PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Projects funded by the Province of PEI and Environment and Climate Change Canada through the PEI Forested Landscape Priority Place for Species at Risk since 2019. (Updated August 2025)

YEAR 6 2024-2025

Project title: *Supporting Island Watershed Groups to Monitor River Otter Populations*
Project lead: PEI Watershed Alliance (PEIWA)
Description: The PEIWA worked with Island watershed groups to expand the use of wildlife cameras to monitor for river otters throughout PEI, as a priority species for the PEI Forested Landscape Priority Place for Species at Risk Program. PEIWA coordinated the deployment of trail cameras and otter lure. PEIWA's monitoring specialist used previous training from PEI Fish and Wildlife on camera deployment, maintenance, and data analysis, to train new participating groups. Previous sites have continued to be monitored all year, or three seasons of the year (depending on staff in each group).

Project title: *Festival of Forests*
Project lead: Macphail Woods Ecological Forestry Project
Description: In 2024-25, Macphail Woods planned and delivered another successful 'Festival of Forests' event. The intention of the Festival of Forests was to increase awareness and appreciation of forests generally, and to publicly share and showcase the work of the FLPP core team and partner organizations. 10 partner organizations participated in the event to host a walk or talk and/or set up information booths. The event attracted over 150 attendees and facilitated many connections between organizations, the public and organizations, and the public with nature. At the event, attendees learned about Macphail Woods medicine wheel garden from Mi'kmaq Herbalist, Helena Perry (MCPEI), and had opportunities throughout the day to contribute by planting native plants in the garden. A webpage dedicated to the medicine wheel garden was added to the Macphail Woods website.

Project title: *Demonstrating to Woodlot Owners Management Practices that Improve Biodiversity*
Project lead: PEI Woodlot Owners Association (PEIWOA)
Description: PEIWOA project activities consisted of eight walks/talks held in locations across the Island. The walks were organized around different themes suited to the woodlands being explored and the expertise of the facilitators. Ecological forestry management and providing habitat for species at risk were overarching themes. Approximately 104 participants attended. Not only were participants able to learn from the knowledgeable facilitators in a woodlot setting, but they were also able to engage, share experiences and learn from one another. Lessons from the woodlot walks were captured in several PEIWOA newsletter articles, which are available on the PEIWOA website.

Project title: *Conserving Island Biodiversity: Addressing Invasive Species Pressures in PEI's Forests*
Project lead: PEI Invasive Species Council (PEIISC)
Description: The goal of this project was to support the conservation of biodiversity on PEI by addressing invasive species pressures on our forest ecosystems. Highlights from the project included focusing management efforts on species such as with a limited distribution where total eradication is a feasible long-term goal, implementing standardized monitoring for high priority invasive species not yet found in PEI, and further researching the horticultural industry as a pathway for invasive species. This year the PEIISC focused management efforts on giant hogweed, garlic mustard, Scotch broom, and phragmites across nearly 2 hectares of infested land. The PEIISC partnered with the Invasive Species Centre to introduce a hemlock woolly adelgid HWA) eDNA monitoring program to PEI. Working with

regional watershed groups, Island Nature Trust, and private woodlot owners the PEIISC deployed 15 eDNA traps in hemlock stands across the Island. At the end of the season the samples collected by these traps were sent to a CFIA lab in Ontario for analysis which confirmed no HWA eDNA was detected this year. This year, the PEIISC also put a significant focus on addressing invasive species spread through the horticulture trade. The PEIISC ran a survey for gardeners that received over 300 responses, providing great insights that will inform the newly established Horticulture Working Group to further develop invasive species strategies.

Project title: *Networking for Forest Fungi*
Project lead: Nature PEI
Description: In 2024-25, the Natural History Society of PEI (Nature PEI) continued to make progress in increasing public awareness of species at risk in the province and increasing public engagement in citizen science initiatives. Highlights for 2024-25 were the pilot program for young naturalists; processing 882 mushroom specimens for DNA testing; near completion of the mushroom atlas; Meeting 100s of teachers at the PEI Teachers Federation convention and distributing Nature PEI SAR education materials in French and English; likewise participating in the Winter Woodlot Tour with 600 attendees; the translation of the Species at Risk travelling Museum into French and distribution to schools in the PEI French Language School Board; exhibiting the travelling SAR Museum twice at Orwell Farm Museum in Orwell PEI where it was seen by many busloads of students, and to seven other publicly accessible sites.

