

The Entomological Society of Manitoba *Newsletter*



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Spring & Summer 2010

About the ESM Newsletter

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

Pat MacKay, Editor¹
Mahmood Iranpour, Editor²

Dept. of Entomology,
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

¹Ph. (204) 452-4025
pa_mackay@umanitoba.ca

²Ph. (204) 474-6994
iranpour@cc.umanitoba.ca

Editors' Comments



Spring is ending, summer is beginning, the weather continues to confuse us and the mosquitoes overwhelm us. Welcome to Manitoba. This issue of the Newsletter begins and ends with Marj Smith: she authors the opening **President's column**, and at the end provides the solution to one of her ever interesting **crossword puzzles**. In between are several other offerings for you from and/or about your society and its members. There's a notice about the **Annual Meeting** with some information about the theme and the speakers. No final word on the associated social activities, but your editors can, at this time, guarantee that the Meet-the-Speakers Mixer will be held as usual. Our new Social Committee Chair, **Lisa Capar**, reports on two of the activities she has organized for us. Thanks, Lisa, and we look forward to more of the same. Next there's a sad item about the loss of another entomologist, **Harold Westdal**. On a happier note, **Terry Galloway** writes from New Zealand. And finally, **Bob Wrigley** describes the visit to the province by an honorary insect (a.k.a. a spider). Enjoy your summer, and we will "talk" to you in the fall.

Pat MacKay & Mahmood Iranpour

And now, a message from your President...

Mark your calendars – 22 and 23 October! That's when the ESM's Annual Meeting will be held this year. The chair of the Scientific Program Committee this year is John Gavloski, who is an entomologist with Manitoba Agriculture, Food and Rural Initiatives. The meeting will be held in the Freshwater Institute on Friday, 22 October, and in the Department of Entomology on Saturday, 23 October. The theme of the meeting will be "Monitoring Insect Abundance". The Committee is hoping to include symposium speakers on the aspects of forestry, stored products, the urban environment and agriculture.



The Social Committee has a new Chair – Lisa Capar, who works in Winnipeg as an entomologist for North South Consultants, which specializes in the aquatic environment. Lisa has organized two social events this spring, both of them well attended and enjoyed by all. At a luncheon on 24 March, Bob Lamb and Pat MacKay gave a presentation on their trip to the Galapagos. The New Members Social on 19 May was attended by 28 people, 6 of them new ESM members, who were entertained by Bob Wrigley's anecdotes of collecting trips, and also got to examine many specimens as he described methods of collecting and preserving arthropods. Great job, Lisa! We will look forward to the next social event.

The Youth Encouragement Committee is always busy introducing school and youth groups to the amazing world of insects. I'd like to thank ESM members who generously responded to a recent request for volunteers from the Committee. In a short time, the Committee got enough volunteers to cover their current commitments. The YEC is always receiving requests for presentations and has an ongoing need for volunteers. If you enjoy talking about insects (that's all of us, eh?) and would like to help out once or twice a year, please let me know – the Committee would be very grateful to have a some ESM members they could call on in the future.

Winter is long past and the flora and fauna around us well into new growth. Most of us are into the busy season when insects are most active. Here's wishing you all productive, rewarding studies – with no missing samples!

Marjorie Smith
marjorie.smith@agr.gc.ca

MEMBER NEWS

Social Committee Report

By Lisa Capar

The two recent social events were a success, bringing out around 25 members to each!

On March 24th there was an ESM luncheon at the Canad Inns Express/Garbonzo's Pizza. During the luncheon, Pat MacKay and Bob Lamb gave a talk entitled “Galapagos: Birds, Beasts and Hippoboscids” based on their recent trip. Pat and Bob shared with us a unique glimpse of the Galapagos Islands through amazing pictures and entertaining stories. The audience learned the islands are protected by the government of Ecuador and one must travel on there on a regulated Ecuadorian tour. This strict environmental regulation presented the opportunity for close encounters with animals which were not used to human contact, allowing tourists to photograph the animals at close range. Many of these mammals, reptiles, birds, and insects are exclusively only found on the Galapagos Islands.

