and undergraduate degrees in geography and political science from the University of Vermont. Scott currently serves as vice-president of the board of directors of the Yellow Dog Community and Conservation Foundation based in Bozeman. When he isn't working to protect the rivers he enjoys fly fishing, whitewater boating, and hiking in the mountains.

Scott Bosse

SAS's monthly presentations have resumed in person. **We are following the Gallatin Co. Health Dept. COVID-19 Guidelines; masks are required.** Join us in person at Hope Lutheran Church, 2152 W. Graf (off of S. 19th) **OR** virtually by registering at: attendee.gotowebinar.com/register/6523596419391527947. Share our virtual program using hashtags #sasbirds, #Anglingadventures, and #Montanalostwaters. SAS programs are free and open to the public. Social begins at 6:30 PM. Announcements and the program begin at 7:00 PM. For more information contact Kyle Moon at programs@sacajaweaaudubon.org

October 2021 SAS Book Club

October marks the end of autumn harvest and its many chores: picking the last tomatoes, blowing out the sprinklers, putting on snow tires—and perhaps celebrating Oktoberfest or Halloween. But for lovers of birds, October marks the continuing spectacle of the autumn migration. As we observe the last weeks of the migration, the October book selection, ***A World on the Wing: The Global Odyssey of Migratory Birds*** by Scott Weidensaul (2021), is the perfect companion to have by your side.



Scott Weidensaul is a gifted storyteller and science writer and has a wicked sense of humor. Starting in the preface, the book is thrilling, deeply informative, poignant, and at times laugh-aloud funny.

Weidensaul's book inspires awe, for example, in the journey of the tiny sandpiper that flies nonstop from Canada to Venezuela, handling dehydration by drawing moisture from its own muscles and organs, and putting part of its brain asleep for seconds at a time to reduce exhaustion and improve reaction time.

"The plight and toughness of both birds and their human defenders will move you in a lasting way."
~ Anna Rydell, ***BookPage***

WHEN: October 20, 2021 *(the third Wednesday of the month)*

TIME: 6:30–7:45 PM

VIRTUAL ONLY. Please log on 10 minutes prior to start time so that we can start the meeting promptly at 6:30 PM.

ACCESS is easy on a computer, tablet, or smartphone. Go to global.gotomeeting.com/ join/604063133 or dial in using your phone: (872) 240-3212. **Access Code:** 604-063-133

New to GoToMeeting? Get the app now and be ready when your first meeting starts: global. gotomeeting.com/ install/604063133

Everyone is welcome, even if this is your first time. If you want to be on the email list for monthly reminders, contact Elisabeth Swanson: elsswa@gmail.com or (406) 570-8325.

Enjoy the golden fields of autumn, the calls and glimpses of migrant birds, and last hikes in the high country before ski season. While you are celebrating this season of transitions, steal a little time for reading and reflection, and join us on October 20th for the SAS Book Club!

~ Hilary Johnson: (406) 599-1446 | ralphhilary@gmail.com
~ Elisabeth Swanson: (406) 570-8325 | elsswa@gmail.com

SACAJAWEA AUDUBON SOCIETY OFFICERS AND COMMITTEE CHAIRS

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Newsletter Design	Amy Kelley Hoitsma aok@mcn.net

SACAJAWEA AUDUBON SOCIETY

INDRELAND AUDUBON WETLAND PRESERVE UPDATE: OCT. 2021

Wetlands are some of Gallatin County's most valuable real estate. Protecting them is essential to the long-term health and prosperity of our communities. Sacajawea Audubon Society (SAS) is shining a spotlight on the role wetlands play in a sustainable Gallatin Valley future.

Almost 50 years ago, Congress passed many of the nation's federal environmental laws. One of the hallmarks of these laws is the growth of permitting programs. Acknowledging that a halt to all pollution and development was both impractical and undesirable, governments developed programs to minimize, monitor, and mitigate environmental harms. Mitigating wetland harm falls under Section 404 of the Clean Water Act, allowing permittees permission to alter wetlands in exchange for promises to mitigate harm from that wetland alteration.

