

Station Director's Report - 1997



Flood 1997

The last major flood of the field station, prior to the one last year, occurred in 1976. Given this frequency, we could perhaps be excused for believing that the likelihood of recurrence this year was minor. Unfortunately, our confidence proved unfounded as another large flood, albeit smaller than the one in 1996, occurred from 19 to 23 April. As was the case in 1996, the "fail safe" section of the west dike road was damaged extensively when water spilled over it, and water flowed into the west unit of the marsh over most of our winter road. Several loads of gravel that had been newly spread on the road were completely washed off into the marsh and large sections of the roadway were eroded badly. Having had to bear the full cost of repairs from the 1996 flood (we received nothing in the way of flood compensation from the provincial government but did receive reimbursement of some costs from the University), we were unable to initiate anything but essential road repairs. So the road was extremely rough until late in the year, when repairs were finally made. A large trench that had been eroded through the road at its crossing of the Blind Channel was filled, and two new, larger culverts were added to supplement the existing two culverts and, hopefully, reduce the damage from future floods. Luckily, having adopted a "once burned, twice shy" approach to flood preparedness after our experience last year, most station equipment had been placed on high ground prior to the flood. The soil and gravel berm constructed last year at the basement entrance to Mallard Lodge prevented flooding there. High water levels remained in our minds throughout the summer, though, as flow in the Portage Diversion was sustained until well into August. The diversion sill roadway being impassable, travel time to the east part of our property increased greatly and this proved a major inconvenience to the researchers working there.

Station Infrastructure

The rotting, hazardous wooden docks by the PCC boathouse and at Crescent Pond were replaced during the summer, as was the porch canopy over the southeast entrance to the Agassiz lab.

On the equipment front, the station purchased three PC computers, two for use by station researchers and one for the campus office. Using funds provided by the Science Endowment Fund, we also purchased three Nikon dissecting microscopes and one Olympus

compound microscope to add to the microscopes bought last year.

In mid-August, we commissioned the acquisition of air photos of our entire property by Global Remote Sensing of Edmonton. The photos (1:10,000 with 30% overlap) were part of a set of the entire marsh taken in collaboration with Ducks Unlimited Canada. Our photos complement others taken in 1987, 1989, 1992 and 1995, and they will provide an excellent basis for examining changes in the vegetation on the property over this period.

More than 100 people were present for the official opening of our new building, named "Kipichiwin," on Saturday, June 21. Distinguished guests included President Emöke Szathmáry, the Honourable Reg Alcock (Member of Parliament for Winnipeg South), Mr. James Knight (Reeve, Rural Municipality of Portage la Prairie), Dr. Robin Connor (Dean Emeritus, Faculty of Science), and three former station Directors (Drs. Jennifer Shay, Phil Isaac, and Gordon Robinson). Following the ceremony, we presented my predecessor, Gordon Robinson, with a bronze sculpture by Peter Sawatsky in recognition of his years of service.

As reported in last year's report, I applied for and received approval from the University Senate to name the main-floor bedroom in Mallard Lodge in honor of Donald H. Bain. The room was made available by the transfer of the station office to Kipichiwin.

The days of collecting weather data every morning at 8:00 A.M. are almost over. Late in the year, with financial support from NSERC and the Faculty of Science, we entered into a collaborative, five-year agreement with the Atmospheric Environment Service (AES) of Environment Canada to replace our old, manual weather instruments with a state-of-the-art, fully automated station. As part of the agreement, AES installed the station and will maintain it. Based around a Campbell Scientific Ltd. CR10X datalogger, the station became operational on 27 November although other instruments will be added as money and time permit. Included among the parameters that will now be monitored automatically are the following: air temperature, soil temperature (surface, 10 cm, and 100 cm depths), wind velocity and direction, relative humidity, precipitation (initially, rainfall only but we intend to install automatic snowfall monitoring as soon as possible), hours of sunshine, and photosynthetically active radiation (PAR). In addition to improving consistency and accuracy of data recording, the new system eliminates the time-consuming daily monitoring

and transcription of data from paper charts into reports. It also collects data at hourly rather than daily intervals so we will get much more detailed information. Best of all, the information is available remotely; a month's worth of data can be stored in the memory of the instrument, which is accessible by computer modem, theoretically from anywhere in the world. Downloaded data will be entered into a relational database from which selected data can be retrieved. We will continue to monitor the manual instruments for a period of at least one year to ascertain the degree of consistency with data from the new instruments.