Project title: *Flight to the Future: Working with landowners to Conserve Forest Birds in Rural Municipality of Belfast*
Project lead: Belfast Area Watershed Group (BAWG)
Description: The goal of this project was to engage landowners within the Belfast and Area watershed in conserving forest habitat for species at risk, particularly avian populations, while enhancing their awareness and understanding of local watersheds and biodiversity. BAWG staff conducted point count across 14 properties (20 individual survey locations), identifying 31 bird species and 245 individual birds. Notably, the Eastern Wood Pewee, a Species of Special Concern, and the Northern Waterthrush, an uncommon species, were recorded. The project provided information packages to all participating landowners with personalized results, including habitat assessments, drone footage, and information on species at risk, a stewardship agreement, master bird list, and best management practices for enhancing bird habitats.

Project title: *Conserving Forested Habitats Through Stewardship, Restoration, and Engagement*
Project lead: Island Nature Trust
Description: Island Nature Trust (INT) conducted targeted outreach to private landowners with high priority forests adjacent to existing Natural Areas. Outreach included information on legally protecting land, best management practices, volunteer stewardship of INT properties, and options to donate or sell land to INT. INT also hosted five events across the Island, as a way for landowners to connect with INT staff and learn more. INT developed and installed signage at two locations, near INT properties, on the Confederation Trail. Signage focused on forest-dwelling species at risk and how the public can help protect species at risk and their habitat. INT also conducted targeted invasive species removal in or threatening high priority forested areas, hosting three hands-on volunteer invasive species management events in INT Natural Areas.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project title: *Field identification of rare and at-risk lichen and vascular plant species on PEI*
Project lead: Atlantic Canada Conservation Data Centre
Description: The objective of this project was to document locations that are significant because of the presence of species at risk or other provincially rare species. Expert biologists surveyed areas with the highest potential for rare species occurrences. AC CDC staff covered 124.9 km of ground by foot and collected 779 rare species records. The AC CDC documented 584 locations of 58 rare vascular plant species and 165 locations for 21 rare lichen species during this project. The ACCDC also documented 36 locations of six federally listed (SARA; COSEWIC-assessed) Species-at-Risk. As a result of this project, priority areas are better understood, and more effective land conservation can take place, and land managers have a greater understanding of the distribution and abundance of rare species and SAR on PEI. This includes finding a new native vascular plant species for PEI (Bog Muhly – *Muhlenbergia uniflora).*

Project title: Updated *Bryoflora List for PEI*
Project lead: St. Mary's University
Description: The goal of this project is to document and share data on PEI's bryophyte flora. Specifically, the objectives are1) to identify backlogged bryophyte specimens from various on- and off-island repositories and compile the data from them, and 2) to process the specimens into the accessioned, public collections of these institutions, where they are permanently accessible for future verification, research, and education. These data will then be used to generate a published checklist of known species (e.g. academic journal article and associated popular press / curatorial reporting), and a collection of approximately 1500 PEI bryophyte specimens.

Project title: *Updating Forest Connectivity Measures for Prince Edward Island*
Project lead: St. Mary's University
Description: This project will assess the current state of forest connectivity using the most current datasets from the provincial land-use inventory, resulting in a connectivity layer suitable for conservation and management planning for the Province of PEI. The project will also investigate at least two current approaches used across North America to evaluate the connectedness of the current protected areas system in the province. Approaches will be assessed not only in their ability to quantify the current connectedness but also the ability to evaluate future and alternative protected areas additional to the conservation network. The project, at minimum, will evaluate using a sentinel nodes approach (Obrien et al. 2023) and a ProNet approach (Theobald, et al. 2022) to assess connectedness in a PEI protected area network.

