

In 1979, I enrolled in a two-week undergraduate ecology course at the Field Station, little suspecting that, seventeen years later, I would become its Director. Having spent a considerable part of my professional career working in Delta Marsh, I am grateful for the opportunity to return to the station (and to the University of Manitoba, after holding a teaching position at Brandon University for the past six years), and the challenge of assuming administrative responsibility for the station from my predecessor, Gordon Robinson, as of July. My first few months on the job have been enjoyable but, admittedly, a little intimidating in that I have had to become acquainted with many aspects of station operations, of which I was largely ignorant during my residence as a graduate student and visiting faculty member. This ignorance is testament to the efforts of a large number of people over the history of the station, starting with Jennifer Shay, to create an environment that fosters a productive scientific and social atmosphere without consideration of such mundane, but critical, details as how the evening meal in Murray's Cottage will appear on the table or whether toilets in Mallard Lodge will flush. This experience has made me appreciate even more the efforts that Gordon Robinson, Russ Mead, Dick Convery, Pat Gutoski, Doreen Greening, Shirley Dinwoodie and a host of others before them have made to ensure both the maintenance and growth of the station's user base and infrastructure. I wish to especially thank Gordon for his hard work on behalf of the Field Station over the past eight years, and wish him success in his new position as an Associate Dean of Science at the University.

Notable Events

1996 was an eventful year for the station, for a number of reasons. First, it represented the 30th anniversary of our operation, in recognition of which we offer our first Annual Report with a color photo on its cover. Our longevity has been made possible by the many people who recognized the value of the station, first as a site for conducting basic and applied ecological research on the marsh, the dune ridge, and the lake, subsequently as a base for courses that expose schoolage through university students to ecology as it should be taught (namely, in the field), and most recently as a facility for meetings, workshops, and conferences.

Dick Convery, who served as our resident maintenance person since April 1986, passed away in February after a lengthy illness. Dick's home near the canoe launch, which was built for portability, was moved from the site in late August and trucked to Warren, Manitoba. We offer our condolences and farewell to Karen Convery and family.

Construction of our new meeting, library, and office building began in September, on the site made available by the removal of the Convery residence. Donations for its erection were received from Canada Trust, the Friends of the Field Station, and numerous private sponsors. With the approval of Dr. J.C. Jamieson (Dean of Science), we also undertook a five-year loan from the University central administration. As a result of the construction, two places at the station will acquire new names in 1997. Our new building, which I hope will be completed early next year, will be called Ki-pi-chi-win (pronounced phonetically according to the syllables) after an Ojibwa word meaning "meeting place". The symbolism is two-fold. First, the building will serve, among its many intended roles, as a place for meetings, classes and workshops. Second, people from the Dakota Tipi First Nation (near Portage la Prairie) tell me that Delta Marsh was not traditionally considered the territory of any tribe; rather, it was neutral ground on which people could mingle and interact in peace. I hope that our new building, and the station in general, may carry on this tradition. Incidentally, I am grateful to Ray Pettinger at Shoal Lake (who also helps periodically with banding at the Bird Observatory) for suggesting the name.

As a result of moving the Station Office into Ki-pichi-win from Mallard Lodge, we will gain an additional bedroom on the main floor. Given that there is no other commemoration of Donald Bain at the Field Station, I proposed to name this space in recognition of his role (albeit unknowingly) in our establishment. Both names will require approval of the University Senate before they can be bestowed officially.

I am happy to report that the Field Station was successful in the recent NSERC Major Facilities Access Grant competition. Co-applicants for the \$25,000 annual grant, which runs from 1996 through 1999, were Gordon Robinson, Mark Abrahams, Brenda Hann, Norm Kenkel, Spencer Sealy, Barrie Webster, Lisle Gibbs (McMaster University), Keith Hobson (Canadian Wildlife Service), and myself. This grant alleviates the concern that arose when the NSERC Infrastructure Grant program, under which the station received support for several years, was cancelled prior to completion of our last three-year award. We offer sincere thanks to NSERC for their continued support of the Station.

Of course, no description of the year's highlights would be complete without mention of the catastrophic spring flood that inundated the station. Without notice, the Diversion West Dike was breached in the middle of the night on 18 April, sending a torrent of muddy water into the area south of our buildings. By morning, the water level in the marsh was so high that standing Phragmites canes, ordinarily visible year-round, were completely immersed for kilometers in all directions. At its height, the water was up to a meter deep in the basement of Mallard Lodge and the Workshop, and the crawl spaces under many other buildings were full of water. Photos of the flood and its aftermath can be seen on our Internet web site. The dike was subsequently repaired and the water levels had mostly receded by 23 April. Although the damage to buildings, equipment and vehicles was considerable, an upside was that it gave us an excuse to ruthlessly clean out the basement of Mallard Lodge, the Fisherman's Shack on the Winter Road, and the Barn. This created several soggy piles that were carted unceremoniously to the dump, revealing floors that had been largely invisible for years.

