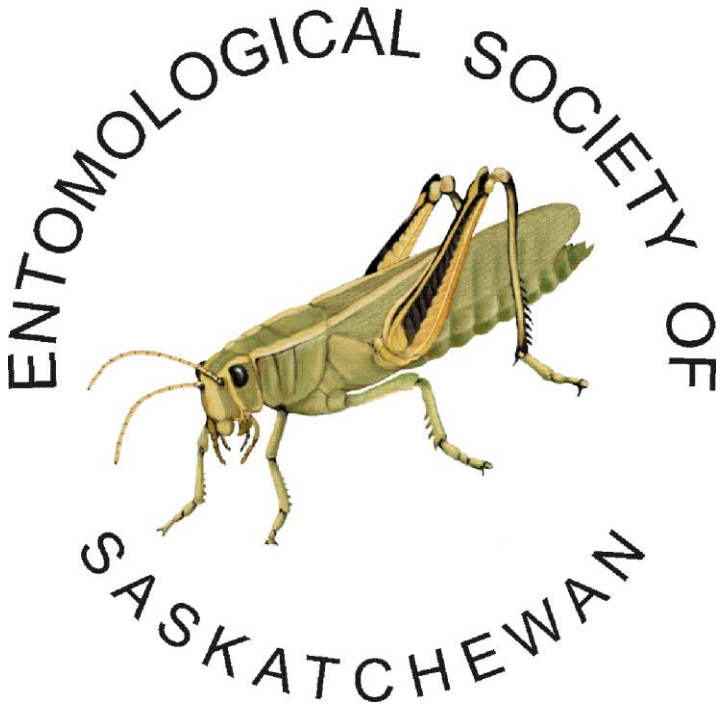
Proceedings of the



Volume 68
2020

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Proceedings of the Entomological Society of Saskatchewan

Volume 68 Editor: Iain Phillips

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Editor's comments

The Society had approximately 80 members (full members and student numbers to be calculated yet – 23 Life Members confirmed). Inger Pors became the newest life member from the 2018-2019 fiscal year. A copy of the Proceedings of the Entomological Society of Saskatchewan for 2019 was given to the Saskatchewan Archives. The spring meeting of the Entomological Society of Saskatchewan was not convened due to complications brought about by the COVID-19 pandemic.

Executive, Officers and Committee Members 2020

Executive:

President ..... Sean Prager
Vice-President ..... Stephen Srayko
Past President ..... Daniel Wiens
Secretary ..... Iain Phillips
Treasurer ..... Tyler Wist

Committee Chairs:

Youth and Amateur Encouragement ..... Chrystel Olivier
Newsletter Editor ..... Marianna Horn
Proceedings Editor ..... Iain Phillips
Honours and Awards ..... Tyler Wist
Microscope ..... Iain Phillips
ESS Website ..... Jeff Boone
Archives and Heritage……Martin Erlandson,
..... Cedric Gillott, and
..... Meghan Vankosky
Nominations……..Tyler Wist

Regional Director to the ESC ..... James Tansey

Auditors: Wayne Goerzen, Julie Soroka, and/or Chrystel Olivier

Minutes of the 2020 Fall Annual General Meeting of the Entomological Society of Saskatchewan
November 20th, 2020, 1:30 pm
Online through WebEx connections.

Present: Tyler Wist, Sean Prager, Danielle Stephens, Dylan Sjolie, Andrea Wade, Caleb Bryan, Stephen Srayko, Graham Parsons, Stefanie de Heij, Aaron Bell, Dan Wiens, Doug Baldwin, David Halstead, Farrah Fischer, Haroon Andkhoie, Inger Pors, Julie Soroka, Karolina Pusz-Bochenska, Leila Benmerrouche, Marianna Horn, Meghan Vankosky, Rory Wheat, Ruwandi Andrahennadi, Shane Hladun, Kristy Vavra, Martin Erlandson, Owen Olfert, Iain Phillips.

SCIENTIFIC PROGRAM

Student presentations presented below, with full abstracts following the agenda.

Student Presentations

1:30-1:45 **Bryan, Caleb**., Sean Prager

Understanding bumble bee (*Bombus impatiens*) foraging choices in complex floral markets.

