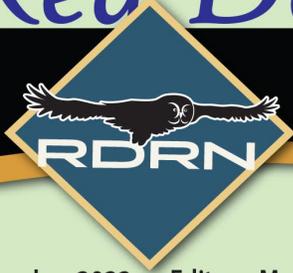


The Red Deer River Naturalist



September 2022 Editors: Myrna Pearman & Susan van der Hoek

Nature Central: Celebrating our Wild Alberta Parklands

22

September 2022

7:00pm

Kerry Wood
Nature Centre
Red Deer

Join us to learn about this exciting RDRN initiative. Non-members welcome!



Graeme Gissing

Central Alberta is fortunate to have a vast network of natural and protected areas that can provide almost limitless opportunities for outdoor recreation and the enjoyment of nature. This presentation will highlight the RDRN/Nature Central activities and events that took place during the summer of 2022, discuss the successes and opportunities for increased utilization of natural areas in the region, and present a forward-looking plan to ensure an even more successful 2023.

Graeme has had a rewarding career in avian ecology and conservation biology research and has taught at colleges and universities in Canada and the United States. He previously served as Director of Education and Outreach for a wildlife conservation organization in Southern California and is now a biology instructor at Red Deer Polytechnic. This summer, he joined the Nature Central team in a part-time capacity as their Education and Program Coordinator.



Dr. Natalia Lifshitz

Dr. Lifshitz will discuss her experiences as Nature Central's Naturalist-in-Residence, including visiting and documenting habitat and wildlife details on protected sites within a 100-km radius of Red Deer. She is also compiling a Nature Central database, which will summarize and condense existing data, then translate that information into an accessible and user-friendly database. This database will help promote and facilitate the respectful exploration and enjoyment of the protected areas in Central Alberta.

Natalia was born and raised in Mexico City and developed a great passion for animals at a young age. She obtained her MSc in Mexico and her PhD at the University of Alberta (Edmonton), studying water pollution and coloration of Tree Swallows. She has worked in various areas of science and is currently the scientific advisor at Ellis Bird Farm and the Naturalist-in-residence for Nature Central.



Photos by Natalia Lifshitz, Steph Weizenbach and Myrna Pearman

NATURE CENTRAL



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SEASONAL SIGHTS AND SOUNDS OF ALBERTA: THE RED-WINGED BLACKBIRD

By Dr. Sally Start

Members of the Icteridae family (New World Blackbirds) descend on the woods as a noisy gregarious flock. The chorus is deafening, a raucous cacophony of songs. Standing transfixed, I record the songs of Red-winged Blackbirds, Common Grackles, Brewer's Blackbirds and the like. Abruptly silence descends, there is a whirl of wings, and they vanish as suddenly as they arrived. Heralding the changing seasons, it is mid- September. Autumn is here and they are heading south for the winter.

The male Red-winged Blackbirds announced their arrival at Cygnet Lake this year on April 16th, their early morning chorus reverberating from the treetops. Arriving a few weeks before the females, they perched on top of the cattails and, while displaying their brightly coloured red and yellow epaulets, sang their distinctive musical song (variously described as *conk-la-ree* or *ook-a-lee*). They quickly established breeding territories.

Sexually mature male Red-winged Blackbirds are beautiful sleek black birds with bright red epaulets, partially covered by black shoulder feathers. Epaulet colour is of major importance, as it has evolved to signal status and will be assessed by other males to determine dominance (there is little to be gained and much to be risked by challenging a superior opponent). Epaulet colouration is due to carotenoid pigments which cannot be synthesized but must be ingested in the diet. Studies show that there are five different carotenoids responsible for this coloration.

Dominant, more brightly coloured males control superior territories, rich in ideal nesting sites and with abundant access to food. Numerous scientists have studied Red-winged Blackbirds and the role of epaulets. Geoffrey Hill in his book "National Geographic Bird Coloration," describes an experiment conducted in Ontario, where territorial males were caught and the feathers covering the epaulets removed. Forced to constantly display their epaulets and thus unable to signal non-aggression, these individuals were at a distinct disadvantage. Neighbouring males engaged in more fights with these individuals, even entering their territory to initiate the fight. Similarly, if males do not display their epaulets, they are frequently confronted by other males who have no way of assessing their status. Red epaulets are therefore incredibly important for signaling superiority to other males.

