

CPS • SCP *News*



CANADIAN PHYTOPATHOLOGICAL SOCIETY • SOCIÉTÉ CANADIENNE DE PHYTOPATHOLOGIE

VOL. 64, NO. 1

<http://phytopath.ca>

March / June 2020

President's Message



Barry Saville
CPS-SCP President/président

Hello CPS members

I apologise for the delay in preparing this note. The last few months have been busy, and they have presented a rapidly changing landscape within which the CPS must continue to operate. In this note I hope to make you aware of the things we have had to do at a Board level to adapt to the new normal. I would also like to provide a positive reminder that we are particularly well trained to deal with disease outbreaks and that we should share our knowledge when appropriate.

A major decision that the CPS Board had to make was whether to go forward with the CPS annual meeting scheduled for June

Inside this issue:

President's Message	1
Message du président	3
Meetings	
CPS Eastern Ontario	6
CPS Manitoba	8
In Memoriam	
Dr. Edmund W.B. Ward	9
People	
Congratulations to Nicole Fox, Zhiyu (Fisher) Yu, and Yixiao (Becky) Wang!	10
Welcome Dr. Matthew Bakker	10
Congratulations Dr. Simon Shamoun	11
Announcements	
CanFunNet 2020 Virtual Meeting	12
Young Scientists' Corner	13
Publications	
ISPP	14
ESC	16
Note from the Editor	21
Contact the Editors	21

2020 at the Penticton Lakeside Resort & Conference Centre. As those of you who have checked the CPS web site are aware, we decided that it was prudent to cancel this meeting. The decision was based on social distancing requirements that had come into affect in Alberta and BC as well as travel

restrictions that were being imposed. After having made this decision we were faced with a conundrum. Since there was no meeting there would be no annual general meeting. On the surface this does not seem an issue; however, the CPS bylaws do not allow for electronic voting, so the lack of an AGM meant that we could not vote on matters relevant to the CPS as a whole. One of these votes was to be on whether to accept the nominations put forth for the new Board

members. This was thoroughly discussed among Board members with reference not only to the CPS by laws but to

the rules put forth for not for profit organisations in Canada. You may recall that CPS was registered as a not for profit. Upon investigation and much discussion it seemed that an appropriate scenario to move forward with was to ask current Board members to continue in their positions and to ask those individuals who had put their names forward as next year's Board members to consider standing for those positions for the year after next. I am happy to report that all the current and future Board members have agreed to this. This means that as far as the board is concerned things are status quo for one more year. However, we have not contacted the members of all of the CPS committees so I ask you the members who are sitting on those other committees to please let myself or another board member know if you would prefer not to remain a member of the committee you are on and we can find a replacement. So, this decision by the board members means

that we will need to vote on the nominations for the next board at the 2021 CPS annual meeting to be held in Ottawa and the Board is also considering whether there is a need to amend CPS bylaws to cope with situations such as the one we are in.

The changes that have come about because of the global pandemic have correspondingly delayed our decision-making process in assessing the transition of CJPP to an all open access format. In my

last note I indicated that we would send out a summary document, including the implications to CPS, of the Taylor and

“I would also like to provide a positive reminder that we are particularly well trained to deal with disease outbreaks and that we should share our knowledge when appropriate.”

Francis open access proposal. This was intended to inform the general membership with the idea we could call a vote at the AGM. This was delayed by the pandemic, so this information was sent to the new editors of CJPP for their input and, with the comments they provide, we will edit the document and send it out to CPS members with a hope of receiving feedback before making a decision on the future of the CJPP.

A further ramification of this new normal has been that our celebration of the International Year of Plant Health (IYPH) was curtailed as was our ability to spread the word about the importance plant health and plant pathology. However, it is noteworthy that our colleague at Texas A and M (Kay Ledbetter, Texas A&M University AgriLife Communications April 22, 2020 citing quotes from Karen-Beth Scholthof among others) has pointed out that we can gain insight into the progress of disease caused by SARS-COV-2 through

consideration of the plant disease triangle. This concept that an epidemic arises from the interaction of three factors, a susceptible host, a virulent pathogen and a hospitable environment, was diagramed by plant pathologist George McNew in the 1960's. In the instance of the Covid-19 pandemic, humans are the susceptible host and SARS-COV-2 is the virulent pathogen. Since we do not have a vaccine or a level of herd immunity to alter human susceptibility, nor do we currently have anti-virals to reduce the viral virulence, all we can do is alter the environment (social distancing, wearing masks, handwashing) making it less favourable for the virus to spread. As plant pathologists we are very aware of this concept and it is worth our time to bring this up when appropriate since our experience with epidemics and their progression are

relevant. We know that epidemics are not over when a peak of infection rate is reached. Rather this may at best mark a halfway point in our battle and that there is a need to maintain the disruption of favourable environment until host (human) susceptibility or pathogen (SARS-COV-2) virulence can be altered. We have relevant knowledge to share and I suggest that, if you can find a forum, that sharing this knowledge is important.

Best regards and best health,

Barry Saville
President of the Canadian
Phytopathological Society
Director Master of Science Forensic
Science Program, Trent University
Associate Professor Trent University



Message du président

Message du président

Bonjour à tous les membres de la SCP!

