

# A Tribute to James Herbert Soper, 1916–2012

ERICH HABER

60 Baywood Drive, Stittsville, Ontario K2S 2H5 Canada

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Jim Soper (Figure 1) was born in Hamilton, Ontario, 9 April 1916 to Herbert Armitage Soper (1875–1944) and Anna Eliza Gertrude (née Cooper, 1880–1917). He was the youngest of five children. Jim had three sisters—Dorothy (1903–1910), Phyllis (1906–1936), and Brenda (1908–1947)—and one brother, Robert (1913–2000). Jim’s mother died the year after he was born, and, due to family circumstances, he went to live with his father’s sister, Florence Anna Callahan (1880–1975), her husband, Charles, and Jim’s great-aunt Nancy (his grandmother’s sister). Although Jim grew up as the only child in this extended family, there was a lot of visiting between the families. His father subsequently married Nettie Sophia Webb, who had a daughter, Gladys Thompson, from a previous marriage.

The Callahans, Jim, and his great-aunt lived in the house built by Jim’s grandfather, Robert Soper, in 1914. Robert Soper was a sailmaker from England who originally immigrated to Quebec, but ultimately settled in Hamilton after purchasing a sailmaking company in 1884. Jim’s father was also involved with this company, which later branched out into making tents and awnings. The company, no longer in the family, operates as Soper’s Engineered Fabric Solutions. Jim’s paternal grandmother was an Armitage with roots in the stone quarries of Leeds, Yorkshire, England. This background led the Armitage family to the Welland Canal area of Ontario. Jim’s great-grandfather, Samuel Soper, was a market gardener in the Torbay area of Devon, England, where the Soper farm (Torr Farm) is still located.

Jim attended Hamilton Central Collegiate Institute. He entered McMaster University in 1935, and the yearbook for his freshman year lists his entrance scholarships as the Harold Matthews Memorial Scholarship for First Place Science and the Third Carter Scholarship for Wentworth. Jim completed his undergraduate degree in Honours Chemistry (1938) and his M.A. in Biology (1939). His supervisor arranged to have Jim serve as a field assistant to Hugh M. Raup on his botanical exploration of the Brintnell Lake area (now known as Glacier Lake) in the Mackenzie Mountains in the Northwest Territories (Raup 1939). On this trip, Jim joined the entire Raup family, including Lucy Raup and their two young boys, Karl and David. Jim was greatly influenced by his association with the Raups, who treated him as a member of the family. He learned from Lucy how to bake bread, a skill that he later ex-



FIGURE 1. James Herbert Soper, National Museum of Natural Sciences, Ottawa (now the Canadian Museum of Nature), 24 March 1970. Photo used with permission of the Canadian Museum of Nature.

panded to include a variety of baked goods loved by his own family. Jim completed his Ph.D. at Harvard (1943) under Raup and M. L. Fernald, specializing in plant taxonomy and phytogeography. His thesis was a study of the flora of the Lake Erie region of southern Ontario.

Following his studies at Harvard, Jim served with the Operational Research Section of the Royal Canadian Air Force, and he was on loan to Royal Air Force Headquarters, Coastal Command, in Britain, for eight months. He subsequently joined the same section of the RCAF at Eastern Air Command, Halifax. With the end of World War II in 1945, Jim took a position as an Agricultural Scientist in what is now the old herbarium building in the Arboretum of the Central Experimental Farm, Ottawa. Here he met Jean Morgan of Montreal, the botany librarian, who that winter introduced him to cross-country skiing.

Jim and Jean married in August 1946 and moved in the fall to Toronto, where Jim took up his new teaching position in botany as Special Lecturer and Curator of the Vascular Plant Herbarium at the University of Toronto. Jean resumed library work, becoming secretary-treasurer of the Ontario Library Association. The following years were busy times for Jim and Jean, with Jim preparing botany lectures for the first time and the Sopers settling into a new house they had bought in the Leaside area of Toronto and starting a family.

Shortly after they moved into their new house, their daughter Nancy was born (1948), followed by Mary (1950), and twins Daphne and Ian (1952). Over the years at their Leaside home, Jim enjoyed cultivating a sizeable vegetable garden and planting trees and shrubs. Perhaps gardening was in Jim's genes, his great-grandfather having been a market gardener.