Following the upgrade, Environment Canada agreed to retire our old Campbell-Stokes recorder (hours of sunshine), refurbish it, and return it to us for permanent display in Kipichiwin. The presentation ceremony will probably be held next year, coincident with our thirtieth year of continuous weather recording.

Personnel

The field station has been without a full-time resident maintenance person since Dick Convery passed away in early 1996. We were fortunate to have had Curt Code (1996) and Jeff Gowler (1997) take over some of the responsibilities of the maintenance person on a short-term basis. Fortunately, I am happy to report that this issue has stabilized somewhat with the creation of a resident, seasonal maintenance position that will see us through the winter period (October through April) after which our summer students will carry us through the summer, with Russ Mead providing the "glue" to ensure uninterrupted maintenance. The Faculty of Science has committed to funding part of this winter position on an ongoing basis, with our NSERC grant providing the balance. Jeff Gowler has been hired into the position and I hope that this may be the start of a productive, long-term arrangement, given that Jeff spends his summer as the maintenance person at a resort on an island in Lake of the Woods. Welcome, Jeff!

Composition of the Field Station Advisory Committee expanded in the fall with the addition of representatives of our off-campus user community. Included as new members with full voting rights were Jim Hicks (Norwest Labs, Winnipeg), Brent Poole (Vice-Principal, Acadia Junior High School) and Dr. Barrie Webster (President, Friends of the Field Station).

The campus office of the field station returned to the Buller Building in July. By sharing an office with the Biology Teaching Unit (BTU), the job responsibilities for Pat Gutoski will now include a 25% commitment to clerical work for the BTU. This replaces the work that she used to do for the Environmental Science Program when we were based in Machray Hall.

Ken Sandilands was awarded a Student Research Grant from the Society of Wetland Scientists at its annual meeting in Bozeman, Montana. Students who completed theses in 1997 based on research done at the station included Glen McMaster (PhD), Gabriela Lichtenstein (PhD), and C.J. Mundy (BSc). Congratulations all! Finally, welcome to Dr. Todd Arnold, formerly an assistant professor at Humboldt State University in California, who has been appointed the full-time Scientific Director of the Delta Waterfowl Research Station.

I must report the sad news that a UFS alumnus from the early 1970s, Glen Girman, succumbed to cancer on 18 September. Not having met Glen, I asked Gordon Robinson, his MSc supervisor, for his thoughts. His response: "Glenn's work at the field station involved a broad survey of the phytotoxicity of a broad range of registered herbicides on the photosynthesis and kinetics of organic carbon assimilation of suspended and benthic algal assemblages. His work was conducted diligently and thoroughly and although the results were never formally published, his contributions to the Field Station extended far beyond his academic work. For the two years that he worked at the Station, he was the life and soul of the graduate student body – always eager and willing to undertake tasks that benefited all who were in residence, and was never without suggestions as to how things might be better done. He actively fostered a healthy relationship between students at the Field Station and those at the Delta Waterfowl Research Station. He had the best interests of the Field Station at heart – a true and active friend of the Field Station."

Thanks

I wish to acknowledge many generous donations to the field station during the year. Bob Cielen donated books belonging to field station alumna Liz Hoving, who passed away recently, and a group of former zoology students that met at the field station in mid-May donated a framed photograph by Robert Taylor in Liz's memory. Other donors of library books and journals included Richard Orlandini; Joan Shelmerdine in honor of her father, Walter Shelmerdine; members of the Stevens family in memory of Todd Stevens; Tom and Jennifer Shay; Dr. Sam Badour; Dr. Bill Turnock; and Dr. Gordon Robinson. The Botany Graduate students continued their support for a subscription to the journal *Wetlands*. Major donations for construction of Kipichiwin were made by the Friends of the Field Station, Alice Chambers (Pinawa, MB) and the Canada Trust Friends of the Environment Foundation, along with many others. We are grateful to Mary Robinson for donating a collection of aboriginal artifacts (arrowheads, spear points, knife blades and hide

scrapers) that she found on our beach. Now mounted in an attractive frame, they are on display in Kipichiwin. Finally, framed works of art were donated by Dr. Hewitt and Phyllis Hornbeck ("Out of the Mist – Great Gray Owl" by Rod Tribiger) and Dr. Jack Gee ("Sun Bear" by Garry Meeches).

