

Entomological Society of Saskatchewan Newsletter

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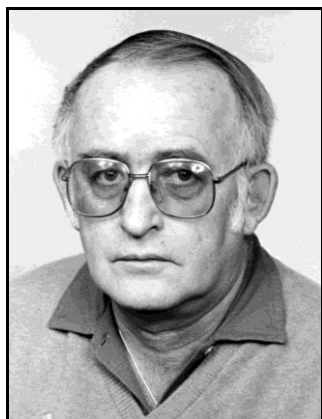
November 18, 2008

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In Memorium...

The past few months have witnessed the passing of four noteworthy entomologists. Ed Becker, well known to all who have been in the entomological community for any length of time, passed away on May 13, 2008 at the age of 85. A former member of the Entomological Soc. of Saskatchewan, Al Ewen, passed on September 25th. Two fellow entomologists, both longstanding members of our sister society, the Entomological Soc. of Manitoba, passed away in April 2008. Bill Turnock and Cam Jay were well known to many members of the Entomological Soc. of Saskatchewan. Their obituaries, as printed in the Bulletin of the Entomological Society of Canada, are re-printed here.



Alwyn Bradley Ewen
1932-2008

Alwyn ('Al') Bradley Ewen passed away unexpectedly on 25 September, 2008, in Saskatoon's Royal University Hospital, aged 75.

Al was born on 24 October, 1932, in Radisson, Saskatchewan, where his father, a Scottish emigrant, was the bookkeeper at the local grain mill. In the late 1930s, Al's family moved to Saskatoon where he completed his school education. In 1947, he enrolled in pre-medical studies at the University of Saskatchewan, but after a year switched to biochemistry. As luck would have it, he worked as a summer student for Don Rawson, the well-known limnologist, and quickly changed course again, to complete a B.A. degree with Honors in Biology.

At this stage, Al may well have become a fisheries biologist, having worked for the Fisheries Research Board at Victoria Beach on Lake Winnipeg, where his main observation was that "fishing was never so good", and for the Saskatchewan Department of Natural Resources, Fisheries Branch, at Ile a la Cross. Here, he was exposed (literally!) to northern biting flies, which pricked his curiosity (and probably other things as well), leading him to undertake a M.A. degree under the supervision of Les Saunders at the University of Saskatchewan. For his M.A. thesis "Contributions toward a revision of the genus *Atrichopogon* based on characters of all stages (Diptera, Heleidae)" (Heleidae = Ceratopogonidae), Al attempted to determine useful taxonomic characters for separating species, using larval, pupal and adult features. His study included 18 species, 5 of which were from near Saskatoon but the rest had been collected by Saunders from around the world. Despite working on the genus for some years, Al remained puzzled by the very name and in his thesis (p.2) noted: "The name *Atrichopogon* itself is mystifying, for it indicates an impossible situation: a beard ("pogon") without ("a") hairs ("tricho")."

After completing his M.A. in 1957, Al joined the staff at the Canada Agriculture Research Station in Saskatoon, where he was given responsibility for investigating the physiology of environmental adaptation in immigrant pest insects. To acquire the background in this area, Al with his first wife Marjorie and young son Rick moved to Edmonton where he registered in a Ph.D. program in the Department of Entomology, University of Alberta. Here, under the joint supervision of Brian Hocking and George Ball, Al spent the next 3 years looking at the induction and termination of diapause in insects and correlating these events with changes in the endocrine system.

With his thesis research completed, Al returned to Saskatoon in 1960, though by now his family numbered four, following the arrival of a second son, Doug. He received his Ph.D. in 1961, for the thesis "Studies on neurosecretion in the alfalfa plant bug, *Adelphocoris lineolatus* (Goeze) (Hemiptera: Miridae)."

Over the next decade and a half, Al undertook a comprehensive program on the physiology of reproduction in insects, using the alfalfa plant bug and the migratory grasshopper (*Melanoplus sanguinipes* Fabr.). An enjoyable and productive component of this work was the collaboration between Al and the recently appointed insect physiologist at the University of Saskatchewan, Cedric Gillott. Clearly, the latter's strange accent made a major impression on Al who very quickly adopted the habit of greeting his collaborator with "'ello m'duck" (unfortunately, sounding like a Cockney rather than a Yorkshireman!).

In the mid-1970s, Al undertook another major change in research direction, turning to applied entomology, specifically crop and rangeland grasshopper control, initially using synthetic pesticides, then potential pathogens such as *Nosema* spp. and *Malameba locustae*. In an

effort to get away from the non-specific effects and wastefulness of insecticide spraying, Al and his collaborators examined whether the efficacy of insecticides (including microbials) could be improved if they were formulated as dry, edible baits. This was easily the most productive phase of Al's career, with more than 20 publications, co-authored by colleagues at the Saskatoon Research Station (Mukul Mukerji and Chris Hinks), the University of Saskatchewan (Jim Germida), the University of Regina (Paul Riegert) and the University of Wyoming (Jeff Lockwood). As well, Al enjoyed a new role as co-supervisor (with Cedric Gillott) of two M.Sc. students, Lorraine Braun and Martin Erlandson.

