

Bulletin

Entomological Society of Canada
Société d'entomologie du Canada

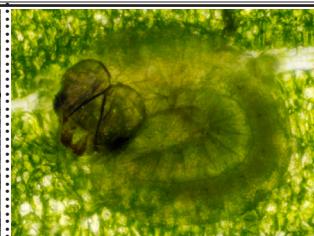
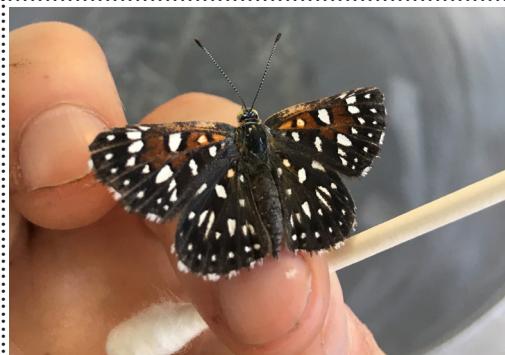
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Captions for cover photos can be found on the back cover.

La légende des photos de la couverture se situe sur la couverture arrière.



Cluster of multicoloured Asian lady beetles (Coleoptera: Coccinellidae) [Carman, Manitoba, Canada]
Un agrégat de coccinelles asiatiques (Coleoptera : Coccinellidae) de diverses couleurs [Carman, Manitoba, Canada]
[Photo: John Gavloski]

Up front / Avant-propos

Gail Anderson, President of ESC / Présidente de la SEC



Entomology in the New Reality

I think most of us rather hoped, obviously naively, that the worst of the pandemic would be over and we would start to be getting back to normal by now. Clearly, this is not the case and, at least speaking from an academic perspective, it doesn't look like normalcy in the post-secondary classroom will return for some time. I miss seeing my students and have discovered an ugly truth about myself. I am a bit of a prima donna – I need an audience when I lecture. Speaking to a computer screen is not inspiring. However, I was greatly encouraged by my entomology students, who went from face-to-face, in person labs to remote instruction over a 48-h period this spring. They still managed to collect their insects, still wrote their collection notes and still managed to do rudimentary identifications. And still had fun doing it!

I even think that the general public is showing more interest in insects in these days of social isolation. Instead of socializing with friends, eating out and going to bars, people are spending much more time exploring nature and their own backyard. I am gleaning this from the very large number of insect photos that are being sent to the ESC email account

L'entomologie et la nouvelle réalité

Je pense que la plupart d'entre nous espéraient, évidemment naïvement, que le pire de la pandémie serait maintenant derrière nous et que nous commencerions à revenir à la normale. Il est clair que ce n'est pas le cas et, du moins d'un point de vue académique, il ne semble pas que la normalité dans les salles de classe de l'enseignement post-secondaire revienne avant un certain temps. Cela me manque de voir mes étudiants et j'ai découvert une horrible vérité sur moi-même. Je suis un peu une prima donna – j'ai besoin d'un public quand je donne des cours. Parler devant un écran d'ordinateur n'est pas inspirant. Cependant, j'ai été très encouragée par mes étudiants en entomologie, qui sont passés ce printemps d'un enseignement en face à face, dans des laboratoires en personne, à un enseignement à distance en 48 heures. Ils ont réussi à récolter leurs insectes, à rédiger leurs notes de récolte et à effectuer des identifications rudimentaires. Et ils se sont quand même amusés à le faire !

Je pense même que le grand public s'intéresse davantage aux insectes en ces temps d'isolement social. Au lieu de se réunir avec des amis, de manger au restaurant et d'aller dans les bars, les gens passent beaucoup plus de temps à explorer la nature et leur propre jardin. J'en prends la mesure grâce au très grand nombre de photos d'insectes qui sont envoyées au compte de messagerie de la SEC pour identification. Les gens regardent de plus près leur environnement et deviennent beaucoup plus curieux des insectes qui les entourent, et je trouve cela formidable !

for identification. People are looking more closely at their surroundings and becoming much more curious about the insects around them, and I think this is great! Some of the pictures are really quite lovely. Unfortunately, no one sends pictures of blow flies – my insect group of study.

It has been a challenge for all of us, including the ESC Board of Directors, to do business as normal in a pandemic. We are taking steps to ensure we hear more voices and include them in the governance of the Society, both from under-represented groups and also our student and early professional members. We have created an Equity, Diversity and Inclusion Committee, which is being chaired by Christine Noronha.

The Board of Directors has also decided to expand the Board by adding two new voting positions, one supporting the Student and Early Professional constituency to give them a greater voice, and one to enhance EDI within the Society; this Director will also be a member of the EDI Committee. The Board also unanimously voted to support Entomologists of Color (EntoPOC: <https://www.entopoc.org/>), a new group whose mission is to increase the participation of POC entomologists in scientific societies by providing paid memberships and to highlight the achievements of POC entomologists. ESC is donating \$1000 to EntoPOC and this donation will be reviewed annually.

I would also like to draw everyone's attention to an excellent resource developed by SEPAC 'The Directory of Entomological Education' <https://esc-sec.ca/entomology-resources/directory-of-entomological-education/>. A tremendous amount of work has gone into this and it is an invaluable resource for students looking for potential supervisors, committee members and collaborators. It can be searched by Province or Territory, University or by subject and I encourage you to pass this link on to colleagues and students – especially students in your undergraduate classes who are thinking of graduate work. Also, if you are not on it and would like to be included, please

Certaines des photos sont vraiment très belles. Malheureusement, personne n'envoie de photos de mouches de la viande – mon groupe d'étude.

Cela a été un défi pour nous tous, y compris pour le Conseil d'administration de la SEC, de faire fonctionner les affaires normalement en période de pandémie. Nous prenons des mesures pour faire entendre davantage de voix et les inclure dans la gouvernance de la Société, tant de la part des groupes sous-représentés que de nos membres étudiants et des jeunes professionnels. Nous avons créé un comité pour l'équité, la diversité et l'inclusion, qui est présidé par Christine Noronha.

Le conseil d'administration a également décidé d'élargir le CA en ajoutant deux nouveaux postes de vote, l'un pour soutenir les intérêts des étudiants et des jeunes professionnels afin de leur donner une plus grande voix, et l'autre pour améliorer l'EDI au sein de la Société ; cet Administrateur sera également membre du Comité pour l'EDI. Le conseil d'administration a également voté à l'unanimité pour soutenir Entomologists of Color (EntoPOC : <https://www.entopoc.org/>), un nouveau groupe dont la mission est d'accroître la participation des entomologistes racisés dans les sociétés scientifiques en offrant des adhésions payantes et de mettre en valeur les réalisations des entomologistes racisés. La SEC a fait un don de 1000 dollars à l'EntoPOC et ce don sera revu chaque année.

J'aimerais également attirer l'attention de tous sur une excellente ressource développée par le comité des affaires étudiantes et des jeunes professionnels, le Répertoire des formations en entomologie <https://esc-sec.ca/fr/entomology-resources/directory-of-entomological-education/>. Un travail considérable y a été consacré et c'est une ressource inestimable pour les étudiants à la recherche de superviseurs, de membres de comités et de collaborateurs potentiels. Il est possible d'effectuer des recherches par province ou territoire, par université ou par sujet et je vous encourage à transmettre ce lien à vos collègues et étudiants, en particulier aux étudiants de vos classes de premier cycle qui envisagent de faire des

email the co-chairs of SEPAC Anne-Sophie Caron and Rachel Rix (students@esc-sec.ca).

Sadly, there is no JAM this year, but we hope to ‘see’ everyone at the virtual Annual Members Meeting in October. The 2021 JAM will be in Niagara, Ontario, where we can really see each other. The Local Organizing Committee has been very busy, and it looks as though it is going to be a very exciting and fun program in spectacular surroundings.

I would like to send a quick shout-out to everyone who is having to suddenly learn how to remote teach this summer and for the foreseeable future, if my university is anything to go by. Like many of you, I am pondering how to teach a lab course online. There are some wonderful videos of insect dissections out there, but it just isn’t the same as plunging your forceps into your first cockroach. So, a shout-out too, to all the students and graduate teaching assistants who are also trying to figure this out in these crazy COVID times.

Stay safe, stay well.



études supérieures. De plus, si vous n’êtes pas sur le site et que vous souhaitez y apparaître, veuillez envoyer un courriel aux coprésidentes du comité, Anne-Sophie Caron et Rachel Rix (students@esc-sec.ca).

Malheureusement, il n’y a pas de réunion annuelle conjointe cette année, mais nous espérons « voir » tout le monde à l’assemblée générale annuelle des membres en octobre. La réunion annuelle conjointe de 2021 se tiendra à Niagara, en Ontario, où nous pourrons vraiment nous voir. Le comité d’organisation local a été très occupé, et il semble que nous aurons un programme très excitant et amusant dans un cadre spectaculaire.

Je voudrais envoyer un petit message à tous ceux qui doivent soudainement apprendre à enseigner à distance cet été et dans un avenir proche, si l’on en croit mon université. Comme beaucoup d’entre vous, je réfléchis à la manière d’enseigner un cours de laboratoire en ligne. Il existe de merveilleuses vidéos de dissections d’insectes, mais ce n’est pas la même chose que de plonger ses pinces dans sa première coquerelle. Alors, un grand merci à tous les étudiants et aux assistants d’enseignement qui essaient également de résoudre ce problème en ces temps de COVID.

Restez en sécurité, restez en santé.

STEP Corner / Le coin de la relève

Anne-Sophie Caron and Rachel Rix



SEPAC is now a voting member of the Board!

Following discussion with the Board of Directors and the Executive Council, SEPAC will now have a vote on the Board and be able to weigh in not only in conversation, but in action. This is a very important moment for the Committee as we feel this will have an impact on initiatives that benefit students and early career professionals. Students and early professionals make up a large portion of the membership; thus we felt it was important to push for this and to be better advocates for all the members we represent.

Information on how the SEPAC director will be selected will be communicated once the details are sorted out.

Research Roundup

We continue to publicize graduate student publications to the wider entomological community through our Research Roundup initiative. Check out the ESC blog for most recent featured articles. If you want your recently published article featured (or we missed yours last month!), send us an email at students@esc-sec.ca. For regular updates on new Canadian entomological research, you can join the ESC Students Facebook page or follow us on Twitter @esc_students.

Getting involved with the ESC

The Student and Early Professional Affairs Committee (SEPAC) is looking for new members (especially Early Professionals). Volunteering for the SEPAC is a great way

Le comité des affaires étudiantes et des jeunes professionnel(le)s a maintenant le droit de vote sur le Conseil!

Suite à des discussions avec le conseil d'administration et les dirigeants et dirigeantes, le comité des affaires étudiantes et des jeunes professionnel(le)s a maintenant le droit de vote sur le CA et pourra contribuer non seulement dans les discussions, mais dans la prise de décisions. Ceci est un moment très important pour le comité car nous croyons que cela aura un impact sur les initiatives qui sont bénéfiques pour les étudiant(e)s et les jeunes professionnel(le)s. Les étudiant(e)s et les jeunes professionnel(le)s représentent une grande partie des membres de la société et nous trouvions donc important de pousser pour ce changement et, de ce fait, fournir une meilleure défense pour les membres que nous représentons.

Des informations sur comment l'administrateur ou l'administratrice sera choisie seront communiquées une fois que nous aurons clarifiés les détails.

Aperçu de la recherche

Nous continuons à faire la publicité des publications des étudiants des cycles supérieurs auprès de la communauté entomologique via notre initiative Aperçu de la recherche. Consultez le blogue de la SEC pour les plus récents articles. Si vous voulez que votre plus récent article soit mis en vedette (ou si nous l'avons manqué le mois dernier!), envoyez-nous un courriel à students@esc-sec.ca. Pour des mises à jour régulières sur la recherche entomologique canadienne, adhérez à la page Facebook des étudiants de la SEC ou suivez-nous sur Twitter à @esc_students.

