

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

This fall/winter edition of the Newsletter is rather late in coming and I do apologize to everyone, especially to contributors who submitted articles last December. It seems that an



April publication date is not inappropriate this year, given that winter just isn't letting go of Manitoba. By the time you receive this edition hopefully the snow will be gone.

Inside you will find the **President's Message**, the Early Days of Entomology at the University of Manitoba by **Sam Laschiavo**, some statistics about **Entomology Graduate Students** from the U of M, more fascinating adventures by **Todd Lawton**, a visit to the Royal Ontario Museum (and Hockey Hall of Fame) by **Bob Wrigley**, and as usual **Upcoming Meetings**.

After five years as Co-editor, **Mahmood Iranpour** is stepping down. Many thanks to Mahmood for his service to the ESM. If you are interested in Co-editing the Newsletter, please let me or an Executive member know.

A number of articles are waiting in the wings for the first issue of Volume 40, but we'd love to receive your news of arthropod adventures/research/meetings, etc.

Marjorie Smith & Mahmood Iranpour

From the President

The Annual Meeting which began the 69th year of our Society was a great success. On behalf of all of you, thanks go out to the organizing committee chaired by Terry Galloway, including members Lisa Capar, Don Cobb and Dave Rosenberg. As usual Joel Gosselin worked behind the scenes on the important task of fundraising. The theme “Biological Changes in Lake Winnipeg, Manitoba’s Great Lake” broadened our perspective of an environmental issue of interest to all Manitobans. As a terrestrial entomologist, I was fascinated to learn more about this amazing aquatic habitat, although I was a bit taken aback by the pace of change in the lake. Thanks to all the contributors for a full and interesting program.



Our meeting in October was soon followed by the meeting of the Entomological Society of Canada in Edmonton, November 3-7. Manitoba entomologists were one of the larger contingents from outside Alberta. The venue for the 2016 Joint Annual Meeting, an issue that came up at our Annual General Meeting, was resolved in Edmonton. The ESM invitation to hold the Joint Annual Meeting in Manitoba in 2017 was accepted at the ESC Annual General Meeting. Thanks to Brent Elliott for bringing to ESM the information on the International Congress of Entomology in Florida, September 2016. Combined interest in the Congress and concurrent meeting of the Entomological Society of America that year would likely affect attendance at an ESM-ESC joint meeting in Manitoba a month later, as originally planned for that year. Holding the joint meeting in 2017 eliminates that potential problem for ESM.

At the ESM Annual General Meeting, we discussed the need to move ahead with converting the early ESM Proceedings and Manitoba Entomologist to digital format. These publications from our past would make a valuable contribution to our website. The back issues of the Proceedings from 1945 to present and Manitoba Entomologist are available as paper copies in the Entomology Department library at University of Manitoba. At the moment the Proceedings are available on the ESM website for Volume 53 (1997) to present, leaving more than 50 years of Proceedings and all the Manitoba Entomologists that need to be converted to a searchable digital format. I am currently developing a plan to accomplish this conversion, working with Terry Galloway, Editor of the Proceedings, and Rob Currie, Web Page coordinator. Any members who are interested in this project, especially members with experience in digitizing archival material, are invited to contact me.

An important event for entomologists in Manitoba is the impending closing of the Cereal Research Centre (CRC) of Agriculture and Agri-Food Canada (AAFC). This facility has been a major contributor to Stored Product and Field Crop Entomology in Manitoba for decades. Research scientists and technicians from CRC and its predecessor, the Winnipeg Research Station, have contributed much to ESM and entomological research. A small group of Stored Product Entomologists will remain in Manitoba with AAFC, but no research on field crop entomology will continue in Manitoba supported by AAFC, with the possible exception of one technician working on wheat midge. For all practical purposes the closing of CRC will be

complete in 2013. I recommend that ESM consider ways to commemorate the past contributions of the many fine entomologists that worked with CRC. Any suggestions on how ESM might acknowledge this entomological heritage would be most welcome.