Al was a strong supporter of entomology at both provincial and national levels. He was elected the Entomological Society of Saskatchewan's President for 1962-63, and was a major force in the establishment of the Arthur R. Brooks Memorial Prize, awarded annually to an outstanding graduate student in Entomology registered at one of the Province's universities. He was also a long-time member of the Entomological Society of Canada, and served as Scientific Editor for *The Canadian Entomologist* between November 1985 and December 1993.

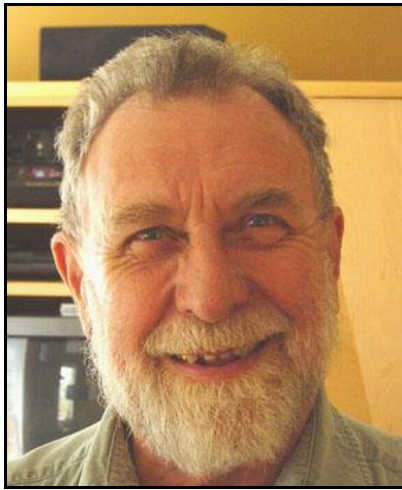
Al had a wry sense of humour, which was evident on my very first visit to his office. There, on the door jamb, was a beautiful little hand-made sign – the kind that one sees at service counters in department stores and government offices – complete with two little brass hooks holding numbers and the words “Please take a number (247). Now serving (21)”! Al was also a great lover of puns, and many of us on his e-mail list would receive these regularly. A small selection of these follows in the tribute presented by Robin Leech.

Golf was also another major love of Al's life, though the origin of this affair was unusual to say the least. Early in life, Al had a severe lung infection that required major surgery. To aid the normal regrowth of the back muscles damaged by the operation, Al was urged to take up golf, which he played with a fierce passion (and eventually a single-figure handicap). Harvey Craig, a long-time colleague and golf buddy, recalls how Al always played the first two holes of a round with great care, taking overly much time in the view of some fellow players. Al's response was quite direct: “There's no point in ruining a round of golf in the first two holes.” His commitment to the sport extended to even having his golf shoes custom-made. Many a fine afternoon found Al out surveying turfgrass for ‘golf eggs’. Once he wistfully commented that if only there were *Melanoplus sanguinipes* in Hawaii, he could transfer there and golf year round! There is also a rumour, completely unfounded of course, that Al's main delight at having two sons was that he could use them as caddies and ball-shaggers from an early age! Apparently, Rick and Doug, each armed with a ball glove, were sent out into the rough, about 200 yards from the tee, to catch the golf balls that Dad hit to them for hours on end! Al continued to golf until about 2 years ago when knee problems forced him to retire from the sport. It was highly fitting that, after his death, the opportunity to pay tribute to, and reminisce about, Al took place at his home-away-from-home, the Saskatoon Golf and Country Club.

Al will be greatly missed by his wife Ruth, his sons Rick and Doug, their mother Marjorie, his grandchildren and great grandchildren, and numerous colleagues and friends. Wherever he now resides, there had better be a golf course!

Cedric Gillott, with contributions from Lorraine Braun, Martin Erlandson, Harvey Craig and Rick Ewen.

As re-printed from the Bulletin of the Entomological Soc. of Canada 40(2) pp. 82-83.....



William James (Bill) Turnock
1929-2008

From day one, Bill's vibrant personality and vast knowledge of science and the environment made a lasting impression. In short, he got the 'big picture' and had a good understanding of how the pieces of the puzzle fit together. As an entomologist, Bill studied many insect species throughout his career, but he was somewhat partial to the beetles, especially predators like the ladybeetles and carabids, possibly because he was an excellent hunter himself, but he also had a fondness for bumblebees.

Bill loved field trips, regardless of the weather or the physical demands of the work. He could be up to his knees in a forest bog or digging in a hot, dusty field; in either case he relished the 'hands on' aspect of his work. He enjoyed meeting and discussing his research with farmers and appreciated their input and suggestions. After a full day in the field, Bill delighted in trying to find a good restaurant, not necessarily the *best* as long as they served a good bowl of soup. Bill was a soup connoisseur and his rating of 'superb' spoke for itself.

Bill was born and grew up in Winnipeg, where he received his BSc Agriculture from the University of Manitoba in 1949. His MSc in Entomology and Forestry in 1951 and his PhD in Plant and Animal Ecology in 1959 were both from the University of Minnesota. He began his career with the Canada Department of Forestry in 1949 and became part of a group based in the Whiteshell, a provincial park east of Winnipeg, studying population dynamics and biological control of forest insects with special emphasis on the larch sawfly. Over the years vast amounts of data were collected and analyzed, so much so that years later Bill still had reams of data to analyze and re-analyze, a task he loved.