S'impliquer au sein de la SEC

Le comité des affaires étudiantes et des jeunes professionnels cherche de nouveaux membres (particulièrement des jeunes professionnel(le)s). S'impliquer bénévolement pour le comité

to get involved with the Society and promote entomology to students across Canada. If you are interested in joining or just have suggestions for new initiatives in the coming year, email us at students@esc-sec.ca, or contact us personally at annesophie.caron.p@gmail.com or Rachel.Rix@dal.ca. We look forward to hearing from you,

Anne-Sophie and Rachel

est une excellente façon de s'impliquer avec la Société et promouvoir l'entomologie auprès des étudiants au Canada. Si vous êtes intéressés à joindre le comité, ou si vous avez des suggestions pour de nouvelles initiatives pour la prochaine année, écrivez-nous à students@esc-sec.ca. Vous pouvez aussi nous contacter personnellement à annesophie.caron.p@gmail.com ou Rachel.Rix@dal.ca. Au plaisir d'avoir de vos nouvelles,

Anne-Sophie et Rachel

Thesis Roundup / Foisonnement de thèses

If you or a student you know has recently defended an entomology-related thesis at a Canadian University, and would like notice of this accomplishment published here and on the ESC website, please email students@esc-sec.ca with the relevant information (name, date, degree, thesis title, supervisor[s], and university).

SEPAC wants to congratulate the following students for successfully defending their thesis! If you want to learn more about their research, you can contact them directly or send us a message to be put in contact.

Si vous, ou un étudiant que vous connaissez, avez récemment soutenu votre thèse dans un domaine lié à l'entomologie dans une université canadienne, et que vous voulez publier l'avis de cette réalisation ici et sur le site web de la SEC, merci d'envoyer les informations pertinentes (nom, date, diplôme, titre de la thèse, directeur[s] et université) à students@esc-sec.ca.

Le comité veut féliciter les étudiants et étudiantes suivantes pour la défense de leurs mémoires et thèses! Si vous voulez en savoir plus sur leur recherche, vous pouvez entrer en contact avec eux directement ou nous envoyer un message pour vous mettre en contact.

Joel Thomas Liam Goodwin. 2019. MSc. Exploring multimodal behavioural cues in the invasive beech leaf mining weevil, *Orchestes fagi* L., in Nova Scotia, Canada. Supervisors: N. Kirk Hillier (Acadia University) and Jon Sweeney (NRCan/CFS).

Michael Light. 2019. MSc. Chemical ecology of *Varroa destructor*, a primary pest of the western honey bee (*Apis mellifera* L.). Supervisors: Dave Shutler, G. Christopher Cutler and N. Kirk Hillier (Acadia University).

Gongyu Lin. 2019. PhD. Are predatory mites efficient agents of entomopathogenic fungi? Understanding the process of disease transmission from predators to prey for biological control. Supervisors: Jacques Brodeur (Université de Montréal) and S. Todorova (Anatis Bioprotection, Saint-Jacques-le-Mineur).

Anne-Frédérique Gendron St-Marseille. 2019. PhD. Impacts des changements climatiques et des événements météorologiques extrêmes sur les interactions moléculaires entre l'endoparasite *Heterodera glycines* Ichinohe et son hôte *Glycine max* L. Merr. Directeurs: B. Mimee (Agriculture et Agro-Alimentaire Canada, St-Jean-sur-Richelieu) and Jacques Brodeur (Université de Montréal).

- Valeria Bertoldi.** 2020. PhD. Effects of an invasive alien pentatomid pest on local multi-trophic systems. Supervisors: E. Conti (University of Perugia, Italy) and Jacques Brodeur (Université de Montréal).
- Skye Butterson.** 2020, MSc. Plasticity of cold-hardiness in the eastern spruce budworm, *Choristoneura fumiferana*. Supervisor: Katie Marshall (University of British Columbia).
- Catherine Scott.** 2020. PhD. Mate searching and choosiness are shaped by spatial structure and social information in western black widows. Supervisor: Maydianne Andrade (University of Toronto).
- Victor Shegelski.** 2020. PhD. Mountain pine beetle dispersal: morphology, genetics, and range expansion. Supervisor: Felix Sperling (University of Alberta).
- Edyta S. Sieminska.** 2020. PhD. Characterization of the pheromone communication channel in *Mamestra configurata*, the bertha armyworm. Supervisors: Martin A. Erlandson (Agriculture and Agri-Food Canada, Saskatoon RDC) and Jack Gray (University of Saskatchewan).
- Kyle Snape.** 2020. MSc. Population structure and associated larval host variation of the forest tent caterpillar, *Malacosoma disstria*. Supervisors: Amanda Roe (Great Lakes Forestry Centre, Natural Resources Canada) and Felix Sperling (University of Alberta).

The advertisement features a black and white photograph of a beetle with prominent mandibles and antennae, centered against a black background. To the right, a green rectangular area contains the company's name and contact information.

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Acadian Entomological Society

The AES Annual Meeting took place online on 10 August 2020. The theme was “Arthropods Affect Everything”, and there were 11 talks (6 by students!), covering a wonderful diversity of topics and study organisms. Sean McCann and Catherine Scott delivered the keynote address: “Arthropods Affect Everything: Lessons from the Smaller Majority”. There was a student competition and small group break-out sessions at lunchtime on the following topics: Diversifying Entomology, Working through Peer Review, and Outreach through Social Media.



Entomological Society of Manitoba

The ESM reports that there have been recent changes to its list of officers, namely, Kelsey Jones and Kateryn Rochon have been appointed Newsletter Editors.

The date for the 2020 ESM Annual Meeting has not been set, but the event will be held online.



Entomological Society of Saskatchewan

The Society is proceeding with the 2020 Annual General Meeting using an online and virtual format. The meeting is set for 13:30 on 20 November 2020, with student presentations followed by a business meeting. As usual, there will be a \$100 award for the best student presentation.



Entomological Society of British Columbia

With most people working from home these past 3 months, there have been few entomological events in the Province. However, based on the number of entomological questions received from the public, it seems people have been spending a lot more time outdoors getting to know the local insect fauna. Society members have been fielding questions ranging from “How to care for an injured katydid?” to “I found a giant wasp – do you think it’s a murder hornet?”

On that subject, following last year’s discovery (and destruction) of a nest of giant Asian hornet (*Vespa mandarinia*) in Nanaimo, we were hoping that we had seen the last of these formidable honeybee predators. Regrettably, there have been additional confirmed sightings this spring suggesting that this species has successfully overwintered here in British Columbia or perhaps just south of the international border. Increased monitoring and eradication plans are being led by the British Columbia Ministry of Agriculture.

Although no NAIAD events took place this year due to COVID-19, plans are being made for next year. Tammy McMullen, our President, is looking into distributing copies of “The Bug Girl” to schools and through the program “Agriculture in the Classroom”.

Lastly, for all you mosquito-philes out there, ESBC members Dan Peach and Lisa Poirier have just finished a new paper. It will be published in the next issue of the Journal of the Entomological Society of British Columbia (<https://journal.entsocbc.ca/index.php/journal>). However, if you can't wait until then a pre-print version can be found at <https://www.biorxiv.org/content/10.1101/2020.01.24.919233v1>.



D. Peach

Culiseta incidens

2020 ESC Award Recipients / Récipiendaires des prix SEC

(Editor's note: No nominations were received in 2020 for the C. Gordon Hewitt Award, or for Fellows and Honorary Members.)

(Note du rédacteur: Aucune nomination n'a été reçue en 2020 pour le prix C. Gordon Hewitt, les membres associés ou les membres honoraires.)



Dr Michel Cusson is the 2020 recipient of the Entomological Society of Canada's Gold Medal. This award, now in its 58th year, recognizes outstanding achievement in Canadian entomology.

Dr Cusson is a researcher with the Canadian Forest Service who has earned an impressive international reputation for his significant research contributions in an exceptionally broad range of subject areas.

Dr Cusson completed an MSc in pest management, and while he did not remain in the field his training ensured that his subsequent research was based in a solid understanding of insect behaviour and ecology.

As a PhD student Dr Cusson was the first to demonstrate that juvenile hormone (JH) played a significant role in pheromone production and sexual maturation of migratory moths. One paper in *Science*, that has received >120 citations provided the clearest experimental evidence of the eco-physiological underpinnings for the "oogenesis flight syndrome" that was first proposed by Johnson more than 50 years ago. Early in his

Michel Cusson Gold Medal Award / Médaille d'or

Le Dr Michel Cusson est le lauréat de la médaille d'or 2020 de la Société d'entomologie du Canada. Ce prix, qui en est à sa 58^e année, récompense des réalisations exceptionnelles dans le domaine de l'entomologie canadienne.

Le Dr Cusson est un chercheur du Service canadien des forêts qui a acquis une impressionnante réputation internationale pour ses importantes contributions à la recherche dans un éventail exceptionnellement large de domaines.

Le Dr Cusson a obtenu une maîtrise en gestion des ravageurs, et bien qu'il ne soit pas resté dans ce domaine, sa formation lui a permis de fonder ses recherches ultérieures sur une solide compréhension du comportement et de l'écologie des insectes.

En tant que doctorant, le Dr Cusson a été le premier à démontrer que l'hormone juvénile jouait un rôle important dans la production de phéromones et la maturation sexuelle des papillons migrateurs. Un article paru dans *Science*, qui a reçu plus de 120 citations, a fourni la preuve expérimentale la plus claire des fondements écophysiologiques du syndrome du conflit migration-ovogenèse (« oogenesis flight syndrome » en anglais), proposé pour la première fois par Johnson il y a plus de 50 ans. Au début de sa carrière, le Dr Cusson a travaillé sur l'écophysiology des lépidoptères migrateurs afin d'aborder un certain nombre d'idées originales en utilisant

career, Dr Cusson continued to work on the ecophysiology of migratory lepidopterans to address a number of original ideas using the true armyworm, the black army cutworm and the spruce budworm as model systems, as they exhibit very different migratory strategies.

These projects led Dr Cusson to delve into different aspects of the regulation and biosynthesis of JH from both basic and applied perspectives, in collaboration with colleagues from many countries including Britain, Belgium, Canada, France and the United States. This resulted in a body of work that made significant contributions to our understanding of the role of different neuropeptides, such as allatostatin and allatotropin, and the prenyltransferases in a number of different insect species. More recently, Dr Cusson has moved into the area of molecular biology and genomics to address different biological processes in several important forest pests. Again, Dr Cusson has developed a wide net of collaborators with whom to work on this cutting edge research.

Dr Cusson also developed a very different and innovative research programme studying polydnnaviruses that are transmitted by female parasitoids during oviposition and modify host development to the benefit of the female's developing progeny. Over the years his work has addressed subjects as varied as the underlying physiological means by which hosts are manipulated to evolutionary questions relating to the origin of these viruses.

The impressive number of publications in the primary international literature in the different areas described above (with an H factor over 30), his awards and the most impressive level of funding certainly reflect the quality of Dr Cusson's research. Furthermore, the interest that the broader scientific community has for Dr Cusson's research is clearly evidenced by the large number of invitations to write book chapters, speak at national and international conferences, give departmental seminars, and serve as referee for journals and granting agencies.

Dr Cusson is an adjunct professor at Laval

la légionnaire uniponctuée, la légionnaire noire et la tordeuse des bourgeons de l'épinette comme systèmes modèles, car elles présentent des stratégies migratoires très différentes.

Ces projets ont amené le Dr Cusson à se pencher sur différents aspects de la régulation et de la biosynthèse de l'hormone juvénile, tant du point de vue fondamental que du point de vue appliqué, en collaboration avec des collègues de nombreux pays dont la Grande-Bretagne, la Belgique, le Canada, la France et les États-Unis. Il en est ressorti un ensemble de travaux qui ont contribué de manière significative à notre compréhension du rôle de différents neuropeptides, tels que l'allatostatine et l'allatotropine, et des prényltransférases chez un certain nombre d'espèces d'insectes. Plus récemment, le Dr Cusson s'est lancé dans le domaine de la biologie moléculaire et de la génomique pour étudier différents processus biologiques chez plusieurs ravageurs forestiers importants. Là encore, le Dr Cusson a développé un large réseau de collaborateurs avec lesquels il travaille sur cette recherche de pointe.

