

Working with COVID restrictions

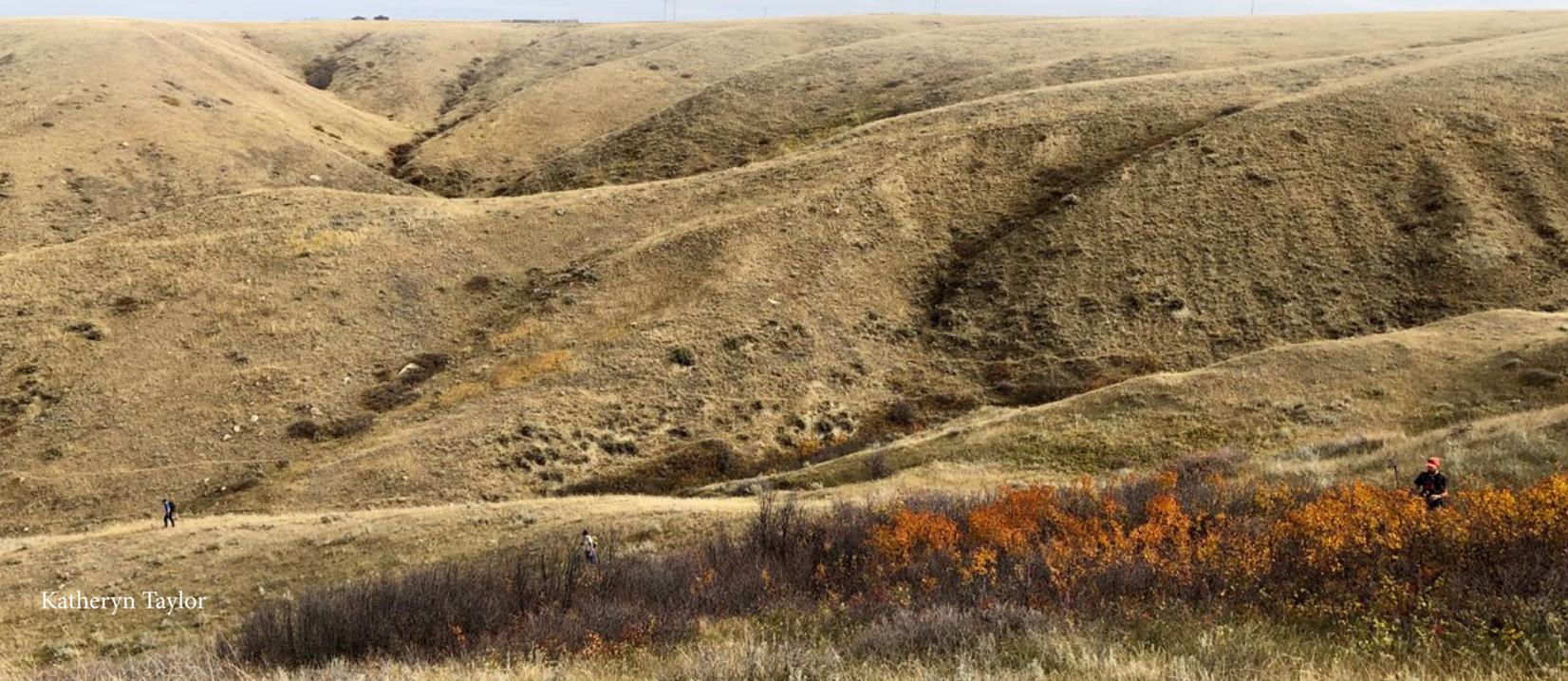
MULTISAR had to make a few adjustments to the workplan this year to be able to continue to work safely under Alberta Health Services recommendations for COVID-19. To protect our landholders, we stopped having in-person meetings when the shutdowns took place in March and April and instead used phone/email to talk about plans for their properties. We had to cut back on the amount of area we could cover for a few reasons, one of which was not being able to hire seasonal biologists and agrologists, and another of which was to postpone work on properties that were greater than 2 hours away to protect staff from having to stay in hotels and subsequently eat out in restaurants, all of which could potentially expose them to COVID.

All staff and contractors also had to drive their own vehicles, rather than carpooling, so that there would only be one person per vehicle. This made for some rather large convoys for the wildlife crew as normally 4-5 staff would be in one vehicle, with a maximum of two vehicles going out to a property on any given day, whereas this year, 4-6 trucks could be on a property at one time. All staff/contractors had hand sanitizer and used it before and after opening and closing gates.

Despite these challenges, MULTISAR was able to visit 11 properties this year and the quality of the work was of the highest standards and did not suffer. We did not have any staff members or contractors become sick with COVID, and everyone was able to work at their full capacity.

