Editorial

Requiem for a field station: the loss of a Canadian ornithological treasure

Requiem pour une station de recherche : perte d'un trésor ornithologique canadien

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Nestled on the southern shore of Lake Manitoba about 100 km northwest of Winnipeg (Fig. 1, 2), the University of Manitoba's Delta Marsh Field Station (DMFS) had withstood many tribulations since its creation by Dr. Jennifer M. Shay OC in 1966. Many a financial and natural storm had done battle with its relatively small group of academics, staff, students, and friends who created it and supported a vision worthy of its potential over the years. And so, to some degree, when the flood waters lapped at its foundation in the spring and summer of 2011, many of us believed it would similarly endure and emerge once again as it always had. After all, it had apparently only just made it through its greatest battle ever with University of Manitoba administrators who had launched a major effort to close its doors. That initiative was justified by a corporate "bottom-line" argument but was also motivated by ignorance of both the role this station has played in the education of field biologists and ornithologists in general in Canada, its environmental and conservation significance, and of its future potential. Alas, the massive floodwaters brought to its doorstep by the man-made Assiniboine River Diversion proved to be a final justification to bulldoze it to the ground and to end a final chapter in what was an ornithological jewel of national and international significance. Instead of repairing and rebuilding this facility in tribute to its long service and to plan a safer future, it became one more casualty of fiscal restraint and deficit reduction, a victim of an uncaring and disinterested community. The Mission Statement of this field station was "to foster excellence in research and teaching, extend University resources into the community, and promote sound and sensitive environmental stewardship practices." At precisely the time when such values are needed most, we have instead witnessed a draconian and opportunistic end to a proud 44-year record.

We cannot do justice here to the many contributions made to Canadian ornithology by researchers working out of this station. Instead, and for the record, we list the ornithologically related theses and publications that were generated here (Appendix 1, 2) and reflect on other contributions including the 18-year history of the Delta Marsh Bird Observatory that was hosted at the DMFS. This list is a minimum since there are currently papers in review which we have not included here. We acknowledge also the contributions to other, non-ornithological research and teaching and reflect more broadly on the status and fate of similar facilities elsewhere in Canada and North America.

Fig. 1. The University Field Station (Delta Marsh) and the Delta Marsh Bird Observatory was located on the dune ridge forest separating Lake Manitoba from Delta Marsh. Photo credit: Gordon Goldsborough.

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GENERAL PERFORMANCE METRICS

In 2010, sensing the need to defend the record of the Station to the University in light of their enthusiasm to close its doors, former station director Goldsborough summarized the Station's record. The purpose of his report was to review the performance of the DMFS at fulfilling its academic mandate; that is, its support of university teaching and research. Here, we list some of the cogent points raised by Goldsborough.

Fig. 2. View of Murray's, the kitchen facility of the late University Field Station (Delta Marsh). Photo credit: Gordon Goldsborough.

During the 1970s, usage was in the range of 2000 to 4000 user-days annually. (A "user-day" is the standard metric for expression of field station usage, determined by the product of the number of users by their respective number of days of residence.) There was a general increasing trend that continued, with periodic ups and downs, to 2002 when it peaked at about 6500 user-days. There has been a decreasing trend from 2006 to 2009.

University course and school program uses have been varied through the period but were generally highest through the 1990s. Research use was highest in the late 1980s and through the 2000s, but lower in the 1990s. Uses for purposes other than teaching, research, and school programs generally increased through the entire period of record, 1986 to 2008.

Since its founding, the DMFS has provided facilities for students to undertake research towards undergraduate and graduate degrees at the University of Manitoba and other academic institutions. This support has taken the form of room and board, laboratory space, some general research equipment (e.g., boats and motors, drying ovens, power tools, bicycles), data (e.g., meteorological data from the station's real-time climate station, plant and animal specimens), library books, and Internet access. The DMFS facility was therefore integral

to the conduct of thesis research but the thesis documents were products of the academic departments from which the student originate. The vast majority of theses were in the disciplines of biology, botany, ecology, environmental science, and zoology although occasionally theses in other disciplines were completed. In the biological sciences, the major area of focus through the years has been ornithological, due in part of the active support through the years of Sealy and his students, and also from the fact that the Delta Marsh area supports some of the highest abundances in central Canada of migratory songbird taxa. In addition, the close proximity of Lake Manitoba (one of the largest lakes in the world) and Delta Marsh (the second-largest coastal wetland in North America) has meant the DMFS was truly a one-of-a-kind location for research and teaching in aquatic ecology, limnology, and wetland ecology.

