

The Entomological Society of Manitoba

Newsletter



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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.

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Editors' Comments

It's almost October, and there's lots to report. The cycle of fall meetings is about to begin. The **ESM Meeting** is on Friday and Saturday, October 21 and 22. Put it on your calendar and come pay your dues and spend some time talking to people you may not have seen for a while. The program is included with this Newsletter, and it looks great! There's lots of science and lots of socializing scheduled for the two days. The ESM Meeting is followed fairly rapidly by the **ESC Meeting** in Canmore, Alberta. There's still time to arrange to go, even if you haven't preregistered yet. The contact information is in the **Meeting Announcements** at the back of the Newsletter.

Other entomological activities highlighted in this issue include the first two sessions of the **Manitoba Naturalists' Society Indoor Program**. See the advertisement towards the back of the Newsletter. As an added bonus, if you go to the session at the **Winnipeg Art Gallery**, you will receive free entrance to the current show, **Bug City**, a display of modern art, with insects as the theme, in many different media, by local, national and international artists.

Also in this issue are not one, not two, but three accounts of "**how I spent my summer**". The authors are Terry Galloway, Bob Wrigley, and Rob Roughley, and they've provided great reading as we head toward winter.

Finally, yet another reminder – we're always looking for items of any sort as long as they have at least a vague connection to entomology. For example, JoAnne Buth provided a great addition to this issue proving that **entomologists do have a sense of humour**. We eagerly await your contributions.

Pat MacKay & Mahmood Iranpour

From the President's Point of View

Greetings from the Head Bug

I'm never certain how much of an impact or whether anyone in the Society actually reads the words of the president in the newsletter. I know some people do, as I've received comments back at times. One item I recall from past years is a description John Gavloski gave of what happens in the Soils & Crops Branch of Manitoba Agriculture, Food and Rural Initiatives (MAFRI). It was an interesting read, but clearly focused on the "traditional" side of agriculture in Manitoba.



As I have one last opportunity to do this, I've decided to regale you with the "other" side of agriculture. Everyone knows that Western Canada grows wheat, canola and flax. Sunflowers, beans and oats, oh my. But there is another side and no, it's not a dark side. Did you know that there are vegetables grown in Manitoba? It's true and not just in people's back yards. Manitoba is home to the single largest vegetable farm in Canada. Do you know where it is? Do you know what it's called? Probably not, but as you drive from Winnipeg west towards Portage la Prairie you go south of it. Were you to turn North at Elie, you'd end up going by it. Did you know that Manitoba grows over 700 acres of carrots. So what, you may say, I know of fields of wheat that are larger than that. I'd counter by asking if

that wheat field is worth over four million dollars? In what has become an entertaining battle, one side refers to it as big acres versus little acres, the other side refers to it as low value versus high value.

From an entomological perspective, that can create numerous challenges. My responsibilities, as they currently stand, cover the following areas: potatoes, vegetables, small fruit, medicinal and aromatic crops; greenhouses, shelterbelts, ornamentals and turf. They also include alfalfa, alfalfa grown for seed, forage seed, hemp and buckwheat. Now, some of those are pretty small acreages and realistically they have relatively few, or easily managed problems. But many of them, because of a combination of extremely high value and extremely low tolerance for damage (ask yourself a question: do you pick up the first pepper in the bin, or the best pepper in the bin?) require very high levels of management. Unlike most agriculture in Manitoba, there isn't a strong network of researchers to back up the extension folks (although I'd suggest that the "strong network" isn't much there for conventional crops either anymore). So it's a bit of island isolation going on. The problems Manitoba tends to face are fairly unique or are at the very least a unique combination of problems present themselves. Going back to carrots for a moment, we face a tremendous problem annually with aster leafhopper. Additionally now it seems we have a problem with carrot weevil rearing it's lovely little proboscis and worse, an insect pest that is significant in the East seems to have made its way here – the carrot rust fly.

So, how many of the members of the Society are working on these issues currently? Yep, I thought so. MAFRI is

fairly unique at the moment in the Prairies in that they still support these areas of work.

With a vegetable industry worth forty million dollars; an ornamental industry worth fifty million and a potato industry worth over one hundred million that's probably a good thing. There is more to agriculture than just fields of yellow, blue and green. Of course when I think of yellow, it's pumpkins (ok, orange, I'm stretching here); blue is purple and it's cabbage and green is broccoli, not wheat.

