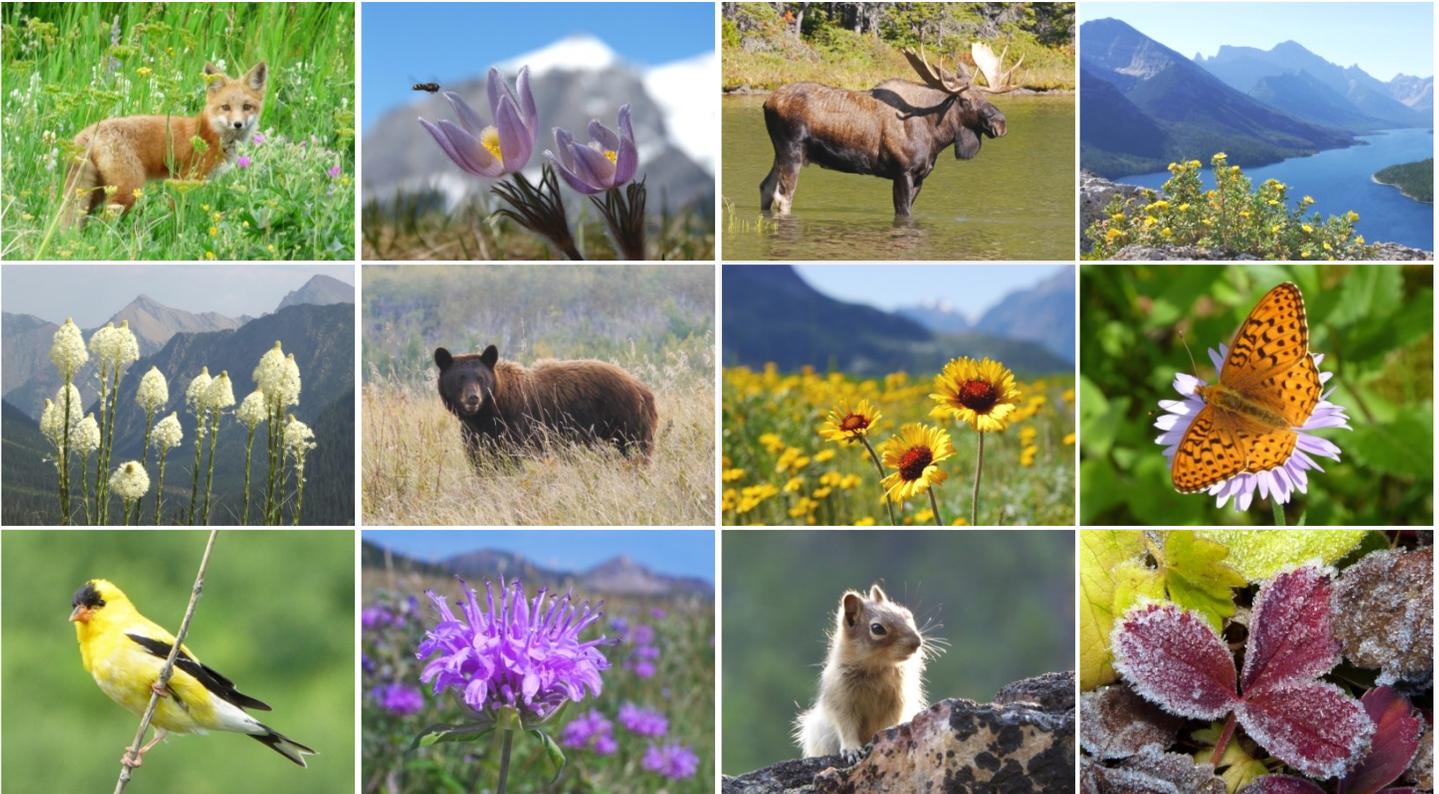


Waterton Wild



This colourful show is a celebration of the wild creatures, wildflowers and majestic scenery of Waterton Park— from bears to beargrass, birds to butterflies, and open meadows to mountain panoramas.

Presented by Ian Wilson and Jacinthe Lavoie, authors of *Waterton Wild* and *Wildflowers of Waterton Park*. After the presentation, Ian and Jacinthe welcome questions about Waterton Park and will have autographed books available.

Thursday April 27 • 7:30 PM • Kerry Wood Nature Centre

Public Welcome



In what *Canadian Geographic* claims to be the world's first, Ellis Bird Farm has installed a live stream cam on a Gray Jay nest. The nest, near Caroline, is ideal because it is located only 2 m up in a spruce tree and it is close to power and an internet connection. Watch it live at www.ellisbirdfarm.ca (Channel 4). In honour of Canada 150+ and the nomination of this species as Canada's National Bird, the birds have been named Elizabeth and Philip.

