**MARCH 2018 NEWSLETTER VOLUME 32, NO. 7** 

### **EAVESDROPPING ON THE NIGHT SKY: Understanding Songbird Migration**

By Craig Kuchel and Vanessa Haflich

According to Scott Weidensaul, "Most people are surprised to find out that birds migrate after dark – not just nocturnal species like owls, but hundreds of otherwise diurnal, or day-active species like songbirds. In fact, the vast majority of migration goes on at night, out of sight and out of mind." One of the oldest techniques for studying nocturnal migration was 'Moon Watching" and listening hard to identify flight calls. Neither method was extremely satisfactory. Though the lore of indigenous populations showed they had been interested in nocturnal flight calls for generations, it was not until mid-1800 that scientists began to suspect the calls might be important to understanding details of bird migration. In 1896 the first attempt to quantify nocturnal flight calls of migrating songbirds was published. By the 1950's early attempts to record nocturnal flight calls were reported. The main obstacle to understanding the calls was the necessity to process all recordings manually. By the late 1960's scientists were devising ways to process the calls electronically. By 2012 when Debbie Leick and Kate Stone, avian scientists with the MPG Ranch in Montana became interested, processing data from long recording sessions had become somewhat automated. To facilitate studies of nocturnal migration, MPG supported the development of Vesper, an open source software application to automate the processing of sound files. Thus "Project Night Flight" (PNF) was developed as part of an ongoing research program.

In late 2015, the project coordinators made plans to involve students from the high school in Florence in this exciting research project. At the time, the project consisted of fewer than 5 acoustic

monitoring stations, mostly on the MPG Ranch. Acoustic monitoring stations were installed in 2016 at the high schools in Florence and Darby, and subsequently in Seeley Lake in 2017. Using relatively inexpensive autonomous recording units and open-source software, Florence students were able to remotely monitor, then classify and analyze nocturnal flight calls. During the summer of 2017 the PNF monitoring effort was expanded greatly, shifting the emphasis from student to citizen involvement, with some 21 monitoring stations established on private and public land throughout the Bitterroot Valley. Data obtained, inaccessible through traditional avian monitoring techniques, will inform conservation biologists about long-term population trends in nocturnal Passerine migrants. The hope is to establish an array of student/citizen scientists across Montana

contributing to this effort.



Courtesy Vanessa Haflich Destini Greer analyzing spectrograms made by song birds migrating over the Florence High School.

In 2017, two Florence students enrolled in a special science research class offered by Vanessa Haflich. Both students decided to pursue projects investigating the influence of various environmental factors on the frequency and abundance of nocturnal flight calls (NFCs). Senior Destini Greer pursued possible relationships between the lunar cycle and NFCs. Junior student Natalie Dulac looked into a possible relationship between smoke from wildfires and NFCs in two communities, Florence and Seeley Lake, both shrouded in smoke from wildfires during the summer of 2017. With the generous assistance of the Bitterroot Audubon Society, they were able to travel recently to present their posters at the annual meeting of the Montana Chapter of the Wildlife Society, the first high school students to ever do that.



Courtesy Craig Kuchel

Natalie Dulac explaining her research findings to a fellow scientist at the annual conference of the Montana Chapter of the Wildlife Society in Butte, MT. in February.

Vanessa Haflich teaches earth science, Rocky Mountain ecosystems, and an independent science research class at Florence-Carlton High School. She has an M.S. degree in Science Education from Montana State University. Nine years into her career teaching high school science she continues to enjoy the many rewards of this career path. She is very passionate about her teaching, and considers her greatest accomplishment to be her ability to instill her excitement for science and desire to learn in her students.