Le Dr Cusson a également mis au point un programme de recherche très différent et innovant qui étudie les polydnnavirus transmis par les femelles parasitoïdes pendant la ponte et qui modifient le développement de l'hôte au profit de la progéniture en développement de la femelle. Au fil des ans, ses travaux ont porté sur des sujets aussi variés que les moyens physiologiques sous-jacents par lesquels les hôtes sont manipulés ou les questions évolutives relatives à l'origine de ces virus.

Le nombre impressionnant de publications dans la littérature primaire internationale dans les différents domaines décrits ci-dessus (avec un facteur H supérieur à 30), ses prix et le niveau de financement impressionnant reflètent certainement la qualité des recherches du Dr Cusson. En outre, l'intérêt que la communauté scientifique au sens large porte aux recherches du Dr Cusson est clairement démontré par le grand nombre d'invitations à écrire des chapitres de livres, à prendre la parole lors de conférences nationales et internationales, à donner des séminaires à l'université et à réviser

University and his research programme has provided an excellent environment for both undergraduate and graduate training (eight MSc and six PhD students supervised). In addition, he has also hosted a number of national and international postdoctoral fellows.

Dr Cusson has been very active in different societies at the provincial, national and international levels. He has served as President of the Entomological Society of Canada and as both Associate Editor and Division Editor of *The Canadian Entomologist*. He has also served as President of the Entomological Society of Quebec and has been actively involved in organising several of their annual meetings, including one joint meeting with the Entomological Society of Canada.

des articles pour des revues et des organismes subventionnaires.

Le Dr Cusson est professeur associé à l'Université Laval et son programme de recherche a fourni un excellent environnement pour la formation d'étudiants de premier et deuxième cycles (huit étudiants en maîtrise et six en doctorat). En outre, il a également accueilli un certain nombre de stagiaires postdoctoraux nationaux et internationaux.

Le Dr Cusson a été très actif dans différentes sociétés aux niveaux provincial, national et international. Il a été président de la Société d'entomologie du Canada et a été à la fois rédacteur en chef adjoint et éditeur thématique pour *The Canadian Entomologist*. Il a également été président de la Société d'entomologie du Québec et a participé activement à l'organisation de plusieurs de leurs réunions annuelles, dont une réunion conjointe avec la Société d'entomologie du Canada.

Briann Dorin and Michel Larrivée Bert and John Carr Awards / Prix Bert and John Carr

For 2020, Carr Awards have been presented to Briann Dorin, a PhD student at York University in a project exploring the capacity of Canadian agricultural systems to support native bee conservation and Michel Larrivée for a public outreach project exploring the biology and ecology of moths, the identification and photography of insects and the functioning and impact of the iNaturalist platform on our knowledge of biodiversity.

Due to COVID-19 restrictions, these projects will not be completed until next year, but when complete, details and results will be reported in the *Bulletin*.

En 2020, les prix Carr ont été remis à Briann Dorin, docteurant à l'Université de York dans un projet explorant la capacité des systèmes agricoles canadiens à soutenir la conservation des abeilles indigènes, et à Michel Larrivée pour un projet de sensibilisation du public explorant la biologie et l'écologie des papillons, l'identification et la photographie des insectes ainsi que le fonctionnement et l'impact de la plateforme iNaturalist sur notre connaissance de la biodiversité.

En raison des restrictions imposées par la COVID-19, ces projets ne seront pas terminés avant l'année prochaine, mais lorsqu'ils seront terminés, les détails et les résultats seront communiqués dans le *Bulletin*.



For his work to enhance awareness of insects and of the Entomological Society of Alberta, Colin Weir is the 2020 recipient of the Entomological Society of Canada's Norman Criddle Award.

Colin is the co-founder and operator of the Alberta Birds of Prey Centre in Coaldale, Alberta (<http://www.burrowingowl.com/>). Established in 1982 as the Province's first volunteer wildlife rescue facility, thousands of injured raptors from across southern Alberta have since been rehabilitated at the Centre and released back into the wild.

The Centre is a tribute to Colin's deep love of nature, his passion for raptors, and a desire to promote their rehabilitation and conservation. On what was once an empty field, the Centre now spans 70 acres of wetlands, wooded areas, buildings and aviaries that house more than 200 birds. One of these aviaries is among the largest of its type in North America. None of this would have been possible without donations, volunteers, sponsorship, and a great deal of personal expense and sacrifice by Colin.

Colin has also developed the Centre into a regional hub of educational activities to increase public awareness of raptors and nature. He has given or hosted hundreds of off-site presentations, interpretive talks, flight demonstrations, school tours and

Colin Weir Criddle Award / Prix Criddle

Pour son travail de sensibilisation sur les insectes et sur la Société d'entomologie de l'Alberta, Colin Weir est le lauréat 2020 du prix Norman Criddle de la Société d'entomologie du Canada.

Colin est le co-fondateur et l'opérateur du Centre sur les oiseaux de proies de l'Alberta à Coaldale, en Alberta (<http://www.burrowingowl.com/>). Créé en 1982 en tant que premier centre bénévole de sauvetage de la faune de la province, des milliers de rapaces blessés provenant de tout le sud de l'Alberta ont depuis été réhabilités au Centre et relâchés dans la nature.

Le Centre est un hommage à l'amour profond de Colin pour la nature, à sa passion pour les rapaces et à son désir de promouvoir leur réhabilitation et leur conservation. Sur ce qui était autrefois un terrain vague, le Centre s'étend aujourd'hui sur 70 acres de zones humides, de boisés, de bâtiments et de volières qui abritent plus de 200 oiseaux. L'une de ces volières est l'une des plus grandes de ce type en Amérique du Nord. Rien de tout cela n'aurait été possible sans les dons, les bénévoles, le parrainage et une grande partie des dépenses et des sacrifices personnels de Colin.

Colin a également développé le Centre pour en faire un centre régional d'activités éducatives visant à sensibiliser le public aux rapaces et à la nature. Il a donné ou accueilli des centaines de présentations hors site, de conférences d'interprétation, de démonstrations de vol, de visites scolaires et d'événements spéciaux. En 2010, Colin a été le conférencier invité à la réunion annuelle de la Société d'entomologie de l'Alberta. Ce

special events. In 2010, Colin was the after-dinner speaker at the Annual Meeting of the Entomological Society of Alberta. That connection developed into a partnership between the Society and the Alberta Bird of Prey Centre, which takes the form of Insect Discovery Day.

Insect Discovery Day is a 1-day family event held in August to foster public appreciation of insects. Colin opens up the Centre to ESA volunteers. They set up displays of live and pinned material, and give demonstrations on how to observe and identify terrestrial and aquatic insects. Part of the display includes posters and pamphlets to increase the visibility of the ESA. Colin arranges for advertising, reporters, news coverage, signage, provides the support of his staff and lunch, and also annual passes to the Centre for ESA volunteers. Insect Discovery Day has been held every year since 2011, providing outreach to many hundreds of attendees.

lien s'est transformé en un partenariat entre la Société et le Centre des oiseaux de proie de l'Alberta, qui prend la forme d'une journée de découverte des insectes.

La journée de découverte des insectes est un événement familial d'une journée qui se tient en août pour encourager le public à apprécier les insectes. Colin ouvre le Centre aux bénévoles de la SEAb. Ils installent des expositions de matériel vivant et épingle, et font des démonstrations sur la façon d'observer et d'identifier les insectes terrestres et aquatiques. Une partie de l'exposition comprend des affiches et des brochures pour accroître la visibilité de la SEAb. Colin s'occupe de la publicité, des journalistes, de la couverture des médias, de la signalisation, fournit le soutien de son personnel et le dîner, ainsi que les laissez-passer annuels pour les bénévoles de la SEAb. La journée de découverte des insectes a lieu chaque année depuis 2011, permettant ainsi de toucher plusieurs centaines de participants.



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Wider aspects of a career in entomology.

11. An amateur in France

Hugh V. Danks

This series of articles outlines some ancillary aspects of my entomological career, for the potential amusement of readers. It reports the sometimes unexpected challenges of working in new places and in the real world, an approach that serves also to expose some conclusions about research activities and some information about insects and their environments. This article recounts further experiences prior to my professional career.



My time as an undergraduate student in zoology and entomology at Imperial College, London (see *ESC Bulletin* 52: 91) included travel outside England on a few occasions, exposing me to additional entomological, environmental, and cultural themes.

The most memorable journey was a cycling vacation in the Alps of southern France in 1964, with a fellow student from the entomology group. I could afford the 5-week trip only with outside support, and so applied for a vacation travel grant offered by the Goldsmiths' Company

of London. The interview was an intimidating process. Many unsmiling senior gentlemen, all garbed identically in dark suits, were arrayed in a long row behind a giant boardroom table, which gleamed in the light from a window behind them. On the spacious floor in front of the table, an isolated chair faced the row of inquisitors—forcing the applicant sitting there to stare into the light like a prisoner undergoing interrogation. My application was successful; but the experience was also valuable because it made every future job interview seem so benign!¹

The continent of Europe was particularly interesting to us because the fauna is much more diverse than that of the small, wet, and cool British Isles. The continent occupies a much larger area, has a range of climates including warm southern sections, and contains mountain complexes (see Figure 1) that support distinctive

H.Danks



Figure 1. Relief map of France, showing mountainous regions and neighbouring countries, and the town of Grenoble, the starting point of the trip. Relief base map by Eric Gaba (CC BY-SA 4.0).

¹The Goldsmiths' Company continues to make substantial grants, now totalling millions of pounds per year, in support of education and other concerns (but not these individual travel grants). My 1964 grant of £35 had a purchasing power of about \$900 in current Canadian dollars. More than half of it was needed for commercial transport.

Hugh Danks (hughdanks@yahoo.ca) retired in 2007 after many years as head of the Biological Survey of Canada. In that role, he helped to coordinate work on the composition and characteristics of the arthropod fauna of the country, and to summarize the results. In addition, his research studied cold-hardiness, diapause, and other adaptations to seasonality in northern regions.

species. Only about 70 species of butterflies were known to occur in the United Kingdom, for example, but France alone had about 250.

Our bicycles and baggage were sent ahead by train, and we picked them up in Grenoble after overnight travel. Our subsequent route, and places mentioned below, are shown in Figure 2.

Some of these alpine roads have seen cyclists competing in the Tour de France. Climbing specialists would attack on the

steep inclines up to the mountain passes (Figure 3), using bicycles that now weigh as little as 7 kg and have sophisticated derailleur gears. We could not ride up steep sections, because our heavy steel bikes (today regarded as “vintage”) weighed about 20 kg each, and had few gears. Moreover, each bicycle carried about 20 kg of baggage (cf. Figure 4), partly to ensure that we could collect productively at our first main destination, the alpine village of La Grave. A great deal of water was also needed in the hot conditions. Therefore, our own attacks on the passes consisted of pushing the bicycles uphill for many kilometres, a task that gave us much more powerful arms than were necessary to wield our insect nets. Evidently, we were amateurs in more than entomology.