Je m'excuse du retard que j'accuse quant à la diffusion de ce message. Les derniers mois ont été passablement occupés et, malgré le cadre contraignant qui les a caractérisés, la SCP doit continuer de fonctionner. Dans ce message, j'espère vous sensibiliser aux actions que nous avons dû mettre en œuvre au conseil pour nous adapter à la nouvelle réalité. Je voudrais également, sur une note positive, vous rappeler que nous sommes particulièrement bien formés pour faire face aux épidémies et que nous devrions

partager nos connaissances lorsque le contexte s'y prête.

Une des principales décisions que le conseil a dû prendre concernait la tenue ou l'annulation de la réunion annuelle de la SCP qui devait se tenir cette année au Penticton Lakeside Resort & Conference Centre. Comme ceux de vous qui avez consulté notre site Web le savez, nous avons décidé qu'il était plus prudent d'annuler cette réunion. La décision était fondée sur les exigences de distanciation sociale qui sont entrées en vigueur en Alberta et en Colombie-Britannique ainsi que sur les restrictions imposées quant aux déplacements. Après avoir pris cette

décision, nous faisons face à un problème. Étant donné qu'il n'y aurait pas de réunion annuelle, il n'y aurait pas non plus d'assemblée générale. À première vue, cela ne semble pas être particulièrement grave, toutefois, les règlements de la SCP ne permettent pas le vote électronique, ce qui fait que l'annulation de l'assemblée générale signifie que nous ne pourrions pas voter sur les sujets concernant la SCP dans son ensemble. Un de ces votes concernait l'acceptation ou non des candidatures des nouveaux membres du conseil. Cela a été discuté extensivement par les membres du

conseil non seulement en fonction des règlements de la SCP, mais aussi des règles régissant les organismes à but non lucratif au Canada. Vous vous souviendrez

peut-être que la SCP a été enregistrée en tant qu'organisme à but non lucratif. Après un examen profond et de nombreuses discussions, il est apparu que le scénario approprié était de poursuivre nos activités avec les membres actuels du conseil et de demander aux membres qui avaient posé leur candidature au conseil de l'année prochaine de maintenir leur candidature pour l'année suivante. J'ai le plaisir de vous annoncer que tous les membres du conseil, actuels et futurs, ont convenu de cette solution. Cela signifie que, en ce qui concerne le conseil, c'est le statu quo pour encore une année. Toutefois, nous n'avons pas contacté les membres de tous les comités de la SCP, alors je vous demande, à vous qui siégez aux autres comités, de, s'il vous plaît, me faire savoir ainsi qu'aux autres membres du conseil si vous préférez

ne plus en faire partie et, si c'est le cas, si nous pouvions trouver des remplaçants. Cette décision du conseil signifie alors que nous aurons à voter sur les candidatures pour le prochain conseil dans le cadre de la réunion annuelle de 2021 qui se tiendra à Ottawa; de plus, le conseil se demande s'il faudra amender les règlements de la SCP pour faire face à des situations telles que celle que nous vivons actuellement.

Les changements intervenus à cause de la pandémie ont en conséquence retardé notre processus de décision quant à l'évaluation

de la transition de la Revue canadienne de phytopathologie (RCP) vers le libre accès. Dans mon dernier message, j'ai indiqué que nous vous enverrions un

document synthèse, y compris les implications pour la SCP, sur la proposition de libre accès de Taylor and Francis. Cela avait pour but de vous informer sur la possibilité de soumettre la question au vote lors de l'assemblée générale. Cela a été retardé par la pandémie, alors l'information a été transmise aux nouveaux éditeurs de la RCP afin d'obtenir leur avis et, en fonction de leurs commentaires, nous réviserons le document et vous l'enverrons en espérant recevoir des réactions avant de décider de l'avenir de la Revue.

Une autre conséquence de cette nouvelle réalité a été que notre célébration de l'Année internationale de la protection des plantes a été entravée, tout comme notre capacité à transmettre le message quant à l'importance de la protection des plantes et

“Je voudrais également, sur une note positive, vous rappeler que nous sommes particulièrement bien formés pour faire face aux épidémies et que nous devrions partager nos connaissances lorsque le contexte s’y prête”

de la phytopathologie. Par ailleurs, il importe de mentionner que notre collègue de l'Université Texas A&M (Kay Ledbetter, Texas A&M University AgriLife, communications du 22 avril 2020, citant entre autres Karen-Beth Scholthof) a précisé que nous pouvons accroître notre compréhension du progrès de la maladie causée par le SRAS-CoV-2 en tenant compte du triangle des maladies des plantes. Ce concept selon lequel une épidémie découle de l'interaction de trois facteurs, un hôte réceptif, un agent pathogène virulent et un environnement favorable, a été schématisé par George McNew, phytopathologiste, dans les années 1960. Dans le cas de la pandémie de COVID-19, les êtres humains sont l'hôte réceptif et le SRAS-CoV-2, l'agent pathogène virulent. Puisque nous ne possédons ni vaccin ni degré d'immunité collective pour modifier la réceptivité des humains pas plus que d'antiviraux pour réduire la virulence du virus, tout ce que nous pouvons faire, c'est modifier l'environnement (distanciation sociale, port de masques, lavage des mains), limitant ainsi la dissémination du virus. En tant que

