



71<sup>st</sup> ANNUAL MEETING OF THE  
ENTOMOLOGICAL SOCIETY OF  
MANITOBA

October 23, 2015  
Freshwater Institute  
501 University Crescent  
&

October 23, Department of Entomology, University of  
Manitoba, Winnipeg, Manitoba, Canada

*Theme:*  
**Molecular Approaches to Fundamental and Applied  
Entomology**

**Friday Morning, October 23, 2015**

**Location: Freshwater Institute, 501 University Cres.**

08:15 Registration

08:45 Opening remarks  
Steve Whyard, Chair  
Scientific Programme Committee

Richard Westwood, President  
Entomological Society of Manitoba

**KEYNOTE ADDRESS**

09:00 **Daniel Doucet**  
Canadian Forest Service, Natural Resource  
Canada, Sault Ste Marie, Ontario  
**Insect cells lines: useful models to study the  
mode of action of insecticides**

10:00 Refreshment Break and Poster Presentation

**SUBMITTED PAPERS**

Chair: Jeffrey Marcus

10:30 Species-specific insect control using RNA  
interference. **A.D. Singh**, S. Wong, C.P. Ryan,  
S. Desai and S. Whyard. Department of  
Biological Sciences, University of Manitoba

10:45\* Characterizing putative cellular mediators of  
West Nile virus infections in *Aedes aegypti* and  
*Culex quinquefasciatus* mosquito cells. **A. L.  
Partridge**, C.N.G. Erdelyan, and S. Whyard.  
Department of Biological Sciences, University  
of Manitoba

11:00\* Characterizing innate immune responses to  
West Nile virus in the mosquito *Aedes aegypti*.  
**C.N.G. Erdelyan**<sup>1</sup>, M. Drebot<sup>2</sup> and S. Whyard<sup>1</sup>.  
<sup>1</sup>Department of Biological Sciences, University  
of Manitoba; <sup>2</sup> Viral Zoonoses, National  
Microbiology Laboratory, Winnipeg, Manitoba

11:15 Detection of pathogen spillover from managed  
honey bees (*Apis mellifera L.*) to native  
pollinators (*Bombus spp.*) through the  
quantification of RNA viruses. **C. Robson-  
Hyska**<sup>1</sup>, R. Currie<sup>1</sup> and S. Desai<sup>2</sup>. <sup>1</sup>Department  
of Entomology, University of Manitoba;  
<sup>2</sup>Department of Biological Sciences, University  
of Manitoba

11:30\* Wax and wingless flies: Honey bee viruses in  
unexpected places. **M.J. Colwell**<sup>1</sup>, R.W. Currie<sup>1</sup>  
and S.F. Pernal<sup>2</sup>. <sup>1</sup>Department of Entomology,  
University of Manitoba; <sup>2</sup>Agriculture & Agri-  
Food Canada, Beaverlodge, Alberta

11:45 Serial infection of *Culiseta inornata* (Diptera:  
Culicidae) with rift valley fever and cache  
valley viruses under laboratory conditions. **M.  
Iranpour**<sup>1,2</sup>, A. Dibernardo<sup>1</sup>, and R. Lindsay<sup>1,2</sup>.  
<sup>1</sup>Zoonotic Diseases and Special Pathogens,  
National Microbiology Laboratory, Winnipeg,  
Manitoba; <sup>2</sup>Department of Entomology,  
University of Manitoba

**12:00 Lunch Break**

**Friday Afternoon, October 23, 2015**

**Location: Freshwater Institute, 501 University Cres.**

Chair: Steve Whyard

13:30 Why are so many winter wheats from eastern  
North America resistant to wheat midge? **R.J.  
Lamb**, M.A.H. Smith, I.L. Wise and R.I.H.  
McKenzie. Cereal Research Centre, Agriculture  
and Agri-Food Canada, Morden, Manitoba

13:45\* The effects of crowding and host-plant quality  
on soybean aphid wing induction. **A. Rios-  
Martinez** and A.C. Costamagna. Department of  
Entomology, University of Manitoba

14:00\* Does natural enemy movements and agricultural  
landscape complexity affect soybean aphid  
suppression in Manitoba? **K.G.L.I.  
Samaranayake** and A. C. Costamagna.  
Department of Entomology, University of  
Manitoba

14:15\* Effects of landscape structure on abundance of  
cereal leaf beetle *Oulema melanopus* and its  
parasitoid, *Tetrastichus julis*. **A. Kheirodin**<sup>1</sup>,  
A.C. Costamagna<sup>1</sup> and H. Carcamo<sup>2</sup>.  
<sup>1</sup>Department of Entomology, University of  
Manitoba; <sup>2</sup>Agriculture and Agri-Food Canada,  
Lethbridge Research Centre, Lethbridge,  
Alberta

