In Memoriam: Frederick Graham Cooch, 1928–2008

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Frederick Graham Cooch, Senior Scientist and Chief of Migratory Birds Population and Research with the Canadian Wildlife Service, died on 29 August 2008 in Valencia, Pennsylvania, at the age of 80, after a long bout with cancer. Graham became an Elective Member of the AOU in 1963 and a Fellow in 1966. He is survived by Joan, his wife of almost 50 years.

Graham (also known as Gus) was born on 20 April 1928 in Winnipeg, Manitoba, the only child of Angus and Mylrea Cooch. His father worked for the Canadian Federal Government, and the family lived in Manitoba, Saskatchewan, and Quebec before settling in Ottawa. Graham graduated from Glebe Collegiate in Ottawa and then Queen's University in Kingston, Ontario. He received a B.Sc. with honors in 1951. After completing an M.Sc. in Wildlife Management at Cornell University in 1953, he took a position as Arctic Ornithologist with the Canadian Wildlife Service (CWS) in 1954, studying mainly eiders on Baffin Island. This study was designed to see whether the "farming" of eider down might be a sustainable source of income for the Inuit. In those days, the CWS had a more enlightened view of the value of research for effective management, and Graham took educational leave to study at Cornell, where he completed a Ph.D. under Olly Hewitt, Charles Sibley, and Lamont Cole. His dissertation, The Breeding Biology and Management of the Blue Goose (Chen caerulescens), was published in 1958 and became an early classic in avian population ecology. In the same year, he married Joan Needes, with whom he would have three children, Evan, Janice, and Sandra. Evan has followed in his father’s footsteps and is now a professor at Cornell University.

Graham returned to full-time employment with the CWS, initially in Winnipeg, but he soon returned to Ottawa, where he became Senior Scientist and, later, Chief of Migratory Bird Populations and Research. Early in his career, he was instrumental in setting up of a network of Arctic bird sanctuaries, which afforded legal protection for large numbers of Arctic-nesting birds. He also contributed significantly to the development of toxicological monitoring by the CWS and to the Whooping Crane...
reintroduction program. Despite his occasional withering remarks about quantitative approaches to biology, he was also instrumental in setting up a biometrics group in the CWS.

In his career, Graham was an initiator and facilitator of avian research, rather than a field worker. He was passionately interested in the basic as well as the applied aspects of ornithology and did much in conjunction with his colleague Hugh Boyd to direct and stimulate research on migratory birds, particularly waterfowl in North America. He was a wise generalist who never lost sight of the big picture. In 1987, the Society of Canadian Ornithologists—Société des ornithologists du Canada gave Graham its Doris Huestis Speirs Award. Upon retirement from the CWS, Joan and he moved to Las Cruces, New Mexico, where he continued to work, teaching courses at New Mexico State University until 2005. Graham authored or coauthored some 150 papers, reports, chapters, and books, primarily on the biology and management of migratory birds. He was also responsible for initiating scientific exchanges with biologists from the former Soviet Union, at a time when such exchanges were difficult and sometimes dangerous.

His extensive contributions to North American ornithology derived, first, from his influential position at the interface between research and management. As an active scientist himself, he was able to see how an understanding of the basic population biology of birds was integral to their effective management. In his position in the CWS, he encouraged research scientists and ensured that their findings could be translated into effective management. Second, he continually reminded scientists of the importance of management implications. He affected the direction of wildlife biology in North America through his influence on a “lineage” of biologists (mainly waterfowl biologists) who have, in turn, influenced the field significantly. Charlie MacInnes, Dave Ankney, Denny Raveling, Jim Sedinger, Rocky Rockwell, and their students all owe a debt to Graham. I met Graham in 1967, when he presented a lecture at Queen’s University on Snow Geese. His knowledge of the ecology of the geese was masterful, but he admitted that he did not really understand the genetics of plumage color in this dimorphic goose. Then a young geneticist, I was intrigued by the plumage polymorphism and offered to look at his data. Together we hypothesized that perhaps the difference could be explained by a single gene, but the simple Mendelian segregation would fit the data only if the birds selected their mates not randomly, but partly on the basis of their parents’ color. If some sort of imprinting occurred early in the life of the gosling, this might explain the genetic ratios of the offspring. We published our paper on this in *Evolution* in 1968. In the summer of 1968, Graham sent me to the Hudson Bay coast with a grant of $2,000, a tent, and instructions on how to kill a Polar Bear with a knife if one attacked! This was the start of a project that became the largest avian population study in North America. This anecdote illustrates the effective way Graham could span the interface between research and management, always offering critical appraisals and assessing the potential for management applications. In the 1990s, when the overpopulation of Snow Geese became a major management issue, Graham saw to it that game managers were abreast of the best science available. People with this kind of broad overview are very valuable for the management of our natural resources but are rarely appreciated by governmental agencies in Canada today.

Graham’s interest in birds started at an early age. The Canadian ornithologists Harrison Lewis, Hoyes Lloyd, Al Hochbaum, Percy Taverner, and Earl Godfrey introduced him to ornithology, through field work and at the National Museum of Canada (now Canadian Museum of Nature). His thesis research at remote Boas River on Southampton Island was full of danger and at one time he spent several weeks on an isolated iceberg, hoping that his rescue plane would find him at the end of his field season. Fortunately, his study organism provided him with food for his survival until he was found. Graham had a full life with a wide range of experiences. He will be missed by his family and friends. We are all enriched by knowing him.

I thank Evan Cooch for help in preparing this memorial.