

ARTHUR WALTER MANSFIELD (1926 – 2020)

Dr. Arthur Walter Mansfield was born in London, England, in 1926 and received his education at Rutlish Grammar School, Merton and the University of Cambridge (UK), where he graduated in Natural Sciences in 1947. He obtained his PhD in 1958 from McGill University. He then began his scientific career at the Arctic Biological Station (ABS) of the Government of Canada's Department of Fisheries and Oceans, nestled on the edge of the Macdonald campus of McGill University on the West Island of Montreal. In 1963 he and his family (wife Joan, children Andrew, Elizabeth, Hugh) moved from downtown Montreal to the rural community of Choisy, Quebec, taking up residence in a former duck hunting lodge on the Lake of Two Mountains of the Ottawa River. He continued to work at the ABS, retiring after 35 years of service and subsequently enjoyed many years of piloting gliders and tow planes, sculling on the waters just outside his back door, cycling in the early summer mornings, and cross-country skiing in winter months in the company of Jessie, his beloved Labrador retriever. His death at 94 years of age on June 25, 2020, was remarkable considering his life expectancy at birth was approximately 54 years of age.

Arthur's interest in zoology and animal behaviour began with summer work on a farm as a young lad in Great Britain. At a time when money was tight, he was fortunate to have had excellent teachers who recognized his intellectual talents, dedication to hard work, and interest in zoology. This led to scholarship opportunities to study at excellent schools including Rutlish and later the University of Cambridge, where he embarked on a zoology degree.

It was at Cambridge that he met Dick Laws, who became his great college friend. Dick gave him a taste for the great outdoors and sparked his interest in marine mammal ecology. They spent two of their University summers climbing in the Isle of Skye, living in a small tent or youth hostels, when available. In 1947 when they finished their college degrees, Dick joined the Falkland Islands Dependencies Survey (FIDS, later renamed the British Antarctic Survey) and went down to the South Orkneys to work on elephant seals at Signy Island. Arthur proceeded to carry out his National Service in the Royal Navy. He trained as a meteorological forecaster which boded well with him, having an interest in aviation. After 3 months of training he was sent out to the Naval Headquarters in Sri Lanka (formerly Ceylon), where they had a small team to provide the East Indies Fleet with weather forecasts. Arthur served for the next two years as a meteorological officer on the staff of the "CinC East Indies" in Trincomalee, the major eastern port city of Sri Lanka. He enjoyed trying to forecast where the Intertropical Front was between the various monsoons with little data and limited reporting from ships in the Indian Ocean, and land stations in India, Africa, and the Far East. When the Navy decided to wrap up the headquarters in Sri Lanka, Arthur came back to England and spent another year at a naval air station near



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Londonderry, Northern Ireland. It was here that he met Surgeon Commander Ted Bingham at the naval hospital, who was well known for his work as an expedition doctor and sled dog care attendant on various Antarctic expeditions, including the 1934–37 British Graham Land Expedition. Ted Bingham had also been appointed head of FIDS from 1945–48, where Dick Laws was working. Arthur had read about this expedition and was interested in joining his friend Dick Laws at FIDS to do some zoological research work together.

On Arthur's release from the Royal Navy in 1950, he joined the FIDS and served for one year as a meteorological observer and forecaster at South Georgia. He then spent the next year and a half as base leader and biologist, doing ecological research on the seals and birds at Signy Island in the South Orkneys. After returning to the UK in 1953, he joined a summer expedition of the Wildfowl Trust to central Iceland to band Pink-footed Geese. He spent the next year at the Department of Zoology, Cambridge, and the Meteorological Office, Harrow, writing up the results of his field work. In the fall of 1954 Arthur was awarded a Carnegie Foundation scholarship by the Arctic Institute of North America and came to Canada to study the physiology and behavioural habits of the Atlantic walrus,

under Dr. Max J. Dunbar at McGill University in Montreal. Dr. Dunbar had been working closely with the Fisheries Research Board of Canada to develop the ABS as a permanent establishment on a national basis in recognition of the urgent need for marine mammal research in the Eastern Arctic. Arthur joined this newly formed Arctic Unit of the Fisheries Research Board in 1956 and continued his study of Arctic marine mammals, including the Atlantic walrus, the subject of his dissertation at McGill (Mansfield, 1958a), and narwhals in eastern Canadian waters (Mansfield et al., 1975). He established his reputation as a field worker on Arctic marine mammals in 1958 with publication of a highly cited primary paper on the biology of the Weddell seal at the South Orkneys (Mansfield, 1958b). This type of work was difficult and arduous at that time, which was reflected in the small number of scientists worldwide undertaking such studies.

