

Western professor leaves lifetime collection to Museum of Nature

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Photos courtesy of Dan Smythe, Canadian Museum of Nature
No, the Canadian Museum of Nature is not in the shoe business. Western professor emeritus Frank Cook used the shoe boxes to deliver more than 1,500 plant specimens to the museum, which are now permanently stored in 24 black container boxes, shelved in secure cabinets in the museum's climate-controlled herbarium. Below, Jennifer Doubt, collections manager for the herbarium, examines one of Frank Cook's specimens.

While it was simply a hobby for Frank Cook, the Canadian Museum of Nature has cashed in with the amateur naturalist's donation of more than 1,500 plant specimens including rare and endangered species of mosses.

The University of Western Ontario professor emeritus (botany/biology) amassed his collection over more than 35 years of fieldwork, starting around 1970. The 90-year-old Cook, who now lives on Barrie, taught plant physiology at Western for 35 years prior to retiring in 1987.

COOK

The new additions to Canada's national plant collection include mosses and liverworts, both part of a distinctive group of small plants known as bryophytes. The specimens are mostly from locales in southern Ontario, with some from British Columbia as well as Australia and New Zealand.

"A lot of them are especially valuable as they represent unusual or rare species, and all of them add new information to our collections," says Jennifer Doubt, manager for the National Herbarium of Canada (plant collection). "The specimens are also in amazing shape, all meticulously packaged and identified. For a donation of this size, it's fantastic to have all that information already in place."

Bryophytes are abundant throughout Canada, having more than a thousand Canadian species, dominating some iconic northern and alpine wild habitats. Many are pioneer plants that grow on rock and contribute to soil development. They can form a thick carpet, helping to reduce erosion, and provide habitat for small animals and microorganisms.

Cook's collection encompasses rare species such as pale cord moss and spoon-leaved moss, for which southern Ontario is the only known Canadian home. Many species in this 'Carolinian' region of Canada have declined in abundance because of urban and agricultural development, and Cook's specimens help to document these changes.

The samples will now be incorporated into the museum's national collection of bryophytes, the largest in Canada with 255,000 specimens.

While it will still take anywhere from four to six months to go through each specimen, Doubt says the meticulous work of Cook has cut that time substantially.

“It’s very rare for us to get such a large number of specimens so well curated. Each was labeled and everything was categorized according to its family,” says Doubt, adding it is the largest single donation the museum has received in her five years there. “Bryologists aren’t really a dime a dozen, so to have someone who was so knowledgeable, and work for such a long time, donate such a large number of well-identified specimens is fantastic.”

For Cook, bryology was always in his blood.

“I had a general interest in natural history, particularly birds and plants, from childhood,” he says. “One of my undergrad biology profs at the University of Toronto introduced me to bryophytes in a general botany course. I was particularly intrigued by their interesting and unusual reproductive cycle.”

Bryology would end up being an all-encompassing hobby for Cook, who was always eager to introduce colleagues and students to these interesting plants in the hopes “some of my enthusiasm would rub off.”

Cook’s collection has a good representation from Middlesex and Simcoe counties. In fact, some of the specimens came from Western’s campus, where Cook adds the Thames River valley is an excellent habitat for mosses and ferns.

The dried specimens in the collection range in size from a dime-sized nodule to a fist-sized clump. Each is delicately stored in an acid-free envelope and labelled with identifying information such as species name, location found and date collected.

While Cook had donated specimens in the past, the bulk of these new tiny treasures remained stored in his basement, carefully recorded and organized in dozens of shoeboxes.

“Retirement from active collecting and downsizing prompted me to look for a permanent home for my collection. I wanted a place where they could be studied by others and where they would be properly preserved,” says Cook, noting the herbarium at the Canadian Museum of Nature was the perfect choice.

Cook also left Western a smaller representative sample of his collection upon his retirement.

“Under the microscope, they have all these beautiful details that you might not initially appreciate when you find them in nature,” Doubt says, noting these and other specimens will be used for public viewing as well as research.

“Each specimen has a date and location associated with them, so those concerned with preserving species can use this information. Each one is unique and valuable in its own way and will, quite significantly, add to our knowledge of the distribution of such plants. These are going to be very valuable to us for a long time.”

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