

2024



ANNUAL ACTIVITIES REPORT

•••••

Overview of Belfast
Area Watershed
(BAWG) activities
from April 1, 2024
to March 31, 2025



Compiled by:
Sherry Pelkey, Jenna Smith

Contents

From the President	3	Flat River Counting Fence	15
Executive Director’s Note	4	Electrofishing	15
Watershed Management Area	4	Fall Redd Surveys	16
Strategic Plan 2025-2030	5	Stream Assessments & Enhancement	17
Funders and Supporters	7	BAWG Stream Crossing Assessments	17
Water Quality Monitoring	8	Rapid Geomorphic Assessments (RGAs)	18
Water Quality & Stream Flow	8	Stream Enhancement	19
Headwater Surveys	8	Invasive Species Management	19
Macroinvertebrate Sampling	9	Bittersweet Nightshade	20
Wildlife Monitoring	10	Purple Loosestrife	20
Rainbow Smelt Surveys	10	Bugleweed	21
Amphibian Call Surveys	10	Trees & Shrubs	22
Amphibian Board Surveys	11	Other Projects	23
Trail Camera Monitoring	12	Eelgrass Monitoring & Planting	23
River Otter Trail Camera Project	12	Flat River Restoration Project	25
Bat Surveys	13	Flight to the Future: Forest Habitat Conservation	27
Acoustic Bat Monitoring Station:	13	Wildlife Conservation Fund – “Wildlife Wonders”	28
Mobile Bat Monitoring Transect:	13	Community Outreach & Events	30
Bank Swallow Surveys	14	Building capacity and community roots	30

IN THE BAWG!
- A quick recap of 2024



Thriving watersheds for our community.

-from Eldon to Wood Islands, Little Sands to Beach Point

Inspiring watershed stewardship through hands-on restoration, education and community engagement.



31 Species of forest birds identified.

Bank Swallows - 75 km of shoreline surveyed. A total of 49 colonies, 1311 nesting cavities.



37 Friends of BAWG contributing over 1300 volunteer hours



12 BAWG Public Events
8 Outreach participant events

Happenings

Read more at @bawg.ca

2024 Year in Summary

Thank you to the 308 Friends of BAWG Members, Municipal, Provincial, and Federal project funders.

1. Forest Habitat Conservation Agreements
2. Eelgrass Restoration Project
3. Woodland Restoration Project
4. Stream Restorations
5. Water Quality Testing
6. Bank Swallow Monitoring
7. Strategic Watershed Management Plan (2025-2030)



bawg1



bawg_pei



bawg.ca



From the President

Since its incorporation in 2017, the Belfast Area Watershed Group (BAWG) has been vital to environmental stewardship on Prince Edward Island (PEI).

Before BAWG, no dedicated group managed these watersheds for restoration and scientific monitoring. BAWG focuses on diverse environmental initiatives, including stream and river restoration, soil erosion prevention, species monitoring, and education and outreach to promote a love for nature.

We value our partnerships with agriculture, fisheries, education, and government stakeholders. BAWG thrives thanks to our dedicated volunteers and expert staff, all committed to enhancing the watershed environment for the present and future. We continue to uphold the dedication that has defined us since our inception.

Andrew Henry

Executive Director's Note

This year has been one of collaboration and impact for BAWG. We have made meaningful strides in protecting our local waterways and ecosystems through habitat restoration, water quality monitoring, conservation efforts, and community engagement. Our success would not be possible without the dedication of our Board of Directors, whose leadership and vision guide our work, and our hardworking staff, whose passion and commitment drive our projects forward. Furthermore, staff played a vital role in project delivery and community engagement efforts. 2024 team members included: Jenna Smith, Sophie Lannigan, Miranda Ings, Carson Wight, William Gamble, Cyra Barros, Mireille Diarra, Andrew Gamble.

We are also proud to have strengthened collaborations with watershed groups and environmental organizations across the Island. By sharing knowledge, resources, and expertise, we have expanded our reach and amplified our impact on water and habitat conservation. Thank you to our volunteers, partners, and supporters—your efforts help create a healthier, more resilient watershed. We look forward to another year of working together for lasting environmental stewardship. –

Sherry Pelkey

Watershed Management Area

BAWG's management area consists of 7.5 watersheds draining into the Northumberland Strait. The individual watersheds within BAWG's management zone are:

- *Pinette River*
- *Newtown (sub-watershed)*
- *Point Prim*
- *Gascoigne Cove*
- *Black Marsh*
- *Flat River*
- *Belle River*
- *Little Sands Shore*

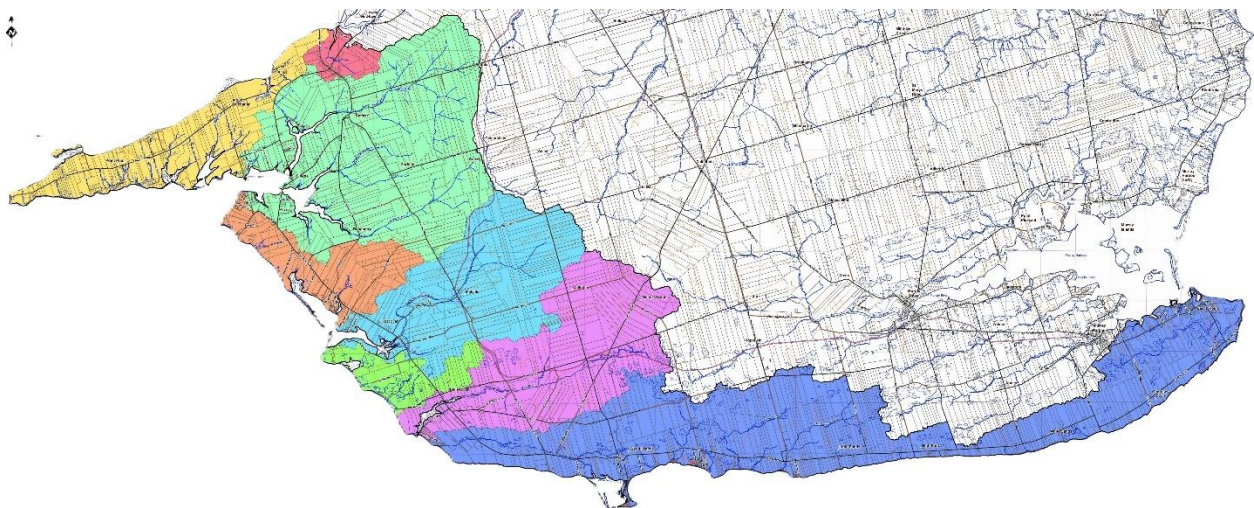


Figure 1. Watersheds under the management of BAWG. Newtown sub-watershed (pink), Point Prim (yellow), Pinette (green), Gascoigne Cove (orange), Flat River (aqua), Black Marsh (lime), Belle River (purple), Little Sands Shore (blue)

Strategic Plan 2025–2030

On behalf of the Belfast Area Watershed Group, we sincerely thank everyone who contributed to developing our first Strategic Watershed Management Plan. This vital work would not have been possible without the expertise, dedication, and passion of so many individuals in our community.