At the ESM New Members Social May 19th at Triple B's, Bob Wrigley gave a talk entitled “Bug Quest - The passionate pursuit of new arthropods”. During his talk, Bob shared with us many valuable collecting and preservation techniques for many insects (concentrating more on beetles). Some of these included; obtaining proper collecting permits, storing insects on paper towel covered cardboard with transparent plastic sheeting stapled on top, preserving beetles in isopropol alcohol with vinegar, organizing methods for collections, and preparing lists of required equipment before collecting trips. There was some collection material and references available for the audience to look at after the presentation. On top of all the handy knowledge, Bob also shared humorous collecting stories causing lots of laughs.

Thank you to the presenters and all those that attended. The next scheduled social event will be a luncheon in the fall. If anyone has any ideas for future ESM social events, please let me know.

A MEMBER'S PASSING

Paul Harold Adalsteinn Niel Westdal

Harold Westdal, retired crop-protection entomologist and long-time member of the Entomological Society of Manitoba, passed away on 20 January 2010. Harold was born on 5 November 1921 in Wynyard, Saskatchewan and left the family farm in 1940 when he moved to Winnipeg to pursue his education. Harold graduated with a Bachelor of Science degree in 1947 from the University of Manitoba. He immediately took a position as an entomologist with the Dominion Entomological Laboratory in Brandon, Manitoba. He spent his first years examining pests of vegetables. By 1948, Harold had caught the bug and was enrolled in a Masters program at the University of Manitoba. He graduated in 1950 after completing a study of the life history of the flea beetle, *Phyllotreta pusilla*. Harold continued his work in Brandon and became an authority on



insects of sunflowers and performed a great deal of this work in conjunction with the fledgling sunflower crushing industry based in Altona, Manitoba.

In 1957, Harold and his young family moved to Winnipeg because his position was transferred to the Agriculture Canada Research Station there (now the Cereal Research Centre of Agriculture and Agri-Food Canada). Here he became interested in insect-vectored diseases in cereals and began a focused study of leafhoppers, particularly the six-spotted leafhopper, *Macrostelus fascifrons* and the painted leafhopper, *Endria inimical*. In the early 1960s, Harold initiated work with the USDA to examine movement and infectivity of leafhoppers as they migrate from the southern United States northward into Canada. In this work, he was well ahead of his time with respect to the tracking of migratory insects from their source, a challenge that most entomologists ignored until the arrival of computer tracking of air movements. Harold made significant contributions to the understanding of the leafhopper-vectored diseases: aster yellows, barley yellow dwarf, wheat striate mosaic virus, and oat blue dwarf virus. His work was a model for other studies of leafhoppers as vectors of many diseases of plants across the US and Canada, and was also the focus of his Ph.D. thesis research, for which he received his degree from the University of Manitoba in 1969. On completion of his Ph.D., Harold took a post-doctoral transfer of work to New Zealand from July, 1969 until July, 1970 at the Department of Science and Industrial Research in Lincoln, where he continued work on insects as vectors of plant diseases.

Upon his return to Canada, Harold worked on control strategies for leafhoppers and also returned to studies of flea beetles and the sunflower beetle, (*Zygogramma exclamationis*). Harold had many discussions with his brother-in-law, Dr. Baldur Stefansson, “the father of canola”, about the development and production of this new crop. This led Harold to work on control strategies for flea beetles in canola and he became the leader of the insecticide evaluation program at the Agriculture Canada Research Station in Winnipeg. This work focused on maximizing the effectiveness of flea beetle control by comparing the efficacy of seed treatments, granular applications and sprays in various combinations. The work had immediate practical application, but its rigour also allowed the data to be used for economic modelling to optimize management. Harold not only did the experimental studies and produced the results, he also had a deep understanding of the biology and behaviour of insects, which contributed to his success as a researcher.

