

The Entomological Society of Manitoba *Newsletter*



Volume 46 Number 1

ISSN 0836-5830

Winter 2020

About the ESM Newsletter

The Entomological Society of Manitoba Newsletter is published three times per year. It is a forum whereby information can be disseminated to Society members. As such, all members are encouraged to contribute often. The Newsletter is interested in opinions, short articles, news of research projects, meeting announcements, workshops, courses and other events, requests for materials or information, news of personnel or visiting scientists, literature reviews or announcements and anything that may be of interest to ESM members.

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Editors' Comments

At the 2019 AGM Marjorie Smith announced she would be stepping down from her role as ESM Newsletter Editor. She served the Entomological Society of Manitoba for many years and she has shaped this newsletter to become what it is today. We would like to thank Marj for all her hard work and dedication to the society!

And so, I would like to introduce myself as your new Entomological Society of Manitoba, Newsletter Editor. My name is Kelsey Jones and I work for Agriculture and Agrifood Canada on campus at the University of Manitoba. I am a technician in a lab that studies the pests of stored products, under the supervision of Dr. Vincent Hervet. I recently moved to Manitoba for this position in 2019, so I am probably not a familiar face to many of you. However, I am excited to serve for the Entomological Society of Manitoba and meet fellow insect-enthusiasts through this position.

Taking over this position, and learning the ropes of the ESM Newsletter was not the easiest of tasks. This issue is a little later than normal, however, I look forward to getting back into the regular schedule of three issues per year in 2021.

If you have any articles, stories, pictures, or anything else that they would like featured in the ESM Newsletter, please do not hesitate to contact me at kelsey.jones@canada.ca.

Cheers,
Kelsey Jones
ESM Newsletter Editor



President's Message

Greetings everybody.

I hope you are all coping with the many challenges that the Covid-19 pandemic has imposed on us. The ESM Executive was able to carry out some activities, despite the limitations and the 'new normal'. First, the new Student Service Award was implemented and is available for the first time this year. This award is provided annually to encourage and reward student service to the entomological community in Manitoba. We are also excited that we were able to increase the value of several existing student awards! For more information, check the Awards tab on the ESM webpage (<http://home.cc.umanitoba.ca/~fieldspg/awards.html>).

Additionally, we have made explicit our commitment towards Equity, Diversity and Inclusion (EDI) and against all forms of racism and discrimination. As a first step, a brief statement is posted on our main web page (<http://home.cc.umanitoba.ca/~fieldspg/index.html>), with a link to the Entomological Society of Canada EDI page. The board is excited to follow up on this first step with more concrete actions towards increasing the EDI in our society, including donations/promotion of organizations that supports EDI, the establishment of scholarships/awards, etc. We will welcome any ideas and volunteers to work on this!

Finally, as this year was very challenging for most of us, it became clear it was impossible to commit to organizing a full-fledged ESM Scientific Meeting. As we pondered the different options available to us, we chose to go with a reduced version online. We decided to focus on our current graduate students (and postdocs) to allow them the opportunity to present their results. Dr. Jason Gibbs graciously volunteered to organize this year's meeting and Student Symposium to be held on December 4. For more information, visit <http://home.cc.umanitoba.ca/~fieldspg/meetings.html>.

To conclude, I would like to thank all the people who generously continue to serve in the Entomological Society of Manitoba, including the members of the Executive and the different committees.

Stay safe!

Ale Costamagna
ESM President

Membership Renewal

It's that time of year again, time to renew your membership!

If you are paying by e-transfer, and your contact information has changed since this time last year, you'll need to email me an updated [membership form](#) separate from your payment.

E-transfer inquiries and payments are made to the **ESM**
Treasurer: entsocmanitobatreasurer@gmail.com

Cash and cheques are sent to me, along with your [membership form](#).

Please remember that your dues need to be up to date in order to participate in our upcoming [Student Symposium and AGM](#).

Thank you for renewing!

Sarah Semmler
ESM Secretary



**76th Annual Meeting
Entomological Society of Manitoba
December 4th, 2020**

Please join us for the 76th annual meeting of the Entomological Society of Manitoba!

Location: Virtual on Zoom (or similar platform).

This year's meeting will consist of the AGM and a student symposium. Presentations by post-docs will also be considered. Abstracts will be published in the next volume of the Proceedings of the Entomological Society of Manitoba.

We look forward to seeing you at the annual meeting in December!

Sincerely,
Jason Gibbs

Conferences Fees for Registration:

Regular member \$0.00
Student member \$0.00
Out-of-province students \$5.00
Non-members \$45.00*

* If you are interested in becoming a member, visit the ESM website for more information.