The first thesis was published in 1969, three years after the DMFS was founded. Until May 2010, a total of 132 theses were published, or about 3.1 theses per year, with a range of 0 to 7 theses per year. There was a cycle in thesis output with a period of roughly ten years, with three times of highest output: the late 1970s, the late 1980s, and the late 1990s/early 2000s. There also appears to have been a general increasing trend of thesis output through the entire period, from about 2 theses per year in the 1970s to about 3 theses per year in the 2000s.

The first publication appeared in 1967, one year after the facility was founded, and data are current to May 2010. Over this 44-year period, a total of 370 publications were made, or about 8.4 publications per year, with a range of 1 to 20 publications per year.

Thesis and publication output of the Delta Marsh Field Station in the 2000s was generally as high as at any time during the entire period of operation, and except for a reduction in total user-days over the past four years—owing in part to markedly reduced activity by a researcher nearing the end of his career—total annual user days in the 1990s and 2000s has been the highest in the 44-year history of the facility. Thus, there is no basis to believe that use of the DMFS facility for teaching and research was in any long-term decline.

ORNITHOLOGICAL RESEARCH AND MONITORING

The overwhelming majority of ornithological contributions derived from DMFS can be attributed to one of our authors (Sealy) and students. This prodigious output attests to the hard work of Sealy and colleagues but also reflects the amazingly productive nature of this site. The forested dune ridge that separates Lake Manitoba from Delta Marsh provides nesting habitat for numerous species of insectivorous passerines that benefit from the massive emergence of chironomids from the adjacent marsh and lake. This superabundant food supply apparently has resulted in the highest recorded breeding

densities of Yellow Warblers (*Setophaga petechia*), and other passerines, in North America. Such high densities clearly facilitated the nest-based experimental work of Sealy and students on the evolution of host defenses against brood parasitism, an area of Sealy's work that has brought international recognition. Adjacent wetlands also host an impressive array of breeding and staging waterbirds and the Delta Marsh Waterfowl Station—a major facility for research on migratory waterfowl since the 1930s—is located but 6 km to the east. Unfortunately, the fate of that station is also now very uncertain. The DMFS was also used for many ornithological field trips as part of Sealy's undergraduate ornithology class.

The highly productive dune-ridge forest also acts as stopover habitat for thousands of migrating songbirds that in spring put down here after encountering Lake Manitoba. This natural trap facilitated early research by Sealy and students and later led to the establishment of the Delta Marsh Bird Observatory (DMBO) by Hobson in 1992. The DMBO has trained scores of aspiring young biologists since then. In fact, this was where one of the authors (Norris) was first trained to capture and handle birds. Importantly, DMBO has been one of the most productive among those making up the national Canadian Migration Monitoring Network (CMMN) averaging about 7500 captures per year for spring and fall migrants. In a recent ten-year report on population changes of Canadian birds monitored through the CMNN, the DMBO provided enough data to provide minimum sample size requirements for statistical trend analyses for an impressive 177 species (Crewe et al. 2008). Due to the closure of DMFS, the DMBO has ceased operation since 2010.