In Bourg d’Oisans, an old man came over to learn where we were going. “Mais les montagnes ...,” he exclaimed. “C’est fou!” He might have been right. La Grave is more than 1250 m higher

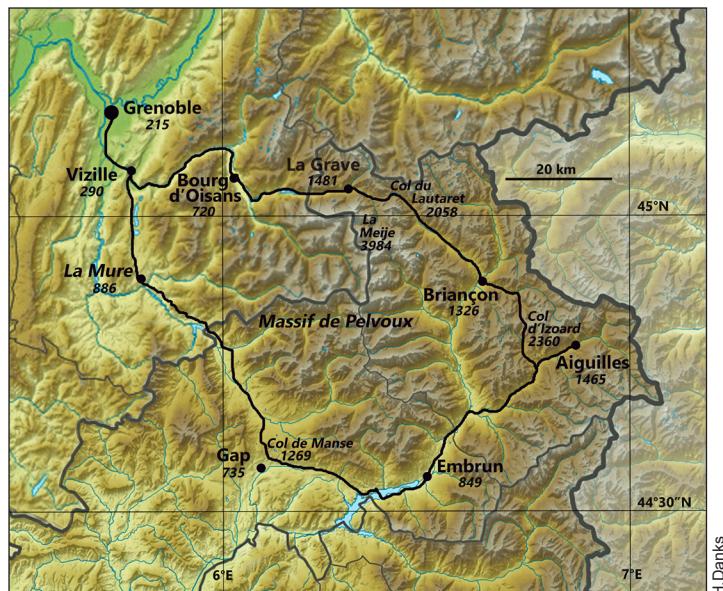


Figure 2. Map of the route in the French Alps, showing selected locations and elevations in metres. Relief components mainly from Flappieh (CC BY-SA 4.0).



Figure 3. A road in the Alps of southern France.



Figure 4. A vintage bicycle with only three hub gears, and laden with baggage, as used for the alpine travel described here.

than Grenoble, and the road has a number of discouragingly long uphill sections.

Another 600 m ascent beyond the village is needed to reach Col du Lautaret, while the journey from Briançon over Col d'Izoard involves a continuous climb of more than 1000 m over a distance of 19 km, followed by a slightly steeper descent. These challenges were exacerbated because, in the harsh mountain climate, the road surface was often poor or under repair. Many signs warned of "chaussée déformée".

La Grave (Figure 5) is 78 km from Grenoble by road, and is permanently inhabited. We spent more than 2 weeks collecting insects there. At first the village seemed occupied chiefly by

old people and children. We discovered why by talking to a local herdsman, who told us that he took his cattle up to the alpine pasture at 7 a.m., and returned at 8 p.m. Other able-bodied adults worked long hours in fields of hay and other crops.

Alpine habitats have been modified by such agricultural uses, as well as by roads, buildings, and hydroelectric developments. Disturbed areas were colonized by ruderal weeds and insects common in England. An unexpectedly high proportion of other insects proved to be widely distributed Palaearctic species too. Nevertheless, we found unfamiliar species near the village, as well as in larch forests and higher alpine zones.

I collected butterflies, bumble bees, and a few other aculeate Hymenoptera. Butterflies found only in the mountains included alpine graylings (Figure 6), species of ringlets (e.g., Figure 7), and Apollo butterflies (Figure 8); their larvae feed on grasses or on stoneworts, plants well represented at higher elevations. Many of the bumble bees had wide distributions, but some species are confined to high elevations in the Alps (e.g., Figure 9).

I had expected too to examine traditional alpine beekeeping, which used skeps (straw or wicker baskets) as hives. However, there were relatively few honey bees, and in any case skeps had already been replaced by modern hives.



Figure 5. The village of La Grave, seen from a nearby hillside. The overall appearance of the village has changed relatively little over the years despite development around it.

Parisette (CC BY-SA 3.0)

Friedrich Böhmler (CC BY-SA 3.0)



Figure 6. Alpine grayling butterfly (the satyrid [satyrine] *Oeneis glacialis*), underside, found in the Alps above 1400 m; larvae feed on *Festuca* grasses. Wingspan about 5.5 cm. Species in this genus are known as "arctics" in North America.

Hectorinthus (CC BY-SA 4.0)



Figure 7. Ringlet butterfly (the satyrid [satyrine] *Erebia dromus* [*E. cassiopeia arvensis*]), found in the Alps above about 1600 m; larvae feed on various grasses. Wingspan about 3.5 cm. Species in this genus are known as "alpines" in North America.

Hectorinthus (CC BY-SA 3.0)



Figure 8. Apollo butterfly (the papilionid *Parnassius apollo*), a mountain specialist with all populations currently in decline; larvae feed on stoneworts. Wingspan 6–8.5 cm in males, 6.5–9.5 cm in females.



Figure 9. Alpine bumble bee (*Bombus alpinus*), one of several relatively uncommon species found at higher elevations in the European Alps. Length of queen about 2.5 cm (worker about 1.5 cm).

My classmate collected aculeates and a few other taxa, but had limited experience with bees, so I told him how to distinguish male bumble bees that cannot sting from workers that require more careful handling (cf. Figure 10). For example, males and workers carry themselves differently, and in males the antennae are longer and appear less elbowed, the body and especially the front of the head are usually marked with more yellow, and the hind legs are narrower and lack the concave, hair-fringed pollen baskets of workers. Less easily seen in the field are characters like the numbers of abdominal and antennal segments.

He soon made a mistake and was stung, but retribution for my failed instructions was swift. I tried to capture a polistine wasp in hotter conditions than I was used to, and in the blink of an eye it whipped through the air and delivered an excruciatingly painful sting to the back of my hand.

At the campsite, resting quietly inside my tent after an evening rain, I was terrified when suddenly the structure shook alarmingly and a loud roar filled the air. Unknown to me, a herd of cattle was on its way back to the village through our camping area, and a cow had used its long rough tongue to lick beads of water off the tent. That lightweight tent (Figure 11) leaked if the thin fabric was touched when wet, so I was unhappy with the cow—although it did not appear to care! However, the tent proved serviceable because the weather was nearly always hot and sunny.

Those conditions, and the high cost of fuel for the stove, prompted us to limit cooking. Therefore, our basic diet was bread, cheese, and fruit, but even so it was quite diverse. The many kinds of crusty French bread—buttery, honeyed, firm, airy, and so on—made for an extraordinarily pleasant contrast to the familiar bland white bread of English sandwich loaves². Various French cheeses were available, as were assorted fruits, many of them grown in southern

Figure 10. Male (top) and worker bumble bees (*Bombus lucorum*). Length about 1.6 cm. Images by stevenfalk.co.uk/photography.



Steven Falk

Steven Falk



Figure 11. Lightweight tent similar to the one used in France.

H.Danks

²The modern form of English white bread originated when a simplified recipe with additives, lower-protein wheats, and accelerated mechanical processing allowed cheap mass production (and extended shelf life)—giving a soft product that some have characterized as soggy, flabby, and tasteless (“cotton wool”)!

France. Periodically, we treated ourselves to a feast of ripe apricots and the singular taste of sterilized milk³.

French classes in English schools emphasized verb declensions and syntax, but gave almost no useful experience of the spoken language. Therefore, at that time my vocabulary and ability to speak French were minimal, and my accent was atrocious. Considerable merriment was created among customers in the general store at La Grave when I mispronounced a request for two kilos of oranges, saying “deux” (2) in a way that resembled “douze” (12)!

Despite language difficulties, many people talked to us as we collected near the village. The locals were interested to know that we were entomology students learning about the fauna. We also met a few school-age visitors, leading to conversations that were entertaining, but not especially enlightening, because their grasp of English was as weak as our French.

Some of the tourists were amateur entomologists too. One pair of boys (with their father) reported that their grandfather, who lived in Briançon, had a collection of 30 000 specimens. There are many such people in Europe, and amateur entomological societies thrive there; indeed, the records of amateurs were among the earliest long-term data to document significant declines in the abundance of various insect species. My activities in the British Amateur Entomologists’ Society, which during the 1960s had an average membership of nearly 800, were noted in *ESC Bulletin* 52: 21; 92.

La Grave is dominated by the mountain of La Meije (about 4000 m; Figure 12). Three cold torrents pour from its glacier complex, and one of them served the village campsite, ensuring our complete wakefulness after an early morning wash.

Several times we hiked up towards the glaciers in search of alpine butterflies and bumble bees. One sunny day as I climbed, large horse flies with iridescent eyes began to follow me. By the time more than 20 of them were speeding noisily around my head, the din and the disruption of entomological activities had become so annoying that I took my kite net (shown in Figure 13 in a very different setting) and captured all the flies by whirling it frantically about me multiple times⁴. Luckily, there was no local witness who might have generated further merriment in the village by describing this behaviour.

After another long uphill trek, my friend was so thirsty that he decided to drink from an alpine stream, adding “How polluted can it

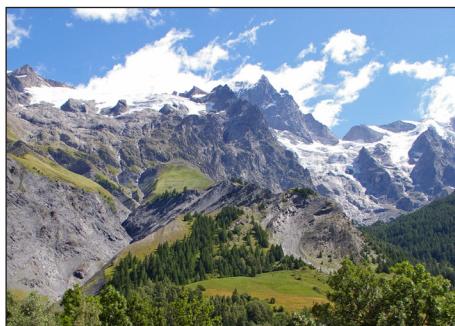


Figure 12. La Meije (3984 m), the mountain above La Grave.

MartinD (CC BY-SA 3.0)



H.Danks

Figure 13. Author Hugh Danks in England in the 1960s, with the kite net he used to collect insects in France.

³Sterilized milk is normally heated to about 120°C, giving it a slightly creamier texture and a distinctive sweeter and stronger flavour than pasteurized milk, which has been held for a carefully controlled time at a much lower temperature (typically between about 65°C and 70°C). These changes in taste come at the expense of more subtle characteristics, but sterilized milk was favoured in rural areas because it spoils less rapidly.

⁴A procedure that was effortless, thanks to the strength derived from pushing a bicycle uphill!

be up here?" He received a possible answer after slaking his thirst, as he looked up to see a mountain goat wander out from behind a boulder just upstream.

One unforgettable hike passed through habitats with a variety of butterflies to a still, dark lake high in the mountains (Puy Vachier, Figure 14). We were not looking for aquatic insects, but no doubt a lake at this elevation would contain interesting species. An unusually large blue dragonfly hawked over the surface of the water⁵.

Somewhat reluctantly, because our stay had been so rewarding, we moved on from La Grave. Near the end of the steep descent from Col d'Izoard, my companion hit a patch of gravel and lost control, sustaining a deep elbow wound as he crashed. We struggled on to a hospital in the village of Aiguilles. A registration form was required before the injury could be treated, but the staff managed to transcribe only "Meatan" from all of my deficient attempts to spell Martin. However, the document proved adequate, and the doctor used a remarkably large number of painful swabs to clean gravel out of the wound. He also gave a series of daily penicillin injections to prevent infection, requiring us to stay in the town for a full week.

Insects there were not as diverse as near La Grave, but we encountered some additional species. Particularly striking were the thousands of grasshoppers that swarmed amongst the straw stubble in our camping field.

We had planned to make a wide sweep across southeastern France, but given the delay in Aiguilles, the cycling injury, and signs of wear on our bicycles, we simply cycled back along the south side of the Massif de Pelvoux. Therefore, our total journey covered only about 350 km, but even so the return to Grenoble had interesting insects (albeit less striking than those at La Grave), attractive scenery—and a few significant uphill sections...

A full day had to be spent in Grenoble after the baggage and bicycles were sent on ahead. We had been very restless on the journey down during a relatively short delay between trains in Paris; but now, following our long vacation, we sat happily in the town square, relaxing and watching the world go by. This interlude helped us to digest what we had seen and learned, giving a valuable lesson for the future: activities are more profitable when constant rushing around is balanced by periods of reflection. It was even possible to stay relaxed whilst crossing the border with our collections, because most problems caused by complex customs regulations, drug smuggling, sovereignty, and terrorism had not yet arisen.

Only part of the material could be identified after our return, given our inexperience and lack of relevant keys in French and German. Nevertheless, those identifications confirmed the diversity of the fauna and suggested some of the complex patterns of zonation, at several different scales, that are governed by latitude and elevation.

