

In memory / En souvenir de

William Davidson Seabrook was born on 2 April 1935 in Ottawa, Ontario, and died at 86 on 23 July 2021 in Fredericton, New Brunswick. Bill is survived by his wife, Janet Seabrook (Appleton) and sons David (Nule Setthanan) and Stephen; his granddaughters Lilly and Molly; and his brother Thomas.

Bill completed his MSc degree in Biology at Carleton University under the supervision of Professor Herbert Hugh John Nesbitt (1913–2002) whose name has adorned Carleton's Biology building since 2002. Bill's research was on the structure of the brain in the northern crayfish *Orconectes virilis* (Crustacea, Decapoda). For his doctoral studies, Bill and his family migrated to England, settling at Silwood Park, the rural campus of Imperial College London. He was funded by a George Henry Plimmer Fellowship as well as a British Council Scholarship. Bill's mentor was Professor Owain W. Richards, F.R.S. He continued studying the nervous system of invertebrates, this time in the terminal abdominal segments of the desert locust *Schistocerca gregaria* (Orthoptera, Acrididae). He also studied the role of the abdominal giant fiber system using an electrophysiological approach.

His arrival at the University of New Brunswick (Fredericton) in 1967 led to a career spanning some 33 years until his eventual retirement. He was made Professor Emeritus in Biology at UNB's Convocation Ceremony on 19 October 2006. When he took up his post in the Biology Department, we (PJA and BKM) were both in the final year of our BSc in Biology and interested in pursuing graduate studies. Bill was in the process of setting up his research lab at the time and we both inquired into the possibility of continuing our studies with him. He decided to accept both of us as his first MSc students in the Fall of 1968. Since his physiological equipment was still in the process of being acquired, and the specialized grounded room needed to provide the electrically 'quiet' environment for electrophysiological recordings was still being built, we began our studies on the head and thoracic neuromuscular systems of the spruce budworm male moth and the chemosensory structures on the antennae and the legs. When the new lab became fully functional, we moved on to electrophysiological studies of the male moth olfactory and taste sensilla. We both extended our stays and converted from MSc to PhD programs. PJA went on to do a postdoctorate with R.Y. Zacharuk at the University of Regina and BKM went on to do a postdoctorate with L.M. Schoonhoven at Wageningen University in The Netherlands.

At the time, we did not fully realize how special it was to be involved in the early stages of the development of a research lab or how positive a learning experience this would be. Bill let us in on everything, even listening to the advice of two novices, when our suggestions made sense. He even indulged us when some of our 'solutions' were useful mostly in helping us learn from our mistakes. The 'home-built' lab air conditioner comes to mind. In future years, we often remarked how important this whole experience was when it came time to start our own labs in Montreal and Edmonton. Bill was keenly aware of the crucial importance of the social side of scientific research, and regularly encouraged his students to get involved with scientific societies. With his urging, guidance and support, we gave our first papers at the Acadian Entomological Society and still remember his careful, much needed critiques as we were required to do "dry runs" of our papers under his watchful eye. In keeping with this strong sense of scientific endeavour as community, Bill was also determined to make sure that his students met as many scientists as possible.



**William (Bill) D. Seabrook
(1935–2021)**

Given the reality of NRC (National Research Council) grants at the time, this usually meant travelling by car, which was no problem because Bill loved to drive and was always prepared to use the family car. Two memorable trips will illustrate the point. Together, we attended the Canadian Society of Zoologists meeting at Memorial University in Saint John's. We first arrived at Port aux Basques and got to traverse the entire island of Newfoundland twice, Bill driving every kilometre. Later, Bill decided to introduce us to some of his former colleagues at Carleton University and at Agriculture Canada. The journey from Fredericton to Ottawa must have been routine to Bill because we had time for a leisurely coffee at the lab before setting off at around 10:30 in the morning. Younger readers will be forgiven for not fully understanding the moment of a brisk road trip through the Eastern Townships of La Belle Province circa 1970, mais nous, nous en souvenons. It was a surprise to us when Bill pulled into the parking lot at Jarry Park, just in time for a Montreal Expos Game – his treat to us. We did make it to Ottawa, and to Bill's family home, late that night and were welcomed by Bill's mother who seemed completely at ease with our tardiness. She was to be our gracious host for the next couple of days, and, in retrospect, must have been in on this whole plan.

What we did not know until a few years later, was that Bill was also fully involved during those early years as a major force in developing the ICWI (International Chemoreception Workshop on Insects). Later, this grouping of keen researchers in insect chemosensory behaviour and physiology became a must-attend annual event. Through this highly successful group of senior and junior scientists, often along with their grad students, many of us in this small field were able to get to know each other well. Bill strongly supported the style that these meetings adopted, based on the example of the more famous Gordon Conferences – morning and evening sessions with afternoon workshops and more social sessions in the evening.

Back in the lab, now with numerous other students, Bill continued his work on the spruce budworm *Choristoneura fumiferana* (Lepidoptera, Tortricidae) using electroantennograms (EAG) to examine the responses of the male antenna to differing sex pheromone concentrations, the effects of age and of juvenile hormone analogues on the antennal responses of male as well as female antennae. Various EAG studies on the dynamics of pheromone perception in males and females were supplemented by behavioural field experiments with caged moths to examine possibilities for achieving mating suppression in this species by using different concentrations of the sex pheromone. Other work examined the perception of carbon dioxide by larvae of the wood borer *Orthosoma brunneum* (Coleoptera, Cerambycidae) using both electrophysiological and behavioural techniques. The perception of different terpenes by adults of the sawyer beetles *Monochamus notatus* and *M. scutellatus* (Coleoptera, Cerambycidae) was also examined in various studies. More recent work in Bill's lab was centered on the blueberry leaf-tier moth *Croesia curvalana* (Lepidoptera, Tortricidae). This involved EAG studies of pheromone sensitivity as well as field studies.

We were privileged to have Bill as a mentor for 4 years. He was a dedicated supervisor who always took an active interest in our work while allowing us the freedom to explore. His interests also extended to community work, and we recall the hard work he and Jane did in contributing to the development of a daycare on campus. We remember the many meals we were treated to, and have never forgotten Jane's delicious soufflés. Bill continued his contributions to his community as president of both the Fredericton Aquanaut Swim Club and the New Brunswick branch of the Canadian Amateur Swimming Association (CASA). He was also a president of the Fredericton Botanic Garden, having helped establish the garden near O'Dell Park. Over the years, we kept in touch with Bill, especially via the annual ICWI meetings. One of these was held in Fredericton, and we recall a wonderful visit to the pine log cabin he built at Indian Lake. More recently, while on a visit to Fredericton before he became ill, we invited Bill and Jane to dinner at the Lord Beaverbrook hotel. We all had a wonderful time reminiscing about the 'old days'.

Paul J. Albert (Pointe-Claire) and Bev K. Mitchell (Fredericton)