1:45-2:00 **Sjolie, Dylan**, Meghan Vankosky, Christian Willenborg

The effect of early season weather on wheat stem sawfly *Cephus cinctus* Norton (Hymenoptera: Cephidae) population dynamics in the Canadian Prairies

2:00-2:15 **Romero, Berenice**, Chrystel Olivier, Tyler Wist, Sean Prager

Do's and don'ts in the Canadian Prairies: a study about the oviposition and host choice selection behavior of Aster leafhoppers

2:15-2:30 **Wade, Andrea**, Karsten Liber, Egina Malaj, John Headley, Kerry Peru, Claudia Sheedy, Christy Morrissey

Aquatic invertebrate community responses to pesticides and other agricultural stressors

COFFEE BREAK

3:30 Presentation of Awards

1) Brooks Award – Bernice Romero was awarded the Brooks award for 2020
2) Entomological Activities Awards: no applicants in the 2019-2020 financial year.
3) Student Presentation Award: (addition) Awarded post-meeting (Monday Nov 23rd) after the awards committee had an opportunity to discuss, to Andrea Wade

BUSINESS MEETING

15:30 Call to Order – Sean Prager

1) Introduction of members – recorded from the members who signed in on WebEx.

2) Approval of Agenda

    a. Tyler, amendment. Change of "travel award" to "ent activities" award.
    b. Bernice – added proposal for social media account to new business
    c. Bernice – added announcement of seminar series to new business

MOTION: Tyler Wist /Dan Wiens. THAT the proposed agenda be adopted as amended.

CARRIED.

3) Approval of ESS-ESC JAM 2023 planning meeting minutes.

MOTION: Sean Prager/Iain Phillips. THAT the minutes of the ESS-ESC JAM 2023 planning meeting, be adopted.

CARRIED

4) Business arising from minutes
    a. None

5) Treasurer's Report – Tyler Wist (Appendix B)
    a. The ESS has around 80 members in 2020
    b. The Society is in good health financially at ~$58,000 in assets.

MOTION: James Tansey/ Tyler Wist. THAT the ESS accept the Treasurer's Report.

CARRIED

6) Secretary's Report – Iain Phillips (See Appendix C)
    a. Many more public inquiries about mysterious insects.
    b. There was some media inquiries to the Society, outlined in the Report.
    c. Tyler Wist – Can we post the pictures to the iNaturalist site to create a group of images identified by the ESS and to create records of these collections?
        i. Sean Prager – interested in a simplified way of recording inquiries.

MOTION: Iain Phillips/Julie Soroka. THAT the ESS accept the Secretary's Report.

CARRIED

7) Newsletter – Marianna Horn
    a. Marianna Horn requests material for the newsletter, as we have not had enough submissions to support an issue in some time.
    b. Tyler Wist suggests murder hornet issue—or rather lack of murder hornets issue with collaboration from all of us who have received identification requests since the Asian giant hornets were discovered in BC and Washington.

8) Regional Director's Report – James Tansey (Appendix D)
    a. See Appendix D.

MOTION: Sean Prager/James Tansey. THAT the ESS accept the Regional Director's Report.

CARRIED.

9) Committee Reports
    a. Amateur Encouragement – Tyler Wist and Chrystel Olivier (See Appendix E)
        i. Owen Olfert set up display in his front yard. It worked out well. He used EtOH to clean table tops after each visit out of concern for COVID-19, and had great feedback.
        ii. Before COVID-19 shut down the regular outreach activities we have Chrystel Olivier organized a Gone Wild for Wildlife exhibit. The ESS thanks the volunteers who participated.
        iii. Tyler Wist will be working with the ESC's Public Education Committee and is involved with preparing an entomological guide to further education in Canada. Tyler's section will focus on Agriculture and Saskatchewan.

iv. Meghan Vankosky reports that her and a few other Agriculture Canada scientists gave career fair talks to schools in the Regina area about career prospects in entomology.

b. Archives and Heritage –Martin Erlandson and Meghan Vankosky (See Appendix F).
    i. Reminder that the ESS update, 2019 edition is posted to ESS and ESC websites. Meghan Vankosky's gotten feedback from the public and its complimentary. In the forward it notes that people who feel that there are more folks to be added can contact
    ii. John Doan passed away in May, and there is a link in the report to his passing.
c. ESS Website – Jeff Boone
    i. Now have an affiliated Entomological Society of Canada tab that connects to our site.
    ii. Dave Larson resource has been provided as a link in the website as well.
d. Microscopes – Iain Phillips
    i. All microscopes are still being held at the Water Security Agency, and are available for students to access.
e. Honours awards – Daniel Wiens
    i. Awards presented. (see above)
f. Nominations committee – Danielle Stephens

New Executive:

President	Stephen Srayko
Past-President	Sean Prager
Vice-President	Stefanie de Heij
Regional Director to ESC	James Tansey
Treasurer	Tyler Wist
Secretary	Iain Phillips
Auditors	Julie Soroka
	Wayne Goerzen and/or Chrystel Oliver

MOTION: Sean Prager/James Tansey. THAT the ESS accept the Committee Reports.