SYMBOL OF A LARGER PROBLEM

Unlike an academic department at the University of Manitoba, the DMFS had no dedicated faculty members and no academic programs so it had no control over teaching and research activities occurring at its facilities. These activities necessarily wax and wane with changing priorities of the academic departments from which the instructors, students, and researchers arise. A strict comparison of the total output of theses and publications by an academic department to that of the DMFS is difficult to make because there is no way to normalize for differences in respective levels of academic activity. The user-day statistics compiled by the DMFS have no direct counterpart in an academic department, and the FTE statistics for an academic department have no direct counterpart at the DMFS. Having said this, the lengthy lists of theses and publications arising from work at the DMFS (Appendix 1,2), and the extensive cohort of biologists who received training at Delta Marsh, demonstrate the tremendous contributions the station has made over the years. There is no doubt as to the magnitude of the effect its closure will have on Canadian ornithology and conservation. These events and statistics underline the fact that field stations are at a huge

disadvantage when it comes to justifying their existence and can easily fall prey to belt-tightening administrators focused on annual or short-term metrics. This of course is not unique to the DMFS and is a trend becoming all too familiar.

Most readers will now be familiar with threatened closures in Canada of high-profile research sites like the Experimental Lakes Area in northwest Ontario or the Polar Environment Atmospheric Research Laboratory in the High Arctic. Despite the value of the products of these facilities, namely information and data to inform federal government environmental policy relevant to a number of developments, they now struggle to exist. However, other biological field stations felt a financial crunch back in 2009 when the Major Research Facilities Grant Program run by the Natural Sciences and Engineering Research Council of Canada decided it would no longer fund individual field stations unless they could justify their importance on a national scale. This left the vast majority of field stations across Canada scrambling for short-term funding to cover this deficit, as well as the need to develop alternative long-term plans. In the short term, some field stations raised user fees but this strategy has its limits as most fees are paid by academics with limited research budgets. Other field stations quickly developed partnerships. For example, the Wildlife Research Station (WRS) in Algonquin Park, Ontario partnered with the Friends of Algonquin, a long-time non-profit organization that is a key player in delivering a variety of education services to one of Canada's most well-known parks. The partnership helped profile WRS and facilitated tax-deductible donations that could be made directly towards WRS. However, many field stations, although strategically placed in ecologically significant areas, don't have the luxury of developing such partnerships with well-established organizations.

Also in response to the decline in federal funding, the Canadian Field Research Network (CFRNet) was formed in 2010 by a group of academic and administrative field station leaders with the vision of "facilitating and promoting the understanding of Canada's natural legacy in a changing world through field research, training, and outreach" (<http://canadianfieldstations.wikispaces.com>). One of the initial motivations for forming CFRNet was to explore the possibility of developing research projects that could be carried across a network of field stations across Canada, providing leverage for acquiring operational funding that would be deemed of national significance. However, developing research initiatives that span multiple ecosystems and involve many principal investigators is no small task and will take time.

That the closure of DMFS received no national news coverage and scant attention beyond Winnipeg is perhaps not surprising. University avian research and monitoring programs never have been exactly high profile. Moreover, we seem now to be in an era where the emphasis is on quantitative ecological

modeling that can be suitably accomplished by researchers sitting in front of a computer screen rather than collecting the data themselves (Gimenez et al. 2012). Nor perhaps can we ever hope to convince university administrators and deans to begin to understand the value of these sorts of facilities in producing the next generation of field biologists and ornithologists. Field stations are absolutely critical for inspiring undergraduate students and helping them realize their potential in the ecological sciences. One thing is clear, however, and that is that the rapid demolition of DMFS after nearly half a century of service (Fig. 3), without any serious attempt to pursue alternatives is both shocking and shameful. While sleeping, we have lost both a manifestly valuable university research and teaching facility and a jewel in the crown of the Canadian Migration Monitoring Network. Canadian ornithology and conservation is all the poorer for the closing of DMFS and there may very be others to follow if we don't take immediate action.

Fig. 3. The final demolition in progress. Photo credit: Dale Wrubleski.

