

MANITOBA CHIMNEY SWIFT INITIATIVE (MCSI) – ST. ADOLPHE 2010 SUMMARY

The community of St. Adolphe continued to support the Manitoba Chimney Swift Initiative (MCSI) program during 2010, which was the fourth consecutive monitoring season. In July, we wished Fr. G. Michaud the best for his retirement and thanked him for his devotion to the avian flock that he ministered. Fr. D. Lafleur was welcomed and shown the Paroisse St. Adolphe Church chimney where his “other” parishioners roost. Also, S. and A. Leclerc, President M. Lagasse on behalf of Club Amical, and H. Brodeur, kindly devoted their chimneys to the nesting Chimney Swifts. The inspection of chimney cleanout trap contents was assisted by S. Leclerc, H. Brodeur, and A. Lagasse. The RM of Ritchot, particularly B. Stefaniuk and M. Leclaire, generously facilitated the relocation of the artificial tower from the municipal ferry site to the Church grounds. Thanks are extended to the Paroisse St. Adolphe Board of Directors for approving the new location and to H. Brodeur and A. Lagasse for selecting the site. The capable site preparation, relocation, and tower leveling/landscape crew included P. Dumont, F. Hnytka, D. Ross, L. Rouire, R. Stewart, and L. Verhaeghe. Much appreciated monitoring assistance was provided by A. Lagasse, L. Cocks, R. Cocks, J. Machovec, F. Machovec, G. Ogilvie, J. Ogilvie, and R. Stewart. R. Pereira’s Manitoba Maple provided nest material for the Main St. Chimney Swifts and welcomed shade for the monitor. Bill Anderson provided the masonry expertise for the Main St. chimney repairs and the Church Site Tower brickwork.

St. Adolphe may be regarded as the “Chimney Swift nesting capital of Manitoba” as the highest known concentration of active nest sites occurs in this town. The colonizing trend of 2009 continued in 2010 and for the second year in a row, breeding pairs of adults occupied all 5 known nest sites. These sites include the Southeast (SE) and Northeast (NE) chimneys on Le Club Amical, and the chimneys in the former Brodeur Bros. dealership (closed Dec. 2009), the Paroisse St. Adolphe Catholic Church, and a private Main St. residence.

Chimney observations followed the same protocol whether made during the day or at the roosting hour. Recording the entry or exit time of a Chimney Swift yields two intervals: a) between-visit interval (exit to entry) and b) duration in the chimney (entry to exit), also known as the turnaround time. Additional observations included: direction of flight toward/away from the chimney; the characteristics of entry: speed, orientation, number of attempts required to enter; whether the chimney swifts were vocal or quiet; and the group size of approaching or departing chimney swifts. Trailing wing edges were observed on some occasions and notches/discontinuities indicated moulting in adults. Juvenile swifts had wing edges that were complete/continuous.

In 2010, 253 hours of observations were made at the 5 nest chimneys (Table 1). Due to the considerable transportation challenges with closures of the Pierre Delorme Bridge and Courchaine Rd, observations were primarily multi-site daytime monitoring events. Observations spanned all phases of the Chimney Swifts’ time spent in St. Adolphe: arrival; nest building; incubation of eggs (18-21 days); feeding and brooding juveniles

from hatching to 6-7 days of age; feeding non-brooded juveniles aged 6-7 to 28-30 days old; fledging of juveniles from the chimney; pre-migratory grouping; end of season southern migration. Nesting time-line information is based on studies in Texas (Kyle, G. Z., and P. D. Kyle. 2005. Chimney Swifts. America's Mysterious Birds Above the Fireplace. Texas A & M University, College Station. ISBN 1-58544-371-9).

The Chimney Swifts were first seen in St. Adolphe on May 15 (S. Leclerc, pers. comm.) and a single bird roosted in the Church that night. Nest building by breeding pairs was underway at the Church and NE Club Amical on May 19; at Main St. on May 22; and at Brodeur Bros. on June 1. By May 20, the newly arrived SE Club Amical pair left the chimney after a day of use, however, a pair re-established nest building on June 20. For the first time, a roving helper bird was present in St. Adolphe and it moved between various nest sites at different times during the breeding season.

Overall nesting success was 33% (2 of 6 nesting attempts) for 2010 (Table 1). Juveniles fledged successfully from the Church (1 juvenile) on July 28 and Brodeur Bros. (2 juveniles) on Aug. 16. Not only was this the first recorded success at Brodeur Bros., but it set a new record for the latest known fledging date in St. Adolphe.

Cleanout trap contents in the Brodeur Bros. and Main St. chimneys were inspected to determine the cause of mortality and nest failure. The other 3 sites do not have accessible cleanout traps so only behaviour observations can be used to determine the stage of nesting that failure occurred at. Overall, mortality of Chimney Swifts (eggs – juveniles) occurred in 4 of 5 chimneys due to a variety of factors:

- UNHATCHED EGG. One egg from Main St. did not hatch successfully; a beak was seen to be protruding from the shell. This is the primary cause of death but the egg had also fallen out of the nest.
- EGG FALLING FROM NEST. Broken egg pieces in Brodeur Bros. indicate 1 egg rolled out of the nest and broke; the pieces were not the typical ½ shells created by successfully emerging young.
- YOUNG JUVENILE FALLING FROM NEST. Four juveniles approximately 5 days of age were in the Main St. cleanout trap but no nest was evident.
- OLDER JUVENILE MORTALITY. One juvenile ~20 days old was identified in the debris of the Brodeur Bros. cleanout trap. The juvenile was fully feathered but did not have as large a wingspan as an adult. This bird may not have successfully transferred from the nest to the wall of the chimney. Alternately, the adults may not have been able to provide enough food to support all the juveniles in the brood.
- UNKNOWN CAUSE OF NEST FAILURE. Observations of the adult birds entry/exit patterns determined that 3 nesting attempts failed at different stages: A) feeding ~3 day old juveniles at the NE Club Amical, July 10; B) incubating a second set of eggs at NE Club Amical on August 2; C) feeding ~ 4 day old juveniles at SE Club Amical, August 2.