CARRIED

10) New Business
a. Bernice – Social media interest is high amongst the young entomologists, and she is wondering if ESS could increase its social media presence, including highlighting student projects.

i. Marianna – suggests the creation of a new committee that will capture all media. Newsletter, Webpage and Social Media.

MOTION: Sean Prager/Tyler Wist. THAT the ESS create a joint media committee.

CARRIED

b. Bernice – From Argentina, virtual seminars called “Arthropodata”.
    i. They created Twitter, Facebook and Instagram accounts, as well as emails with the entomology email list. A link is sent out to connect to the WebEx session so they can log in.
    ii. Sean Prager clarifies that this is a note of interest, and that the information will be shared with the ESS mailing list because they are a group that would be interested in the content.
    iii. Berenice to share more information with the ESS and it will be brought up at a future meeting.
c. Tyler Wist mentions the Society’s intention to host the Entomological Society of Canada Joint Annual Meeting in 2023.
    i. A meeting will be planned for mid-December to begin planning of the meeting and gather volunteers for various positions.

11) Date of next meeting – April 23rd, 2021

12) Adjournment

MOTION: Stephen Srayko. THAT the ESS adjourn the Fall Meeting 2020.

CARRIED.

Appendix A: Abstracts

Understanding bumble bee (*Bombus impatiens*) foraging choices in complex floral markets.

Bryan, Caleb[1], and Sean Prager[1]

[1] Department of Plant Sciences, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

Email: cbb453@usask.ca

Abstract:
Bumblebees are important pollinators in agricultural and native habitats, and are faced with sorting through complex signal cues in the search for suitable forage. The motivation for these foraging behaviors is simple; gaining the highest reward for least calories expended. Recently, the search for understanding the complex choices involved in locating forage has taken investigations out of the field and into the lab. Traditionally, bumblebee foraging ecology studies have focused on large flight arenas where bees discriminate between single artificial cues, or field studies where bees interact with novel stimuli, or are simply recorded on which plants they visit. Utilizing choice assays allows the reduction of complex behaviors into bivariate situations where the effects of specific stimuli on behavior can be analyzed. Choice assays are ideal for this as they present a subject organism with an array of conditions that allows the organisms to make real world decisions. For most other animals, including terrestrial insects, we employ simple mazes, such as T or Y mazes, for measuring choice preferences. Few studies, however, use simple maze designs in understanding bumble bee foraging, while none have utilize whole intact plants. We propose a new system that approximates discriminant choices between patches of forage, utilizing a whole plants and a simple y-maze.

Do´s and don´ts in the Canadian Prairies: a study about the oviposition and host choice selection behavior of Aster leafhoppers

Romero, Berenice[1], Chrystel Olivier[2], Tyler Wist[2], Sean Prager[1]

[1]Department of Plant Sciences, University of Saskatchewan, Saskatoon, Saskatchewan, Canada. S7N 5A8.
[2]Agriculture and Agri-Food Canada, Saskatoon Research and Development Centre, Saskatoon, Saskatchewan, Canada. S7N 0X2.

Email: berenice.romero@usask.ca

Abstract
Aster leafhoppers (*Macrosteles quadrilineatus* Forbes) are a migratory species that is introduced by wind currents in spring and early summer in the Canadian Prairies. Aster Yellows (AY) Disease is caused by a group of obligate parasites known as phytoplasmas and is primarily transmitted by aster leafhoppers. This disease can have a high incidence in canola fields (<90%) during outbreak years and is associated with a yield reduction of approximately 10%. However, disease dynamics, including aspects related to vector behavior, are poorly understood. In an attempt to gain insight into the oviposition and host-choice selection behaviour of aster leafhoppers and whether phytoplasmas can affect these, different experiments will be conducted, using crop and non-crop species commonly found in the Prairies. In order to evaluate aster leafhoppers´ oviposition behaviour and nymph development, no-choice bioassays will be carried on different plant species. This will be further complemented with two-choice bioassays, to study aster leafhoppers´ host-choice selection behaviour. Altogether, these results will provide a better understanding of the AY epidemiology, resulting in management recommendations for local growers in Saskatchewan.

