

Francis Harper (1886–1972)

John Richardson and Richard King, surgeon-naturalists with the Franklin and Back expeditions, began the daunting task of describing the natural history of the Athabasca-Mackenzie region and the barren grounds to the north in the 1820s and 1830s. However, it wasn't until the first half of the twentieth century that intensive fieldwork by biologists such as R.M. Anderson, E.A. Preble, C.H.D. Clarke, and E.A. Porsild established a general, comprehensive understanding of the distribution of the flora and fauna of northern mainland Canada. Among the biologists active in the Canadian North at this time was Francis Harper. Born in Southbridge, Massachusetts on 17 November 1886, Harper became an avid and well-rounded naturalist at an early age. In 1914, he received his B.A. degree from Cornell University and was employed as a zoologist on a Geological Survey of Canada expedition to the Lake Athabasca–Great Slave Lake region. The expedition, under the leadership of Charles Camsell, left Athabasca Landing on 18 May 1914 and returned there on 10 October of the same year. Most of June was spent on Lake Athabasca, while July and August were spent exploring the Tazin and Taltson River area, an unmapped region whose biology was at the time completely unknown. Harper gathered information on the plants, fishes, amphibians, reptiles, birds, and mammals encountered during the journey.

Following service as a rodent control officer in France at the conclusion of World War I, Harper returned in 1920 to the Athabasca area, where he was in the field from early April to early November with Hamilton “Mack” Laing and J.A. Loring. Working under the auspices of the United States Biological Survey, the expedition obtained an extensive collection of vertebrates, including 1200 bird and 350 mammal specimens. Most of their work took place along the Athabasca River below Fort McMurray, in the Athabasca Delta, and moving eastward along the north shore of Lake Athabasca toward Fond du Lac. Between 1919 and 1932, Harper published a series of technical papers on the plants, fishes, reptiles and amphibians, mammals, and physiographic and faunal regions of the Lake Athabasca–Great Slave Lake area, based on his fieldwork of 1914 and 1920. Harper's publications on a wide range of taxa illustrate the breadth of his competence as a naturalist and his efficiency as a field collector. Harper also had a reputation as a technically excellent author and editor, and Alexander Wetmore, when Secretary of the Smithsonian Institution, supposedly remarked that Harper was “the only American zoologist who knows how to write.”

After the second Athabasca trip in 1920, Harper did not go north again until 1947. In the intervening years he married, helped raise four children, and devoted his considerable energies first to graduate school and then to a series of temporary jobs and projects funded by grants

and fellowships. Results from his fieldwork in 1914 formed the basis for his Ph.D. thesis, “A faunal reconnaissance in the Athabaska and Great Slave Lakes region,” for which Harper received his doctoral degree from Cornell University in 1925. Among organizations providing either employment or support to him between 1920 and 1947 were the New York State Museum, the Boston Society of Natural History, *Biological Abstracts*, the American Committee for Wildlife Protection, the Penrose Fund, and the American Philosophical Society. Harper's peripatetic employment history resulted from his inability to work under direct supervision and, in the words of Ralph S. Palmer, his “difficult” personality. Harper could be extremely hard on others, bitter, opinionated and sometimes bigoted—traits that made long-term employment with any organization impossible. In contrast, Palmer also describes Harper as someone who “was unfailingly loyal to those whom he regarded as kindred spirits.”

Harper's fieldwork at more southerly latitudes was focused on the northeastern United States, including the Adirondack Mountains of New York State and Mount Katahdin in Maine, and the Okefenokee Swamp region of southeastern Georgia and northeastern Florida. He published numerous papers on the vertebrates of these two regions and in 1945 completed work on *Extinct and Vanishing Mammals of the Old World*. At various times he pursued interests in folklore of the Okefenokee Swamp, and was active in efforts to protect the region. Harper also was considered to be the foremost scholar of two eighteenth-century American naturalists, John and William Bartram. He edited two long papers on the Bartrams and in 1958 published an annotated edition of *The Travels of William Bartram*.

