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president's corner

Hello fellow Wildlifers!

I hope everyone had a great summer! Currently, your Manitoba Chapter executive is working towards providing a busy fall and winter for our members. We hope to offer a couple of professional development workshops, including Owl Banding in October (pg. 7) set up our annual Fall Mixer, and plan our annual Winter Get-away (stay tuned for dates and locations). You'll now be able to get the latest updates on Chapter news and events on Twitter by following us @TWS_MB.

I am also happy to announce that the Chapter has created two new awards, one being the Annual Conference Student Travel award which will be offered for the first time in 2018, and the other being an Early Career Professional Development Travel Award which is being offered right now (pg. 10)! If you're an early career professional (no longer a student) with less than 5-years of experience and are looking for assistance to attend a conference, workshop, or training, I encourage you to apply! I also encourage all of our student members to apply for our October Student Travel Award (pg. 11)! Looking forward to seeing all of you at the Fall Mixer!

TWS-MB President

Brian Kiss



TWS-MB Communications Rep:

Peter Tarleton - petertarleton@gmail.com

Newsletter Editor + Designer:

Meg Hainstock - meghainstock@hotmail.com



financial report

TWS: Manitoba Chapter currently holds \$11,746.97. \$7,686.81 is liquid assets; the remaining is in reserve funds for the chapter credit card, security accounts, and a GIC that matures in October.

We received a \$500 donation from the 2016 International Moose Conference and Workshop, that has been added to our Goulden award fund as per the conditions of the donation!

The \$13,743.93 we generated from the TWS Annual Conference in 2015 was deposited into our accounts, and then donated to the University of Manitoba endowment fund for creation of new student travel award, along with a top up of funds from our accounts for a total donation of \$17,000. This award will support a TWS: Manitoba Chapter student member in travel to the TWS Annual Conference every year.

CAC update

The Conservation Affairs Committee has been busy over the last 5 months, even through major changes to the weather and political structure. In June, we sent a letter to the former Minister of Sustainable Development to follow up on previous discussions we've had on moose and wetland management in the province and to request a meeting to chat about these issues further in person. As many of you are aware, in August, there was a cabinet shuffle in the provincial government which meant that there was a new Minister of Sustainable Development, Honourable Rochelle Squires, and a new deputy minister Rob Olson, formerly of the Manitoba Wildlife Federation. We have forwarded our moose and wetland letter to the Minister's office again and hope to hear back soon!

In June, we also sent a letter in combination with Nature Manitoba and Bird Studies Canada to the Winnipeg mayor's office to discuss our concern for wildlife under their proposed feral cat trap neuter release program. We were contacted by the COO of the Animal Services Agency for the City of Winnipeg, Leland Gordon, to discuss this issue further. Chapter president, Brian Kiss, contacted him and provided us some information about this new program. Notes from this conversation can be found on our website.

In August, the CAC compiled a list of term paper ideas for university students studying wildlife management in Manitoba. The majority of the project ideas came from Chapter members who either had data gathered already but not yet analyzed or who had ideas for research projects. This list was distributed to some contacts at the University of Manitoba, University of Winnipeg, Brandon University, and University College of the North in The Pas. This list is also available on our website.

In the next few months we also hope to address (and also encourage our chapter members to comment on) the following:

- Federal action plan for boreal woodland caribou (due Sept. 25)
- Manitoba watershed planning initiatives (due Oct. 6)
- Wildlife feeding policies in Manitoba and urban areas specifically
- Owl baiting for photography
- CWD policies for Manitoba
- Review of new transmission projects and new roads
- "Our Winnipeg" review

If you have any ideas or suggestions for the CAC committee or are interested in joining the committee, please feel free to contact co-chairs Jonathan Wiens and C-Jae Breiter (emails are posted under Take Action on our webpage). The Conservation Affairs Committee of the MB Chapter works to coordinate, develop and disseminate information required to inform managers, policy makers, and the public concerning wildlife management and conservation issues in Manitoba.

news from the West

By **Melanie Dubois**

Wow, what a field season! Hot, and hardly any mosquitos – I hope the bugs were as absent for others as for me. To give TWS members an idea of the wide variety of activities that take place in Westman throughout the summer I contacted a number of organizations and was overwhelmed by the depth and breadth of the research.