Facility Use Statistics

Total use of the station in 1996 (Table 1) was down from 6,228 user-days in 1995. I attribute the decrease to a number of factors. Most significant was a drop in school use (which is traditionally highest in the closing months of the school year in April, May and June) that, I suspect, occurred largely because we were forced to cancel several bookings due to the spring flood at the station. I trust that this will, therefore, prove to be a temporary anomaly. We also hosted only a single Elderhostel this year, as compared to two in previous years. Only two of three planned workshops were held and attendance in these workshops was lower than anticipated. On the plus side, use of the station for research and university courses was largely unchanged and several categories of use increased between 1995 and 1996. Group use of the station, for example, increased by over 30%.

Table 1. Use statistics for the Field Station in 1996	5.
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Category	User-days	% total
Research	1,257	23
Courses	1,018	19
Workshops	147	3
Schools	969	18
Group use	1,623	30
Elderhostel	155	3
Miscellaneous	213	4
Total	5,382	

Users of the Field Station in 1996 included several groups from the main campus: the Faculty of Continuing Education, the Department of Botany, the Department of Economics, the Department of Geological Sciences, the Department of Landscape Architecture, the Department of Zoology, the Environmental Science Program, the Faculty of Dentistry, the Faculty of Engineering, the Faculty of Science Dean's Office, and the Institute for the Humanities.

External groups using the station were as follows: the Centre for Indigenous Environmental Resources (CIER), Trinity United Church, Kelvin High School ("Shakespeare in the Snow" Drama Program), Kelvin High School (Outdoor Education), Arthur Meighen High School, Yellowquill School, Laura Secord School, Friends of the Field Station, St. Johns High School, the Geological Association of Canada, Fort Richmond Collegiate, Prince Charles School, North Memorial School, Portage School Councilors, Arthur E. Wright School, Central Winnipeg Cubs, Portage Day Camp, Brandon Boys Scouts, the Canadian Nature Federation, Camp Jubilee, Ducks Unlimited (Green Wing Teal program), Portage Natural History Group, the Manitoba Naturalists Society, Vincent Massey High School, Sturgeon Creek School, Agassiz Science Club, Ducks Unlimited, 127th Girl Guides, St. James Collegiate, Winnipeg Child and Family Services, 6A Girl Guides, St. Rose du Lac School, and Dauphin Regional Secondary School.

In late August, the station hosted a reception in honor of visiting scientists from across Canada, the United States, Mexico, and several South American countries. With sponsorship from the Inter-American Institute, they were participating in a Workshop, held jointly at the Delta Waterfowl Research Station and the Experimental Lakes Area, that investigated possible collaborative links between North American and South American climate change researchers.

Seven research theses were completed in 1996 by students who worked at the Field Station. Congratulations to Gerry Alderson, Rob Anderson, Heather Bond, Ron Duerksen, Mike Kattenfeld, Janice Lorenzana, and Caedin Pettigrew! As well, eight publications based on research conducted at the station appeared during the year, and I expect that this number will increase as other papers now in review are accepted.

Researchers using the facilities of the Field Station in 1996 included nine graduate students, three research assistants, five university students in the Co-operative Education Option of the Environmental Science Program, one B.Sc. Honours project student, five faculty members from the University of Manitoba (Departments of Botany, Soil Science, Radiology, and Zoology), one faculty member from McMaster University, and one researcher from the Canadian Wildlife Service. The Delta Marsh Bird Observatory (DMBO) completed its fifth year of banding, from July to the end of September. With its proximity to many of the major North American flyways, the Bird Observatory banded the largest number of birds of any such station in Canada during 1996. Congratulation to Heidi den Haan (a station alumna) for assuming the position of Executive Director for the DMBO.