Bill could quickly adapt to take advantage of nature's unpredictability. After a very strong overnight windstorm in the Whiteshell, he decided early next morning to see how many larch sawfly larvae had fallen to the ground. Some measuring jigs of various sizes were quickly assembled and off he and I went to the tamarack bog to count sawfly larvae and add another piece of data to the puzzle.

Bill's research in forest ecology continued until 1970, when he and the majority of researchers and support staff were transferred to various locations across Canada, after the closing of the Canada Department of Forestry Lab in Winnipeg. Bill became Science Advisor to the Ministry of State for Science and Technology, and he and his young family moved to Ottawa.

In 1972, Bill made the transition from Science Advisor to agricultural research, specifically integrated pest management which was his primary interest. He was to head up a new section at Agriculture Canada in Winnipeg

concerned with insect pests attacking canola, which at that time was the newest and hottest crop on the market. Insects such as the bertha armyworm, flea beetles, red turnip beetle, lygus bugs and diamondback moth were all eventually studied. Known as the Integrated Pest Control Section, Bill had upwards of a dozen entomologists and a similar number of support staff under his leadership. As a result of the work of Bill's group, canola farmers today better understand the benefits of monitoring their crops for insect pests, and have control methods that are appropriate and effective. Interspersed in his long career, Bill and his family enjoyed two sabbaticals: the Netherlands in 1966-67 and Great Britain in 1983-84. As a result of his broad experience in the natural sciences and environment, he was asked to lead or be part of Canadian missions to the USSR, Brazil, China, and the UNESCO programs: Man and the Biosphere and the Conference on Economic Development and Human Survival <http://www.unesco.org/mab/mabProg.shtml> .

Bill's acute curiosity about natural phenomena, particularly insect behaviour often led to some interesting unofficial research. On one of our field trips returning from Swan River, Manitoba, Bill and I stopped at a place along Lake Manitoba called Lily Bay. It was a beautiful fall day, sunny and warm, the lake was like glass. Upon reaching the lakeshore, the sight that met our eyes was astonishing. The rocks, driftwood and other debris were covered with millions of ladybeetles and more were slowly floating in. While my attention was on taking a few pictures and skipping stones across the water, Bill's attention was focused on jotting down notes and posing the question 'Why are they here?' It wasn't long before we were off to the University of Manitoba Field Station at Delta Beach, Lake Manitoba, to count and identify ladybeetles and the unofficial field study began. Several years and numerous trips later the simple answer to the question was that the beetles were attempting to reach the berm high above the beach and over-winter in the heavy vegetation.

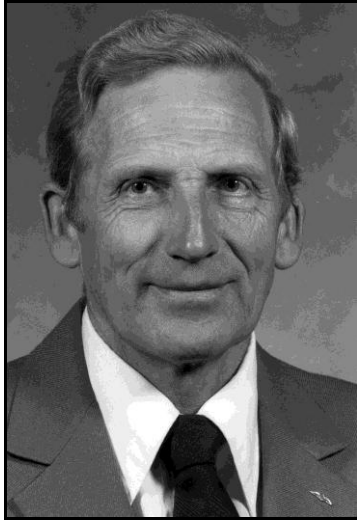
As part of Bill's dedication to his profession, he served as President of the Entomological Society of Manitoba (1969) and the Entomological Society of Canada (1980). In recognition of his contributions to entomology and his work within the Entomological Society of Canada (ESC) he was made a Fellow of the ESC in 1983. He was a member of the Manitoba Environmental Council from 1973-2000, serving as chair for six years offering expert advice on controversial issues such as mosquito abatement, Dutch elm disease and the hog-processing industry. In keeping with his passion for gardening, Bill began volunteering in 1997 on the Prairie Garden Committee and participated in the publication of *The Prairie Garden* <http://www.theprairiegarden.ca/index.html> . He was also an enthusiastic member of the Friends of the Field Station at Delta Beach.

In a remarkable career spanning 44 years, Bill published over 80 refereed scientific papers, as well as numerous notes, extension articles and press releases. Although he officially retired from government service in 1993, retirement from research was the last thing on his mind and he continued to analyze data and published an additional 17 scientific papers. During official retirement he continued an active interest in insect cold-hardiness that captured his attention late in his working career, keeping up on the literature, and contributing to international meetings on the topic. In August 2003, he presented the paper "How did cold hardiness evolve in insects?" at TEMP 2003 – International Symposium on Animal and Plant Cold Hardiness, in the Czech Republic. His last paper on this topic was a review with data taken from over 100 papers (Turnock, WJ, Fields, PG. 2005. Winter climates and coldhardiness in terrestrial insects. *Eur. J. Entomol.* 102: 561–576) http://www.eje.cz/pdfarticles/1037/eje_102_4_561_Turnock.pdf . His last scientific publication came in July 2007: W.J. Turnock, P.G. Kevan, T.M. Lavery, L. Dumouchel. Abundance and species of bumble bees (Hymenoptera: Apoidea: Bombinae) in fields of canola, *Brassica rapa* L., in Manitoba: an 8-year record. *Journal of the Entomological Society of Ontario* 137: 31-40. http://www.entsocont.com/JESO/137_31-40.pdf

At the end Bill accepted the hand he was dealt without complaint or malice. He died of lymphoma on April 5, 2008. Bill loved his work and left us all with memories of good times and a job well done.