Over the course of the following 21 years, from 1946 to 1967, Jim combined a teaching career with active botanical research on the flora of Ontario. He taught General Botany, Taxonomy, Economic Botany, and Plant Geography. Jim had a special interest in documenting the Carolinian flora of southwestern Ontario and in the shrubs of Ontario. The latter was perhaps fostered through his association with Dr. W. Sherwood Fox, former president of the University of Western Ontario, with whom he collaborated on a number of projects. His fieldwork also took Jim to northern Ellesmere Island, where he participated in a study of the Lake Hazen flora as part of International Geophysical Year projects in 1958. With the completion of the Lake Superior portion of the TransCanada Highway in 1960, Jim undertook field excursions along the newly accessible shoreline of the lake. Subsequently, he published or co-published papers dealing with arctic-alpine elements found along the eastern shore of Lake Superior. He also conducted fieldwork on Vancouver Island, in Revelstoke National Park, and in Glacier National Park. When he was on holidays in the Jeep station wagon (known in the neighbourhood as the Soper's truck), much of his Ontario fieldwork was done with the family in tow. They camped or rented a cottage, and while the kids played, Jim kept busy conducting fieldwork.

To facilitate making herbarium labels and mapping the distribution of Ontario plants, Jim undertook to learn FORTRAN, the computer language then being used to run the university's computers. Having a great facility in math and problem-solving, Jim developed a program for mapping plant records. He was one of the first in North America to promote computer mapping of phytogeographic data (Soper 1964, 1966). He set up a punch-card machine for data entry and a card reader in a small room opposite the herbarium on the third floor of the Botany Building. Herbarium assistants would punch in data that were subsequently mapped using the university plotters.

During Jim's tenure at the University of Toronto herbarium, it grew substantially through an active program of plant collecting by Jim, student projects, and colleagues' work and through an exchange program. The vascular plant collection grew from 60 545 to 156 831, with his personal collections totalling more than 10 000. Jim documented his sight records with preprinted checklist cards that he used in the field. He also compiled a card catalogue of collections and localities (Figure 2).

In his years as professor and curator, Jim mentored graduate students in taxonomy and biogeography and was the primary supervisor of my M.Sc. thesis on Enchanter's Nightshade in Ontario (genus *Circaea*) and of Ph.D. student Gary R. Thaler, who studied the limits of the Carolinian floristic zone using, in part, Jim's biogeographical data.

In 1967, Jim took up the position of Chief Botanist at the National Museum of Natural Sciences, National Museums of Canada in Ottawa. There he continued his efforts to promote the computerization of collections at the Botany Division of the Museum (now the Canadian Museum of Nature). Jim became an avid student of French, developing a working facility in the language that even extended to reading French novels.

In 1981, Jim followed up his early work on the arctic-alpine flora on the shoreline of Lake Superior with post-doctoral fellow David Given (Given and Soper 1981). Work on the shrubs of Ontario, initiated with Margaret Heimbürger in 1961, culminated 20 years later in a major publication by the Royal Ontario Museum (Soper and Heimbürger 1982). On retirement in 1981, Jim continued his research on the flora of Ontario as Curator Emeritus and assisted me in compiling my georeferenced database on the rare vascular plants of Canada.

Jim is the author or co-author of 3 books and over 60 botanical papers. A sedge (*Carex soperi* Raup) and two varieties of plants (*Celtis tenuifolia* Nutt. var. *soperi* Boivin and *Houstonia longifolia* Gaertn. var. *soperi* Boivin) were named after him. The sedge is now synonymized under the geographically widespread Thick-headed Sedge (*Carex macloviana* d'Urv.), and the two varieties are currently also included with the normal range of variation of their respective species, Dwarf Hackberry (*Celtis tenuifolia*) and Long-leaved Bluet (*Houstonia longifolia*). In 1977, Jim was awarded the Queen's Silver Jubilee Medal honouring Canadians who were considered to have made a significant contribution in important fields of endeavour.