I look forward to the coming year of entomological activities. Please advise me or other ESM executives of any new projects or activities that would contribute to our goal of furthering entomology in Manitoba.

Bob Lamb, President
Entomological Society of Manitoba

The Early Years of the Department of Entomology

By Sam Loschiavo

In the late 1940s I was working toward a Master of Science degree under Professor R.A Wardle, Head of the Department of Zoology in the Faculty of Science. He thought that a course or two in Entomology would be helpful. These courses were only available in the Department of Entomology, which was in the Faculty of Agriculture and Home Economics as it was then called. The one and only professor in Entomology was A.V. Mitchener who was also the Dean of Agriculture. Occasionally, a few guest entomologists were invited to give lectures, namely: Stirling McLeod, John McClintock, and Clayton McGuffin. A second permanent member of the Department, A.J. Thorsteinson (Biting fly physiology), was hired in the early 1950s.

After Mitchener's retirement in 1954, Thor became Professor and then Head of the Department serving from 1959 to 1976. During his tenure he expanded the Department to six: William Hanec 1960, (Insect anatomy and physiology, cold hardiness in insects), biology of the cabbage maggot and cutworms), Grant Robinson ca 1961, (Taxonomy, biology, physiology, and population dynamics of aphids), Cameron Jay 1961, (Honey bees and insect pollination of field and fruit crops, orientation of worker, queen and drone bees, and overwintering of bee colonies), Reinhart Brust 1965, (Biology and control of mosquitoes and black flies, insect ecology, medical entomology), and Glen Findlay, 1970 (Pesticide toxicology, nutritional biochemistry).

During Thor's tenure there was a large increase in the number of graduate students. After Thor retired in 1976 Grant Robinson became Head of the Department serving for five years before retiring in 1981. He was succeeded by Cameron Jay who served as Head from 1981 to 1987.

Six Decades of University of Manitoba Graduate Students

By Marj Smith

Last year I discovered a list of former entomology graduate students compiled by **Kathy Graham**, Department of Entomology Secretary and Graduate Student Coordinator, on the U of M's Department of Entomology website. Many were familiar names to me, and their countries of origin read like the United Nations. The first graduate student to receive a degree in Entomology was T.V. Cole, a Canadian who was awarded an MSc in 1951. Here are some interesting statistics, summarized from the list at <http://www.umanitoba.ca/afs/entomology/>

- To the end of 2010, 219 students received post-graduate degrees (MSc: 160; PhD: 59). Over 30 of these are currently ESM members.
- They were supervised by a total of 12 regular faculty members and 26 adjunct professors.
- Five of the regular faculty each supervised 20 or more graduate students who completed degrees by 2010: Grant Robinson, A. Thorsteinson, Reiny Brust, Cam Jay and Neil Holliday.
- Ten graduate students later supervised students who received post-graduate degrees from the U of M.
- Of the 219 students, 160 were Canadian, 9 were from Taiwan, 7 from Thailand, 5 each from Sri Lanka and USA, 4 from Kenya, 3 from Zambia, 2 each from Nigeria, India, Bangladesh, China, Britain and Iran. There was 1 from each of Jamaica, Australia, Chile, Trinidad, Cyprus, Indonesia, New Zealand, Ghana, Iraq, Poland, Uganda, Swaziland, Burma, The Netherlands and Egypt.

Abandoning Common Sense in the Pursuit of Rare Beetles

By Todd Lawton

The way I see it, if I drive hundreds if not thousands of kilometres to an insect collecting locality, I must be willing to do whatever it takes, within ethical constraints, to catch the insects I seek. It's never too far from the car, the water too deep or the cliffs too steep. Before I leave a site I need to know that I've done everything possible to achieve my goal. Here are a few road trip stories, examples of where ambition sometimes out-distanced common sense.