I can't include it all, but here is a sampling; Manitoba Conservation conducted a number of Canada Goose, sharp-tail grouse, grassland bird and plant surveys along with leafy spurge beetle releases and monitoring of garter snakes with Dr. Pamela Rutherford from Brandon University. Dr. Rutherford continues with her work on reptiles and amphibians with road impact studies, and surveys at CFB Shilo and the Nature Conservancy Canada (NCC) Yellow Quill site. NCC's further work included detailed species inventory and vegetation condition assessments at Yellow Quill, Douglas Marsh, Turtle River Marshes, surveys for the endangered Dakota Skipper and securement projects that protected over 640 acres. Ducks Unlimited continues work as a founding partner with the Manitoba Beef and Forage Initiative to study wetlands, riparian areas and carbon sequestration. They are also part of a prairie province wide study with CWS, the Canola Council of Canada and Bayer looking at the occurrence of neonicotinoid pesticides in prairie wetlands. DU's grazing club is working with a local beef producer to study changes that occur with soil and vegetation, bird numbers, plant growth and cattle production under mob grazing. Matrix Consulting also had a busy summer with the study that Dan Chranowski spoke on at the spring Westman mixer, working with NCC on mammal monitoring, as well as various SAR and migratory bird nest sweeps prior to surface disturbances, road widening, and seismic operations. Here at AAFC my work continues with native bee baseline surveys and habitat assessments, while my colleague Mae Elsinger lead the planting of pollinator habitat research plots with native species along with a test plots of commercially available seed mixes promoted to support pollinators. It was a very productive and busy research season in Westman, the winter will be spent entering the data, analyzing the information and putting the findings to work.

news from the North

By Christa Dubesky

Greetings from the North! Currently, we are dealing with a lot of smoke in the area due to the forest fires out West, but the folks in Thompson are getting geared up for the Second International Wolf & Carnivore Conference, October 18-19, 2017. It is always incredible to have the opportunity to hear world renowned researchers presenting their findings in the heart of the boreal forest.



This conference will have the following Keynote Speakers: Dr. David Mech from the University of Minnesota, Dr. Gilbert Proulx from Alpha Wildlife Research and Management Ltd., Dr. Nikita Ovsayanikov, a Russian Wildlife Biologist, and Erin McCloskey, author of "Wolves in Canada". I am looking forward to attending the conference and reporting on the research being conducted. I had the opportunity to attend the First International Wolf & Carnivore Conference in 2012 and the scale is very intimate as the number of attendees is limited.

I am excited to inform members that The Wildlife Society Manitoba Chapter is providing a transport opportunity for individuals to attend the conference. A private coach is being booked to transport members and non-members to and from the conference. The deadline for registration is October 1st, 2017. There is a requirement of 30 individuals registered to take the coach or the transport will be cancelled and individuals reimbursed. It is a bit of a drive along Highway 6 and this is a way to travel worry free. A link to register is available on The Wildlife Society Manitoba Chapter website.

events + learning



bird walk with dr. Christian Artuso

The Wildlife Society, Manitoba Chapter hosted a Nature Walk in Assiniboine Park, Winnipeg led by Dr. Christian Artuso on May 22nd at 7 AM. The event was attended by a dozen members who met at the Assiniboine River Park Bridge and went birding throughout the park.

Many bird species were observed such as: Cooper's Hawk, Eastern Phoebe, Philadelphia Vireo, House Wren, Swainson's Thrush, Ovenbird, Nashville Warbler, American Redstart, and many others! Thanks to all those that attended and to Dr. Christian Artuso for hosting the walk!



cougar camera trap workshop

On April 23rd the Manitoba Chapter collaborated with the University of Winnipeg Student Chapter to offer a cougar camera trap workshop at Birds Hill Provincial Park. For the last couple of years the U of W Chapter has been deploying trail cameras, scent posts, and hair snares throughout the province in hopes of documenting occurrences of cougars and collecting hair for DNA analysis. The workshop was designed in hopes of attracting more volunteers for the project and potentially deploying more camera stations in summer 2017.



The workshop began with a presentation on cougars by Bill Watkins, Zoologist with Manitoba Sustainable Development, who manages the species in Manitoba and has overseen the project since its inception. This was followed by a background presentation from the U of W chapter covering the objectives, methods, and previous results of the project. Next, Michel Leclaire from EcoLogic Environmental Inc. spoke about the various applications for camera traps and important considerations for study design.

About half way through the workshop the attendees headed outside to check some trail cameras that had been set up throughout the park and discuss proper camera set up. Jason Airst from the U of M then gave an overview of how to set up a scent post and hair snare for their cougar project.

Finally, attendees head back inside to review the cards from the trail cameras (mostly deer and hiker photos!) and learn how to inventory photos and manage a database. In total 12 members attended and the U of W Chapter was able to secure a few additional volunteers for the summer! Quite the success!



goose banding workshop

This past July, Frank Baldwin, Provincial Game Bird Manager from Manitoba Sustainable Development, offered a goose banding workshop for Chapter members at Oak Hammock Marsh. Twelve members attended and were treated to an explanation of Canada goose management in the province to start the morning off, which include an overview of sub-arctic and temperate banding programs, mark-recapture analysis, and human-goose conflict issues.



