

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 ([website](#)).

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* ([website](#)). 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) ([pdf](#)). His last scientific publication came in July 2007: W.J. Turnock, P.G. Kevan, T.M. Laverly, 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: 31-4 ([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.