Bob Bilodeau...who had the pleasure of working with Bill Turnock for almost 25 years.

As re-printed from the Bulletin of the Entomological Soc. of Canada 40(3) pp. 135-138....



Cameron Jay
1929-2008

Dr S. Cameron (“Cam”) Jay, Emeritus Professor of Entomology, died suddenly on 28 April 2008 at the age of 79 years.

Cam was born at Lauder, Manitoba, and attended school in Hamilton, Ontario. In 1949, he graduated with the highest standing from a teacher training course at Hamilton Normal School. The next six years were spent teaching school in Hamilton. While teaching, Cam took evening courses at McMaster University, and received a B.A. in English Literature, and the Director’s award for highest standing. Notwithstanding this, he had sufficient spare time to meet and marry Doreen, his wife and partner of 56 years.

In 1955, Cam resigned from school teaching, and after a brief flirtation with Forest Entomology, began a bachelor’s degree in agricultural entomology at the University of Manitoba. Those were heady days in the Department of Entomology, with such people as Reinhart Brust, Glen McLeod, Dieter Peshken, Ted Radcliffe, Dave Smith and Maurice Tauber among the student body. Cam graduated in 1958, this time with the University Gold Medal for highest standing among B.S.A. graduates.

One summer near the end of his degree programme, he was assigned the penance of looking after the Department’s apiary, a task which was particularly distasteful because Cam was frightened of bees! Mostly he watched through binoculars from a safe distance. However one day, he and Doreen set out to retrieve a swarm that had alighted on a tree branch; this bravery was founded on a textbook’s statement that bees in swarms do not sting. Cam climbed the tree and tied a rope to the branch. Doreen, who was 8 months pregnant, held the rope, so that when Cam sawed through the branch it could be gently lowered to the ground. All went well until the sawing was complete. Then the rope broke, the branch and swarm crashed to the ground, the swarm flew up and landed beside Cam, and Doreen abandoned Cam to his fate and took refuge in the truck. The

seconds of juxtaposition of Cam and the swarm on the tree branch were momentous. Would Cam suffer first stings, and then broken bones as he fell from his perch? Or had the bees read the book? Cam was startled to find that the latter was the case, and at that moment his fascination with bees began.

Cam and Doreen moved to Guelph, which was then an outpost of the University of Toronto. There, under the supervision of Maurice Smith, Cam completed a M.Sc. on the life history of honey bees. In 1959, the Jays moved to Rothamsted, England, so that Cam could pursue Ph.D. studies on honey bee biology. This research was directed by Drs. C. Butler and J.B. Free. In 1961, Cam and Doreen and their growing family returned to Manitoba, where Cam held a faculty position in the Department of Entomology until his retirement in 1991.

During his career in the Department, Cam's first priority was teaching. His lectures in the course "Introductory Entomology" provided such an exciting introduction to the world of insects that the course was a major source of undergraduate and graduate students for the Department. In addition, Cam taught introductory and advanced courses on social insects. In 1980, as a result of nomination by his students, he was awarded the Olive Beatrice Stanton Award of the University of Manitoba for excellence in teaching.

Cam's achievements in research were also impressive, and ranged from work on fundamental aspects of bee biology through to studies directly applicable to beekeeping practice. Cam's largest efforts and biggest impacts were in the improved management of honey bees for honey production and crop pollination. Cam realized that studies on basic bee biology could be applied to help commercial beekeeping operations in North America. His early findings on growth and development of immature bees in their brood cells are very relevant to today's problems of utilization of brood by varroa mites. His discovery of the role of brood pheromones in suppressing worker ovary development provided a foundation for current pheromone research. His laboratory's basic studies of colony population growth were used to determine optimal population (package) size, the best timing of colony establishment to maximize honey production, and the factors affecting loss of bees when colonies are established or moved. These studies also showed how various management manipulations can affect queen loss, elucidated how to rear and time the introduction of queens for optimal success, and demonstrated how to winter colonies of bees on the Prairies. His studies of orientation of bees focused on how to reduce movement of bees between hives in commercial apiaries. This was a major contribution that reduced labour inputs for honey producers, increased honey production, and lowered transmission rates of parasites and pathogens. In addition to his studies of bee orientation in Canada, Cam studied the same processes in the southern hemisphere, during a sabbatical leave in New Zealand and Australia.

Cam's work on pollination with honey bees was equally diverse. In Canada, this focused on pollination of faba beans and canola, and he and his research associates developed pollination systems for the first commercial hybrid canola seed production fields in western Canada. During sabbatical leaves, he worked on coconut pollination in Jamaica and kiwifruit pollination in New Zealand.

