



WHEATLEY RIVER WATERSHED NEWS

FALL IS HERE AND WINTER IS NEAR

It's getting cold out but WRIG is still working to improve the watershed! In this edition of the Wheatley River Watershed News, we give you an update on what we have been up to this fall season, including: information on electrofishing surveys, the results from the first season of our tree swallow nesting box project, a discussion of invasive plant species in our watershed, and more!

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FUNDING ANNOUNCEMENT!

We are thrilled to be one of 14 groups to receive funding this year from the PEI Climate Challenge Fund to help the Island adapt to the impacts of climate change!

Some of the watershed-level climate change projections are: an increase in frequency of extreme precipitation events; a decrease in summer surface water volume in rivers; and an increase in water temperature.

WRIG has received \$65,855 to increase the resiliency of Wheatley River brook trout to the impacts of climate change through habitat enhancement and sediment mitigation. Specifically, we will be working to mitigate inputs of sediment, control erosion, restore deep-water habitats, and improve canopy cover along the river.



WHAT'S NEW AT RACKHAM'S POND?

Thank you to our generous sponsors, Janet Marshall and the Cymbria Lions Club, as well as help from local carpenter Chris MacLeod and adjacent landowners Steven Rackham and Craig Ling, for supporting our improvements to the Rackham's Pond area! With your monetary and in-kind donations, we were able to purchase two benches from a local high school carpentry class, and re-build the footbridge and floating dock! We have continued the walking trail on the far side of the pond as well as updating the main sign. Come check it out!



LIVING SHORELINES WORKSHOP

WRIG participated in a Living Shorelines Workshop near the Queen Elizabeth Hospital in October to help winter-proof the installation.

"This installation was one component of an approximately \$325,000 initiative funded through Environment and Climate Change Canada's (ECCC) Climate Action and Awareness Fund that represents a partnership between PEI Watershed Alliance, the City of Charlottetown, the Town of Stratford, Creative PEI, and the Mi'kmaq Confederacy of PEI among other technical support partners. The project seeks to promote awareness and execution of living shoreline projects on PEI to encourage community-based climate action." - City of Charlottetown



Photo Credit: PEI Watershed Alliance

PHOTOGRAPHY CONTEST



Calling all shutterbugs!

WRIG's photo contest has returned. We want you to capture our stunning watershed area! There are two entrance categories: landscape and wildlife. Photos will be judged by professional photographer John Sylvester.

PRIZES available! Submit your entries via email to: manager@wheatleyriver.ca by **February 1, 2022**

ELECTROFISHING SURVEYS

With help from the Hunter-Clyde Watershed Group, Watershed Ecologist Mary Finch, and a volunteer from UPEI, we were able to complete electrofishing surveys along three different stretches in the Wheatley River in order to track fish populations.



Photo credit: HCWG

How does electrofishing work?

Low voltage electricity is used to partially stun fish so they are easier to catch, and draw them toward the nets. The stunned fish are then carefully placed in a tub of oxygenated water with a few drops of clove oil to help them relax. We identify and measure each fish; these data allow us to track populations over time!



Photo credit: HCWG

TREE SWALLOW NESTING BOX SUMMARY

In October, WRIG checked all of the 25 tree swallow nesting boxes that were previously installed in an effort to increase tree swallow populations in the watershed. We looked for evidence of nesting before cleaning out the boxes for next year. Good news! Based on these observations and those made in the summer, we calculated that approximately 70% of these nesting boxes were successful! A big thank you to all land owners who support these species by participating in this project.

Hole Guards

Red squirrels and other small animals can interfere with nesting by eating eggs, widening the entrances to the nesting boxes (see photo below on right), or even by making a home for themselves! This is why WRIG has installed hole guards on all tree swallow nesting boxes where small animals could potentially get in (photo below on left).

DID YOU KNOW?

Tree swallows use feathers from other birds to make nests. These are sometimes referred to as "feathers from heaven" because it can be difficult to trace just where these crafty birds are getting them from!



INVASIVE SPECIES IN THE WHEATLEY RIVER WATERSHED *by Shayla Steinhoff*

An invasive species can be a plant, animal or fungus that is non-native and can reproduce, adapt and spread rapidly. For a species to be "invasive" it must also cause harm to natural ecosystem functions. Invasive plant species reproduce rapidly and tend to mat and climb through streams, quickly taking over large areas. This rapid spread can impact fish survival by worsening in-stream blockages and decreasing native plant habitat and diversity. Some of the invasive plants that we've recently observed in the watershed are highlighted below.