After 4 years teaching in Chicago's inner city, Craig Kuchel earned BS and MS degrees in wildlife biology from the University of Montana, focusing on his research into the ecology and behavior of Harlequin Ducks in Glacier National Park. Seeing a

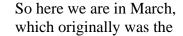
need for good science teachers he took a job teaching biological sciences at Florence-Carlton High School. During his 38 years there he pursued his passion for learning and teaching science, always attempting to provide an opportunity for his students to learn scientific concepts the way scientists do, through investigation and experimentation. Now retired, he continues to mentor students pursuing genuine scientific research.

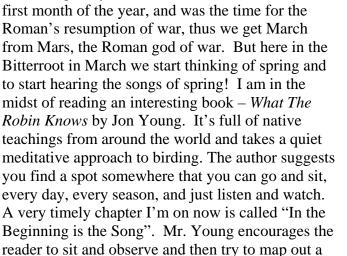
In this presentation, Craig and Vanessa will discuss the importance of understanding songbird migration, the many ways of studying bird migration, and the potential of Project Night Flight to lead to a better understanding of habitats and flight corridors critical to the survival of migratory songbirds.

PLEASE JOIN BITTERROOT AUDUBON SOCIETY MONDAY, MARCH 19TH 7:00 P.M. FOR THIS EXCITING AND INNOVATIVE PROGRAM WHICH MELDS TOGETHER ONGOING RESEARCH THAT WILL INCREASE OUR UNDERSTANDING OF SONGBIRD MIGRATION AND THE DEVELOPMENT OF YOUNG HIGH SCHOOL SCIENTISTS. IT WILL BE HELD AT THE LEE METCALF NATIONAL WILDLIFE REFUGE, LOCATED NORTH OF STEVENSVILLE JUST OFF OF EASTSIDE HIGHWAY ON WILDFOWL LANE. THE PUBLIC IS INVITED. Contact Kay Fulton (360-8664) for more information.

## **Letter from the President**

By Becky Peters, BAS President





singing spring bird's territory, for example, a

Robin! The spring is when the males are in full

voice and are the most territorial. A male Robin could be staking out an area of a few thousand square feet. Watch for him during our lengthening days as he is now "the most visible, demonstrative and vocal" that he'll be all the rest of the year. He'll want to be on two or three favorite posts so that he can look over his territory and sing his heart out. The author suggests that if you want to find out the Robin's domain – "push" him a bit while you are outside walking around your own domain. As you slowly walk toward him – see which direction he flies off and as he does he will eventually turn 90 degrees. He's at his border there. Gently approach from another direction and see if you can figure out another border of his. If he happens to venture outside his territory, he'll probably do less tail and wing flapping while he moves more slowly in the shadows of another Robin's borders. I am so fascinated that I plan to try this out on our returning Robins and find out where is each one's little patch of the world. If you try figuring out one of your bird's territories, please let me know what you learned. Here's to the warming of our days.

#### Welcome Back Waterfowl Day EVENT DATE CHANGE: APRIL 7, 2018 By Judy Hoy

Welcome Back Waterfowl Day will again be hosted by Bitterroot Audubon Society at the Lee Metcalf National Wildlife Refuge on Saturday, April 7 from 10 am to 1:30 pm. Audubon members with high quality optical equipment will be present on the dike along Wildfowl Lane on the county road between the ponds west of the Visitor Center to assist in identifying and observing the waterfowl and other birds and mammals that use the refuge wetlands. This special event is open to the public. Please note the date is April 7, not March 31 as it says on the Audubon calendar, to avoid Easter weekend, and hopefully be warmer. For more information or questions, please call Judy Hoy at 777-2487 or by email—bjhoy@localnet.com.

Please note: The refuge will not be staffed on the day of the event, and indoor restroom facilities may not be available during Welcome Back Waterfowl Day. Access to an outhouse toilet will remain available for public use, located near the river walking area.

