

Bird Studies Canada
Annual Report for Nova Scotia Habitat Conservation Fund 2018-2019

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Project Title: *Strengthening Landowner Stewardship of Aerial Insectivores (Year III)*

Background

Aerial insectivores (swifts, swallows, flycatchers and nightjars) are declining more rapidly than any other bird group in Canada¹. Their dependence on human-influenced habitat for foraging and nesting provides a unique opportunity to engage the public as citizen scientists and environmental stewards. Through this project, Bird Studies Canada worked with Nova Scotian landowners to address threats and expand the network of aerial insectivore stewards and citizen scientists across NS. Specifically, this project took place in communities hosting significant populations of roosting and nesting Chimney Swifts, including Bear River, Caledonia, Falmouth, Oxford, Mabou, Middleton, New Glasgow, Truro, Weymouth, and Wolfville. Additional surveys (comprising landowner questionnaires and barn assessments) took place in areas of Nova Scotia with high prevalence of aerial insectivore species (identified using data from SwiftWatch, NestWatch, Breeding Bird Surveys and the Maritimes Breeding Bird Atlas)

Bird Studies Canada acknowledges the support of the Nova Scotia Habitat Conservation Fund (contributions from hunters and trappers) for supporting this ongoing project.

Project goal

The goal of this project was to address threats to declining aerial insectivores (specifically Chimney Swift, Barn Swallow, Tree Swallow, and Cliff Swallow) by (1) increasing awareness of aerial insectivore threats and habitat requirements among key stakeholder groups; (2) promoting stewardship and restoration of breeding and foraging habitat for these species on private land; and (3) engaging the agricultural community to improve outreach and encourage stewardship practices. We targeted

¹ State of Canada's Birds, 2012

landowners and community members in communities that have the greatest capacity to impact aerial insectivores and their habitats; and aimed to engage agricultural associations/federations which have the potential to reach a broader community and establish longer-term stewardship potential. As landowner outreach on private land is currently conducted by various groups for multiple species at risk in NS, BSC collaborated with these groups to track our respective outreach activities and coordinate the information and resources provided to landowners.

Outline of the work completed and results:

This project addressed threats to the target species' habitats by (1) identifying appropriate habitat for swifts and swallows through Landowner Questionnaire and Property surveys (developed and piloted in 2015 and 2016); (2) providing species-specific information, habitat stewardship advice and "bird-friendly property" signage to landowners; and (3) engaging the general public in reporting and monitoring these species.

To monitor regional Chimney Swift population trends, we coordinated a network of SwiftWatch volunteers to participate in National Roost Monitoring surveys (in conjunction with similar monitoring programs across Canada) and held multiple outreach events in communities hosting large roost sites to raise awareness of Chimney Swift biology, threats, population status and ways that Nova Scotians can help protect this species. We also surveyed known nest sites for presence of breeding swifts, and investigated factors that influence nest site selection using temperature data loggers inside chimneys.

