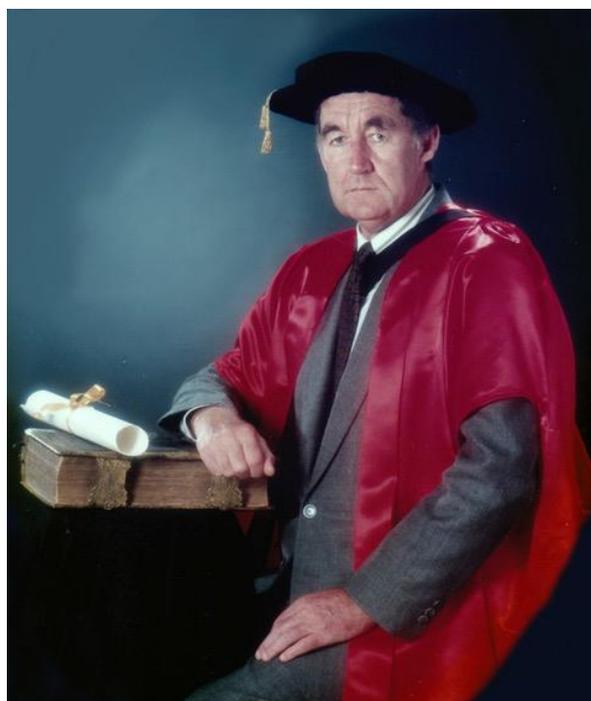


**From pharmacist to internationally-recognised belemnite researcher  
Arthur Brian Challinor BSc, DSc (Waikato)  
(7 December 1930 – 18 January 2020)**

by Cam Nelson<sup>a</sup>, David Lowe<sup>a</sup>, Jack Grant-Mackie<sup>b</sup> and Neville Hudson<sup>b</sup>  
<sup>a</sup>University of Waikato, <sup>b</sup>University of Auckland



*Brian Challinor in the field (left) and upon the award of his DSc degree in 1994 (right). Photo sources: Challinor family.*

Following night school study at Seddon Memorial Technical College in Auckland, Brian Challinor qualified in 1953 as a trained pharmacist. For much of his working life he owned and operated a pharmacy business (Challinor Pharmacy) in Main Street, Huntly, where he loyally served the local community for ~30 years until his retirement in 1990 at age 60. However, alongside his pharmacy occupation, Brian was a man of many interests and talents. These included having an active sporting association with harrier running, becoming a qualified gliding pilot and an avid photographer, having a long-term interest in both geology and astronomy (including building two telescopes in his 20s), and becoming a dedicated Waikato west coast twitcher (bird watcher and counter). He was an avid reader of books and articles that supported all these hobby interests, and was an active member of the Waikato branches of the NZ Geological (now Geoscience) Society, the Hamilton Astronomical Society, and the NZ Ornithological Society.

Among all these interests, it was the physical landscape and rocks and fossils that especially attracted Brian's attention. He became personally fascinated in pursuing a research topic on some fossil group. A chance discussion with Jack Grant-Mackie, a macropalaeontologist at the University of Auckland, suggested Brian consider studying the Jurassic belemnite fauna in the Kawhia region, partly because this was nearby but especially because Graeme Stevens (NZ Geological Survey), who had been the only belemnite expert in New Zealand, had by then turned his attention to the Jurassic ammonites. After some deliberation, Brian did settle for the belemnites and took them seriously and in much detail, as his later research shows.

Over the years, Brian spent many weekends exploring and collecting fossils from the well-exposed Triassic-Jurassic Murihiku rocks along the southwest Auckland and Waikato coastline between Port Waikato and Kawhia Harbour. He was particularly captivated by the abundance and variety of the "bullet-nosed" belemnites in the Jurassic strata. Over time, he ended up assembling at his post-retirement Hamilton home a sizeable and well-curated collection of Jurassic belemnite specimens (now housed in the Paleontology Collection, School of Environment, University of Auckland). Any finds were carefully described and photographed by Brian who used his bathroom as a makeshift darkroom for generating prints. The specimens were to form the basis for him to go on and eventually become a globally recognised expert in belemnites for the Southwest Pacific, Indonesian and Antarctic regions.

Brian met Dr John McCraw, head of DSIR Soil Bureau in Hamilton in the late 1960s, and their common Earth science interests fostered a friendship. John convinced Brian that the findings of his belemnite studies deserved writing up for publication, which led to Brian's first peer-reviewed paper in 1968 (Challinor 1968). In 1969 John became Foundation Professor of the newly established (opened in 1970) Department of Earth Sciences at the University of Waikato. At the university, John continued to encourage Brian's belemnite studies and their publication. For example, John gave Brian access to certain university facilities, such as typing, photographic and drafting services. The University of Waikato draughtsman of the day, Frank Bailey, became a very close friend of Brian's, often accompanying him on his bird watching and recording field trips away from Hamilton. Later, Brian was appreciative of drafting assistance undertaken initially by Max Oulton and then largely by Betty-Anne Kamp (both University of Waikato). For his final publication (Challinor and Hudson 2017), Louise Cotterall (University of Auckland) photographed specimens and Anne Challinor prepared the photographic plates.

