

# Habitat Conservation Fund 2023 Approved Projects

## NOVA SCOTIA HABITAT CONSERVATION FUND

Contributions from Hunters and Trappers

### **Chimney Swift Nest and Roost Surveying and Stewardship in Nova Scotia**

Birds Canada

**Awarded: \$14,813**

Our project aims to expand and improve stewardship at new Chimney Swift roost and nest sites in rural and urban communities in Nova Scotia where this species at risk has been under-surveyed. Staff will search and document new sites, using these discoveries to increase community awareness, and open conversations with municipalities and school boards on how they can help conserve Chimney Swift sites through partnership and outreach with Birds Canada.

### **Monitoring of mercury speciation and nutrient export from a bog habitat impacted by herring guano and water table restoration on Brier Island, Digby County, Nova Scotia**

Acadia University

**Awarded: \$24,000**

Mercury (Hg) is a toxic contaminant that accumulates in ecosystems, affecting the health of wildlife and degrading habitat quality in Nova Scotia. Our previous research over a 4-year period indicates that the concentration of methyl mercury (MeHg) in the northern outflow has fluctuated on a seasonal cycle post-restoration and the literature suggests increases may continue over a three to nine-year time span. This research provides fundamental information critical to the recovery and maintenance of a recently restored bog ecosystem that is impacted by thousands of resident herring gulls feeding at mink farms in south-central Nova Scotia.

### **Geographic distribution, prevalence, and intensity of brain nematodes in Nova Scotia deer**

Acadia University

**Awarded: \$15,000**

Brain nematodes are generally benign in white-tailed deer, but often fatal in moose. The prevalence and distribution of brain nematodes has not been evaluated in Nova Scotia for decades, and a lot has changed since then (e.g., climate). One reason mainland moose are endangered may be because of

brain nematodes. Thus, one starting point for managing moose populations includes quantifying prevalence and intensity of brain nematodes in deer and mapping hot spots. We are concomitantly relating brain nematode data to mercury burdens and COVID.

#### **Private Woodland Prioritization and Outreach in Mi'kma'ki**

Nova Scotia Working Woodlands Trust

**Awarded: \$18,654**

This project will expand the Kespukwik trialed fine-scale analyses of private land prioritization and landscape connectivity tool to a province-wide model, with additional Critical Habitat data by April 1, 2023. The Forest Value Index (FVI) spatially models priority parcels and preserves key attributes for landscape connectivity. The tool will be used by the NSWWT and shared with partner land trusts and conservation partners for outreach, assessment, and securement.

#### **Assessing fisher demographics and harvest trends in Nova Scotia: should we start a bag limit?**

Acadia University

**Awarded: \$11,250**

Trappers in Nova Scotia currently catch fishers as “incidental take” when setting traps for other furbearers. However, there is a push from trappers to consider setting a targeted bag limit for fishers. NS DNRR has been acquiring carcasses from harvested fishers for 10+ years, and has annual harvest statistics. This project seeks to use those data to examine age and demographics in fishers and trends over 10 years, to inform management decisions on a bag limit.

#### **Waterfowl productivity and habitat enhancement at Belleisle Marsh**

Acadia University

**Awarded: \$9,000**

In 1992, wetlands were created at Belleisle Marsh for waterfowl and other wildlife. Wildlife managers and researchers have noticed a decline in productivity of managed wetlands of Atlantic Canada a few years after creation. We will build on previous monitoring at Belleisle Marsh by comparing bird productivity and habitat variables in several wetlands, and identifying ecological indicators of wetland habitat quality, particularly for waterfowl species.

#### **Impact of clearcut logging and substrate acidification on lichen communities in NS**

Saint Mary's University

**Awarded: \$13,488**

This project will clarify the extent and severity of edge influence from clearcut logging on lichen communities of adjacent forested wetlands, and thereby help forest managers to define buffer zones that reduce the impacts of clearcut logging on arboreal lichen communities. It will also clarify the role of interactions between logging, acid pollution, and other threats, and test applied recovery actions.