# Beginning Birding-by-Ear Workshop, Field Trips

By Sherry Ritter

Many of us cannot identify a bird unless we see it. To help, Bitterroot Audubon Society is offering a Beginning Birding-by-Ear Workshop, consisting of an evening class and a monthly series of morning field trips. The evening workshop by Sherry Ritter will take place on March 9 from 7:00-8:30 p.m. at Lee Metcalf National Wildlife Refuge's Visitor Center (4567 Wildfowl Ln, Stevensville, MT). Sherry will lead the first four field trips March 17 (Stevensville), March 24 (Hamilton), April 14 (Stevensville), and April 21 (Hamilton) from 8:00-10:30 a.m. March and April field trips will allow us to focus on a few species without getting overwhelmed by all of the returning migrants. Additional field trips in May and June will build on the March and April ones; those dates will be announced in the May newsletter.

You must have attended either the 2017 or 2018 evening workshop in order to participate in field trips. The field trips are best suited for those who can identify common birds by sight, such as redwinged blackbirds, common ravens, northern flickers, black-capped chickadees, nuthatches, tree swallows, and downy woodpeckers.

While there is no limit to the number who can attend the evening workshop, the field trips are limited to 8 participants each, so register early! Please register for only one field trip per month so that as many people as possible can go out with our experienced leader. To register, contact Micki Long at mickilong@gmail.com and include your name, email address, and phone number.

## What's the story, Story?

By Jim Story

### Question: Why do many birds fly low over water?

Answer: It is common to see many sea ducks, pelicans, and sandpipers skimming low over the water. Skimming allows the birds to take advantage of an aerodynamic phenomenon known as "ground effect." The patterns of air movement around the wing in use near the water surface are modified in a manner that reduces drag, the resistance of the air to the forward movement of the wing. Thus, it is more efficient to fly close to a surface than far from it. The ground effect only occurs when the flying object is less than a wingspan over the surface. This, of course, is possible over water but difficult

over land where the bird would be constantly dodging obstacles.

Local birding expert Jim Story answers your questions about birds and their habits. Jim welcomes your questions at <a href="mailto:jstory4689@gmail.com">jstory4689@gmail.com</a>.

## News and Notes

#### **Chapter Members Renewal Deadline**

If you are a BAS chapter-only member, your membership fee (\$15) is due. Please send payment to:

Bitterroot Audubon Society PO Box 326 Hamilton, MT 59840

#### Call for Photos

Bitterroot Audubon is seeking images of birds for a feature in our newsletter: *Bird Shots*. If you have taken a great photo and would like to submit it for consideration, please email the jpeg image, with a brief description, to BASeditors@gmail.com.

#### **Bitterroot Audubon is on Facebook**

If you use Facebook, please look for Bitterroot Audubon and "Like" us!

#### Lee Metcalf NWR, Stevensville, MT

New to birding? Beginner Bird Walks at the refuge sponsored by Bitterroot Audubon and Five Valleys Audubon are held the third Saturday of each month. Meet at the Refuge Visitor's Center on March 17<sup>th</sup>, at 10AM for a two-hour bird walk. Bring binoculars if you have them. Contact the refuge at (406) 777-5552 for more information.

## Calendar of Events

- Mar 17: Beginner Bird Walk at Lee Metcalf NWR, Stevensville, MT, 10AM-12PM.
- Mar 19: "EAVESDROPPING ON THE NIGHT SKY: Understanding Songbird Migration" by Craig Kuchel and Vanessa Haflich, Audubon Meeting, Lee Metcalf NWR, Stevensville, MT, 7PM, Board Mtg. 5PM.
- Apr 7: Welcome Back Waterfowl Day, Lee Metcalf NWR, Stevensville, MT, 10AM-1:30PM
- **Apr 16:** Audubon Meeting, Location TBA, 7PM, Board Mtg. 5PM.
- **Apr 21:** Beginner Bird Walk at Lee Metcalf NWR, Stevensville, MT, 10AM-12PM.
- May 19: Beginner Bird Walk at Lee Metcalf NWR, Stevensville, MT, 10AM-12PM.
- May 21: Audubon Meeting, Location TBA, 7PM, Board Mtg. 5PM.
- **Jun 8-10:** 19<sup>th</sup> Annual "Wings Across the Big Sky Festival." Kalispell, MT. See Newsletter for details.