In his early years at Toronto, Jim served as Chairman of the Checklist Committee of the Federation of Ontario Naturalists, along with members W. Sherwood Fox, Monroe Landon, Fred H. Montgomery, and Edmund M. Walker (Cruise 1982). A preliminary checklist of vascular plants of the portion of southern Ontario south of the Canadian Shield and west of Kingston was completed in 1949. Jim was a member of a number



FIGURE 2. Jim Soper several years after retirement in his office at the Botany Division, Canadian Museum of Nature, in front of a map of southern Ontario with pins and labels indicating his numerous collection localities. Photo: E. Haber.

of societies and associations, including the National and Provincial Parks Association of Canada (now the Canadian Parks and Wilderness Society), the Royal Canadian Institute (President, 1962–1963), the Canadian Botanical Association (Treasurer, 1968–1969, and President, 1982–1983), the Federation of Ontario Naturalists, the Royal Botanical Gardens (Hamilton), the Arctic Institute of North America, the Bruce Trail Association, the Ottawa Field-Naturalists' Club, the American Fern Society, the Australia-New Zealand Association, and the Harvard University Club of Ottawa.

The McMaster yearbook for 1938, the year of his graduation, provides insight into some of the young man's talents and interests:

Starting from Central Collegiate on the matriculation scholarship in Science and advancing to win the City of Hamilton scholarship in second year, Jim mixed Chemistry and Botany to get a fine grounding for graduate work. He combined badminton, music and flower collecting for diversions. Weakness—drawing everything he could see and then some.

Women in the family, especially Aunt Flo, played an important role in Jim's early life. During his years

in Hamilton, Jim developed considerable skill in playing the piano, especially classical music, and he made a recording in 1940. It was a love that he maintained all his life. His interest in drawing, and later watercolours, was likely fostered initially by his aunt Flo, who had been Assistant Principal of the Hamilton Art School (1905–1909). She possessed a variety of skills in the arts and crafts of the time, including painting on porcelain, but concentrated on painting landscapes in oils. Jim's love of sketching, already noted in the account from the yearbook from his graduating year at McMaster, is also highlighted in a photograph he took of himself sketching the mountains around Brintnell Lake while sitting on a packing box (Figure 3) (Harris and Lougheed 2002). During his years in Toronto, Jim was also a keen photographer of wildflowers.

To improve his skills in painting and drawing, Jim attended classes at the Ontario College of Art in Toronto in 1965–1966. In retirement, Jim began to specialize more seriously in painting watercolours of botanical subjects, including dried flower bouquets (Figure 4). He took instruction at the Ottawa School of Art (1981–1983) with Morton Baslaw and Leonard Gerbrandt; at Sunbury Shores Arts and Nature Centre, Saint Andrews, New Brunswick (1982), doing landscapes with Henry Purdy; at the Ottawa Board of Education (1986), doing



FIGURE 3. Jim Soper sketching at Brintnell Lake (now Glacier Lake), 10 August 1939. Photo: J. H. Soper.

watercolours with Cécile Loubert; and botanical illustration in watercolour with Dorothy Bovey at the Royal Botanical Gardens, Hamilton (1988 and 1990).

Overall, Jim was a quiet and reserved individual, and always a gentleman. He was tender-hearted when it came to small creatures. He was a highly organized and tidy person, and he loved his Dymo labeller. He was very much disciplined about his health. An early riser, he would take a brief nap after lunch each day, even at work, swim regularly at the YMCA, and do 5BX exercises (Five Basic Exercises, developed for the Royal Canadian Air Force—stretching, sit-ups, back extension, push-ups, and running on the spot). He was creative in building or repairing things, and his fine motor skills are quite evident in his neat handwriting and artistic abilities, as reflected in his beautifully executed artwork. Apparently, needing to keep his hands busy, Jim learned crocheting and made baby jackets for the kids and afghans out of “granny squares”. Jim also liked to do string figures for the kids.

Jim had a dry sense of humour and loved play on words. He and Jean enjoyed bridge, and Jim loved crosswords and even made some up, in retirement, with

his computer. In later years, Jim spent much time reading and was still driving up until a year before his death to get groceries and do banking. After Jean had a fall in November 2011, they moved into a retirement home for a respite visit. Jim was not happy being away from their home overlooking the canal in Ottawa. However, as long as Jim got three meals a day on time, he never complained.