After his retirement, Harold set up Westdal Agri Consultants and continued working on flea beetle problems and evaluating control strategies. At the same time he returned to his roots and began farming with his brother Jack near Poplar Point, Manitoba. Harold continued farming until he was in his seventieth year.

Harold was a member of the Entomological Societies of Manitoba and of Canada. He joined the Entomological Society of Manitoba during its first year of operation, and was president in 1959, and editor of the Society’s Proceedings from 1976 to 1979. Harold’s patient helpfulness and calm approach to any issue was a valued attribute in his editorial role, in which he was very helpful to authors, offering solid recommendations on reviewers’ comments and fair judgments. At his death, he had been a member of the Entomological Society of Manitoba for 64 years, and so had the longest term of membership of all. Harold was an adjunct professor in the Department of Entomology at the University of Manitoba from 1976 to 1982. He produced over 35 research publications in peer reviewed journals. His expertise on insect vectors of plant pathogens was widely sought both before and after his retirement.

Harold was a vibrant and engaging man and will be remembered by those who worked with him as a man who was extremely generous with his time and many talents. He was a person with great humor and wit. He is survived by his wife Dee Dee, daughters Lauren (Ken) Goodridge and Carol Westdal, son Neil (Judy) Westdal, and five grandchildren.

Blaine Timlick, Neil Westdal and Neil Holliday (with contributions from Terry Galloway and Bob Lamb),
Winnipeg, MB

ESM ANNUAL MEETING

**October 22 2010 at the Freshwater Institute
&
October 23 2010 at the Department of Entomology, U of M**

Theme: Monitoring Insect Abundance

Keynote Speaker: Maya Evenden, U of Alberta

Symposium Speakers:

**Irene Pines, Manitoba Conservation
Taz Stuart, City of Winnipeg
Fuji Jian, Biosystems Engineering U of M
Ross Weiss, AAFC Saskatoon**

HOME AWAY FROM HOME

By Terry Galloway, Department of Entomology,
with editorial input from Carol Galloway

Our time in New Zealand has flown this trip, what with all of our activities in the department and about Christchurch. It was an unbelievable year for cicadas in Christchurch: the typical green cicadas (*Kikihia* spp.) as well as the larger, wing-clapping cicadas (*Amphipsalta zealandica* and *A. strepitans*). We heard what might have been the last one only last week (13 May). I have had great success with the giant pitfall trap (*i.e.*, bathtub with the drain plug installed) I have set up in our house in an attempt to replace the *Thysanura* in the teaching collection.



We did take a holiday to the deep south of New Zealand, and that's the account in this report. We started off on 17 March heading down to Dunedin. We stayed on George Street at a small motel, as it turns out in the heart of the Otago University student ghetto. That was no problem, except 17 March was St. Patrick's Day. I went down the street to play in a session in a small bar on the east side of the Octagon in the centre of town, and coming back at about 11:30 was an amazing experience. I have never seen so much green body paint, green balloons, and so many seriously inebriated students. They celebrate with way more enthusiasm than anywhere else we have ever been! I visited a couple of colleagues at Otago University and Landcare Research and then we headed south along the coastal scenic route.