To the subject matter experts who shared their knowledge and insights—your guidance has been invaluable in shaping a plan that reflects best practices and sustainable solutions. To our engaged community members and survey respondents—your voices, experiences, and perspectives have helped ensure this plan truly represents the needs and priorities of those who live and work within our watersheds. Further to the community input, the following people played a key role in the strategic planning:

- Mary Finch, Watershed Ecologist, PEI Department of Environment, Energy and Climate Action
- Jenna Smith, Stewardship Manager, Belfast Area Watershed Group (BAWG)
- Scott Roloson, Past President, BAWG
- Gary Schneider and staff, MacPhail Woods Ecological Project
- Karalee McAskill, Watershed Coordinator, Forests, Fish & Wildlife Division, PEI
- PEI Invasive Species Council
- Department of Environment
- Wood Islands and Area Development Corporation
- Belfast Recreation Centre
- Murray Harbour Community Centre
- PEI Watershed Management Fund
- Rural Growth Initiative – PEI Department of Fisheries, Tourism, Sport and Culture
- Julie-Lynn Zahavich, Forest Conservation Specialist, PEI Fish and Wildlife Division
- Kim Proulx, Resource Inventory Technician, Forests, Fish & Wildlife Division, PEI
- Department of Environment, Energy and Climate Action
- Board Members, BAWG
- Sherry Pelkey, Executive Director, BAWG
- Christina MacLeod & staff, VOLUME 18



Strategic Plan 2025-2030

VISION

Thriving watersheds for our community.

MISSION

Inspire watershed stewardship through hands-on restoration, education and community engagement.



VALUES

1 FUTURE-FOCUSED STEWARDSHIP

We prioritize long-term impacts, recognizing that the decisions we make today shape the land and communities of tomorrow. By considering historical context and future climate resilience, we ensure our projects align with sustainable and adaptive goals.

2 COLLABORATIVE ENGAGEMENT

We prioritize open, respectful communication with everyone by listening and sharing knowledge to understand local needs, offer guidance, and earn trust. This approach fosters stronger, more collaborative partnerships with watershed groups, volunteers, and other key stakeholders.

3 HEARTFELT CONNECTION TO NATURE AND COMMUNITY

Our work is driven by a deep care for the land and the communities it sustains. Our commitment is to conserve natural spaces and foster meaningful relationships with those in our communities. We believe a genuine connection to the land and water fosters conservation efforts.

4 WELCOMING ADAPTABILITY

We are flexible and welcoming, embracing change and new ideas to meet the needs of the land and community. By fostering collaboration and volunteerism, we empower individuals to find their place in conservation efforts and work together for meaningful outcomes.

Figure 2. The vision, mission, and values of BAWG from Strategic Plan (2025-2030)

Funders and Supporters



- PEI Watershed Management Fund
- Rural Municipality of Belfast
- PEI Wildlife Conservation Fund
- J. Frank Gaudet Nursery
- PEI - Employment Development Agency
- Department of Economic Growth, Tourism and Culture
 - Skills PEI – Post-Secondary and Graduate Mentorship programs
- Rural Growth Initiative – PEI Department of Fisheries, Tourism, Sport and Culture
- Canada Summer Jobs
- Nature Smart Climate Solutions Fund – Environment and Climate Change Canada
- Environment and Climate Change Canada- Canadian Wildlife Service
- PEI Forests, Fish and Wildlife Division
- Fisheries and Oceans Canada (DFO)
- Atlantic Canada Opportunities Agency
- Venture Canada
- Eco-Canada
- Aquatic Ecosystems Restorations Fund – Environment and Climate Change Canada

Supporters:

- PEI Watershed Alliance
- PEI Forests, Fish and Wildlife
- Wood Islands & Area Development Corporation
- Belfast Rec Centre
- PEI Department of Transportation and Infrastructure
- Cape Bear Lighthouse
- Climatlantic
- The Solid Line
- Dylan Menzie, Norman Stewart, The Solid Line
- Bill and Stanley Oyster Company
- University of Prince Edward Island
- Holland College
- Other watershed groups
- PEI Department of Environment, Energy and Climate Action
- PEI Invasive Species Council
- Village of Murray Harbour
- Friends of BAWG – members, volunteers, businesses, and landowners

Water Quality Monitoring

Water Quality & Stream Flow

Water quality was routinely taken at several locations across our area using a handheld YSI meter. This device measures water temperature, barometric pressure, dissolved oxygen, specific conductance, conductivity, total dissolved solids, salinity, and pH. Additionally, several temperature loggers were deployed; these devices were set to measure water temperature every two hours. If you want to learn more about these parameters and see past data, visit Atlantic DataStream. Or, scan the QR code with your smartphone to go directly to the interactive results.



Headwater Surveys

Headwater surveys were conducted on the four central river systems in the watersheds (Pinette River, Belle River, Flat River, and Little Sands Shore). The first set of surveys occurred in the spring to monitor high water flows, and the second set in the fall to monitor low water flows. These surveys will help determine the extent of some of our first-order streams and their headwaters. They will also monitor the variability in the river's seasonal flows yearly.



Figure 3. Miranda Ings downloading temperature data from an in stream logger



Figure 4. Jenna Smith and Sophie Lannigan are setting up YSI to conduct water quality testing

Macroinvertebrate Sampling

To collect the macroinvertebrates, we placed our kick-net into the water while holding it perpendicular to the river's flow, then another person kicked up the substrate upstream. Benthic macroinvertebrates live on and around small rocks and vegetation within the river, so stirring up the substrate dislodges them into the net. Once a sample is collected, each macroinvertebrate is identified by its family name. Afterward, results are compiled into a spreadsheet to determine each location's Hilsenhoff Biotic Index (HBI). The HBI is a water quality index that can help assess stream health within the sample area. Benthic macroinvertebrates are important bioindicators, meaning they can help tell us about how healthy a stream is.

Site Location	GPS	HBI
Flat River (Hughie's)	46.016621, -62.851030	3.06 (Excellent)
Flat River (Project Site A)	46.022435, -62.824994	2.21 (Excellent)
Flat River (Project Site B)	46.029442, -62.820318	3.59 (Excellent)



Figure 5. A juvenile mayfly under a microscope



Figure 6. An adult mayfly



Wildlife Monitoring

Rainbow Smelt Surveys

In April, we began surveying each watershed for rainbow smelts (*Osmerus mordax*). In the spring, smelts migrate in groups to freshwater rivers to breed. We monitored 12 locations ranging from Portree Creek to Wood Islands. We're happy to report that we did find some smelts this year. The locations include both the north and south branches of the Pinette River.