Water levels were high in Florida during the summer of 2004 and few river sandbars, a common habitat for tiger beetles, were exposed. While crossing a muddy river in the panhandle region I spotted a white crescent of exposed sand about 3/4 kilometre up river. Getting there was no easy feat as the best route meant crossing a single-track railway bridge high above the water. Barely controlling my fear of heights I stepped from tie to tie, watching my feet, but trying not to look down at the rushing water. Fortunately a train didn't roll by! From there I snaked through almost a kilometre of flooded forest.

There is a slender, hardly unnoticeable, thorned vine in Florida's wet woods. The strands wind around arms and calves driving in cat-claw thorns; insect nets must be held high to prevent them from shredding. I pushed on, blood running down my arms in 40 degree heat, barely ahead of a cloud of mosquitoes, to come to a dead stop against a creek that paralleled the river. "Time is of the essence!" is my creed while on the road, so with only a moment's hesitation, I went in, stepping over submerged logs, water lapping at my upper chest, and as luck would have it there were no alligators. Finally I caught a glimpse of white sand through the trees! But it only took a minute to discover there were no beetles on that thin strip of sand. And then, groan! It was back to the car. As I emerged from the woods, soaked and bloody, holding a tattered insect net, two women quickly packed up their children and drove off.

Once in California's San Bernardino Mountains I stopped in a goat pasture at dusk to search for *Omus*, a flightless and nocturnal tiger beetle. Having no experience with the genus I wasn't aware that I was looking in the wrong area and habitat. In the fading light I flipped debris hoping to collect something. A black creature dashed out from under a turned piece of wood and I managed to capture it with my fingers. I dropped it into my other hand for a closer look and saw the flash of a red hour glass. Black Widow! I dropped the plump black spider immediately and I decided it was a good time to find a place to stay for the night.

The Badlands of Alberta are a great place to hunt for tiger beetles. One spring afternoon I was collecting *Cicindela decemnotata* on the banks of the Bow River near Brooks. It was getting late in the day and I was several kilometres from the car so I decided to pack it in. I hadn't walked more than 50 meters back down the trail when I met a large prairie rattlesnake on the path. There was little room to manoeuvre; the path was at the river's edge and backed by a steep clay bank. I gave the snake as wide a birth as I could and continued on. Then there was a second rattler, and a third! The snakes were emerging for the evening and resting on the warm narrow path. This was disconcerting as it was getting darker; stars started to appear and the trail became faint. I was only half a kilometre from my car when a hissing sound froze me in mid-step. My foot hovered over a snake, his silenced rattle resting in the river. It left me more than a little "rattled" and for months after I found myself jumping at the sight of garden hoses!

Another time I was hunting for *Amblycheila*, a giant flightless tiger beetle, in a high desert



Not a good place to get lost, especially at night.

canyon at night. It had been a long hot day in the desert; it was about 2:00 a.m. and I was hungry, exhausted and experiencing minor visual hallucinations. As I scuffled up a draw I spotted an *Amblycheila* at the base of a rock face! I took my light off it for a second and wrestled a collecting jar from a pocket. When I returned the beam to the ground, the beetle was gone. It had vanished into thin air! I thought, "Did that just happen? Was that beetle really there?" To add to my confusion, I then discovered I was walking downstream not up and for a few moments I panicked; I felt utterly lost. Slowly regaining my bearings, I made my way up the blackened canyon and began to climb the

steep bank. Nearing the rim, a massive black face with purple eyes suddenly appeared over the top filling my flashlight beam! I made a dry gasping sound, the kind that one would make when a semi veers into the lane in front of you. At that moment, my tired mind came up with two possibilities, my visitor was either a devil or a space alien, (no wonder people see UFOs in the desert at night!) I stood frozen, conceding that a grizzly death was probably imminent when I realized I was face-to-face with a huge black bull. I started to laugh. He started to snort and paw at the ground. I started to run.