Our first stops were at beaches just south, one of which, Tunnel Beach was very beautiful. The story goes that a farmer on the land above the sea wanted beach access for his family, but the cliffs were sheer and the descent too scary. So he hired these blokes to blast a narrow tunnel directly through the rock from a more accessible location on the hills all the way down to the sandy beach. It was a great success, except one day (so the story goes) a rogue wave swept in and took his wife and daughter out to sea to their deaths. We continued south through the Catlins, stopping here and there at beaches and waterfalls and short tramps into the native bush, until we reached Invercargill for the night. We had to have Bluff Oysters, because we never had before. Next morning we drove to Bluff, left the car in a small, fenced car park and boarded the ferry to Oban. The crossing was a breeze, though several passengers seemed to enjoy their trip less than we did. In Oban on Stewart Island, we had booked a small cottage on a cliff overlooking the bay. The place was simply appointed, but perfect for our stay. I could sit on the porch and watch the sea all day. Didn't though. We tramped several of the longer tracks along the sea, through native bush stretching our leg muscles. On one of the walks, we stood on a cliff looking straight down into a small bay and watched a pair of seals feeding on octopi. The bigger of the two was the more successful and would come to the surface with this octopus hanging from its mouth, chomping noisily up and down on it and thrashing it back and forth against the water surface. The bird life of Stewart Island is the real attraction. We saw kaka, kakariki red-fronted parakeets, kereru wood pigeons, piwakawaka fantails, tuis, korimako bellbirds, pipipi brown creepers, toutouwai Stewart Island robins, Stewart Island wekas, tieke saddlebacks, riroriro grey warblers, and many sea birds. In fact, one day when Carol was in a shop, I went out

onto the Oban pier and sat down. Immediately, a Shy Mollymawk came soaring in and landed several metres away and then paddled in to have a close look. I couldn't believe my luck.

Many of the birds we saw over on Ulva Island, a predator-free reserve where many threatened and endangered species have been re-established. Very cool. It was about a 4-5 hour stay and once we got ashore, the wind started to come up, until there was a very stiff breeze. On one cliff facing over the bay back toward Oban, we were able to watch at a distance, the small passenger plane that takes people to the island. We were told there are only two ways onto the island, by plane or on the ferry, twenty minutes of terror or one hour of hell. As we watched the plane coming in, our guide, who had taken the plane many times, was able to tell us the precise point at which all the passengers, and sometimes the pilot, closed their eyes. At the time, we were so glad we had opted for the ferry; more on that later. When we were to go back to Oban, the wind had whipped the bay into quite a state, and although we didn't feel in any danger on the return, we discovered at the dock that the pilot of the boat was very worried we wouldn't make it. Ignorance is bliss I guess. Unfortunately the wind persisted, so the boat we were scheduled to take at night to the beaches where kiwis come down to forage never left the dock. We compensated by taking a glass-bottom boat tour and having dinner one night at the Church Restaurant, a very nice place about three doors down from our cottage. We checked the marine forecast for the return ferry crossing, and there was a gale-force wind warning for Foveaux Straight. On the return we discovered which one of us was meant to go to sea, and which one of us wasn't..... It was the last crossing of the day from Oban to Bluff, they cancelled all the other sailings. One hour of hell, indeed.

When we left Bluff, we stopped briefly in Invercargill to explore the town a bit, and then struck out on the southern scenic route along the coast. This country has an obscene number of stunning beaches, and we tried to stop at each one along the way, if only for a few minutes. We booked in to a small Top 10 campground where we have stayed many times in Te Anau. From there, next morning we caught the bus to Manapouri, the ferry across Lake Manapouri to the dock at the hydro development, then a bus over the saddle into Doubtful Sound and a boat out to the sea through Doubtful Sound and back. Andrew had biked to Doubtful Sound in 1999, and he maintained it was more beautiful than Milford. The day we went out, there was a howling wind, evil-looking clouds punctuated by blue skies, and intermittent horizontal drizzle. We expected rain, so we had lots of layers and rain gear. We spent the entire trip on the open upper deck, alone except for a crazy Aussie lady from Sydney. We saw Doubtful Sound at what must be its most beautiful. There were seals and Bottle-nosed Dolphins along the way to liven things up a bit, but the extraordinary scenery just took our breath away. Stunning.