We thank all the landholders for their understanding this year and allowing us to continue working with them in a safe manner.

Physical distancing is easy to maintain during snake surveys as the crew needs to spread out to cover all potential locations of hibernacula.



Species Profile: Common Poorwill



Connor Long

Description:

The common Poorwill (*Phalaenoptilus nuttallii*) is a small, round and compact bird with a short tail, large head, and short bill. Its body is mottled grey, and its wings are barred brown. It is slightly smaller than and lacks the distinct white wing bars characteristic of the similar appearing common nighthawk, of which it is closely related to. The species is a member of the “nightjar” family, which is comprised of three species in Canada: the common nighthawk, common poorwill, and eastern whip-poor-will. Like other nightjars, the common poorwill

is a nocturnal aerial insectivore, foraging for insects at night while in flight. True to its name, the species can be heard singing a distinct “poor-will” call at night. During the day, it often rests on the ground by rocks or other features which it can blend in with its cryptic colouration.

Status:

One of the rarest species in the province with only 8 official records, three of which were reported by MULTISAR in the 2020 field season. Due to its cryptic nocturnal habits, there is insufficient knowledge on the basic biology of this species, and its population trends remain completely unknown; the species has therefore been given a conservation status of “Undetermined” in Alberta. The common poorwill has also been assessed as “Data Deficient” By the federal Committee on the Status of Endangered Species (COSEWIC) in 1993, while all other nightjars found in Canada are listed as federally “threatened” under the Species At Risk Act (SARA).

Habitat:

The common poorwill is found in open and sparsely vegetated grasslands with sporadic patches of aspen, shrubs, or rocky outcrops. In Alberta, the species is at the northernmost periphery of its range, which extends south into the western United States and northern Mexico.

Beneficial Management Practices:

Beneficial Management Practices (BMPs) that benefit insects directly benefit the common poorwill too (as well as other aerial insectivores), such as:

- Avoiding overgrazing riparian zones (use a low to moderate stocking rate and 25-50% utilization rate),
- Reducing/avoiding the use of pesticides, particularly near wetlands and riparian zones,
- Maintaining a patchy (heterogenous) landscape to provide areas of suitable roosting, nesting, and foraging habitat for the common poorwill and other species, and;
- Retaining or reseeding native grassland habitat.



Magnus Manske

References:

- Alberta Environment and Parks. 2020. Fisheries and Wildlife Management Information System (FWMIS). Available at: <https://www.alberta.ca/access-fwmis-data.aspx>
- Federation of Alberta Naturalists. 2007. The Atlas of Breeding Birds of Alberta: A Second Look. The Federation of Alberta Naturalists, Edmonton AB. 626 pp.
- Government of Alberta. 2011. Definitions of General Status Categories. Sustainable Resource Development, Fish and Wildlife Division, Edmonton AB. 1 pp. Available at: <https://open.alberta.ca/dataset/24ad01f8-bca7-490c-ba8c-96879c0c8684/resource/4ca63f3c-61d4-4597-bd7c-c0019095700b/download/definitionsstatuscategories-mar2011.pdf>
- North American Bird Conservation Initiative (NACBI) Canada. 2019. The State of Canada's Birds, 2019. Environment and Climate Change Canada, Ottawa ON. 12 pp. Available at: <http://nabci.net/wp-content/uploads/2019-State-of-Canadas-Birds-1.pdf>
- Spiller, K.J., and R. Dettmers. 2019. Evidence for multiple drivers of aerial insectivore declines in North America. The Condor 121(2): 1-13.
- Woods, C. P., R. D. Csada, and R. M. Brigham (2020). Common Poorwill (*Phalaenoptilus nuttallii*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY. <https://doi.org/10.2173/bow.compoo.01>

THE BENEFITS OF WELCOMING BATS TO YOUR LAND

Bats are perhaps one of the most polarizing creatures on the planet. Upon seeing a bat, people are often filled with either a sense of fear and distaste, or of excitement and wonder. Many people perceive them as scary, uncoordinated, and uncleanly pests. However, beyond these common misconceptions is a diverse group of small and harmless critters of great value to the natural world.

The Importance of Bats:

Bats are highly elusive and important contributors to the diversity and health of all major ecosystems in the province. Nine of Canada's 20 bat species can be found throughout Alberta, occurring at a greater abundance than nearly any other mammal (with the exception of rodents). Due to their nocturnal nature, they are able to fulfill unique ecological roles missed by species that are active during the day. As the primary nocturnal predator for a wide array of insects, it's unlikely you'll find a bat flying into or biting an unsuspecting human. They can, however, be found using their unique flying prowess, accurate echolocation, and cunning hunting ability to sink their teeth into moths, mosquitos, and other pesky insects. In fact, bats are one of the most important natural control mechanisms for agricultural and forest pests in North America, and it's estimated that they save these industries billions of dollars in pest control every year! Because of their widespread range, abundance, and unique adaptations, bats are also key contributors to the cycling of nutrients and serve as important indicators of ecosystem health.