Annual dues for the society are \$10 for students and \$25 for regular members. Please be sure that your dues are up to date before the meeting begins.

Registration fees/renewal payments can be made by e-transfer to the Treasurer:
entsocmanitobatreasurer@gmail.com

Meeting Registration:

https://docs.google.com/forms/d/e/1FAIpQLSfwrzBvVKASY_Wa2g0xBrKFaf2_o2a5-kbekOZCkzQnb_qXOw/viewform



**76th Annual Meeting
Entomological Society of Manitoba
December 4th, 2020**

CALL FOR STUDENT/POST DOC PAPERS

Deadline for submissions: Friday, 13 November 2020

Submitted Paper/Poster Form

Please submit the following information to: jason.gibbs@umanitoba.ca using the subject line “**ESM abstract**”

- 1) The abstract title, IN CAPITAL LETTERS.
- 2) The name(s) of all authors and their addresses.
- 3) Abstract, comprised of no more than 250 words.
- 4) Maximum of two images associated with the study (not figures or tables presenting data)
- 4) Type of Presentation: 12-minute oral presentation: ☐ or Poster: ☐
- 5) Student: Yes: ☐ or No: ☐

Students will automatically be considered for the student competition.

Presentations will use PowerPoint.

The length of the presentation may be adjusted depending on the number of submissions.

Posters will be displayed virtually.

The format of the poster session will be announced after the submission deadline.

We intend to publish the abstracts and a maximum of two associated images online and in print in the Proceedings of the Entomological Society of Manitoba. Examples of associated images would include a photograph of the experimental setup, researchers in the field, or the study insect. These are not intended to include data figures or tables.

The following is an example of an abstract that is suitably prepared:

MULTIVARIATE APPROACHES FOR DISTINGUISHING ADULT ORCHID BEES IN THE FIELD

B. Kind, and R.E. Wind, Department of Larval Studies, University of Winnipeg, Winnipeg, Manitoba, R3T 5V6. bkind2021@gmail.com

Distinguishing between life stages of insects is a critical first step to studying their behaviour. We compare and contrast three complicated multivariate statistical approaches for discriminating larval and adult stages of euglossine bees (Hymenoptera: Apidae) in the highlands of Panama ...

From the Regional Director

NEWS FROM THE ENTOMOLOGICAL SOCIETY OF CANADA

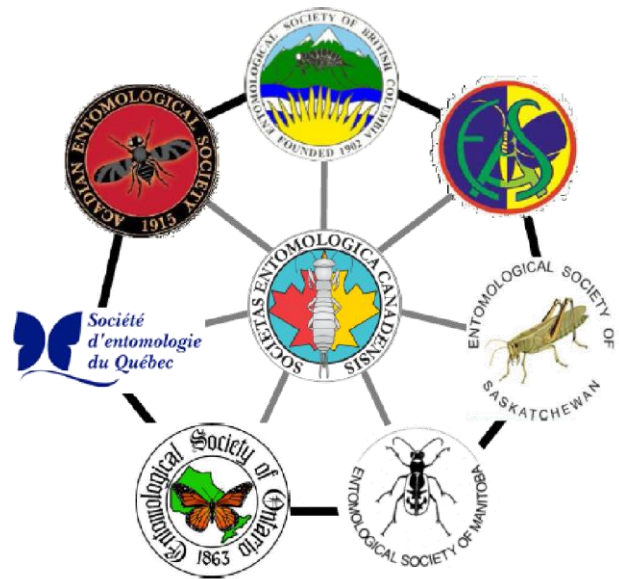
Following the cancellation of the joint meeting between the Entomological Society of Canada (ESC) and the Entomological Society of Alberta due to the pandemic, the ESC held its Annual General Meeting online on 20 October 2020. As many members renew their dues at the JAM, I would encourage you to renew your membership now for 2021. That said, the plans for JAM 2021 are well underway! The next meeting is scheduled for 14-17 November 2021 in Niagara Falls, ON.

Not an ESC member yet? It may be a good time to remind you of the ESC's newest membership category: *Entomology Enthusiast*. If you're passionate about insects but not a professional or student entomologist, that's the spot for you! Get online access to *The Canadian Entomologist* and the *Bulletin*, discounts on entomology books, and reduced registration fees to ESC annual meetings, all at approximately 50% discount from a Regular Membership. Find out more about the benefits of ESC membership here: <https://esc-sec.ca/benefits-of-membership/>.