From there, we set off again, inland this time until we holed up at a small motel in Cromwell, in the heart of Central Otago wine country. Our goal was to see the sites, poke around into some of the shops and galleries, and try out some of the local wines. And so we did. We wanted to celebrate our 40th anniversary with a meal at Mount Difficulty, and we were very nearly thwarted. We went there the first day, but it appears that tour buses literally pack the place every day and they were fully booked. We were told that if it was nice enough the next day for them to open the patio, we might get in if we rang early and made a booking. We did, and we did have a lovely lunch, with some very nice wine. I had the Mount Difficulty pinot noir (ahhhhhh!) and Carol had a Riesling to die for, and the food terrific, eaten at a table overlooking the sunlit valley. We did spend part of a day in Wanaka and another in Clyde, dipping our toes into some of the local wineries. [Ed. Note: I certainly did NOT dip my toes in any wine...] We did visit

The Big Picture, but it was the beginning of the off season. The food and wine were excellent, but they just looked a little tired after a long, hectic summer season. We stopped at a small winery on the northern outskirts of Cromwell, right at the end of the day, and only because it was so close to our motel we could walk home if we had to, Wooing Tree Winery. The name comes from a large macrocarpa tree that was left in the centre of the property when they started planting their grapes because all the locals insisted this was the wooing tree and couldn't be destroyed. Too many star-crossed lovers had rested under the tree for them to desecrate the site by chopping down the tree. So they left it and it stands as the landmark for the vineyard. However, the interesting thing was that they had named one of their pinots, "Beetlejuice" after a locally endangered species, the Cromwell chafer, *Prodontria ewingii*. This scarab beetle is known from a small bare patch of land consisting of a few hectares on the edge of Cromwell. So, naturally we had to try the wine and even take a bottle away with us. How could we not? As it turned out, they are producing some excellent wines, which we thoroughly enjoyed. Sadly, William Hill winery has gone into receivership, and it appears that Shaky Bridge may have gone with it, at least as a label. We saw that the vines are still there, but someone else must be harvesting the grapes and marketing the wine under some other label. We couldn't seem to get direct answers from the locals, who all appear to be feeling the pinch. New Zealand in general is producing more grapes than they can press, bottle and sell. This is the first trip we have seen pinot noir and chardonnay grapes for sale in the markets to be eaten out of hand. They are fantastic, incidentally, but it doesn't help the wine producers. Did you know there are more grapes on the North Island of New Zealand than in all of Canada? We did get to Black Ridge Winery. The place looked deserted early on a Sunday morning, but the owner came out from a beautiful chalet at the base of the craggy cliff and treated us to some superb wines, including their Briedecker, sold as Otago Gold. This variety is not popular in NZ, but Carol thought it and their riesling were the best of the whites. The countryside there is so beautiful, and we stopped at the local fruit stands to stock up on plums, blackboy peaches, and Taylor's Gold pears. Yum.

All good things come to an end, and we pressed home through Lindis Pass, but not before we stopped at a unique café and gallery at Five Rivers. We stopped briefly at Lake Tekapo to acknowledge the sheep dog, and then back to Christchurch. All & all, a great trip. Carol says I have gone on too long, but what else is new. For some people, a digital camera is a dangerous thing. Carol had nearly filled her 4 Gb card by the time we left Stewart Island, so we had to pick up another in Invercargill. She nearly filled the second 4 Gb card. At one point, I accused her of having taken a contract with Google Earth Street View. Anyway, enjoy.

TALE OF A WANDERING SPIDER*

By Dr. Robert E. Wrigley
Curator, Assiniboine Park Zoo

In early May, 2009 a story was released by Manitoba newspapers about a highly venomous spider -- the Brazilian Wandering or Banana Spider -- from tropical America, which arrived in a box of bananas at an IGA grocery store in Russell. Through the efforts of a number of people, the 25-mm-long spider with long legs and red hairy fangs made its way to the Assiniboine Park Zoo. Considering that the fear of spiders (arachnophobia) is almost universal, it is remarkable that a chain of individuals cared enough about this little wandering stowaway to ensure that no harm came to it after surviving its over-4000-km trip from the tropics.