At this point I'll bid you adieu as the President of the Society and take a moment to point out that it's the volunteers that make

the Society work. If you're currently in a post, thank you for your time and effort. If

you're not, why not? The core of the Society is not really getting any younger and we can use all the help that anyone is will to offer, everyone is welcome.

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A Note from Down Unda

Terry D. Galloway, Department of Entomology, University of Manitoba
On leave in the School of Biological Sciences, University
of Canterbury, Christchurch, New Zealand

There is something quite special about having a home away from home, which is pretty much what Christchurch has become for Carol and me. Over time, we have begun to recognize the changes taking place, as the nature of our experience here subtly changes with each visit as well. This trip has been no exception.

This is the first visit where we have not been installed in a university house. Instead, we are house-sitting for friends, but still close to the University of Canterbury campus. We are nestled among houses being rented to students, though. Property values in Christchurch have absolutely soared in the last three years, and even starter homes are barely affordable. A small "fixer upper" went on sale on our street; not a large house at all, listed at \$320,000. Unbelievable. Many of the houses near us are now rental properties, with a sizeable number of student residents in each one. This makes life very interesting, especially on Thursday, Friday and Saturday nights. The latest trend, it seems, is to haul the lounge furniture into the front yard, drink to your heart's content, and visit with all your friends up and down the street. Well, they don't exactly visit, but shout back and forth to each other. It makes this a much livelier neighbourhood than we have occupied in the past.

Winter here this year was virtually a non-event. We arrived in the dead of winter, but we have seen very little frost, and as early as August, I had to move the beer and white wine to the fridge

from the bedroom. Everything was extraordinarily well advanced. The Monarch Butterflies were no longer clustering in the shrubbery in Ilam Garden, there were bumble bee queens (especially *Bombus terrestris*) out looking for places to start their new colonies, and we had adult mosquitoes (*Culex pervigilans*) coming out and flying around inside our house. The Garden City also began living up to its name. We had daffodils four weeks ahead of their typical time for blooming, cherry trees in full blossom, and the rhododendrons and azaleas were out everywhere. Then, of course we had 6 cm of snow and temperatures below freezing (see the photograph of our backyard). It's fascinating to watch people where they seldom experience snow. Naturally, the entire city was paralyzed, and they closed all the schools and the University of Canterbury. It was surely unsafe to venture into the streets, because people generally have very poor winter driving skills here, and vehicles are spinning and skidding everywhere. We had never seen so many snow sculptures appear in such a short period of time. People even build snowmen on the bonnets of their vehicles and drive around with their visibility obscured. Unfortunately, a lot of the gardens were quite severely damaged, and there was a major effort to keep the air moving in local vineyards to prevent frost damage. One vineyard owner that we heard about hired pilots and helicopters to fly overhead to try to save this year's vintage.

One other important difference for me this trip is that, for the first time, I am involved in teaching a course in the School of Biological Sciences. The course is Insect Biology, the first and only course that undergraduate students get in entomology in the School.

Unfortunately, the same thing is happening here that we are seeing in Canada. Entomology is being



absorbed as a primary subject and discipline, and students no longer can specialize in any significant way. Consequently, the course has been reduced to just six weeks in duration, with three 50 minute lectures per week and a three-hour lab. My component is just four weeks of the lectures and the labs. Having taught Introductory Entomology in Winnipeg, with the luxury of 13 weeks with labs, I have found the available class time here very constraining. There are so many things that I would like to cover, but there is just no time to do so. The bonus for the course is that the students are required to make a collection. It's a great opportunity for me to get to know some of the undergraduate students here, and to take a closer look at many taxa of insects other than fleas and lice. We had our first field trip on Saturday, and it was a brilliant day. We had a group of about 20 students out to the Styx Mill Reserve, on the north end of the city. There is little native vegetation there, but the local council has begun a rehabilitation

programme to try to re-establish a variety of native species into the reserve. The River Styx also runs through the property, so we were able to demonstrate collecting techniques for terrestrial as well as aquatic insects. We split the students into two groups, and I took the first group into the forest to look in the litter and under bark and logs. As I was giving the students instructions, a flock of Spur-winged Plovers went over, a particularly noisy bird this time of year. I had to stop until they had passed, but couldn't resist remarking that I wished that I could get a specimen or two to examine for ectoparasites; I never pass up an opportunity to talk about ectoparasites. Later in the day, I was taking the second group across the field to the forest, and one of the students spotted something in the grass. It was a dead Spur-winged Plover, eyes still clear, still warm. It was a little too eerie, and when I explained my earlier wish, one of the students suggested that next time I should go for world peace.