On the governance side of things, the ESC now has two new Director positions: a Director for Equity, Diversity and Inclusion (EDI), and a Director for Student and Early Professionals. Both offices arise from the ESC's recognition and commitment to a more welcoming and supportive Society and ensure the students and early professionals have a strong voice in the Society's affair. You can see the Board of Director's commitment to EDI here: <https://esc-sec.ca/the-society/statement-of-diversity-and-inclusion/>.

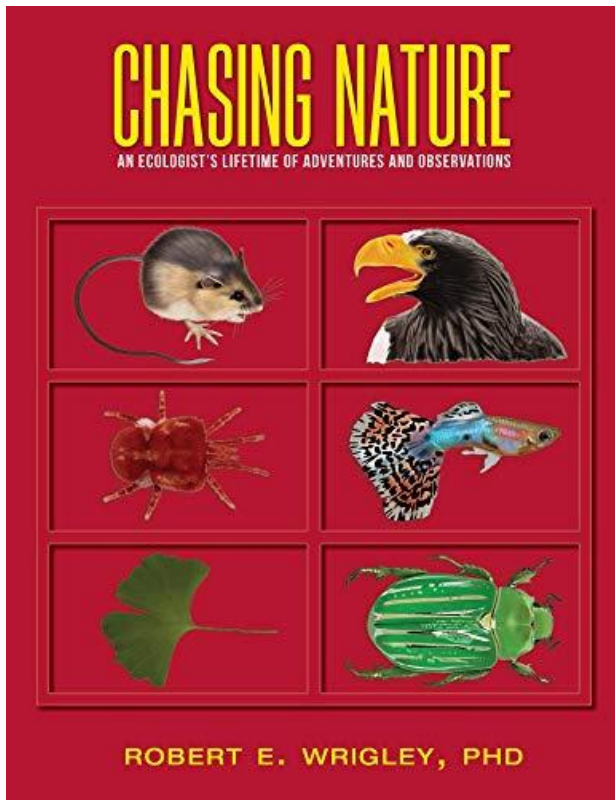
Finally, after three years as your Regional Director at the ESC, my term comes to an end. It was an honour to represent the ESM on the ESC Board of Directors.

Kateryn Rochon
Outgoing ESC Regional Director (representing the ESM)
kateryn.rochon@umanitoba.ca



A review of *Chasing Nature: An Ecologist's Lifetime of Adventures and Observations* by Dr. Robert E. Wrigley.

Sarah Semmler



When a person whose life has been fully immersed in the natural world decides to transcribe their most memorable moments, it must be difficult to choose what to share. However, Dr. Robert Wrigley, a dedicated member of the ESM, found a way to select the most engaging of those experiences for his new book. It is a memoir to a long and eventful career, and is truly a tribute to the journey that study, work, and nature provide.

The book is structured to reflect Dr. Wrigley's experiences as an ecologist. The chapters represent different phases, such as those formative moments as a youth, time spent in university, conservation and research positions in notable facilities, and the adventures one enjoys while navigating retirement. The stories within the chapters focus on memorable encounters with animals, plants, landscapes, and colleagues. You find yourself drawn in from one story to the next as they touch on our shared sense of

curiosity, awe of nature, humor, and humility. The chapters are supplemented with expressive illustrations and beautiful wildlife photography. Additionally, many of the stories take place in locations familiar to local readers such as Assiniboine Park Zoo, Manitoba Museum, and Oak Hammock Marsh, offering a unique perspective on what goes on behind the scenes.

This book is a compilation of accounts by someone that clearly never lost their sense of wonder when in the presence of nature. Whether you're an early naturalist looking for insight on the adventures ahead, or a seasoned colleague who can relate to the steps that take you take along the path, there will be something for you in this book.

If any members are interested in purchasing a signed copy, I'm happy to forward your inquiry to the author: entsocmanitobasecretary@gmail.com.

Extension Entomology Update

By John Gavloski, Entomologist, Manitoba Agriculture and Resource Development
Prepared July 27, 2020

There have been four major insect issues in field crops so far this growing season. Early season concerns included flea beetles in canola and cutworms. Grasshopper levels have been building for a few years, and a few of our potential pest species of grasshoppers have been found at high levels this year. Armyworms have been an issue in cereals and forage grasses in late-June and July.

Flea beetles: Canola seeds come treated with a neonicotinoid-based seed treatment (such as Helix Vibrance, Prosper EverGol, etc.), which provides early season control of flea beetles (*Phyllotreta* spp.). In spite of this, many canola growers had to apply foliar insecticides to control flea beetles. Some canola fields were reseeded because of flea beetle feeding, or a combination of flea beetle feeding and other stresses, such as cutworms, dry soil conditions, wind, poor emergence, or frost. Growing conditions that keep canola in the seedling stage or early true leaf stage for a prolonged time increase the risk of seed treatments becoming ineffective and foliar insecticide applications being required.