phytopathologistes, nous sommes très conscients de ce concept et cela vaut la peine de le souligner lorsque cela est approprié étant donné que notre expérience des épidémies et de leur progression est pertinente. Nous savons que les épidémies ne sont pas terminées lorsque le pic de l'infection a été atteint. Au mieux, cela peut indiquer que nous sommes à mi-parcours de notre lutte et qu'il faut continuer de perturber l'environnement favorable jusqu'à ce que la réceptivité de l'hôte (l'humain) ou la virulence de l'agent pathogène (SRAS-CoV-2) puissent être modifiées. Nous possédons des connaissances pertinentes à partager et je suggère, si vous pouvez trouver un forum, de le faire.

Salutations les meilleures et bonne santé!

Barry Saville, président de la Société canadienne de phytopathologie

Directeur, maîtrise ès sciences, programme de criminalistique, Université Trent

Professeur agrégé, Université Trent



Meetings

CPS Eastern Ontario

The Canadian Phytopathological Society Eastern Ontario Region meeting was held on December 6, 2019, at the Ottawa Research and Development Centre (ORDC), 960 Carling Avenue, Ottawa, ON. There were over 68 participants, including research scientists, professors, professionals, technicians, and students, from Agriculture & Agri-Food Canada (AAFC), Canadian Food Inspection Agency (CFIA), Carleton University, Trent University, University of Ottawa, and companies.

The organizing committee would like to thank the sponsors of the CPS-EOR meeting for their generous support: CPS for supporting regional meetings (\$1000), as well as SeCan (\$200), Syngenta (\$150), and ThermoFisher (\$300) to cover the awards for student competition and the coffee breaks. We also thank ORDC (AAFC) for facility support.

The opening remarks were given by Dr. Michèle Marcotte, the Science Director of ORDC, who welcomed the attendees and highlighted the opportunities for CPS to pursue during the up-coming International Year of Plant Health 2020. A special session, Functional genomics



A) Dr. Michèle Marcotte (Science Director of Ottawa Research and Development Centre, Agriculture and Agri-Food Canada) delivering welcome remarks and highlighting the International Year of Plant Health 2020; B) Invited speakers: Drs. Barry Savile (Trent University, president of Canadian Phytopathological Society) and Myron Smith (Carleton University); C) Ms. Serine Ramlawi (Carleton University), the winner of the poster prize, presenting her poster to the judge committee; D) Ms. Claire Gahagan, the winner of oral presentation prize, and Dr. Jeremy Dettman (chair of judge committee); E) Poster session; F) Sponsors and a display table presented by ThermoFisher; G) Lunch time; H) Group picture of CPSEOR2019 meeting.

in “big data” era, followed. Two guest speakers, Drs. Barry Savile (Trent University, President of the Canadian Phytopathological Society) and Myron Smith (Carleton University), addressed the application of whole genome sequencing technology to functional genomics. Eight contributed talks were given by Gopal Subramaniam (AAFC), Kristina Shostak (Carleton University/AAFC), Johnathan Mack (Carleton University/AAFC), Tom Witte (Carleton University/AAFC), Claire Gahagan (University of Ottawa/AAFC), Scott Redhead and Taylor Hutter (AAFC), Sylvia Chi (AAFC) and David Overy (AAFC) focusing on the topics of *Fusarium* genomics, mycology, metagenomics and biocontrol of plant diseases. Five posters reported on biocontrol of plant diseases, novel nitrogen pathways, and historical female figures in plant pathology. Handouts of the International Year of Plant Health 2020 were distributed to promote the initiative. Serine Ramlawi (under the supervision of Dr. Tyler Avis) and Claire Gahagan (under the supervision of Drs. Wen Chen and Stéphanie Aris-Brosou) won the prizes for student poster and oral presentation, respectively.

The symposium organising committee:

Registration & Program: Miao Liu, Guillaume Bilodeau

Advisor: Kenneth Conn, Sarah Hambleton

Judges for student competition: Jeremy Dettman, Hai Nguyen, Linda Harris

Abstract editor and production: James Tambong

Catering: Émilie Tremblay, Sarah Hambleton, Emily Giroux

Moderator: Wen Chen, Tara Rintoul

Photography: Quinn Eggertson, Satpal Bikhu

Venue Set-up and administrative support: Parivash Shoukouhi, Rafik Assabgui, Robin Richter, Cassandra Bisson, Carmen Hicks, Jacques Pomerleau, Jennifer Thompson, Sarah Hackett

The organising committee thank everyone who volunteered to contribute and help at the symposium.

Reported by Miao Liu (CPS Eastern Ontario Region Representative)

Ottawa Research and Development Centre

Agriculture and Agri-Food Canada



CPS Manitoba

The Manitoba CPS Regional Meeting was held on December 6, 2019. A full report of the meeting will be published at a later time. A warm thank you is extended to the organizers. Congratulations to the winners of the student paper competition! The winners were:

First place: Joey Wan

Second place: Nick Wytnick

Third place: Nadia Garma

Photos submitted by Dr. Vikram Bisht



The winners of the Student Paper Competition receive their awards from Dr. Fouad Daayf, CPS Regional Representative for Manitoba. Congratulations to Joey Wan (top, left); Nick Wytnick (top, right), and Nadia Garma!



