

Roger Webb Macqueen: 1935–2024

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A TRIBUTE



Roger Webb Macqueen: 1935–2024

When Roger Macqueen passed away on January 30, 2024, in Calgary, Alberta, the world lost a dedicated family man and a person of good principles and strong convictions. Roger's family have published a lovely obituary that can be viewed online [<https://mhfh.com/tribute/details/45458/Roger-Macqueen/obituary.html>]. The Canadian geological community also lost one of its stalwarts, whose career spanned the last days of geology on horseback, the acceptance of plate tectonics, and the rise of the internet and online publication. Here we pay tribute to Roger Macqueen the geologist, who we knew as a friend, a fine scientist and manager, and an inspiring colleague.

Roger Webb Macqueen was born in Toronto, Ontario, on November 5, 1935. In later years he would enjoy the association of this date with Guy Fawkes Day, the festivities for which he had seen at first-hand while living in the United Kingdom. Roger was the eldest child of Walter Macqueen and Pearl (Webb) Macqueen; younger sister Anne followed some years later. His parents encouraged his youthful interest in natural history, including rock collecting, and would take pride in his adult accomplishments as a scientist. Roger's energetic disposition and considerable powers of persuasion were evident early on. While in his early teens, he persuaded his parents to buy a property on Long Lake in Ontario. The site had so impressed Roger on a first visit that he was adamant to purchase it himself from summer-job earnings had his parents demurred. He helped his father build a boathouse and later a cabin on the property, and its location on the Canadian Shield helped spur his nascent interest in geology.

Despite such early evidence of determination, Roger was, by his own admission, an indifferent student in elementary and secondary school. The rote memorization that characterized children's education in those days held little appeal for an intelligent youngster who could skate by with little application to his books. A scare with his grades in his senior year, however, encouraged greater dedication to his studies, and he was able to gain admission to the University of Toronto in 1954.

An especially pleasant reward for his academic application came at the start of his sophomore year, courtesy of a chance meeting with Marjorie Chepesuik, a transfer student from Canada's east coast. Roger, standing in line for registration with a cast on his right arm, asked the young lady for help filling in his forms. From that exchange sprang a relationship that would see Roger and Marjorie celebrate 64 years of marriage and welcome four children, ten grandchildren, and, most recently, their first great-grandchild.

Roger found university life far more congenial than public school, and he relished the opportunity to learn—and understand—new concepts. He followed his early interest in rocks and minerals, taking as many geology courses as he could. Among these were lectures from J. Tuzo Wilson, one of the founders of the then-emerging field of plate tectonics. With his new focus on geology, Roger moved on from earlier summer jobs—mailing window-blinds for the Eaton's mail-order company and painting power pylons for Ontario Hydro—to employment closer to his heart. His first field experience was gained on the Canadian Shield during the summer of 1957. Amidst the blackflies and mosquitoes of northern Ontario,

Roger logged core and did bedrock mapping at an iron property being explored by Anaconda Canada Ltd. An even more formative experience came the next summer. Eric Mountjoy, then a Ph.D. student at the University of Toronto and later a long-time professor of carbonate geology at McGill University, hired Roger as his senior assistant for a lengthy field season studying stratigraphy and structure in the Miette region, north-east of Jasper, Alberta. The project, funded by the Geological Survey of Canada (GSC), was one of the last major horse-supported field studies carried out in the country. The experience would stand Roger in good stead, most immediately by preparing him for a similarly equestrian field season in 1959, working with Shell on a project in the Rocky Mountains.

Roger earned a B.Sc. degree in 1958, followed by an M.Sc. in 1960, also from the University of Toronto. His M.Sc. thesis (Macqueen 1960) was a study of the sedimentology and diagenesis of part of the Upper Devonian Fairholme Group in Jasper National Park. His supervisor was carbonate specialist Frank Beales, who had also supervised Eric Mountjoy's Ph.D. research. As Roger pursued his M.Sc., he also gained experience as a university teacher, first as a Demonstrator for undergraduate labs and then as an Instructor with organizational and lecturing responsibilities.

Following his second graduation from the University of Toronto, Roger and Marjorie spent several months travelling in the United Kingdom and on the European continent. Upon returning to London in November 1960, Roger found work in the petroleum geology consulting practice of V.C. Illing and Partners. The job was timely as Roger and Marjorie soon welcomed their eldest son, who was born in London early the following year. It also provided Roger with experiences that would inform his later teaching, including two months studying modern carbonate sediments in Qatar in the spring of 1961. That same trip gave him an opportunity to broaden his experience of other cultures, which he did gamely. On the return voyage to London, he included stops at the Pyramids of Giza, at Beirut, and at Athens to visit the Parthenon and the Acropolis. When in London, Roger benefited from exposure to the Geology Department at the Imperial College of Science and Technology, where staff from V.C. Illing and Partners had the use of laboratories. He was especially grateful to have worked with two geologists he esteemed as among the finest he ever met, Leslie Illing and John Taylor.