A lengthy report was soon sent to the Goldsmiths' Company, provider of my travel grant. It elaborated on educational and social benefits, which were especially important to that organization. (In the same way, later work plans and research-grant applications would emphasize their relevance to institutional or agency requirements!)

⁵Probably the emperor dragonfly, *Anax imperator*.



Figure 14. Puy Vachier lake, a few km from La Grave. The lake is about 250 m x 300 m in size at an elevation of 2382 m; maximum depth 36 m.

Stephan Enten (CC BY-ND 2.0)

In contrast, the report contained few entomological details. Sanitary facilities were not mentioned either, despite their importance during fieldwork. The campground at La Grave, for example, had a squatting toilet, with foot rests on each side of a drain hole at floor level (rather than a sitting toilet, with a pedestal and seat above the exit pipe). This configuration was unfamiliar to some tourists, leading them to use areas well beyond the reach of the flush—a detail most unlikely to impress the unsmiling senior gentlemen of the Goldsmiths' Company...

Later in our journey, a campsite run by a local farmer provided a similar but more basic facility. The cubicle was inside a large wooden shed equipped with both inside and outside lights, and I was there well after dusk. Suddenly, the farmer looked inside, saw no one in the shed, turned off both lights, and sped off. In pitch darkness, my exit from the “baited pitfall trap” was slow and careful.

A subsequent visit to France with another friend was eventful too. The car he had borrowed from his father lost coolant in the Cévennes (Figure 15), the mountains on the southeastern edge of the Massif Central, with disastrous results. My French was still poor, but despite the local accent I understood the garage owner as he took off the cylinder head, looked into the engine, turned to his assistant, and said “rien à faire!” We camped in the garage forecourt while the engine was sent away to be re-bored, and then returned home because the repair had used most of our remaining funds.

Before that event I did a little entomology, but learned more about the culture. For example, I could now afford to patronize restaurants occasionally, but was not used to complex meals, nor to the very different approach those meals required. We were the only customers in a small restaurant during the first such encounter, and were served the set meal. A giant bowl of tiny crisped fishes (“petites fritures”) was brought, along with ample supplies of superb fresh bread. We were well satisfied after finishing the dish—but it proved to be only the appetizer! The substantial main course soon arrived. We could barely finish it despite a generous order of wine. Then ripe fruits were laid out, and we struggled to eat some so as not to offend the host. A cheese course appeared. To excuse our failure to consume it, I tried to explain that the goat cheese was certainly excellent, but a little strong for our palates. At last we could stop eating ... until huge portions of mild Gruyère cheese were brought instead! The restaurateur was very helpful, although he must have been puzzled by our behaviour, which included agonized movements after the enormous meal.

Perhaps he would have agreed with witnesses to my earlier trip to the Alps, such as the old man who saw our heavy bicycles. Anyone who takes 40 kg up mountain passes, stares at the ground intently for long periods (observing insects invisible to those watching), handles bumble bees, chases butterflies, and speaks incomprehensible French, might indeed be thought a little mad.



Clem Rutter (CC BY-SA 4.0)

Figure 15. A roadside view of the Cévennes mountains.

In memory / En souvenir de

John Frederick Doane quietly passed away on 21 May 2020, in his home in Saskatoon, at the age of 90 years. Born in Newmarket, John grew up on a farm near Bradford, Ontario, north of Toronto. John, and his older brother Charles (Chuck), developed an interest in entomology at a young age and became amateur insect collectors in southern Ontario. After high school, John enrolled in a Bachelor's program at the Ontario Agricultural College, now the University of Guelph; specializing in entomology, he graduated with a BSA in 1954. During the early years at university, John was introduced to two athletic pursuits, soccer and boxing. Unfortunately, he developed polio during his undergraduate tenure, and spent several months in isolation. But with his interest in insects now enhanced, John pursued graduate studies at the University of Wisconsin, completing both his MSc (1956) and his PhD (1958). Shortly after graduating, he began a research career in agricultural entomology, receiving a research scientist position at the Dominion Entomological Laboratory in Saskatoon that same year (now the AAFC Saskatoon Research and Development Centre).

John adapted very quickly to life in Saskatchewan, and became an avid hunter of wild game, waterfowl, and errant golf balls, together with his fellow colleagues. A few years later, one of his more solitary talents was the ability to successfully source morel mushrooms in the forests of northern Saskatchewan. His first research assignment was to quantify the ecology and behaviour of wireworms, a major pest of field crops in western Canada. John's approach to the assignment was to investigate the ovipositional behaviour and fecundity of adults, and the effects of soil moisture and temperature on egg survival. Further studies related to the response of the larval stage to carbon dioxide levels resulted in the development of methods for the trapping and monitoring of larval populations. With the unexpected outbreak of wheat midge (*Sitodiplosis mosellana*) in Saskatchewan in the early 1980s, John assembled a multidisciplinary research team to determine the biology and ecology of this new threat to wheat production on the prairies. His research promptly yielded important contributions with the discovery of a significant biological control insect (*Macroglenes penetrans*), and the development of a sound population monitoring protocol. Through the successful implementation of conservation techniques, this parasitoid now controls an average of >30% of the wheat midge across Saskatchewan annually. A study in the 1990s showed that in Saskatchewan alone the dollar value of the parasitoid to the agriculture industry over 10 years, due to reduction in insecticide costs, was in excess of \$248.3 million (equivalent of \$422.5 million today). The second highlight, a special larval soil extraction protocol, provided a unique population density and distribution monitoring tool for both the pest wheat midge and its biological control agent. This tool is still utilized today to forecast the risk to wheat production in map format for producers on an annual basis. Given the success of biological control using *M. penetrans*, John collaborated with international colleagues at CABI in Switzerland, to assess the viability of importing a second agent for biocontrol of wheat midge. This resulted in the successful introduction and establishment of *Platygaster tuberosula*. To minimize the economic and ecological impact of *S. mosellana* today, wheat producers in western Canada have access to one of the most comprehensive management programs of any insect pest of field crops.

John was appointed Head of the Integrated Pest Management Section of the Saskatoon



John Frederick Doane
(14 April 1930 – 21 May 2020)

Research Station in 1982, and the Head of the amalgamated Cereals Protection Section in 1989. His leadership style was low key but effective, frequently having to manage situations where the egos of associates sought to dominate the current agenda. As a result, John was highly respected by staff. He dealt with management issues and staff like a true diplomat, and where there was conflict, John would listen to all sides and quietly find the appropriate compromise. John served as Entomological Society of Saskatchewan President in 1967 and 1978, and served a term as a member of the Entomological Society of Canada Governing Board. He will also be remembered as a founding member of the national AAFC Biological Control Working Group, a group that is still very active in 2020. He retired in 1993, taking an extended self-guided tour of southeast Asia, including India and Malaysia. Upon his return, John remained active in retirement, co-authoring several scientific articles, most recently a bio-climate modelling paper on wheat midge in 2020.

Owen Olfert (Saskatoon) and Peter Mason (Ottawa)

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Formatting of the review should follow that of reviews in recent issues of the Bulletin. A scan of the book cover (jpeg or tiff format, about 500 kb) should be submitted with the review.

Lignes directrices

Les critiques de livre doivent compter entre 800 et 1200 mots. Elles doivent clairement identifier le sujet du livre et si le livre rencontre bien les objectifs énoncés. Les forces et faiblesses du livre devraient être décrites.

Le format des textes doit suivre celui des critiques des récents numéros du Bulletin. Une version numérisée de la couverture du livre (en format jpeg ou tiff, environ 500 kb) devra être soumise avec la critique.

Currently available for review / Disponibles pour critique

- Curtain, C.G. and Allen, T.F.H. [Eds.]. 2018. Complex Ecology: Foundational Perspectives on Dynamic Approaches to Ecology and Conservation. Cambridge University Press. ISBN: 9781108235754 [paperback].
- Dale, M.R.T. 2017. Applying Graph Theory in Ecological Research. Cambridge University Press. ISBN: 9781316105450 [paperback].
- Danks, H.V. 2017. The Biological Survey of Canada: A Personal History. Biological Survey of Canada. ISBN: 978-0-9689321-9-3 [e-book].
- Eiseman, C. 2019. Leafminers of North America. [e-book].
- Forman, R.T.T. 2019. Towns, Ecology and the Land. Cambridge University Press. ISBN 978-1-316-64860-5 [paperback].
- Frank, B., Klikman, J.A. and Marchini, S.. 2019. Human-Wildlife Interactions. Turning Conflict into Coexistence. Cambridge University Press. ISBN: 978-1-108-40258-3 [paperback].
- Gibson, D.J. and Newman, J.A. [Eds.]. 2019. Grasslands and Climate Change. Ecological Reviews. Cambridge University Press. ISBN 978-1-316-64677-9 [paperback].
- Kaufman, A.B., Bashaw, M.J. and Maple, T.L. [Eds.]. 2019. Scientific Foundations of Zoos and Aquariums: Their Role in Conservation and Research. Cambridge University Press. ISBN 978-1-316-64865-0 [paperback].
- Klimaszewski J., Hoebeke, E.R., Langor, D.W., Douglas, H.B., Borowiec, L., Hammond, H.E.J., Davies, A., Bourdon,C., Savard, K. 2020. Synopsis of Adventive Species of Coleoptera (Insecta) Recorded from Canada. Part 5: Chrysomeloidea (Cerambycidae, Chrysomelidae, and Megalopodidae). Advanced Books. [e-book] doi: 10.3897/ab.e50613.
- Leidner, A.K. and Buchanan, G.M. [Eds]. 2018. Satellite Remote Sensing for Conservation Action: Case Studies from Aquatic and Terrestrial Ecosystems. Cambridge University Press. ISBN 978-1-10845670-8 [paperback].
- Pettorelli, N., Durant, S.M. and du Toit, J.T. [Eds.]. 2019. Rewilding. Cambridge University Press. ISBN 978-1-108-46012-5 [paperback].
- Pohl, G.R., Landry, J.-F., Schmidt, B.C., Lafontaine, J.D., Troubridge, J.T., Macaulay, A.D., van Nieukerken, E.J., deWaard, J.R., Dombroskie, J.J., Klymko, J., Nazari, V., Stead, K.. 2018. Annotated Checklist of the Moths and Butterflies (Lepidoptera) of Canada and Alaska. Pensoft Series Faunistica No 118. ISBN 978-954-642-909-4 [e-book].
- Saguez, J. 2017. Guide d'identification des vers fil-de-fer dans les grandes cultures au Québec. Centre de recherche sur les grains. ISBN: 978-2-9813604-5-8 [e-book].
- Skevington, J., Locke, M.M., Young, A.D., Moran, K., Crins, W.J. and Marshall, S.A. 2019. Field Guide to the Flower Flies of Northeastern North America. 2019. Princeton University Press. ISBN 978-0-691-18940-6 [paperback].
- Stock, M. 2019. The Flying Zoo – Birds, Parasites and the World They Share. University of Alberta Press. 978-1-77212-374-6 [softcover].
- Volis, S. 2019. Plant Conservation: The Role of Habitat Restoration. Cambridge University Press. ISBN 978-1-108-72733-4 [paper back].
- Wilson, K., Fenton, A., Tompkins, D. [Eds.] 2019. Wildlife Disease Ecology. Linking theory to data and application. Cambridge University Press. 978-1316-50190-0 [paper back].

Seeking next ESC Webmaster

The Entomological Society of Canada is seeking an individual to fill the position of ESC webmaster, beginning as soon as possible. The webmaster is an officer of the Society and reports to the Society's Board of Directors. The duties of the position include maintaining the Society website (see: <https://esc-sec.ca/>), which was completely redesigned about 2 years ago. The webmaster makes updates to news items and the jobs board, posts the quarterly issues of the bulletin, and periodically updates board and committee membership pages, lists of awardees, photo pages, and the common names and directory of education data bases. The website uses the WordPress content management system, which is easy to learn even for someone with limited experience with website design and maintenance. Note that the membership area of the website and items relating registration and paper submission for joint annual meetings are maintained by the Society's Association Management Company, and are not part of the ESC webmaster's responsibilities.

