

Annual General Meeting

**Thur., Jan. 22 • 7:00pm, Kerry Wood Nature Centre
Red Deer**



Photos by Wikimedia Commons

ALSO PRESENTING

THE EVOLUTION OF PARENTAL CARE IN BIRDS

Dorothy Hill will be speaking at this meeting having missed our November date due to weather.

The benefit to birds in providing parental care is that it greatly increases the chances that their offspring will survive the egg, nestling and fledgling periods. However, parental care is not cheap. Time and energy spent looking after these offspring means there is less time for other activities such as defending territories, preening, feeding and producing another clutch of offspring. This conflict between the needs of the offspring and the impacts on the caregivers has helped shape mating systems in birds resulting in fascinating alternative reproductive strategies.



Dorothy Hill

Dorothy Hill is Associate Professor in the Department of Biology at Mount Royal University in Calgary. She holds a PhD in Ecology from University of Calgary, an MSc in Zoology from University of Manitoba, and a BSc in Zoology from University of British Columbia. Her Red Deer connection is that she was named after her mom's best friend and Red Deer River Naturalist member, Dorothy Hazlett.

- Admission free and
open to the public

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INVASIVE PLANTS: ANOTHER PERSPECTIVE

From CBC Quirks and Quarks: Invasive species are often near the top of the list when it comes to threats to the environment. We've all seen headlines about the explosive spread of razor-sharp Zebra mussels, huge new populations of voracious lake-invading Asian carp, or forest-destroying alien insects, such as the emerald ash borer. But our panic about invasive species might be a major mistake, according to veteran ecologist Ken Thompson.

Professor Thompson, a senior research fellow in the Department of Animal and Plant Sciences at the University of Sheffield in England, thinks there is good evidence to suggest that the plants and animals we often vilify as invasive species only rarely threaten ecosystems. He adds that our expensive fights against them often do more damage than the invader might have caused in the first place.

Professor Thompson begins with the story of the camel. "Camels are a really neat way of illustrating the problem of where species actually belong," he says. Camels evolved in North America, where they lived until 8,000 years ago. They only spread – or "invaded" – the rest of the world fairly recently. Nature, he says, has moved species around throughout history, and while we're doing it faster and more frequently than in the past, nature tends to be up to the challenge.

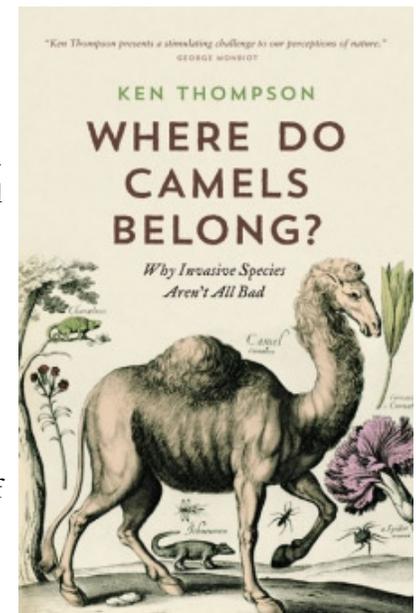
Invasive species are often assumed to be driving native species to extinction when they spread into places that don't have the predators and diseases that normally control their populations. But Professor Thompson suggests that the evidence to support this idea is often not very strong. He points out that these ecosystems are often already damaged by human activity. Pollution, over-exploitation of native species, and pressure from development have compromised natural systems. As a result, he says that often the invaders aren't actually displacing indigenous plants or animals. "Most of the time, alien species are simply responding to opportunities that human changes to the environment have created."

Research is also suggesting that many invaders may not be as damaging as we have assumed. One example is Purple Loosestrife, an Old World plant that was introduced to North

American and has quickly spread through wetlands here. It built a reputation for crowding out native plants and completely taking up their space with tall and colourful stalks and flowers. But Professor Thompson says that the plant's conspicuous nature fooled us. Scientific study of Purple Loosestrife has shown that it actually has very little impact on the biodiversity of the wetlands into which it spreads, and may even provide some benefit by supplying more food for native pollinators. Professor Thompson is careful to acknowledge that there are some real bad actors out there – truly damaging invaders. The Brown Tree Snake, for example, annihilated the indigenous birds of Guam after it was introduced to the Island after World War II. But he says it is often difficult to identify the truly damaging invasive species in advance, because their impact can vary with time as ecosystems evolve and respond to them.

Given the complexity and dynamic nature of the relationships in any ecosystem, predicting how each case will turn out is very difficult. He also cautions that our efforts to control or eliminate invasive species can be tremendously expensive, are rarely successful, and often have damaging unintended consequences. For example, the herbicides used to try to eliminate invasive plants often have devastating impact on vulnerable native species. The cure, in some of these cases, is worse than the disease, he says. Professor Thompson says the invasive species we might worry about most is actually us. Humans have spread to every corner of the globe, and altered a huge amount of the planet. "We've chopped down forests, built dams and turned the whole world into a giant cattle pasture, and then we're surprised that some species quite like what we've done. We shouldn't be surprised."