Ellis Bird Farm has been contacted by Dan Strickland, a world authority on Gray Jays. He wrote to say: *I have been studying Gray Jays for 50 years, mostly in Ontario and Quebec but right now on Vancouver Island (where a different subspecies occurs). I have found more than 700 nests (and watched many of them for hundreds of hours) but never had an opportunity like you now have to document almost the entire nesting cycle of a single pair.*

EBF is very grateful that many web cam watchers have been taking notes while watching Elizabeth and Philip. These observations are contributing to the understanding of the species! Plans are in the works to get a recording system installed soon so that the entire nestling period can be recorded.

BIRDS SEEN BY RED DEER RIVER NATURALISTS FROM SEPTEMBER 1 TO DECEMBER 15, 2016

Provided by Keith Kline

Cackling Goose; Canada Goose; Gadwall; American Wigeon; Mallard; Blue-winged Teal; Northern Shoveler; Canvasback; Bufflehead; Common Goldeneye; Common Merganser; Ruddy Duck; Pied-billed Grebe; Horned Grebe; Red-necked Grebe; Double-crested Cormorant; Great Blue Heron; Northern Harrier; Sharp-shinned Hawk; Red-tailed Hawk; Franklin's Gull; Downy Woodpecker; Hairy Woodpecker; Black-backed Woodpecker; Northern Flicker; Pileated Woodpecker; Blue Jay; Black-billed Magpie; American Crow; Common Raven; Tree Swallow; Black-capped Chickadee; Boreal Chickadee; Red-breasted Nuthatch; American Robin; Bohemian Waxwing; Yellow-rumped Warbler; American Tree Sparrow; Vesper Sparrow; Savannah Sparrow; Dark-eyed Junco; Pine Siskin; American Goldfinch

Participants: Jurgen Weichert, Susan Van der hoek, Bonnie Mullin, Keith Kline, Pat Anderson, Garry Anderson, Tony Blake, Jerry Feehan, Florence Feehan, Chis Olson, Bertha Ford, Estelle Froese, Jean Kline, Frank Weber, Bryden, Jim Robertson, Colleen Graham, Pliny Hayes, Maureen McCall

SPLASH: Celebrating Water for Canada's 150th will be held on Saturday, **April 22nd** (Earth Day; 10:00 am - 3:00 pm) at Historic Fort Normandeau. Join the Red Deer River Watershed Alliance and partners for this **free event** with fun activities for the whole family. At SPLASH, we will celebrate the role water plays in bringing our communities together. *Featuring:* arts and crafts, storytellers as part of a "living library", natural history, and outdoor activities. For those interested in volunteering, please contact the RDRWA at [403.340.7379](tel:403.340.7379) or info@rdrwa.ca.



SEASONAL SIGHTS AND SOUNDS OF ALBERTA: THE CRYPTIC CHOICE OF THE FEMALE RUDDY DUCK

By Dr. Sally Stuart

The weather confirms what the chickadees have known for a long time, spring is here! Wading across the marsh, dragging the canoe containing camera and sound recording equipment, we make our way to the bank of the canal. Settling down on our stools, enjoying the April sun, it's time to relax and wait. Suddenly we hear a characteristic sound; a male Ruddy Duck is approaching, calling to the females. He slips into view, stiff tail erect, dark chestnut body, brilliant blue beak reflecting in the morning light.

During breeding season, the male Ruddy Duck (*Oxyura jamaicensis*) is an attractive creature, in comparison the female is a somewhat dull, drab looking bird. Although not a very vocal species, during mating season the male makes a series of unique sounds each lasting about one second. Male Ruddy Ducks have an air sac developed from the trachea which can be inflated giving a swelling in the neck. It is a secondary sexual characteristic which he uses during courtship.

The male duck rapidly slaps his bill about seven times against the inflated air sac, and it is only at the very end of the call that he uses his syrinx (voice box) and produces a quiet grunt or gurgling sound.

Birds change with the breeding season. In the case of the Ruddy Ducks, their normally dark bill turns an incredible blue. What causes this colour? Blue colour in bird skin is rarely caused by pigments but usually due to structure. Research by Prum and Torres has shown that it is due to the precise arrangement of collagen fibres (proteins in the dermis of the skin) at the nanoscale which reflect the shorter blue waves. However, it is even more remarkable than this as the waves are not randomly reflected but they reinforce (amplify) each other causing a brighter blue. Meanwhile the underlying melanin granules absorb the longer wavelengths. Presumably this colour is very attractive to females, however, since birds are also sensitive to UV light, we cannot be sure exactly what they see.