In Memoriam

Dr. Edmund W.B. Ward

WARD, Edmund W.B.

May 30, 1930 - April 10, 2020



Edmund W.B. Ward

Passed away peacefully of natural causes at University Hospital, London on Friday, April 10, 2020. Ed, born in 1930, grew up in Stockport, England. There, he attended William Hulme's Grammar School where he developed the love of sports and singing, and a disciplined approach to living, which remained with him throughout his life. He emigrated to Canada in 1952 to complete his Doctorate at the University of Alberta. Jean (spouse) emigrated the following year to join her fiancé and they were married in Edmonton in 1953.

Ed and Jean were blessed with three sons, William, David and Mark and moved to London Ontario in 1961. He enjoyed opera and participated in the Gilbert and Sullivan society at UWO for several years. Dad was an avid singer of classical music and enjoyed singing in several choirs and musical groups over the years.

He was an enthusiastic cricket player and spent much of his free time supporting the sport. Many will remember his wry and at times theatric Lancashire sense of humour which came with him to Canada. Ed had a long and distinguished career as a research scientist at the Agriculture Canada, Research Institute in London, Ontario. He made significant contributions to understanding the response mechanisms of plants to diseases. In 1992, he received the Canadian Phytopathological Society Award for Outstanding Research, an award, which honours lifetime contributions to this field.

His sons and their families and anyone who was touched by him over the years will sorely miss him.

Sons - William, David, and Mark. Daughters- in- Law, Debra and Ruthanne.
Grandchildren - Christopher, Jordan, Lindsay, Zackary, Ethan and Margaret,
Step-grandchildren - Barbara. Great Grandchildren - Lucas.

He has now joined Jean who passed away in 2016. They will always be together from now on.

Due to the Covid Epidemic restrictions, a memorial service celebrating Edmund's life will be announced in the future. For now, in lieu of this event, a memorial page has been opened for people to contribute their memories of him at:

<https://www.forevermissed.com/edmund-williambeswick-ward/>

In lieu of flowers please give donations to The Alzheimer Society of Canada.

People

Welcome Dr. Matthew Bakker to the University of Manitoba!



Dr. Matthew Bakker joined the Department of Microbiology at the University of Manitoba as an Assistant Professor. His research program centres on fusarium head blight and on understanding microbiomes in crop production environments, with particular emphases on wheat, barley, and the malting environment. He also has interests in soil microbial ecology and soil health. Dr. Bakker's training is in Plant Pathology (University of Minnesota) and he has worked previously for the US Department of Agriculture on topics related to cover crops and to fusarium head blight of wheat.

For more information about his research, please visit the website for the Bakker Lab for Agricultural Microbial Ecology.



Congratulations to Nicole Fox, Zhiyu (Fisher) Yu, and Yixiao (Becky) Wang!

Congratulations to Nicole Fox, Zhiyu (Fisher) Yu, and Yixiao (Becky) Wang on receiving their M.Sc. Degrees from the University of Alberta at Fall Convocation on November 19, 2019. Nicole and Becky were supervised by Drs. Stephen Strelkov and Sheau-Fang Hwang, while Fisher was supervised by Drs. Stephen, Sheau-Fang and Rudolph Fredua-Agyeman. Nicole completed a thesis on The Evaluation of Lime Products as a Clubroot (*Plasmodiophora brassicae*) Management Tool. She is now working as a research scientist with BASF.



Drs. Stephen Strelkov, Sheau-Fang Hwang and Rudolph Fredua-Agyeman congratulate (from left to right) Nicole Fox, Zhiyu (Fisher) Yu and Yixiao (Becky) Wang on receiving their M.Sc. Degrees on November 19, 2019.

Fisher worked on the Characterization of Rutabaga for Genetic Diversity and as a Source of Clubroot Resistance. He is continuing his studies on soil amendments for the management of clubroot as part of a Ph.D. program at the University of Alberta.

Becky completed a project on Yield Losses and Pyraclostrobin Sensitivity in Blackleg (*Leptosphaeria maculans*) of Canola. She is now employed as a technician in the Plant Pathology Program at the University of Alberta, and plans to continue with a Ph.D. in the near future.



Dr. Simon Shamoun recognized as Canadian Forest Service's “Unsung Hero” of 2020



In recognition of the United Nations General Assembly declaration of 2020 as the International Year of Plant Health (IYPH), The Canadian Forest Service present Dr. Simon Francis Shamoun the Unsung Hero CFS Award for his professional contributions in highlighting the importance of pathology in protecting Canada's forests, and ensuring the continuity of the legacy of plant pathology through mentorship. His work ethic, and his reputation nationally, and internationally, is an inspiration to many aspiring plant pathologists. He continues to show infectious enthusiasm teaching and inspiring the next generation to pursue a career in pathology in Canada. In addition, Dr. Shamoun provides equal opportunity and treatment to others by working collaboratively with a diverse group of people including indigenous youth, visible minorities and women through various programs such as co-op, FSWEF, as supervisor to many graduate students, and a mentor to post-docs and visiting fellows. With Dr. Shamoun's mentoring and oversight, a number of researchers and professionals are now able to provide advice and guidance to ensure the health of Canada's forests into the future.