<http://www.cbc.ca/radio/quirks/quirks-quarks-for-dec-6-2014-1.2864605/why-invasive-species-aren-t-all-bad-1.2864676>



According to watchdog.net, energy giant Suncor is spending millions on a PR blitz to convince Canadians that it cares about the environment — even as it's lobbying to be exempted from the water regulations that protect one of the country's most important rivers. The Athabasca River is an essential ecosystem for hundreds of species of fish, birds and other wildlife, not to mention the drinking and farming water for miles around. But Suncor wants to dump toxic, untreated tailings water straight into that river. For more information, check out

<http://act.watchdog.net/petitions/4833?r=2428902.JmSYcT>



ROUGH-LEGGED HAWK EATS ROADKILL

This hawk was photographed dining alongside magpies and ravens on a dead deer near Ellis Bird Farm.

Photo by Myrna Pearman

INTERESTING BLUEBIRD



Bonnie Mullin photographed this Mountain Bluebird near Bearberry on October 25th. Most Mountain Bluebirds have left Alberta by the end of September, so this is an unusually late sighting.



A female Eastern Bluebird has spent much of December in Morinville, AB. It has taken sips of water at a heated bird bath and has eaten a few live mealworms. Photograph by Dr. Bob Lane.



CALLING ALL BARN SWALLOW NESTWATCHERS

It will be a few months before the Barn Swallows return from their southern wintering grounds, but now is a good time to think about helping them next season. Ellis Bird Farm is planning a major Barn Swallow conservation initiative with Bird Studies Canada's Project NestWatch next summer by inventorying all nests on the site, documenting nest productivity, setting out additional nesting structures, selling nesting cups, live streaming active nests and creating a display to encourage public involvement in Barn Swallow conservation.

Project NestWatch is a program aimed at getting people across Canada involved in collecting data on nesting birds. Data gathered through this project are used to follow the health of bird populations through long-term monitoring of nesting activity. The data also provide valuable information on changes in the environment, as birds are good indicators of the condition of the habitat they live in. For more information on the Bird Studies Canada Citizen Science Project NestWatch, check out <http://www.birdscanada.org/volunteer/pnw>

Why Barn Swallows?

Barn Swallows are aerial insectivores - birds that feed on flying insects. This group of birds (which includes swifts, swallows, flycatchers, and goatsuckers) is experiencing alarming population declines across Canada. Barn Swallows are the most widely distributed and abundant swallow in the world. Although Barn Swallows are still common, the population in Canada declined by about 30% between 1999 and 2009 (According to long term data from the North American Breeding Bird Survey (BBS)). Barn Swallows are classified as Threatened in Ontario, and they have been recommended for protection under Canada's Species at Risk Act.

The reasons Barn Swallows are declining are not well understood, and may include changes on their breeding grounds, wintering grounds and along migration routes. Potential threats on the breeding grounds include: changes in food supply (e.g., availability of flying insects); loss of nesting and foraging habitat associated with changes in agricultural practices; competition for nesting sites from other species (e.g., House Sparrows); reduced nesting success due to high loads of ectoparasites (e.g., mites and blowflies).

By monitoring Barn Swallow nests and submitting observations to Project NestWatch, we can contribute to a growing database of information that will help scientists understand Barn Swallow declines.

Photos by Myrna Pearman



BIRD FOCUS

January 4: Sunday Bird Walk at River Bend Golf Course. Meet at 1:00 p.m. at KWNC to carpool to the area.

January 10: Field Trip to Bebo Grove and Carburn Park in Calgary. Trip leaves from KWNC at 8:00 a.m. Bring lunch, drinks and snacks for the day. Dress for the weather as we will be walking. This field trip is weather dependent. Call Judy at 403-342-4150 to register.

January 16: Bird Trivia Night. Come out for a fun-filled evening, "testing" your skills as a birder. This is a board game and we usually play in teams. No experience is necessary. The fun begins at 7 p.m. Call Judy at 403-342-4150 to register.

January 25: Sunday Bird Walk at the Kentwood Natural Area. Meet at 1 p.m. at KWNC to carpool.

FLOWER FOCUS

Peas and Carrots - *Fabaceae* and *Apiaceae*



10:00 AM KWNC

January 21

Call Don Wales for details

403-343-2937

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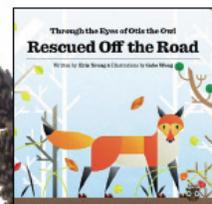
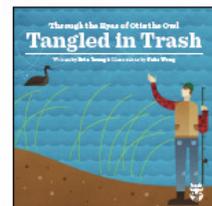
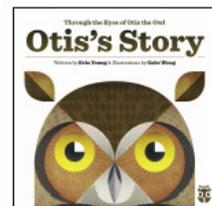
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The Red Deer River Naturalists, the first natural history organization to be established in Alberta, was incorporated as a society in 1906. The objectives of the society are to foster an increased knowledge, understanding and appreciation of natural 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 7:00 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.

Box 785 Red Deer, AB T4N 5H2

Phone/Fax: 403.347.8200

rd.rn@hotmail.com

www.rdrn.fanweb.ca

<http://wearenaturalwise.blogspot.com>

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