The spider appears to have started its journey by hiding in a load of bananas in Guatemala, and then being transported to Manitoba. The box of bananas was ultimately shipped to the IGA store in Russell, where one night it left its refuge in search for prey. A cleaning-staff member discovered the spider and succeeded in trapping it in a container. He handed it over to the Produce Manager, who then in turn gave it to the Major Pratt High School 12th-grade biology class for study. Using the resources of the internet, the students took up the challenge of identifying it, and they came to the startling conclusion, based on its size and striking red chelicerae that it was a venomous Brazilian Wandering or Banana Spider (a species of *Phoneutria*; the Greek name for "Murderess"), the bites of several species of which have resulted in the deaths of children and seniors in Amazonia. Although the bites of these spiders are highly sensationalized as the most-venomous, -deadly, and -painful in the world (Guinness World Records 2007), venom is often not released, or is delivered in such small doses that it is insufficient to kill most healthy human victims. The common names arise due these big (body length up to 48 mm; leg span to 150 mm) spiders' habit of actively hunting over the forest floor at night, and frequent association with banana shipments.

Amid stories in the media, the spider was passed on by one of the students to two Manitoba Conservation officers, and with the recommendation from a Canadian Wildlife Service officer, they delivered the specimen on May 8 to the Assiniboine Park Zoo for safe-keeping. It was set up securely in a terrarium for public viewing in the Tropical House by zookeepers experienced in maintaining spiders. Until its identification could be confirmed, it was treated as a potentially dangerous specimen. When offered a cricket as food, the spider instantly captured and then devoured the insect, so the spider appeared to be in good health after its long journey. Many visitors came to the Zoo specifically to see this spider with a big reputation.

I contacted Dr. Terry Galloway at the Entomology Department at the University of Manitoba, who recommended I speak to Canadian spider specialist Dr. Robb Bennett with the British Columbia Provincial Government. Dr. Bennett acknowledged that these large spiders are easily misidentified, and while this specimen might be a *Phoneutria*, it was more likely (based on range data) to be a species of another, harmless wandering spider of the same family (Ctenidae) called *Cupiennius chiapanensis* -- a newly discovered species that also features red hairs on the prominent chelicerae. These spiders have also been known to be transported in fruit

to other North American cities (e.g., Tulsa in March, 2008), where they are usually misidentified by local spider aficionados as the venomous *Phoneutria*. Other large stowaway spiders (e.g., wandering and black-widows) have been turned over to the Zoo and the J.B. Wallis Museum of Entomology (University of Manitoba) over the years, mainly deriving from shipments of produce. This Manitoba specimen will eventually be submitted to a professor at the University of California, Berkeley, who is preparing a comprehensive article on accidental shipments of exotic creatures. The huge volume of cargo being transported around the world generates frequent opportunities for invasive species to reach new regions and even continents, where they often cause enormous and permanent damage to native ecosystems and to national economies (e.g., agriculture and forestry). Tropical spiders could never survive and reproduce in Canadian habitats, but no doubt several-dozen potentially dangerous spiders arrive here annually, often in boxes of fruit and vegetables - an occurrence many grocery-store personnel have experienced. Interestingly, the problems related to exotic stowaways are the very subject covered in a CAZA award-winning display at the Magnetic Hill Zoo in Moncton.

Spider specialist David Wade believes Manitoba is host to over 700 species of spiders (1400 estimated in Canada, 175,000 worldwide), which occupy almost all terrestrial habitats and some aquatic ones as well. They play major roles as predators of insects and other small organisms, and serve as food for songbirds, amphibians, and many other kinds of animals. All Manitoba spiders carry venom to immobilize and digest prey, but none is dangerous to humans, although the bite of a few species can be painful and cause local irritation, swelling, or mild allergic reaction. The public is encouraged to leave spiders alone to carry out their natural lives, and to not destroy them out of needless fear.