## **Bird Shots**



Courtesy Mike Daniels



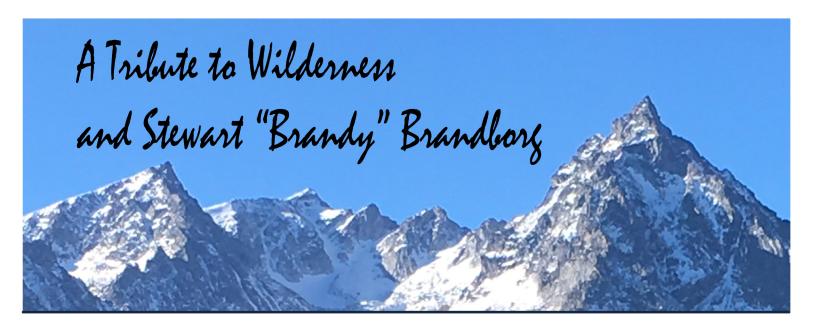
June 8-10, 2018 Kalispell, Montana

The annual Montana Audubon Bird Festival is fast approaching! Please register early by mailing the form included in the registration brochure or by visiting <a href="www.mtaudubon.org">www.mtaudubon.org</a>. If registering online, please only choose one field trip per day as the system will not allow you to register for a trip that is full; if registering by mail, be sure to include 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> choices.

Rooms have been blocked at the Kalispell Red Lion Inn. Call 406.751.5050 and mention you are attending the Montana Audubon bird festival to receive the discounted rate.

Each year Montana Audubon recognizes outstanding individuals who work for the conservation and protection of birds and other wildlife by presenting **Awards** at the Saturday evening banquet. We are currently seeking nominations in the following categories: Lifetime Achievement Award, Educator of the Year, Conservationist of the Year, Citizen Scientist of the Year, and Special Achievement Award. To make a nomination, download a nomination form at www.mtaudubon.org. We must receive nominations by May 18th, 2018. Mail completed forms to Montana Audubon, PO Box 595, Helena, MT 59624.

Register soon and join us in Kalispell this June! If you have further questions, please contact Montana Audubon at 406.443.3948 or festival coordinator Cathie Erickson at cerickson@mtaudubon.org.

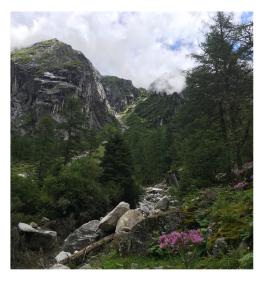


Introductory Pep Talk by Brandy, the last surviving architect of the Wilderness Act

Keynote: Verena Gruber, European Wilderness Society: "Is there Wilderness in Europe?"

Protecting Wilderness and Wildlands: You can make a difference!

Saturday, March 17 6:30-9:00 PM Bedford Building 223 S. 2nd St., Hamilton



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Beer, Wine, Food, and Friends!

A St.Paddy's Day Wilderness Celebration

### BITTERROOT AUDUBON PO BOX 326 HAMILTON MT 59840-0326

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* Board Member			
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## **Chapter Only Membership**

WEBSITE: www.BitterrootAudubon.org

The Bitterroot Audubon Chapter Only Membership is \$15/year. These members will be supporting local chapter activities, receive the full color e-newsletter, and enjoy Chapter benefits. To join as a Chapter Only Member, complete this form.

Name:		
Address:		
City:		
State:	Zip:	
Email:	•	

Send this application with \$15 to:



Bitterroot Audubon Society PO Box 326 Hamilton, MT 59840-0326

# NATIONAL AUDUBON SOCIETY MEMBERSHIP APPLICATION



Renew or Sign up for your National Audubon Membership at <u>Audubon.org</u>