We also experienced our first national election. The electoral system here is quite different from the way we do things in Canada, but the campaign rhetoric is the same, as is the number of party polls that are conducted in the lead-up to the election. We spent the evening over dinner with friends, and it was interesting to watch election returns in a country with just one time zone. When coverage began on the television, the result had not already been decided. What a novel experience!

We look forward to the next nine months here and the new experiences that they will bring. I expect that they will pass far more quickly than we can imagine.

SO MANY BUGS -- SO LITTLE TIME
Dr. Bob Wrigley (Curator, Assiniboine Park Zoo),
with assistance from Shirley Preusentanz (Teacher)

Part 1 of 3 Parts – Tiger Beetles**

Each year I and one or two friends escape the perimeter of Winnipeg and travel to other locations in North or Central America to study and collect insects and other arthropods -- actually anything that is unfortunate enough to cross our paths, day or night. I should point out that although trained as a mammalian ecologist, I now spend all my free time studying beetles. Over the last five years we have survived numerous tornadoes, sudden snow squalls, heat waves (50C), questionable quicksand, coral and rattlesnakes, cockroach-infested motels, lack-luster local fare (fast food in the

nasty sense), onslaught of biting/stinging insects and ticks, plus more ice cream than I thought possible. This July, only one friend (Shirley Preusentanz) could make it, so we set off for 16 days in July in a compact rental car for the great mid-western states -- actually nine, from the Dakotas to Oklahoma, and Arkansas to Minnesota. Our daily routine upon arising was to complete field notes and paper-up (for safe transport) the insects from the night before, and then to spend the day searching for and collecting at streams, reservoirs, woodlots, sand dunes, salt flats, clay cliffs, weedy roadsides, quarries, and any other sites that resembled natural habitats in this sea of agriculture and forested rolling hills. This of course meant being out in the heat wave that struck this region in July, so we were careful to wear wide-brimmed hats, drink plenty of water, and lather up with sun block. On numerous occasions we had to retreat to the air-

conditioned car to lower our body temperature back to a safe level.

At night, often until 1 or 2 a.m., we scoured towns (with populations around 9,000 proved best) for insects attracted to white lights (i.e., mercury vapor) around buildings. On several occasions we were interrupted by sheriffs who enquired politely what we were doing wandering around banks, liquor stores and Wal-Marts in the middle of the night. They were surprisingly understanding (more so than southern sheriffs in the movies!) when I told them we had come all the way from Canada to collect insects. I always wondered what they entered on their report sheets. The diversity and numbers of insects were truly remarkable at some sites, especially those on the edges of towns on moonless nights. While we took black lights and a mercury vapor light (powered by a deep-draw, 12V battery), they could not compete with the lights of small towns. With all the action we went through at least two litres of isopropyl alcohol in preserving smaller insects in glass vials, and over 100 glassine envelopes. I was able to record exact locations and elevations with my new GPS -- a present from my wife, with the hope I would not become lost in the wilderness.

I had several species of unusual beetles on my wanted list -- ones that I had missed on previous trips to the South, especially the huge (30mm), nocturnal tiger beetle *Amblycheila cylindriformis*, and the bright-red tiger beetle, *Cicindela pulchra*, which eludes capture by running through the bunchgrass and flying long distances. Most tiger beetles are spring/fall or summer species, and so arriving at the right season, time of day, and the exact location are essential if one expects a reasonable chance of discovering them. In many ways, collecting insects is like being a detective,

requiring analyses of natural clues and detailed knowledge of the quarry. And so it was with great excitement that I saw my first live *Amblycheila* (Shirley pointed it out!), sitting atop an anthill on an arid trail near Wild Horse Sanctuary in SW South Dakota. It was a moment I will never forget -- appealing to both my hunter-gatherer instincts. The *C. pulchra* tiger beetle remains a challenge for the future. Fortunately my friend Todd Lawton of Winnipeg -- one of the most experienced tiger beetle enthusiasts in North America, gave me a specimen. By the way, a new comprehensive book on North American tiger beetles is coming out this fall (D.L. Pearson et al), which should do much to increase the popularity of this fascinating group (with 20 species in Manitoba).