Congratulations Dr. Shamoun!



Announcements

CanFunNet 2020 Virtual Meeting



The Canadian Fungal Research Network is hosting our first meeting!

July 29th & 30th online

Talks will run both days from 1:00pm-6:00pm GMT-2:30 (NDT, i.e., Newfoundland), which is 8:30am-1:30pm GMT-8 (PDT, i.e., British Columbia) ... everyone else can figure it out, hopefully. Virtual social hours/breakout rooms will be hosted following the talks.

We welcome standard length (12 minutes) and flash talks (3 minutes) from researchers at all stages that study any aspect of fungal biology. Keynotes (20 minutes) will be selected from contributed talks from late-stage PhD students and Postdocs/Research Associates.

As a major goal of this conference is to continue building a national network of Canadian fungal biologists, preference will be given to researchers who are Canadian or are affiliated with Canadian institutions.

Several professional development symposia aimed at early career researchers as well as community forums are also in the works. More information will be provided here when it's available. If you are interested in leading a symposium, or have suggestions for topics that you want to hear about, please get in touch with us.

For more information, or to register, please see the meeting website:

<https://www.fungalresearch.ca/canfunnet2020.html>

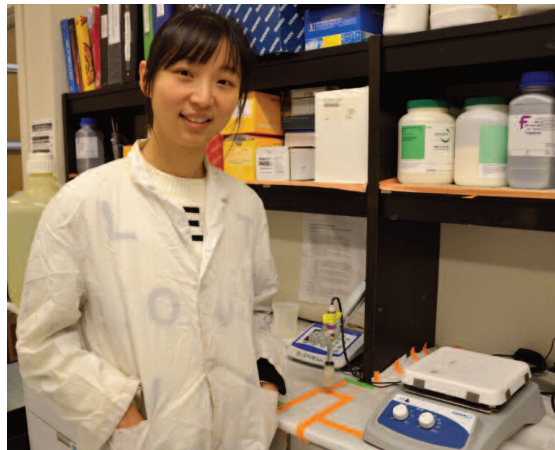


Young Scientists' Corner

FEATURED STUDENT:

Yuting (Phoebe) Li

Memorial University of Newfoundland



Phoebe at work in the lab

I have always been eager to know about life, and thus I have always enjoyed Biology, the science of life. I am especially amazed by the complexity of small microbes: how they cooperate with other organisms in nature, how they employ regulatory networks to turn genes on or off in response to different environmental stimuli, and how evolution has enabled them to produce a variety of different molecules for survival and adaptation. Luckily, I was able to learn about the fascinating interactions between microbes and plants when I started my major in plant pathology at Zhongkai University of Agriculture and Engineering, Guangzhou, China. By the end of my undergraduate program, I had developed a passion for conducting hands-on research in the area of plant-microbe interactions, and this led me to further explore research opportunities that would enable me to make a meaningful contribution to the generation of new knowledge in this field.

I was very excited when I got the opportunity to work in Dr. Dawn Bignell's lab at Memorial University of Newfoundland as part of my MSc degree. Here, I began working with a group of fascinating microorganisms, the *Streptomyces*, which are best known for their ability to produce many clinically-relevant antibiotics as well as with other bioactive metabolites with applications in medicine and in agriculture. Research in Dr. Bignell's lab focuses on a subset of *Streptomyces* species that are phytopathogenic and cause economically important crop diseases, the most important of which is common scab of potato. The overall goal of our lab is to decipher the molecular mechanisms of disease development by phytopathogenic *Streptomyces* species in order to facilitate the development of better disease management strategies for growers. My MSc project aimed to better understand the biosynthesis of a phytotoxin called N-coronafacoyl-L-isoleucine, which contributes to the virulence of *Streptomyces scabies*, the best-characterized phytopathogenic species. The experiences obtained in the lab during my MSc program have equipped me with a variety of technical skills in microbiology, bioinformatics, molecular biology, analytical chemistry and plant pathology, and have helped me to further develop my communication and mentorship skills. I was very

grateful for being able to work in such a friendly environment and to learn from my supervisor and lab mates. Therefore, I decided to continue working with the same group for my PhD program. Currently, my PhD project focuses on a group of small proteins called MbtH-like proteins (MLPs), which are important for the production of a family of small molecules called nonribosomal peptides. Through genetic and biochemical studies, my research has shown that a gene encoding an MLP plays a critical role in the biosynthesis of thaxtomin A, the principal pathogenicity determinant responsible for common scab disease development by *S. scabies* and other phytopathogenic *Streptomyces* species.



Publications

ISPP - International Newsletter on Plant Pathology



The International Society for Plant Pathology promotes the world-wide development of plant pathology and the dissemination of knowledge about plant diseases and plant health management. News and announcements from all on any aspect of Plant Pathology are invited for the Newsletter.