#### **Wetland Conservation and Outreach- Connecting Policy and Community**

Ducks Unlimited Canada

**Awarded: \$15,375**

DUC's Conservation and Outreach Program benefits wildlife habitat, specifically wetlands, through land stewardship and public education. The Treasured Wetlands of Nova Scotia program works with landowners, municipalities, First Nations, and other stakeholders to

highlight important wetlands and this year will focus on connecting the public with the Wetland Conservation Policy through events and Wetland Field Trips for elementary students.

### **Reptiles at Risk: Conservation of the Snapping Turtle and Eastern Ribbonsnake**

Coastal Action

**Awarded: \$11,250**

The Reptiles at Risk project will expand on current efforts to conduct research, educate and engage stakeholders in the conservation of two at-risk reptile species, the Common Snapping Turtle (*Chelydra serpentina*) and Eastern Ribbonsnake (*Thamnophis sauritus*) within Kespukwitek. It will reduce threats by contributing to recovery actions while building on efforts and lessons learned from previous years to maximize the impact of project activities.

### **Shorebird Engagement Project (SEP): Reducing Disturbance by Boosting Social Engagement**

Birds Canada

**Awarded: \$13,927**

The project is proposed as a sub-component of Birds Canada's Space to Roost Program. Using social engagement strategies (e.g., local festival, local engagement, social media), this proposed Shorebird Engagement Project will go beyond the work done in the field and within the boundaries of local roosting beaches, to engage the wider community and broaden understanding for stewardship practices for migrating shorebirds in the Minas basin and beyond.

### **Protecting Bank Swallows in Nova Scotia: Documenting Colonies and Habitats**

Birds Canada

**Awarded: \$14,590**

Bank Swallows are a Threatened species experiencing serious declines across Canada. We will document and monitor colony locations as an important way to understand local and regional trends in this species. We will also identify breeding colony locations to increase local stewardship and threat reduction actions and we will increase public education to help protect breeding sites and nearby foraging habitat through public awareness of declines and threats to Bank Swallows.

### **New Trapper Training Program**

Trappers Association of Nova Scotia

**Awarded: \$18,000**

This program will increase knowledge and participation of new trappers on humane and current trapping methods, trapping safety and dog proof equipment/sets as well as a highly functional hands-on program focusing on natural renewal products from Nova Scotia's fur bearing animals. Students will also gain knowledge and skills on diverse wildlife habitat and the role trappers play in conservation of wildlife habitats.

### **Conserving Habitat for Landbirds at Risk in Forested Landscapes in Nova Scotia**

Dalhousie University

**Awarded: \$18,750**

This project will conserve breeding habitat for five SAR forest birds (Canada Warbler, Common Nighthawk, Eastern Wood-Pewee, Olive-sided Flycatcher and Rusty Blackbird) in working forest landscapes in Nova Scotia by finding solutions that support both the forest industry and

the birds. Beneficial Management Practices (BMP) will be assessed and revised through a multistakeholder collaboration after the field tests of the BMPs on crown land by partners in year 2.

### **Youth Expedition to Survey Rare Atlantic Coastal Plain Flora in Southwestern Nova Scotia**

Young Naturalists Club

#### **Awarded: \$3000**

In 2021, we piloted the first Youth Expedition to Survey Rare Atlantic Coastal Plain Flora (ACPF); a 4-day journey through Southwest Nova Scotia where tween-aged naturalists conducted plant surveys, water quality sampling, and botanical journaling to inform a communications project they completed after the trip. In 2023, we want to build on the program to include more field sites, 3 additional field days, and more interactions with adult researchers. We will engage 25 youth aged 10-14 in a simplified research project focused on ACPF and support them in the creation of new science communication pieces.

### **Annapolis Valley Sand Barrens Community Education, Engagement, and Citizen Science**

Clean Annapolis River Project

#### **Awarded: \$21,809**

This project will build on work accomplished over the past 4 years focusing largely on engaging local community members in the conservation and stewardship of the *Annapolis Valley Sand Barrens*, a rare ecosystem found only in Nova Scotia that exists largely on private lands.