Not only do birds change externally, they also transform internally. Male reproductive organs, such as the testes, swell rapidly. Most birds don't have a copulatory organ. Ducks are a notable exception. Speculation as to why this is the case involves the transfer of sperm in watery environments; this makes sure they get into the female vagina. Apparently the male Ruddy Duck has one of the largest penises at about



15cms with a spiral shape. However, it should be noted that the record for penis size is held by the Argentinian Lake Duck at 42.5 cm!

The penis in ducks is different from humans in several regards: it is kept inside the body, then when needed it is explosively inflated with lymph not blood; and there is a groove down the outside which the sperm follow for entry into the female. Research by Tim Birkhead and Patricia Brennan has shown that the size and complexity of duck reproductive organs correlates with the breeding strategy. A large number of duck species are not monogamous; species such as the Ruddy Duck are always looking for opportunities to breed with females, many of whom do not welcome their advances (forced copulation). It is these species that have large penises. However, females have evolved their own internal mechanisms to control fertilization, known as "Cryptic Female Choice."

Female ducks have complicated reproductive tracts containing vaginas with spirals and blind ending pouches. These attributes have various functions; they may contract and prevent sperm reaching the eggs, plus make it more difficult for penis penetration as the spirals are in the opposite direction to those of the penis. Again this is correlated with breeding strategies.

In ducks which are monogamous, males have short penises (apparently the Harlequin Duck is only 1 cm), and the female has an uncomplicated reproductive tract. Promiscuous ducks such as the Ruddy have much longer penises and complicated vaginas. So the evolutionary battle continues, each sex trying to out manoeuvre the other. The male produces sperm to pass on his genes but uses comparatively little energy while the female has to invest far more energy in terms of egg production and care of the young. Thus the female Ruddy Duck has evolved a mechanism to exert her own choice in terms of the perceived best sperm, one that is not even visible. Not such a dull, drab duck after all!

BIRD FOCUS

April 1—Bower Woods. Meet across the road from 35 Selkirk Blvd

April 8—Kin Canyon. Meet in the Rotary Park parking lot

April 15—Gaetz Lakes. Meet at KWNC

April 22—River Bend. Meet in the parking lot at bottom of the hill on the road into the golf course

April 29—Maskapatoon. Meet in parking lot on west side of Kerry Wood drive, just south of Overand Place.

May 6—Hazlet Lake 27432 11A west. If you cross Highway 2 you've gone too far. I will be standing at the turn off

May 13—Joffre. Check the Nova Nature trail website for a map

May 20—Slack Slough. Meet in the Slack Slough parking lot

May 27-28—May species count. Check with Judy Boyd

June 3—Spring Brook Natural area.

June 10—Joffre

June 17-18—Bjorge / Turkey Vulture weekend. See insert

June 24—Ft. Normandeau. Birds and hot dogs

Meet at 10:00 AM. Email Keith with any questions
reddkline@gmail.com

150 BIRD SPECIES IN 2017!

By Keith Kline

Since it's Canada's 150 birthday, I thought it would be fun for the Red Deer River Naturalists to celebrate by finding 150 species of birds! We found 45 birds from Sept 1 to Dec. 15, 2016. This is a time of year when we have few birds around. So if we bird all year we should be able to find 150 species. Red Deer County has a list of 264 birds so the birds are here. This means that we have to identify all the little LBJ's. We will have to identify the warblers. We will have to become familiar with shore birds. We will have to look in places around Red Deer.

So the area we will cover will be the area on the Central Alberta Birding Trails. This is approximately what our bird count is. So people are going to have to visit the areas in the countryside. It would be better if these areas could be visited more than once. You will see different birds each time.

When reporting from the rural areas and away from your yard, it would be good to have two observers. If you are reporting from your yard one person is enough. Email your sightings to synkline@gmail.com. Report often. Don't repeat things. I will scan the emails and make a list of the species seen. Tell your friends about this project. Find some friends to go with you. We will still do the Saturday morning bird walks. Please feel free to ask about anything. Good luck and I hope we have fun and celebrate.

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 p.m. on the fourth Thursday of most months at the Kerry Wood Nature Centre, 6300-45 Ave., Red Deer, AB.

Non-members are welcome.

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

FLOWER FOCUS

April 19 • 10:00 AM
Kerry Wood Nature Centre

THE DEATH VALLEY SUPER BLOOM

Caroline Harris will be talking about being in Death Valley during one of the rare spectacular blooming periods.
Photos by Caroline Harris



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