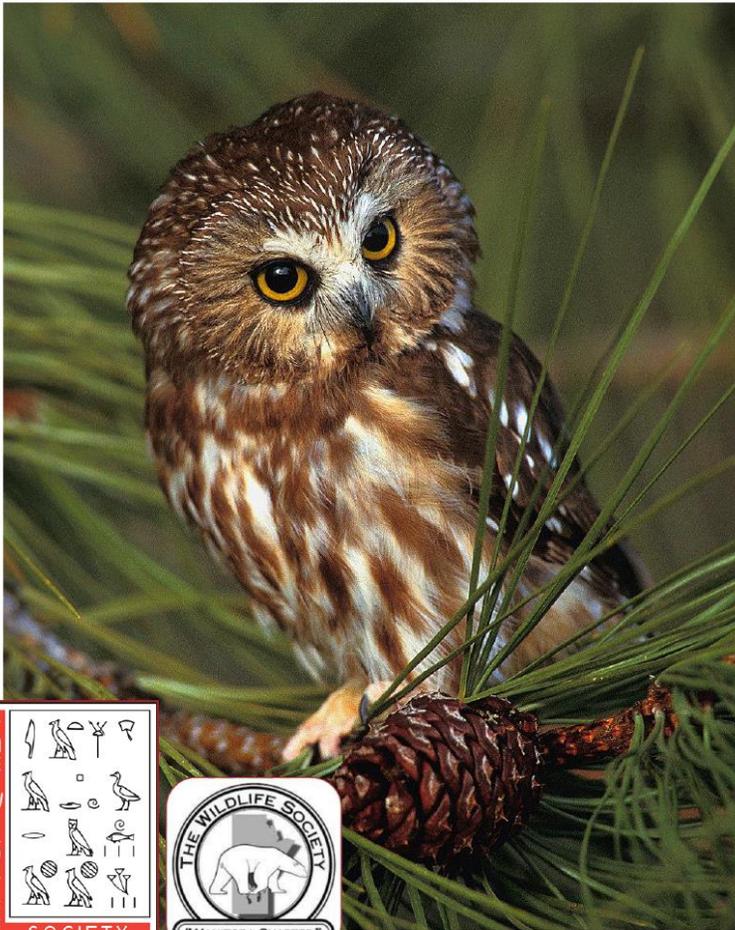
Next, under the direction of provincial and federal wildlife staff, participants 'herded' a group of local molting Canada geese into a series of nets to be banded. Geese were then aged, sexed and banded with both traditional butt-end leg bands, but also rivet bands to estimate band retention. Numerous individuals that were banded in previous years were also recaptured and documented. Breeding females (had brood patches, indicating recent nesting) were also selected for Geo-locator attachment, which the provincial and federal governments are using to refine their estimates for timing of migration between different populations of Canada geese and cackling geese.

In the end, ~250 geese were captured, and all participants were given the opportunity to handle, band and release geese as part of this ongoing monitoring program.

Thank you to those that attended, and to Frank and the rest of the provincial and federal government staff that organized the workshop!



upcoming events



THE WILDLIFE SOCIETY MANITOBA CHAPTER

NORTHERN SAW-WHET OWL BANDING WORKSHOP

Date: October 20th or 21st (weather depending)

Time: 6:30 PM until 10:30 PM

Location: To Be Determined

Cost: Free to members

Watch Northern
Saw-whet Owls be
banded in Winnipeg!

Outdoor event:
Wear comfortable
footwear and layers,
bring a lawn chair.

Weather dependent:
If raining, or snowing
heavily or very windy
the event will be
rescheduled.

Bring a flashlight or
headlamp!

Space is limited so
sign up now!

INTERESTED IN ATTENDING?

Go to our website to
sign up!

[http://www.tws-
mb.com/calendar/](http://www.tws-mb.com/calendar/)



Canadian Section of The Wildlife Society

The Canadian Section of The Wildlife Society welcomes any member who is interested in becoming more directly involved in section activities to reach out and let us know. We have a number of ad hoc and standing committees that could benefit from your involvement! Some of the committees looking for additional support include: membership and recruitment, awards, conservation affairs, website and newsletter, and education. Should you be interested, please reach out and let us know: emccance@ecologic-environmental.com

Thanks to all! Erin McCance, President, Canadian Section of The Wildlife Society



Trematode parasitism increases the attractiveness of 1st intermediate host snails to potential 2nd intermediate hosts

By Laura Eliuk

Laura Eliuk was the TWS-MB spring 2017 student travel award winner

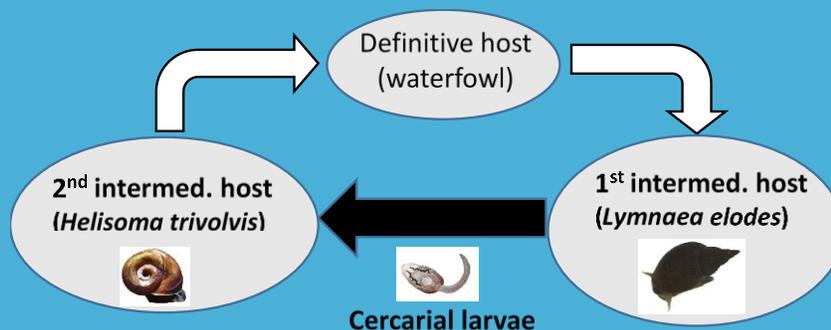
Many parasites have complex life cycles, requiring infection of several hosts with different larval and adult stages in order to successfully complete their life cycles and reproduce. To help facilitate complex life cycles, some parasites have evolved to alter their hosts' behaviour. Parasitic alteration of host behaviour is a common phenomenon, observed in virtually every taxon of parasites. They tend to alter host activity or microhabitat choice in order to facilitate contact with the next host in a parasite's life cycle and increase the likelihood that the parasite will be able to infect its next host.