The effect of early season weather on wheat stem sawfly *Cephus cinctus* Norton (Hymenoptera: Cephidae) population dynamics in the Canadian Prairies

Sjolie, Dylan [1,2], Meghan Vankosky[1], Christian Willenborg[2]

[1] Saskatoon Research and Development Centre, 107 Science Place, Saskatoon SK S7N 0X2
[2] University of Saskatchewan, 51 Campus Drive, Saskatoon SK S7N 5A8

Contact: dms680@mail.usask.ca

Abstract:
The wheat stem sawfly *Cephus cinctus* Norton (Hymenoptera: Cephidae) is a long-standing pest of wheat *Triticum aestivum* L. (Poaceace) in the northern Great Plains region of North America. Larval feeding within the wheat stems decreases overall crop yields and mature larvae dislodge stems when they prepare for overwintering. Severe *C. cinctus* outbreaks can cause economic losses exceeding $400 million CAD annually. Despite extensive research efforts on this serious pest, there are still outstanding questions on how early season weather conditions impact populations of *C. cinctus* and their natural enemies. Here I present survey data of *C. cintus* populations in southern Alberta and experiment results on how early season temperature influences adult life history traits of *C. cinctus* and a specialist parasitoid, *Bracon cephi* Gahan (Hymenoptera: Braconidae).

Aquatic invertebrate community responses to pesticides and other agricultural stressors

Wade, Andrea[1], Karsten Liber[1,2], Egina Malaj[1], John Headley[3], Kerry Peru[3], Claudia Sheedy[4], Christy Morrissey[2,5]

[1]Toxicology Center, University of Saskatchewan
[2]School of Environment and Sustainability, University of Saskatchewan
[3]National Hydrology Research Center, Environment and Climate Change Canada
[4]Trace Residue Analysis and Immunochemistry, Agriculture and Agri-Food Canada
[5]Department of Biology, University of Saskatchewan

Email: andrea.wade@usask.ca

Abstract:
Wetlands in the Prairie Pothole Region of North America are valuable natural resources that are highly impacted by agriculture which has led to the degradation of many of these wetlands through vegetation removal and pesticide contamination. In spite of the many threats they face, wetlands continue to be understudied aquatic ecosystems. This study aims to 1) investigate how wetland health is impacted by agriculture and 2) identify responses in the aquatic invertebrate community that are indicators of poor wetland health. Water samples collected from 33 wetlands on actively farmed fields were analyzed for 160 current use pesticides as well as water quality and nutrient parameters. Aquatic Invertebrate samples were collected from wetlands at the time of water sampling. Linear mixed effect models and multivariate techniques were used to analyze aquatic invertebrate indexes and taxa abundances with environmental, agricultural, pesticide, nutrient, and water quality variables. Pesticide contamination was found to be one of the few significant predictors of insect abundance. Increasing pesticide contamination was associated with lower insect abundance, greater relative abundance of snails, and a shift in relative abundance of macroinvertebrate feeding groups. Insect declines are a serious threat to the ecosystem integrity of wetlands and the many surrounding ecosystems to which wetlands are inextricably linked.

Appendix B: Treasurer's Report

ENTOMOLOGICAL SOCIETY OF SASKATCHEWAN
MEMBERSHIP AND YEAR END FINANCIAL REPORT

01 September 2019 – August 31, 2020

MEMBERSHIP

- In 2019-2020 the ESS has approximately 80 members (full members and student numbers to be calculated yet – 23 Life Members confirmed) of which 46 were in good standing. Welcome to Inger Pors, our life member from the 2018-2019 fiscal year!

ESS GENERAL ACTIVITIES

- The main sources of income were from membership dues with $490 collected and interest income of $1394.33, and ESC Public Education funds of $1600.

FINANCE

- The ESS total assets are as follows:

Term Deposits (balance plus accrued interest)			
	#007	12,000	
	#009	15,640.09	
	#011	13,147.95	
	#012	11,308.40	
Checking		5,906.43	
Outstanding deposits			0.00
Outstanding liabilities			0.00
Total		**58,002.87**	**(54,592.87in 2019)**

- The ESS accounts will be audited by J. Soroka and C. Olivier.
- Registered Charity and Non-Profit Corporations status will be renewed (Jan 2021).
- Registered Charity Tax Return will be filed in Feb (2021).

Please refer to the enclosed financial statement for further details.