Project title: *Using professional services to identify Northern myotis (Myotis septentrionalis) occupancy and maternity roost habitat in PEI forested places*
Project lead: Canadian Wildlife Health Cooperative (CWHC)
Description: The goal of this project was to conduct a qualitative habitat suitability assessment based on expert knowledge and using GIS methods for the identification of potential Northern Myotis habitat within PEI forested landscapes on a provincial scale. The CWHC created the habitat suitability assessment, ground-truthed the selected forest stands, and studied local bat populations within them using acoustic monitoring surveys. The CWHC were successfully able to record echolocation calls that aligned with Northern Myotis, with varying levels of confidence using manual identification techniques, in several forest stands across Queens and Kings counties. Further research and capture studies are required to validate our methodology and learn more about how Northern Myotis are using these habitats.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project title: *River Otter eDNA*
Project lead: University of Prince Edward Island
Description: To date, monitoring has relied on camera trapping in promising habitat and/or in the area of suspected sightings. Otters range widely, and although camera trapping is an improvement over other traditional survey methods, it is still subject to detection bias. eDNA offers the potential to detect the presence of river otter within a watershed and not necessarily at a specific location. For this project, UPEI was contracted to refine the assays needed to conclusively determine the presence of otter DNA from within an extracted water sample. This involves processing a number of tissue samples from otters as well as other sympatric mammal species and identifying the unique otter primers to be amplified during QPCR. Once finalized, camera trapping data can be used to evaluate how long after (duration) and how far away from (distance) a confirmed occurrence eDNA can be used to successfully detect river otter in the watercourse.

YEAR 5 2023-2024

Project title: *River Otter Monitoring Program*
Project lead: PEI Watershed Alliance
Description: The PEI Watershed Alliance will work with watershed groups and the PEI Forests, Fish, and Wildlife Division to engage in coordinated monitoring of river otter populations within strategic watersheds across PEI. River otter sightings have recently become more frequent and assessing the location of otter populations is of great interest to watershed groups, the Alliance, and the Province. This project will allow for coordinated collection and analysis of wildlife data, with the potential to expand beyond current priority sites and species in the future.

Project title: *Festival of Forests*
Project lead: Macphail Woods Ecological Forestry Project
Description: This project supports and builds on Macphail Woods' popular Festival of Forests event to increase awareness and appreciation of forests and forest habitats through providing an opportunity to reconnect the public with nature/forests. The Festival of Forests will be enhanced this year through creating a planning committee of FLPP partners to help plan. Macphail Woods will provide staff to organize and promote the expanded festival which will invite FLPP partners to share their various projects.

Project title: *Helping Woodlot Owners to make Informed Decisions on Managing Biodiversity in Their Woodlots*
Project lead: PEI Woodlot Owners Association
Description: The PEI Woodlot Owners Association will assist woodlot owners in making woodlot management decisions, weighing options, and to ultimately maximize the biodiversity value of their woodlot that will assist all species, including species at risk. This be achieved by arranging woodlot tours and information sessions, creating a collection of related internet material, and creating public recognition through an expanded 'Woodlot Owner of the Year' award that will help to inform woodlot owners and promote managing woodlots to support biodiversity.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project title: *Vital Forests Video Series Production*
Project lead: Macphail Woods Ecological Forestry Project
Description: Macphail Woods will create an educational and inspiring video series that addresses a knowledge gap about the role and importance of Island forests. The films will trace the pattern of our Island's forests, from the coast to inland hills and then down into the valleys and springs, following the rivers back out to the sea. The films will weave together the voices of local biologists, ecologists, foresters, Indigenous community members, watershed workers, woodlot owners and members of the community that use and love our woodlands, with footage of those individuals, and the four critical forest types along with the wildlife and species at risk that call them home.

Project title: *Helping and Supporting Teachers Grow Confident in Outdoor Education - Part 2*
Project lead: Macphail Woods Ecological Forestry Project
Description: This project builds on Macphail Woods' 2022-23 project to develop resources to help teachers feel confident using the outdoors as a classroom. In 2023-24, Macphail Woods will pilot their Supporting Teachers program by organizing 8 training events for Island teachers that help to overcome the challenges of outdoor education and share its power to achieve academic, physical and mental outcomes for teachers and students.

Project title: *Protecting PEI Forests and Species at Risk Habitat by Managing Invasive Species on PEI- Continued Coordination and Implementation of Invasive Species Management Strategies*
Project lead: PEI Invasive Species Council
Description: Working to manage invasive species (IS) is a long-term commitment and a key component in the conservation and/or restoration of important ecosystems and forests on PEI. This project will continue to monitor, compile data and map IS distribution (focusing on climate change, it's synergistic relationship with IS and possible new pathways of introduction), build capacity for IS management within conservation groups and private landowners, develop key partnerships to reduce the spread of IS, continue the giant hogweed eradication program and expand the educational awareness program for IS. The PEIISC will continue to work with conservation groups, industry, government and private landowners, leading activities and disseminating IS information that will help reduce the negative impact of invasive species on forests and species at risk on PEI.