The parasitic flatworms of class Trematoda have particularly complex life cycles, typically involving three hosts. Adult worms reside in the **definitive** host (typically a bird or a mammal), where they lay eggs which pass from the body and hatch larvae that infect a **first intermediate host** (always a mollusc, typically a snail). In this host, various larval stages reproduce asexually and form and swimming cercarial larvae, which leave the host and go on to infect a **second intermediate host** (various molluscs and other invertebrates, fish, tadpoles, etc.), where they encyst and infect a definitive host by consumption of a second intermediate host.

Many studies have found trematodes to be capable of altering second intermediate host behaviour to facilitate infection of a definitive host, ex. causing hosts to behave in a conspicuous manner, making a predation event more likely. However, very few studies have examined the link between the first and second intermediate hosts, where swimming larvae must leave the first and penetrate the second host. There is evidence that parasitism can alter snail host's movement or habitat choice, but overall this link in the lifecycle is poorly studied. Additionally, only a handful of studies have examined the mechanisms of parasite-induced behavioural change.

The objective of my study was to determine if trematode parasitism increased the attractiveness of a parasitized freshwater snail to a potential heterospecific host species, and to investigate a possible mechanism of this behavioural change. I used a species of echinostome (spiny-mouthed) trematode which uses different species of freshwater snails as first and second intermediate hosts as my model system. I hypothesized that heterospecific snails (species *Helisoma trivolvis*) would be more attracted to parasitized *Lymnaea elodes* snails over non-parasitized snails because the parasites alter the attractiveness of their host to facilitate their transmission between intermediate hosts.

For the first part of my study, I conducted a series of behavioural experiments in a Y-maze apparatus using parasitized and non-parasitized *L. elodes* as stimuli, and *H. trivolvis* snails as responders. The experimental results showed that *H. trivolvis* is more attracted to parasitized *L. elodes* over non-parasitized *L. elodes*. This result was most clearly illustrated by *H. trivolvis* snails spending significantly more time in proximity to parasitized *L. elodes* snails over non-parasitized when both were present in the environment. Additionally, *H. trivolvis* responded more quickly with increasing parasite biomass in the *L. elodes* stimuli snails. These results suggest that trematode parasitism increases the attractiveness of first intermediate host snails to potential second host snails, making it easier for swimming cercarial larvae to successfully reach and penetrate a second intermediate host.



A basic illustration of the echinostome life cycle, highlighting the link in the life cycle that my study focused on.

The second part of my study investigated the role of chemical communication in snail mucus as a possible mechanism for altering the behaviour of potential host snails. Snails are known to use their mucus to communicate and detect other individuals in the environment, but specific differences in parasitized and non-parasitized snail mucus have not been previously investigated. High-performance liquid chromatography analysis on snail water/mucus samples of parasitized and non-parasitized *L. elodes* snails showed that parasitized snails had significantly higher amounts of eicosanoids in their mucus. These compounds are fatty acid precursors that have been previously found to have roles in animal communication and host-parasite interactions. These results suggest that parasites may be causing this behavioural change by altering the composition of their host snails' mucus to make it more attractive to potential secondary hosts. Overall, this study increases our understanding of how trematode parasites are able to influence their intermediate hosts in order to facilitate their own life cycles.

This research was conducted in the lab of Dr. Jillian Detwiler at the University of Manitoba.



early career professional development travel grant

The Wildlife Society Manitoba Chapter is pleased to announce a new grant available to early career wildlife professionals here in Manitoba. If you are a recent graduate just starting out in your wildlife career, this grant is available to you to aid in attending; provincial or national meetings, symposia or conferences, or professional development workshops. This program provides an opportunity for continued professional development to our Chapter Members by assisting those members who otherwise might not have the chance to attend these events. The Early Career Professional Development Travel Grant will provide up to \$500 annually; these funds can be used towards transportation, lodging, and registration. The deadline to apply for a Travel Grant is **October 1, 2017**.

Instructions on how to apply, and who is eligible, can be found below. Application forms are available at: <http://www.tws-mb.com/student-travel-award/>

Eligibility Criteria:

- Manitoba Resident
- Current member of The Wildlife Society Manitoba Chapter in good standing
- Early Career Professional is defined as one who has graduated from a post-secondary institution but not yet obtained 5 years of professional level wildlife experience.
- Successful candidates must submit a report to the Chapter newsletter or speak to members at a Chapter event (fall mixer, winter getaway, or AGM)

Applicants must submit the following items:

- Completed application
- An abstract of paper or poster (if presenting)
- One page resume or curriculum vitae

Process:

Applicants must submit all required information in order to be considered for travel assistance. Only successful applicants will be contacted. Award cheques will be mailed to successful applications within 30 days of the application deadline, or presented at a chapter function. Grants will be awarded based on benefit to the Early Career Professional, benefit to the chapter, and financial need. Priority will be given to those presenting a paper or poster when submitting requests to attend conferences. Successful recipient must submit proof of registration and attendance.