Financial Statement – Entomological Society of Saskatchewan
01 September 2019 – August 31, 2020

MAXIMIZER ACCOUNT (ESS)

Receipts:

Memberships	$	490.00
Outstanding deposits		0.00
Govt. of Saskatchewan		100.00
Entomological Society of Canada Public Education Grant		1600.00
2019 Fall meeting (Cypress Hills) profit		647.67
Interest (CU Maximizer and Term Deposit)		1394.33
TOTAL		**4232.00**

Expenditures:

Brooks Award	0.00 (Not awarded)
Ent. Act. Award	00.0 (Not awarded)
Student Presentation Award	100.00 (Ishita Patel)
Meeting Expenses	500
Entomological activities supplies	153.00 (C. Olivier)
Postage	0
Bank Charges (Statement Fee)	12.00
Website fee	0
Misc. Stale dated check Govn. of Sask	50.00
Misc. Stale dated check fee	8.00
Misc. (WRSOS Booth Fee)	60.00
Misc. (PayPal Fees)	19.42
Misc. (ISC) Not-for-profit status renewal	(30.00) paid by Tyler
TOTAL	**902.42**

Excess of Receipts over Expenditures $ **3331.58**

Appendix C: Secretary Report

Secretary Report,
Entomological Society of Saskatchewan,
Annual General Meeting
November 20, 2020

Activities

I. Position Maintenance

a. Relayed communications directed at the ESS to the membership
b. Preparation of Proceedings of the ESS, 2014-2018
c. Preparation of Agenda ESS fall meeting 2020

II. Insect Inquiries

As the secretary I received and forwarded on numerous insect inquiries to the membership from the public and other professionals interested in Saskatchewan's entomological fauna. Some of the notable inquiries are as follows:

A) Public inquiries
1) 24 Elm Sawflies – likely *Cimbex americana* (Fig. 1)
2) Cerambycid beetle – likely *Monochamus* sp. (Fig. 2)
3) ~30 "Murder Hornet" inquiries.
4) Bumble Bees – many different species.
5) Mystery fly (Fig. 3)
6) Cerambycid beetle – likely *Cyrtophorus verrucosus* (Fig. 4)
7) Ants
8) Bed bugs
9) 4 Blister beetle inquiries
10) Caterpillar – Achemon Sphinx Caterpilar (Fig. 5)

B) Media inquiries directed to the ESS
1) Inquiry about mosquitos and crane flies (Discover Weyburn News)
2) Interview about freshwater midges at Last Mountain Lake (CBC Saskatoon Morning Show)

Fig. 1 – Elm Sawfly (*Cimbex americana*)

Fig. 2 – Cerambycid Beetle (likely *Monochamus* sp.)