Project title: *Supporting Forest Stewardship: Providing FEP participants learning opportunities through Macphail Woods School of Woodland Ecology courses*
Project lead: Macphail Woods Ecological Forestry Project
Description: This project offers partial subsidies to Forest Enhancement Program participants to attend Macphail woods' School of Woodland Ecology courses. These courses get landowners out into the woods, educating through hands-on experiential learning. Through increased awareness, understanding, and skill building, the project aims to contribute to improved stewardship, land management and increased restorative practices. This project will allow over 120 private landowners to attend courses in 2023, learning a variety of skills and ecological concepts.

Project title: *Stewarding Coastal Krummholzing Forest Habitats*
Project lead: Macphail Woods Ecological Forestry Project

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Description: This project will build on Macphail Woods' previous work in 2021-2023 to assess and restore coastal and krummholz forests. This year, the project will focus on restoring six sites, seed collection and propagation of rare and unique coastal flora, and public outreach and education about these important forest ecosystems through talks and guided walks.

Project title: *Expanding the Focus on Species at Risk on Forested Lands*
Project lead: Nature PEI
Description: Nature PEI will work to increase awareness and understanding of PEI's species at risk by continuing to build a travelling species at risk museum display; improving the Nature PEI website page on species at risk, including making a separate section for younger readers; establishing a pilot Young Naturalists Club for adolescents; coordinating an 'intro to birding' course Birding Course; and hosting events with Nature PEI naturalists leading mushroom and birding experiences, providing citizen science opportunities

Project title: *Advancing Protection of Ecologically Sensitive Forests & Expanding Knowledge of Private Protection*
Project lead: Island Nature Trust
Description: This project will expand Island Nature Trust's work to incentivize (non-monetary) protection and restoration of Island forests through private stewardship, as well as build relationships and offer educational opportunities for key professional groups (e.g., lawyers, accountants, realtors)), providing tools to further support private landowners while expanding the knowledge of relevant industries on the importance of Island forests.

Project title: *Additional field identification of rare forest biodiversity hotspots on Prince Edward Island*
Project lead: Atlantic Canada Conservation Data Centre
Description: This project will build upon very successful 2022 field efforts, conducting new fieldwork in different areas using similar methods. AC CDC biologists will work with Island Nature Trust and PEI FFW to identify and conduct field work in larger patches of diverse and intact forest that have had limited previous field survey, focussing on vascular plants and lichens.

YEAR 4 2022-2023

Project title: Advancing Protection and Restoration of PEI Forests through Private Stewardship
Project lead: Island Nature Trust
Project description: This project focused on promoting and incentivizing volunteer protection and restoration of Island forests through private stewardship. INT hosted three knowledge-sharing workshops for landowners aimed at fostering greater uptake of private protection options, developed a newsletter for landowners with helpful information to support protected areas stewardship and species at risk conservation on private lands, and hosted information sessions targeting key industry groups (lawyers, accountants, agricultural groups) to increase awareness about opportunities for private landowners to protect forests through the Natural Areas Protection Act.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project title: Invasive Species Removal and Habitat Rehabilitation
Project lead: PEI Watershed Alliance
Project description: This project focused on invasive species removal and habitat rehabilitation across multiple PEI watersheds through collaboration with thirteen watershed groups and the PEI Invasive Species Council. The creation of an invasive species Action Team allowed watershed groups to have the human power and capacity to effectively tackle priority areas, with leadership from the PEIISC to provide guidance on long-term management requirements and planning for these areas.

Project title: Riparian health assessment protocol testing and long-term monitoring strategy review
Project lead: PEI Watershed Alliance
Project description: The PEIWA conducted a pilot of riparian forest health assessment protocols with watershed groups across PEI and examined results to determine the most suitable protocol and collection method to be implemented.

Project title: Increasing Forest Education Opportunities
Project lead: Macphail Woods Ecological Forestry Project
Project description: Macphail Woods surveyed educational programs and ideas within North America to identify potential new environmental education programs related to forests and forests biodiversity and restoration that could be adapted for PEI. Macphail Woods also developed a series of walks and workshops to encourage forest owners and the public to learn more about forests and what they can do to improve forest health and conserve biodiversity.