Editor: Daniel Huberli

e-mail: ispp.nl.editor@isppweb.org

Members of Associated Societies of ISPP can receive e-mail notification of Newsletter updates by joining the ISPP mail list.

<http://www.isppweb.org/newsletter.asp>

ISPP Newsletter 50 (1) January 2020

In this issue:

- ISPP President's Greetings for 2020
- ISPP-Report for 2020
- Advanced Crop Improvement Short Course: From Planting in the Paddies to Genome Editing in 2 weeks
- APPS Biennial Conference, Melbourne, 2019
- New discovery to fight citrus exocortis viroid
- Colombia reports on TR4 progress
- Early Warning System for Citrus Plant Disease
- Novel way to ID disease-resistance genes in chocolate-producing trees found

- Current Vacancies
- Acknowledgements
- Coming Events

ISPP Newsletter 50 (2) February 2020

In this issue:

- Introducing the Infectarium at Universidade Federal de Viçosa, Brazil
- Obituary of Giovanni Paolo Martelli, 1935-2020
- Drone technology detects two tomato diseases
- Most influential publications by Chinese researchers
- Pacific Pests and Pathogens app, Mobile Version 8
- International Year of Plant Health in Australia
- Wild tomatoes resist devastating bacterial canker
- Plants found to speak nematode's language
- Focus on cell biology of virus-plant and virus-vector interactions
- Current Vacancies
- Acknowledgements
- Coming Events

ISPP Newsletter 50 (3) March 2020

In this issue:

- Valérie Verdier is IRDs new Chairman of the Board and CEO
- Fast test to identify mycotoxins in cereal crops
- Cards to coach kids on plant pests and diseases
- A new front in the crop infection battle
- Screening for resistance against blue mold in garlic accessions
- Webinar on powdery scab - Integrated disease management
- 2021 Phytopathology focus issue on population genomics

- Symbiotic viruses help host insects override the plant's defenses
- Current Vacancies
- Acknowledgements
- Coming Events

ISPP Newsletter 50 (4) April 2020

In this issue:

- The Festival Plant Health 2020 is online! Plant will be the main actors
- in Torino, Italy
- Postponed conferences due to COVID-19
- Can an invasive snail help save coffee from leaf rust?
- Novel chemistry to protect our crops from fungal disease
- How three genes rule plant symbioses
- Cucumber Mosaic Virus – new book
- Birds carry Phytophthora ramorum in Britain
- Root-lesion nematodes of potato
- Sting nematodes modify metabolomic profiles of host plants
- Some domesticated plants ignore beneficial soil microbes
- Current Vacancies
- Acknowledgements
- Coming Events

ISPP Newsletter 50 (5) May 2020

In this issue:

- Plant pathologists and plant pathology at the time of the coronavirus
- Cancelled and postponed conferences due to COVID-19
- How is COVID-19 affecting plant pathologists?
- The global Plant Health Assessment is launched
- Postharvest Pathology of Fresh Horticultural Produce – new book
- 'Disease triangle' offers insight into COVID-19 pandemic

- Introducing PhytoFrontiers™
- Self-isolation or keep calm and carry on – the plant cell's dilemma
- Plant virus that combats fungal pathogens may yield low-cost COVID19 vaccine
- Obituary of Prof. Dr. Shahina Fayyaz, 1959-2020
- Promising Practices for Addressing the Underrepresentation of
- Women in Science, Engineering, and Medicine
- Plantopia podcast series
- Current Vacancies
- Acknowledgements
- Coming Events
- Follow the web conference 'PLANT HEALTH, ONE HEALTH' on
- 4
- th June at 6.30 p.m. (CET)
- World Wide Directory of Plant Pathologists
- Plant Health 2020 is now a virtual meeting
- New animated film marks International Year of Plant Health 2020
- Europe's blinkered resistance to gene editing is a blow to good science
- APS Press book sale
- Chasing myrtle rust in New Zealand
- Engineers develop precision injection system for plants
- Innovative virus research may save wheat and other crops
- Scientists focused on wheat health awarded
- Current Vacancies
- Acknowledgements
- Coming Events

ISPP Newsletter 50 (6) June 2020

In this issue:

- How is COVID-19 affecting plant pathologists?
- Postponed and virtual conferences due to COVID-19



Entomological Society of Canada



The *Bulletin* has been published quarterly by the Entomological Society of Canada since 1969. It provides information on the activities of the Society and its members, research and employment opportunities, matters of wider scientific importance and book reviews.