While Cam's research focus was the biology and management of honey bees, he also responded to industry requests to tackle bee diseases such as *Nosema*, and to assess effects of mosquito control programs on bee mortality. He also worked on other species of bees with important

results. For example, one of Cam's first graduate students worked on native species of bumble bees and upon graduation, joined the faculty of the University of Toronto, where further research led to domestication of bumble bee species now used in commercial green house pollination. Cam also carried out a program that helped establish a viable leafcutting bee and alfalfa seed production industry in Manitoba.

Cam published over 75 refereed publications, and near the end of his academic career published in Annual Reviews of Entomology on one of his favourite research topics, the spatial management of honey bees on crops. In addition to his own research, he trained a total of 24 graduate students in research. Former students went on to research positions with Universities or Agriculture and Agri-Food Canada, and extension positions with several provincial governments.

Cam has had an enormous impact on Canadian beekeeping through his teaching and research and also through his extension efforts. Cam made a point of sharing his knowledge directly with beekeepers. He offered numerous courses for commercial beekeepers, and for 29 years, taught a course for hobby beekeepers. In the summer he was constantly on the 'phone to individual beekeepers to try to solve their problems and had close friendships with many of them. Again, his expertise was not restricted to Canada. He spent 15 months leading a C.I.D.A. apiculture development project in Kenya, and in that period radically changed and improved apiculture in Kenya through the introduction of the moveable frame hive. For his extension activities, he was recognised through a University of Manitoba Outreach Award, and the beekeeping industry conferred numerous local, national and international awards, including the Bee Hive Award, Manitoba Beekeepers Association, Honorary Life Membership in the Manitoba Alfalfa Seed Producers Association, the J.I. Hambleton Award of the Eastern Apicultural Society of North America and the Fred Rathje Memorial Award for outstanding contributions to the Canadian Bee Industry. His achievements were also recognized by the University of Manitoba Alumni Association through a Jubilee Award. In 1999, the international beekeeping conference, Apimondia, conferred an Award of Excellence for "Outstanding contributions to Canadian Beekeeping Development".

Cam contributed to Canadian Entomology in many ways. While he was not a high-profile member of the Entomological Society of Canada, he served on many of its committees. He was an active member of the Entomological Society of Manitoba, and served as president in 1968–69. Similarly he has served the Canadian Association of Professional Apiculturists as both president and committee member. For his service to Canadian Entomology and Apiculture, he was elected a Fellow of the Entomological Society of Canada in 1985.

At least as important as the formal achievements was Cam's personality. As a Department Head and colleague, he was forever supportive and cognizant of the needs and aspirations of those around him, and took endless pains to reach the best decision for all concerned. His steadying influence brought consensus on many contentious issues, and so he was much sought after as a chairperson of committees and conferences. The Jay home was a centre of hospitality and camaraderie for staff and students for many years.

Cam had a quirky sense of humour and an outlook on life which was a tonic to all around him. His classes, and colleagues, were treated to a continuous barrage of "jokes", most of them real "groaners". He was known to appear in the classroom bedecked in yellow striped sweater, and appropriately appendaged - the only known specimen of *Apis mellifera jayensis*. Also, costumed

as a skunk, he would “spray” passing cars, or invade the classes of colleagues complaining about “lectures that stink”. He loved to dress in an old santa suit and tour the neighbourhood by horse and cutter, visiting the local children. For years he rode an ancient bicycle, on which he sat rigidly upright. At various times, persons unknown “decorated” the bicycle, yet Cam always managed to preserve an air of dignity as he rode his steed to and from work amid a cloud of ribbons and flags.

Cam’s retirement was filled with activity. He and Doreen travelled widely in North America in their 5th wheeler. They operated a tree farm for many years. Cam volunteered with the Canadian Cancer Society, the Winnipeg Christmas Cheer Board, and Habitat for Humanity. The latter allowed him to indulge his penchant for building things, which extended to building an A-frame cottage, a hangar for his planes, a sun room for his house, and many minor projects.

Cam was devoted to Doreen, to their three daughters and son, and to his grandchildren. He marked his 30th, 40th and 50th wedding anniversaries by renting a road-side bill-board proclaiming his love for Doreen. Cam loved the outdoors, and shared canoeing, hiking, snowshoe or ski expeditions with his children and grandchildren, and with generations of boy scouts. Many gained their first introduction to nature during these trips, and remember them fondly, apart from the food — a gourmet cook Cam was not! Cam rebuilt a 1949 monoplane from a written-off wreck and flew it for 35 years. One of his early retirement projects was to fly to Alaska, but he turned back in the face of smoke from forest fires in Saskatchewan. More recently, he acquired an open-cockpit biplane which he flew from southern Ontario to Winnipeg — an epic journey lasting almost 3 weeks. Less epic were his “Flying Pizza” flights, in which he would circle an ice fishing hut in mid-winter until he was sure that it was occupied, and then land on the ice nearby, and ask the occupants if they had ordered pizza. He had a specially-marked (empty) pizza box with him, and used this ploy to “break the ice” and strike up friendships in the most unlikely places.

