

## Obituaries

**Professor Nicholas Polunin**, CBE, died at his home in Geneva on 8 December 1997, aged 88. He was an outstanding taxonomic botanist and ecologist, a plant hunter in remote places, a prolific author of scientific textbooks, and a talented travel writer, who became a powerful protagonist for conservation.

The eldest of three sons of a Russian emigré father and an English mother, he was educated at Latymer Upper School and privately, before going up to Christchurch, Oxford, with an open scholarship. In the summer of 1930, as an adventurous undergraduate, he shipped as a deck hand in a timber ship from Tromsø to Belomorsk on the White Sea. He wrote his first book, *Russian waters* (1931), about that voyage; it included a foreword by John Buchan, for he was in the circle of young Oxford friends invited to Buchan's home at nearby Elsfield Manor.

The following summer, Polunin voyaged in the opposite direction, to Akpatok Island in Ungava Bay, as botanist of the Oxford University Hudson Strait Expedition under the leadership of Hugh Clutterbuck. The island was uninhabited and, at that time, its interior virtually unexplored. Towards the end of their stay on the island, Polunin and Christopher D'Aeth, the organizing secretary of the expedition, traversed the interior from the base camp on the east coast towards an auxiliary camp at the north end of the island. Failing to find this camp in thick weather, they were forced to bivouac and, on 15 September, they headed back in a blizzard to the base camp, 30 km away. Within 3 km of the camp, D'Aeth collapsed from exhaustion. Leaving D'Aeth as comfortable as possible, Polunin pushed on to bring assistance, but D'Aeth sadly died from exhaustion and exposure as he was being brought into camp by a rescue party. In *The isle of auks* (1932), Polunin gave an informal account of the expedition leading up to the death of his friend. Senior members of the university, who had supported the expedition, were appalled by the perceived tastelessness of style in Polunin's account of the tragedy, although today the book would have caused hardly a ripple among similar expedition books. Nevertheless, Polunin got the message, and thereafter conducted his investigations alone, after reaching his field areas by whatever means of travel happened to be available.

From 1932, Polunin held various research appointments at Oxford, Yale, and Harvard, while making botanical investigations in different parts of the Arctic each season and, at the same time, taking the DPhil degree in his stride. For example, in the summer of 1933, field work took him to Lapland, and then by sealing-ship from Tromsø to Svalbard, calling en route at small stations where he was able to botanize. He spent the last weeks of the summer as a guest at the Swedish Polar Year station at Sveagrava, continuing his work on foot and by canoe, before returning

to Tromsø in MV *Thor* in late September. In the summer of 1936, Polunin took passage in RMS *Nascopie* of the Canadian Eastern Arctic Patrol, charged with the inspection and relief of government stations on the Labrador, Hudson Bay, Baffin Island, Southampton Island, and Ellesmere Island coasts. He took full advantage of stays of a few hours to a few days at the various stations to make, at that time, the most comprehensive collection of plants over a vast region from sea level to hilltop. He carried out similar work in southwest Greenland in 1937.

In 1939, Polunin was appointed university demonstrator and lecturer in botany, and Fielding Curator of the Herbaria at Oxford. At the same time, he became a senior research fellow and tutor in botany at New College. From his youthful appearance, a stranger might have taken him for an undergraduate of the smart set, with well-cut hacking jacket, narrow trousers, and invariable bow tie, and would certainly not have suspected the phenomenal hardihood and endurance that he displayed in the field. I was lucky enough to have him as a friendly and inspiring tutor in 1942, and I have retained some feel for ecology and taxonomy, thanks to him. I recall an extra-curricular activity that resulted from Polunin seeing in Woolworths some very large seed potatoes for sale during that spring. After admonishing a bemused shop-girl for wasting valuable food in wartime, he propounded to me a controlled experiment to determine the optimum size of potato and optimum number of eyes for maximum yield. Such was his enthusiasm that I gave up a week of my vacation to slice potatoes in various sizes with varying numbers of eyes for planting in rows in a rented allotment. For help with the digging, 'brother Ivan,' at that time a medical student in Oxford, was a willing volunteer. The experiment was judged a success by its originator, and a paper was duly published. I mention this episode only to show how Polunin could carry others along with his enthusiasm of the moment.