Volume 51(4), December /decembre 2019

Up front / Avant-propos	183
Memories of JAM 2019 / Souvenirs de la RAC 2019	187
Joint Annual Meeting 2020 / Reunion annuelle conjointe 2020	192
STEP Corner / Le coin de la relève	194
Graduate Student Showcase / Vitrine aux étudiants gradués	196
President's Prize Winners & Runners-up	198
2019 ESC Student Award Winners / Gagnants des prix étudiants SEC 2019	199
Student scholarships and awards in 2020 / Prix et bourses étudiants en 2020	202
News from the Regions / Nouvelles des régions	203
Special Features / Articles spéciaux	
Wider aspects of a career in entomology. 8. The bug book and bug bottle (Hugh V. Danks)	207
Characterizing and engineering a dengue refractory phenotype in <i>Aedes aegypti</i> (Heather Coatsworth)	220
Things to know about ticks, mosquitoes, and midges: Update from the symposium on arthropod disease vectors in Canada (Joanna Konopka)	225
Canada's Coolest/Cruellest Bugs / Ces bestioles les plus cools/ cruelles du Canada	227
<i>Upis ceramoides</i> (Linnaeus, 1758), the roughened darkling beetle (Insecta: Coleoptera:Tenebrionidae) (Patrice Bouchard)	227
Khapra beetle: a cruel, cool insect (Kevin Floate, Sunil Shivananjappa, Diana Wilches, Rob Laird and Paul Fields)	229
In memory / En souvenir de	
Maurice Desmond (Jinx) Proverbs (Tom Lowery)	231
Pierre-Paul (aka Peter) Harper (Louise Cloutier, translated and edited by Colin Favret)	233
Books available for review / Livres disponibles pour critique	234
Society business / Affaires de la Société	
Highlights of the Recent Board of Directors Meeting	235
Minutes of the 69th Annual Meeting of Members	237
Minutes of a Special Meeting of Members	242
Call for nominations: Societal Director (Second Vice-President), Director at Large / Appel à candidatures : Directeur sociétal (second vice-président), conseiller	243
Members' Discounts / Remise pour les membres	243
Executive Meeting - Call for Agenda Items / Réunion du conseil exécutif - Points à l'ordre du jour	243
ESC Annual Photo Contest Winners	244
Seeking next ESC Treasurer / À la recherche du prochain trésorier de la SEC	245
Call for Nominees: ESC Achievement Awards / Appel à candidature:	

Prix d'excellence de la SEC	246
Announcements / Annonces	
Second Virtual Symposium of the Entomological Society of America– International Branch / Second symposium virtuel de l'Entomological Society of America – International Branch	249
List of Contents: Regional Journals / Table des matières : Revues des sociétés régionales	250
Content of newsletters / Contenu des bulletins	
Canadian Weed Science Society / Société canadienne de malherbologie	251
Meeting Announcements / Réunions futures	252
Officers of affiliated societies / Dirigeants des sociétés associées	254
The last word / Le dernier mot	255
Governing board / Conseil d'administration	inside back cover

Volume 52(1), March /mars 2020

Up front / Avant-propos	1
Joint Annual Meeting 2020 / Reunion annuelle conjointe 2020	4
STEP Corner / Le coin de la relève	7
News from the Regions / Nouvelles des régions	9
People in the news / Gens qui font les manchettes	9
Gold Medal Address / Allocution du médaillé d'or 2019 (Peter Mason)	10
Special Features / Articles spéciaux	
Wider aspects of a career in entomology. 9. An interest in entomology (Hugh V. Danks)	15
Mothers don't always know best: female parasitoid wasps' host choice (Joanna Konopka)	22
eTick.ca: Engaging the public and increasing awareness to ticks and tick borne diseases(Pierre Chuard and Jade Savage)	26
Citizen science in the Credit River Watershed: the 2019 Butterfly Blitz (Laura Timms)	30
Now tell us what you really think – again: Results of a survey of ESC members attending the 2019 ESC-CSEE-AES joint meeting (Chris MacQuarrie and Joanna Konopka)	39
Canada's Coolest/Cruellest Bugs / Ces bestioles les plus cools/cruelles du Canada	
<i>Oppiella nova</i> (Oudemans, 1902): not an insect, but just as cool (Carlos Barreto)	42
<i>Boreus elegans</i> Carpenter (Rob Cannings)	44
Emerald on the Shield: <i>Cicindela denikei</i> (Robert E. Wrigley)	46
Insects on ice: <i>Gryllobatta</i> (Sean Schoville)	49
In memory / En souvenir de	
Jordan L. Burke (Allan Carroll)	54
James Francis (Frank) McAlpine (Jeffrey M. Cumming and D. Monty Wood)	56
Books available for review / Livres disponibles pour critique	60
Book reviews / Critiques de livre	

Medical and Veterinary Entomology, by G.R. Mullen and L.A. Durden (H. Proctor)	61
Pheromone Communication in Moths - Evolution, Behavior, and Application, by J.D. Allison and R.T. Cardé, (Julien Saguez)	63
Beetle, by A. Dodd (Julia Mlynarek)	65
Society business / Affaires de la Société	
Véronique Martel - Service Award recipient / Récipiendaire d'un prix de long service	66
70th Annual Meeting of Members and Board of Directors Meetings / 70e assemblée annuelle et réunions du conseil d'administration de la SEC	67
Executive Meeting - Call for Agenda Items / Réunion du conseil exécutif – Points à l'ordre du jour	67
Members' discounts / Remise pour les membres	67
Highlights of recent Board of Directors meeting	68
Seeking next ESC Treasurer / À la recherche du prochain trésorier de la SEC	70
Sixteenth Annual Photo Contest / Seizième concours annuel de photographie	71
Announcement / Annonce	
Entomo-I	73
List of contents: Regional Society Journals / Table des matières : Revues des sociétés régional	73
Contents of newsletters / Contenu des bulletins	
Canadian Phytopathological Society / la Société canadienne de phytopathologie	74
Biological Survey of Canada / la Commission biologique du Canada	75
Meeting announcements / Réunions futures	76
Officers of affiliated societies / Dirigeants des sociétés associées	78
The last word / Le dernier mot	79
Governing board / Conseil d'administration	inside back cover
 <u>Volume 52(2). June /juin 2020</u>	
Up front / Avant-propos	81
Joint Annual Meeting 2020 / Reunion annuelle conjointe 2020	84
STEP Corner / Le coin de la relève	85
News from the Regions / Nouvelles des régions	87
Bert and John Carr Award 2019 / Le Prix Bert et John Carr 2019	89
Special Features / Articles spéciaux	
Wider aspects of a career in entomology. 10. Undergraduate activities (Hugh V. Danks)	91
The great black widow race: how males use the silk road to find females faster (Catherine Scott)	98
Canada's Coolest/Cruellest Bugs / Ces bestioles les plus cools/cruelles du Canada	
Big sand tiger beetle, <i>Cicindela formosa generosa</i> "manitoba" Dejean, 1831 –	