Figure 7. Rainbow smelt on the run in to spawning grounds. Pinette north branch

Amphibian Call Surveys

Between May and June, we conducted amphibian call surveys. These surveys are done just after dusk, when we take 5-minute audio recordings at a pond or other body of water. The recordings are analyzed, and we then ID all amphibians heard. Each type of amphibian is categorized based on its loudness, which helps estimate the number of individuals. The main goal of these surveys is to determine what types of amphibians are present throughout the watershed.

Survey Location	Roseberry Pond	Roseberry Twins	Flat River (Garfield Rd.)	Flat River (Camp Rd.)	Belle River (Garfield Rd.)	MacLeod Rd.	Wood Islands Pond
Species Identified	Spring peeper, American toad	Spring peeper	American toad	Spring peeper	Spring peeper, American toad	Spring peeper, American toad	Spring peeper

Amphibian Board Surveys

Amphibian board surveys throughout the watershed. The survey boards are 1 m² and are made of untreated lumber. These boards were then placed in wooded areas near bodies of water. The boards were randomly lifted to check for the presence of any amphibians (frogs, salamanders, toads). We have seven survey boards: Roseberry Twins, Wood Islands Pond, Flat River (MacPherson Mill Rd.), Belle River (Munns Rd), Shore Rd., MacLeod Rd. crossing, and Portree Creek (Eldon). This year, amphibians were found only at the Roseberry Twins location, which had 2 Eastern red-backed salamanders (*Plethodon cinereus*).



Figure 8. One of the amphibian survey boards built to monitor habitat



Figure 9. The two eastern red-backed salamanders were found under the Roseberry Twins survey board. Look closely



Figure 10. Close-up of an eastern red-backed salamander

Trail Camera Monitoring

The trail cameras were utilized to monitor mammals through motion detection. Positioned across the watershed from April to October, the four cameras captured various mammals and birds during this period, generating exciting results!

River Otter Trail Camera Project

This year, participation continued in a provincial monitoring project led by the PEI Watershed Alliance. In 2023, two trail cameras were deployed in areas deemed suitable for river otters. This project aims to determine the distribution of river otters across the island. While no photos of river otters have been captured in this area, hope remains high for future sightings. It's worth noting that all wildlife photos are uploaded to WildTrax for public viewing.



Figure 11. A bald eagle - Belle River



Figure 12. Snowshoe hare



Figure 13. A great blue heron - Belle River

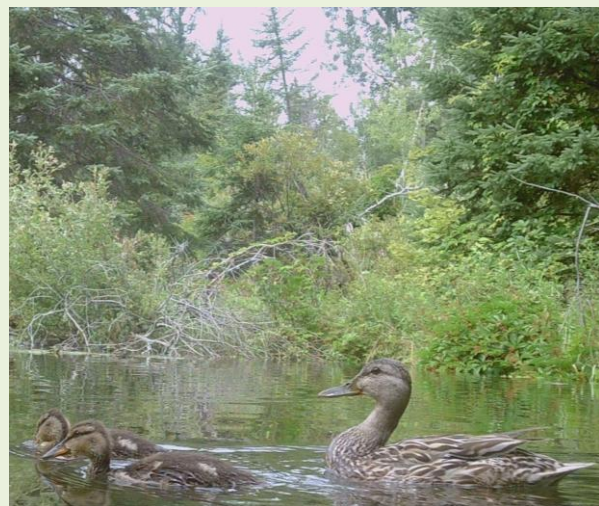
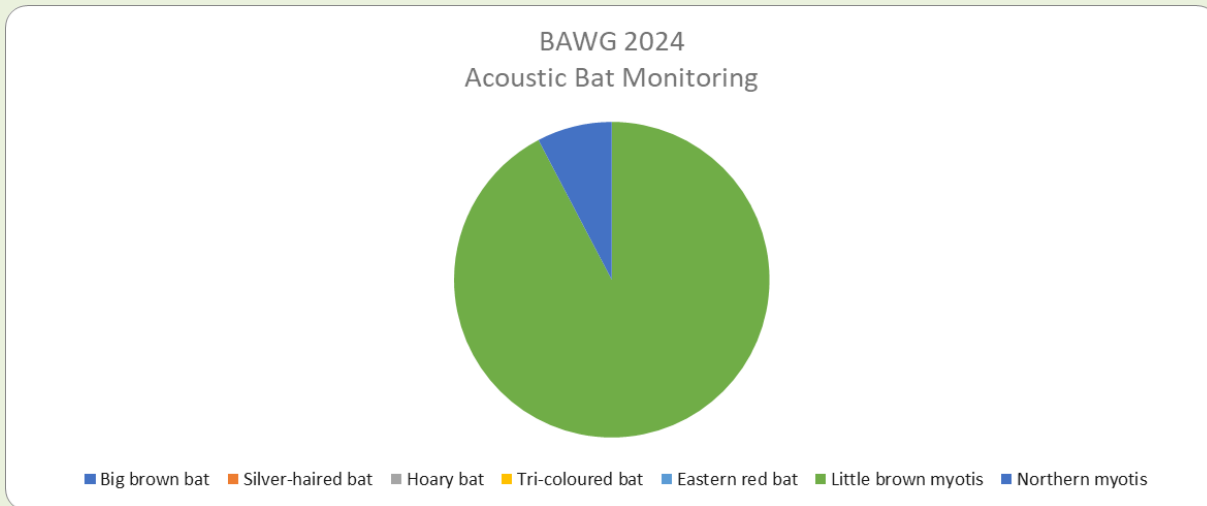


Figure 14. A mallard family - North Pinette River

Bat Surveys

Under Environment Climate Change Canada's Habitat Stewardship Program—Bats, and in partnership with PEI Forests, Fish and Wildlife, Parks PEI, Canadian Wildlife Health Cooperative, and the PEI Watershed Alliance, we conducted bat surveys within the community. The acoustic bat monitoring stations recorded 24 signals from the little brown myotis and two signals from the northern myotis in our survey areas.



Acoustic Bat Monitoring Station:

Four monitors were set up across Belle and Flat River from June 12 to June 17 to monitor bat activity. These monitors are specialized recording devices that can pick up bat noise/calls. The calls that were captured this summer are now being processed; results will be shared when they become available.