Application and all requested materials should be submitted via email (tws.manitoba.chapter@gmail.com).

student travel award

Twice a year, TWS Manitoba makes funds up to \$250 available to encourage student travel to wildlife related professional development conferences or seminars. Applications for this fall's award are due **October 15th**. To apply online, please go to: <http://www.tws-mb.com/student-travel/> .

All student applicants must meet the following criteria:

- Enrolled at a Manitoba College/ University or have graduated within past year
- A member of TWS-MB
- Not a recipient of a TWS-MB Student Travel Award in the previous year
- Have provided proof of acceptance of poster/ oral presentation to tws.manitoba.chapter@gmail.com with subject line "Student Travel Award"

research in MB



research roundup

This summer was a busy one for Manitoba wildlife research. Work was presented from all around the province, from Churchill to the outskirts of Winnipeg. Some highlights included several papers on Lake Sturgeon spatial ecology and genetics (Hrenchuck et al. 2017, McDougall et al. 2017, and Struthers et al. 2017), while Davis et al. (2017) and Leston and Koper (2017) investigated the effects of different management practices on grassland passerine birds. Many more fascinating articles are listed below.

If you would like to present your work, or know of some interesting Manitoban research that deserves to be highlighted in future editions of Wild Words, please contact TWS-MB at tws.manitoba.chapter@gmail.com.

Bishir, S.C. 2017. Wood frog (*Rana sylvatica*) post-breeding movements and habitat use along an arctic-subarctic ecotone. M.Sc. Thesis, Department of Biology, Southeast Missouri State University, Cape Girardeau, Missouri.

Davis, S.K., Devries, J.H., and Armstrong, L.M. 2017. Variation in passerine use of burned and hayed planted grasslands. *J. Wild. Mgmt.* doi:10.1002/jwmg.21316.

Ewacha, M.V.A., Roth, J.D., Anderson, W.G., Brannen, D.C., and Dupont, D.I.L. 2017. Disturbance and chronic levels of cortisol in boreal woodland caribou. *J. Wild. Mgmt.* 81:1254-1265.

Galloway, T. D., and Lamb, R.J. 2017. Abundance of chewing lice (Phthiraptera: Amblycera and Ischnocera) increases with the body size of their host woodpeckers and sapsuckers (Aves: Piciformes: Picidae). *Can. Entomol.* 149: 473-481.

Hrenchuk C.L., McDougall, C.A., Nelson, P.A., and Barth, C.C. 2017. Movement and habitat use of juvenile Lake Sturgeon (*Acipenser fulvescens*, Rafinesque, 11817) in a large hydroelectric reservoir (Nelson River, Canada). *J. Appl. Ichthyol.* 33: 665-680.

- Knee, W., and Galoway, T. 2017. *Myialges trinotoni* (Acariformes: Epidermoptidae), a hyperparasitic mite infesting *Trinoton querquedulae* (Phthiraptera: Menoponidae) on water fowl. *Can. Entomol* 149: 434-443.
- Leston, L.F.V., and Koper, N. 2017. Managing urban and rural rights-of way as potential habitats for grassland birds. *Avian Conservation and Ecology* doi:10.5751/ACE-01049-120204.
- McDonald, R.S., Roth, J.D., and Baldwin, F. B. 2017. Goose persistence in fall strongly influences Arctic fox diet, but not reproductive success, in the southern Arctic. *Polar Research* 36: sup 1, 5, doi:10.1080/17518369.2017.1324652.
- McDougall, C.A., Welsh, A.B., Gosselin, T., Anderson, W.A., and Nelson, P.A. 2017. Rethinking the influence of hydroelectric development on gene flow in a long-lived fish, the Lake Sturgeon *Acipenser fulvescens*. *PLoS ONE* 12(3): e0174269.
- Moghimehfar, F., Harshaw, H.W., and Foote, L. 2017. Hunting tourism: the case of Canadian prairie waterfowl hunters. *In Wildlife Tourism, Environmental Learning and Ethical Encounters. Edited by I.B. Lima and R.J. Green. Springer International Publishing, Cham, Switzerland. pp. 273-286.*
- Moulton, L.L., Vallender, R., Artuso, C., and Koper, N. 2017. The final frontier: early-stage genetic introgression and hybrid habitat use in the northwestern extent of the Golden-winged Warbler breeding range. *Conserv. Genet.* doi:10.1007/s10592-017-0989-8.
- Struthers, D.P., Gutowsky, F.G., Enders, E.C., Smokorowski, K.E., Watkinson, D.A., Silva, A.T., Cvetkovic, M., Bibeau, E., and Cooke, S.J. 2017. Factors influencing the spatial ecology of Lake Sturgeon and Walleye within impounded reach of the Winnipeg River. *Environ. Biol. Fish.* doi:10.1007/s10641-017-0629-7.
- Tse, T.J. 2017. Paleolimnological reconstruction of long term trends in phototrophic communities in prairie reservoirs. Ph.D. Thesis, Toxicology Centre, University of Saskatchewan, Saskatoon, S.K.
- Searle, E.B., and Chen, H.Y.H. 2017. Tree size thresholds produce biased estimates of forest biomass dynamics. *Forest Ecology and Management* 400: 468-474.

