

## Unlocking the Nightly Activity Patterns of Common Poorwills and Other Nocturnal Creatures

By Kate Stone

How do scientists learn what nocturnal birds are doing at night? They are difficult to see, might be dangerous for the observer to track and follow, and getting too close might disturb normal activity. Vocalizations like hoots are biased towards males and may only be useful at certain times in the breeding season.



Photo by Kate Stone

*A pair of Common Poorwills roost together prior to the breeding season. How do their nightly activity patterns differ and do patterns change during the breeding season?*

The Motus Wildlife Tracking System- and the use of “nanotags”- is most often applied to studying long-distance movements of small organisms. But we can also use data gathered from these tags to understand small-scale animal movements, like when they are active or sitting still. Data like these can help us understand the relationships between nocturnal creatures and many factors, including moonlight, weather, and food availability. We can also look at seasonal differences in movements, or how activity changes at different stages of the breeding cycle.

The Bitterroot Valley boasts the only long-term study on the uncommon nightjar the Common Poorwill. Since 2015, we have captured over 250 poorwills on the MPG Ranch near Florence. We’ve spent the last few field seasons deploying nanotags on poorwills and other nocturnal creatures to understand nightly activity patterns. In this talk, we’ll share what we’ve learned so far. How much of the night are poorwills active? Do males and females show different activity patterns? Can we tease out how much time poorwills



spend foraging versus singing? Though poorwills will be the focus of this talk, we’ll also look at the activity of several other elusive night creatures, like the Common Nighthawk and Flammulated Owl.



Photo by Kate Stone

*A Common Poorwill with a nanotag. These tiny tracking devices help scientists understand short- and long-distance animal movements.*

**Please join Bitterroot Bird Alliance for this VIRTUAL program on Monday, February 16<sup>th</sup> at 7PM. You will need to register in advance for this meeting:**

[https://us06web.zoom.us/meeting/register/4JzAH-ARgi1BxZ8sZkW\\_A](https://us06web.zoom.us/meeting/register/4JzAH-ARgi1BxZ8sZkW_A)

**After registering, you will receive a confirmation email containing information about joining the meeting.**

## Bitterroot Bird Alliance Calendar of Events

- Great Backyard Bird Count; See article for details  
✓ Feb 13-16<sup>th</sup>.
- Common Poorwills and Other Nocturnal Creatures Virtual Program on  
✓ February 16<sup>th</sup> at 7PM via Zoom
- Chapter Renewal.  
✓ Was due 31Jan2026
- Monthly Beginner Bird Walk at Lee Metcalf NWR.  
✓ 3rd Saturday of each month, Stevensville, MT 10AM-12PM.
- See Article for Various upcoming Field Trips.

## Letter from the President

By Larry Barnes, BAS President



Photo by Larry Barnes

*A chickadee was doing some house hunting on February 2nd.*

On February 1st the long song of a male Red Crossbill cut through the gentle white noise of Sweathouse Creek along with singing Song Sparrows, Black-capped Chickadees, and the spring calls of Northern Flickers. That evening one solitary house-bound mosquito investigated me as a food

source, which is the only mosquito we have ever seen here in the past two years that wasn't feeding on a frog (which is another story). A neighbor noticed a blooming buttercup, his earliest date in his 28 years, breaking the old record by 13 days. And on February 2nd a female Red Crossbill, perhaps motivated by all of the spring singing, was gathering nesting materials.



Photo by Larry Barnes

*Song sparrows sing at surprising times of the year but warmish early spring days really encourage them.*

We are rapidly cooking Earth thanks to a mere 200-year pulse of carbon dioxide released from the burning of global quantities of fossil fuels. But life responds; you probably have all made your own phenology observations. The change we are seeing is sudden, in evolutionary time, nearly as sudden as the asteroid that created Chicxulub Crater on the Yucatan Peninsula 66 million years ago, ending the reign of the dinosaurs. Hopefully climate change won't be quite so catastrophic but some species will manage to adapt while others probably won't.