Harper realized a dream of more than 30 years in 1947, when he undertook a biological reconnaissance of the Nueltin Lake area in the southern Keewatin. The expedition was supported by the United States Office of Naval Research, with funds administered through the Arctic Institute of North America. In contrast to 1920, when he traveled by scow and canoe, Harper reached Nueltin Lake by chartered plane—just one illustration of how the North had changed in the intervening years. Harper had recognized the immensity of the impending changes as early as 1932, when he wrote in the *Journal of Mammalogy*:

In 1914 it [the Athabasca-Mackenzie region] was remote, accessible with difficulty, and comparatively little-known; visitors were something of a rarity, and romance still lingered in the offing. Nowadays ...couriers of the air cover in an hour or two the same territory over which we toiled for weeks with paddle and portage-strap; and radio brings news somewhat more quickly than old-time winter deliveries of mail by dog-team. Moreover, the blank spaces on the maps of



Photograph taken on 10 September 1947 at the Windy River Post, Nueltin Lake, southern Keewatin District, Northwest Territories (now Nunavut). L-R: Francis Harper, Kukwik (“Rita”), Fred Schweder Jr., Mike Schweder, and Anoteelik.

those days are now sprinkled with black dots indicating the sites of trading posts. (p. 22–23)

In 1947 one of these trading posts, located near the mouth of the Windy River at the northwestern extremity of Nueltin Lake, would serve as Harper’s base of operations during his six-month stay.

Harper arrived at the Windy River post, which was operated by the family of Fred Schweder Sr., on 31 May. He brought with him a young zoology student from the University of Toronto, Farley Mowat. Mowat had been recommended to Harper by Dr. C.H.D. Clarke, who had conducted a biological investigation of the Thelon River area in 1936–37. Harper immediately began collecting specimens and natural history information on mollusks, spiders, fishes, birds, mammals, ectoparasites of birds and mammals, mosses, and vascular plants. For most of his stay, Harper remained near the Windy River camp, and he continued fieldwork until his departure by plane on

4 December 1947. Harper was 61 at the time, and he maintained a hectic schedule throughout his stay. In early November, he wrote: “It has been something of a strain to keep going as I have for five months.” Still, Harper was in his element, with unlimited time to pursue his interests in natural history. The country around Windy River plainly touched Harper, as a journal entry from the end of June indicates: “With sunshine, a temperature over 50°, and not much wind, with the open and limitless Barrens before me, who could ask for more?...[W]ho can express the real spirit of the Barrens? Vague, elusive, full of figurative shadow as well as real sunshine, limitless, mysterious, all of these and more adjectives could be hurled at them and still fall far short of the mark.”

In addition to providing Harper with a base of operations at Windy River, Fred Schweder Sr.’s sons—Charles and Fred Jr.—assisted him by collecting specimens and providing numerous faunal observations, which they had gathered during their years of travel and residence in the

Nueltin Lake area. Mowat and Harper, however, did not get along well, and on 7 July Harper dismissed Mowat from the expedition. Materials in the Harper papers at the University of Kansas suggest that conflicting expectations about responsibilities and the strong personalities of both men undoubtedly contributed to their split, and to Mowat's dismissal. Mowat and Harper had corresponded about the expedition over a period of only six weeks in the spring of 1947, and they had not met each other before the trip. Mowat's letters indicate that he worried about the organization of the party and what his duties were to be. Correspondence between Mowat and Harper suggests that Mowat's duties were to be limited to collecting data on mammals and birds. Mowat wrote Harper that it was "your party," while Harper replied that "I should say that ours will be an association of partners, each free to do practically as he pleases, with a decent regard for the other fellows [sic] interests and wishes." Although Harper's letter gives the impression of flexibility, an earlier letter to Mowat indicates Harper's strong scientific focus: "In assembling any party, whether its members are acquainted or not, there is always a possibility of minor friction developing, but devotion to common scientific cause should minimize such possibility. The moral and scientific responsibility of each member is taken for granted."

Harper's letter of 7 July lists several reasons for Mowat's dismissal from the expedition, including "lack of consideration for others," and the accusation that "You have spent a very considerable time in non-biological matters, thus indicating a certain lack of genuine interest in, or devotion to, the primary purpose of the expedition." Harper also stated that once Mowat had reached Nueltin Lake, "...you announced your intention of leaving the Nueltin area for the greater part of the summer." Whatever Harper's reasons for the dismissal, Mowat left Nueltin Lake for Brochet, Manitoba on 8 July. He returned in early August, whereupon he presented a letter to Harper defending his actions, and pointing out that Harper had stated that he, Mowat, was "free to engage in any activity which I saw fit and that you would make no effort to interfere with my actions." The split between Mowat and Harper was severe and permanent, as separate publications on the birds of the Nueltin Lake area by the two do not mention that they were once associated, while Harper gave no indication that anyone had accompanied him to Nueltin Lake in May.

