

ENDANGERED SPECIES AND BIODIVERSITY FUND (ESBF)

Final Report: Manitoba Chimney Swift Initiative #2012-02

Executive Summary and Introduction

The grant from the Endangered Species and Biodiversity Fund was used to support the Manitoba Chimney Swift Initiative (MCSI) from May 2012 until September 2013 (two monitoring seasons). Additional funding was sought from two other sources, but neither of the latter requests proved successful.

The stated goals of the project are to:

- Obtain data about chimney swift population trends, breeding success, migration dates, and share findings to complement habitat restoration/species recovery programs.
- Observe the five artificial nest structures to see if they are used by swifts.
- Increase the number of volunteers and quality of site monitoring and increase the number of sites being monitored.
- Gain baseline data about the abundance and distribution of chimney swifts in Manitoba.
- Increase public awareness about swifts.
- Develop a sustainable volunteer-based swift monitoring program.
- Increase the number of sites that are monitored and obtain better/more consistent monitoring data from those sites.
- Ensure that project activities remain consistent with species-recovery efforts.

Project results

- Multiple observations of varied roost and nest sites using "citizen science"
- Recruitment of partners at significant sites on campuses-St Johns Ravenscourt (Winnipeg) and Providence College (Otterburne)
- Consultation with other swift recovery programs in Canada and the United States
- Identification of some "new" sites and investigation of potential "new" roost sites
- Academic paper for *Blue Jay* to come based on numerous observations of a cluster of nest sites in St Adolphe
- Results shared with Manitoba Breeding Bird Atlas, Manitoba Conservation and public
- Participation in 2013 Chimney Swift workshop in Montreal
- Participation in national four day monitoring protocol in 2013
- Liaison with a volunteer regarding design and construction of two new towers in the La Broquerie area

Barriers and Challenges:

The MCSI project is based on "citizen science" and has a critical need for a large pool of monitors. While some new volunteers have come on-stream, some former volunteers have departed. Additional volunteers would have facilitated collection of more frequent monitoring reports from individual sites. It is not clear if the "volunteer fatigue" is related to conflicting demands from other birding projects being performed by potential volunteers (Manitoba Breeding Bird Atlas, Breeding Bird Surveys, commitments to Fort Whyte Alive, etc.). A possible factor in the recruitment of volunteers is the lack of appeal of night-time monitoring at some sites and the negative impact of observing occasionally vacant sites.

Results and Discussion

Activities completed

The main activity of the MCSI project has been “roost hour” and daytime monitoring of sites throughout the province. Monitoring was conducted by the project coordinator and a number of volunteers. The monitoring summary (showing results since 2007) may be seen on our website at http://www.mbchimneyswift.ca/Documents/2013_sites.pdf

So far, the MCSI has investigated a number of sites for Chimney Swift activity. A number of sites have been identified in Winnipeg (80), Portage la Prairie (12), Selkirk (4), Saint Adolphe (5), Otterburne (3), Brandon (2), Vita (2), and Clearwater (2). Individual sites have been identified in Dauphin, La Broquerie, Lac du Bonnet, LaSalle, Lorette, Morden, Pine Falls, Rose Isle, Starbuck, Steinbach, Ste Anne, St Francois-Xavier, St Jean-Baptiste, The Pas, and Whitewater. Five towers have been constructed and monitored by the project, and two more were recently erected by a volunteer and reported to the project.

In general, we have tried to perform observations from each site that was active in the previous year. The number of observations and the quality of detail in monitoring reports varies from site to site.

The MCI project has also involved outreach activities such as the creation and maintenance of a website and blog to provide general information about swifts and provide public links to project results and guidelines. We have also staged “roost hour” Chimney Swift viewing events at Saint Adolphe, and we have had displays at public events such as ‘Breakfast with the Owls’ and the Saint Adolphe Mudfest. We also made two presentations at the 2013 Chimney Swift Research and Conservation Workshop. Discussions were also held with people from the Minnesota Audubon Society and with the Driftwood Wildlife Association regarding the design and placement of artificial towers for Chimney Swifts.

In earlier years, the MCSI project designed and constructed five artificial tower structures for swifts, and two additional “artificial trees” were recently erected by a volunteer. MCSI continues to monitor these artificial towers, and has consulted with Canadian and American researchers about tower designs.