At the same location near Hot Springs, South Dakota, as coyotes howled in the distance, we picked up about eight species of darkling beetles (mostly *Eleodes*, Tenebrionidae), which crawled out of holes at sunset for a night of scavenging during the cooler hours. Many were attracted to our hamburger bait, which soon swarmed with the tiniest red ants I have ever seen. Two darkling species in particular were abundant -- the red-backed and ridged, 30mm, *Eleodes suturalis*, and a 12mm round-backed species. One really unusual species -- the boat-backed darkling beetle (*Embaphion muricatum*) was found. The smooth *Alobates pennsylvanica* was taken in a number of other locations. It was apparent that the more arid the site, the better the tenebrionid diversity. I find this group particularly interesting, and so I have acquired dozens of remarkably shaped species from the deserts of South America and Africa. We also collected at this site a number of fiercely spined Jerusalem crickets (32mm), both male and female. There was much evidence of a rich small-mammal population

along the roadside -- tracks, droppings and burrows. I recognized from experience that most of them were the work of deer mice, grasshopper mice, and kangaroo rats, one of which we surprised as it hopped along in search of seeds and the same insects we were after. Our competition.

My favorite spot for tiger beetles was the edge of a sand dune in Nebraska, which produced beautiful, red-patterned *Cicindela formosa* and both blue and green morphs of *C. limbata*. The shaded face of the dune attracted dozens of colorful wasps including *Anoplius*, hunting for spiders to provision their young. Other grassland beetles such as *Pasimachus elongatus* (Carabidae), darkling beetles and weevils were attempting to climb back up the dune face after having tumbled over the steep wall. While I captured another eight species of tiger beetles on the trip, this was much less than I anticipated, but then, adults of spring species must have long since ended their life cycle (I would have had to been there in April or May). The other fascinating site was an extensive region of salt flats near Ingersoll, Oklahoma. Parts of the flats are a national refuge for the protection of rare and endangered shorebirds, such as the least tern, piping plover and American avocet. I was able to find the tiger beetles *Cicindela togata* and *C. cuprascens* on the moist

HAVE NET: WILL TRAVEL, SUMMER 2005

R.E. Roughley, Department of Entomology,
University of Manitoba

There was an old television show of my youth, called Palladin, which many of you are too young to remember. This was in the area of classic TV westerns. The main character in the show, Palladin, had a card

margins of the drying lake. It is remarkable that these white-colored beetles can survive such extreme conditions of heat, solar radiation and salinity. Even their larvae can withstand weeks of submersion in salt-saturated water.

Other common tiger beetles taken on the trip were *Cicindela punctulata* and the big green *Megacephala virginica*, both appearing in the grass and on pavement under lights in towns. Having tried unsuccessfully so many times to find the hairy-necked tiger beetle (*Cicindela hirticollis*) along sandy beaches in Manitoba, it was satisfying to see it occur so abundantly along sandy streambanks in many states. My colleague Todd Lawton recently informed me that he has rediscovered this species in Manitoba on Elk Island (its currently only known location) on Lake Winnipeg, not coincidentally free of heavy pedestrian traffic and cottage development. I proposed this species and *Cicindela lepida* (a relict population found in Manitoba only in the Carberry Sandhills) for status review by the Manitoba Endangered Species Advisory Committee.

****Here ends Part 1. For Part 2 – Other Beetles, see the winter issue of the ESM Newsletter; for Part 3 – Other Insects, see the spring issue of the ESM Newsletter.**

which read “Have Gun: Will Travel”. People would contact him and each week he would be off on a different adventure to some place. I am not saying that I have Palladin’s TV flare or charm (O.k., o.k. so maybe I am stretching it more than a little bit), but in many ways I do feel that there are some similarities in travel to interesting places. Therefore I have co-opted and modified the line from that show for my

activities as a collector of aquatic beetles. During the summer of 2005, I made three trips to collect aquatic beetles and, since I was asked, I will tell you about these three trips.