Harper returned from Nueltin Lake with a tremendous amount of information on the natural history of the area, including specimens of over 800 plants, 117 birds, and 113 mammals. Material on spiders, mollusks, fishes, mosses, lichens, and vascular plants was written up by relevant experts, while Harper produced at least five papers on the vertebrates of the Nueltin Lake area, including monographs on the birds, mammals, and barren-ground caribou (*Rangifer tarandus groenlandicus*). Reflecting his interests in ethnography, Harper also published a descriptive but very opinionated account of a group of

Pâdlimiut Inuit who lived on the Upper Kazan River and traded at the Windy River post. The manuscripts on mammals, caribou, and Inuit were published by the University of Kansas Museum of Natural History, after Harper developed a working relationship with its director, E. Raymond Hall.

After returning from Nueltin Lake, Harper was briefly associated with the E.N. Huyck Preserve in Rensselaerville, New York. He was then supported by a Guggenheim Fellowship and by a National Science Foundation grant that enabled him to work on papers related to his Nueltin Lake fieldwork. Harper made his last trip north in 1953, to conduct research in central Ungava. This trip was funded through the Office of Naval Research (again administered through the Arctic Institute of North America) and the U.S. Department of the Army. Perhaps because of his experiences with Farley Mowat at Nueltin Lake, Harper chose to work alone while in Ungava. Although Harper's travels in Ungava took him to several locations between 53° and 57°N, he conducted most of his fieldwork within 20 km of Knob Lake, near the Quebec/Labrador border, at 54°50'N. Harper was in the field for approximately four months, and once again collected data on a wide variety of taxa. He reported on his observations in six papers, including works on the fishes, birds, mammals, and Montagnais people; like his Nueltin manuscripts, most of these were published by the University of Kansas Museum of Natural History. Although Harper did not return to the North after 1953, he remained interested in the region, particularly in the effects of radiostrontium fallout on caribou and indigenous peoples, and in 1963 he published *Caribou and Eskimos*, in IUCN Bulletin 6. His later years were occupied with publishing results of his Nueltin Lake and Ungava expeditions, editing material related to the Bartrams, and writing up his observations of Okefenokee folklore. With H.M. Laing, Harper also attempted to work up their 1920 Athabasca bird data, 45 years after their journey. However, the magnitude of the project was daunting. Laing and Harper had gathered a tremendous amount of material during their 1920 journey—at least 670 pages of field notes by Harper alone—and because Harper could not find funds to support himself while writing up the results, the project remained unfinished. The partial manuscript was subsequently lost and never published. Harper remained active during the final years of his life, although he apparently was overwhelmed by the myriad unfinished projects that lay before him. He died in Chapel Hill, North Carolina, on 17 November 1972—his 86th birthday.

Francis Harper is probably best considered a relatively minor figure among biologists who were active in the Canadian North during the first half of the twentieth century. Although he spent four long field seasons in the North, most of his interests were southerly, rather than northerly, in nature. He confessed to considering himself a "hopelessly outmoded, early Proterozoic naturalist—and thankful for it!" and his northern publications reflect

his proclivity for collecting large amounts of observational information. Several of these publications were criticized by contemporary reviewers. For example, John Tener (1957) of the Canadian Wildlife Service felt that the title of *The Mammals of the Keewatin* was misleading, since most of the text dealt with observations made in the vicinity of Nueltin Lake. Tener also felt that Harper relied too heavily on observations made by the Schweders, and that his treatment of some species was unnecessarily superficial. O.L. Austin Jr. (1959), commenting on *Birds of the Ungava Peninsula*, also felt that the title was misleading, since most of Harper's text focused on central and southern Ungava. Austin also criticized Harper's stubbornness on some matters of zoological nomenclature and taxonomy and his excessive reliance on sight records, as opposed to collected specimens, for establishing distributional limits. In my opinion, the major value of Harper's work lies in the wealth of natural history observations contained in his major papers, especially those focused on a single locality such as Windy River or Knob Lake. The subarctic boreal forest and the subarctic forest-arctic tundra ecotone, where Harper conducted his northern fieldwork, are still relatively unknown from a biological standpoint. Much of the research that has been done is descriptive in nature, and relatively few biologists have conducted in-depth ecological studies in the region. Biologists contemplating quantitative studies in the region, particularly those related to birds or mammals, would be well advised to read Harper's relevant publications, since natural history remains the basis for all modern, well-designed ecological research projects.

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