In 1946–1947, Polunin was a visiting professor at McGill University, Montreal, and in 1947, after the breakup of his first marriage, he left Oxford to take up the MacDonald Chair of Botany at McGill. He took full advantage of these appointments to make further extensive plant collections in the Canadian Arctic. Through contacts with the Defence Research Board, Ottawa, he was able to attach himself as a botanist on Royal Canadian Air Force Canso flying-boats to remote survey stations established by the Geodetic Survey and the Dominion Observatory. He was a welcome member of the field parties, with his immense energy adding further purpose to the many landings on lakes or sea, and no doubt having brought along a few bottles to share with his companions in relaxed hours. 'Of course, he is eccentric,' a senior RCAF officer remarked,

'but then I *like* eccentric people.' A suite of overalls and long johns — his usual Arctic summer dress — hanging out to dry on the wing of the Canso signalled his return from collecting forays, on which he carried little more than a plant press and a sleeping-bag. During the three summers, 1946–1948, he collected plants from a vast area of central Ungava northward to the shores of the Arctic Ocean at Parry Peninsula, and northward to Victoria Island and to Prince of Wales Island, the latter of special interest to the Dominion Observatory as the then site of the North Magnetic Pole.

Polunin also flew on RCAF photo-reconnaissance flights in Lancaster aircraft, and, in July 1948, he was an observer on such a flight over eastern Foxe Basin, during which the discovery of three new uncharted islands was claimed. Early the following year, the largest of these low-lying islands was officially named after Prince Charles (born in November 1948), the other two names being Air Force Island and Foley Island (after the navigator of the Lancaster). It later emerged that the three islands had been sighted — at least in part — in the 1930s, but inadequately reported and thus not indicated on any official map or chart. On many Lancaster flights over the Canadian eastern, central, and western Arctic, Polunin was able to expose sticky plates in the nose of the aircraft to investigate the airborne distribution of bacteria, fungi, and pollen with valuable results. He extended his investigations to Alaska and to the North Pole itself on flights in a US Air Force B29 bomber.

Polunin recounted his experiences on these flights in *Arctic unfolding* (1949), a book that infuriated many people at McGill as an unbecoming exercise in publicity, especially as several colleagues of both sexes found themselves portrayed in unflattering terms as to style of dress or looks. There is no doubt that Polunin was surprised and hurt by this reception of a book that gave the layman a very good picture of current exploratory work in the Arctic, but he showed astonishing naivety if he believed that he could get away with some of his remarks. In my own experience, he had an oddly offhand way of referring to people, which was often patronizing, even dismissive. For example, he once remarked that he 'had planned to canoe around Greenland with a friend — a fellow called Watkins,' as if I might never have heard of Gino Watkins! Such was his style — often amusing to his friends, but usually irritating to others.

Polunin resigned his chair at McGill in 1952, the year before the chair of botany at Oxford became vacant. Although he applied for this chair, the appointment went to Dr C.D. Darlington, the eminent cytologist who, with his undisguised profound contempt for traditional taxonomy, stood poles apart from Polunin. From 1953, Polunin held a research and lecture appointment at Yale University, where he remained for nearly four years. Under a contract with the US Air Force Cambridge Research Center in Boston, he continued his investigations into the airborne transport of biological material, and was

also involved with enquiries into the origin of the Ice Island T-3, floating in the Arctic Ocean. Plant debris found on T-3 had included woody stems of Arctic willow. In 1954, Albert Crary and I made a small collection of plants from Ward Hunt Island and the nearby shore of northern Ellesmere Island. Polunin was thrilled with our modest effort — at the time a farthest north collection for Canada — and especially with some stems from growing willow. From comparison of sequences of growth rings from our material and from the T-3 material, with typical ingenuity he was able to show that the ice island had most probably calved from an ice shelf off the north Ellesmere coast not earlier than the 1930s.

These years at Yale marked the end of Polunin's active involvement with the Arctic, documented in monumental monographs of the entire flora of the Canadian Arctic, published by the Canadian National Museum, and finally in *Circumpolar Arctic flora* (1959). The latter was his Arctic swansong, and indeed my copy of the book is inscribed 'this small posthumous token.' It was a *tour de force* that only he could have undertaken with his broad regional grasp and unparalleled record of field work.

In 1956, Polunin moved to the Middle East as professor of plant ecology and taxonomy at the University of Baghdad, but two years later he was forced to leave because of political unrest. From 1959 to 1961, he was a guest professor at the University of Geneva, before moving to Nigeria as founding professor of botany and head of a new department at the University of Ife, where he remained for four years until political unrest again forced his departure.

In 1967, he moved back to Geneva, which became his permanent home and base of operations for the world conservation work in which he became deeply involved. His immense industry, combined with a formidable memory, found outlet in his presidency of the Foundation for Environmental Conservation, membership of the World Council for the Biosphere, and authorship or editorship of a series of monographs, including *The environmental future* (1972), *Growth without ecodisasters* (1980), and *Maintenance of the biosphere* (1990). He was made CBE in 1976 for services to international science and to the British community in Switzerland, and he was awarded many academic honours during his long career.

Nick Polunin was a warm and generous friend to many, particularly to his old students 'scattered to the four corners' (in his words), whose fortunes he followed closely. He is survived by his Canadian second wife Helen (née Campbell), whom he married in 1948, by two sons and a daughter of that marriage, and by a son of his first marriage.