2018-2019 Project activities, objectives, and achievements

Activities	Outcomes	Achievements
<p>Conduct targeted outreach through "Swift Night Out" community events and presentations to local clubs, schools, and town councils in communities with roosts.</p>	<ul style="list-style-type: none"> - Increased public awareness of Chimney Swift and swallow biology, threats, and how to identify and protect target species - Broad participation in stewardship and monitoring activities - Increased reporting of swifts and swallows 	<ul style="list-style-type: none"> -Presented and hosted booth at Citizen Science Expo in Kentville, NS
<p>Coordinate Chimney Swift nest/roost site searches by volunteers through "Swift Walks" in communities with known roosts; coordinate surveys of schools in AVRSB to identify swift-occupied chimneys</p>	<ul style="list-style-type: none"> - Volunteers engaged in nest searching - New nest sites identified and material provided to landowners - Long term protection of nest sites - Landowners engaged as citizen scientists and environmental stewards - Fill knowledge gaps related- Identification of threats to roost chimneys before they arise 	<ul style="list-style-type: none"> --BSC and partners hosted Swift Walks and presentations in Bridgetown, Yarmouth -10 active CHSW nests found -3 active CHSW roosts found, including large roost at former Bridgetown Regional High School - Contacted owners/managers of nest and roost sites to inform them about Chimney Swifts, answer questions, provide stewardship advice and resources, and gain more information about site history.
<p>Coordinate standardized volunteer-based surveys at known roosting sites following the national monitoring protocol</p>	<ul style="list-style-type: none"> - Fill knowledge gaps related to population dynamics through tracking regional and national trends - Volunteers engaged in conducting citizen science and Chimney Swift conservation - Threats to roost chimneys identified and addressed before sites are damaged or lost 	<ul style="list-style-type: none"> - 49 volunteers submitted 197 roost and nest observations - 10 of 10 roosts monitored on synchronized roost counts
<p>Promote Reporting of Aerial Insectivores via website through announcements on listservs, social media, newsletters, prior to migration and during migration/breeding; updates on social media; and TV or radio interviews</p>	<ul style="list-style-type: none"> - Increased usage of website to report aerial insectivore sightings and submit monitoring data -Visitors to website learn about threats, how to monitor and protect aerial insectivores - Standardized data collection, submission and sharing of results 	<ul style="list-style-type: none"> -5,970 unique page views on Aerial Insectivore website (birdscanada.org/volunteer/ai), 6,484 unique page views on NatureCounts data entry portal for aerial insectivores (Naturecounts/ai) between April 1, 2018 and March 31, 2019. -Press coverage included 2 media articles (CBC.ca, Annapolis Valley Spectator), 50+ posts on Facebook, Twitter, and listservs for nature groups in Maritimes, article in Bird Studies Canada's quarterly magazine, BirdWatch

		Canada, and 3 articles in Latest News e-newsletter (53,000 subscribers).
Design and distribute map of Chimney Swift roosts to Visitor Information Centres (with permission of landowners) to highlight these sites as ecotourism destinations; include distribute copy of SwiftWatch brochure (already designed/printed) with map	<ul style="list-style-type: none"> -Increased awareness/appreciation of Chimney Swifts and recognition of the importance of roost chimneys for swift conservation -Recognition of landowners as stewards of these valuable sites 	N/A (insufficient matching funding)
Strengthen stewardship relationships and implement stewardship agreements /signage (signs developed in 2017-2018); Encourage and Engage Landowners as Citizen Scientists and encourage Project Nestwatch	<ul style="list-style-type: none"> -Follow up with existing landowners to continue to support best practices -Improved securement of important aerial insectivore nest and roost sties through “partners in stewardship” signage and non-binding stewardship agreements - Landowners informed of the presence of aerial insectivores on their properties -Landowners interested in document breeding success of aerial insectivores, are equipped with information/resources for monitoring nesting birds through Project NestWatch -Ability to engage landowners as citizen scientists and environmental stewards by identifying and addressing barriers to stewardship, providing “best management practices” advice, and information and resources for monitoring nesting birds through Project NestWatch 	- Swift and Swallow-friendly Property signs provided to 15 landowners across NS, as well as stewardship advice and Project NestWatch materials
Engage Agricultural Community in communicating Aerial Insectivore stewardship and conservation messages	<ul style="list-style-type: none"> -Improved knowledge of aerial insectivores and other farmland birds among key land stewards (agricultural producers and leadership organizations) in Nova Scotia -Integration of current aerial insectivore conservation messaging into industry-led environmental initiatives (Environmental Farm Plan, Agricultural Biodiversity Conservation Farm Plan, BioLOG) and on individual agricultural operations 	N/A (insufficient matching funding)