Unfortunately, many of the wetlands in Bozeman and the Gallatin Valley have been harmed or lost to development. As it stands, the lion's share of mitigation for our destroyed wetlands are replaced in a private "wetland bank" that is in a watershed ***outside*** the Gallatin Valley. Whenever this happens, the Gallatin Valley community forever loses these critical natural resources and the economic value they hold.

SAS's goal is to contribute to wetland conservation in the Gallatin watershed. The Indreland Audubon Wetland Mitigation Bank will help us reach this goal in three ways:

Economical

- Creates an economic incentive for restoring, creating, enhancing, and conserving wetlands
- Ensures the dollar value is retained within the community of the impacted watershed
- Maintains natural drought, flood, and water quality protection within our community
- Contributes to a vibrant cityscape that makes Bozeman an attractive place to live and visit
- Supports the health of a Blue Ribbon Fishery, a cornerstone of Gallatin Valley's economy.

Ecological

- Promotes diverse habitat and wetland functions to create a more sustainable ecosystem
- Protects a wildlife corridor through an urban environment
- Contributes to aquifer recharge and late-season instream flows to the East Gallatin River
- Sequesters carbon in saturated wetland soils

Educational

- Encourages critical thinking about clean water
- Promotes understanding of the importance of wetlands
- Promotes understanding of mechanisms that protect wetlands
- Inspires future sustainable urban planning
- Cultivates a love of nature

SAS continues to move forward in creating a local "wetland mitigation bank." Currently, we are in Phase II. The Army Corps of Engineers submitted the IAWP Prospectus for public comment on July 23, 2021; the comment period ended on August 23, 2021. SAS's Wetland Preservation Project Committee will be reviewing the comments.

THE SAS WETLAND PRESERVATION PROJECT was initiated to accomplish SAS's mission to protect and restore increasingly rare wetland habitat in our region, and to provide educational opportunities and enjoyment for generations to come. **YOUR SUPPORT MATTERS!** Please consider a donation to the Indreland Audubon Wetland Preserve.

To arrange a tour of the IAWP with one of our wetland experts, contact Loreene at loreener@sacajaweaaudubon.org or (406) 600-6666. For more information visit Bozemanwetlands.org

The Cecotti family walks along the historic railroad berm with fabulous views of the IAWP.

BIRD NOTES

by John Parker

The weather during the beginning of this fall's migration has been quite mild with only one major front passing through the region. Without much active weather, the passage of southbound passerines has generally been fairly quiet up to mid-September.

Once again, the Sourdough Nature Trail has been a fruitful location to find local rarities. Andrew Guttenberg found a couple during the first half of September. While walking the trail on September 2nd, Andrew found a male **Chestnut-sided Warbler**. Eleven days later, near the Gardner Park entrance, he had a brief encounter with a **Blackpoll Warbler**.

The other notable warbler of early September was the **Blackburnian Warbler** that Forrest Rowland discovered southeast of Manhattan on September 12th. Interestingly this warbler, which is typically seen feeding high in the forest canopy, was spotted foraging on the mud along a small stream course.

The rarest and most notable find in our area this August was a **Pomarine Jaeger** seen over the Madison Arm of Hebgen Lake. While fishing on August 18th, Jason Weckstein—who by happenstance is an ornithologist—spotted a dark gull-like bird flying toward the boat. Not expecting a rare pelagic bird while fishing Hebgen Lake, Jason had packed his flyrods but not his camera. Fortunately, the jaeger flew directly

Blackburnian Warbler by Paul Hurtado.

overhead within 30 feet. With such a close encounter he was able to note most of the pertinent field marks. He did have his binoculars and was able to watch the jaeger for another couple of minutes as it harassed some **Ring-billed Gulls** and buzzed the shorebirds that were on the mudflats at the upper end of the Madison Arm before disappearing. This close encounter was crucial, since the different species of non-breeding jaegers are notoriously difficult to identify.