Project title: Continuing Krummholz Preservation and Restoration
Project lead: Macphail Woods Ecological Forestry Project
Project description: This project built on Macphail Woods' 2020-21 and 2021-22 work to understand coastal forests and krummholz and the role they play in protecting downwind forests, providing wildlife habitat, and maintaining biodiversity. Specific activities included: assessing regenerating sites; developing a template for restoration work; hosting two public talks on coastal forests and krummholz; and developing a video of a krummholz walk for the Macphail Woods website. You can find more information on this project here.

Project title: Invasive Species Removal and Habitat Rehabilitation
Project lead: PEI Invasive Species Council (PEIISC)
Project description: This project built on PEIISC's 2021-22 work. The PEIISC focused on identifying high risk areas for the introduction of invasive species and establishing an Island-wide monitoring program targeting high risk/high priority areas; assisting with management of priority invasive plant species across PEI; and developing partnerships in the agricultural community to raise awareness of invasive species.

Project title: Field identification of rare forest biodiversity hotspots on Prince Edward Island
Project lead: Atlantic Canada Conservation Data Centre (AC CDC)
Project description: This project built on the AC CDC's 2020-22 work to understand PEI distribution and status of SAR and other rare species and to document the locations of high priority biodiversity areas.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

The AC CDC conducted vascular plant and butterfly inventories of selected sites, with comprehensive documentation of rare species locations. All data is permanently documented in the AC CDC database.

Project title: Protecting Species at Risk Habitat by Managing Invasive Species on PEI – Continued Coordination and Implementation of Invasive Species Management Strategies
Project lead: PEI Invasive Species Council / Canadian Council on Invasive Species
Project description: This project provided support for a second technician to assist with the following activities: developing standardized IS monitoring protocols to share with partner orgs, investigating new pathways of invasion as a result of hurricane Fiona & plan adaptation measures for future extreme weather events, implementing a Maritimes-wide Don't Move Firewood campaign, developing educational resources, and planning and researching for the 2023 field season.

Project title: Supporting Private Stewards for the Protection and Restoration of PEI Forests
Project lead: Island Nature Trust
Project description: INT focused on developing educational resources for landowners and engaging landowners interested in conservation by creating opportunities for them to connect, meet, and learn from/among peers.

Project title: Addressing gaps in land use: Developing a guide for municipalities and watershed groups to enhance wildlife habitat through parkland and open space dedication
Project lead: Federation of PEI Municipalities
Project description: The FPEIM created a web-based guide on how the *Planning Act* enables and supports the protection of natural features; worked with PEI Fish and Wildlife to develop an online mapping application that provides important ecological spatial information; and created a training module for municipal councilors and staff relating to current threats to natural habitat, to ecosystem services and land use planning options.

Project title: Helping and Supporting Teachers Grow Confident in Outdoor Education
Project lead: Macphail Woods Ecological Forestry Project
Project description: Macphail Woods created forest-focused teaching materials, games and activities that dovetail with existing curriculum outcomes in all subjects, and developed a training program for teachers that will introduce them to the benefits of using nature as a classroom, train them on the new teaching material and help them overcome the obstacles, challenges and fears associated with outdoor education.

Project title: Upland Forest, Forested Wetland and Riparian Forest Film Series - Preproduction
Project lead: Macphail Woods Ecological Forestry Project
Project description: This project focused on completing scripts for a series of videos highlighting three forest habitat conservation targets of the FLPP, Upland Forest, Forested Wetland and Riparian Forest. Short films are to be created in 2023-24 using scripts developed.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project title: Biodiversity Training for Forestry Practitioners
Project lead: PEI Forests, Fish and Wildlife Division
Project description: PEI FFW hosted a two-day training event for private and provincial forest contractors and consultants. Training topics included: Stand-level and landscape-level features that promote biodiversity, Species at risk identification and habitat requirements, and a review of relevant policy and legislation.

YEAR 3 2021-2022

Project title: Increasing our Awareness of Krummholz Forests
Project lead: Macphail Woods Ecological Forestry Project
Project description: Building on their 2020-21 project, Macphail Woods conducted bird and plant surveys at eight sites and studied wildlife populations using autonomous recording units and trail cameras. They gathered more information on light levels, windspeeds, and coastal erosion. In addition, they looked at two more western sites in Black Marsh and Nail Pond as well as two coastal forests on the south shore, Cameron's Island and the NCC's Percival River property, to compare against the north shore forests. They also worked with Parks Canada on the potential for a krummholz establishment (restoration) project, and with the Lennox Island First Nation on establishing a study site on Hog Island. You can find more information on this project here.