Once territories are established, mates will be chosen. Success for all species is determined by how many genes are passed on to future generations. Male Red-winged Blackbirds are polygamous and generally invest no time in parental care. In his book, "Guide to Bird Behavior 1," Donald Stokes notes that each male has about three different female partners. Interestingly, a study by W. Searcy and K. Yasukawa in 1983 found that the number of partners and degree of

parental care varies in different locations. Where males defend prime habitat, they may have up to 15 partners!

For female Red-winged Blackbirds, sexual selection is based entirely on quality of territory. Her ideal mate defends an exceptional area providing ideal conditions to successfully raise young. It is presumed that the more brilliantly colored males occupy the best territory. In a few locations (e.g., in Indiana), it has been determined that male age is also a consideration. In this area, males help feed the young, with experienced males being better at the task than inexperienced individuals. Interestingly, these females are promiscuous, with genetic tests determining that as many as 48% of young were not fathered by the resident male of that territory but instead by a neighbouring male. In these cases, the neighbouring male was deemed to be superior.

Red-winged Blackbirds lay three to five small, pale blue green eggs with odd random scroll-like brown markings. The coloration may help the female avoid cowbird parasitism (see Side Bar, below), as she can identify her own eggs and therefore can spot a parasitic addition. The eggs are small with a limited quantity of yolk, so the young are altricial: naked, immobile and blind with very little down. The young hatch after only 11 days of incubation but grow rapidly and fledge 10 days after hatching.

In the book "Ornithology," Frank Gill explains how female age also influences successful rearing of the young and factors such as sex ratio of offspring. When younger, females tend to raise more female offspring. The last eggs in a clutch often receive less yolk. Less yolk, combined with later hatching and the fact that male offspring are larger and thus need more food, often results in male nestling starvation. It takes an older far more seasoned female to successfully raise males.

Red-winged Blackbirds are currently very common in Alberta. According to the "Atlas of Breeding Birds of Alberta: A Second Look," they are found in every natural region in the province.

Although they are common, challenges such as climate change and unpredictable environmental conditions could put even an abundant, common bird such as the Red-winged Blackbird at risk. Of the two nests and eight eggs that I observed this summer, only three young fledged. One nest failed due to a sudden increase in the water level, which submerged the nest and drowned four newly hatched young.

If an opportunity arises, enjoy the beautiful autumnal chorus of the Red-winged Blackbird!



The colour of eggs is a fascinating subject. As Tim Birkhead, in his remarkable book "The Most Perfect Thing. Inside (and Outside) a Bird's Egg" notes, scientists have struggled for years to answer two questions. How are eggs colored and why? In terms of how, it is now known that all egg coloration is due to only two pigments, biliverdin and porphyrin. The latter generally is responsible for shades of brown and the former blue/green colour. Both pigments are associated with haemoglobin found in red blood cells to carry oxygen. Porphyrin is part of its heme structure which, when broken down, produces biliverdin. In humans, the breakdown products impart green coloration to bile and brown colour to feces, so perhaps it is not surprising that birds would utilize the same pigments for egg coloration. Pigment is added to the egg by epithelial cells lining the uterus, which is part of the oviduct. This brings us to the second question. Why are some eggs colored? Over the years there have and continue to be many theories, the main three being concealment, egg identification and evasion of parasitic birds.

BIRD FOCUS GROUP

By *Chris Olsen*: After a lengthy Covid-19 hiatus, we returned to our weekly Bird Focus Group outings in late March. Between March and August we visited 21 locations in Red Deer and central Alberta, observing 138 bird species. The most species-rich locations were Alix Lake (46), Kuhnen Park (40) and McKenzie Trails (39). Weekly participation varied from five to 20 people, with well over 200 participants across the season. In addition to our regulars, we welcomed visitors from Edmonton, Calgary and Galiano Island. We're building a strong collective skillset, and we encourage birders of all levels to join in and learn with us. Thanks to everyone who joined us this spring and summer! Special thanks to Graeme Gissing and Celia Hayton for guest-hosting (June 4 and August 6, respectively). *Editor's Note: Thank you, Chris, for leading these walks! We appreciate you sharing your knowledge and expertise with others.*