(1) Winnipeg to Waterton Lakes National Park and return. The Biological Survey of Canada (Terrestrial Arthropods) often sponsors and organizes an outing termed a bioblitz. A bioblitz is an excuse for insect collectors to get together and sample the species richness of insects in a given habitat or locality. Usually this activity is conducted over a short time and at a biologically or historically interesting locality. Collectors collect at a site and add information about that site to the data set via specimens and observations. The Focus site in 2005 was Waterton Lakes National Park (WLNP), in south-western Alberta and the collection period was 7-12 July. But collecting alone is not as much fun as it is with other people. So this year, as before, I called on an old buddy of mine, Dr. Rex Kenner, from the Spencer Zoology Museum at the University of British Columbia. Rex flew from Vancouver to Winnipeg and we collected our way to Waterton from

Winnipeg, beginning on 1 July. Rex and I are both water beetle collectors and we get along well enough to be able to spend a long time together collecting and traveling. We sampled 28 localities between Cobbe's Lake near Baldur, Manitoba and our last locality, on 9 July, a pond near the Buffalo Paddock in WLNP. An extensive number of grassland ponds and streams were visited to collect beetles in this habitat. The beetles from the trip are currently being prepared for the museum but suffice to say that along the southern prairies this year there was an abundance of rain so most of the ponds had water and we were able to collect a lot of specimens along the way. Among the highlights of the trip were collections of *Brychius hornii* (Crotch) [Halipidae] and *Amphiozoa spp.*[Amphizoidea]. The very interesting thing about this trip was the treatment we received at the park, It was one of the very few times at a national park in the US or Canada (but not Central America) where entomologists were seen as making a very real contribution to the knowledge and understanding of the natural history and ecology of the park. Normally we are ignored or treated as poachers. A lot of the reason for the change has been a change in National Parks philosophy to one of looking at insects as important elements of park biodiversity. There were about 30 participants in the WLNP bioblitz. Information about specimen records will be compiled and organized by Dr. David Langor, Northern Forest Research Centre in Edmonton. Dr. Langor also took the lead in organizing this year's bioblitz. Thanks, David! Next years bioblitz is being proposed for Gros Morne National Park in Newfoundland. Keep your net ready!

(2) Winnipeg to Churchill and return. I rushed back early from the west to get ready for the next collecting event. This was associated with the Boreal and Arctic Entomology course that Dr. Peter Kevan and

I have co-taught at the Churchill Northern Studies Centre (CNSC) at Churchill, Manitoba since 2003. This year the course ran from 29 July until 5 August. On this trip water beetle collecting was ably conducted by Doug Post from Sacramento, CA (Doug brought along his entire family on the trip) and Michael Alperyn (teaching assistant for the course) and myself. There were about eight students enrolled in this University of the Arctic course this year including our first student from Nunavut, Carolyn Mallory, who had to come south to meet us in Churchill! Doug and family enjoyed the cooler weather at Churchill as the weather was consistently above 105° F in Sacramento. Highlights of the trip included the food provided by CNSC. Michael was good for two desserts per meal and usually two helpings. In this case, Mikey did like it! The collecting was pretty phenomenal as well. Collecting sites yielded five more species not recorded from Churchill previously. That makes an additional ten species added to the Churchill fauna since 2003 (including specimens of Elmidae (riffle beetles) and Heteroceridae (variegated mud-loving beetles). These appear to be the first records of these two families for the Churchill area and perhaps the most northern records to date. It leads of course to the basic question of why? Among the possible reasons are simply more collecting (the more often you collect the more chances you will have to collect something different), greater mobility of collectors around the CNSC area, and better collecting techniques as well as increasing knowledge about the aquatic habitats in the Churchill area. When examining the water beetle fauna as a whole it is interesting that the arctic-adapted species continue to be present

there and all of the additional records are boreal species extending their ranges to Churchill. Almost all of the new records came from one or two sites associated with the Churchill River. The interesting aspect is that this river flows from south to north transporting many species into the subarctic. Probably some of these survive and some do not. Faunal change like this is probably a consistent aspect of an area. Oh yes, we did see belugas and too many polar bears again this year. The trips to Churchill always are interesting. Please consider a trip in your vacation plans!