Please express your interest in the position to the President, Gail Anderson, by 15 October 2020 (ESCPresident@esc-sec.ca). The final selection will be made by an ad hoc committee convened by the President. For more information about the position, please contact the current webmaster, Jordan Bannerman: jordan.bannerman@umanitoba.ca.

À la recherche du prochain webmestre de la SEC

La Société d'entomologie du Canada recherche une personne pour occuper le poste de webmestre de la SEC, débutant le plus rapidement possible. Le webmestre est un dirigeant de la Société et se rapporte au conseil d'administration de la Société. Les tâches de ce poste incluent la maintenance du site web de la Société (voir : <https://esc-sec.ca/fr/>) qui a été complètement revampé il y a environ 2 ans. Le webmestre fait des mises à jour pour les nouvelles et les emplois à afficher, affiche les numéros trimestriels du bulletin, et mets périodiquement à jour les pages du CA et des membres des comités, les listes de récipiendaires, les pages de photos et les bases de données des noms communs et du répertoire des formations. Le site web utilise le système de gestion de contenu WordPress, qui est facile à apprendre même pour quelqu'un n'ayant qu'une expérience limitée avec la conception et la maintenance de sites web. La section des membres du site web et les éléments en lien avec l'inscription et la soumission de présentations pour les réunions annuelles conjointes sont maintenus par la compagnie de gestion d'association de la Société, et ne font pas partie des responsabilités du webmestre.

Veuillez manifester votre intérêt pour ce poste auprès de la Présidente, Gail Anderson, au plus tard le 15 octobre 2020 (ESCPresident@esc-sec.ca). La sélection finale sera faite par un comité ad hoc convoqué par la Présidente. Pour plus d'information sur le poste, veuillez contacter le webmestre actuel, Jordan Bannerman : jordan.bannerman@umanitoba.ca.

70th Annual Meeting of Members and Board of Directors Meetings

The Annual Business Meeting of Members of the Entomological Society of Canada will be held by videoconference on Tuesday, 20 October 2020, beginning at 11:00 AM CDT. The meeting will be held by Zoom, with an option to participate by telephone. Details will be emailed to all ESC members.

The outgoing Board of Directors Meeting will be held by videoconference in early October 2020, probably in two sessions on successive days. The incoming Board of Directors will meet by videoconference on a day shortly after the Annual Business Meeting of Members. Participants in these Board of Directors meetings will be asked to participate in a Doodle poll to establish the dates and times. Matters for consideration at any of the above meetings should be sent to Neil Holliday, Secretary of the Entomological Society of Canada (see inside back cover for contact details).

70^e assemblée générale annuelle des membres et réunions du conseil d'administration

L'assemblée générale annuelle des membres de la Société d'entomologie du Canada se tiendra par vidéoconférence le mardi 20 octobre 2020, à partir de 11h00 HAC. La réunion sera organisée par Zoom, avec une option de participation par téléphone. Les détails seront envoyés par courriel à tous les membres de la SEC.

La réunion du Conseil d'administration sortant se tiendra par vidéoconférence au début du mois d'octobre 2020, probablement en deux sessions sur des jours successifs. Le Conseil d'administration entrant se réunira par vidéoconférence un jour peu de temps après l'assemblée générale annuelle des membres. Les participants à ces réunions du Conseil d'administration seront invités à participer à un sondage Doodle pour en fixer les dates et les heures. Les questions à examiner lors des réunions susmentionnées doivent être envoyées à Neil Holliday, secrétaire de la Société d'entomologie du Canada (voir au dos de la couverture pour les coordonnées).

Executive Meeting - Call for Agenda Items

If members have any items they wish to be discussed at the next Board of Directors or Executive Council meeting, please send them to the Secretary, Neil Holliday (see inside back cover for contact details), as soon as possible.

Réunion du conseil exécutif – Points à l'ordre du jour

Si des membres aimeraient ajouter des points à l'ordre du jour pour discussion à la prochaine réunion du Bureau des directeurs ou du Conseil de l'exécutif, merci de les envoyer au secrétaire, Neil Holliday (voir le troisième de couverture pour les informations de contact), le plus tôt.

Members' discounts

Entomological Society of Canada members can enjoy discounts on publications from Annual Reviews, Elsevier, Cambridge University Press, and the Entomological Society of America. Details of how to benefit from these discounts are available on the member's area of the Entomological Society of Canada website at: <https://esc-sec.site-ym.com/>.

Remise pour les membres

Les membres de la Société d'entomologie du Canada peuvent bénéficier d'une remise lors d'achats de publications de : Annual Reviews, Elsevier, Cambridge University Press et de la Société d'entomologie d'Amérique. Les informations nécessaires pour profiter de ces remises sont disponibles dans la section des membres du site de la Société d'entomologie du Canada à : <https://esc-sec.site-ym.com/>.

Announcement of Changes in the ESC Standing Rules

At its meeting on 15 June 2020, the Board of Directors of ESC approved changes to the standing rules to enable editorial duties for *The Canadian Entomologist* to be shared among two or more individuals. The precise changes are:

In standing rules VII and X 2)(m), the phrase “Editor-in-Chief” is replaced by the phrase “Editor(s)-in-Chief”

The sentences “One or more Editor(s)-in-Chief may be appointed. If there is more than one appointee, they will all be referred to as Editors-in Chief, and shall share the responsibilities of the office.” are added to the first paragraph of standing rule VII (i)

At its meeting on 16 July 2020, the Board of Directors of ESC approved changes to the standing rules to implement formation of a Committee on Equity, Diversity and Inclusion.

In the opening section of standing rule X, the list of Continuing Committees will be modified to add:

“(e) Equity, Diversity & Inclusion Committee”

and in the listing of committee objectives in section 2) of standing rule X, the following will be added:

“(e) Equity, Diversity & Inclusion Committee”

The Committee shall ensure that the Corporation is safe, welcoming, and supportive for members of all races, gender identities, ethnicities, abilities, and religions through initiatives, awards, meetings, and public messaging.”

In both locations, the letter designation of “(e) Finance Committee” and subsequent committees in the list will be adjusted to retain the alphabetical order by committee name.

Annonces de modifications dans les Règles permanentes de la SEC

À sa réunion du 15 juin 2020, le conseil d’administration de la SEC a approuvée des modifications aux règles permanentes afin de permettre que les tâches éditoriales pour *The Canadian Entomologist* soient partagées parmi deux ou plusieurs individus. Les modifications précises sont :

Dans les règles permanentes VII et X 2)(m), la phrase « le rédacteur en chef » est remplacé par « le ou les rédacteurs en chef ».

Les phrases : « Un ou plusieurs rédacteurs en chef peuvent être nommés. S'il y a plus d'une personne nommée, ils seront tous appelés rédacteurs en chef et se partageront les responsabilités du poste. » ont été ajoutées au premier paragraphe de la règle permanente VII (i).

À sa réunion du 16 juillet 2020, le conseil d’administration de la SEC a approuvé des modifications aux règles permanentes afin d’implanter la formation d’un comité Équité, diversité et inclusion.

Dans la section d’ouverture de la règle permanente X, la liste des comités récurrents sera modifiée pour ajouter :

« (e) Comité sur l’équité, la diversité et l’inclusion »

Et dans la liste des objectifs des comités dans la section 2) de la règle permanente X, le texte suivant sera ajouté :

« (e) Comité sur l’équité, la diversité et l’inclusion »

Le comité doit s’assurer que l’Organisation est sécuritaire, accueillante et favorable aux membres de toutes les races, identités de genre, ethnicités, capacités et religions par des initiatives, des prix, des réunions et des messages publics. »

Aux deux endroits, la lettre de désignation de « (e) Comité des finances » et des comités subséquents de la liste sera ajustée afin de maintenir l’ordre alphabétique par nom de comité (en anglais).

Highlights of the recent Board of Directors meetings

The ESC Board of Directors met by teleconference on Tuesday, 16 June 2020. The Board learned that the Entomological Society of Alberta (ESA) had withdrawn their invitation to ESC to participate in the 2020 Joint Annual Meeting (JAM 2020) because of the COVID-19 pandemic; ESC members had already been notified of the cancellation. The Board expressed its regret and understanding regarding the cancellation and its thanks for the work already done by the local organizing committee. The Board noted the concern of ESA that, without revenue from JAM 2020, ESA would be unable to finance its student awards program throughout the interval before it could next co-host a JAM. Therefore, the Board approved a donation of \$4000 in support of the ESA student awards program. The Board learned that the recipient of the 2020 ESC Gold Medal would receive the award at JAM 2021, and that the organizers of JAM 2021 were willing to include the Gold Medal addresses of the 2020 and 2021 Gold Medalists in the JAM 2021 program. The Board agreed on the remote conferencing arrangements for the meetings that would normally be held at JAM 2020; details are provided elsewhere in this issue of the *Bulletin*.

The Board received updates on progress in the organization of JAM 2021–2023, and noted that commitments of which regional society would host the JAM had been made through until 2024. Recommendations from the ESC Annual Meeting Committee for the rotation of JAM hosting were approved, with ESA hosting in 2025, the Entomological Society of Manitoba in 2026, and the Acadian Society in 2027. The Board received an almost-complete draft of “*A Guide to the Organization of the Annual Meeting of the Entomological Society of Canada*”; still lacking is agreement on the section on implementation of the meeting Code-of-Conduct, and the Board deferred approval of the document until this section is complete. The Board approved revisions to the JAM Policy Statement, which describes the roles of the various parties active in JAM organization. The revisions were made so that the document is in line with current practice.

The Board received a review of the Society’s current financial situation from the Treasurer. The Society has had a good year in terms of cash flow, but has suffered considerable losses on investments. The Board approved the Society’s budget for 2020–2021, which is unusual in that there will be no expenses or income associated with an in-person JAM.

The Board approved changes to the standing rules and committee guidelines to enable appointment of two or more editors-in-chief for *The Canadian Entomologist*. Details of the changes in standing rules appear elsewhere in this issue of the *Bulletin*. Information was provided on the appointment of Monique Keiran as the new Assistant Editor for *The Canadian Entomologist*. The former Assistant Editor, Andrew Smith, had resigned to take up a full-time position. The Board approved a policy for *The Canadian Entomologist* on the treatment of disputed geographic names. The statement, “Authors may choose to use any political-geographic designation related to their study sites, however, these designations must be ones that are unequivocally interpretable by an informed reader”, will appear in the instructions to authors.

The Board welcomed Anne-Sophie Caron, Catherine Scott and Alex Smith to the meeting to address the ESC’s response to racially-based violence in the aftermath of the initiation of Black Lives Matter movement. These three members represented the 13 signatories of a letter written to the ESC’s Executive Council in response to the Council’s posting on Twitter of a statement on Equity, Diversity and Inclusion (EDI), a statement that was rapidly removed because it was recognized as inadequate. The Board received an apology from the Executive Council regarding this statement, an apology that was subsequently emailed to all ESC members. The Board discussed a draft of a replacement statement on EDI, and agreed to continue working on it following the meeting. There were wide-ranging discussions on many aspects of ESC’s approach to EDI, and it was agreed to hold a special Board meeting devoted to this topic.

The special Board meeting on EDI was held on Wednesday, 15 July 2020. Kyle Bobiwash

addressed the Board on the topic of sharing circles as means to understand the points of view of others, particularly those whose voices are not normally heard. It was agreed that ESC would hold a sharing circle in which all members would be invited to register and participate; Board members committed to participate in the circle. The Board then worked intensively on the statement on EDI, and ultimately approved it for posting on the ESC website. The Board approved standing rules and committee guidelines to establish a Committee on Equity, Diversity and Inclusion with the objective of ensuring that ESC is “safe, welcoming, and supportive for members of all races, gender identities, ethnicities, abilities, and religions through initiatives, awards, meetings, and public messaging.” ESC Director-at-Large, Christine Noronha, is the first chair of the Committee. The Board approved in principle the creation of an elected-directorship position for EDI. The Board approved a donation of \$1,000 to the charitable organization EntoPOC, which provides funds for Black, Indigenous and People of Colour (BIPOC) students to become members of entomological societies; EntoPOC has notified the Society that it has already identified 13 BIPOC students who will join ESC with funding from EntoPOC.