I had been warned that at least one car and numerous cattle were lost annually to Colorado quicksand. I was standing on a sand bar in the Rio Grande River in Alamosa when I noticed the sand had begun to vibrate and water was percolating to the surface. “Why, this must be quick sand....AHHHHHHHH!” In an instant the sand bar liquefied beneath my feet and I went down to my waist. I struggled and flailed, dropping another four inches. “Must be calm, very calm...” I said out loud as I extended my arms over the sand, leaning and stretching. Eventually I pulled myself into a horizontal position so I could roll along the surface of the sand bar. Another time while netting tiger beetles I went down past my waist in quicksand in North Dakota.

Convinced that the beetles would be better on the far side, I waded across the mouth of a small river in southern California. I had seen about 15 sharks entering the estuary from the bay, they were small, perhaps reaching three feet. A harbour seal bobbed above them in the surf, reassuring me that all was well. I always forget that I can’t swim until waves are slapping at my neck and I remember the agony of childhood swimming lessons. Balancing on my toes, net and wallet in hand, the sharks swam past my legs or paused for a second to investigate. It was actually a very cool moment. The beetles weren’t any better on the far side and it wasn’t until later that I discovered that swimmers occasionally lose fist-sized chunks of flesh to California sharks.

Of course there has also been a long series of flat tires, dented rental cars and stone-damaged windshields. I got stung for \$700 when I had a car towed from a remote desert road and once paid \$100 to a ranch hand to yank a car sunk to its frame from sand in Alberta. A park ranger pulled me out of a dune in Utah and planks from a picnic table allowed a miraculous escape from a California salt flat. I once flooded my car by trying to run a swamped section of forestry road and narrowly escaped the same when I ploughed through a pond that had formed on an access road following an Arizona monsoon.

Who says entomology is boring?

A Visit to the Royal Ontario Museum

By Robert Wrigley

Having been a curator for most of my career, and having hung around a number of natural history museums for years before that, I jumped at a chance to visit the Royal Ontario Museum in Toronto from August 15 to 19, 2012. I contacted Dr. Chris Darling, the Curator of

Entomology, and enquired if I would be able to look through the cabinets of the insect collection. He kindly agreed to my request, and I made arrangements with Entomology Technician, Antonia Guidotti, to gain access to the Research Lab. Antonia met me with a big smile at the Museum's security station and as we walked through the hallways, it occurred to me that it had been 44 years since I was last in this building -- in that case to talk to Curator of Mammalogy, Dr.



Antonia Guidotti in the entomology section of the ROM.

Randolph Peterson, about my PhD research on the taxonomy, ecology, anatomy and genetics of the Woodland Jumping Mouse.

The entomology collections were held in a large room with movable rows of cabinets on tracks – a real space-saving system (also utilized at the Manitoba Museum). I cannot put words to how exciting it was to open drawer after drawer and to find thousands of remarkable species of insects from all around the world. Chris specializes in parasitic wasps, and is a world authority on Perilampidae, and his bio can be reviewed on ROM's website. He and several colleagues had been collecting astonishing numbers of arthropods in Vietnam and other Southeast Asian countries for years; gaining permission to collect in and remove specimens from Vietnam and China was a real achievement, dependent on building trust with authorities. Once identified, a selection of specimens must be returned to their respective countries. Many attractive species

of beetles were unfamiliar to me, since they had not yet reached the insect trade, or been photographed for internet sites and books. The diversity of species, both large and small, was overwhelming.

One of the first cabinets I checked out contained tiger beetles, where I found several dozen specimens from southern Manitoba prepared by Stuart Criddle (1905-48) and J.B. Wallis (1953). I wondered how these ended up here, but suspected material from these Manitoba pioneer entomologists were shipped to a number of museums across Canada and the United States.