Cutworms: Quite a few fields had insecticide applications and some were reseeded because of feeding by cutworms. Cutworm feeding was at high levels in several crops. Redbacked cutworm (*Euxoa ochrogaster*) and dingy cutworm (*Feltia jaculifera*) appear to have been the main species involved, based on photos and samples submitted for identification. As bad as cutworm pressure seemed this year, it was even worse in 2019, which was one of the worst years for cutworm feeding on crops in a long time. Hopefully we are on the downward side of their cycle.

Armyworms: A large population of armyworms (*Mythimna unipuncta*) appear to have been brought into Manitoba on some of the south winds in early- and mid-June. Heavy feeding occurred in many cereal and forage grass fields. Perennial forage grasses and fall seeded cereal, such as rye, seemed to be hardest hit. Insecticide applications occurred in many fields. Pupal clusters of a parasitic wasp in the genus *Cotesia* (Braconidae) became very noticeable in some of these fields in July. A lot of photos of these pupal clusters were sent in by farmers and agronomists wondering what are these “eggs” on my cereals. These pupal clusters are often high in the canopy making them highly visible. It will be interesting to see what second generation levels of armyworm larvae will be like. The photo shows a dead armyworm, from which at least a couple dozen *Cotesia* larvae had emerged and formed their pupal cluster. Also note the Tachinid eggs on the thorax of this armyworm corpse. This armyworm didn’t have a chance.



Photo by Shanna Schroeder - RSI
AgriCoaching Ltd. / New Era Ag
Technologies

Grasshoppers: Grasshopper levels have been building for a few years, likely in response to the relatively dry summers we have had over the last few years. Levels are quite high this year. Some grasshopper hotspots outside or along the edges of fields have been treated with insecticide, and some whole field spraying has been occurring. Eco bran (a carbaryl-treated bran bait) is one of the products that has been used for some of the ditch and field border treatments. Twostriped grasshopper (*Melanoplus bivittatus*) appears to be the dominant species in many areas, although clearwinged grasshopper (*Camnula pellucida*) has been noted to be quite abundant in some areas of the Interlake. Clearwinged grasshopper prefers to feed on grassy plants, while twostriped grasshopper is quite general in its feeding habits. As grasshoppers get to the adult stage, control options become less. One technique that some farmers are trying is applying one of the more effective, although more costly insecticides, in strips, alternating sprayed and non-sprayed strips. Because grasshoppers move around, research in Wyoming on pastures demonstrated that it is possible to achieve 80 to 90% control of grasshoppers using this technique. Some Manitoba farmers have been trying this on cereal crops over the last couple of years and anecdotally are reporting good control. This has never been researched on cereal crops, however. Anyone up for a research project? As I write this article in late-July, I am starting to get notifications of grasshoppers dead at the tips of plants in some of the fields in the Carman area. This is caused by a fungal pathogen called *Entomophaga grylli*. If we continue to get some warm, humid weather there is great potential for this pathogen to knock back levels of some of our pest species of grasshoppers.



Incredible Creatures

Saluting the Red Admiral Butterfly

By John Gavloski

Nature enthusiasts, it's time to salute the red admiral butterfly – one of the migrating species that in some years can be commonly seen in Manitoba. This butterfly has some erratic patterns of flight, interesting food choices, and territorial males. In this month's Incredible Creatures we will explore the interesting biology and habits of red admiral butterflies.

Wearing Admiral's Stripes

Red admirals (*Vanessa atalanta*) have black wings with orange or red bands on the middle of the forewings and the outer edge of the hindwings. There are also white spots on the tips of the forewings. They have a wingspan of about 5 cm. Females are slightly larger than the males.

Adult red admiral butterflies have been seen in Manitoba from early May to late August. Red Admirals are sometimes spotted migrating north with painted lady butterflies during the spring. Red admirals prefer fermenting tree sap, fruit, and fresh dung to flower nectar. However, they also drink nectar from a variety of flowers. They are fond of feeding on nectar at composite flowers, such as milkweed, aster, red clover and alfalfa. They also drink from moist soil.