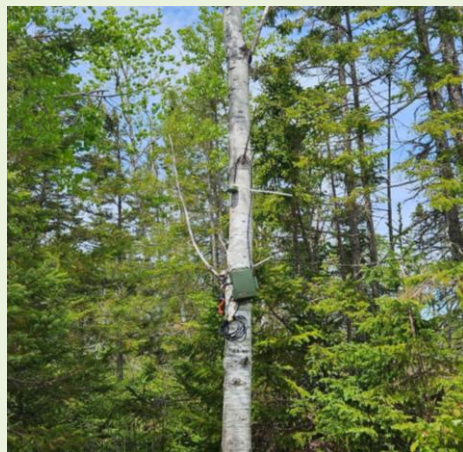


Figure 15. Acoustic bat monitoring station - Belle River.

Mobile Bat Monitoring Transect:

A specialized recording device affixed to the top of a car was used to drive a predetermined route. This route required a slow, consistent speed to ensure accurate data collection. The device recorded all bat activity detected in the vicinity. This survey took place on the night of June 13.



Figure 16. The mobile transects acoustic reader

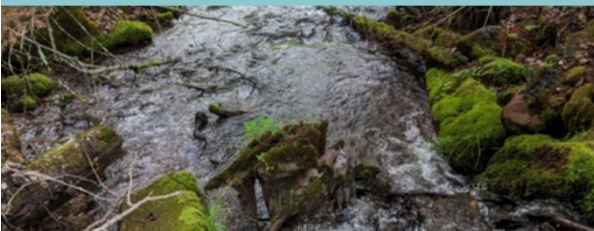
Did you know?
Our Rivers
 change & move about

Rivers and streams are dynamic systems that naturally shift and meander over time, requiring ample space to maintain their natural flow patterns, support diverse habitats, and effectively transport sediment.

When confined by development or altered channels, their ability to adapt is restricted, leading to increased bank instability, erosion, sediment buildup, and degraded water quality.

This disruption not only threatens their ecological health but also results in habitat loss for aquatic species.

Protecting natural buffers and allowing these waterways to flow freely is essential for maintaining stable banks, enhancing community resilience, and ensuring the continuous renewal of habitats vital for fish and wildlife.



Bank Swallow Surveys

This year, bank swallow surveying efforts were expanded by utilizing kayaks in hard-to-reach areas. As a result, nearly 75 km of shoreline, spanning from Beach Point to Newtown, was surveyed, revealing 49 colonies and 1,311 nesting cavities. Participating in the Atlantic Canada Bank



Swallow Monitoring Working Group continued, all data was entered into NatureCounts, a national database managed by Birds Canada, in addition to an interactive map.

To view our interactive bank swallow map scan the QR Code:



Figure 17. Bank swallows on a powerline - Wood Islands

Flat River Counting Fence

This was the sixth year of monitoring the fish population on Flat River using an in-stream counting fence. This method allows for the assessment of fish movement upstream and provides important ecological information about fish species and populations. The final report is submitted annually to the Department of Fisheries and Oceans and the Government of PEI. A total of 106 fish species were captured, identified, measured, and released: Brook trout (47), Rainbow trout (52), American Eel (2), and Gaspereau (7). The average water temperature at the counting fence site was 15.22 °C. Sampling took place over 11 days, from June 24, 2024, to July 15, 2024. Observations included hundreds of Gaspereau noted in the watercourse.



Figure 18. An American Eel captured and released. Measuring 1 meter.

Electrofishing

In the fall of 2024, the annual electrofishing surveys were conducted at several index and project sites. Four locations were surveyed: Pinette River (south branch), two locations on Flat River and Belle River. Electrofishing surveys play a crucial role in monitoring local fish populations' health, identifying invasive species, and assessing whether project goals are being met. Only trained and certified individuals perform the electrofishing. Experienced staff quickly measure fish before being released back into the river.



Figure 19. Gaspereau run in late spring

Fall Redd Surveys

On November 13, approximately 2.8 km of Flat River was surveyed for trout redds, focusing on identifying areas where trout spawn within the river system. A total of 11 redds were located, with the majority situated near freshwater springs. Additionally, several large schools of fish were observed in these regions.



Figure 20. Surveying for Redds



Figure 21. A small brook trout redd

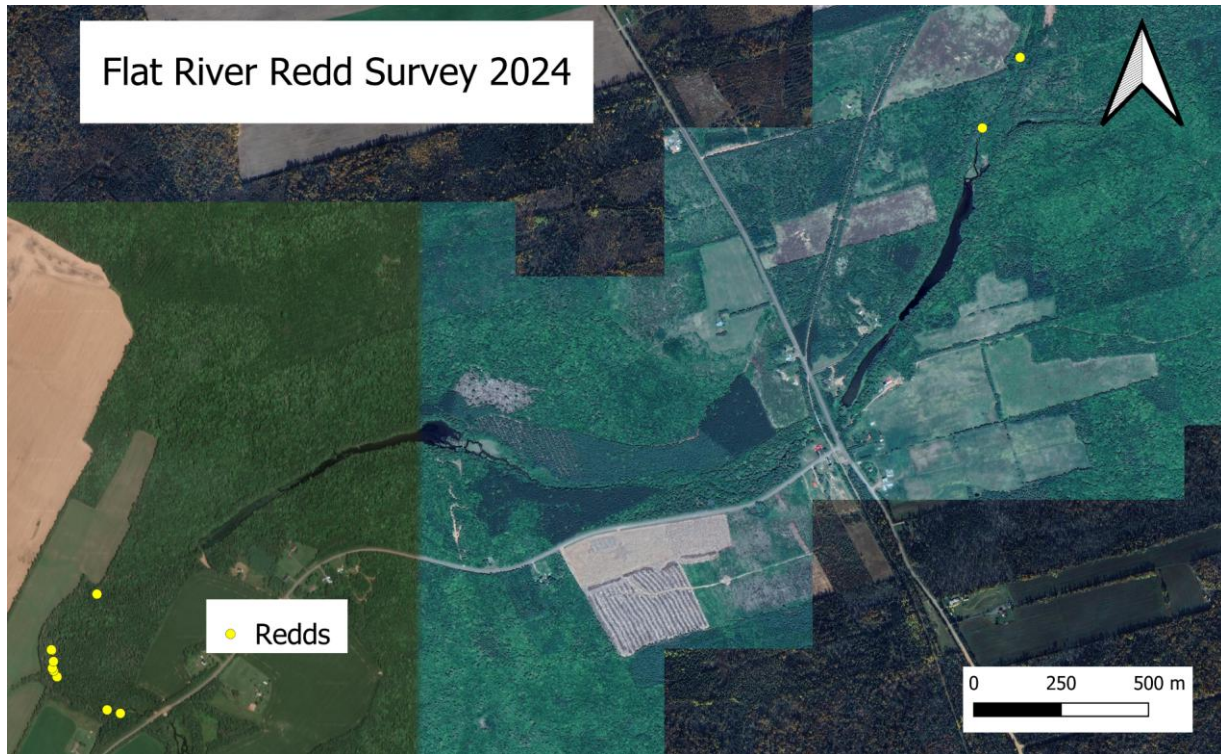


Figure 22. Yellow dots indicate locations of redds found on a section of Flat River.