Project title: Implementing Invasive Species Strategies
Project leads: PEI Invasive Species Council (PEIISC) / PEI Watershed Alliance (PEIWA)
Project description: Through coordination, this project implemented multiple strategies identified to reduce the pressure of invasive species (IS) on PEI's forested landscape, including: develop Best Management Practices for moving fill, engage with horticulture industry on IS and promoting native species, support existing "Don't Move Firewood" initiative, partner with Island Waste Management Corporation to reduce IS spread, work towards standardizing and consolidating reporting and tracking of IS, increase capacity for groups to tackle IS removal/management, and support forest IS education efforts of the PEIISC.

Project title: Increasing Capacity of Municipalities to Conserve Forests
Project lead: Federation of PEI Municipalities (FPEIM)/ PEI Watershed Alliance (PEIWA)
Project description: A Conservation Coordinator worked collaboratively with the PEIWA and FPEIM to carry out the following activities: establish and maintain strong working relationships with municipalities, local watershed groups, and the Forests, Fish, and Wildlife Division; provide relevant ecological information to municipalities to inform land-use planning decisions; and share information on opportunities for municipalities to engage in conservation and restoration. A reference document developed, Protecting Habitat: A Guide for Municipalities on Prince Edward Island, is available online.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project title: Field surveys and geospatial analysis to improve conservation outcomes for lichen and bird Species at Risk in Prince Edward Island forested landscapes
Project lead: Atlantic Canada Conservation Data Centre (ACCDC)
Project description: This project focused on collecting field data on species at risk and rare forest-associated species occurrences and permanently documenting it within the AC CDC database, and developing improved Species Distribution Models for Canada Warbler, Olive-sided Flycatcher and Eastern Wood-Pewee using current LiDAR data.

Project title: Supporting identification of bat occurrences and habitat through public engagement
Project lead: Canadian Wildlife Health Cooperative (CWHC)
Project description: This project focused on conservation and recovery of two Species at Risk Act (SARA)-listed Endangered bat species: Little Brown Myotis and Northern Myotis and their habitat on PEI, including the Forested Landscape. It provided data and support to address the knowledge gap of the habitat requirements for Species at Risk (SAR) bats on the Island, including the potential identification of critical habitat (i.e., hibernacula) and important concentration areas (i.e., summer maternity roosts).

Project title: Propagation of Krummholz plants as a first step towards Krummholz restoration
Project lead: Macphail Woods Ecological Forestry Project
Project description: This project built on Macphail Woods' previous krummholz research. This project helped prepare for future restoration projects and involved researching propagation methods, collecting seeds and small amounts of material for cuttings from a wide range of plants associated with krummholz, and conducting research and testing on their propagation. Propagated species will be used in future coastal forest and krummholz restoration efforts.

Project title: Creating a Video Series to Illustrate Patch Cutting for Species Restoration
Project lead: Macphail Woods Ecological Forestry Project
Project description: Macphail Woods created a series of videos that illustrates various aspects of creating restorative patch cuts aimed at diversifying forests and providing habitat for a variety of rare and common native species. Videos are available on Macphail Woods' Youtube channel.

Project title: Riparian health assessment protocol review to improve long-term monitoring of riparian forests
Project lead: PEI Watershed Alliance
Project description: The PEI Watershed Alliance reviewed riparian health assessment protocols used by watershed groups across the island, created trial protocols customized for PEI for testing in spring, and conducted an initial review of the literature on quantifying ecosystem services.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project title: Demonstration Woodlot Renewal – Education in Prince Edward Island's Demonstration Woodlots
Project lead: PEI Forests, Fish and Wildlife
Project description: This project focused on renewing two provincial demonstration woodlots in Brookvale and Auburn. This included installation of boardwalks through wet and/or impassable sections of the Auburn demonstration woodlot and installation of a new parking lot at Brookvale demonstration woodlot.