(3) **Winnipeg to Kentucky and return.** My last trip of the summer was to Kentucky from 14 to 21 August. The real reason for the trip was a collaboration on a book chapter with Dr. David White of the Hancock Biological Station near Murray Kentucky. We did work hard on that chapter so please do not tell anyone that I did sneak away for a day of collecting – after all I had not been collecting in Kentucky since 1989. The heat and humidity of Kentucky were rather oppressive particularly so soon after Churchill. It was a different kind of experience going from air-conditioned car, to air-conditioned lab, to air-conditioned cabin. Oh yeah, did I forget to mention that I was staying in a cabin on a lake – collecting is so tough some times. On this trip, I had to suffer through wonderful southern hospitality, and I got to work with a great co-author on an important contribution, AND I was able to collect a variety of water beetles. Can life get any sweeter than this?

Rob Roughley, (a.k.a. Palladin with a net)

Who says Entomologists don't have a sense of humour:

Check out the following scientific names (it helps to say them out loud)

La cucaracha, La paloma (pyralid moths)

Lalapa lusa (tiphiid wasp)

Aha ha (sphecid wasp)

Agra vation, Agra phobia (carabid beetles)

Ytu brutus (beetle)

Leonarda davinciia (moth)

Phthiria relativitae (bombyliid fly)

Heerz lukenatcha, Heerz tooya, Panama canalia, Verae peculya (braconid wasps)

Godzilius, Pleomothra (crustaceans)

Apopyllus now (spider)

Abracadarbrella birdsville (jumping spider)

Strigiphilus garylsoni (owl louse named for cartoonist Gary Larson)

Ba humbugi (endodontoid snail)

Bombylius aureocookae (bee fly)

Cycloephala nodanotherwon (scarab)

Dissup irae (a hard to see fossil eremochaetid fly)

Eurygenius (pedilid beetle)

Notnops, Taintnops, Tisentnops (caponiid spiders - These Chilean spiders were originally placed in the genus *Nops*, but were separated into these new genera upon examination)

Pieza kake, Pieza pie, Pieza rhea (mythicomiid flies)

From Biocontrol Files (July 2005) - Thanks to JoAnne Buth for providing them.

MEETING ANNOUNCEMENTS*

Entomological Society of Manitoba Meeting

FWI & U of M, Winnipeg Manitoba, 21 & 22 October 2005

Contact: N.J. Holliday, Neil.Holliday@umanitoba.ca

Joint Annual Meeting of the Entomological Societies of Canada and Alberta

Canmore, Alberta, 2-5 November, 2005

Contact: D.Langor & F. Sperling, DLangor@NRCan.gc.ca , felix.sperling@ualberta.ca
<http://www.biology.ualberta.ca/courses.hp/esa/esa.htm>

52nd Annual Meeting of the Entomological Society of America

Fort Lauderdale, USA, 6-9 November, 2005

http://www.entsoc.org/annual_meeting/2005/index.htm

International Beekeeping Congress
Bangalore, India, 13-18 November 2005
www.cenfound.org/IBC-2005/indexpage.htm

*If you have a meeting you would like listed in the next ESM Newsletter, contact the editors with the details by early January 2006



Manitoba Naturalists Society

is celebrating its

85th Anniversary (1920–2005)



Monday, 17 October 2005 at 7:00 pm

Centre Culturel Franco-Manitobain
340 Provencher Blvd., Winnipeg

Speaker – Dr. Neil Holliday, Dept. of Entomology, University of Manitoba

Topic – Norman Criddle: Pioneer Entomologist of Manitoba

and



Monday, 24 October 2005 at 7:30 pm

Winnipeg Art Gallery
300 Memorial Blvd., Winnipeg

Speakers – Dr. Pat MacKay, Senior Scholar, Entomology, University of Manitoba
and Dr. Bob Lamb, Emeritus Research Scientist, AAFC

Topic – Manitoba Naturalists Society presents: Secrets of the Bug World

You are invited to attend these two special programs

(free admission for members; \$6.00 for non-members)



ESM EXECUTIVE 2004

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