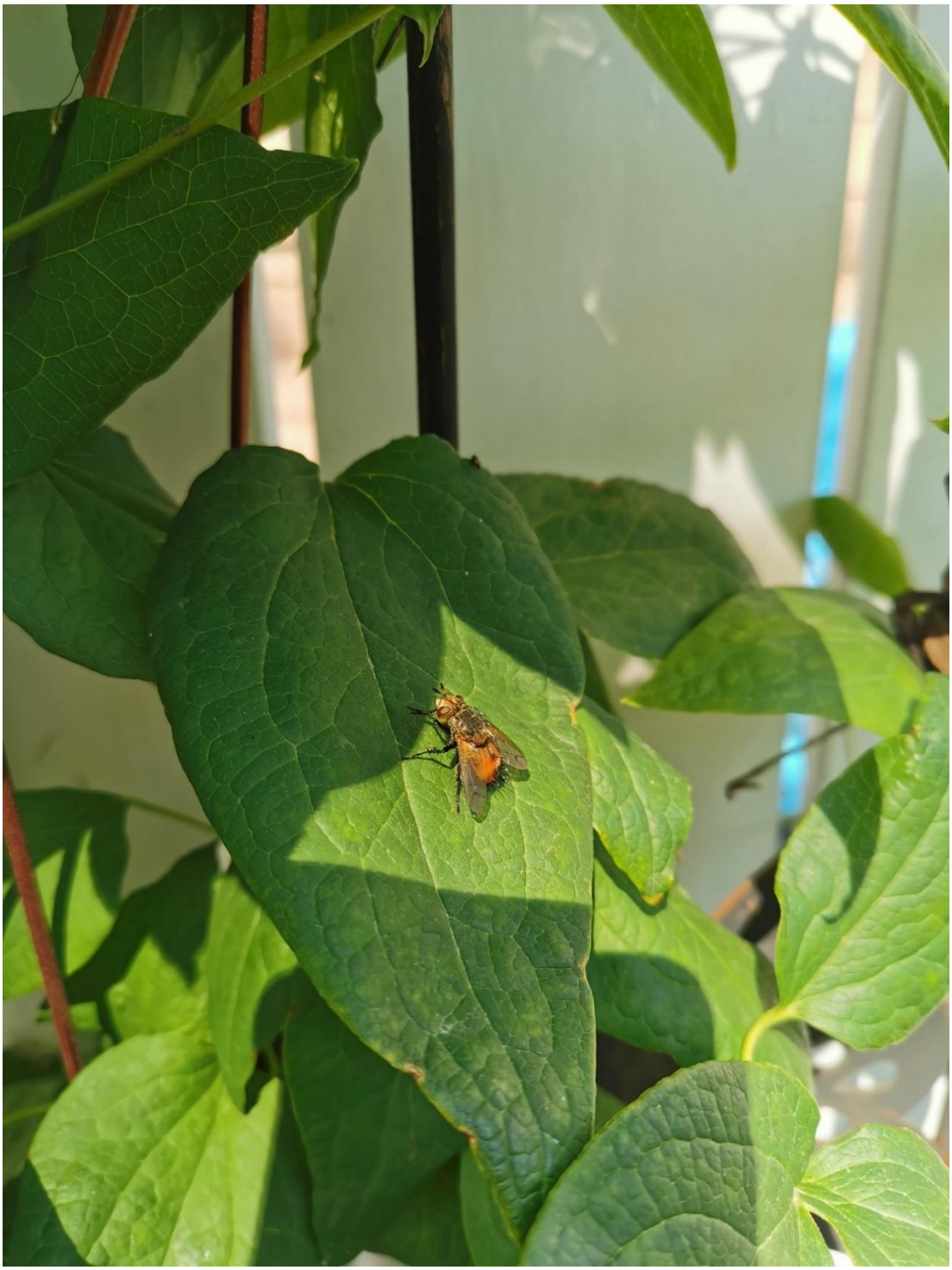

Fig. 3. Mystery Fly

Fig. 4 Cerambycid beetle – likely *Cyrtophorus verrucosus*

Fig. 5 Achemon Sphinx Caterpillar

Appendix D: Entomological Society of Canada Regional Director Report

ESC Regional Director Report for ESS fall meeting, November 20, 2020

ESC BOD1 October 14, 2020

- BOD

Position	Appointment date range	Firstname	Lastname	Location
Past President	2020-2021	Gail	Anderson	Burnaby
President	2020-2021	Bill	Riel	Victoria
1st VP	2020-2021	Felix	Sperling	Edmonton
2nd VP	2020-2021	Chris	MacQuarrie	Sault St. Marie
Regional BC	2018-2021	Brian	van Hezewijk	Victoria
Regional AB	2019-2022	Boyd	Mori	Edmonton
Regional SK	2020-2023	James	Tansey	Regina
Regional MB	2020-2023	Jason	Gibbs	Winnipeg
Regional ON	2020-2023	Roselyne (Rose)	Labbé	Harrow
Regional PQ	2019-2022	Étienne	Normandin	Montreal
Regional AES	2019-2022	Catherine	Scott	Wolfville
Director-at-large	2020-2023	Emma	Despland	Montreal
Director-at-large	2018-2021	Suzanne	Blatt	Kentville
Director-at-large	2019-2022	Christine	Noronha	Charlottetown

-
- Motions
    - That Gail Anderson be appointed a Director and Past President for a term expiring at the Annual Meeting in 2021;
    - that the Executive Council be appointed for a term expiring at the Annual Meeting in 2021, consisting of Bill Riel (President), Felix Sperling (First Vice-President), Chris MacQuarrie (Second Vice-President), and Gail Anderson (Past President).
    - That the following be appointed as Officers for a term expiring at the Annual Meeting in 2021: Bill Riel (Chair of the Board), Felix Sperling (Vice-Chair of the Board), Chris Macquarrie (Second Vice-President), and Gail Anderson (Past President), Neil Holliday (Secretary), Joel Kits (Treasurer – until December 1st) Ward Strong (Treasurer as of December 1st), Dezene Huber (Editor-in-Chief, *The Canadian Entomologist*), Amanda Roe (Editor-in-Chief, *The Canadian Entomologist*), Suzanne Blatt (Editor-in-Chief, *The Canadian Entomologist*), Cedric Gillott (Bulletin Editor), Donna Giberson (Assistant Bulletin Editor), Heather Proctor (Editor, Canadian Journal of Arthropod Identification), Cass Chowdhury (Webmaster), Morgan Jackson and Angela Gradish (Social Media Administrators)