Cam’s light-hearted and self-deprecating manner made it easy for all to forget that he had been an outstanding student, an inspiring teacher, a researcher who made profound differences in his field, and a dedicated supporter of apiculture and entomology.

To honour these accomplishments, the Department of Entomology has established a scholarship to be awarded to a graduate student doing research in apiculture, pollination biology or the study of social insects — the areas of Cam’s studies. Donations to the scholarship fund may be made on line at https://umanitoba.ca/admin/dev_adv/howtogive/donation/index.html, or by emailing Neil_Holliday@UManitoba.CA to request a donation package. Please designate your donation for the Dr S. Cameron Jay Memorial Scholarship.



Edward Coulton Becker

1923 - 2008

Dr. Ed Becker passed away on May 13, 2008 at the age of 85. He was a research scientist at Agriculture and Agri-Food Canada from 1952-1980, working as a taxonomist at the Canadian National Collection (CNC) of Insects, Arachnids and Nematodes in Ottawa. His area of expertise was the systematics of click beetles (Coleoptera: Elateridae), which include many Canadian crop pest species. During his life, he published 36 scientific articles, book chapters and reviews (see list of publications). Following retirement, he became an honorary research associate at the CNC and continued to come into work nearly every day for the past 28 years.

Ed was born on March 15, 1923 in St. Louis, Missouri to Coulton and Grace Becker and was the first of six children, and a twin. He spent his early years on the family farm near Williamsville MO. After high school, he attended the University of Missouri where he took three years of agricultural studies before joining the US Marine Corps. The war ended just as he was being shipped to Japan, but he was able to visit that country and saw the devastation the atom bomb had on Nagasaki.

After the war, Ed met Martha Mae Elliott at a church camp at Lake of the Ozarks and they were married in 1948. The newly married couple soon moved to Honduras, where Ed worked as an entomologist for the Standard Fruit Co. They returned and Ed attended the University of Illinois, earning his PhD in entomology in 1952 with a thesis on the taxonomy of *Agriotes* (Coleoptera: Elateridae). By good fortune, Agriculture Canada was looking for a taxonomist to work on click beetles at the CNC and he and Martha soon moved to Ottawa.

Among his 36 systematics publications are monographic revisions of the large and economically important click beetle genera *Agriotes* and *Athous* (Coleoptera: Elateridae) of North America. This work was central to controlling a major North American crop pest problem. Together, his work has been world-wide in scope, spans several beetle families, and includes descriptions of 53 new species and two new genera. Towards the end of his research career, Ed co-authored a series of major scientific articles with the Japanese scientist Hitoo Ôhira. Becker's systematic research was innovative, in that he wrote the most rigorous, detailed descriptions and keys for Elateridae to date and pioneered new unexplored morphological character systems.

In addition to Ed's research, he was active in many entomological societies and organizations, working as treasurer of the Entomological Society of Canada (1961-1985), Section A representative and governing board member of the Entomological Society of America (1982-1984), Editor of *The Coleopterists Bulletin* (1983-1990) and President of the Coleopterists Society (1971-1972). Perhaps his biggest contribution to entomology was through the CanaColl Foundation, a non-profit organization that Ed helped create and almost single-handedly nurtured for the past 36 years. The foundation promotes taxonomic research at the CNC by providing funds to visiting entomologists who curate the collection. The foundation currently has investments of \$475,000 and has awarded over \$200,000 in grants to nearly 300 researchers. In addition, Ed wrote and distributed a quarterly newsletter for retired entomologists and their spouses for the past 18 years. For many years, he also visited public school classrooms to promote entomology, often with a tarantula named Carmen at his side. Ed was recognized for his work by receiving the Queen's Silver Jubilee Medal (1978), the Canada Commemorative Award (1984) and was made a Fellow of the Entomological Society of Canada (1974) and an Honourary Member of the Entomological Society of America (1997), at one time, the only person to be so honoured by both societies. His tireless efforts to promote entomology and the CNC have had far-reaching effects not only in Canada, but throughout the world. He was very well known in the entomological community, partly because of his friendly, social nature, but also because he attended every single ESC meeting for the past 49 years! Outside of entomology, Ed was a devoted family man who helped raise five daughters and was married for nearly 60 years. He was a Scout leader and was also deeply involved with his church, Rideau Park United, where he held numerous positions.

Ed enjoyed good health until quite recently, but in the last two months, he developed severe congestive heart disease. He died in Ottawa surrounded by family and is survived by his wife Martha and daughters Barbara, Marcia, Debra, Lynda and Patricia and three grandchildren. Ed's cheerful, positive attitude, sense of humour and love of bowties will be sadly missed.

Donations in Ed's memory can be made to the CanaColl Foundation, c/o Andy Bennett, 960 Carling Ave., Ottawa, ON, K1A 0C6.