The take-away from these last two bird sightings is to expect the expected, but be ready for the unexpected. This is one reason birding can be so enjoyable—because there are surprises just waiting to be discovered every day.

Ennis Lake photo by Lou Ann Harris

This should be near the peak time for migrating water fowl, grebes, and loons. Ennis Lake is one of the premiere staging areas for migrating waterfowl in southwestern Montana. Thousands of ducks can be spread across the lake on any given day. As is typical with high concentrations of birds, there should be a wide variety of waterfowl and the possibility of a rarity being found. Bring a lunch and other essentials as we'll be out until mid to late afternoon. Also, remember to bring plenty of warm clothes as it could be cold and windy.

Limit 12 people or 5 vehicles. *(Previous COVID vaccination strongly preferred.)*

For more information and to make reservations, contact trip leader Steve Hoffman at **(406) 461-5714** or swhoffman0322@gmail.com

Meet at 7:45 AM at the Museum of the Rockies

Carpool and depart at 8:00 AM

CAPTURE OF GOLDEN EAGLES TO DETERMINE SOURCES OF BLOOD LEAD (Pb) CONTAMINATION IN MONTANA

Status Report: September, 2021

By John Edwards, SAS Vice President

Beginning in 2018 a field and laboratory study has been conducted to determine the sources of lead (Pb) in the blood and tissues of Golden Eagles in southwest Montana. This study is being done by an intrepid team of Volunteer Eagle Capture Specialists (VECS) that are all graduates of Montana State University. The study is being supported financially by Sacajawea Audubon Society (SAS) and other donors. The purpose of this brief article is to bring the members of SAS and the public up to date on the progress of the study. The information in this article was taken from a May 2021 report to SAS prepared by the VECS team, which can be accessed at sacajaweaaudubon.org/golden-eagle-blood-lead-study-2020-2021/

To save space we have not included the full references cited in the study, but they may be found in the May 2021 full report.

Purpose of Study

The science of isotopic analysis of Pb is well established (Sangster et al. 2000) and has been shown to be useful as a tool for distinguishing between ammunition of various manufacturing origins (Buttigieg et al. 2003). Previous work has identified isotopic ratios from other origins, e.g. aerosols (Bollhöfer and Rosman 2001), gasoline (Flegal et al. 2010), and dust (Del Rio-Salas et al. 2012).

The VECS team is aware of five studies involving Pb isotopic ratios in birds. One involved the North Island Kaka Parrot (*Nestor septentrionalis*) and found rainwater as the primary source of Pb contamination (Sriram et al. 2018). Four studies involved eagles. Three involved dead eagles; one looked at tissues other than blood in both Bald and Golden Eagles (Scheuhammer and Templeton 1998), one used liver tissue of eagles found dead in Japan (Ishii et al. 2017), and one analyzed crop and gut contents of a juvenile Bald Eagle (Franzen-Klein et al. 2018). All found Pb contamination consistent with Pb-based ammunition. Only one study used blood of live, normal, wild Golden Eagle nestlings (Herring et al. 2020). Herring et al (op cit.) found the 206Pb/207Pb stable isotope ratios spanned a range of sources but only 45% of blood Pb ratios fell within the range associated with Pb-based ammunition. Over 55% were indicative of other sources. In the present Montana study the team is sampling free-ranging eagles at least 1 year old that may provide different results, which may warn of other Pb contamination sources in need of attention.

In conjunction with Hawkwatch International, SAS is conducting an annual fall raptor migration survey in the Bridger Mountains. 2021 is the 30th anniversary of the annual population survey. The Bridger survey results have shown an approximate 40% decline in the total number of Golden Eagle migrants over the period of the Bridger survey. SAS considers this Golden Eagle blood lead study to be an important source of information to help determine the reasons for the Golden Eagle population decline.