REQUIEM POUR UNE STATION DE RECHERCHE : PERTE D'UN TRÉSOR ORNITHOLOGIQUE CANADIEN

Nichée sur la rive sud du lac Manitoba à environ 100 km au nord-ouest de Winnipeg (figures 1 et 2), la station de recherche du marais Delta (DMFS; pour Delta Marsh Field Station) de l'Université du Manitoba a surmonté de nombreuses embûches depuis sa création en 1966 par la Dre Jennifer M. Shay O.C. Le groupe relativement modeste d'universitaires, d'employés, d'étudiants et d'amis qui a créé la DMFS et soutenu une vision digne de son potentiel au fil des ans a en effet essuyé beaucoup de tempêtes financières et naturelles. Ainsi, d'une certaine façon, quand les inondations sont venues lécher ses fondations au printemps et à l'été 2011, nombre d'entre nous ont pensé

que la station affronterait cet aléa et émergerait une fois de plus comme elle l'avait toujours fait. Après tout, la station venait apparemment tout juste de survivre à la plus grande bataille de son existence avec les administrateurs de l'Université du Manitoba, qui menaient une campagne musclée pour fermer ses portes. Cette campagne trouvait sa justification dans un argument d'entreprise fondé sur les résultats, mais était aussi motivée par l'ignorance, tant du rôle de la station dans la formation des biologistes et des ornithologues de terrain en général au Canada que de sa valeur environnementale et de protection, et de son potentiel futur. Hélas, les eaux de crue gonflées à ses pieds, amenées par le détournement d'origine anthropique de la rivière Assiniboine, ont offert la justification finale pour passer le bulldozer sur la station et clore le dernier chapitre de ce qui avait été un joyau ornithologique d'importance nationale et internationale. Plutôt que de se faire réparer et reconstruire en hommage aux nombreux services rendus et d'obtenir un avenir plus sécuritaire, cette installation est devenue un cas de plus de restriction budgétaire et de réduction de déficit, victime d'une communauté indifférente. L'énoncé de mission de la DMFS était de « favoriser l'excellence en recherche et en enseignement, prolonger les ressources de l'université dans la communauté et promouvoir des pratiques d'intendance de l'environnement sensées ». Au moment précis où les valeurs de ce type sont les plus nécessaires, nous avons plutôt été témoins de la fin draconienne et opportuniste d'une histoire à succès vieille de 44 ans.

Nous ne pouvons pas rendre ici justice aux nombreuses contributions de cette station à l'ornithologie canadienne. En revanche, et pour les annales, nous listons les thèses et les publications relatives à l'ornithologie qui sont issues de cette station (annexes 1 et 2) et qui ont été à l'origine d'autres contributions, y compris celle de 18 ans avec l'Observatoire d'oiseaux du marais Delta qui avait pignon à la DMFS. Cette liste dresse un minimum de documents puisqu'elle n'inclut pas les articles pertinents actuellement en révision. Nous reconnaissons également les autres apports en recherche et enseignement non issus du milieu ornithologique, qui reflètent davantage l'état et le sort d'installations similaires ailleurs au Canada et en Amérique du Nord.

PARAMÈTRES GÉNÉRAUX DE PERFORMANCE

En 2010, sentant le besoin de défendre le dossier de la station auprès de l'université qui démontrait un enthousiasme certain pour fermer ses portes, Goldsborough, ancien directeur de la DMFS, en fit le résumé. L'objectif de son rapport était de réviser la performance de la station quant à son mandat, c'est-à-dire le soutien à l'enseignement et à la recherche universitaire. Nous énumérons ci-dessous quelques-uns des points convaincants soulevés par Goldsborough.

Durant les années 1970, l'achalandage à la station se situait entre 2 000 et 4 000 usagers-jour annuellement. (Un « usager-

jour » est le paramètre standard pour évaluer l'utilisation d'une station de recherche, déterminée par le produit du nombre d'usagers par leur nombre de jours de résidence respectif.) Il y a eu une tendance générale à la hausse, avec des hauts et des bas périodiques jusqu'en 2002, année à laquelle on a observé un maximum de 6 500 usagers-jour. Une tendance à la baisse a par la suite été observée de 2006 à 2009.

L'utilisation de la station en fonction des cours et des programmes universitaires a été variée pendant la période, mais était généralement à son maximum pendant les années 1990. Son utilisation pour la recherche a été à son apogée à la fin des années 1980 et pendant les années 2000, mais a été moindre dans les années 1990. L'utilisation de la station pour des usages autres que l'enseignement, la recherche ou les programmes scolaires a augmenté durant la totalité de la période de suivi, de 1986 à 2008.