Andy Bennett, CNC
Agriculture and Agri-Food Canada,
Hume Douglas, CFIA
Ottawa, ON

Fall Meeting of the ESS Coming Soon to a Conference Room Near You

The fall meeting of the Entomological Society of Saskatchewan will be held in room 215 at the Saskatoon Research Centre, 107 Science Place, Saskatoon, at 1:00 p.m. on Friday, December 05, 2008. If you have aspirations of becoming a member of the ESS executive or a committee member (e.g. Newsletter and/or Proceedings) this is your big chance!

60 Years of Canada-CABI Collaboration

At the 2008 annual meeting of the Entomological Society of Canada, CABI celebrated sixty years of research collaboration between CABI and Canada by sponsoring in part a symposium on Biology and Biological Control of Established Invasive Plants in Canada, by sponsoring a symposium titled Celebrating 60 Years of Research Collaboration between CABI and Canada, and by hosting a reception for dignitaries, CABI staff and Canadian collaborators.

CABI's website (www.cabi.org) informs us that the association is a not-for-profit international organization that improves people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment. Its mission and direction is influenced by its 44 member countries which help guide its activities. CABI started as a small commonwealth organization in the early 20th century, but developed into a world service in agricultural information, pest identification, and biological control. The 60th anniversary acknowledgment stems from the evolution in 1947 of the Imperial Agricultural Bureaux into the Commonwealth Agricultural Bureaux (CAB), and the first collaboration in 1948 of Canada and CABI Switzerland in biological control projects. Over the years many Canadian entomologists were affiliated with the Institute of Biological Control (now part of CABI).

This affiliation was apparent in the biocontrol of invasive species symposium at ESC 2008, in which several presentations drew attention to the role of CABI in research of biological control agents for invasive weed and insect control. The affiliation was highlighted in the 60th anniversary celebration symposium. Opening remarks were given by Yvon Martel, Scientist International, AAFC Research Branch, on behalf of Canada, and Trevor Nicholls, Chief Executive Officer of CABI, Wollingford, UK on behalf of CABI. Ulli Kuhlmann and Peter Mason did a tag team presentation on 60 years of collaboration in biological control research between Canada and CABI-Switzerland. Alec McClay, Vince Nealis, and Dave Gillespie presented talks on examples of weed, forest insect, and agricultural insect biocontrol. Bernie Roitberg and Harriet Hinz talked about risk assessments in biocontrol, ESS member Tara Garipey, K. Makela, and Laura Timms shared their experiences as undergraduate students at CABI Switzerland, and case histories of specific biocontrol projects were discussed by Wade Jenner, Lars Andreassen, Tim Haye, Guy Boivin and Sue Boyetchko.

Anniversary celebrations were capped with a reception of CABI staff, collaborators, friends, and guests. The organizers had assembled a formidable pictorial array of vignettes of Canadian visitors to CABI Switzerland at Délémont. The infamous scaling of the Swiss Alps, a rite of passage of visitors, featured prominently in many of the pictures.

Hats off to Ulli Kuhlmann, CABI Europe (Délémont) and Peter Mason AAFC Ottawa, for organizing the celebrations.

Submitted by Julie Soroka, November 14, 2008

New Lepidopteran Records for Saskatchewan

Ron Hooper has been doing some collecting and has found the following new records for Saskatchewan:

Geometridae

Diagrammia irrorata (Packard) – Saint Victor, SK., 21-VIII-2007. Several specimens collected by Dr. G. Glaeskae at ultra violet light. This species was previously collected in western Canada east to Empress, and Onefour, Alberta.

Venusia comptaria (Wlk.) – Fort Qu'Appelle, SK., 17-V-2007. Two specimens were collected at ultra violet light by Ronald Hooper. This species was previously reported for eastern Canada, west to Manitoba. It is reported to feed on birch and alder.

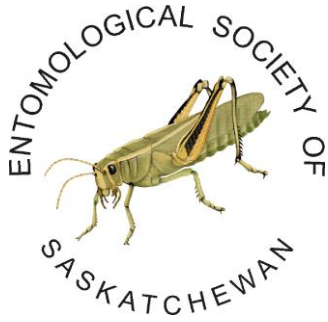
Sphingidae

Eumopha achemon (Drury) (Achemon Sphinx) – A last instar larva was found on the ground in Regina, August 10, 2007. It was brought to the Royal Saskatchewan Museum, where it was photographed. Soon after this it pupated in soil. After it was kept frozen for part of the winter, it died in the pupa did not emerge in 2008. Pictures of the caterpillar were sent to James Tuttle (author of "Hawkmoths of North America"). He confirmed the identification as being *Eumopha achemon*. This species feeds on grape, *Ampelopsis*, and Virginia Creeper. Some planted Virginia Creeper occurred in the yard where the larva was found. This species occurs in southern and central United States, and has been previously collected at Aweme, Manitoba and Billings, Montana.

Noctuidae

Curcillia pulla (Grote) – Saint Victor, SK., 18-IV-2001. Two specimens were collected by Dr. D. Glaeskae. This species has been previously collected in north to British Columbia and Colorado. It probably occurs also in extreme southern Alberta.