research opportunities

Are you a student looking for research opportunities? The TWS-MB chapter Conservation Affairs Committee has prepared a list of pertinent term paper topics for university students studying wildlife management in Manitoba. We reached out to wildlife professionals in organizations throughout the province to find out where there are knowledge gaps in their field where a student could make a practical impact.

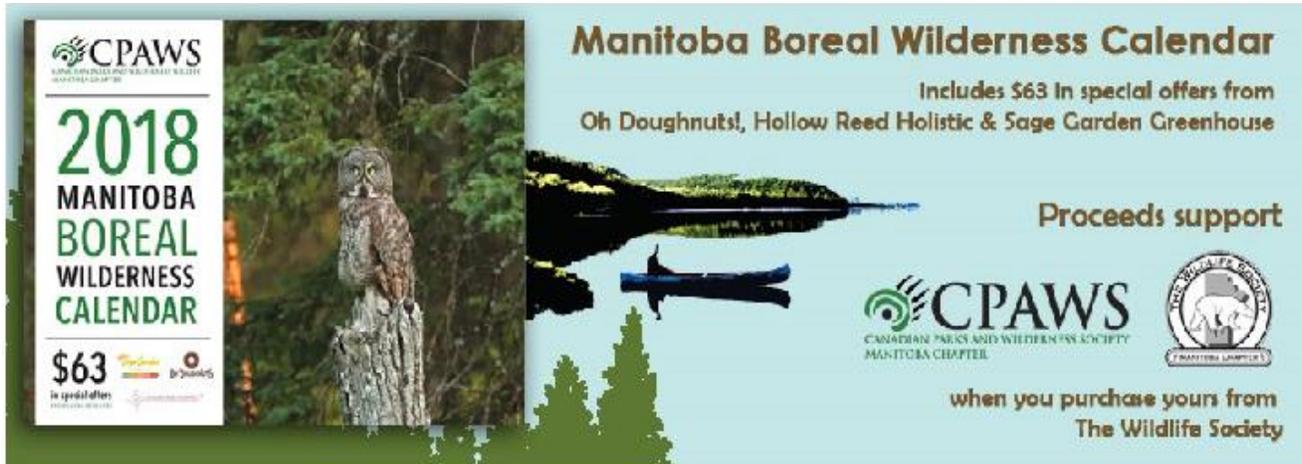
The list includes potential research questions, a brief summary of the topic, and contact information for the relevant personnel.

The list has been forwarded to contacts at universities and colleges throughout Manitoba can be found on the Chapter's website.

advertisements



Contact the Manitoba Chapter to get your 2018 CPAWS calendar! Email tws.manitoba.chapter@gmail.com for more information. Copies will be available at the Fall Mixer!



Travel to the 2nd International Wolf & Carnivore Conference!

The Wildlife Society, Manitoba Chapter is organizing private coach transport to the Conference in Thompson, Manitoba in October 2017

Travel Dates:

- October 17th - depart from Winnipeg James Richardson International Airport - 12 p.m., arrive in Thompson ~8 p.m.
- October 20th - depart from Thompson at 8 a.m., arrive in Winnipeg ~4:00 p.m.

Cost:

- TWS Manitoba Chapter members = \$175 round trip
- Non-members = \$200 round trip

Deadline:

- Registration closes October 1st
- Minimum 30 persons must register or the bus will be cancelled. Those registered will be notified and reimbursed.

Register at <http://www.tws-mb.com/forms/wolf-carnivore-conference-bus-charter>

2ND INTERNATIONAL WOLF & CARNIVORE CONFERENCE

Thompson, Manitoba, Canada
October 18 & 19, 2017
www.thompsonspiritway.ca

LIMITED
NO. OF ATTENDEES



TOWARDS A GLOBAL WOLF CENTRE OF EXCELLENCE

Northern Manitoba is a pristine wilderness area with few people and unknown number of wolves that prey on moose, caribou, and even polar bear cubs along the coast of Hudson Bay. Proposed new roads, mines, hydro dams, and electrical corridors may change the ecosystem forever, and climate change could have devastating effects on polar bears.



What knowledge and research is needed before irreversible changes occur? Can Manitoba develop best practices for "all things wolf" and set an example to the world? Do you want to be part of this important conversation and dialogue with top wolf and polar bear experts?

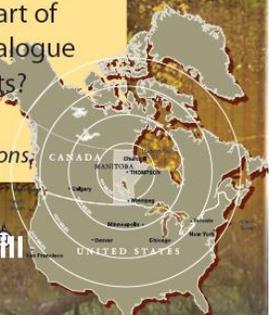
Early Bird registrations open now!