Stream Assessments & Enhancement

BAWG Stream Crossing Assessments

In 2024, a stream crossing assessment was completed at a culvert in the Wood Islands west river system. These assessments evaluate stream-crossing structures and their surrounding habitat, providing crucial insights for determining the need for stream enhancement work or other related projects. Additionally, stream-crossing surveys and site visits are being conducted in collaboration with the PEI Department of Transportation and Infrastructure to gather findings for future projects.

Furthermore, the mapping and documentation of additional stream crossings within the watersheds continued, resulting in 62 mapped crossings.



Figure 23. Conducting a crossing survey at a culvert in the Little Sands Shore watershed



Figure 24. Water testing on the Wood Islands West system



Rapid Geomorphic Assessments (RGAs)

Retgression siltation occurs when a stream or riverbed builds up with fine sediments (like silt and sand) because the natural flow has been slowed or blocked—often by dams, culverts, or erosion upstream. This buildup can reduce water depth, smother fish habitat, and change how the river moves, leading to long-term damage if not managed.

Retgression siltation can be considered a backward phenomenon in that it often signals a reversal or decline in stream health and natural function.

Here's why:

It happens when normal sediment transport is disrupted, often due to human-made changes. The river or stream loses its ability to effectively carry sediment downstream, leading to sediment buildup in once-free-flowing areas.

Over time, this can cause the stream to become shallower, slower, and more prone to flooding, which is the opposite of a healthy, dynamic system.

A rapid geomorphic assessment (RGA) was conducted on the Pinette River (north branch) system between Garfield Road and Iona Road. Rapid Geomorphic Assessments (RGAs) are field-based evaluations to assess a river or stream's physical condition and stability. They help identify erosion, sedimentation, and channel changes caused by natural and human influences. RGAs provide valuable data for understanding watershed health, prioritizing restoration efforts, and mitigating erosion-related issues by quickly documenting streambank conditions, bed stability, and flow characteristics. These assessments are crucial for protecting aquatic habitats, maintaining water quality, and guiding sustainable land and water management decisions.

After conducting Rapid Geomorphic Assessments on a large portion of the north branch, the watershed is currently in a transitional or stressed state due to degraded riparian zones, stream crossings, and retrogressive siltation. This leads to multiple environmental hurdles that must be addressed to create a thriving, interconnected system.

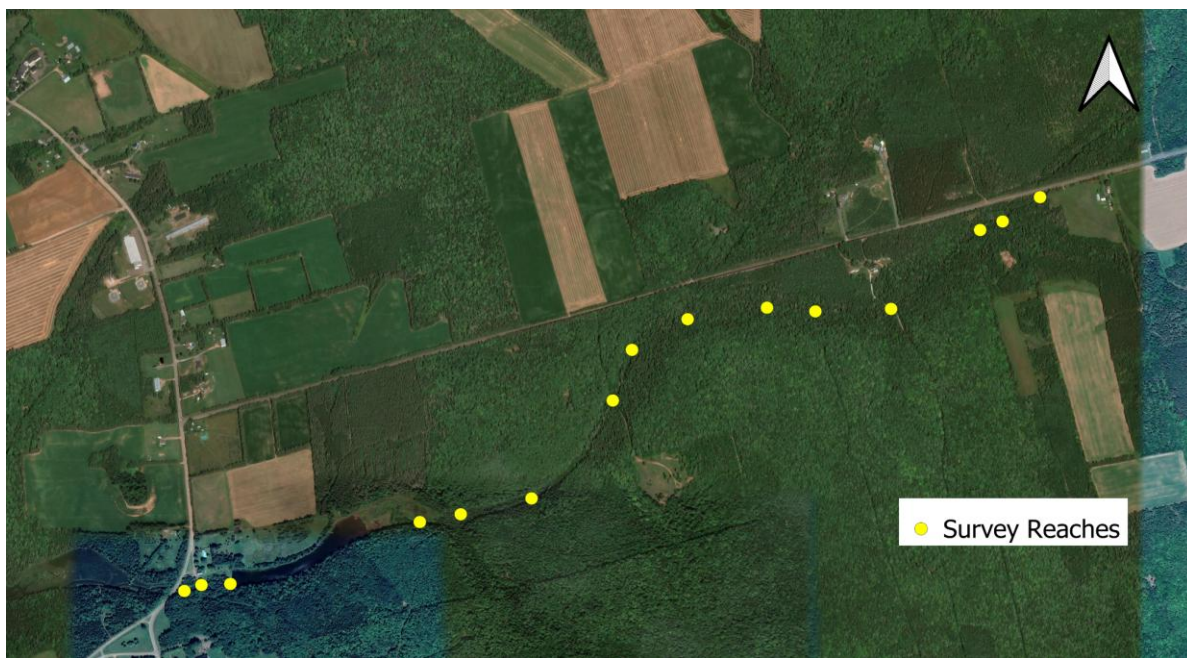


Figure 25. A map showing the different reaches surveyed on Pinette North. The yellow dots indicate each reach or change in geomorphology

Stream Enhancement

In 2024, the primary branches of the waterways were thoroughly walked and meticulously cleared of any materials that could disrupt the natural sediment movement and obstruct fish passage. This included the removal of excess debris, fallen branches, and man-made obstacles, ensuring that the waterways remained free-flowing and conducive to aquatic life. Each section was carefully assessed to identify areas where sediment buildup could potentially hinder fish migration patterns, allowing for a healthier ecosystem to thrive.

Working with our farmers is an essential aspect of our stream protection and enhancement activities. In 2024, an outlet stabilization was completed, which limits any potential runoff from fields into a watercourse. The PEI Agri-Watershed Partnership provides funding and expertise in concert with farmers and watershed groups.



Figure 26. The discharge culvert is degraded and filled with debris and garbage



Figure 27. The early stages of a riparian bank stabilization project. Intended to capture runoff and filter water

Invasive Species Management

Management of invasive plant species has become a larger part of our efforts to protect native plants and ecosystems. These species can outcompete native species, block critical infrastructure flow in culvert systems, and negatively impact biodiversity. In 2024, appropriately 1000 pounds/454 kilograms of invasive plant material were removed.