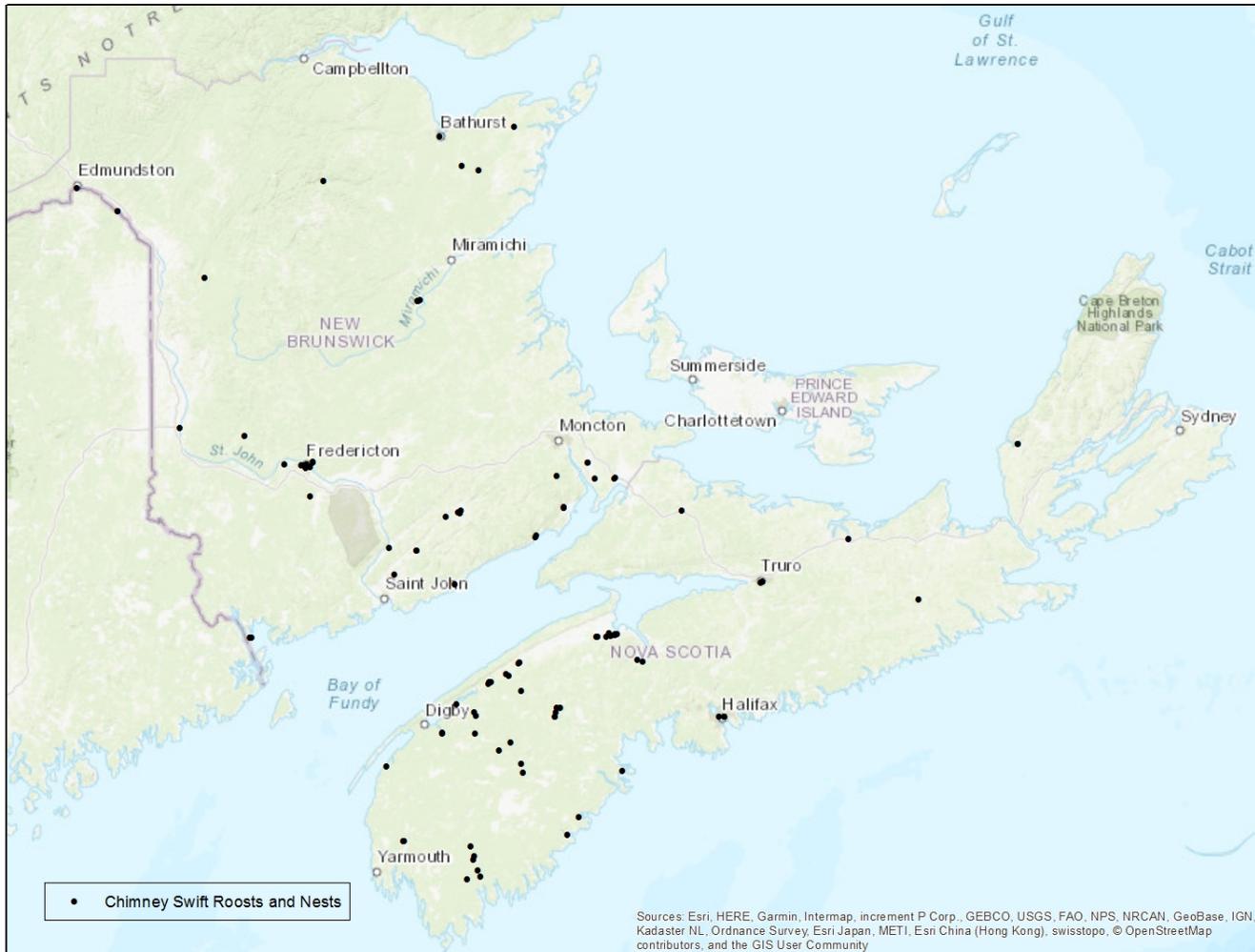


Figure 1. Map of Chimney Swift roost and nest sites in NS. Landowners of newly-identified swift-occupied chimneys were contacted to notify them of the presence of Chimney Swifts and provided with stewardship advice. Landowners or stewards of known Chimney Swift sites were contacted to confirm nesting/roosting in 2018.