Submitted by Ron Hooper, October 16, 2008



Minutes of the Spring Meeting of
the Entomological Society of Saskatchewan
2nd Floor Conference Room
Agriculture Canada Research Station, Saskatoon
13:30 pm, April 04 2008

PRESENT: Anna Leighton, Lorraine Braun, Keith Moore, Cedric Gillott, Bryan Sarauer, Julie Soroka, Dwayne Hegedus, Scott Hartley, Diether Peschken, Brian Galka, Chrystal Olivier, Ruwandi Andrahennadi.

Regrets: Harvey Anderson

Presentation by Anna Leighton titled “**Raising the profile of insects: one amateur’s efforts**” at 13:30

1. Meeting Called to order: at 13:50 by President Bryan Sarauer.

2. Introduction:

3. MOTION: Gillott/Hartley THAT the agenda be adopted. **CARRIED.**

4. MOTION: Braun/Soroka THAT the minutes of the Fall Meeting, November 30, 2007 be approved. **CARRIED.**

5. Business arising from the minutes:

5.1 ESS Support For Student Curator Assistance – Dwayne Hegedus has discussed this matter with Art Davis. It was suggested that a formal proposal by Bob Randell is needed to hire a student to assist with placing moth balls, correcting misidentifications and replacing old specimens.

5.2 Movement of archives to U of S - C. Gillott

Cedric Gillott delivered the ESS archives to the University Archives in December 2007. They will catalogue the archival material and let us know what they don’t want. Cedric will look into the availability of these archives electronically.

5.3 Proposed Travel Award

A new travel award of up to \$500 will be available to a member of the ESS to promote entomological activities. Since this needs a constitutional amendment, a formal proposal will be put forward at the fall meeting by Dwayne Hegedus. It was agreed that all the members of the society be informed about this constitutional amendment prior to the fall meeting.

5.4 Outstanding items from the JAM

Julie Soroka informed the society that there were many compliments received regarding the JAM. Unsold literature that was donated to the JAM auction was sent to the provincial Forest Entomologist for their library. Julie received a letter from the Forest Entomologist, Dr. Rory

McIntosh thanking the society.

6. Treasurer's Report – Presented by Dwayne Hegedus

See Appendix A.

Memberships have increased. There are 54 members and 8 lifetime members. Dr. Helen Nichol joined the society as a new life member.

The chequing account balance is \$3,840.96. A loan of \$2,000 given to the Joint Annual Meeting Organizing Committee of the ESS has been repaid. The ESS earned a profit of \$3,860 from hosting ESC 2007. A term deposit for \$5,000 was purchased.

MOTION: Gillott/Hartley. THAT the treasurer's report be adopted. **CARRIED.**

6. Secretary's Report – Ruwandi Andrahennadi

Larry Grenkow has stepped down as the secretary. The new secretary, sent out due reminders to the members on December 11, 2007. The minutes were taken from the executive meeting on January 18, 2008. A notice of today's meeting was circulated to all members. News items of interest were circulated to members as they were received.

MOTION: Braun/Soroka. THAT the Secretary's report be adopted. **CARRIED.**

7. Report of the Newsletter and Proceedings Editor – Brian Galka.

The most recent edition of the ESS newsletter was published on January 04, 2008. The editor wishes to thank Cedric Gillott, Larry Grenkow, John Koziol and Ron Hooper for their input. Submissions and suggestions are always welcome.

8. Regional Director's Report – Chrystel Olivier.

The next ESC meeting will be on April 26, 2008 in Ottawa.

The joint annual meeting of the ESC and Ontario (JAM 2008) will be held on October 19-22, 2008 at Crowne Plaza Hotel in Ottawa, Ontario. Commencement of registration for participation was March 15, 2008. Titles and abstracts for posters and oral presentations can be sent until August 31, 2008 (Organizing chair: John Huber).

The ESC is still looking for a secretary and a webmaster.

9. Nominations-

Brian Galka agreed to continue his work as the newsletter editor until November, 2008.

10. Committee Reports

10.1 Student and Amateur Encouragement – Chrystel Olivier

Gardenscape 2008 hosted a booth for ESS on March 28-30. Living insects including locusts, cockroaches and a black widow spider were displayed. Pinned insect displays as well as posters were presented.

It was requested that descriptions about displays to be made available for volunteers serving the ESS booth before Gardenscape. Scott Hartley agreed to make these descriptions.

On February 15, Chrystel Olivier and Brian Galka gave an oral presentation about insects for 20 grade 2-8 students from the French School Pere Mercure (North Battleford). The presentation was held at AAFC, Saskatoon and included display of living and pinned insect specimens.

10.2 ESS Website –

No major modifications have been made.

MOTION: Braun/Sarauer. THAT the committee reports be accepted. **CARRIED.**

11. New Business.

11.1 Microscope– Bryan Sarauer reported for Harvey Anderson.

Anyone has access to the microscope. Anderson has given his contact information. Microscope will be in use by Anderson from November to January for wheat midge survey.

The meeting adjourned at 4.00 pm.

Minutes recorded by Ruwandi Andrahennadi, Secretary