Our small venue allows for close-up discussions.

OPTIONAL:

One day charter trip to Churchill

Polar Bear Capital of the World



WORLD CLASS KEYNOTE SPEAKERS:

Erin McCLOSKEY

Author - "WOLVES IN CANADA"

Dave MECH

University of Minnesota

Marco MUSIANI

University of Calgary

Nikita OVSYANIKOV

Wolf & polar bear biologist, RUSSIA

Gilbert PROULX

Alpha Wildlife Research & Mgmt

Wolf pack photo by Ken Marshall.
Northern Lights photo by Irene Moore

THE WILDLIFE SOCIETY'S 24TH ANNUAL CONFERENCE

ALBUQUERQUE, NM | SEPT 23-27, 2017



JOIN US FOR ONE OF NORTH AMERICA'S LARGEST GATHERINGS of wildlife professionals, educators, students and influencers

This year we return to Albuquerque, New Mexico, home of the very first TWS Annual Conference in 1994. Our return to the Southwest provides added cultural and nostalgic value to this year's event, bringing together wildlifers from many walks of life.

THIS YEAR WE ARE EXPECTING 1,700+ ATTENDEES & NEARLY 100 SPONSORS & EXHIBITORS TO GATHER TO
LEARN, NETWORK & ENGAGE



More than 900 wildlife science & wildlife management educational opportunities -
plenaries, keynote speakers, workshops, field trips, symposia, contributed papers & posters



Vibrant and bustling Members Activity Center
30+ Networking Events & opportunities
300+ organizations represented



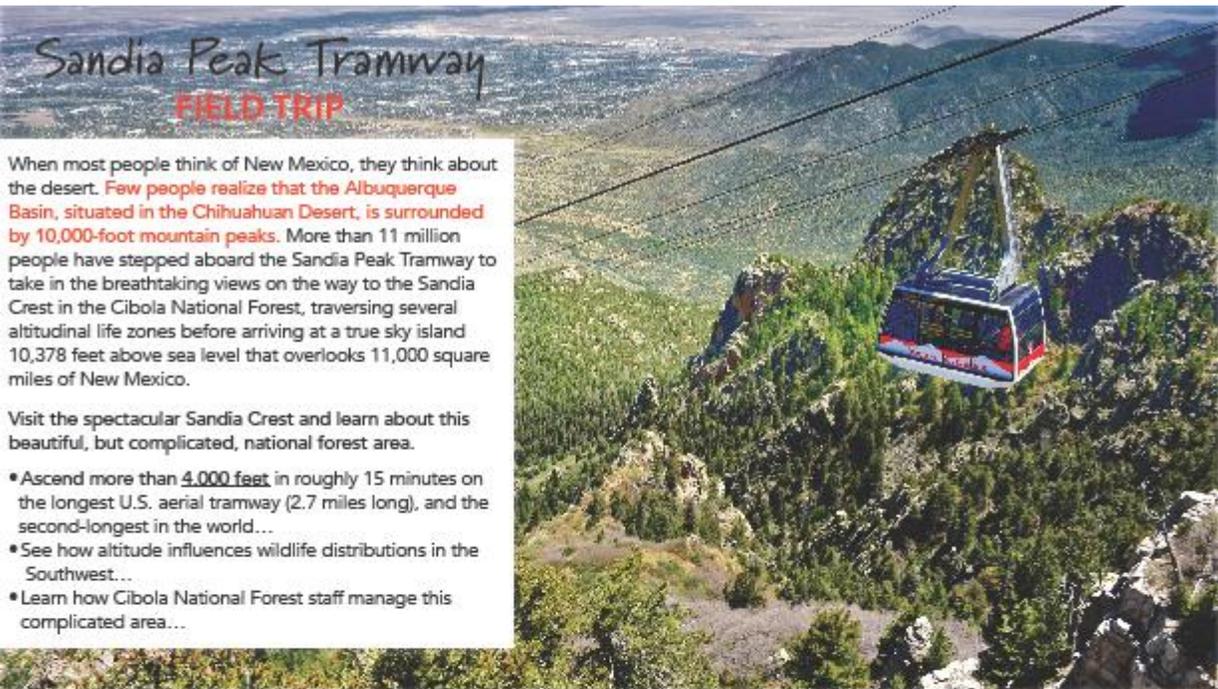
Sponsor or Contribute
Working Group Meetings open to all attendees
Photo Gallery & Contest
Student Activities

LEARN MORE AT TWSCONFERENCE.ORG

Interested in sponsoring and exhibiting? Contact Chuck Shively at cshively@wildlife.org

DISCOVER ALBUQUERQUE

Authentic, vibrant and unlike any other — Albuquerque is a dream destination for lovers of cuisine, culture and exciting activities. From Route 66 history and ancient pueblo traditions, to cowboy culture and Southwestern heritage, this friendly city has something for everyone. Explore the fine art galleries in Old Town and the fun and funky stores in trendy Nob Hill. Discover one of the city's many museums or spend an afternoon at the ABQ BioPark, which includes a zoo, aquarium, botanic garden and fishing lakes. Take to the nearby Sandia Mountains — by mountain bike for thrill seekers, or by tramway for a peaceful ride. Enjoy a cuisine that has been centuries in the making, and a newer beer scene that's on the rise. And don't miss the best view in town, from a hot air balloon floating high above the city, where you'll see the sunrise peek over the mountains to greet you.