- That Gail Anderson, Patrice Bouchard, and Tyler Wist be appointed Trustees of the Entomological Society of Canada Scholarship Fund for a term expiring at the Annual Meeting in 2021;
- That Joel Kits be appointed a Trustee of the Entomological Society of Canada Scholarship Fund for a term expiring November 30, 2020;
- That Ward Strong be appointed a Trustee of the Entomological Society of Canada Scholarship Fund for a term beginning December 1, 2020 and expiring at the Annual Meeting in 2021;
- That Gail Anderson be appointed chair of the Trustees of the Entomological Society of Canada Scholarship Fund for a term expiring at the Annual Meeting in 2021.

Committee Name	Chair (2020-2021)
Achievement Awards	Felix Sperling
Annual Meeting	Chris MacQuarrie
Bilingualism	Véronique Martel
Equity, Diversity and Inclusion	Christine Noronha
Finance	Hume Douglas
Fund-raising	Christopher Dufault
Insect Common Names	Adam Brunke
Membership	Kenna MacKenzie
Nominations	Gail Anderson
Physical Assets	Peter Mason
Public Education	Étienne Normandin
Publications	Deepa Pureswaran
Student Awards	Tyler Wist

- **Upcoming meetings**
  - **November 2020:** Board orientation, strategic directions for the year, matters arising from meetings at JAM
  - **March-April 2021:** Reports from committees on activities, mid-year check on committee and Board progress
  - **June 2021:** Approval of budget for July 2020-June 2021. Items needing attention before 2020 JAM.

ESC AGM October 15, 2020

- I was unable to attend, but will forward minutes once they are available

ESC BOD2 October 15, 2020

- I was unable to attend, but will forward minutes once they are available

Guidelines for authors of bulletin articles

- Forwarded to ESS Oct 16

ESC BOD meeting, October 20, 2020

- Neil distributed a PowerPoint file that outlines many key aspects of the governance of ESC, and a “Welcome to the Board” letter

MESC October 26, 2020

- **Present** Bill Riel (ESC 1st vice-president meeting chair), Gail Anderson (ESC President), Felix Sperling (ESC 2nd vice-president), Kevin Floate (ESC Past President), Joel Kits (ESC Treasurer), Neil Holliday (ESC Secretary), Geoff Powell (ESC Executive Director), Sebastian Ibarra (AES President), Étienne Normandin (SEQ Regional Director), Amro Zayed (ESO President), Kateryn Rochon (ESM Regional Director), Sean Prager (ESS President), James Tansey (ESS Regional Director), Sarah McPike (ESAb President), Tammy Mcmullan (ESBC President), Brian van Hezewijk (ESBC Regional Director).
- **Regrets** Annie-Ève Gagnon (SEQ President), Boyd Mori (ESAb Regional Director).
- **Absent** Peggy Dixon (AES Regional Director), Alejandro Costamagna (ESM President).
- Bill Riel explained that the desire to strengthen connections between ESC and the regional societies emerged out of a strategic planning exercise that ESC conducted in 2017.
- Update and expand content of the Directory of Entomological Education. Neil Holliday reported that on 4 October 2019 an Eblast had gone out to all ESC members soliciting new contributors to the directory, which lists those in Canada who wish to supervise a graduate student and have an appropriate appointment to do so.
- Increasing the prominence of logos and URLs of Regional Societies and ESC on each other’s websites. All regional societies and the ESC now have on their web page the 8 logo graphic that provides links to all the affiliated Entomological Societies in Canada.
- Gail Anderson indicated that she had sent out a request for contributions to Canada Coolest/Cruelest Insects to the ESC award winners but had so far received only one contribution.
- Several regional societies had complied with the request to submit to the series about their emblem insect. These included ESS (*Melanoplus bivitattus*)
- Input from Regional Societies on Amateur organizations within their region that should be notified of the “Entomology Enthusiast” membership category.
    - Neil will send those organizations literature on the Entomology Enthusiast category.
    - Now 17 such members.