Use statistics

Our total use in 1997 was lower than last year by 324 days (Table 1). However, use by school groups, undergraduate courses and miscellaneous visitors were all up from 1996. The groups category was down considerably, due to a number of cancellations. For instance, we had to cancel three groups at the end of April/early May due to the flood. Several other groups cancelled throughout the year for various reasons. We only had two workshops plus Elderhostel last year. I expect that next year will show an increase in use as several new initiatives that are in the planning stages now will be implemented.

The following courses were offered in 1997:

- **Vascular Flora of Manitoba** (1.207)
22 June - 5 July
Instructors: Bruce Ford & Dave Punter
- **Community Ecology** (1.354)
6 - 19 July
Instructor: Norm Kenkel
- **Ornithology** (22.468)
20 July - 2 August
Instructor: Percy Hébert
- **Wetland Ecology** (1.480 L60)
3 - 16 August
Instructors: Gordon Goldsborough & Dale Wrubleski
- **Field Ecology** (1.342 / 22.345)
17 - 30 August
Instructors: Jack Gee & Isobel Waters
- **Landscape Architecture** (31.716)
17-22 August
Instructor(s): Barb Dyck

Table 1. Use statistics for the 1997 calendar year at the field station.

Category	User-days	%
Schools	1,389	27.5
Research	1,027	20.3
Groups	1,032	20.4
Courses	1,080	21.4
Workshops (including Elderhostel)	213	4.2
Miscellaneous visitors	317	6.3
Total	5,058	

We were especially glad to host the Ornithology course, the first such iteration off-campus in many years, since it is a logical one for the station given the abundance of birds here. Regrettably, we were forced to cancel, due to insufficient enrollment, a planned second offering of our course in Diatom Identification, instructed by Dr. Charlie Reimer (Natural Academy of Sciences, Philadelphia) that was well received last year.

Schools that used our facilities in 1997 included the following: Arthur Meighen High School (Portage la Prairie), Baha'I Winter School (Winnipeg), Centre for Indigenous Environmental Resources (Winnipeg), College Louis Riel (Winnipeg), Crescentview School (Portage la Prairie), Dakota Tipi School (Portage la Prairie), Fort Richmond Collegiate (Winnipeg), George V School (Winnipeg), Gladstone Elementary School (Gladstone), Kelvin High School (Winnipeg), La Verendrye School (Portage la Prairie), Lord Selkirk Regional Comprehensive Secondary School (Selkirk), Major Pratt School (Russell), Neepawa Area Collegiate (Neepawa), North Memorial School (Portage la Prairie), Portage Day Care (Portage la Prairie), Prince Charles School (Portage la Prairie), St John's High School (Winnipeg), University of Minnesota at Morris, Vincent Massey High School (Brandon), Westbourne Elementary School (Westbourne), and Yellowquill School (Portage la Prairie).

Workshops and meetings were held by the Canadian Environmental Network (Ottawa), the Central Manitoba Regional Health Authority, Critical Thinking Workshop (UM), Dare to Dream Health Workshop (Winnipeg), the Departments of Economics and Electrical and Computer Engineering (UM), Ducks Unlimited (Oak Hammock), the Environmental Science Program (UM), the Environmental Studies Committee (UM, Brandon University), Faculty of Arts Department Heads (UM), Faculty of Science Department Heads (UM), Faculty of Social Work (UM), Festival du Voyageur (Winnipeg), Friends of the Field Station, Integrated Crop Management Services (Portage la Prairie), International Owl Symposium: 1997, Manitoba Department of Environment, Manitoba Food Development Centre (Portage la Prairie), Manitoba Wildlife Federation, Portage Rotary Club (Portage la Prairie), Royal Winnipeg Rifles (Winnipeg), Trinity United Church Youth Group (Winnipeg), Wildlife Society (Manitoba Chapter), Winnipeg Child and Family Services, Winnipeg Parks and Recreation

There were 22,279 requests to view pages on the field station web site and this under-estimates total usage because the log files in which such requests are recorded only included 294 days of the year. The majority of the requests came from Canada and the United States (Table 2). However, requests were received from 57 unique

Table 2. Origin of requests to view pages on the field station's Internet web site in 1997. The total page count was 22,279 in 294 days for which statistics were available.