Cory Olson

Contrary to popular belief, bats are highly agile flyers, as they have well-developed vision in addition to their ability to echolocate- they will not fly into your hair (that's just an old tale), though they may fly close to you in their pursuit of insects. They are not flying rodents, belonging to their own group of mammals (order Chiroptera), whereas mice and other rodents belong to the order Rodentia. The chance of a bat carrying rabies is incredibly small, with less than 0.1% of all free-ranging bats estimated to carry the virus. They are an incredibly important and misunderstood component of a stable ecosystem, and should be embraced within the natural world, rather than feared.

What Bats Need:

When not foraging for insects, bats can be found roosting within the crevices of old decaying trees, foliage of tall living trees, caves, mines, rock crevices, and manmade structures such as buildings and bridges, resting in preparation for their next night flight. Six of the 9 bat species that regularly occur in Alberta are year-round residents, requiring access to suitable winter roosting areas (hibernacula) so they can safely hibernate throughout the winter. All bats require safe and secure roosts in order to successfully raise their pups, as well as separate roosts to move into once the pups have grown. In order to maintain suitable living conditions with the changing weather and seasons, they may frequently switch roosting locations. Because of this, bats require access to multiple roosts within their home range. Bats also require access to safe drinking water, such as ponds, dugouts, and streams, as well as open areas for foraging, such as open fields adjacent to riparian areas or wet meadows near tree bluffs.

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Threats to Bats:

Unfortunately, many of the characteristics that make bats such a unique and valuable component of the natural world also make them especially vulnerable. Bats face several threats in Alberta, including habitat loss (particularly forested areas), declining insect populations, and the spread of White-nose Syndrome, a fatal fungal disease to hibernating bats introduced to North America by people. These threats, together with a general lack of knowledge regarding the basic biology of bats in the province, pose immense challenges to the wellbeing of these inconspicuous animals. Fortunately, we can help create safe roosting spaces for bats in our own back yards, helping to cushion the effects of the many threats they face - all it takes is a little elbow grease!

Help a Bat - Build a Bat House!

Much like setting up a bird house, bat houses can promote bats moving into your yard and calling it home! However, bats are far pickier when it comes to real estate than their feathered counterparts; every aspect, from the design and placement, to the materials and colours used, can determine whether a house is deemed suitable. It is important to note that not every species of bat will use a bat house, and current research suggests that natural roosts provide higher quality habitat than bat houses, so it is always better to retain natural roosts on your land wherever you can. But with the proper placement and design, bat houses can be a great alternative in places where natural roosts are limited or have been removed.



Cory Olson



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Installing a Bat House: What Kind?

There are many kinds of different designs, each with their own pros and cons, but as a general rule "bigger is better". Small, single chambered houses tend to heat up or cool down more quickly than larger multi-chambered designs. This increases the risk of bats becoming exposed to extreme and unsafe temperatures, particularly in southern Alberta. If a box becomes too hot, pups may succumb to overheating while in the roost. Larger multi-chambered boxes, such as the Bat Conservation International Four Chamber Nursery House, maintain more stable temperatures, and allow bats to move between warmer, more sun-exposed chambers and cooler, more protected chambers in order to remain comfortable throughout the day.

A variety of materials may be used in constructing a bat house, including pine, cedar, or plywood, though it is best to use rough, weathered, untreated wood so that bats can better grip the box. Bat houses are typically painted black, though light browns and tans may also be used. You can experiment with different materials, colours, and designs to provide bats with a suite of options to choose from.

Installing a Bat House: Where?

Where you place a bat house is even more important than its design. Since bats require access to water and open foraging spaces, houses should be placed in an unobstructed area within 400 meters of an open water source. Houses can be placed either on the sides of buildings or in the open on a secure pole, though it is best to place them in an area sheltered from strong winds. Bats tend to favor houses placed on warmer south or west facing exposures, though they may prefer houses placed on cooler north or east facing locations on a hot summer day. It's therefore recommended to install more than 1 house at different locations and at different aspects to try and achieve the perfect "goldilocks" temperature. Don't feel too discouraged if a bat doesn't take up residency, as even the most well thought out designs and carefully placed houses may go unoccupied. In fact, an empty house may be a good sign, as it could mean that they have found another great roost nearby!