14:30 Diatomaceous earth to control four stored-  
product insects. **A. Abdelghany** and P. Fields.  
Cereal Research Centre, Agriculture and Agri-  
Food Canada, Department of Biosystems  
Engineering, University of Manitoba

14:45 Refreshment Break and Poster Presentation

15:15 Defensive secretions in larvae of a Carabid  
beetle: chemical composition and variation.  
A.E. Holliday<sup>1</sup>, T.M. Mattingly<sup>1</sup>, and **N.J.  
Holliday**<sup>2</sup>. <sup>1</sup>Department of Chemistry and  
Biochemistry, Swarthmore College,  
Swarthmore, Pennsylvania, U.S.A.;  
<sup>2</sup>Department of Entomology, University of  
Manitoba

- 15:30\* Evidence for a far posterior wing compartment boundary in insects. **R. Abbasi** and J.M. Marcus. Department of Biological Sciences, University of Manitoba
- 15:45\* The buckeye butterflies (genus *Junonia*) from Florida, USA, can be used as a model for studying colonization, establishment, and introgression of invasive insect species. **M.M.L. Lalonde** and J.M. Marcus. Department of Biological Sciences, University of Manitoba
- 16:00 Spatial distribution of *Culex* spp. and *Culiseta* spp. eggs in containers and natural sites in southern Manitoba with respect to different sources of organic enrichment. **R.A. Anderson**. Biology Department, University of Winnipeg
- 16:15 Molecular markers for detection of flea beetles (Coleoptera: Chrysomelidae) in PCR-based gut content analysis of predators in canola. **A. Dal Molin**, L. Peixoto, and B. Sharanowski. Department of Entomology, University of Manitoba
- 16:30\* Potential causes of aerial insectivore population declines related to diet. **A. Bass**<sup>1</sup>, B. Sharanowski<sup>1</sup>, and K. Fraser<sup>2</sup>. <sup>1</sup>Department of Entomology, University of Manitoba; <sup>2</sup>Department of Biological Sciences, University of Manitoba

\*entered in student paper competition

#### **POSTER**

The role of microRNAs in ovarian development in *Drosophila melanogaster*. **C. Dugray**, A. Liu, N.J. Doughty and S. Whyard. Department of Biological Sciences, University of Manitoba

#### **Friday Evening, October 23, 2015**

#### **MEET-THE-SPEAKERS MIXER**

- 20:00 At the home of Pat MacKay and Bob Lamb, 291 Wildwood Park (Section I). Awards ceremony: Student Paper Award, ESM Graduate Scholarship, ESM Student Achievement Award, Orkin Award. (Maps available at registration).

#### **Saturday Morning, October 24, 2015**

**Location: Rm. 219 Animal Science/Entomology Bldg.**

- 8:15 Refreshments/Announcements

#### ***SYMPOSIUM – Molecular Approaches to Fundamental and Applied Entomology***

Chair: Kateryn Rochon

- 08:40 Divergent transcriptional regulation and speciation in *Drosophila*. **Alberto Civetta**. Department of Biology, University of Winnipeg
- 09:20 The use of proteomics in marker assisted selection for resistance to honey bee diseases and parasites. **Rob Currie**. Department of Entomology, University of Manitoba
- 10:00 Refreshment Break
- 10:15 Prevention of Israeli acute paralysis virus (IAPV) infection in honey bees using dsRNA. **Suresh Desai**. Department of Biological Sciences, University of Manitoba
- 10:45 Mitogenomic hypothesis testing in *Junonia* butterflies. **Jeffrey Marcus**. Department of Biological Sciences, University of Manitoba
- 11:25 A molecular approach to control populations of dengue vector mosquitoes. **Steve Whyard**. Department of Biological Sciences, University of Manitoba
- 11:55 Catered Lunch and ESM Annual General Meeting

**PLEASE NOTE: Due to a Winnipeg Blue Bombers game, parking restrictions on the University of Manitoba Campus begin at 1:30 pm on Saturday October 24<sup>th</sup>.**

#### **REGISTRATION:**

Regular members:	\$25.00
Student members:	\$5.00
Non-members:	\$45.00

Registration takes place at the meeting.

ESM 2015 Programme Committee: Steve Whyard (Chair), Suresh Desai, Aditi Singh, Joel Gosselin (Chair, Fund-raising Committee).

#### ***The ESM thanks the following sponsors for their generous support of the meeting:***

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