Four of the six undergraduate credit courses that were offered at the station had sufficient enrollment to take place. These included: Vascular Flora of Manitoba, Community Ecology, Special Topics in Field Biology: Diatom Identification, and Field Ecology. In addition, students in Landscape Architecture (Faculty of Architecture) were resident for a week in late August and weekend visits by the Community Ecology and Ornithology classes from the main campus occurred in September. The Diatom Identification course was notable, in that it was the first in what I hope will be a series of "signature courses" offered exclusively at the Field Station in specialized areas pertinent to the unique environment here. We were fortunate to attract one of the world's most renowned diatom specialists (and genuinely nice person!), Dr. Charles W. Reimer of the Philadelphia Academy of Natural Sciences, to instruct the two-week course. Charlie also brought along his wife Jackie and daughters Emilie and Laura from his home in Pennsylvania. Participants in the course came from all over Canada and the United States, and they included undergraduate students, graduate students, and even three academics, all of whom received personalized instruction at their respective knowledge levels. We planned to host the course again in 1997, and other such courses in the future.

Internet web site

Our Delta Marsh Home Page was established on the Internet in 1994 as a cost-effective means to provide information about our activities to a global audience. For example, this Annual Report is available in full on the web site and all of its contents may be downloaded and, if desired, printed. Records on the geographic origin of visitors reaching our site, which are maintained by the server computer on which the site resides, became available starting in July. From a cursory analysis of these records (Table 2), it is clear that the majority of visitors originate from Canada and the United States although, encouragingly, we also received "hits" from 20 other countries all over the world. A more detailed analysis of trends will await additional data as the period of record-keeping lengthens.

Finally, in keeping with our march into the future, the station acquired Internet access in 1996, via a dialup

Figure 2. Origin of computers that accessed the web site of the field station (mean number of page requests per month) between July and December 1996.

Country	Pages/month	% total
Canada	194	35.2
Unknown (IP only)	105	19.0
Commercial (.COM)	95	17.2
Network (.NET)	69	12.4
USA educational (.EDU)	47	8.5
USA government (.GOV)	7	1.3
United Kingdom	5	0.8
South Korea	4	0.8
United States	4	0.8
Australia	3	0.5
Non-profit organization (.ORG	G) 3	0.5
USA military (.MIL)	2	0.4
Finland	2	0.3
Japan	2	0.3
Sweden	1	0.3
Germany	1	0.3
France	1	0.2
Netherlands	1	0.2
Italy	1	0.1
Colombia	1	0.1
China	1	0.1
Israel	1	0.1
New Zealand	1	0.1
Denmark	1	0.1
South Africa	1	0.1
India	1	0.1
USA arpanet (.ARPA)	0	0.1
Brazil	0	0.1
Malaysia	0	0.1
Slovenia	0	0.0
Total	553	100.0

service in Portage la Prairie. The service was initially rather unreliable due, I suspect, to noisy phone lines. A change made by the Service Provider improved the reliability considerably and now station users may add electronic mail to their means of communicating with the outside world while they are in residence.

New Initiatives

Along with our new course in Diatom Identification, we undertook several new projects in 1996 that, I hope, will become permanent activities.

First, acting on an excellent idea from Tom Shay, I initiated a new feature in our Annual Report to capture some of the history of the Field Station (which, as I mentioned earlier, reached its 30th anniversary this year).

Whereas such an undertaking could prove overwhelming to complete in its entirety at one time, Tom's suggestion was to address the project incrementally. Therefore, we offer our first installment: a short profile on Donald H. Bain. This historical note does not deal with the station's history *per se* but, clearly, we owe our existence to the fact that Mr. Bain constructed Mallard Lodge and several of the primary buildings that subsequently made up the station that was established in 1966, four years after his death. A history of a man as colorful and widely acclaimed as Mr. Bain deserves more than the cursory treatment given him here and I hope that, in time, a more thorough biography will evolve.

In 1996, the Field Station became a "node" in the national Ecological Monitoring and Assessment Network (EMAN) established under the leadership of Environment Canada. Membership is wholly voluntary but I felt that it could serve as a useful framework against which many of the current (and future) monitoring activities of the station, such as our amphibian call monitoring and bluebird nestbox line, could be organized. As a first step, each of the four summer students employed by the station in 1996 was given a research project to undertake, the results of which are summarized in this report. I hope that these projects and others may become part of a long-term monitoring initiative for the Delta Marsh area.

Another of our new initiatives that has arisen from our involvement with EMAN is the laying of the groundwork for a descriptive meta-database of the nature and extent of long-term records that have been compiled at the station since its inception. I purchased a device for creating CD-ROM disks on which we will archive our climate data and any other records that may be available. This will serve the two-fold function of increasing accessibility of the information to station users and providing a backup to what, in many cases, is a single, irreplaceable paper copy. Collation of the metadata will be followed by compilation of the data itself into machine-readable form. I anticipate that the huge number of boxes of strip charts to be input means that this project will probably span my term as Director, and probably longer.

Gordon Goldsborough