YEAR 2 2020-2021

Project title: Monitoring Lichen Species at Risk
Project lead: Atlantic Canada Conservation Data Centre (ACCDC)
Project description: The ACCDC conducted 15 calendar days of fieldwork and documented: one new occurrence of Wrinkled Shingle Lichen; 15 occurrences of Species at Risk, including three new Species at Risk for PEI: White-rimmed Shingle Lichen (*Fuscopannaria leucosticta*), Blue Felt Lichen (*Pectenia plumbea*) and Frosted Glass Whiskers (*Sclerophora peronella*); 16 additional new bryophyte, lichen and vascular plant taxa for PEI; 482 records of 85 species of provincially rare species, including 29 critically imperiled (S1 or S1S2) species

Project title: Modelling SAR in PEI – Developing Species Distribution Models for Canada Warbler, Olive-sided Flycatcher and Eastern Wood-Pewee
Project lead: Atlantic Canada Conservation Data Centre (ACCDC)
Project description: Species distribution models for Canada Warbler, Olive-sided Flycatcher and Eastern Wood-Pewee were developed, identifying the best potential areas on PEI for these species.

Project title: Analysis of Functional Connectivity in PEI
Project lead: Dr. Peter Bush (St. Mary's University)
Project description: This project used Linkage Mapper software and various methods (e.g. least-cost path, Circuitscape, Barrier Mapper) to measure forest functional connectivity in PEI for three species of interest, Northern Flying Squirrel (*Glaucomys sabrinus*; S4S5), Smooth Greensnake (*Opheodrys vernalis*; S2), and Pickerel Frog (*Lithobates palustris*; S1). Project results will provide foundational information to help prioritize areas for conservation and inform protected area network design to improve functional connectivity for PEI forests.

Project title: Developing an Early Detection and Rapid Response Framework for Invasive Species in Island Forests
Project leads: Island Nature Trust (INT), PEI Invasive Species Council (PEIISC)
Project description: This project explored how to build on and implement an early detection rapid response (EDRR) system for invasive species in PEI.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project title: Analysis of Incentive Programs for Forest Conservation
Project lead: Island Nature Trust (INT)
Project description: This project reviewed the structure, advantages, and disadvantages of existing monetary and non-monetary incentive programs for private forest landowners to promote forest conservation and restoration. The final report also provides considerations for developing a pilot program and potential next steps for the project.

Project title: Securing High-value Forested Habitats
Project lead: Island Nature Trust (INT)
Project description: This project assisted INT in acquiring 221.8 hectares (548 acres) of high conservation value lands. Through this project, INT completed the required appraisal and legal processes to acquire and protect land in New Perth, Brudenell, Cable Head East, Forest Hill, Red Point, and Farmington; and secured and protected lands in Murray River and Abney. All lands acquired by INT will be protected in perpetuity under the PEI Natural Areas Protection Act. Additionally, all parcels except the Cable Head East property (211.5 ha total) will be certified by the Government of Canada under the Ecological Gifts Program.

Project title: Review of Land Protection Tools and Municipal Conservation Initiatives on Prince Edward Island
Project lead: PEI Watershed Alliance (PEIWA)
Project description: Through this project, the PEIWA surveyed municipalities across PEI to determine their level of understanding and activity related to forest conservation and species at risk.

Project title: Exploring Riparian Forests in PEI
Project lead: PEI Watershed Alliance (PEIWA)
Project description: Through this project, exploratory research was conducted to better understand riparian forests. The PEIWA conducted literature reviews to explore the ecological value and definition of riparian forest, and how this differs from our usual "buffer zone" conversation, and to explore monitoring techniques from other regions for assessing riparian function. They also identified current methods used in PEI to measure and classify the health and functionality of riparian forests, and interviewed stakeholders regarding monitoring techniques, pressures on riparian forests, and other important riparian characteristics.

Project title: Exploring the Importance of Krummholz Forests
Project lead: Macphail Woods Ecological Forestry Project
Project description: Through this project, exploratory research was conducted to better understand PEI's coastal forests and krummholz. Macphail Woods established eight study sites across PEI where they conducted plant and animal surveys, compiled forestry data (e.g. canopy composition, amount of

coarse woody debris, tree quality, etc.), examined historical context, and identified threats. You can find more information on this project here.

Project title: Developing a Collaborative Conservation Planning Tool
Project lead: Ducks Unlimited (DU)
Project description: Through this conservation action, DU developed an ArcGIS Online web map to assist with collaborative conservation planning among groups doing private land acquisition on PEI.