Crossbills are revealing the virtuosity of their adaptability as a species, which I write about here in the newsletter in *A Species is Born* about Idaho's Cassia Crossbill. We are approaching spring field trip season (well, I guess it's already here) so keep an eye out for outings designed to share nature and birds with others in our bioregion. Watch for in-person programs that we have planned for the next few months, which are typically the third Monday or Tuesday of the month. And be sure to spend at least 15 minutes watching, counting, and recording birds as part of the annual Great Backyard Bird Count at least once on February 13-16<sup>th</sup>.

Happy Very Early Spring, Larry



Photo by Larry Barnes  
On February 1st a mosquito lost its life inside our house. This is the first mosquito we have seen on the property (inside or out) in two years (except for mosquitos preying on a spotted frog).

## Join the Great Backyard Bird Count, February 13-16, 2026

By Larry Barnes, BAS President

This is citizen science without barriers.

- 1) Decide where you will look for birds. It could be anywhere.
- 2) Record all of the birds you see and/or hear between February 13-16 at least once for at least 15 minutes.
- 3) Enter your data on eBird.
- 4) That's it!
- 5) You have joined millions of others from around the world to gain a snapshot of bird species and numbers.

[Here is a short video](#) showing how to participate. Use the [eBird Mobile app](#) or enter your bird list on the [eBird website](#) (desktop/laptop).

If you are a beginning bird watcher and new to bird identification, try using the [Merlin Bird ID app](#) to identify what birds you are seeing or hearing.

**If you already contribute to Merlin or eBird, continue what you are doing! All entries over the 4-days count towards GBBC.**

If you want to start ebirding here is a great beginner [tutorial](#).

If you are going to [count birds at your feeder](#), click the link for a description for how to do so.

## Natural Selections: A Species is Born

By Larry Barnes, BAS President

The staccato rattle of the Red Squirrel is missing from the Lodgepole forests south of Twin Falls, Idaho, and that has made all the difference. As the land dried up after the last glacial period, great treeless expanses formed a barrier for the passage of red squirrels – a place of starvation, a talon to the

heart, or a canine to the skull. Should the squirrels somehow make the journey through the treeless sagebrush steppe, they would be like Polynesians discovering Hawaii. The squirrels would find paradise, a forest of easily harvested cones and bountiful springtime eggs to eat from the many birds there that never had to worry about marauding, egg-eating tree squirrels.

In the squirrel-free ~27 square miles of the South Hills and Albion Mountains just north of Utah twice as many birds breed compared to nearby similar habitats that echo with squirrel chatter. And one bird species, the Red Crossbill, is 20 times as common.

Red Crossbills occur across the northern portion of Earth wherever there are coniferous forests. In North America there are 10 “types” identifiable by the size of their bill, the species of cones they prefer, and the distinctive calls they make in flight. Red Crossbills are an “irruptive” species, roaming about their regions in search of the most bountiful cone crops. Type 9, however, is not nomadic and has been known as the South Hills Crossbill.



Photo by Larry Barnes  
This juvenile crossbill (not a Cassia Crossbill) is using its highly specialized bill to eat aphids instead of pine seeds on an ornamental fir tree.

Dr. Craig Benkman from the University of Wyoming is unraveling crossbill ecology and his work has resulted in a big surprise in the ornithological world – a new species. The informal South Hills Crossbill is now its own species, the Cassia Crossbill, *Loxia sinesciurus*, which means “crosswise without squirrels.” Here’s how the Cassia Crossbill came to be a species.

Lacking competition with Red Squirrels, the crossbills have all of the South Hills pine seeds to themselves. The Lodgepole pine cones here have evolved to be larger as a defense against the crossbills, who naturally have countered by evolving larger bills in an evolutionary arms race with the trees. The Cassia Crossbills are uniquely adapted to efficiently unlock the cone scales and extract the nutritious seeds with a deft leveraging movement of their beak and tongue. Other nomadic types of crossbills sometimes visit the region, but, having bills an average of just 0.7 mm smaller than the Cassia Crossbill, they don't enjoy the success of their resident kin. And the transient crossbills mate with the resident Cassia's less than one percent of the time. These facts point toward the Cassia Crossbill's unique standing, a fact now corroborated by DNA.

Idaho's only endemic bird species faces an uncertain future, which is often the case when one's range and diet are so restricted. Lodgepole pine cones are often serotinous, which means they open and drop their seed with a fire's heat. But the cone's serotinous nature is on a continuum. If the temperatures are above 90 degrees for a few days, some of the seeds fall to ground, reducing the food available to the birds by about 20% in the following four years.