I noticed that some of the older insect specimens (some dating back to the early 1900s) had developed a green oxidized material along the pin-specimen junction, even those with stainless steel pins. Some other specimens of beetles had a white deposit on the surface, likely from salts seeping through the cuticle (not unusual on certain beetles), or had acquired a layer of dust particles over the years. I mentioned to Antonia that I had success cleaning soiled specimens with a spray or quick soak with a biodegradable degreaser, followed by a thorough rinse in water. The specimens come out looking like freshly collected material. Antonia showed me a new



Bronze stag and scarab beetles by Québec sculptor, George Foster.

preservative solution she was testing which reduced the amount of fine particulate matter adhering to small specimens stored in alcohol vials from the field.



An example of display material for the “Hands-on Biodiversity” exhibit.

I saw many specimens without identifications and which I had in my collection, but trying to recall all the names and correct spelling was difficult without my home resources. At the request of Antonia, I did manage to put names on about four-dozen specimens. Of course, most museums greatly appreciate the identification services provided by visiting specialists. In the Entomology Library and in a hallway were three magnificent bronze sculptures of a stag beetle, dung beetle, and Giraffe Weevil -- the work of Quebec sculptor George Foster. I marvelled at the accuracy and fine detail of these pieces of art -- no doubt most appreciated by entomologists.

In another section, there were numerous cabinets filled with nicely mounted specimens of large or colorful beetles and other unusual insects and spiders destined for displays. Antonia mentioned that the Museum had budgeted over \$900 for

purchase (from the annual insect show in Montreal) of display material for the new “Hands-on Biodiversity” and “Life in Crisis” exhibits. In these

displays, I was pleasantly surprised to discover just how many insects were presented in a dozen themes, mounted on large plexi-glass panels or set in pull-out drawers. I photographed several of these panels to demonstrate the diversity of material and how they were mounted.



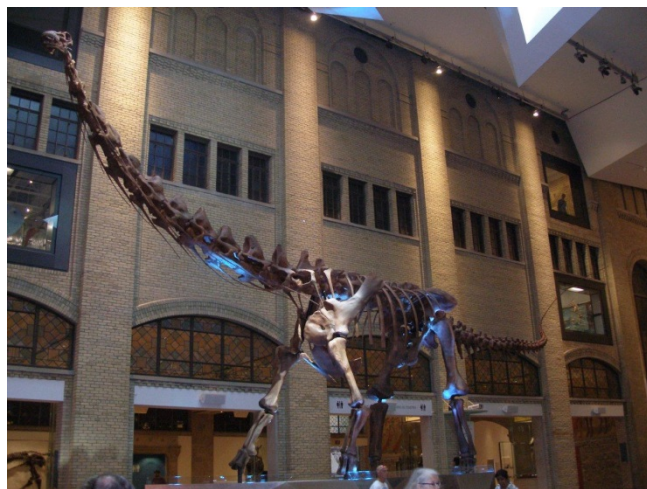
Fossils and their present-day relatives.

Antonia has been working on a couple of nature books in a “Biodiversity Series,” published by the City of Toronto and supported by a number of conservation organizations such as the ROM, Biodiversity Institute of Ontario, local universities, the Toronto Zoo, and many volunteers. She kindly gave me copies of “Butterflies of Toronto” and “Spiders of Toronto” -- both well written and beautifully illustrated. Remarkably, these books are free to citizens -- a great way to encourage the public to appreciate the natural world. I am reciprocating by sending her a couple of my publications, including “Mammals in North America” and

several children's books on natural history. She is currently contributing to "The ROM Field Guide to the Butterflies of Ontario," due to be published in 2013. Antonia responds to hundreds of public enquires about insects and identifies specimens (just like our Terry Galloway), and contributes to the ROM natural history blog. She also supervises the use of a digital-imaging system for the Department of Entomology. I greatly appreciated her efforts to make my visit productive and pleasurable.