2012 Monitoring highlights:

First swifts reported: May 8 (Portage la Prairie)

Last swifts reported: August 20 (La Broquerie)

“New” active sites found in Clearwater (two sites) and Otterburne (three sites)

59 sites observed

Sites monitored with NO swifts observed: 19

Sites monitored with 1 to 4 swifts observed: 28

Sites monitored with 5 or more swifts observed: 12

6 towers checked

Volunteer reports: approximately 275

Reports from project coordinator: 50

2013 Monitoring highlights:

First swifts reported: May 12 (Saint Adolphe)

Last swifts reported: August 26 (Selkirk)

“New” active sites found in Winnipeg (two sites), Steinbach, Lac du Bonnet*, The Pas*

In Lac du Bonnet and The Pas there are reliable daytime reports of swifts and apparent nearby chimneys for roosting, but we don't yet have documented entries into chimneys.

60 sites observed

Sites monitored with NO swifts observed: 18

Sites monitored with 1 to 4 swifts observed: 19

Sites monitored with 5 or more swifts observed: 13

7 towers checked

Volunteer reports: approximately 300

Reports from project coordinator: 45

Overall project evaluation, conclusion and success:

While the number of observations at various sites is variable, there is no doubt that a huge amount of time was donated by volunteers and the project coordinator performing observations (mostly during the "roost hour" 30 minutes before and after sunset) in the mid-May to late-August period.

Summary of trends

Roost sites: These are a number of sites at which larger (5 or more) numbers of swifts congregate for overnight roosting from time-to-time, but the most consistent and significant Manitoban roost sites are in Selkirk, Dauphin, and Carman. Monitoring of these sites has been relatively frequent, and there is variability in the usage of these roost sites over time. This year witnessed a record peak of swifts (121 on May 31) in the Dauphin chimney, promoting questions about where these "extra" birds came from and where they were going. 2013 witnessed lower than average usage of the "main" site in Carman, but a record high at a "secondary" site. Selkirk saw normal results (peak of 56) in its "main" chimney and much lower than average counts at a secondary chimney. Overall numbers of swifts observed at these roost sites since 2007 seem to be relatively stable.

Nest sites:-- Monitoring of nest sites is inconsistent with some sites having frequent coverage and others having only one or two observations during the season. Additionally, there is anecdotal evidence from reports that swifts occasionally return to their chimneys outside the "roost hour" window from 30 minutes before sunset to 30 minutes after sunset. The latter factor could lead to an unknown number of missed entries and exits, and might mean that an "active" site is recorded as vacant if the observer arrived for the "scheduled" monitoring period and saw nothing. In the words of Carl Sagan, "The absence of evidence is not the evidence of absence."

Saint Adolphe has a cluster of five active "nest" sites, access to the chimneys, and a dedicated and skilled set of observers who have watched the sites consistently over time. This has yielded excellent annual summaries of swift activity (and these may be viewed on our web site in the "resources" area under "other articles" at <http://www.mbcchimneyswift.ca/resources.html>).

There is sufficient detail in the Saint Adolphe data to enable assessment of breeding behavior and success, the impact of specific weather conditions, and even individual swifts switching from one chimney to another. The results show varying amounts of use and breeding success among the five available chimneys over time, but in terms of maximum numbers of swifts observed at Saint Adolphe sites since 2007, usage seems to be stable with variation attributable to weather conditions and insect populations.

As noted, other nest sites have an inconsistent degree of monitoring both in terms of number of visits per season and coverage from year to year. There is variability in chimney use over time (likely due to weather and insect population), but no obvious pattern emerges. Casual interpretation of results suggests that swifts may be switching from one chimney to another nearby one, and occupancy at urban sites seems to change as insect numbers decline. Some monitoring results suggest that swifts are roosting in sites that we have not yet located.

Four day protocol: The national species recovery team proposed a nation-wide four-day observation plan for this year. The hope was to obtain data about swift activity in consistent reporting format from sites from the Maritimes to Manitoba on four specific dates—May 22, May 26, May 30, and June 3. MCSI picked a number of consistently active sites and recruited volunteers to make observations on the designated days. In Manitoba the dates proved early in the season (with no swifts present at some sites until the last day!), weather was generally unseasonable (cool and rainy), and there were some volunteer commitment issues. The Manitoba results may be seen on our website at http://www.mbchimneyswift.ca/Documents/2013_four_days.pdf

Hopefully, there will be more national coordination of monitoring efforts, and perhaps a common database and reporting protocol will emerge. If the national four day program continues and volunteer commitment at sites can be maintained, the program may generate some useful data about population trends at specific sites.

Towers—None of the artificial towers in Manitoba has been used by swifts. The reason for this failure is unclear—possibly it has to do with tower location, some aspect of tower construction, or the abundance of more-attractive “conventional” sites. This negative experience parallels that of other towers erected in Canada. Curiously, artificial towers are successful in nearby Minnesota and other southerly locations, and the reason for the failure of Canadian towers warrants further study.