Red admiral butterfly
J. Gavloski

Caterpillars Under Cover

Often when we see caterpillars they are crawling or eating. However, red admiral caterpillars like to stay covered. Young caterpillars live in the shelter of folded leaves, while older caterpillars will make a nest of leaves tied together with silk. The caterpillars use silk to bind leaf edges together, constructing a little shelter for themselves. It is usually just one larva in one of these shelters, rather than a communal nest like some caterpillars.

Red admiral caterpillar's primary host plant is stinging nettle, but it can also be found on other nettles, and they will also feed on hops. The caterpillars vary in colour, and are covered in several rows of branched spines.

Erratic Fliers

Knowing the flight patterns of butterflies can help in finding and identifying them. The flight pattern of red admirals is erratic and rapid. It may include random elements to throw off predators. One description of their flight is that they “dance their way through the skies, never using the same step

twice.”

Protecting the Territory

Male red admirals are territorial and perch during the afternoon until sunset. Females will only mate with males that hold territory. Only males of exceptional flying ability are able to chase off intruding males and successfully court females. Larger territories are optimal and subject to intrusion by other males more frequently than smaller territories. Territories tend to be elliptically shaped area ranging between 4-13 m wide and 8-24 m long. Males patrol their territory by flying around the perimeter between 7 and 30 times per hour. On average, territory holders interact with intruders 10 to 15 times per hour.

When another male encroaches on a red admiral's territory, the resident chases away the intruder, often in a vertical, helical path to disorient or tire out the intruder while minimizing the horizontal distance it travels from its perch. The red admiral immediately returns to its territory after chasing off encroaching males.

Time spent patrolling increases as the number of intruder interactions increase. Patrolling behavior is also correlated with warmer air temperatures, so males begin patrolling early and continue later on warmer days.

If you see a red admiral butterfly, take note of its interesting flight behaviour and whether it appears to be guarding a territory. They can be an amusing butterfly to watch.

NEW VIRTUAL SEMINAR SERIES

Dear Arthropod enthusiasts,

We would like to invite you to our first virtual seminar at **1 pm (CST) on Nov 27th, 2020**. Our first guest speakers will be Dr. Jorge Zavala (FAUBA, Argentina) and Dr. Sean Prager (Usask, Canada).

Dr. Zavala is a professor at Cátedra de Bioquímica, FAUBA. His area of expertise include plant-insect interactions, plant chemical defenses, and biochemical and molecular mechanisms involved in plant responses to insect herbivory.

Dr. Prager is an Assistant Professor in the Department of Plant Sciences and Associate Member in the Department of Biology at the University of Saskatchewan. He is an expert in the biology and management of insect vectors of plant diseases and insect ecology.

Each speaker will deliver a 30-minute presentation, with an additional 5 minutes for questions, and there will be 20 minutes in the end for a final discussion. Registration is free and can be completed using the following link: <https://forms.gle/8D9FeK2r5syxoqhe7>

Our seminar series is a collaborative work between Dr. Jorge Zavala's research group (Cátedra de Bioquímica, Facultad de Agronomía, Universidad de Buenos Aires) and the Prager Lab (Department of Plant Sciences, College of Agriculture and Bioresources, University of Saskatchewan). Our mission is to create a space for (ento + fellow arthropods) scientists to share what they do in their labs. We hope registrants have the opportunity to interact with our guest speakers, ask (LOTS of) questions, and discover new and exciting research lines involving these fascinating invertebrates.

Seminars will take place once a month and will have an approximate duration of 150 minutes (1 hr 30 min). Seminar recordings will be made available on our Youtube channel.

Follow us on Twitter for updates and more information about our speakers and seminars:
<https://twitter.com/arthropodata>

In case you miss any of the seminars or want to listen to them again, recordings will be made available.

If you have any questions, send us an email to arthropodata@gmail.com or a DM on Twitter.

King regards,
Arthropodata

SpOoOooky HALLOWEEN

This year we put a call out for insect-themed pumpkins. We did not receive any pictures of insect related pumpkins, but your Newsletter Editor, Kelsey Jones, carved this invertebrate pumpkin for submission!



OTHER MEETING ANNOUNCEMENTS

Entomological Society of America Annual Meeting (Virtual)

November 11-25, 2020

<https://www.entsoc.org/events/annual-meeting>

Entomology 2020 Livestream Sessions

November 16-19, 2020

<https://www.eventscribe.com/2020/entomology2020/agenda.asp?pfp=LIVE>

Tick Integrated Pest Management Special Session

December 10, 2020

<https://tickipmwg.wordpress.com/agendas/>

10th International IPM Symposium

March 15-18, 2021, Denver, Colorado

<https://ipmsymposium.org/2021/program.html>

ESM EXECUTIVE 2019-2020

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