Depuis son inauguration, la DMFS fournissait des installations et équipements aux étudiants qui entreprenaient une recherche en vue d'obtenir un diplôme tant au premier cycle qu'aux cycles supérieurs à l'Université du Manitoba et à d'autres institutions scolaires. En plus du logement et des repas, la station offrait des laboratoires, de l'équipement général de recherche (p. ex. bateaux et moteurs, fourneaux de séchage, outils électriques, bicyclettes), des données (p. ex. données météorologiques provenant de la station climatique en temps réel de la DMFS, spécimens de plantes et d'animaux), des livres de bibliothèque et l'accès Internet. Les installations de la DMFS étaient donc essentielles pour la tenue des recherches relatives aux thèses, mais les thèses demeuraient des produits des départements universitaires auxquels les étudiants étaient rattachés. La majorité des thèses étaient issues des domaines de la biologie, de la botanique, de l'écologie, des sciences environnementales et de la zoologie, mais provenaient parfois aussi d'autres domaines. Dans le domaine des sciences biologiques, la principale discipline au fil des années a été l'ornithologie, en partie en raison des activités de Sealy et de ses étudiants, et aussi du fait que le marais Delta présente des densités de passereaux parmi les plus élevées du centre du Canada. De plus, la proximité du lac Manitoba (un des plus grands au monde) et du marais Delta (le milieu humide côtier au deuxième rang d'importance en Amérique du Nord) confirmaient que la DMFS était réellement située dans un lieu unique pour la recherche et l'enseignement en écologie aquatique, limnologie et écologie des milieux humides.

La première thèse a été publiée en 1969, trois ans après l'inauguration de la DMFS. Jusqu'en mai 2010, 132 thèses ont été publiées, soit 3,1 thèses par année environ, le nombre de thèses allant de 0 à 7 par année. Un cycle de publication de thèses s'est dessiné tous les 10 ans environ, et à trois reprises il y a eu des pointes : à la fin des années 1970, à la fin des années 1980, et à la fin des années 1990-début des années 2000. Il semble également y avoir eu une tendance générale à

la hausse du nombre de thèses durant l'ensemble de la période, passant de deux thèses par an environ dans les années 1970 à trois thèses environ dans les années 2000.

Le premier article a été publié en 1967, un an après l'inauguration de la DMFS, et les dernières données récoltées remontent en mai 2010. Au cours de cette période de 44 ans, 370 articles ont été publiés, soit 8,4 articles par an environ, ce nombre allant de 1 à 20 par an.

Le nombre de thèses et d'articles issus de la DMFS dans les années 2000 a été en général aussi important qu'à n'importe quel autre moment de la période d'opération de la station et, mis à part une réduction du nombre d'usagers-jour dans les quatre dernières années – en partie attribuable à la baisse d'activité d'un chercheur en fin de carrière –, le nombre d'usagers-jour dans les années 1990 et 2000 a été le plus grand dans les 44 années d'existence de la station. Ainsi, il n'y a aucune raison de croire que les installations de la DMFS pour l'enseignement et la recherche subissaient un quelconque déclin d'utilisation à long terme.

RECHERCHE ET SUIVI ORNITHOLOGIQUES

La grande majorité de la contribution ornithologique issue de la DMFS peut être attribuée à un de nos auteurs – le Dr Spencer G. Sealy – et à ses étudiants. Cette activité foisonnante atteste du dur labeur de Sealy et de ses collègues, mais reflète aussi la nature incroyablement productive de ce site. La crête de plage boisée qui sépare le lac Manitoba du marais Delta fournit un habitat de nidification pour de nombreuses espèces de passereaux insectivores qui profitent de l'émergence massive de chironomidés en provenance du lac et du marais adjacents. Cette source de nourriture extrêmement abondante est apparemment à l'origine de la densité de nidification la plus élevée de Parulines jaunes (*Setophaga petechia*) et d'autres passereaux en Amérique du Nord. Ces densités élevées ont clairement facilité le travail expérimental de Sealy et de ses étudiants, qui se servaient des nids pour suivre l'évolution des moyens de défense de l'hôte contre le parasitisme des couvées, un axe de recherche pour lequel Sealy était reconnu internationalement. Les milieux humides à proximité abritent également un assemblage impressionnant d'oiseaux aquatiques nicheurs et migrants, et la station de recherche sur la sauvagine du marais Delta – une installation importante destinée à la recherche sur la sauvagine migratrice depuis 1930 – est située à 6 km environ à l'est. Malheureusement, le sort de cette station est également maintenant très incertain. La DMFS a aussi été utilisée pour de nombreuses sorties ornithologiques sur le terrain dans le cadre du cours d'ornithologie qu'a donné Sealy aux étudiants du premier cycle.