**BIRD STUDIES
ÉTUDES D'OISEAUX CANADA**

MARITIMES SWIFTWATCH

Chimney Swifts are in the Maritimes from May to September.

To keep swifts safe:

- Clean or repair chimney after September or before May
- Close fireplace damper during spring and summer
- Report your Chimney Swift sightings: your observations make a difference!

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**BIRD STUDIES
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SUIVI DU MARTINET DANS LES MARITIMES

Les Martinets ramoneurs sont présents dans les Maritimes de mai à septembre.

Quelques conseils pour les protéger :

- Effectuez le ramonage et la réparation des cheminées d'octobre à avril
- Fermez les registres de foyers au printemps et en été
- Signalez la présence de Martinets ramoneurs : vos observations contribuent à leur conservation!

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SWALLOW-FRIENDLY PROPERTY

Swallows are in the Maritimes from April to September.

To keep swallows safe:

- Keep barn and shed doors or windows open for swallows from April to September
- Maintain a source of mud for nest-building
- Leave old nests for swallows to reuse next year
- Supply nest boxes or shelves if appropriate

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Send us your sightings and observations!

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CETTE PROPRIÉTÉ ABRITE DES HIRONDELLES

Les hirondelles sont présentes dans les Maritimes d'avril à septembre.

Quelques conseils pour les protéger :

- D'avril à septembre, laissez les portes et les fenêtres de votre grange ou de votre remise ouvertes pour les hirondelles
- Conservez une source de boue pour la nidification
- Laissez les nids intacts pour l'année suivante
- Installez des nichoirs aux endroits appropriés

**BIRD STUDIES
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Signalez vos observations!

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Figure 2. Postcard-sized fridge magnets were provided to landowners, event participants and volunteers as a prompt to follow swift- and swallow-friendly property maintenance guidelines and report observations Bird Studies Canada.

SWIFT-FRIENDLY PROPERTY



This property is recognized
for providing important nesting
and roosting habitat for the
Chimney Swift, a rare and
threatened bird.

LEARN MORE AND PARTICIPATE

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CETTE PROPRIÉTÉ ABRITE DES MARTINETS



Cette propriété est un site
important de nidification et de
repos pour le **Martinet ramoneur**,
un oiseau rare et menacé.

POUR EN SAVOIR PLUS ET PARTICIPER :

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SWALLOW FRIENDLY PROPERTY

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ÉTUDES D'OISEAUX

This property is recognized for providing important feeding and nesting habitat for **swallows**, a threatened group of birds.

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 NS Wildlife Trust Fund Fonds en fiducie pour la faune de Nouvelle-Écosse

CETTE PROPRIÉTÉ ABRITE DES HIRONDELLES

BIRD STUDIES CANADA
ÉTUDES D'OISEAUX

Cette propriété est un site important de nidification et d'alimentation pour les **hirondelles**, dont plusieurs espèces sont menacées.

POUR EN SAVOIR PLUS ET PARTICIPER :
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Figure 3. Durable aluminium signs measuring 8.5" x 11" were provided to landowners hosting Chimney Swifts and those hosting Barn, Tree and/or Cliff Swallows to install in highly-visible areas to recognize their stewardship contributions and raise awareness of swifts and swallows in their surrounding communities.

Recommendations for follow-up steps to the project

This is an ongoing project for which we have a long-term commitment. We plan on following up this project with continued outreach and stewardship for aerial insectivores, including annual Swiftwatch Roost Counts and support for Chimney Swift hosts; promotion and continued use of our Aerial Insectivore data portal and Project Nestwatch; searching for new Chimney swift nests and better outreach/stewardship for individual nesting chimneys; strengthening our relationships with rural landowners in agricultural areas where swallows occur; and working with agricultural associations to improve the flow of stewardship information to farmers and understanding barriers to conservation for swallows on agricultural lands.