September—October Schedule:

September 3 – Kuhnen Natural Area (highway 11 east to Rge Rd 230; south 1 km)

September 10 – Springbrook Community Park – park in the small lot at the entrance to Tamarack Blvd

September 17 – Heritage Ranch – meet in the first parking lot

September 24 – Alix Lake Nature Trails – meet at the campground

October 1 – Maskepetoon Park – meet in the playground parking lot (Kerry Wood Drive/Oak Drive)

October 8 – Slacker's Tour (Slack Slough, Cootie Ponds, Fleming Slough) – meet at Slack Slough

October 15 – Dry Island Buffalo Jump Park – meet at the overlook

October 22 – Nova Nature Trails – meet in the parking lot

October 29 – Dickson Point/Trout Pond (south of Dickson for 4.1 km on Rge Rd 31)



Photos by Lynette Eileen

FLOWER FOCUS

SEPTEMBER 21 @ 10:00 AM

Another Berry Nice Walk with Don Wales

During a walk on the forested trails of Barrett Park, there will be samplings of a variety of syrups made from some of our native plants on a square of Don's world-famous buttermilk cornmeal bread.

Meet at the parking lot of the Kinex arena near the exercise park.

Photo by Don Wales



Rick Tallas, President

- As summer winds down, RDRN continues to be a voice for nature in Central Alberta.
- Board Members and all our dedicated volunteers continue to work diligently on all our programs and I thank everyone for their hard work. I look forward to the fall and future challenges.
- We have new logos for each of our programs, have produced a beautiful new brochure and are working on updating our website (www.rdrn.ca).
- Nature Central has been very successful. Please check the website (www.naturecentral.org) for updates and details.
- RDRN is currently looking for board and committee members. If you would like to join us, please email rdrn-nature@gmail.com.
- On a personal note, I would like to congratulate Don Wales and his grandson, Thomas Zimmerman, for successfully climbing Mt Kilimanjaro.

Board Notes

Editor's Note: We are grateful that Rick has rebounded from a major health issue. Welcome back!

WELCOME DON AUTEN! We have asked Don Auten to contribute a monthly image and story to the RDRN newsletter. Don, who lives and works in Ponoka, loves to spend time in the bush. About 15 years ago, he started a hobby of setting up camera traps to capture some of the wildlife that roams our Alberta wilderness. He has a large and appreciative following of his *In The Alberta Wilderness!* posts Facebook.



Don is the son of a great outdoorsman, Jim Auten. He spent 40 plus years with his dad in the bush, starting on his shoulders when Don's legs were too short to walk. Since his father's passing 22 years ago, Don has continued exploring the west country. He enjoys this hobby, which he says "is a great activity and keeps me busy while in the bush."

I made this set to try to capture photos of Jumping Mice. I have got a few photos of them but nothing really great yet. In the meantime a few other species have been visiting. This Short-tailed Weasel has been by a few times checking things out.

DID YOU KNOW: *By Susan van der Hoek*

A group of pelicans is called a squadron, pod, pouch or scoop. There are two pelican species on the North American continent. The American White Pelican (*Pelecanus erythrorhynchos*) breeds in freshwater and in the interior of North America and winters along the coast. The Brown Pelican lives along the coasts and in the oceans and seas. Only the American White Pelican frequents Alberta. Pelicans mainly eat fish, but they will also eat crayfish, crabs, frogs, snakes, mammals, birds and insects. They use their throat pouch and drain the water out before swallowing their prey whole. Young pelicans feed directly from their parents' throat pouch.



Social Media: 682 Facebook Members 301 Twitter Followers 356 Instagram Followers

The Red Deer River Naturalists, the first natural history organization to be established in Alberta, was incorporated as a society in 1906. The objectives of the society are to foster an increased knowledge, understanding and appreciation of natural history, and to support conservation measures dealing with our environment, wildlife and natural resources.

Annual membership is \$15.00 for individuals and \$20.00 for families.

Regular meetings are held at 7:30 PM on the fourth Thursday of most months by Zoom. Non-members are welcome.

Members are encouraged to contribute to this newsletter. The deadline is the last Friday of the month.

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