With increasing fire frequencies and temperatures, the long-term prospects for Lodgepole forests and Cassia Crossbills in the South Hills are poor. Some predict the end of these forests, and its "new" species, in just 60 years.

### **Upcoming BBA Field Trips**

We are putting some field trip ideas together, with more to come. Also, check our website (<https://bitterrootbirdalliance.org>) for updates. But so far:

#### **Sunday, February 22. Polson Raptors**

Join Alex Kearney for a drive north to the Mission Valley. While the focus will be raptors of the area, participants will discover other wintering species and perhaps see the very beginning signs of spring migration. We will meet at two locations to organize carpools (Stevensville and St. Ignatius) and will return to the Bitterroot Valley by the late afternoon. Bring clothing for short walks from the cars, snacks, lunch, and water. We'll make several bathroom stops. Meet at 7 am at the northwest portion of the Stevensville Super 1 parking lot.

To register and receive more information, please

contact Alex via phone (406-360-2345) or email ([ackbluefish20@gmail.com](mailto:ackbluefish20@gmail.com)).

#### **Friday, May 1. MPG Hawk Watch**

Join Larry Barnes and travel to the MPG Ranch to observe the raptor migration there that is operated by the Raptor View Research Institute. We can also explore the nearby state land looking for riparian species. We could see about 30 species. We would carpool there (near Florence) and should be out for about 3-4 hours. Time and meeting place TBA.

#### **Saturday, May 30. Big Creek Ranch**

Join Jill Davies for a walk just over two miles of mostly flat ponderosa forest and field habitat through a private ranch near Stevensville. We could see 30 to 40 species, which, if we are very lucky, might include a great gray owl. We'll meet at the ranch and the walk should take between 2.5 to 3 hours. Time and meeting place TBA.

#### **Hamilton Public Library's 2026 Montana Birding Challenge**

The library will encourage community members to ramp up their bird knowledge by getting outside to see wild birds in their habitats. They have published an aBird Bingo sheet and a Montana Bird List and there is talk of "fabulous prizes." Stop by the library to pick up your bingo card.

**It's time to Renew to continue supporting your local chapter!**

#### **Bitterroot Bird Alliance Renewal:**

Please pay your \$15 membership renewal for 2026. Renew online through the website: [www.bitterrootaudubon.org/membership](http://www.bitterrootaudubon.org/membership) and click on the "Join Now" button to pay with credit card. You can also renew through mail by sending your name, address, email, and check (made out to the Bitterroot Bird Alliance) to:

**Bitterroot Bird Alliance Supporting Member**  
P.O. Box 326  
Hamilton, MT 59840

## The Big Why

By Skip Horner

The Board of Bitterroot Bird Alliance has decided to help support Montana Public Radio in its current time of need. Through discussions with them, we've decided to sponsor The Big Why, a bi-weekly program in a question-answer format. Listeners ask important questions on-line about life in Montana or life in the wild, and MTPR personnel dig deep for the answers. The show is broadcast on Saturday mornings at 9AM, increasing its appeal to younger listeners, and on Wednesdays, perhaps appealing to older listeners. Stay tuned! We hope to be up and running by the end of February.

## Save the Date for the 25th Annual Wings Across the Big Sky Festival

Mark your calendars and join us this summer in

Kalispell, June 12 -14, 2026, for the Wings Across the Big Sky Festival! Both Montana Audubon and Flathead Audubon Society are celebrating 50 years, so we've been hard at work putting together a birding festival to commemorate the incredible history of both organizations.

Field trips will visit locations in the greater Kalispell area, including local conservation areas, state parks, and private properties under conservation easements not normally accessible to the public. Special trips will focus on birds and native plants and bird photography, or get your exercise in as you bike and bird Going to the Sun Road in Glacier National Park!

Registration brochures will be mailed out in the coming months, and registration will open in March 2026. Keep an eye on Montana Audubon's email newsletter and social media for updates.

wings   
across the big sky

2026

Presented by 



Sharp-shinned Hawk | Elliott Ress

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### Chapter Only Membership

The Bitterroot Bird Alliance 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: \_\_\_\_\_  
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*Send this application with \$15 to:*

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