Influenced by Illing, Taylor, and other colleagues, most of whom held doctorates, Roger decided that he must earn a Ph.D. to continue working on high-level research. So it was that Roger and family found themselves in Princeton, New Jersey, in September of 1962. Roger's independence of mind came to the fore, as he proposed his own research project in the Canadian Rockies, studying the Lower Carboniferous Mount Head Formation (Macqueen 1965). This entailed two summers of GSC-supported field work, mainly in Kananaskis Country, west of Calgary. Although Roger spent a significant portion of his Ph.D. program in Ottawa as a temporary GSC employee, he also developed a lasting connection to Princeton. He especially valued having been taught by plate-tectonics pioneer Harry Hess.



Roger Macqueen (left) and Walter Nassichuk (right) on horseback in the Rocky Mountains, 1958. The two were working as field assistants with Eric Mountjoy. Walter would later become Director of the Institute of Sedimentary and Petroleum Geology in Calgary.

In 1965, Roger was hired to work in the GSC's Calgary office, which then was housed in the federal customs building. As such, he was on hand to be one of the original occupants of the GSC's state-of-the-art Institute of Sedimentary and Petroleum Geology (ISPG, now GSC-Calgary) when it opened in 1967, right across the street from the growing University of Calgary. Roger's first assignment as a permanent GSC employee was to deal with Carboniferous stratigraphy as part of Operation Bow-Athabasca. During this large-scale exercise, the GSC mapped the bedrock geology of the Canadian Rockies between Canmore and Jasper. The work was done mainly during the summers of 1965 and 1966, and vividly demonstrated the advantages of the organization's growing use of helicopters since the early 1950s. The project found Roger working again with co-leader Eric Mountjoy, now a professor at McGill. The project's other co-leader, Ray Price (another Princetonian) would later become Director-General of the GSC.

Aside from his M.Sc. and Ph.D. theses, Roger's first major publications appeared during this time. These included a contribution to a field-trip guidebook (Macqueen 1966), as well as a GSC report (Bamber and Macqueen 1967) and a journal article (Macqueen and Bamber 1968) that both drew on his Ph.D. research. They showed a young researcher dealing with sedimentary facies and stratigraphic correlations, in the context of regional geological studies.

Operation Bow-Athabasca was hardly in the rear-view mirror when Roger's focus shifted northward and he joined another bedrock mapping project, Operation Norman. This was an effort to complete the reconnaissance mapping of a tract of the mainland Northwest Territories that extended from south of Great Bear Lake northward to the Arctic Ocean, and from the edge of the Canadian Shield westward to the Mackenzie Mountains. Over the course of three field seasons (1968 to 1970), Roger studied the lower Paleozoic stratig-

raphy at numerous locations across this vast area. Notably, he documented the lower and middle Cambrian succession at Dodo Canyon in the eastern Mackenzie Mountains, a site that has become one of the region's most visited and studied localities (Aitken et al. 1973). Roger also published detailed documentation for the type section of the regionally extensive Franklin Mountain Formation, of late Cambrian to early Ordovician age (Norford and Macqueen 1975).

While living in Calgary, Roger and Marjorie had welcomed two daughters and a second son. Roger had also enjoyed the opportunity to teach a graduate course at the University of Calgary. In 1971, he took a year's leave of absence from the GSC to teach at the University of Toronto's Erindale College (now University of Toronto Mississauga). He enjoyed the experience, which included co-teaching a course with his former professor J. Tuzo Wilson, who at the time was Erindale's Principal. After returning to Calgary and the GSC in 1972, Roger would return to academe once more, joining the University of Waterloo's Department of Earth Sciences as an Associate Professor in July 1976.

