



**Volume 32 Number 1**

**May 2019**

**Beaverhill Bird Observatory's 2019 BIG Birding Breakfast  
Saturday June 1st  
and Sunday June  
2nd**



**5 am to 11 am Mist  
netting and bird  
banding.**

**7 - 11 am Breakfast of  
crepes, bacon, fruit and  
more.**

**9 am Guided nature  
walk. Children activities  
and Crafts**

**Photo credit: Gerald Romachuk**

Cost: Members \$20/adult; Non-members \$30 (children 12 and under accompanied by parents free). Reminder: life memberships are \$10

Pre-registration and payment required: [www.beaverhillbirds.com](http://www.beaverhillbirds.com).

Celebrate the return of songbirds migrating through the Beaverhill Lake Natural Area while enjoying a great breakfast. Walk the net lanes with the banders while

getting a dose of Vitamin N (Nature). View and learn about our feathered friends while they are banded. Located ~one hour East of Edmonton; for details see <http://beaverhillbirds.com/directions/>. For more information: [helentrefry@gmail.com](mailto:helentrefry@gmail.com)

## **Beaverhill Bird Observatory's Geoff Holroyd Young Ornithologists' Workshop: a Natural History Camp for teens: August 4-10, 2019**

If you are 15-18 years old and interested in nature and birds and would like to experience what it is like to be a field biologist while learning to identify, sex, age and band birds AND get High School Credits, then this is a good program for you. Experience living in a camp setting with other teens while learning from experts on field trips. This is a FREE workshop to successful applicants (you must cover transportation costs to BBO).

Location: Beaverhill Bird Observatory (BBO) near Tofield, Alberta  
Check out [www.beaverhillbirds.com](http://www.beaverhillbirds.com) for information and the application form to attend this workshop.



Contact: [helentrefry@gmail.com](mailto:helentrefry@gmail.com) for more information.

Young Ornithologists 2018 Madelinn Hanch demonstrates how to hold a passerine while Kenzi Kawalilak records data (photos Helen Trefry).

## Beaverhill Natural Area = High Bee Biodiversity

This past summer the BBO participated in a bee sampling survey through Alberta Parks, with the BBO staff emptying the trap on a weekly basis throughout the summer. Out of the 8 parks and 31 sites sampled, the Beaverhill Natural area had the most bee species present (16) and the ONLY specimen of *Bombus suckleyi*, which is one of the rarest bumblebee in Canada, classified as Critically Endangered by IUCN (Assessment by Hatfield, R., Jepsen, S., Thorp, R., Richardson, L. and Colla, S. 2015).



*Bombus suckleyi* is called the Suckley Cuckoo Bumble Bee which, as the name suggest, rely on other species of bees to lay their eggs in. It has a wide distribution across North America. It has declined greatly and is predicted to be extinct within 10 years if the trend continues.

Hatfield et al. cites one of the greatest reasons for the decline is that the host bumblebee species whose nests they lay their eggs in are also declining rapidly. Other reasons for its declines likely include pesticides, loss of habitat, competition from introduced species of bees, climate change, and parasites. General conservation actions suggested included in the IUCN report are:

- Restore, create and preserve natural high-quality habitats to include suitable forage, nesting and overwintering sites.
- Restrict pesticide use on or near suitable habitat, particularly while treated plants are in flower.
- Promote farming practices that increase of nitrogen-fixing fallow (legumes) and other pollinator-friendly plants along field margins.
- Minimize exposure of wild bees to diseases transferred from managed bees.
- Avoid honey bee introduction to high-quality native bee habitat.

**Please let your Friends and Family know that BBO Memberships for LIFE are \$10 and can be purchased at [www.beaverhillbirds.com](http://www.beaverhillbirds.com). All BBO members in good standing are also eligible to receive the electronic version of the Nature Alberta Magazine. If you are interested please send an email to [info@naturealberta.ca](mailto:info@naturealberta.ca)**

## Beaverhill Bird Observatory Western Banding Conference was a Success!

About 110 people registered for the 2019 Western Canada Banding Conference hosted by BBO and held at King's College March 29 and 30. Registrants included banders from several banding stations, individual banders, professional biologists and interested students and public. Guest speaker Steven Price (and Catherine Jardine) from Bird Studies Canada updated everyone on the Motus system of towers to track birds and David Brinker talked about Goshawks, project SNOWstorm and Owl-net. The variety of talks and all the young speakers made for an interesting conference and a great chance to network. Below are some of the participants from the Conference (photo by Steve Anderson).