Golden Eagle (subadult) by Kyle Dudgeon

Field Methods

Eagle capture, banding, and sampling were authorized by various State and Federal permits and protocols. Capture operations occurred regionally near the communities of Dillon, Sheridan, Ringling, and Emigrant in southwestern Montana. Eagles were captured with remotely detonated Coda™ net launchers. Road-killed wild ungulate carcasses were used as bait—many supplied by the City of Bozeman Street Department or recovered as road-kills in the study area. Capture sites were usually >500 m apart and monitored continuously via spotting scope.

Age classes assigned to captured eagles were based on plumage: juvenile=Second Year (SY), immature=Third Year (TY), subadult=After Third Year (ATY), and adult (AD). Various morphometrics of captured Golden Eagles assisted in assigning sex and assessing general condition and a U.S. Geological Survey (USGS) rivet band was applied to one leg. One cc of whole blood was collected from each eagle captured and deposited in vacutainers. A small sample of feathers was collected from some eagles from the lower breast or abdomen. Eagles without full crops were force fed to satiation prior to release on site. Processing eagles on site spanned between 28 and 75 minutes depending

continued on page 6

GOLDEN EAGLES *continued from page 5*

on cooperation of the eagle. Blood samples were frozen and archived.

Capture

A total of 36 Golden Eagles and one Bald Eagle were captured and blood sampled from 2018 to 2021. Over four years of effort, capture numbers were modest compared to the late 1980s when up to 36 eagles were caught in just one season. Low numbers stemmed from a variety of reasons: pandemic shut-down in 2020, a paucity of migrant Golden Eagles during capture, and lack of ungulate carcass baits in 2021. Capture of two Golden Eagles missing toes during the tenure of this project is likely indicative of the all-too-pervasive danger of leg-hold traps to raptors and other nontarget species. Too often leg-hold traps set for furbearers are placed with illegally exposed baits that attract nontarget species. The number of Golden Eagle band recoveries (dead eagles) produced over the tenure of Banding Permit #20357 as a result of leg-hold traps is >20.

Laboratory Testing Status

The USGS Forest & Rangeland Ecosystem Science Center (FRESC) in Boise, Idaho committed to analyzing samples. However, FRESC had to archive samples prior to analysis because of labor management restrictions and a subsequent loss of funding due to the COVID-19 pandemic. Blood samples from 36 eagles are in cold storage archive status at the laboratory. Funding for the analysis of the 36 samples has been pledged by a private donor and testing of the samples will be conducted. SAS plans to provide an update of the laboratory test findings as soon as they are available.

Sacajawea Audubon Society will continue its annual funding of this study. If you are interested in helping, you are invited to donate to SAS. You could make a general donation, or specify the funds to be used for the Golden Eagle blood study.

Garden Buzz *By Adele Pittendrigh*

Many Sacajawea Audubon Society members are luring birds and butterflies to their yards through Bird-friendly Landscaping. Some have been doing this for years while others, like myself, are just starting to transform their yards with native plants to attract birds and other pollinators.

Karin and Stuart Jennings began landscaping their yard for birds 20 years ago when they built their home. Karin's dad was a landscape architect, and she is a life-long birder and gardener. She and Stuart planted their yard with the seasons in mind so that there is something of interest for birds throughout the year. Cedar Waxwings, for instance, are now feeding on the fruit of cotoneaster, chokecherry, and mountain ash. In the spring Western Tanagers have been observed feeding on the cotoneaster blossoms. They also plant species that attract the insects that birds like to eat. Karin says her favorite birds are the Pine Siskins. "They are acrobatic and brave," she says. "You can almost walk right up to them."