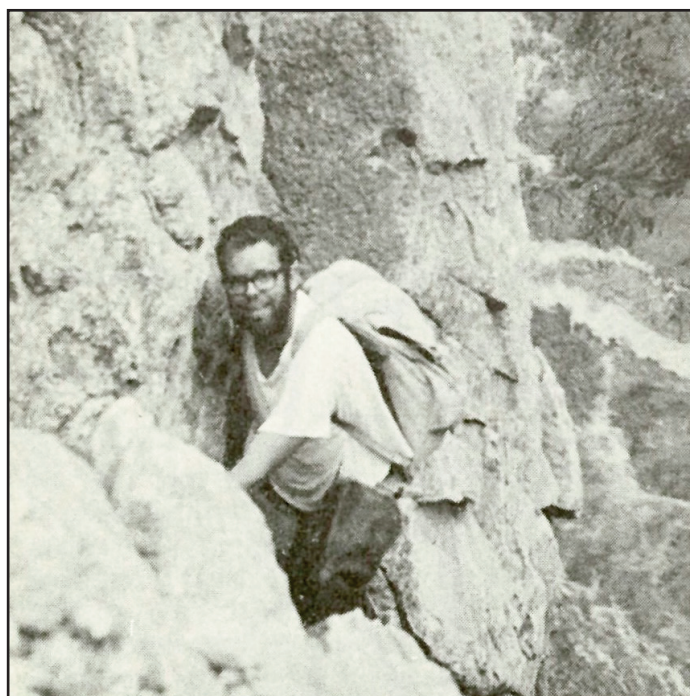
Roger took pride in his academic career. He was an engaging, conscientious teacher, who drew extensively on his experience in the ancient and modern. He was well regarded by undergraduates and graduate students, though the young scholars were bemused by his distinctive lecturing style, as recounted by Derek Armstrong (personal communication 2024):

[Roger] often began lectures by listing the topics he intended to cover that class, indicating with his hand in the air in front of him each topic, and sub-topic, in a sort of a virtual table of contents. Although we may have initially had some laughs mimicking his style (was his hand indicating point 2? or sub-point 2a? or maybe 3a?), this organized, methodical approach to teaching ultimately served us well.

Roger also was noted for looking out for his graduate students, despite his heavy university commitments. He even purchased early PCs for his students to use in preparing their theses.

While at Waterloo, Roger worked hard, rapidly achieved tenure, and rose to the rank of Full Professor. He also was proud to have served as an elected member of the University Senate and an appointed member of the Board of Governors. Through the early 1970s his research interests had expanded into the realms of petroleum geology and base-metal deposits (Macqueen and Powell 1983; Macqueen 1976; Jansa and Macqueen 1978; Anderson and Macqueen 1982). In 1977–78, he served as President of the Geological Association of Canada (GAC), delivering a Presidential Address that combined his interests in organic matter and ore deposits (Macqueen 1979). He also found himself speaking on behalf of GAC regarding the issue of nuclear waste disposal (Macqueen 1978a,b).

By the mid-1980s, Roger had served a year as Acting Head of the Department of Earth Sciences and was viewed as a likely candidate for further administrative duties. As funding for universities became tighter in the early 1980s, and as his workload grew heavier, this was not a future that Roger wished to



The President emerging from hibernation on being informed that winter is past.

Roger around the time of his Geological Association of Canada presidency, 1977–78. The photograph originally appeared in GEOLOG. Then-editor Graham Williams was noted (or notorious) for his witty and sometimes irreverent photo captions.

pursue. Thus, in 1985 he returned to the GSC and to Calgary, accepting a position at the ISPG as Head of the Energy Program Subdivision. In that role, he oversaw assessments of oil and gas potential in unexplored or little-explored parts of onshore and offshore Canada. He guided GSC contributions to a joint project with the Alberta Geological Survey studying the Peace River Arch, and he coedited an American Association of Petroleum Geologists (AAPG) Memoir on foreland basins (Macqueen and Leckie 1992). It was a particular source of pride for Roger when the Memoir received the Robert H. Dott Sr. Memorial Award for the best Special Publication issued by AAPG during 1992.

At the GSC, Roger's management style and mentorship were much appreciated, as described by a colleague from those days, Jim Barclay (personal communication 2024):

Roger led with a soft touch but with unerring perception and guidance... [He] was foundational for me when I was looking into doing a grad degree... [H]is advice turned out to be right on the money, and I'm forever grateful for that.

Roger continued as a Subdivision Head until 1996, when he took early retirement during the deep cost-cutting efforts of the federal government of the day.



Retirement for Roger meant a relief from bureaucracy but not an end to activity. He transferred to the role of an Emeritus Scientist at the GSC and was quickly recruited by GAC to edit *Geoscience Canada*. Roger had been a member of GAC council when founding editor Gerry Middleton first broached the idea of the journal, and he had been an enthusiastic supporter, contributing several articles over the years. As Editor, he returned the journal to a regular publication schedule, grappled with the emerging transition from hard copy to online publishing, and from 1996 to 2001 helmed a lively, engaging periodical. After stepping down as Editor, he prepared two edited volumes of papers reprinted from *Geoscience Canada*, one dealing with notable figures in the history of Canadian geology (Macqueen 2004), the other with the geology of wine (Macqueen and Meinert 2006). In 2002, GAC recognized Roger's extensive service to the Canadian earth science community, awarding him the J. Willis Ambrose Medal.