After the conference, David Brinker, on left, was taken on a field trip to Hinton where falconer Dean Mushtuk, on right, showed us some goshawk territories and talked about nest enhancements (Photo by Helen Trefry)

Thanks to the Conference funders: BBO, Canadian Wildlife Service, Bird Studies Canada, and Alberta Environment and Parks. And special thanks to BBO Chair, Geoff Holroyd who organized the conference and staff Emily Grose and Sara Pierce Menerik who helped with logistics.



As a follow up to the Conference Jeremiah Kennedy held a Free workshop at the University of Alberta practicing the terminology of the Wolfe-Ryder-Pyle (WRP) bird aging system, which the Iona Banding Lab has adopted. Eighteen people attended the workshop, seen practicing with bird specimens below. Thanks Jeremiah for taking the initiative and hosting the event. (photo Helen Trefry)



**The BBO extends a thank you to our funders as we head into the spring banding season: the Alberta Conservation Association, Alberta Gaming and Liquor Commission, Telus Edmonton Community Board Fund, TD Friends of the Environment, Nature Canada’s Labatiuk Nature Endowment Fund, the Alberta Community Environment Action Grant Program, and Serving Communities Internship Program (SCiP), STEP and Canada Summer Jobs, Wildbird General Store, Fortis Alberta, Edmonton Oil Kings Hockey Club, and the Sherwood Park Fish and Game Association.**

**The Beaverhill Bird Observatory Banding Lab opened May 1st.** The staff this year include three returning staff: Sara Pearce Meijerink as head Bander with Emily Grose and Jeremy Lambe assisting. Sara and Emily have worked hard through the winter with their education programming. Here are two staff hired to help with the continuing education programs in June and then they will receive assist with other BBO activities:

**Karambir Singh** graduated from the King's university in January 2019 with a BSc degree in Environmental Sciences and Biology. He worked with Canadian Wildlife Services as an undergrad banding waterfowl. His hobbies include bird watching, camping, reading, and discussing contemporary environmental issues. He has been a frequent visitor at the Beaverhill Natural Area for last couple of years doing birdwatching. He is very excited about working with the BBO. His duties include: assisting with the Education program until the end of June, and afterwards he will be assisting the head biologist with field operations.



**Stephanie Thunberg** is a 5th year Animal Biology student expecting to graduate April 2020. She contracted the "birding bug" in university and has no intentions of finding a cure. She assisted with banding Northern Saw-whet Owls in the autumn of 2018 at BBO. When her binoculars are down, she can be found cuddling her cats and lovebirds, or helping out at the family farm.



**Ornamental colouration as an indicator of environmental pollution with application to the tree swallow (*Tachycineta bicolor*)** by Natalia Lifshitz, 2019 PhD thesis in Ecology Department of Biological Sciences University of Alberta

In 2016 Natalia studied breeding Tree Swallows at Beaverhill Lake and elsewhere in the Edmonton region, specifically their plumage, their productivity, and the heavy metals in their young. Like the urban areas, Beaverhill also showed higher levels of metals- Copper and Zinc- in the feces of the young tree swallows. These metals are associated with agricultural practices. The following is the abstract from her chapter 3 titled ‘Iridescent colouration of tree swallows relates to environmental metal pollution’.

“Ornamental colouration in birds has been identified as a powerful, non-invasive tool for identifying exposure to metal pollution. Despite this potential, few studies have examined the effects of metals on iridescent colouration or assessed related impacts on bird fitness. Iridescent colouration is likely to be sensitive to metal pollution because it is already known to affect melanin production and this form of colouration is produced when light is refracted through layers of keratin and melanin inside feather barbules. In this study, we measured variation in plumage colouration, health (via oxidative stress) and reproductive success (via number of young fledged) of tree swallows (*Tachycineta bicolor*) nesting adjacent to water bodies containing different levels of metal pollution. Plumage hue shifted from bluer to greener and feather brightness increased, with increasing exposure to copper and zinc. Both patterns would be expected from changes in the microstructure of the feathers. Unexpectedly, increasing exposure to these metals correlated with increased apparent health (lower oxidative stress) in female swallows, but not males. Number of young fledged decreased slightly with exposure to metals but did not vary with the colour of parents. Our results suggest the relationships between ornamental colour, including iridescence, and fitness metrics are complex and much more work will be needed before colour of iridescent feathers can provide a proactive, non-invasive and effective diagnostic tool for detecting subtle effects of pollution on birds.”

**See you at BBO this summer!**

**December 21 and 22 will be the BBO Casino at West Edmonton Mall if you are interested in volunteering. Mark it on your calendar and contact [HelenTrefry@gmail.com](mailto:HelenTrefry@gmail.com) .**