Search for “new” sites—the project identified some “new” active sites in Winnipeg, Otterburne, Lac du Bonnet, Steinbach, and The Pas (the most northerly site found so far). Some promising locations for roost sites (Winnipeg Point Douglas and in the vicinity of Rose Isle) were checked, but no swift activity was noted. A number of potential nest chimneys in the Winnipeg area were checked with no swifts observed.

Outreach—the MCSI was invited to the Chimney Swift Research and Conservation Workshop in February of 2013. MCSI made presentations on “[Surveys and Results](#)” and “[Status of Artificial Breeding and Roosting Sites](#).” In addition to scheduled presentations, workshops and one-on-one discussions were held about artificial towers and swift monitoring practices.

Project Promotion and Communication Strategy:

Information about the project has been distributed through a variety of means, but the main elements are a website at <http://www.mbchimneyswift.ca/> and a blog at <http://swift-notes.blogspot.ca/>. The website is intended as a long time Internet presence for general information about Chimney Swifts and specific information about the local project and its findings.

- Website (for species information, results, references, best practices guides, etc.)
- “Swift-Notes” blog (for periodic updates during the monitoring season)
- Periodic emails to volunteers, steering committee, members of the species recovery team
- Periodic postings to the ManitobaBirds Yahoo group (about results and activities)
- Article and notices in *Nature Manitoba News*

- CBC Radio interview (spring 2013)
- *Blue Jay* paper based on intensive monitoring of Saint Adolphe sites (upcoming)
- Swift viewing events at Saint Adolphe
- Displays at St Adolphe Mudfest and Lady Gray'l Breakfast
- Two presentations at the 2013 Montreal conference
- Project brochure

Directions for future activity

While the MCSI witnessed the harnessing of a huge amount of volunteer effort, we should reevaluate how best to use our resources. There is a critical need to obtain more consistent data from monitors and have more consistent coverage of sites over time. Additionally, we should improve our database to facilitate collection, interpretation, and sharing of data. The existing Excel database makes it problematic to quantify volunteer effort and perform comparisons of swift activity at sites from one year to the next. The manifold benefits of a national database were discussed at the recent Montreal conference, and it would be useful if such a database could be developed with existing and future data moved into it. Improvements to the collection and recording of data would help all swift programs.

The Saint Adolphe example of monitoring five sites in close proximity with a multitude of observations with sufficient monitors to watch all sites simultaneously has produced excellent reports and enabled analysis of CHSW behavior. We lack the resources to cover all known sites as well as the Saint Adolphe and roost sites are covered. Should we then concentrate on detailed, consistent coverage of selected sites or continue to accept minimal “occupancy/non-occupancy” data from some sites? This “quality vs. quantity” issue cries out to be resolved if Chimney Swift population trends and behavior are to be reliability assessed.

Within the context of the allocation of limited resources, we should also evaluate how much time should be spent trying to locate “new” sites and how much emphasis should be placed on the erection of artificial towers.

Describe how the project contributed to one or more objectives of the ESBF

The MCSI project has supported the objectives of the ESBF by monitoring a threatened species at sites throughout Manitoba, adding data about the distribution and abundance of the species, and the MCSI has shared its data and best practices with the Manitoba Conservation Data Centre and other interested parties.

SECTION B: ESBF Financial Reporting

FINAL REPORT MCSI

Manitoba Chimney Swift Initiative		File Number 2012-02
Contact & Title: Frank Machovec, Project Coordinator	Grant Recipient: Nature Manitoba	Phone: 204-798-6275 Email: mbchimneyswift@gmail.com
Reporting Period From: May 1, 2012 To: September 10, 2013		

The entire ESBF grant allocation of \$9000 has been spent, and \$1250 of additional expenses were covered by "in kind" donations or cash donations. If the in-kind volunteers "costs" are considered, the project is significantly under budget. On a cash basis with ESBF funds, the project is on budget.

Note: The ESBF grant was initially intended for the 2012 season (with other funding to be arranged for 2013), but was used to cover two seasons. Overall "cash" costs are within the ESBF grant allocation, but the relative distribution of "categories of expense" varies from the proposed budget. Anticipated grants from other providers were not received, and project costs were trimmed to compensate.

Note: In-kind contributions such as volunteer monitoring time and costs for two towers were significantly higher than budgeted. The steering committee did not wish to publish an updated project brochure (and supplies of the old one remain), so "budgeted" in-kind publications support from Manitoba Hydro was not received.

We respectfully request the release of the \$900 holdback funds.

We wish to thank Manitoba Conservation and Nature Manitoba for your generous support, and we would like to thank the group of dedicated volunteers.

Should additional information about the project be required, please contact me.

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