Kenna and Steve Dubois lived in the interior of Alaska for 40 years before moving to Montana in 2015. They didn't see many hummingbirds in Alaska, but they'd travelled to Arizona and Costa Rica where they saw lots of them. When Steve and Kenna moved to Montana, they wanted to see more hummingbirds. They planted nectar flowers to attract hummers in their first Montana home in Livingston, and then again when they moved to Bozeman. This year they planted salvia, penstemon, bee balm, fireweed, and hyssop (or agastache) to attract hummers. The hummers showed up and used all five plants but used hyssop the most. Steve wondered how a hummer can drink from an

A Calliope Hummingbird drinks from a hyssop/agastache blossom. Photo by Steve Dubois.

individual flower and then come back soon after to drink again. He found an article in the *Journal of Botany* that says a flower blossom will recharge with nectar in 1–2 hours.

Hyssop or agastache? These common names get used interchangeably. The true *Hyssopus officinalis* is blue flowering and native to southern Europe and Asia. Many agastache species are native to Montana and North American and cultivars have been bred for colorful red, pink, and orange flowers and are often marketed as hyssop or hummingbird mint. These lovely flowers are definitely going on my plant list next year to attract hummingbirds.

KNOCKING OUT BURDOCK!

By Paulette Epple

Nine years ago, a group of 12 dedicated Sacajawea Audubon Society volunteers began in earnest to eradicate burdock from some of our favorite trails and parks. What started in only five locations has expanded this season to 31 volunteers working in over 40 locations around the county!

This year our expanding success was obvious. At two of our most beloved birding hotspots—Sourdough Nature Trail and Glen Lake Rotary Park's wooded trails—we couldn't find a single burdock seed stalk to cut! At the "M" trailhead, where we once hauled away 900 pounds of burdock, we found only a few seed stalks. Our burdock cutting event at the Drinking Horse Mountain Trailhead and Fish Technology Center yielded only 300 pounds of seed stalks this year rather than the 800 pounds in previous years. Our success is the result of our dedicated volunteers consistently cutting and removing all burs and seeds in August to prevent regeneration and some targeted spring herbicide treatments to reduce the overall population.

Why do we put so much effort into this project? Quite simply, because BURDOCK KILLS BIRDS! Not purposefully, like a Venus fly trap kills insects, but incidentally, by entangling birds in their Velcro-like burs until the birds become exhausted and die. Unfortunately, this season our volunteers were too late for the three Pine Siskins, one Yellow Warbler, and one small bat we found hanging dead in the prickly burs. But we likely prevented many more deaths by hauling 2,740 pounds of burdock flowering stalks and burs to the landfill!

The amazing volunteer burdock cutting team (L to R): Paulette Epple, John Backes, Woody Martyn, Betty Martyn, Becky Ward, Ava Jamison, Taylor Foran, John Ansley, Gina Carolan, Danielle Jones, Vicki Saab, and (kneeling) Susan Bilo.

We want to give a huge shout out of THANKS! to our hard-working volunteers that make this project a success: Jennifer Abbott, John Ansley, John Backes, Susan Bilo, Gina Carolan, David Cole, Andy Epple, Paulette Epple, Taylor Foran, Tom Forwood, Pat Fowlie, Deborah Hines, Ava Jamison, Danielle Jones, Travis Kidd, Peggy Kimmet, Ron Kimmet, Hunter Lode, Jennifer Magic, Mary Maj, Betty Martyn, Woody Martyn, Peggy Osborne, John Parker, Anne Ready, Marlena Renwyck, Vicki Saab, August Tjernagel, Kelsi Tjernagel, Becky Ward, Kevin Ward, and everyone else who works on their own to stop the spread of burdock. THE BIRDS AND BATS THANK YOU!

A non-avian burdock victim: a western long-eared miotis.

A young burdock-stomper learns the trade.

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

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Individual or Family
January -December 2021

☐ Basic Membership $25

☐ Supporting Membership $50
(Supporting local conservation & education projects)

☐ Thank You for Considering an Additional Donation .....$_____

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❖ We do not share your information except with National Audubon, 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*
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Thank you for your membership and donation. We look forward to birding with you!

10/21 Newsletter