Bittersweet Nightshade

Bittersweet nightshade (*Solanum dulcamara*) is an invasive climbing vine native to Europe and Asia. This plant significantly outcompetes native vegetation, negatively impacting local forests, including the blocking of waterways and crossing systems. If left unmanaged, bittersweet nightshade can completely choke out streams. Management practices follow recommendations from the PEI Invasive Species Council. All plants are meticulously pulled, bagged, and taken to the dump for proper disposal. The management areas for 2024 include Portree Creek, Pinette North, Flat River, Belle River, and Little Sands Shore.



Figure 28. Bittersweet nightshade flower



Figure 29. Bittersweet nightshade berries

Purple Loosestrife

Purple loosestrife (*Lythrum salicaria*) is an invasive flower introduced to North America in the early 1800s. This aggressive species outcompetes native vegetation and can dominate wetlands, growing in dense clumps and spreading rapidly. If left unmanaged, it poses a serious threat to sensitive wetland habitats. Recently, a significant patch of purple loosestrife was removed from a coastal area in Point Prim. BAWG staff, with assistance from Island Nature Trust, removed approximately 600 pounds/272 kilograms.



Figure 30. Purple loosestrife in full bloom



Figure 31. A patch of loosestrife after removal. Replanting of native species to keep area vegetated

Bugleweed

Bugleweed (*Ajuga* spp.) is an invasive perennial ground cover plant classified as a horticultural escapee by the PEI Invasive Species Council. This species outcompetes native vegetation and has the potential to take over forested areas entirely. Bugleweed grows in dense mats that can obscure the forest floor, significantly disrupting natural habitats if left unmanaged.

In 2024, a patch of bugleweed was managed at a site in Flat River by pulling as much of the plant as possible and tarping it with a commercial-grade wrap.



Figure 32. Part of site before bugleweed removal



Figure 33. After the removal of bugleweed



Figure 34. The site after installing industrial grade tarping to stop regrowth. Monitoring of site to continue

Trees & Shrubs

Tree Planting & Pruning

This season, the crew, volunteers, and members planted 643 native trees and shrubs. We planted trees at a project site in Flat River, along the Portree trail, Portree Creek, and Little Sands. We also examined the trees and shrubs we had planted in previous years and, if necessary, pruned them to encourage better growth.



Tree planting in Little Sands.



Tree planting in Flat River.



Tree planting in Flat River.

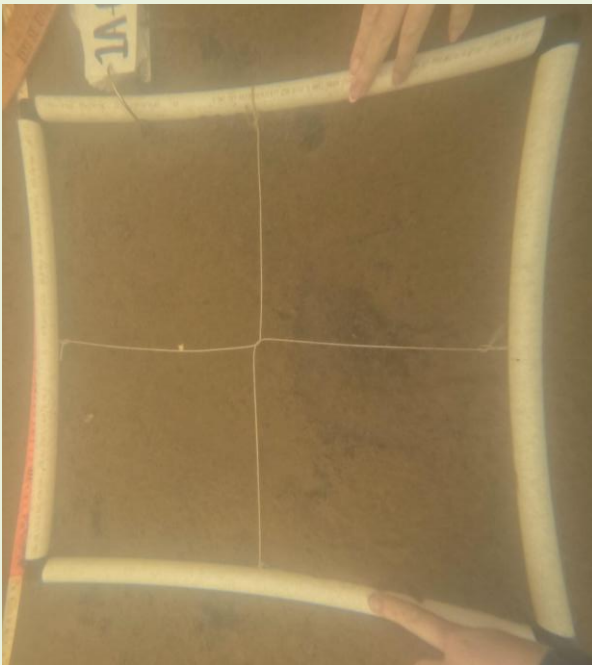
Other Projects

Eelgrass Monitoring & Planting

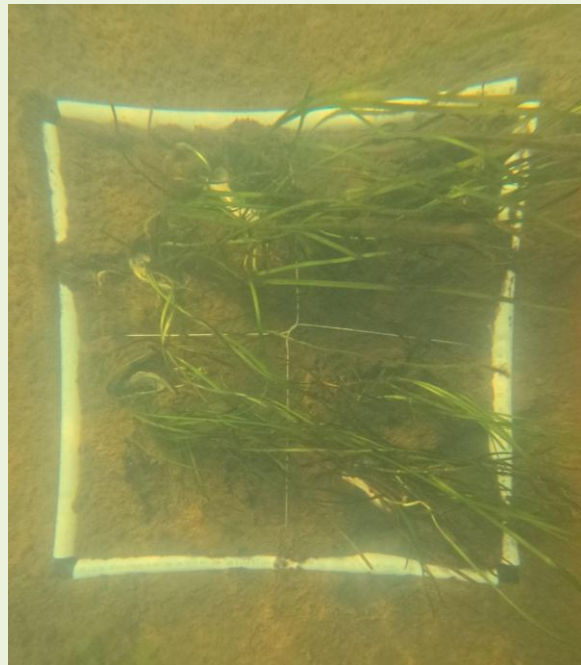
As part of the Nature Smart Climate Solutions Fund (NSCSF), eelgrass monitoring efforts commenced in August 2023, focusing on on-site assessment and eelgrass restoration. Approximately 1,500 eelgrass shoots were successfully planted this summer. With two years of baseline data now available, the effectiveness of these transplanting efforts can be evaluated in the future.

This project is crucial in carbon sequestration, as eelgrass beds effectively capture and store significant amounts of carbon from the atmosphere. Replanting this degraded eelgrass bed will enhance the area's carbon storage capacity.