La portion boisée de la crête de plage, très productive, est également utilisée comme habitat de repos pour des milliers de passereaux migrants qui s'y arrêtent au printemps après la traversée du lac Manitoba. Ce « piège » naturel a simplifié

les débuts de recherche par Sealy et ses étudiants et a mené plus tard à l'établissement de l'Observatoire d'oiseaux du marais Delta par Hobson en 1992. L'observatoire a permis de former de nombreux jeunes aspirants biologistes depuis ce temps. En fait, c'est à cet endroit qu'un des coauteurs du présent article, Norris, a appris à capturer et à manipuler les oiseaux pour la première fois. De façon plus importante, l'observatoire du marais Delta a été l'un des observatoires les plus productifs de ceux qui font partie du Réseau canadien de surveillance des migrations, permettant la capture de 7 500 migrateurs environ par année au printemps et à l'automne. Dans un rapport décennal récent faisant état des changements advenus chez les populations d'oiseaux suivies par le réseau, l'observatoire a pu fournir la taille d'échantillon minimum requise pour des analyses de tendance statistiques pour le nombre impressionnant de 177 espèces (Crewe et coll. 2008). En raison de la fermeture de la DMFS, l'observatoire du marais Delta a cessé ses opérations depuis 2010.

SYMBOLE D'UN PROBLÈME PLUS GRAND

Au contraire d'un département de l'Université du Manitoba, la DMFS n'était supervisée par aucun membre de la faculté et n'était pas reliée à un programme scolaire, de sorte qu'elle n'avait pas le contrôle sur les activités d'enseignement ou de recherche qui s'y produisaient. Ces activités fluctuaient donc nécessairement beaucoup en fonction des priorités changeantes des départements desquels les instructeurs, les étudiants et les chercheurs provenaient. Une comparaison stricte du nombre total de thèses et d'articles par département universitaire par rapport à celui de la DMFS est difficile à faire, car il n'existe pas de façon de normaliser les différences du taux d'activité universitaire respectif. Les statistiques d'utilisateurs-jour compilées par la DMFS n'ont pas d'équivalent direct dans un département universitaire, et les statistiques ETP d'un département ne trouvent pas d'équivalent à la station. Cela dit, la très longue liste de thèses et d'articles provenant de travaux réalisés à la DMFS (annexes 1 et 2) et la cohorte considérable de biologistes qui ont reçu de la formation au marais Delta démontrent l'énorme apport de la station au fil des ans. Il n'y a aucun doute sur l'ampleur de l'effet que sa fermeture aura sur l'ornithologie et la conservation au Canada. Ces événements et statistiques soulignent le fait que les stations de recherche sont grandement désavantagées lorsque vient le temps de justifier leur existence et peuvent facilement être victimes des restrictions budgétaires imposées par des administrateurs préoccupés par des paramètres annuels ou à court terme. Cette réalité n'est bien sûr pas le lot de la DMFS uniquement, mais semble plutôt être une tendance devenue trop familière.

