

BERNARD RODERICK PELLETIER (1923–2013)

Bernard Roderick Pelletier, known to all as Bern or Bernie, was born in Toronto on 25 June 1923. In 1941, on his 18th birthday, not yet graduated from high school, Bernie enlisted in the army and was posted overseas the following year. He first saw action in 1943, when he took part in the Allied landings in Sicily as a machine-gunner with the Saskatoon Light Infantry. He subsequently fought in the battles of Ortona and Monte Cassino in Italy, later in France, and ended the war in the liberation of Holland. For many years, Bernie found it difficult to talk about his wartime experiences, but later in life he opened up more, became an active member of the Canadian Legion, and was a popular speaker at Ottawa schools on Remembrance Day.

After the war, Bernie finished high school, and in 1947, he entered McGill University to study geology. There he met Judy, whom he married in 1950, the year they both graduated. Bernie went on to McMaster University, where he obtained an MSc, and thereafter to John Hopkins University for his PhD. Under the guidance of the famed geologist-sedimentologist Francis J. Pettijohn, Bernie's thesis, completed in 1957, was a pioneering analysis of the Pocono sandstone formation of late Paleozoic age in the Central Appalachian basin, which unequivocally indicated that the sediment source was a continental landmass in the east. As only open ocean lay east of the Appalachians, this result was considered heretical in some quarters. With the advent of plate tectonic theory, however, Bernie was fully vindicated. Evidence came to light that, in late Paleozoic time, Africa was joined to eastern North America and could readily have supplied the sediment that formed the Pocono. Bernie was justly proud of this study and considered it to be among his best work.

Bernie joined the Geological Survey of Canada (GSC) in Ottawa in 1957. After participating in Operation Mackenzie and subsequent fieldwork in British Columbia and the Northwest Territories, Bernie made his first foray to the Arctic. In those early years, he recalled in a 2003 interview, he found himself "going to the Arctic in April, to the mountains in June, and to the sea in September." In May 1961, while on an oceanographic sampling traverse over the Beaufort Sea west of Ellef Ringnes Island, Bernie's aircraft, a ski-equipped DHC Otter, went through the ice on landing. After a quick Mayday call, the plane's four occupants managed to scramble onto the ice, salvaging only their sleeping bags, a small tarpaulin, and a shovel, before the aircraft sank. With a signaling mirror they attracted a search plane the next day and were rescued by helicopter the day after.

In 1963, Bernie was appointed Head of Marine Geology at GSC, taking up his duties at the Bedford Institute of Oceanography (BIO) in Dartmouth, Nova Scotia, where he was to remain for 12 years. Bernie's marine fieldwork was accomplished largely from BIO's research vessel CSS *Hudson* in Hudson Bay, the Atlantic Ocean, and particularly the Arctic. One diversion occurred in 1968, when Pisces submersibles, the development of which Bernie was involved in, were taken to Thule, Greenland, and put aboard the CCGS *Labrador*. These craft made numerous dives in the Arctic, from Nares Strait to the Norwegian Sea.



Bernie Pelletier, photographed by daughter Marianne, on a visit to the World War memorials in France in 2007.

Bernie was Chief Scientist on Leg 8 (from Victoria, British Columbia, to Tuktoyaktuk, Northwest Territories) of Hudson-70, the world's last multidisciplinary global oceanographic expedition and the first circumnavigation of the Americas, in 1970. On that leg, two important discoveries were made in the Beaufort Sea: seabed scouring by ice pressure ridges and under-sea pingos, potential hazards to submarine pipelines and ships, respectively.

Bernie continued working in the Arctic until 1975, when he returned to the Ottawa headquarters of GSC to complete a series of marine sciences atlases of the Beaufort Sea and surroundings, a task that stretched into his retirement years. Bernie's final contribution, virtually complete at the time of his death in 2013, was the *Environmental Atlas of the Beaufort Coastlands*. The coastlands include the northern basin of the Mackenzie River drainage area. Comprising 70 essays, 98 maps, and more than 200 photographs, the atlas, co-edited with Barbara Medioli, was released in 2014 as GSC Open File 7619.

Bernie suffered a stroke in December 2012. The stroke was only moderately debilitating, but Bernie never quite recovered from it and died on 20 May 2013, aged 89. He was predeceased by his wife Judy and is survived by his six children, Carol, Margaret, David, Fred, Catharine, and Marianne, and his twin brother Len.

I am indebted to Arthur E. Collin for his recollections of the 1961 mishap on the Beaufort Sea ice and to Marianne Pelletier for the photograph reproduced here.

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