In the afternoons I spent many pleasant hours walking the public exhibit halls, such as Biodiversity, Hall of Birds, Gems and Minerals, ancient history of the Middle East and the Orient, and early Canadian history. The quality and numbers of artifacts were amazing and endless, and each afternoon at closing time I headed for the subway, excited about what displays I would see the next day. There was a remarkable special exhibit on the Dinosaurs of Gondwana, highlighted by immense creatures found recently in Argentina and northern Africa.

Dozens of bizarre and giant creatures were represented, the largest being *Futalognkosaurus dukei*. This amazing animal from tropical Patagonia lived during the Late-Cretaceous (85 mya), stretched 32-34 metres, and weighed 40-50 tonnes. It is estimated that it grew by over 3 kg/day. In fact the skeleton was so huge that it had to be mounted in the spacious entrance hall, where it rose two stories high. I was born in Argentina and so it was of special interest to me that this and other remarkable dinosaurs had lived in my home region during the Jurassic and Cretaceous. Being in the



Futalognkosaurus dinosaur

museum business, I was greatly impressed with the quality of specimen mounting and interpretive techniques and messages. The public was also enthralled, especially with the technical wizardry of films and touch screens which brought these ancient creatures to life. A surprising number of real fossils could be touched by visitors.

I could not leave Toronto without visiting one of Canada's most famous shrines – the International Hockey Hall of Fame, especially because I wanted to see how the museum covered a special inductee in the Builders Category -- my Great Uncle William Northey. This gentleman, who lived to 91 (1872-1963), was one of those remarkable individuals who contributed so much to Canadian society, helping to found organizations such as the Montreal Children's Hospital, the International Hockey Hall of Fame (serving as its first honorary President), and Montreal Horse Show Association, and serving on numerous boards like the Canadian Olympic Committee and Association, Commonwealth Games Committee, and Amateur Athletic Union of Canada, among others. It seemed his interests and involvements were limitless. However, I focussed on his hockey contributions, which were also substantial.

He built the first arena designed especially for the sport of hockey, in Westmount, Quebec, and supervised the construction of and managed the Montreal Forum. His innovations included adding a net and cross-bar to the goal posts, dropping one of the three original defense positions, and setting play to three (instead of two) periods of 20 minutes. He was Executive Vice-

President of the early English team called the Montreal Maroons and later, the originally French team of Montreal Canadiens. As a youngster, I and family members were invited on occasion to sit in his box seats behind the opposition net (where most goals were scored), with such dignitaries as Senator Molson and Frank Selkie Senior. I have a great photo of him hosting the young Princess Elizabeth and Prince Philip, and I cherish his hockey papers and a beautiful silver cup inscribed with "W. Northey, Executive Vice-President, Club de Hockey Canadien Inc., National Hockey League Stanley Cup Winners Season 1952-53." His name is inscribed three times on the Stanley Cup, as Vice-President and President of the championship Montreal Canadiens.

I packed about 35 hours of total museum enjoyment into my five days in Toronto -- a city with fabulous museums, diverse and excellent restaurants, rapid transit system, and a great location to simply watch people, with ethnic contributions from around the world. This trip was a great indoor complement to my June 19-day insect expedition to Texas -- the subject of a future article.

MEETING ANNOUNCEMENTS*

Joint Annual Meeting of the Entomological Societies of Canada and Ontario

Predating the Nation - A Sesquicentennial Celebration of Entomology in Canada
Guelph, Ontario, 20-23 October 2013

61st Annual Meeting of the Entomological Society of America

Entomology 2013: Science Impacting a Connected World

Austin, Texas, 10-13 November 2013

<http://www.entsoc.org/entomology2013>

Entomological Society of America, North Central Branch 2013 Annual Meeting

Rapid City, South Dakota, 16-19 June 2013

www.entsoc.org/northcentral

XXV International Congress of Entomology

Entomology without Borders

Orlando, Florida, 25-30 September 2016

*If you have a meeting you would like listed in the next ESM Newsletter, contact Marj Smith with the details by 30 June 2013.

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