How it came to occupy centre stage on the logo for the Entomological Society of Manitoba (Terry D. Galloway)	104
<i>Melanoplus bivittatus</i> (Say 1825), the two-striped grasshopper (Cedric Gillott)	106
In memory / En souvenir de	
Kenneth ("Ken") William Richards (Joe Shorthouse.)	110
Douglas A. Craig (Douglas C. Currie)	113
Ronald Harry Gooding (Janet Sperling and Bev Mitchell)	117
Paul-Michael Brunelle (Donald F. McAlpine)	118
Books available for review / Livres disponibles pour critique	120
Book reviews / Critiques de livre	
Nature Underfoot: Living with Beetles, Crabgrass, Fruit Flies, and Other Tiny Life Around Us, by J. Hainze (Kishan Sambaraju)	121
The Lives of Bees: The Untold Story of the Honey Bee in the Wild., by Thomas D. Seeley. (Cory S. Sheffield)	123
In Search of Meadowlarks: Birds, Farms, and Food in Harmony with the Land, by John M. Marzluff (Stéphane Bourassa)	125
Society business / Affaires de la Société	
Seeking next ESC Webmaster / À la recherche du prochain webmestre de la SEC	127
70th Annual Meeting of Members and Board of Directors Meetings / 70e assemblée annuelle et réunions du conseil d'administration de la SEC	128
Executive Meeting - Call for Agenda Items / Réunion du conseil exécutif – Points à l'ordre du jour	128
Members' discounts / Remise pour les membres	128
Highlights of the recent Board of Directors meeting	129
Nominations for ESC Board of Directors / Nominations pour le Conseil d'administration de la SEC	130
Announcement of Changes in the ESC Standing Rules / Annonce de changements dans les règles permanentes de la SEC	132
ESC Scholarship Fund / Le Fonds de bourses d'études de la SEC 2019	
Donors – Donateurs et donatrices pour 2019	134
Sixteenth Annual Photo Contest / Seizième concours annuel de photographie	135
List of contents: Regional Society Journals / Table des matières : Revues des sociétés régional	137
Contents of newsletters / Contenu des bulletins	
Canadian Weed Science Society / Société canadienne de malherbologie	138
Announcement / Annonce	
Canadian Pest Management Research Report / Rapport de recherche de la lutte dirigée	138
Meeting announcements / Réunions futures	139
Officers of affiliated societies / Dirigeants des sociétés associées	141
The last word / Le dernier mot	142

Note from the Editor

Hello all,

As you probably noticed, the March 2020 edition of the CPS News was not published as planned. Due to the ongoing uncertainty at that time regarding Covid-19, especially with respect to its impact on our annual meeting, it was not possible to complete the newsletter as scheduled. By the time a decision could be made and the final submissions were received, a decision was made to combine the content of the March and June issues. Please accept my apologies for the lateness of these news items!

Respectfully submitted,
Linda Jewell
Editor, CPS News

Contact the Editors

Linda Elizabeth Jewell, Editor

St. John's Research and Development Centre
Agriculture and Agri-Food Canada
204 Brookfield Rd.
St. John's, Newfoundland and Labrador
A1E 0B2

Telephone: 709-793-3173; Fax 709-793-3341
Email: linda.jewell@canada.ca

Coreen Franke, Associate Editor

Nutrien Ag Solutions
201 - 407 Downey Road
Saskatoon, Saskatchewan
S7N 4L8

Telephone: 306-668-6633/306-229-4180 (cell)
Fax: 306-668-5564
Email: coreen.franke@nutrien.com

Submission Deadline for the September 2020 Issue of CPS-SCP News

PLEASE NOTE: The submission deadline for the September 2020 issue of CPS - SCP News is August 27, 2020. If you send photographs for publication in the CPS-SCP News, please ensure that you indicate that all individuals appearing in the photographs have given permission for their photographs to appear in the newsletter. Photographs will not be published if permission has not been obtained from the individuals involved. In addition, photographs must be accompanied by a caption, and must be of suitable quality for printing. Photos that do not meet these guidelines will not be printed.