La plupart des lecteurs sont maintenant accoutumés aux menaces de fermeture d'installations de recherche de haut niveau au Canada, comme la Région des lacs expérimentaux dans le nord-ouest de l'Ontario ou encore, le Laboratoire de recherche atmosphérique en environnement polaire dans le

Haut-Arctique. Malgré la valeur des produits issus de ces installations, soit l'information et les données servant à renseigner les politiques environnementales du gouvernement fédéral relatives à un grand nombre de projets, ils luttent maintenant pour leur survie. D'autres stations de recherche ont cependant senti venir une crise financière dès 2009 lorsque les responsables du programme de subventions destinées aux installations de recherche majeures, coordonné par le Conseil de recherches en sciences naturelles et en génie du Canada, ont décidé qu'ils ne financeraient plus de stations individuelles à moins qu'elles ne justifient leur importance sur le plan canadien. Cette décision a obligé la grande majorité des stations de recherche au Canada à chercher du financement à court terme pour pallier ce déficit et à élaborer des plans de rechange pour le long terme. Dans le court terme, certaines stations ont augmenté les frais d'utilisation pour les usagers, mais cette stratégie a ses limites puisque la plupart des frais sont payés par les universitaires, dont les budgets de recherche sont limités. D'autres stations de recherche ont rapidement développé des partenariats. Par exemple, la station de recherche sur la faune dans le parc Algonquin, en Ontario, s'est alliée avec The Friends of Algonquin Park, organisation sans but lucratif de longue date et joueur clé dans la prestation d'une variété de services éducatifs à un des parcs les plus connus au Canada. Ce partenariat a aidé à dresser le portrait de cette station de recherche et à faciliter les dons déductibles d'impôt qui ont ainsi pu lui être faits directement. Toutefois, de nombreuses stations de recherche, même si elles sont stratégiquement situées sur des lieux d'une grande importance écologique, n'ont pas le luxe de développer ce genre de partenariat avec des organisations bien établies.

Également en réponse à la diminution du financement fédéral, le Réseau canadien de recherche sur le terrain (RCRT) a été mis sur pied en 2010 par un groupe de dirigeants de stations de recherche, issus des milieux universitaire et administratif; la vision du RCRT est de « faciliter et promouvoir la compréhension de l'héritage naturel canadien dans un monde en changement à travers la recherche sur le terrain, la formation et la vulgarisation » (<http://canadianfieldstations.wikispaces.com>). Une des premières motivations dans la mise sur pied du RCRT a été d'explorer la possibilité d'élaborer des projets de recherche qui pourraient être réalisés dans un réseau de stations de recherche dans l'ensemble du Canada, fournissant l'effet de levier nécessaire pour acquérir le financement opérationnel réservé aux projets d'importance nationale. Toutefois, le développement d'initiatives de recherche qui touchent différents écosystèmes et regroupent de nombreux chercheurs principaux n'est pas une mince tâche et demandera du temps.

Que la fermeture de la DMFS n'ait reçu ni de couverture médiatique nationale ni d'attention au-delà de Winnipeg n'est peut-être pas surprenant. Après tout, les programmes de recherche universitaire et de suivi ornithologique n'ont jamais

vraiment eu la cote. De plus, nous sommes maintenant davantage dans une époque où l'accent est mis sur la modélisation écologique quantitative, qui peut facilement être accomplie par des chercheurs assis devant leur écran plutôt que par des chercheurs devant aller récolter les données eux-mêmes (Gimenez et coll. 2012). De même, comment espérer convaincre les administrateurs et doyens d'universités d'essayer de comprendre la valeur de ce genre d'installations dans la formation de la prochaine génération de biologistes de terrain et d'ornithologues professionnels? Les stations de recherche sont absolument essentielles pour inspirer les étudiants du 2e et 3e cycle et les aider à développer leurs aptitudes dans le domaine de l'écologie. Une chose est certaine toutefois : la démolition rapide de la DMFS après près d'un demi-siècle de service (figure 3), sans aucune recherche sérieuse de solutions de rechange, est à la fois choquante et honteuse. Pendant que nous dormions, nous avons perdu une installation de recherche et d'enseignement universitaire manifestement précieuse et un fleuron du Réseau canadien de surveillance des migrations. L'ornithologie et la conservation canadienne sont les grandes perdantes de la fermeture de la DMFS, et il se peut que d'autres stations suivent si nous n'agissons pas immédiatement.

Responses to this article can be read online at:

<http://www.ace-eco.org/issues/responses.php/553>

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Appendix 1: List of ornithology-related theses arising from use of the DMFS facility (1966-2010)

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