In the autumn, many people in western Canada are alarmed to discover an impressively large, yellowish-brown spider (with two bumps on the abdomen) in a web attached to their home, resulting in a call to a zoo, university, museum, or insect-control department. This is usually the Jewel Spider (*Araneus gemmoides*), the females of which have a respectable head-body length of up to 15 mm. One of Canada's largest orbweavers, it is docile and only bites if repeatedly provoked. The female has likely mated with the smaller male, and is looking for a secluded site to deposit her egg case, which may contain 800 fertilized eggs. It appears that houses are a preferred site for stashing the egg case. The female dies soon after, and the cold-hardy eggs over-winter, then hatch with the warming days of spring. On a sunny day, each tiny spiderling climbs up as high as it can on some structure, rises on its legs with its abdomen pointed up ("tiptoeing"), and begins to release numerous strands of silk. These attach to each other in the breeze to form a gossamer parachute which catches the wind or a rising thermal and carries the tiny spider away. While many alight a short distance away, others are carried aloft up into the upper atmosphere (altitude up to five kilometres) where the jet stream may take them over 1600 km from their place of origin. They have been known to survive for almost a month while "ballooning", and while most likely fail to survive, a few make the journey to an appropriate site successfully, to renew the species' cycle of life. No doubt about it, spiders are a gold mine of interpretive stories for a zoo and other nature centers.

* Also published in the Canadian Zoo and Aquarium Association Newsletter. Photograph by Darlene Stack

Solution to “Dissecting Insects”

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MEETING ANNOUNCEMENTS*

Annual Meeting of the Entomological Society of Manitoba

Winnipeg, Manitoba, October 22 (FWI) & 23 (U of M)

Contact: John Gavloski, jgavloski@gov.mb.ca

Joint Annual Meeting of the Entomological Societies of Canada and B.C.

Vancouver, B.C., 31 October-03 November 2010

http://www.sfu.ca/biology/esbc/JAM/jam_announce.html

58th Annual Meeting of the Entomological Society of America

San Diego, California, 13-16 December 2010

<http://www.entsoc.org/am/fm/index.htm>

Joint Annual Meeting of the Canadian and Acadian Entomological Societies

Halifax, N.S., 2011

*If you have a meeting you would like listed in the next ESM Newsletter, contact the editors with the details by September 01 2010

ESM EXECUTIVE 2009

POSITION	PERSON	EMAIL ADDRESS
President	Marjorie Smith	msmith@agr.gc.ca
Past President	Richard Westwood	r.westwood@uwinnipeg.ca
President-Elect	Taz Stuart	tstuart@winnipeg.ca
Representative to ESC	Terry Galloway	terry_galloway@umanitoba.ca
Member-at-Large	Jonathan Vielleux	umveillj@cc.umanitoba.ca
Secretary	David Ostermann	dostermann@gov.mb.ca
Treasurer	Ian Wise	iwise@agr.gc.ca
Proceedings Editor	Terry Galloway	terry_galloway@umanitoba.ca

ESM COMMITTEE CHAIRS 2009

Endowment Fund	Kathy Cano	Kcano@pcocanada.com
Finance	Kathy Cano	Kcano@pcocanada.com
Scientific Program	John Gavloski	jgavloski@gov.mb.ca
Newsletter	Patricia MacKay	pa_mackay@umanitoba.ca
	Mahmood Iranpour	iranpour@cc.umanitoba.ca
Youth Encouragement	Jonathan Vielleux	umveillj@cc.umanitoba.ca
Archives	Vacant	
Scholarships & Awards	Richard Westwood	r.westwood@uwinnipeg.ca
Fund-Raising	Joel Gosselin	jgosselin@viceroydistributors.ca
Nominating	Richard Westwood	r.westwood@uwinnipeg.ca
Membership	Desiree Vanderwel	d.vanderwel@uwinnipeg.ca
Scrutineer	Colin Demianyk	cdemianyk@agr.gc.ca
Web Page	Rob Currie	Rob_Currie@umanitoba.ca
Social	Lisa Capar	Lisa_capar@yahoo.ca