Other Beneficial Management Practices for Bats:

There are lots of other things that you can do to help out bats on your land, such as:

- Keep existing trees, including decaying trees, as they provide excellent roosting sites.
- Set conservative utilization rates (25-65%) in treed areas to promote tree establishment.
- Consider fencing off, limiting, or avoiding grazing in sensitive riparian areas, particularly during the spring. This is when soils and stream banks are most susceptible to rutting and erosion.
- Discourage livestock from moving through steep and rocky slopes, as they may accidentally damage or disturb roosting bats.
- Minimize or avoid the use of pesticides, particularly near waterbodies or watercourses, as this cuts down on the availability of food (insects) for bats.
- Provide a means of escape, such as a rough-textured ramp, in troughs in case bats accidentally become trapped.

Additional Resources:

You can find more information about the bats that call Alberta home, more tips to successfully install bat houses, and all other things batty through the Alberta Community Bat Program: <https://www.albertabats.ca/>



Cory Olson

References:

Alberta Community Bat Program. 2015. Roosting Habitats of Alberta Bats. Available at: <http://www.albertabats.ca/wp-content/uploads/2015/11/Roosting-Habitat-Poster-Nov-2015-ACBP.pdf>

Alberta Community Bat Program. 2016. Habitats of Alberta Bats. Available at: <http://www.albertabats.ca/wp-content/uploads/BOA-Poster-OCT2016-LOW-RES.pdf>

Alberta Community Bat Program. 2019. Building Homes for Bats: Alberta Bat House Guidelines. 17 pp. Available at: <https://www.albertabats.ca/wp-content/uploads/ACBP-Bat-Houses-in-Alberta.pdf>

Bat Conservation International. 2020. Bat Houses. Available at: <https://www.batcon.org/about-bats/bat-houses/>

Vonhof, M. 2006. Handbook of Inventory Methods and Standard Protocols for Surveying Bats in Alberta.

Alberta Fish and Wildlife Division. Edmonton, AB. viii+ 63 pp. Available at: <https://open.alberta.ca/publications/4795089>



Kristen Rumbolt-Miller

Ferruginous Hawk Surveys Coming in 2021

The Ferruginous Hawk in Alberta is an Endangered species. Alberta Environment and Parks (AEP) will be doing Ferruginous Hawk Surveys between May and July of 2021. Ferruginous Hawk surveys are done every 5 years, with the first survey conducted in 1982 and the latest survey conducted in 2015.

In 1987 and 1993, the population estimate was above 1,700 pairs but by 2005 the population had fallen to below 700 pairs. Since that time, numbers have been stable at low numbers, between 600 and 800 pairs. Population estimates in 2015 were 865 pairs +/- 201, which is slightly higher than previous surveys done in the 2000's, but not significantly so. Data collected in 2021 will give biologists a better idea as to whether numbers may be increasing or not. Population estimates will be used in future status assessments for the species.

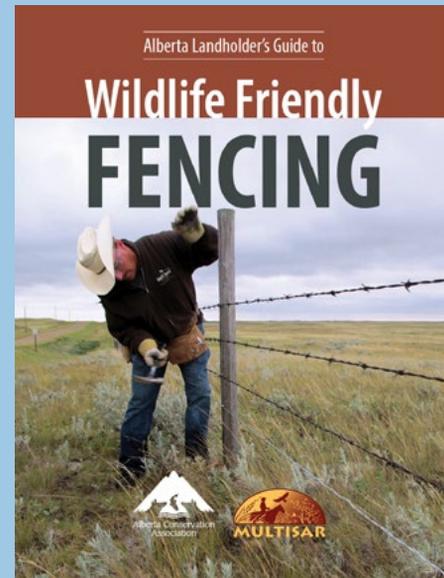
MULTISAR assists AEP with ferruginous hawk surveys in the South Saskatchewan and Milk River basins. MULTISAR also provides management recommendations for ferruginous hawks to landholders in areas where they can commonly be found.

If you would like more information about AEP ferruginous hawk surveys, you can follow this link: <https://open.alberta.ca/publications/9781460126967#summary>

More information about ferruginous hawks can be found on the MULTISAR website at: <http://multisar.ca/meet-grassland-species-at-risk/>

New Wildlife Friendly Fencing Guide Available

The new Alberta Landholder's Guide to Wildlife Friendly Fencing featuring stories from Alberta landholders and techniques to make fence lines friendlier for wildlife is now available online at: <https://www.ab-conservation.com/publications/educational-materials/>. Hard copies are available by request to brad.downey@ab-conservation.com.



Do we have your email?

The MULTISAR newsletter will be going fully digital next year! Previous copies of our newsletter can be found on our website at: <http://multisar.ca/learn-more/>. As long as we have your email address, we will send you the newsletter through email. If you are not sure we have your email, please send it to katheryn.taylor@gov.ab.ca and we will make sure it is on our list.



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