Roger had a deep interest in human affairs, which retirement gave him more time to pursue. He investigated his family's genealogy and history, and he became a passionate communicator of the history of Canadian geoscience. Collaborating with naturalist Ben Gadd, he worked on two museum exhibits. The first, in 2009, was a display about Eric Mountjoy's late 1950s fieldwork, presented at the Jasper-Yellowhead Museum. The second came in 2012 and commemorated Operation Bow-Athabasca. Roger was instrumental in obtaining federal grant funding for this major exhibit at the Canmore Museum and Geoscience Centre, which later was turned into a well-received travelling display. He also was a reliable source for the "long view" of the history of GSC-Calgary and of Rocky Mountain geology, gladly speaking to these subjects formally or informally. A notable example came in 2006, when he organized and co-led a field trip through the Canadian Rockies for ninety Princeton geology alumni. His co-leader was former Operation Bow-Athabasca comrade Ray Price, and the group included Roger's Ph.D. supervisor, Al Fischer.

Roger would occasionally express the regret that he had not been able to complete more of his work from Operation Norman. As a result, when the GSC's GEM (Geomapping for Energy and Minerals) program came along in the late 2000s, he was happy to contribute as a new generation of geologists updated the maps from the earlier project. Again, he brought the 'long view' and 'corporate memory', making sure we understood what was recorded in archived field notes, discussing new interpretations of stratigraphy, and generously sharing his unpublished data. His mentorship was often accompanied by advice to remember that Operation Norman "was strictly reconnaissance work" and by modest comments about how poorly dolostones were understood in that era. Nevertheless, his review comments on manuscripts that built upon his observations showed just how much he remembered and how sharp his editorial skills remained as he approached his eightieth birthday.

Roger had dedicated himself sincerely to the pleasant task of being a part of his grandchildren's lives. He loved them as he loved all his family, and this came through clearly even in the work emails he sent during the long isolations of the



Roger was an effective speaker in the lecture hall, at conferences, and in public settings. Here he delivers a talk at the Canmore Museum, ca. 2010.

COVID-19 pandemic. A bureaucratic inquiry from his supervisor would be dealt with efficiently, and then the reply would expand to include a proud and affectionate account of his grandchildren's latest doings. When Roger finally left the GSC in 2022, he made sure his supervisor knew about one last batch of archival materials (not his own, of course) that he had not found time to sort through. (Sorry, Roger—I haven't gotten to it yet either. RBM) A final scientific honour came his way the same year when M.Sc. student Neal Handkamer and his supervisor, Brian Pratt (University of Saskatchewan), named the trilobite species *Eobathyriscus macqueeni* in Roger's honour (Handkamer et al. 2022). They based this on specimens from the same Cambrian units in the Mackenzie Mountains that Roger had studied fifty years before.

We were privileged to have known Roger Macqueen as a colleague and friend. One of us met him first in the late 1970s, when Roger was teaching at the University of Waterloo, and eventually worked alongside him on the ISPG management team. The other first knew Roger as an energetic and encouraging Emeritus Scientist at GSC-Calgary, and in later years supervised him as a Volunteer—which was largely a bureaucratic fiction, for Roger needed no supervision. We appreciated his insights, his generosity, and his honesty. Notable above all was Roger's abiding optimism, for he was a person well-grounded in reality who nevertheless kept a positive outlook on life. The last sentence of the last internal manuscript review he provided at the GSC read simply, "*We do make progress*". And one of his emails to his Volunteer supervisor during the COVID-19 pandemic closed the latest update on his grandchildren with the words, "*There is so much to live for*". He was then 86 years old.





The holotype of *Eobathyriscus macqueeni*, named in Roger's honour in 2022. The trilobite is 40 mm long.

Roger was simply one of the most fundamentally decent people either of us has ever met. Because he was a great admirer of the Scots poet Robert Burns, we close with lines from one of the bard's epitaphs that could have been written for Roger:

*Few hearts like his with virtue warm'd,
Few heads with knowledge so inform'd:
If there's another world, he lives in bliss;
If there is none, he made the best of this.*

Robert Burns (1759–1796) “*Epitaph on my own Friend*”

Robert B. MacNaughton, Geological Survey of Canada (Calgary)

Godfrey S. Nowlan, Geological Survey of Canada (Calgary)

We are grateful to all who contributed to this memorial. Marjorie Macqueen and family made available written reminiscences that Roger prepared for his grandchildren. Ian Macqueen supplied the photo of Roger on horseback. Derek Armstrong and Dave Love shared memories of Roger's time at the University of Waterloo, and Jim Barclay and Dale Leckie shared memories of Roger as a manager at ISPG. Neal Hand-

kamer provided the image of *Eobathyriscus macqueeni*. Ben Gadd's autobiography, *An Orogenous Life* (Corax Press) includes recollections of planning museum displays with Roger. Brian Pratt encouraged us to prepare this memorial. Rob MacNaughton notes that he will always want to be Roger Macqueen when he grows up.

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