IN MEMORIAM: V.C. WYNNE-EDWARDS, 1906–1997

IAN NEWTON

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Vero Copner Wynne-Edwards, or "Wynne" as he was known to colleagues, died near Aberdeen, Scotland, on 5 January 1997, in his 91st year. With scientific publications spanning 68 years, Wynne-Edwards was a key player in the development of ecology from its very beginnings, and he will be remembered as one of the greatest natural historians and innovative ecological thinkers of his generation. He became a member of the AOU in 1936 and a Corresponding Fellow in 1959.

Wynne-Edwards was born in Leeds on 4 July 1906, the last but one in a family of six. His father, a Canon in the Church of England and headmaster of Leeds Grammar School, imparted in the young Wynne a keen interest in natural history, especially botany. After school at Rugby, he went to Oxford to read Zoology, in which he obtained a first-class degree. While there, he developed an interest in marine biology and obtained his first working position at the Marine Biological Laboratory in Plymouth, studying crustaceans and fish. In his spare time, he mapped out all of the starling roosts in the region, his first independent ornithological work. After two years in Plymouth, he moved to Bristol University as an assistant lecturer, but within a few months, newly married, he was invited in 1930 to take up a post at Mc-Gill University in Montreal, where he remained for 16 years.

On the transatlantic voyage, Wynne spent his time on deck, recording the numbers and positions of seabirds. He thereby discovered the basic pattern of inshore (coastal), offshore (to edge of continental shelf), and pelagic (deep water) marine zones, with different species in each. Subsequently, through a personal contact, he persuaded the Cunard Line to ferry him, free of charge, on round trips across the Atlantic in May, June, July, August, and September. This enabled him to work out the seasonal movements of seabirds, including the loop migration of the Greater Shearwater. For this work, he won the Walker Prize of the Boston Natural History Society and established himself as one of the pioneers of marine ornithology.

While at McGill, Wynne-Edwards worked mainly on freshwater fishes, but he also studied montane plants and seabirds in northern Labrador. His work on the postglacial distribution of plants won him a second Walker Prize and fellowship of the Royal Society of Canada. In 1946, he returned to Britain to take up the Regius Chair in Zoology in Aberdeen, a prestigious position that he held until his retirement in 1974. These 28 years coincided with a period of expansion in environmental research in Britain, enabling Wynne to create one of the largest and most successful zoology departments in Europe. He established a special group for research on Red Grouse, eventually based at nearby Banchory, and an ecological field station at Culterty, on the Ythan Estuary, 15 miles up the coast. He also became active and influential on committees, valued for his breadth of experience. For a time, he was Chairman of the Natural Environment Research Council, the major government-funded body for environmental research in Britain.

His interest in the arctic resurfaced in 1950, when he participated in the Baird Expedition to northeast Baffin Island, from which he wrote an account of the birds (*Auk* 69:353–391, 1952) and a note on the huge colony of Northern Fulmars at Cape Searle (*Arctic* 5:105–117, 1952). In 1953, he took himself to Baffin Island, mainly studying seabirds, and later joined the end of Baird's second expedition.

Wynne's major scientific achievement was his 650-page book *Animal Dispersion in Relation to Social Behaviour* (1962), in which he proposed that animals could regulate their own population levels, thereby avoiding over-exploitation of their food and other resources. The mechanism he proposed involved a new theory of genetic selection, which he called "group selection," in which groups that used their resources substainably thrived at the expense of more profligate groups, which died out. As Wynne appreciated, his idea ran contrary to the Darwinian view of natural selection on individuals. Thirty-five years later, and after much research, the idea of group selection is still rejected by most ecologists and evolutionists. However, the book stimulated an enormous amount of research, notably on aspects of bird behavior, forming what is perhaps Wynne-Edwards' greatest contribution to the development of ecological and behavior science.

His contribution to the development and management of science was marked by numerous awards and accolades. He was elected Fellow of the Royal Society of Edinburgh in 1950. He held a visiting professorship at Louisville in Kentucky in 1959, and visited New Zealand as a British Council Commonwealth Interchange Fellow in 1962. He was also a Leverhulme Fellow from 1978 to 1980 and was awarded honorary fellowships in the American Ornithologists' Union (1959), the Cooper Ornithological Society (1961), the Societas Scientiarum Fennica (1965), the British Ecological Society (1977), and the Institute of Biology (1980); Wynne-Edwards was President of the British Ornithologists' Union from 1965 to 1970. He was awarded honorary degrees from Stirling and Aberdeen Universities, the BOU Godman-Salvin Medal, the Neill Prize of the Royal Society of Edinburgh in 1977 for his "outstanding contribution to natural history in Scotland," and the Frink Medal of the Zoological Society of London in 1980. He was awarded a D.Sc. degree at Oxford and elected Fellow of the Royal Society of London in 1970, eight years after the publication of his *magnum opus*.

Wynne is survived by his wife, son, daughter, seven grandchildren, and seven great grandchildren. All of his descendants live in Canada, and most have strong connections with Queen's University. As a result of these connections, and the value of Wynne's early work in the Canadian arctic and Gaspé regions, his surviving papers and books went to Kingston, Ontario. They include 80 years of daily diaries and correspondence notes and manuscripts for Animal Dispersion, all housed together as a Special Collection in the library system. The passing of Vero Wynne-Edwards has marked the end of an era in the development of ecological science. To those close to him, he will be remembered for his self confidence, erudition and scholarship, and for his authority, delivered with a firm but usually gentle touch; a somewhat unusual man, but one who had a great influence on the development of behavioral ecology.

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IN MEMORIAM: DAVID F. PARMELEE, 1924–1998

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David Freeland Parmelee passed away in Las Vegas, Nevada, on 16 December 1998. Just a month earlier, David and his wife Jean were in the field collecting data and birds to complete their pioneering study of the birds of the Lake Mead National Recreation Area. Upon return from the field David felt sick, and about two weeks later he was diagnosed with advanced adrenal cancer. His rapid decline from an active, healthy field ornithologist was a surprise to all.

David was born on 20 June 1924 in Oshkosh, Wisconsin, and lived in Iron Mountain, Michigan, until enlisting in the Marine Corps in 1943. He served 33 months in the South Pacific. After military service, he received his B.A. in 1950 from Lawrence University in Appleton, Wisconsin, his M.S. in 1952 from the University of Michigan, Ann Arbor, and his Ph.D. in 1957 from the University of Oklahoma, Norman, under George Miksch Sutton. He served as Assistant through full Professor at Emporia State University, Kansas, from 1958 to 1970, and then as Director of the University of Minnesota Lake Itasca Forestry and Biological Station (1970 to 1986), Director of the Cedar Creek Natural His-