Generally, adult Chimney Swifts roost at night in their nest chimney. Thereafter, adults may change their location of roosting if a nest fails or shortly after juveniles fledge. In August, the gregarious birds relocate among the St. Adolphe chimneys in preparation for migration. Once the known local population of adults + juveniles is exceeded by the total number of roosting birds at all sites, migrants have arrived in St. Adolphe.

The 2010 season started with 11 adult Chimney Swifts in St. Adolphe: 5 breeding pairs plus a roving helper. Some exchange of adult birds, between chimneys for nighttime roosting, occurred early in the breeding season until most of the pairs of breeding birds were incubating eggs. The local population increased to 14 with the successful fledging of 3 juveniles. The peak number of 17 Chimney Swifts occurred between August 16 - 18 and included migrants. As in 2008 and 2009, the largest number of roosting Chimney Swifts was observed at the Church in mid-August. However, the maximum count of 9 birds roosting at the Church was less than that of previous years due to the overlap of migration with the late-fledging at Brodeur Bros. The Brodeur Bros. family group, plus a helper, roosted at their natal nest site until migration was underway. The last Chimney Swifts observed in St. Adolphe were at the Church (2 birds) and Brodeur Bros. (3 birds) on August 27. When the chimneys were checked again on September 4, no Chimney Swifts were seen.

MCSI sponsored the repair of the Main St. chimney to protect this critical habitat for future generations of Chimney Swifts. The refurbishments made by mason Bill Anderson to this chimney, and to the Church chimney in the fall of 2009, were accepted by the Chimney Swifts – they repeatedly entered the chimneys without hesitation.

An exciting event took place on Oct. 20, when the Ferry Site Tower was relocated to a new pad on the Church grounds. Despite strong winds and a challenging centre of balance, the 12' tower arrived at its new destination without any damage. This is the only relocation of a Chimney Swift tower in Manitoba and probably in Canada. A rain shield will be installed in May, 2011 to prevent interior soaking during intense summer storms, which are becoming more frequent. We hope that the presence of nearby trees which are ideal for nest building, open fields that are well suited for low flying fledglings, abundant insects in the area, and the absence of wires/towers etc. that may interfere with entries and exits, will make the Church Site Tower an attractive nesting or roosting site to the returning Chimney Swifts.

Goals for the 2011 Chimney Swift observation season include monitoring the 5 St. Adolphe nest chimneys and the Church Site Tower to document how the birds are continuing with re-colonization. Continued work with the community will raise the profile of this threatened species and hopefully, our conservation efforts will support the growth of the Chimney Swift population in St. Adolphe.

The MCSI website <http://www.manitobanature.ca/CHSW.html> has links for a brochure and a paper published in *Blue Jay* which summarizes 2007-2009 data for St. Adolphe.

TABLE 1. SUMMARY OF CHIMNEY SWIFT USE OF 5 NEST CHIMNEYS IN ST. ADOLPHE, MB, 2010. THE INFORMATION IS BASED ON 253 HOURS OF OBSERVATION.

CHIMNEY	FIRST DATE USED	LAST DATE USED	OUTCOME OF NESTING ATTEMPT	MAX. NO. OF SWIFTS	NO. DAY OBS. MADE	NO. ROOST OBS. MADE
SE CLUB AMICAL	a. May 16 b. June 20	a. May 17-19 b. July 31-Aug. 2 day; Aug. 3 – 16 roost	a. no nest attempt b. nest failed feeding young ~4 days of age; Aug. 2	3 = 2 adults + helper	46	11
NE CLUB AMICAL	May 16	Aug. 5-16 day; Aug. 16 – 26 roost	1 st nest attempt failed feeding young ~ 3 days of age; July 10 2 nd nest attempt failed incubating eggs; Aug. 2	3 = adult pair + 1 other at time of pre-mig. local resdist.	46	11
BRODEUR BROS.	May 21	Aug. 25 day; Aug. 27 – Sept. 4 roost	Fledged 2 juveniles, Aug. 16, Day 32 of feeding; plus 1 broken egg + 1 dead juvenile ~20 days of age in cleanout, no nest	5 = 2 adults, 2 juv., 1 helper arr. prior to fledging	72	11
CHURCH	May 15	Aug. 7 day; Aug. 27- Sept. 4 roost	Fledged 1 juvenile, July 28, ~Day 28 of feeding. Helper bird at chimney June-August	9 = 2 adults, 1 juv., 1 roving helper + locals + migrants	68	13
MAIN ST	May 21	July 10 day; July 31 n=1 roost; no further obs.	Nest failed with 1 unhatched egg + 4 juveniles ~ 5 days of age falling out of nest; July 8	2 adults	32	4

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