Jim died peacefully after a short illness on 16 February 2012 in his 96th year. He is survived by his loving wife, Jean, his daughters, Nancy (Richard Stoneman), Mary (David Gladwin), and Daphne (James Boyce), his son, Ian (Nicole Ratté), his grandchildren, Kathryn and John Stoneman, and his nieces and nephews. Jim’s beautifully rendered watercolours, in the homes of family and friends, remain as a testament to his love for plants and their beauty.

#### Acknowledgements

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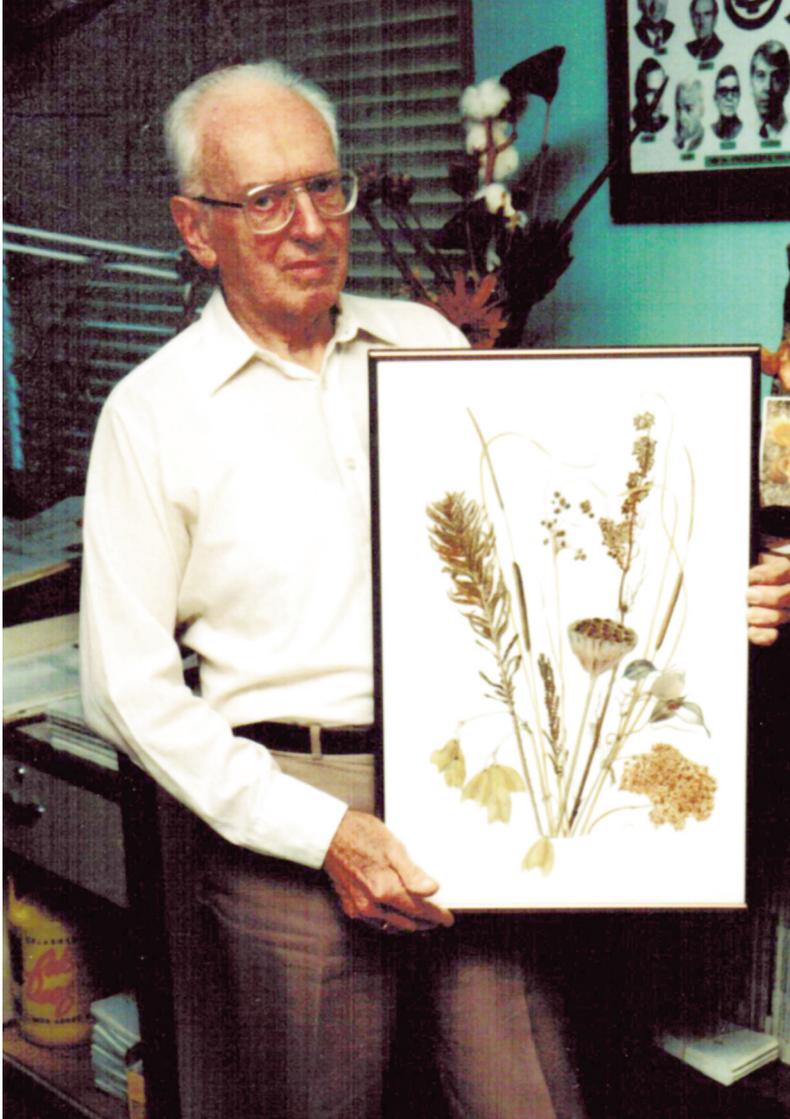


FIGURE 4. Jim Soper, after retirement, in his office at the Botany Division, Canadian Museum of Nature, with one of his water-colour paintings depicting a winter bouquet of dried plants. Photo: E. Haber.

(CMN), helped to initiate searches for information at the CMN. CMN archivist, Chantal Dussault, provided leads to information stored by the Museum and at Library and Archives Canada. Deb Metsger and Royal Ontario Museum (ROM) volunteer Marilyn Murphy were most helpful in compiling data on the herbarium collections of vascular plants at the University of Toronto, now held by the ROM. Paul Catling and Gisèle Mitrow, at Agriculture and Agri-Food Canada, provided a bibliographic compilation of Jim's publications that were on file at the Central Experimental

Farm. George Argus, Charles Bird, Irwin Brodo, Daniel Brunton, Paul Catling, and Charles Gruchy read an earlier draft.

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