YEAR 1 2019-2020

Project title: Prince Edward Island *Pannaria lurida* Habitat Modelling: Phase I
Project lead: Atlantic Canada Conservation Data Centre (ACCDC)
Project description: The ACCDC developed a Habitat Suitability Index (HSI) in ArcGIS which used known information on habitat preferences and expert opinion to identify areas with a high likelihood of Wrinkled Shingle Lichen (*Pannaria lurida*) occurrence. This project generated predictive maps that identify areas likely to contain suitable conditions for *Pannaria lurida* on PEI to guide targeted searches.

Project title: Owl Survey Landscape Data Analysis
Project lead: Birds Canada
Project description: Birds Canada analyzed Nocturnal Owl Survey and provincial land-use data to determine how habitat is used by the three most common owl species in PEI: Barred Owl, Great Horned Owl, and Northern Saw-Whet Owl.

Project title: Enhanced Forest Inventory
Project lead: FORUS Research
Project description: FORUS Research built on work started in 2016 to deliver enhanced forest inventory (EFI) predictions for PEI with the addition of top height (average height of the 100 tallest stems), as well as the 95th and 99th height percentile. In addition, FORUS Research provided the normalized LiDAR point cloud files (LAS) tiles and point cloud statistics for the Continuous Forest Inventory (CFI) plots.

Project title: Developing Educational Print Materials and Surveying Forest Managers
Project lead: Island Nature Trust (INT)
Project description: INT developed a set of six educational factsheets on forest-associated species at risk, forested wetlands, etc. INT also conducted a survey of forest managers to gain a more complete understanding of forest managers' knowledge of SAR and their willingness to adopt beneficial management practices.

Project title: Comparing Forest Bird Communities Between Forests
Project leads: Island Nature Trust (INT), Abegweit Conservation Society (ACS)

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project description: INT and ACS worked together to obtain bird community data for three pairwise sets of forest stands to compare forest bird communities using two different types of managed forests (natural forests and managed plantations). Through this project, INT and ACS also worked together to monitor for and manage invasive species in natural areas surrounding study sites.

Project title: Freeland Land Acquisition
Project lead: Island Nature Trust (INT)
Project description: With support from the Priority Place initiative, INT acquired 36.4 hectares (90 acres) of mixed forest in Freeland, Prince County, PEI

Project title: Developing Educational Resources on Rare Native Plants
Project lead: Macphail Woods Ecological Forestry Project
Project description: Macphail Woods developed online resources, including species descriptions and instructions for propagation for 17 provincially rare plant species. The publication is available on the Macphail Woods website.

Project title: Modeling Watershed Forest Cover and Aquatic Health: Phase I
Project lead: Dr. Mike van den Heuvel (UPEI)
Project description: This research sought to examine whether forests benefit the ecosystem services provided by our streams. Information sourced from previously published surveys was used to quantify Atlantic salmon presence and absence and PEI fish density. Those data were compared with land use, including forests, and watershed area from the provincial GIS databases.

Project title: Assessment of Forest Habitat Connectivity on PEI
Project lead: Dr. Peter Bush (St. Mary's University)
Project description: This research used effective mesh size, fragmentation statistics (e.g. distance to nearest neighbour, etc.), and Circuitscape (software based on circuit theory that predicts connectivity) to measure structural connectivity on PEI**.**

Project title: Increasing Capacity for Bat and Wildlife Monitoring in Forested Landscape
Project lead: PEI Watershed Alliance (PEIWA)
Project description: The PEIWA purchased equipment (i.e. autonomous recording units, ultrasonic microphones, SD cards, laptop, Kaleidoscope software, trail cameras, etc.) to assist in bat, songbird, and wildlife monitoring, and data storage and analysis. This equipment significantly increased the capacity of Island watershed groups to do monitoring work in the forested landscape.

Project title: Gap Analysis of Watershed Community
Project lead: PEI Watershed Alliance (PEIWA)
Project description: The PEIWA was contracted to synthesize past conservation activities undertaken by watershed groups relating to the PEI forested landscape and terrestrial SAR.

PEI Forested Landscape Priority Place for Species at Risk – Funded Project List

Project title: Developing Training Materials for Watershed Groups
Project lead: PEI Watershed Alliance (PEIWA)
Project description: The PEIWA developed a training program for Island watershed groups on riparian planting and management. As part of this project Macphail Woods created a resource, *Native Plants and Watersheds: A Natural Combination.*