The Board was concerned that recent events show that communications between the Board and student and early professional members of the Society need to improve. Student and Early Professional Affairs Committee (SEPAC) co-chairs, Anne-Sophie Caron and Rachel Rix, addressed the Board on this issue, and highlighted some of the concerns. The Board approved in principle the creation of an elected directorship position to represent student and early professional members, as the SEPAC representative on the Board is currently not a director and has no vote. SEPAC will develop a mechanism by which to nominate the director to fill this position, and that nominee will be placed on the slate for election by all members present at the Annual Meeting of Members. It was noted that many members, not just those in the SEPAC constituency, could be better informed on sources of information about the Society and its operations, the resources available to members, and how to communicate with the Board, Executive Council, and Committee Chairs. The Board has requested that the Membership Committee, with input from SEPAC, prepare a short document to provide this information; that document would be sent, along with the receipt of membership dues, to new and renewing members of the Society.

At both Board meetings there were discussions of how to improve management of the ESC’s social media. It was acknowledged that senior members of the Society’s executive are not well versed in social media, and need guidance from those who are; also that the ESC’s social media should not be carrying posts that could be interpreted as official statements of the Society without them having first been approved by the Board or representatives thereof. Mechanisms to address these issues need to operate swiftly to keep pace with the speed of social media. The Board requested that the By-laws, Rules and Regulations Committee propose guidelines and rules to address these concerns.

Annual Financial Statements

Following completion of the review engagement of the accounts of the Entomological Society of Canada and its Scholarship Fund for the financial year ended 30 June 2020, both sets of financial statements will be posted on the ESC website, and an email sent to members indicating their location.

États financiers annuels

Suite à la mission d’examen des comptes de la Société d’entomologie du Canada et de son fonds de bourses pour l’année financière s’étant terminée le 30 juin 2020, les deux états financiers seront affichés sur le site Internet de la SEC et un courriel sera envoyé aux membres afin de leur indiquer son emplacement.

Call for Nominees: ESC Achievement Awards

Do you know a well-respected entomologist who deserves recognition because of their outstanding contributions to their science in Canada? Is this person a leader in their field due to successes in publishing, patenting, editorial work and/or grant acquisition, in the teaching and mentoring of students, or through active volunteer involvement in the ESC and other societies/organizations? If yes, consider nominating them for one of our Society's Achievement Awards. Do not hesitate to contact the Chair of the Achievement Awards Committee, Felix Sperling (felix.sperling@ualberta.ca), if you have any questions about eligibility or the nomination process.

Gold Medal and C. Gordon Hewitt Award

Both awards are for outstanding entomological contributions in Canada by an individual, but the nominees for the C. Gordon Hewitt Award must have successfully defended their doctoral thesis in the 12 years ending on December 31 of the year in which the Award is received. Parental, compassionate or medical leave is not counted as part of the 12-year period; however, such periods must be identified in the letter from the nominator.

Nominations can only be made by members of the ESC, and signed by the nominator and by at least one seconder (also to be a member of the ESC). Verified communication from a recognized email address will be accepted in lieu of a signature. Nominators should include the following information for both awards: 1. The name and address of the nominee(s); 2. A statement of relevant achievements (3–5 pages) which may include, but is not limited to, the following: outline of research areas, particularly major contributions; number of articles in refereed journals, books, book

Appel à candidature: Prix d'excellence de la SEC

Connaissez-vous un entomologiste respecté qui mérite une reconnaissance pour ses contributions remarquables à sa science au Canada? Cette personne est-elle leader dans son champ d'étude par ses succès en publication, brevets, travail éditorial et/ ou obtention de subventions, enseignement, mentorat d'étudiants, ou par son implication bénévole auprès de la SEC et d'autres sociétés/ organisations? Si oui, veuillez considérer de nominer cette personne pour un des prix d'excellence de notre Société. N'hésitez pas à contacter le président du comité des prix d'excellence, Felix Sperling (felix.sperling@ualberta.ca) si vous avez des questions sur l'éligibilité ou le processus de nomination.

Médaille d'or et prix C. Gordon Hewitt

Les deux prix sont pour des contributions entomologiques exceptionnelles au Canada par un individu, mais les candidats pour le prix C. Gordon Hewitt doivent avoir soutenu avec succès leur thèse de doctorat dans les 12 dernières années au 31 décembre de l'année de remise du prix. Les congés parentaux, de soignant ou de maladie ne comptent pas dans la période de 12 ans : ces périodes doivent cependant être identifiées dans la lettre de présentation.

Les candidatures doivent être soumises par des membres de la SEC, et doivent être signées par la personne qui soumet la candidature et par au moins une personne qui l'appuie (également membre de la SEC). Une communication vérifiée par une adresse courriel reconnue sera acceptée comme signature. Les candidatures doivent inclure les informations suivantes pour les deux prix : 1. Le nom et l'adresse du candidat; 2. Un énoncé des accomplissements pertinents (3-5 pages) qui peuvent inclure, mais ne se limitent pas à : le domaine de recherche et particulièrement les

chapters, patents; editorial activities; teaching history, numbers of graduate students, teaching awards; value of grants; involvement in ESC; active involvement and/or memberships in other Societies; entomological extension/ community involvement; organizing of symposia or meetings; 3. A current curriculum vitae; and 4. The name of the nominator and at least one seconder. The documentation should stress the particular achievement or achievements to be considered and not merely the general competences of the nominee. Other seconders may merely state their support, without documentation, in a letter of endorsement of the nomination. The Committee will not prepare the documentation nor conduct research connected with it. Please send nominations by e-mail to the Chair of the Achievement Awards Committee, Felix Sperling (felix.sperling@ualberta.ca), no later than **28 February 2021**.

contributions majeures; le nombre d'articles dans des revues avec évaluation par les pairs, livres, chapitres de livres, brevets; activités éditoriales; historique d'enseignement, nombre d'étudiants gradués, prix d'enseignement; valeur des subventions; implication au sein de la SEC; implication active et/ou adhésion à d'autres Sociétés; implication dans la communauté entomologique et vulgarisation; organisation de symposiums ou de réunions; 3. Un curriculum vitae à jour; et 4. Le nom de la personne qui soumet la nomination et au moins une personne qui l'appuie. La documentation devrait mettre en évidence le ou les accomplissements particuliers à considérer, et pas seulement les compétences générales du nominé. D'autres personnes peuvent aussi manifester leur appui, sans documentation, dans une lettre de soutien de la nomination. Le comité ne préparera aucune documentation et ne fera aucune recherche en lien avec la nomination. Merci d'envoyer vos nominations par courriel au président du comité des prix d'excellence, Felix Sperling (felix.sperling@ualberta.ca), au plus tard le **28 février 2021**.

Honorary Members of the Entomological Society of Canada

An Honorary Member is deemed to have made an outstanding contribution to the advancement of entomology, and may be an Active Member or former Active Member of the Society at the time of nomination.

Collectively, Honorary Members are not to comprise more than 10 members or 1% of the active membership of the Society. Nominations should be supported by at least five members of the Society, and are to be sent by e-mail to the Chair of the Achievement Awards Committee, Felix Sperling (felix.sperling@ualberta.ca) no later than **28 February 2021**.

Membres honoraires de la Société d'entomologie du Canada

Un membre honoraire est considéré comme ayant apporté des contributions remarquables à l'avancement de l'entomologie et peut être un membre actif ou un ancien membre de la Société au moment de la nomination.

Collectivement, les membres honoraires ne peuvent pas totaliser plus de 10 membres ou 1% des membres actifs de la Société. Les nomination doivent être appuyées par au moins cinq membres de la Société, et doivent être envoyées par courriel au président du comité des prix d'excellence, Felix Sperling (felix.sperling@ualberta.ca), au plus tard le **28 février 2021**.

Fellows of the Entomological Society of Canada

Fellows are deemed to have made a major contribution to entomology, and are to be Active Members of the Society at the time of nomination. Their contribution may be in any area (e.g., research, teaching, application or administration), and may be judged on the basis of contribution to and stimulation of the work of others, as well as by direct personal effort.

Collectively, Fellows may not comprise more than 10% of the active membership of the Society. Nominations should be supported by at least four members of the Society, and are to be sent by e-mail to the Chair of the Achievement Awards Committee, Felix Sperling (felix.sperling@ualberta.ca), no later than **28 February 2021**.

Wanted: Applicants for the Bert & John Carr Award

The Bert and John Carr Award was created in 2010 (see ESC *Bulletin*, June 2010 [p.102] or September 2010 [p. 170]) to support research activities by individuals who study insect faunistics, or the natural history and taxonomy of Canada's insect fauna. Preference is given to applications by amateurs, but those by students and others will be considered. Applications should consist of: 1. The name and address of the applicant; 2. A statement of the research activity to be undertaken, including a cost estimate of up to \$1000; and 3. A current curriculum vitae. Applications are to be sent by e-mail to the Chair of the Achievement Awards Committee, Felix Sperling (felix.sperling@ualberta.ca) no later than **28 February 2021**.

Fiduciaires de la Société d'entomologie du Canada

Les fiduciaires sont considérés comme ayant apporté une contribution majeure à l'entomologie et doivent être des membres actifs de la Société au moment de la nomination. Leur contribution peut se situer dans n'importe quel domaine (p.ex. recherche, enseignement, application ou administration), et ils seront jugés selon leur contribution et la stimulation du travail des autres, ainsi que par leurs efforts personnels.

Collectivement, les fiduciaires ne peuvent pas totaliser plus de 10% des membres actifs de la Société. Les nominations doivent être appuyées par au moins quatre membres de la Société, et doivent être envoyées par courriel au président du comité des prix d'excellence, Felix Sperling (felix.sperling@ualberta.ca), au plus tard le **28 février 2021**.

Recherchés : Candidats pour le prix Bert & John Carr

Le prix Bert et John Carr a été créé en 2010 (voir le *bulletin* de la SEC, juin 2010 [p.102] ou septembre 2010 [p.170]) afin de soutenir des activités de recherche par des individus qui étudient la faunistique des insectes ou l'histoire naturelle et la taxonomie de la faune entomologique du Canada. La préférence sera donnée aux candidatures provenant d'amateurs, mais les candidatures d'étudiants ou d'autres individus seront considérées. Les candidatures devront inclure : 1. Le nom et l'adresse du candidat; 2. Un énoncé sur les activités de recherche qui seront entreprises par le candidat, incluant le coût estimé jusqu'à 1000\$; et 3. Un curriculum vitae à jour. Les candidatures doivent être envoyées par courriel au président du comité des prix d'excellence, Felix Sperling (felix.sperling@ualberta.ca), au plus tard le **28 février 2021**.

Announcements / Annonces

International Congresses in the Age of Pandemics – the 26th ICE in Helsinki in 2021



XXVI International Congress of Entomology

HELSINKI, FINLAND, JULY 18–23, 2021

International Congresses of Entomology have been organized over a period of more than 100 years. The legacy of the previous 25 ICE congresses, and their influence on the area of entomology during a century, gives an intriguing motivation to live up to great expectations and to organize the 26th ICE in Helsinki, Finland. We have been organising the 26th International Congress of Entomology in Helsinki for close to 5 years. We all know that an enormous workload is involved – mostly voluntary work by the organizing team – but it should be realized also that high expenses are associated with the organization, and inevitably there is economic insecurity associated with this endeavor.