	% total pages
Canada (.ca)	39.3
Unknown	20.5
Commercial (.com)	16.3
Network (.net)	10.6
USA education (.edu)	7.1
USA government (.gov)	1.0
Non-profit org (.org)	0.8
United Kingdom (.uk)	0.7
United States (.us)	0.7
Australia (.au)	0.4
Germany (.de)	0.3
Uruguay (.uy)	0.2
Netherlands (.nl)	0.2
Japan (.jp)	0.2
Sweden (.se)	0.2
All others (42 domains)	1.5

Internet domains, including 49 countries. Clearly, the Internet is an effective way to disseminate information to a global audience. The field station's web site is linked to many other wetland-oriented sites, and it is indexed by all major search engines. It was, in fact, a search "hit" to information on our web site that first put us in touch with Nancy Roberts (more below), and I field numerous e-mailed questions from the public as a result of information they have found on our web site. It remains to be seen when (if?) the day will come that our Annual Report will be published solely on the Internet. It would certainly enable us to provide a richer experience for viewers by facilitating our ability to include, at essentially no cost, color photographs, sound, and other media in the Report.

History of the field station

Last year, we undertook a project to collect information on the history of the field station. The first installment was a short biography of Donald H. Bain, whose property eventually became the station. It was a happy coincidence that, in the span of two days in September, two people with first-hand knowledge of Mr. Bain's life visited the station. First, one of Bain's great-nieces (Mrs. Nancy Roberts, now living in Concord, Massachusetts, whose grandmother was Bain's sister) participated in the Fall Elderhostel program and brought several mementos with her. The following day, we were visited by Mr. Donald McPhun of Toronto who, in his early teens, spent two summers at Mallard Lodge. His recollections (for example, the building that we now call the "Barn" was then called the "Driving Shed", a name more representative of its function as a garage for Bain's car collection) were both fascinating and illuminating. Subsequently, Mr. McPhun found a cache of family photos that were taken during his time at Delta Marsh which he permitted us to copy. I hope, over the next few years, to expand greatly our collection of such historical data and reestablish a link with the Bain family so we may learn more about the man to whom we owe a debt of gratitude for his role in the creation of our station.

This year's history installment, written by Jennifer Shay, summarizes the events occurring in the interval between Mr. Bain's death in 1962 and the establishment of the station in 1966. Drawing on her experiences, documents in the station's files, and transcripts of the provincial legislature from those years, Jennifer gives us a fascinating glimpse into the convoluted business dealings and government maneuvering that preceded our founding. My own research on the subject convinces me that some details, particularly on the transfer of property ownership from the Bain estate to the provincial government, remain to be discovered. What I know so far is that, in late February 1965, the leader of the

Table 3. Land originally owned by Donald Bain at Delta Marsh, Portage la Prairie, and Grosse Isle (Grant's Lake) was evaluated for federal estate taxes by his executors, then it was sold to Octave Enterprises Ltd., which sold it to the Province of Manitoba several weeks later. This "scoreboard" of the transactions was published by the *Winnipeg Tribune*, 3 March 1965.

Property	Estate tax Appraisal	Government Appraisal	Option cost to Octave	Government Paid
Grant's Lake (800 acres)	\$8,000		\$10,000	\$45,000
Delta Marsh (2,896 acres)	\$53,850	\$157,310 ¹	\$60,000	\$125,000
Portage la Prairie (219 acres)	\$29,936	\$75,000	\$32,500	\$75,000
Total	\$91,786	\$232,310 ²	\$102,500	\$245,000 ³

¹ Total includes Grant's Lake and Delta Marsh properties. ² Octave's appraisal of all three properties totaled \$379,200.