By 1965 the Fisheries Research Board had built a new and much larger ABS laboratory. From 1954 to 1979 most of the marine mammal work of the Fisheries Research Board, Department of Fisheries and Oceans was done at this ABS, and international bodies concerned with marine mammal research paid close attention to this scientific group and the marine mammal research work they produced. In 1969, with the secondment of the ABS director (C.J. Kerswill) to the Science Council of Canada for 6 months, Arthur took over the directorship as a temporary assignment. Graduate student Tom Smith continued Arthur's research project at the time on the behavioural habits and population dynamics of ringed and bearded seals. In 1970, Arthur was invited to take on the permanent position and responsibility for the marine mammal program of the ABS involving four research scientists. Graduate students who have been encouraged to base their work on Arthur's collections of research materials have been Dr. Tom Smith – ringed and bearded seals (who went on to occupy Arthur's former position as a research scientist at ABS), Dr. J. Boulva – harbour seals, Dr. E. Miller – grey seals, walrus, Dr. M.R. Freeman – walrus, and Dr. K.A. Hay – narwhal.

Arthur took over the directorship at the ABS in 1971, and under his leadership the program expanded considerably. The scientific personnel increased in numbers and a specialized research library was built up. As the only research manager with research experience on marine mammals, Arthur was requested to serve on various marine mammal committees, especially those concerned with controversial species such as the harp seal (e.g., International Commission for North West Atlantic Fisheries (ICNAF); North American Fisheries Economics; International Council for the Exploration of the Sea (ICES). As Chairman of the ICES Marine Mammals Committee from 1971–73, Arthur was able to invigorate the committee by persuading delegates from other countries, particularly those fringing the Baltic, to appoint active members with experience on marine mammals. As a result, he was invited by the Swedish Environmental Protection Board in 1974 to attend the 1st meeting of the Baltic countries to discuss seal

problems. From 1977–79, Arthur was requested to chair an ICES ad hoc working group to report on the interaction between grey seal populations and fisheries, findings of which informed a summary report to the Commission of the European Economic Communities. During the years when the Pacific marine mammal program was also under his direction, Arthur encouraged and supported Dr. M.A. Bigg in the plan to successfully transplant sea otters from Alaska to British Columbia (Bigg and MacAskie, 1978), to develop an aquarium facility at Nanaimo, British Columbia, for the study of reproductive success and general metabolism of north Pacific fur seals, and to broaden his study of the killer whale based on photo-identification of individual animals. In the late 1970s, Arthur reported on the impact of oil production on marine mammals for the Arctic Institute of North America (Mansfield, 1980). He also found time to generate a lengthy report on the effects of vessel traffic (primarily high levels of noise) on marine mammals for Department of Fisheries and Oceans's Arctic offshore Developments Committee (Mansfield, 1983).

Throughout the 1980s, Arthur's time was increasingly occupied with running the ABS. Despite little direct technical help, he maintained his scientific productivity, focusing on analysis and publication of his work on the status of the blue whales in Canada, population and migration of the bowhead whale in the eastern Arctic, status of the bowhead whales in Canada, reproduction, growth and longevity in the grey seal, and population ecology of the walrus in the Canadian Arctic Archipelago. He completed his final field work on Sable Island with a detailed study of grey seal pup development stages. In 1987 Arthur was seconded to Ottawa to act as marine mammal advisor to the Government of Canada. At about that time, the Federal Government decided to relocate the ABS to the new Maurice Lamontagne Institute in Mont Joli, Quebec with a new mandate narrowed down to research in the northern sea waters of the Province of Quebec. Arthur returned to the ABS to coordinate its final transitioning years up to his retirement in the spring of 1991.

Dr. Mansfield has produced over 50 published papers and reports mainly concerned with biological studies of various species of marine mammals, about which little was previously known (e.g. Weddell seal, walrus, narwhal, grey seal and arctic harbour seal). Much of the earlier information was brought together in a bulletin of *Seals of arctic and eastern Canada* (Mansfield, 1967), which had great demand as a basic source of information on these species at the time. He also had a skill for technical drawing. In 1992, his former laboratory technician sent him the new map of the marine mammals in the Quebec region, published by the Fisheries and Habitat Management Branch, as he had noticed Arthur's seal drawings in it.

Arthur also developed two techniques for successful use in field studies: netting of marine mammals (McLaren and Mansfield, 1960) and vertical photography of marine mammals using a radio-controlled model aircraft (Sleno and Mansfield, 1978). His polar work was recognized by

membership in the Antarctic Club (UK) and election as Fellow and Governor (3-year term) of the Arctic Institute of North America. In his final pre-retirement years, he collaborated with a marine mammal research colleague to co-authored a chapter on the Narwhal for the 1989 Handbook of Marine Mammals (Hay and Mansfield, 1989).

Arthur is remembered by research colleagues for his great chairmanship and professionalism with a human touch. He was admired for his even-handed approach to help diverse groups of researchers work together. His research staff and graduate students were thankful for his wisdom, patience, and understanding, his capacity to create and maintain a collegial work environment, his respect for technical staff, and generosity with field data and research files. He was considered a hard worker and a gentleman of the “finest kind” in true maritime idiom. Colleagues from outside the government, including seal photographer Fred Bruemmer (1998) remarked on Arthur’s generosity for giving opportunities to develop relationships with and observe the behaviours of Canada’s beautiful species of Arctic wildlife. Perhaps this was just the ultimate recognition of kindred Arctic spirits.

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