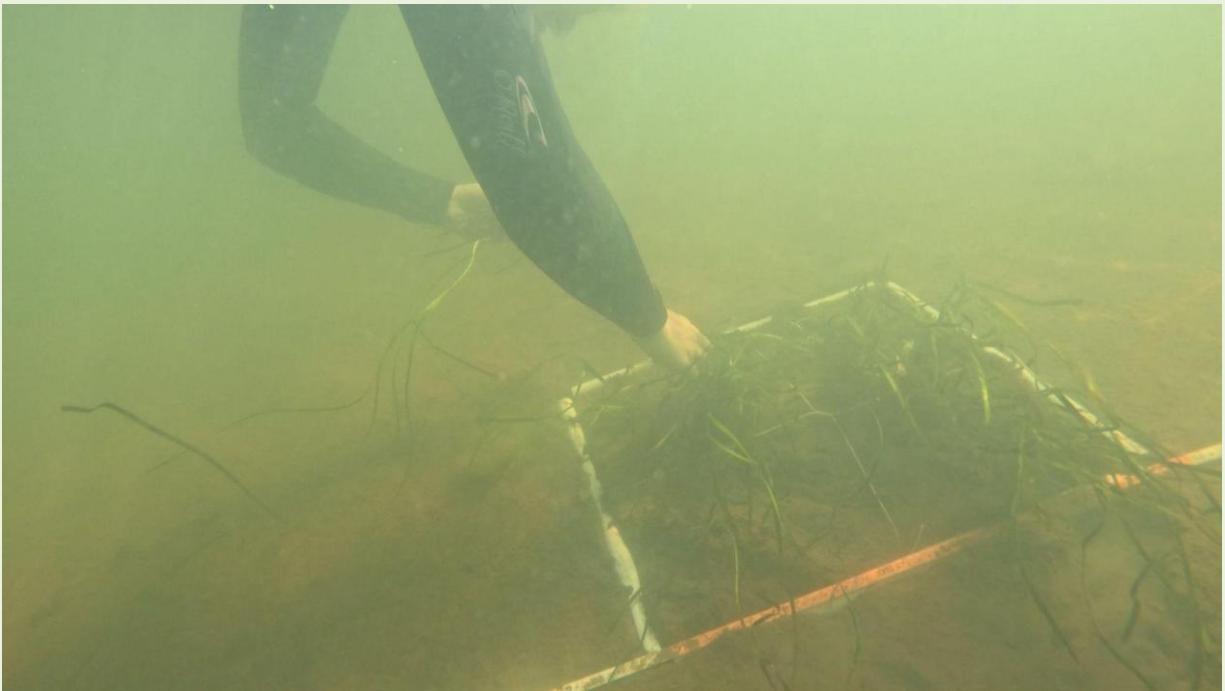
Additionally, the monitoring of a salt marsh in Long Creek began this year, utilizing the Wetland Ecosystem Services Protocol (WESP) for thorough assessment.



A plot before being planted with eelgrass.



The plot after being planted with eelgrass.



Eelgrass shoots getting planted at the monitoring site.



Saltmarsh monitoring using WESP.



An aerial photo of the salt marsh we assessed

Flat River Restoration Project

In its third year, the Flat River restoration project has been directed towards rejuvenating the upper portion of the river to its original watercourse, with the lower portion also experiencing notable enhancements. The gradual and natural regeneration of the original stream channel has led to the growth of native floodplain grasses and shrubs, thereby stabilizing the floodplain that was previously submerged due to the mid-section berm and collapsed culverts.

Restoring the original stream bed has provided an opportunity to regenerate a beneficial riparian zone for trees, grass, and wildlife species. Water temperatures in the restored pond beds are reverting to customary conditions for fish, invertebrates, and benthic macroinvertebrates.

In the spring and summer of 2024, over 130 trees, shrubs, and wildflowers were planted to restore the construction trail to pre-construction conditions. In addition, additional shrubs were planted in the buffer zone to begin the process of bank stabilization at the lower berm and increase shade along banks in the future. Furthermore, sizeable woody material (Fiona debris) was placed strategically in the lower section to capture and stabilize sediment as the watercourse reverted to historical channel conditions. The removal of invasive plant species has been performed and will continue. The upstream watercourse was cleared of debris where appropriate to ensure stream flow and natural sediment movement.

The project's results have been thoroughly monitored through abiotic and biological monitoring, restoration efforts based on engineered design, and photographs documenting the changes to the area of restoration. Overall, the river restoration project has successfully achieved its goals to date and has significantly contributed to the regeneration of the river system.



**A watershed is
like a big funnel,
for water!**

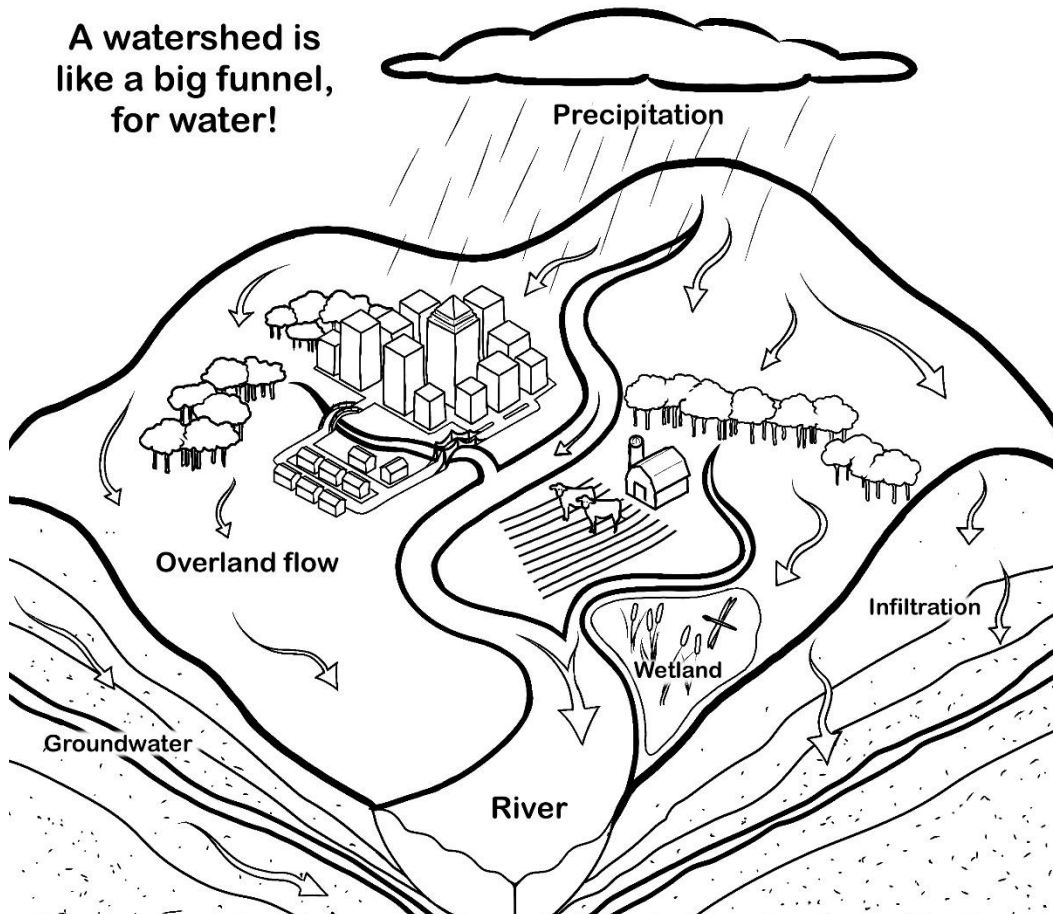


Figure 35. Illustration by Miranda Ings

Flight to the Future: Forest Habitat Conservation



PEI Forested Landscape Priority Place for Species at Risk Initiative (FLPP) is a joint initiative co-led by Environment and Climate Change Canada- Canadian Wildlife Service and PEI Forests, Fish and Wildlife Division.