- Bill reported that the ESC now has a lawyer-approved Code of Conduct to be adhered to at ESC meetings, and it would be presented for approval by the ESC Board at its next meeting.
- Policy for distribution of large meeting surpluses
    - Kevin explained that JAM 2018 was joint with the Entomological Society of America and generated a large surplus, and so it was decided that, for future meetings yielding large surpluses, there should be a mechanism to spread the wealth among regional societies that are not co-hosts of the meeting.
    - A threshold of $40,000 before the “large surplus” policy kicked in
    - All regional societies have agreed to the draft policy
- National Insect Appreciation Day (NAIAD)
    - In the past we have explored official declarations of NAIAD; for Canada, this would require an act of parliament, and we have not pursued that.
    - Three sorts of activities suggested for celebrating NAIAD on or about the 8 June: insect-themed interpretive walks, open houses at laboratories, and classroom activities
    - If you have an outreach officer in your society, they will add NAIAD to their agenda
- **31 October 2020** deadline for contributions to the December 2020 Bulletin (forwarded)
- Gail Anderson forwarded letter that Pat Bouchard developed as a response to the many requests for help that we get from people believing they are colonized by an insect (delusory parasitosis)
- Some discussion of the economic prospects for The Canadian Entomologist and re-visitation pf page charges.

Upcoming ESC Board meeting – Dec 10

Entomology Enthusiast Notice for Natural Historians

- Call to arrange for its distribution in your region to Natural History societies and other places where it is likely to be seen by amateur natural historians interested in insects.

Appendix E: Youth and Amateur Encouragement Committee Report

Youth and Amateur Encouragement committee report Fall Meeting Nov 20, 2020

Presented by Tyler Wist with input from Chrystel Olivier.

We received $1600 from the Entomological Society of Canada to fund the Youth and Amateur Encouragement Committee. One payment of $1000 was over and above the usual $200 per year, which we also received in a $600 lump sum for the past three years. Going forward, the ESC will no longer allow for arrears applications so we will have to put in our 2020-2021 fiscal year request soon. In this fiscal year, the spending rules are being relaxed to allow for presentation awards to be paid because everyone's meetings are going virtual. Case in point. This virtual meeting.

Owen Olfert: set up a pinned insects display in his front yard this year for several weeks in the summer of 2020. He had a great turnout of the local children and the display was well received.

ESS ran a booth at the Wildlife Rehabilitation Societies "Gone Wild for Wildlife" show in January 2020. Thanks to Chrystel Olivier for organizing, Julie Soroka, Karolina and Franek Pusz-Bochenska and Devyn and Jackie for staffing the booth.

Meghan Vankosky gave career fair-type talks to schools through the Agriculture in the Classroom platform to Regina schools. Dr. Meghan Vankosky participated in a virtual career fair, hosted by Agriculture in the Classroom in fall 2020. She told high school students from schools in the Regina area about her 'origin story' as a professional entomologist and described the work she does in her research program. Tyler Wist participated in a Public Affair's Branch initiative to have AAFC scientists connect with elementary school students through the not-for profit group "Exploring by the Seat of your Pants" (Oct 16 2020) in conjunction with World Food Day, that virtually connects scientists and explorers to classrooms.

Jim Tansey, outreach to Scouts and Beavers, spurred on by a murder hornet call, that turned out to be a horntail, but led to a an outreach presentation.

Tyler has been hosting volunteers through the Saskatchewan Intercultural Association to give them experience in Canadian Entomology. Currently, Ashwinder Diwahli is volunteering in a term from beginning of October to the end of December.

Tyler remains a member of the ESC's Public Education Committee and they are putting together a guide to Entomological Education in Canada.

Appendix F: Archives and Heritage Committee Report

Report of the Archives/Heritage Committee of the Entomological Society of Saskatchewan

Members: Cedric Gillott, Martin Erlandson, Meghan Vankosky

Reporting Period: January 2020 – November 2020

Following the December 2019 meeting, the Archives and Heritage Committee announced that the *Entomologists of Saskatchewan (2019)* is available online in PDF format on the Entomological Society of Canada website (https://esc-sec.ca/the-society/history-and-heritage/) and on the Entomological Society of Saskatchewan website (http://entsocsask.ca/archives.html). This is an 'evergreen' document and the editors ask that if you were not included in the *2nd Edition*, but should be, to please contact Meghan Vankosky (meghan.vankosky@canada.ca). Additions will be made at the discretion of the editors.

Sadly, Dr. John Doane passed away, 21 May 2020. John celebrated his 90th birthday on 14 April 2020. His obituary is available online (https://thestarphoenix.remembering.ca/obituary/john-doane-1079321538). Drs. Owen Olfert and Peter Mason honoured John's memory with a scientific tribute published in the September 2020 volume of the Bulletin of the Entomological Society of Canada (Volume 52, Issue 3).

Report respectfully submitted by Meghan Vankosky, Martin Erlandson, and Cedric Gillott