During March 2020 we were faced with a difficult decision, with only two options concerning the organization of the 26th ICE in Helsinki:

1. Keep to our original schedule and host the Congress on 19–24 July 2020 in Helsinki, or
2. Postpone the Congress by 1 year to the only available alternative dates: 18–23 July 2021

Implications of these options include:

1. It was obvious that restrictions on travel due to the pandemic would severely limit attendance. For the most part, these restrictions were imposed in mid-March, after our deadline of 1 March to cancel registrations and to be eligible for refunds.
2. Given the impracticality of hosting a Congress without the participation of many of the world's entomologists, we decided to postpone the Congress by a year at a time when travel restrictions would ostensibly be lifted, and participants allowed to travel again. This decision was made in good faith and in order to provide the world entomological community the congress they deserve. This postponement allows you to attend the congress next year, and not to lose the registration fees as would have happened under option (1).

At the time of writing this – a week after the original congress dates – it is clear that the decision to postpone served everyone's interests. We could have followed Option 1 and have organized the ICE2020Helsinki last week in Finland as planned (practically no new COVID19 cases in Finland, limitations on gatherings lifted), but the vast majority of participants would not have been allowed to leave their home country to travel to Finland (including the USA, Canada, China, Japan, and Brazil). Now we are determined to hold a successful ICE2020Helsinki in July 2021. We believe that flexibility and resourcefulness are required given the current situation. For example, funding agencies are extending their grant expiration and reporting deadlines, because currently hardly anyone can conduct research as planned. Therefore, we would urge those who are affected by the policies of granting agencies to approach them and request flexibility in this unusual situation.

Just as we at the ICE2020Helsinki organising team have invested our time and work in the past years, we pledge you all to continue that investment in the months to come, for the benefit of the world entomological community. We have the will to host the 26th ICE congress in 2021 as announced. We hope you share our determination.

Please follow congress updates and news at our website www.ice2020helsinki.fi

Sincerely,

Heikki Hokkanen, President of the ICE2020Helsinki Organising Committee

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THE CANADIAN PHYTOPATHOLOGICAL SOCIETY
LA SOCIÉTÉ CANADIENNE DE PHYTOPATHOLOGIE

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Vol 64 No. 1/2; March/June 2020

<https://phytopath.ca/news/cps-newsletter/>

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Meeting announcements / Réunions futures

In view of the COVID-19 situation, readers should check the meeting website to ascertain if the conference is still proceeding and, if so, in what format.

Entomological Society of America Annual Meeting: Entomology for All

Fully virtual format, 16–19 November 2020

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

10th International IPM Symposium: Implementing IPM across Borders and Disciplines

Denver, 15–18 March 2021

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

Entomological Society of America: 2021 International Branch Virtual Symposium

26–28 April 2021

<https://www.entsoc.org/international/2021-virtual-symposium>

26th International Congress of Entomology (Entomology for our planet)

Helsinki, Finland, 18–23 July 2021

<https://ice2020helsinki.fi/>

XVI International Conference on Ephemeroptera and XXI International Symposium on Plecoptera

Fort Collins, Colorado, 25 July–1 August 2021 Postponed to 24 to 31 July 2022

(no website to date)

Society for Invertebrate Pathology Annual Conference

Port Elizabeth, South Africa, 1–5 August 2021

(no website to date)

Joint Annual Meeting of the Entomological Society of Canada and the Entomological Society of Ontario

Niagara Falls, 3–6 October 2021

(no website to date)

Entomological Society of America Annual Meeting

Denver, 31 October–3 November 2021

(no website to date)

Readers are invited to send the Editor notices of entomological meetings of international, national or Canadian regional interest for inclusion in this list.

Les lecteurs sont invités à envoyer au rédacteur en chef des annonces de réunions entomologiques internationales, nationales ou régionales intéressantes afin de les inclure dans cette liste.

Bulletin of the Entomological Society of Canada

Editor: Cedric Gillott

Assistant Editor: Donna Giberson

The *Bulletin of the Entomological Society of Canada*, published since 1969, presents quarterly entomological news, opportunities and information, details of Society business, matters of wider scientific importance and book reviews.

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The Entomological Society of Canada was founded in 1863 primarily to study, advance and promote entomology. It supports entomology through publications, meetings, advocacy and other activities.

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Rédacteur: Cedric Gillott

Rédactrice adjointe: Donna Giberson

Le *Bulletin de la Société d'entomologie du Canada*, publié depuis 1969, présente trimestriellement des informations entomologiques, des occasions, des renseignements sur les opérations de la Société, des dossiers scientifiques d'importance et des analyses d'ouvrages.

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La Société d'entomologie du Canada a été établie en 1863 principalement pour promouvoir l'étude et l'avancement de l'entomologie. Elle soutient l'entomologie par l'entremise de publications, de réunions et d'autres activités.

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**Date de tombée pour le prochain numéro:
31 octobre 2020**

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Editor's note: Society Directors and Officers are reminded to check these lists, and submit corrections, including the names and positions of new officers.



International congresses: opportunities not to be missed

Elsewhere in this issue, readers will have seen the announcement for ICE2020, now rescheduled for July 2021, but still in Helsinki, Finland. The announcement expresses the rightful concern of the organizing committee regarding attendance at the Congress, given the continuing worldwide threat of COVID-19, the reopening of doors to international travel, and in some countries the failure to introduce/legislate/accept measures to reduce the impact of the virus.

Speaking as an entomological ‘senior citizen’, such status having seen me attend seven congresses*, I want to encourage colleagues of all ages and levels of expertise to seriously consider going to Helsinki. The international congresses provide opportunities that may never be repeated. Don’t go with the expectation of necessarily learning about the most recent developments in your field (this is the bailiwick of more specialized meetings); rather, go for the chance to meet individuals who presently are just names on publications, ‘giants’ in your area of specialization, and international colleagues whom you have befriended at earlier conferences. Take this opportunity to learn about Finnish culture and heritage, either independently or via a pre- or post-congress tour. In 10-months’ time, we can be optimistic about there being a good measure

Les congrès internationaux : des occasions à ne pas manquer

Ailleurs dans ce numéro, les lecteurs auront vu l’annonce de ICE2020, désormais reportée à juillet 2021, mais toujours à Helsinki, en Finlande. L’annonce exprime l’inquiétude légitime du comité organisateur concernant la participation au congrès, étant donné la menace mondiale persistante de la COVID-19, la réouverture des portes aux voyages internationaux et, dans certains pays, l’incapacité à introduire/légiférer/accepter des mesures visant à réduire l’impact du virus.

En tant que « personne âgée » entomologiste, ce statut m’ayant permis de participer à sept congrès*, je souhaite encourager mes collègues de tous âges et de tous niveaux d’expertise à envisager sérieusement de se rendre à Helsinki. Les congrès internationaux offrent des opportunités qui ne se répéteront peut-être jamais. N’y allez pas dans l’espoir de découvrir obligatoirement les développements les plus récents dans votre domaine (c’est l’objectif des réunions plus spécialisées); profitez plutôt de l’occasion pour rencontrer des personnes qui ne sont actuellement que des noms sur des publications, des « géants » dans votre domaine de spécialisation, et des collègues internationaux avec lesquels vous vous êtes liés d’amitié lors de conférences précédentes. Profitez de cette occasion pour vous familiariser avec la culture et le patrimoine finlandais, soit de manière indépendante, soit dans le cadre d’une visite avant ou après le congrès. Dans dix mois, nous pouvons être optimistes quant à la maîtrise du virus, à la sécurité des voyages et à la participation aux réunions de grands

of control over the virus, facilitating safe travel and attendance at large group meetings (even though it likely will still be necessary to take some protective measures).

*For the record, I attended my first ICE in London, UK, in 1964 while a PhD student at Nottingham University. To reach my second Congress (in Washington, DC, 1976, America's bicentennial year), the Gillotts made a 5-week, 7070-mile round trip in the family station wagon, taking in Ontario, Quebec, the Maritime Provinces, and New York City! Subsequently, I attended the Congresses in Hamburg (1984), Vancouver (1988), Beijing (1992) (with an amazing post-congress boat trip through the Three Gorges on the Yangtze River), Brisbane (2004), and Durban (2008) (preceded by a safari).

groupes (même s'il sera probablement encore nécessaire de prendre certaines mesures de protection).

*Pour information, j'ai participé à ma première ICE à Londres, au Royaume-Uni, en 1964 alors que j'étais doctorant à l'Université de Nottingham. Pour atteindre mon deuxième congrès (à Washington, DC, 1976, l'année du bicentenaire de l'Amérique), les Gillotts ont fait un aller-retour de 5 semaines et 7070 milles dans le break familial, en passant par l'Ontario, le Québec, les provinces maritimes et New York ! Par la suite, j'ai participé aux congrès de Hambourg (1984), Vancouver (1988), Pékin (1992) (avec une étonnante excursion en bateau après le congrès à travers les trois gorges du Yangtsé), Brisbane (2004) et Durban (2008) (précédée d'un safari).



R. Rudland

A new record for BC's Sunshine Coast: Oregon Branded Skipper, *Hesperia colorado* ssp. *oreogena*. Pender Hill, Sunshine Coast, BC, July 6, 2020. [Rand Rudland is the co-author of *Butterflies of the Sunshine Coast*.]

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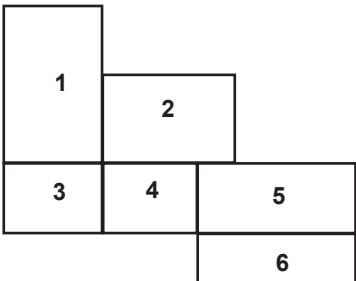
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Front cover/Plate supérieur:

1. Praying mantis (Mantodea: Mantidae) having a snack
[Summerland, British Columbia, Canada]
Une mante religieuse (Mantodea : Mantidae) prend sa collation
[Summerland, Colombie Britannique, Canada]
[Photo: Andrea Brauner]
2. *Apodemia mormo* (Lepidoptera: Riodinidae) individual caught in the wild as part of a captive breeding experiment to help bolster populations of this endangered species [Keremeos, British Columbia, Canada]
Un individu *Apodemia mormo* (Lepidoptera : Riodinidae) capturé en nature dans le cadre d'une expérience d'élevage en captivité afin d'aider à soutenir les populations de cette espèce menacée [Keremeos, Colombie Britannique, Canada]
[Photo: Jayme Lewthwaite]
3. *Platypedia* (Hemiptera: Cicadidae) expands its wings and sclerotises.
Un *Platypedia* (Hemiptera : Cicadidae) étend ses ailes et se sclérifie.
[Photo: Bob Lalonde]
4. Egg parasitoid *Telenomus* (Hymenoptera: Platygastriidae) emerging from stink bug (Hemiptera: Pentatomidae) eggs [Delémont, Switzerland]
Des parasitoïdes des œufs du genre *Telenomus* (Hymenoptera : Platygastriidae) émergeant d'œufs de punaises (Hemiptera : Pentatomidae) [Delémont, Suisse]
[Photo: Tim Haye]
5. *Paralobesia marilynae* (Lepidoptera: Tortricidae) egg hatching six days after oviposition on a showy lady's slipper (Orchidaceae) [Gatineau Park, Québec, Canada]
Des œufs de *Paralobesia marilynae* (Lepidoptera: Tortricidae) émergent six jours après la ponte sur le cyprès royal (Orchidaceae) [Parc de la Gatineau, Québec, Canada]
[Photo: Marilyn Light]
6. *Sinodendron rugosum* (Coleoptera: Lucanidae) [Victoria, British Columbia, Canada]
Sinodendron rugosum (Coleoptera : Lucanidae) [Victoria, Colombie Britannique, Canada]
[Photo: Debra Wertman]

Back cover/Plate inférieur:

- Tagged Bombus bimaculatus* (Hymenoptera: Apidae) queen [Winnipeg, Manitoba, Canada]
Une reine *Bombus bimaculatus* (Hymenoptera : Apidae) marquée [Winnipeg, Manitoba, Canada]
[Photo: Emily Hanuschuk]