In 1978, Brian, as a mature student, decided to enrol for a BSc degree at Waikato. However, at the time he did not have the required educational standard for automatic university entry and so John McCraw organised his provisional entry during which time Brian was required to demonstrate that he had adequate knowledge to cope with the lecture and laboratory courses. Unsurprisingly, he passed all courses with flying colours and graduated after three years of study with a high-calibre double major BSc in Earth sciences and biology. The biologists were so impressed with Brian's achievements that, at age 50, he

became part of a University of Waikato biological research team to visit Antarctica over the 1980/81 summer field season studying the ecology and physiology of endolithic and sublithic algae and lichens in the Lake Fryell area of the Dry Valleys. Nevertheless, once back in New Zealand, Brian's devotion to his paleontological studies of belemnites continued afresh.

In appreciation of John McCraw's ongoing encouragement of his belemnite work, Brian named for him a fossil, *Belemnopsis maccrawi* Challinor, in his 1979 publications (Challinor 1979a, b). Incidentally, he likewise named fossils for his daughters Deborah (*Belemnopsis deborahae* Challinor 1977b) and Anne (*Belemnopsis annae* Challinor 1979a), and for his late wife Patricia (*Hibolithes patriciae* Challinor and Hudson 2017). Brian also provided a selection of fossils from Kawhia Harbour as course teaching specimens in Earth Sciences. In later years, it was arranged with the University of Waikato for Brian to hold in name the title of Honorary Research Associate, despite him mainly working on his belemnite studies away from the university at his Hamilton home.



*Dr Alan Green (University of Waikato Biological Sciences staff member and team leader, left) and Brian Challinor setting up a greenhouse on Lake Fryxell, Dry Valleys, Antarctica, in the 1980/81 summer field season. (Photo source: Antarctic NZ Pictorial Collection).*

Brian rapidly developed an approach in his belemnite research that was characterised by detailed observation and description. Belemnites are rather featureless objects, solid calcareous rods, bullet-shaped at one end. Brian introduced a mathematical-statistical approach that enabled him to maximise the information available. He quickly became a respected researcher and was invited to study members of other overseas faunas, including from Indonesia, which he visited, along with India, New Caledonia and Antarctica (e.g. Challinor and Skwarko 1982; Challinor 1989, 1990, 1991a; Challinor and Grant-Mackie

1989; Challinor and Hikuroa 2007). Brian commonly used Jack Grant-Mackie as a paleontological sounding board and critic for his ideas, so that Jack had a close relationship with him and his research results, although he never accompanied him in the field for research purposes. Those knowing Brian's research had great respect for his scientific objectivity and reasoned approach to problems of belemnite identification and taxonomy.

John McCraw retired in early 1988 but, like Jack Grant-Mackie, continued to maintain a close supportive interest in Brian's belemnite research. By 1993 John suggested to Brian that he assemble and submit a body of his New Zealand belemnite publications for examination for the degree of Doctor of Science, which was duly awarded by the University of Waikato in 1994. Brian was the first student to have studied Earth Sciences at Waikato to receive this prestigious degree. Another career highlight stemming from his belemnite studies was the award of a New Zealand Science and Technology Bronze Medal in 2001 from the Royal Society of New Zealand. In that same year, Brian co-led a one-day field trip to Kawhia on behalf of the Geological Society of New Zealand's annual conference held in Hamilton (Challinor and Grant-Mackie 2001).

Brian's publication record is a truly remarkable one (see list below) given that his working life was not as a professional geologist or palaeontologist. Over a period of about 50 years (1968-2017) he published 26 peer-reviewed articles (plus one field guide and a DSc submission), an average output of about two publications a year. Impressively, Brian was the sole author on 19 (73%) of the peer-reviewed papers. Fourteen of his peer-reviewed papers are published in New Zealand journals, 13 in the *New Zealand Journal of Geology and Geophysics* and one in the *Journal of the Royal Society of New Zealand*. The remainder are published in Australian and other overseas paleontological journals and memoirs, and as two chapters in a book on the Jurassic of the circum-Pacific published as part of a world and regional geology series by Cambridge University Press.

Brian was the much-loved husband of the late Pat (née Patricia Venn), father of Deborah (herself a Distinguished Alumna recipient of the University of Waikato in 2017) and Anne, brother of Maurice and Kerry. He was father-in-law of Aaron, grandfather of Rebecca, Rachael, Atawhai, Kahu and Huriana, and great-grandfather of Oscar and Summer.

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### ***Chronological listing of Brian Challinor's publications***

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