³ Half of what government paid for properties to be paid by Ottawa.

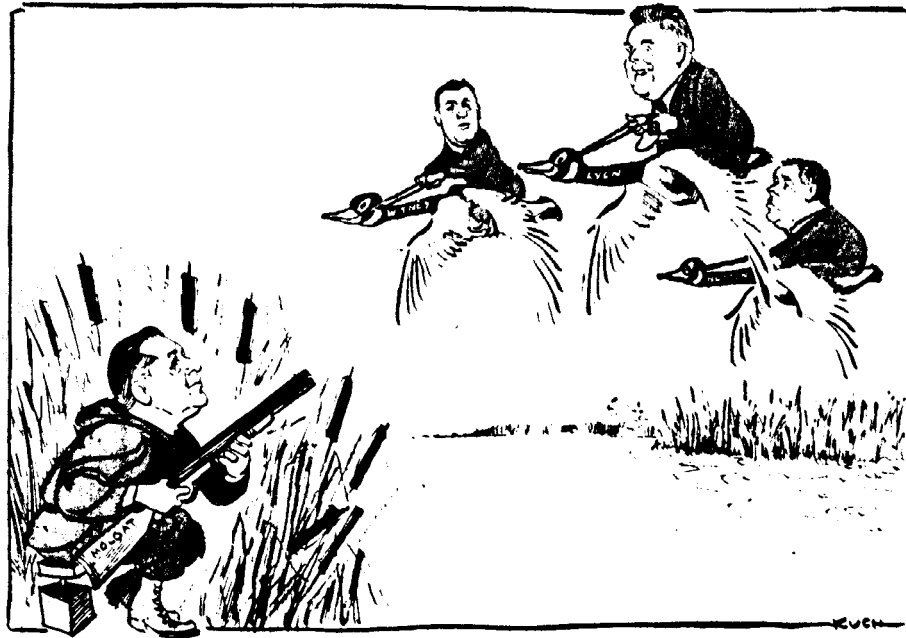


Figure 1. Editorial cartoon from the *Winnipeg Free Press*, Thursday, 25 February 1965, the day after Mr. Molgat, Opposition Leader of the Manitoba Liberal Party, challenged the Conservative government on its acquisition of the Bain property at Delta Marsh. Preprinted with permission of the *Winnipeg Free Press*.

provincial Liberal Party, Gil Molgat, rose in a new session of the Manitoba Legislative to respond to a Throne Speech by the governing Conservatives. In the opening salvo of what Christopher Dafoe, at the time a political reporter for the *Winnipeg Free Press*, dubbed the “Battle of the Swamp”, Mr. Molgat alleged mismanagement of public funds by C. H. Witney, Minister of Health (Minister of Natural Resources until December 1963), Sterling Lyon, Minister of Natural Resources, and George Hutton, Minister of Agriculture. He argued that these three men had been aware that the amount paid by the government to Octave Enterprises Ltd. to buy land formerly owned by Donald Bain was excessively high given that Octave had paid a small fraction of that price to the Bain family only four weeks earlier (Table 3). A political cartoon of the day portrayed Mr. Molgat as a goose hunter (Fig. 1). Mr. Lyon’s rebuttal a few days later listed the creation of a university research station on the marsh as one benefit of the land purchase.

We will probably never know if this reason was hastily conceived damage control to “sell” the transaction to a wary public. However, two points are worth considering. First, a member of the Bain family who was present during a phone call between Albert Smale (Bain estate executor) and the Minister of Natural Resources in 1963 or 1964 recalls that the government was not interested in purchasing the Bain property directly from the estate prior to its dealings with Octave Enterprises. Second, although a proposal to establish a field station at Delta Marsh developed within the University in late 1964, there is no indication that contact had been made with provincial officials until August 1965, six months after the details about the land purchase had been publicized. Was the creation of the field station a way for the government to minimize its embarrassment arising from the controversy? If so, we may owe a tip-of-the-hat to Gil Molgat for his role in instigating it.

Gordon Goldsborough