Sandia Peak Tramway FIELD TRIP

When most people think of New Mexico, they think about the desert. **Few people realize that the Albuquerque Basin, situated in the Chihuahuan Desert, is surrounded by 10,000-foot mountain peaks.** More than 11 million people have stepped aboard the Sandia Peak Tramway to take in the breathtaking views on the way to the Sandia Crest in the Cibola National Forest, traversing several altitudinal life zones before arriving at a true sky island 10,378 feet above sea level that overlooks 11,000 square miles of New Mexico.

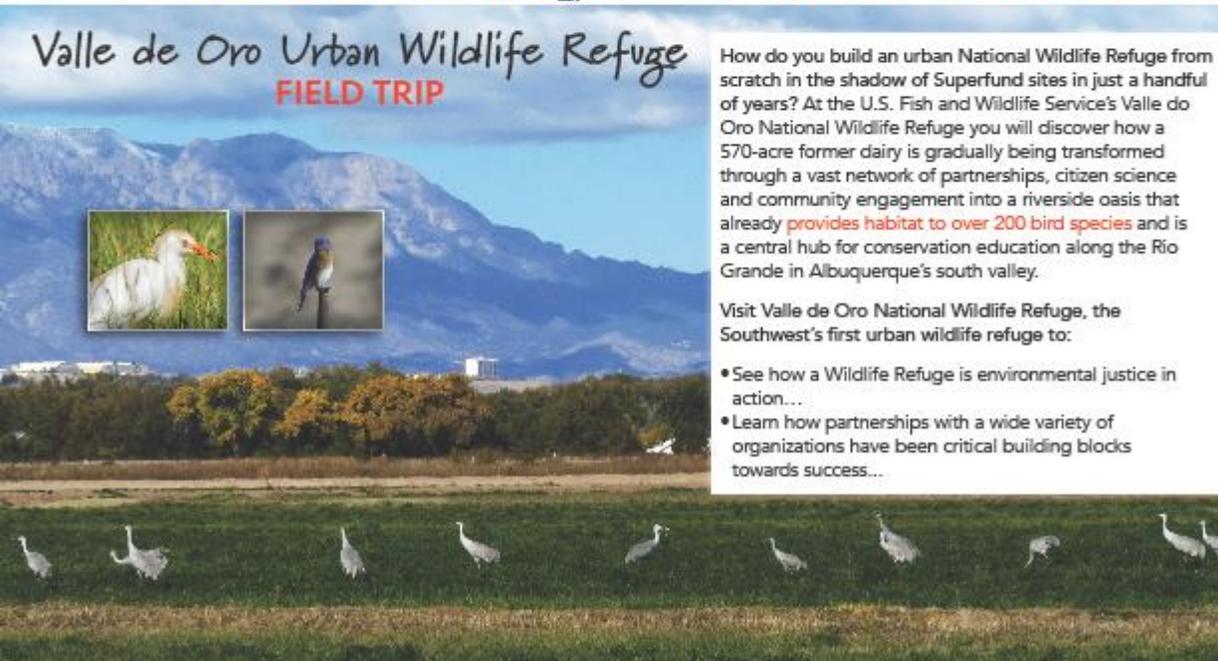
Visit the spectacular Sandia Crest and learn about this beautiful, but complicated, national forest area.

- Ascend more than **4,000 feet** in roughly 15 minutes on the longest U.S. aerial tramway (2.7 miles long), and the second-longest in the world...
- See how altitude influences wildlife distributions in the Southwest...
- Learn how Cibola National Forest staff manage this complicated area...

THE WILDLIFE SOCIETY

THE 24TH ANNUAL CONFERENCE FIELD TRIPS!

ALBUQUERQUE, NM  SEPTEMBER 23-27, 2017



Valle de Oro Urban Wildlife Refuge FIELD TRIP



How do you build an urban National Wildlife Refuge from scratch in the shadow of Superfund sites in just a handful of years? At the U.S. Fish and Wildlife Service's Valle de Oro National Wildlife Refuge you will discover how a 570-acre former dairy is gradually being transformed through a vast network of partnerships, citizen science and community engagement into a riverside oasis that already **provides habitat to over 200 bird species** and is a central hub for conservation education along the Rio Grande in Albuquerque's south valley.

Visit Valle de Oro National Wildlife Refuge, the Southwest's first urban wildlife refuge to:

- See how a Wildlife Refuge is environmental justice in action...
- Learn how partnerships with a wide variety of organizations have been critical building blocks towards success...