*Geoffrey Hattersley-Smith*

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**Daniel A. Guravich**, the noted scientist, conservationist, and wildlife photographer passed away at his home in Greenville, Mississippi, on 30 December 1997. He was just a few weeks short of his eightieth birthday. Born on 22 February 1918 in Winnipeg, Manitoba, to Russian immigrant parents, he received a Bachelor's Degree from the University of Manitoba in 1939. Between 1940 and 1945 he served in the Canadian army and saw action in Italy, at Monte Casino, before being demobbed with the rank of captain.

During the war, Guravich often carried a well-specified Recomar film-pack camera with a Leitz Elmar 10.5 centimetre f4.5 lens and Compur shutter. Guravich's photographic talent led him to be relieved of active service as a tank commander in order to create a military photography section. He supervised two still photographers, one cinematographer, and two dispatch writers. Their still and motion-picture coverage of the Second Canadian Division was to form the mainstay of the pictorial record of Canada's wartime achievements.

After the war, he briefly returned to Canada before resettling in the United States in 1946. He continued his education at the University of Wisconsin, earning a Master's Degree in agronomy. A doctorate in plant genetics followed in 1949, and thereafter a position with the United States Department of Agriculture.

By training a Mendelian geneticist, Guravich found that his skills were quickly superseded, and he resigned from the USDA. His departure proved a blessing in disguise and shaped the remainder of his life. In 1953, he drew on his wartime photographic experiences to open a photography studio. It was at this time that he started work as a full-time location and editorial photographer.

His early scientific training fostered a meticulous photographic excellence. Guravich always prided himself on his ability to capture the representative, as well as the more unique, behaviour of his wildlife subjects. In 1968, his reputation as a photographer was sufficient to earn him a contract with the Exxon Company. His remit was to provide still and cinema coverage of the voyage of SS *Manhattan* through the Northwest Passage in the Canadian Arctic. His work earned Exxon a Golden Eagle Award at the Cannes International Film Festival.

While aboard SS *Manhattan*, Guravich also photographed a polar bear for the first time. It was an experience that was to engender a lifelong passion. Before long, his work came to the notice of the magazine *Smithsonian*, and in 1976 he was requested to provide polar bear photographs for an article. This initial work was to be the first of 25 assignments for *Smithsonian*.



Fig. 1. Daniel Guravich with one of his favourite creatures.

Guravich's publishing record spanned books as well as articles. With the late Richard Davids, he published the critically acclaimed *Lords of the Arctic* (Davids and Guravich 1982). This was followed by *Polar bears* (Stirling and Guravich 1988), the definitive work on the species. With Downs Matthews, he published *Polar bear cubs* (Matthews and Guravich 1989) and *Polar bear* (Matthews and Guravich 1993). He also worked on books as diverse as: *The Mormon trail*, *A field guide to southern mushrooms*, *The return of the brown pelican*, and *Man and the Mississippi*.

Guravich also photographed birds in the Gulf of Mexico, but his passion was always for polar bears. He worked for almost 30 years alongside them, making more than 75 treks to the Arctic. As his affinity for these animals deepened, so did his concerns for their welfare and long-term survival.

In 1973, Norway, Canada, the United States, Denmark, and the Soviet Union officially outlawed the hunting of polar bears (Eliot 1998: 60), but Guravich worried about their public image. In 1991, he voiced his fears to Downs Matthews, stating: 'The public thinks of them as vicious, sneaky killers not worth protecting.' Matthews suggested that Guravich create a forum to provide polar bears with an official spokesperson.

The result was Polar Bears Alive, chartered in California the following year as a tax-free, non-profit organisation devoted to understanding and conserving polar bears. Guravich eschewed strident forms of conservation. Instead he preferred to think of himself as a 'calm voice' on behalf of polar bears, raising public awareness of their merits.

'Save polar bears,' Guravich once said 'and you go a long way towards saving the entire habitat of the circumpolar north.' A glance at the January 1998 issue of *National Geographic*, with its article devoted to the polar bear, suggests that his hopes have not been in vain. More than ever, the polar bear seems to be the subject of scientific inquiry and conservationist concern.

To those who knew him, Guravich was a wonderful travelling companion, nature guide, and photography instructor. He was an authority on Arctic flora, fauna, and natural history, a veritable kaleidoscope of talent and a tremendous personality. He will be greatly missed by the many who loved him.

Guravich's work continues through Polar Bears Alive, P.O. Box 66142, Baton Rouge, LA 70896-6142, USA, <http://www.polarbearsalive.org>. His photographic achievements can be viewed on the cover of this issue and more of his work visited at <http://www.guravich.com>.

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