The project aimed to engage landowners in conserving forest habitat for species at risk, particularly avian populations, while enhancing their awareness and understanding of local watersheds and biodiversity. It focused on the importance of protecting habitats for

EASTERN WOOD PEWEE

Contopus virens

HABITAT

Breeds on PEI in
Mixed &
deciduous
forests with
openings

FEEDING BEHAVIOUR

**AERIAL
FORAGER**

NESTING BEHAVIOUR

**TREE
NESTER**

SARA: Special Concern

- Habitat loss & degradation
- Decrease in food (insects)
- Higher mortality during migration

© Paul Danese



various bird species, which serve as indicators of ecosystem health and contribute to overall biodiversity. In addition, the information was shared at a public event with the Rural Municipality of Belfast and watershed groups.

As part of the initiative, point count surveys were conducted across 14 properties (20 individual survey locations), identifying 31 bird species and 245 individual birds. Notably, the Eastern Wood Pewee and the Northern Waterthrush, an uncommon species, were recorded. The project provided a hardcover binder to landowners with personalized results, including habitat assessments, drone footage, and information on species at risk, a stewardship agreement, Master Bird List (nesting, feeding, habitat

preference), and Best Management Practices (BMPs), and various program information resources from partners, such as Island Nature Trust.

The Habitat Assessment included specific details about their properties and mapped areas of high breeding habitat probability for the Eastern Wood Pewee. Additionally, resources from various environmental organizations were shared to assist landowners in understanding and managing their land sustainably.

Overall, the project successfully fostered relationships with landowners, emphasizing the importance of habitat conservation and providing valuable resources for effective management.



Wildlife Conservation Fund – “Wildlife Wonders”

wildLife wonders

Mermaid's Purse

About

- Mermaid's purse is a common name for the discarded egg case of the various species of Skates. It's made of proteins/collagen fibers, have a leathery feel, often mistaken for seaweed.
- The mermaid's purses, aka the egg cases, are distinct to each species, this makes for easy identification of which species laid the case.

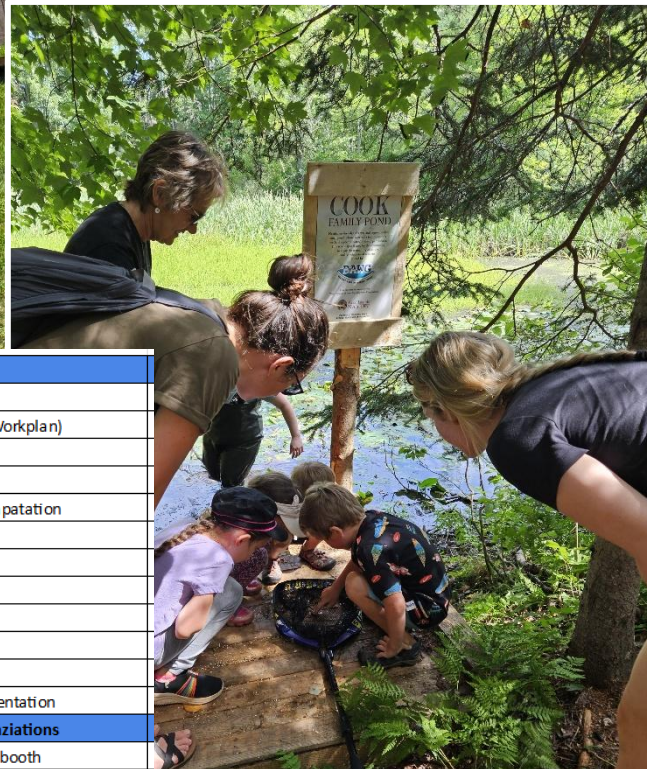
did you know?

Skates are a type of cartilaginous fish that resemble stingrays, they belong to the same class as stingrays but are their own distinct subclass. They have a slow growth rate and are vulnerable to overfishing. 574 species have been discovered so far.

BAWG
BELFAST AREA WATERSHED GROUP

PRINCE EDWARD ISLAND
WILDLIFE
CONSERVATION FUND

The 2024 Wildlife Wonders project, funded in part by the Wildlife Conservation Fund (WCF), focused on bringing creativity, fun, and interesting facts to our community members about the natural world around us. Activities and learning included the Annual Family Fishing Day, complete with BBQ and infographics with fascinating facts. Our first Wildlife Wonders colouring book – illustrated by BAWG employee Miranda Ings, with copywriting provided by Jenna Smith. Cyra Barras and Sherry Pelkey assisted with the design and layout. Copies were provided to attendees of Belfast Days and all students at Belfast Consolidated School. Additional activities included Critter Dipping and Seashore Adventure days.



Event Name - Hosted by BAWG	
1	Songs for our Streams (fundraiser)
2	Earth Day, April 22, 2024 (PEI 2 Billion Trees & WMF Workplan)
3	Tree planting
4	Roseberry Pond Fishing Day
5	AGM w/ guest speaker Stephanie Arnold - Climate Adapatation
6	Critter Dipping & Bug Shelters
7	Seashore Adventures
8	Nature's Kaleidoscope
9	Stategic Planning (Wood Islands) - public
10	Stategic Planning (Belfast Rec) - public
11	Strategic Planning (Murray Harbour) - public
12	Flight to the Future - Forest Conservation - public presentation
Presentations, Exhibits with Other Organiations	
1	Belfast Days - parade and exhibor actiity booth
2	Festival of Forests (MacPhails) with booth
3	Rural Municipality of Belfast - Official Plan public meeting. Q & A panel
4	Belfast Historical Society Christmas in Belfast
5	Christmas Light-up w/ Rural Municipality of Belfast
6	FLPP project presentation - regional (Zoom)
7	FLPP project presentation - PEI Watersheds (Zoom)
8	Presented at PEI AgriWatershed Partnership Regional meeting

Community Outreach & Events

Building capacity and community roots

Hosted 2 Environmental Studies UPEI students. Field – water quality testing, field trips completed: one case study – buffer zones, one trend analysis water quality from our Atlantic DataStream data.



Planting an Oak tree during the 200th Anniversary St. John's Presbyterian Church celebration.



More great friends of BAWG activities that happened before the ice melted! Four new wood duck boxes were built and installed, and 30+ were checked and fixed as needed. We are grateful to the volunteers who care about wildlife habitats and the watersheds that sustain us.

Participation in the Women's Institute Roadside Cleanup brought together community members to tackle the ditches along Iona Road, Camp Road, and the Trans-Canada Highway. Seeing so many individuals come together to make a difference was heartwarming, demonstrating a shared commitment to keeping the surroundings beautiful!



Belfast Days 2024



Little Sands Tree Planting

Volunteers, including the Wood Islands Women's Institute junior group, board members, volunteers from Holland College, and community members planted approximately 400 trees to restore a field to a woodland and increase biodiversity.