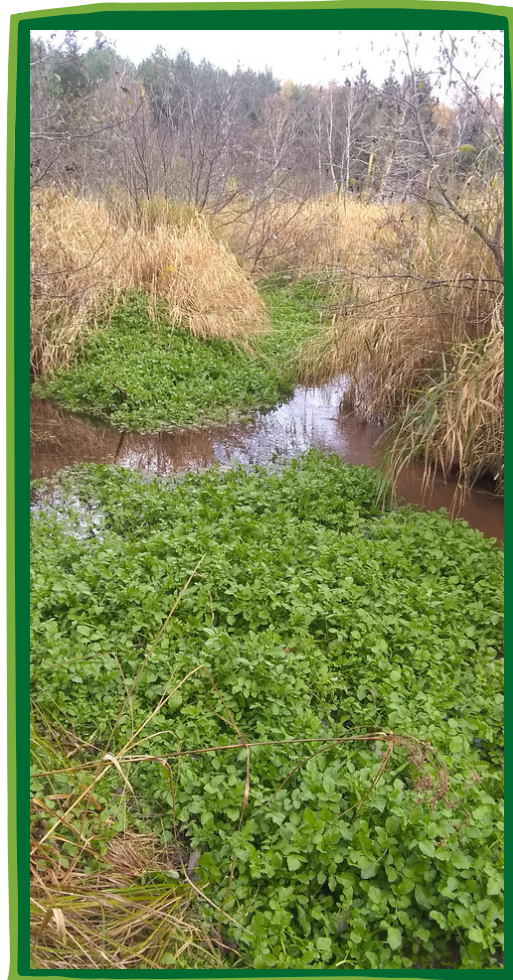
Creeping Buttercup **(*Ranunculus repens*)**

Creeping Buttercup (also known as Crow's foot) is native to Europe, Asia and Northwestern Africa and was introduced sometime before 1890. This species has been found throughout the Wheatley River watershed, which is not surprising as it can spread over 40 square feet each year. This plant grows in pastures, meadows, ditches, and wet woods, forming dense mats along streams. In addition, the competitive, wet tolerant species can survive easily and can crowd out other species.



One-Row Watercress **(*Rorippa microphylla*)**

Watercress is native to the Middle East, parts of North Africa and Europe and was introduced to North America in the mid-1800s. This plant is a perennial, semi-aquatic herb in the mustard family that prefers wetter areas such as streams and wetlands. The photo below is an example of watercress spreading over a large section of stream.



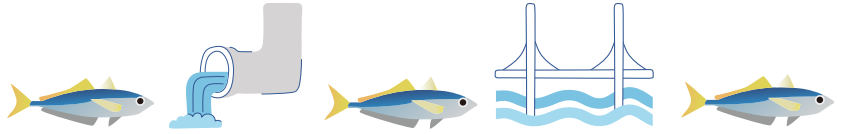
Woodland Angelica **(*Angelica sylvestris*)**

Woodland Angelica is native to Europe and Asia and was brought over for its edible, medicinal and ornamental qualities, belonging to the celery family. It prefers moist soils such as riparian areas, forest edges and roadsides. The species is not of major concern to the Wheatley River watershed and has only been found in one area occurring as an individual plant. However, the plant contains a toxin that can irritate skin if one touches the plant and is then exposed to sunlight. Woodland Angelica spreads rapidly through seed as well as root systems which can grow 2 and a half meters deep!



LET'S TALK ABOUT FISH PASSAGE

by Shayla Steinhoff



Brook trout and other fish species need to move throughout waterways for a number of reasons: to migrate to the ocean annually, to find suitable spawning habitat in the fall, to feed, or to find the most hospitable area to live. These movements can be difficult at times due to improperly constructed or degraded crossings and culverts, stream fragmentation, in-stream blockages, and sedimentation.

Crossings and Culverts

There are a number of problematic culverts and crossings, such as: hung culverts, blocked or buried culverts, improperly sized culverts (water flow is too high or too low), and crossings with wooden floors that have rotted or lifted. We come across these issues often in the Wheatley River but removal or repair costs can be high. The use of open bottom culverts or bridges on roads and farm crossings reduces the risk of fish passage issues and these structures take less maintenance. A fish ladder can be used as a simple fix for a hung culvert to avoid the cost of culvert removal and replacement. Fish ladders are long angled structures that fill with water to help fish get up and over a barrier. Our watershed has 2 fish ladders!

In-Stream Blockages

In-stream blockages can generally be dealt with by cutting and removing fallen trees and matted plant growth. Large woody debris is very beneficial to stream ecosystems; where it is not impeding fish passage, we leave it in place and simply remove the limbs to avoid future blockages. Garbage, discarded machinery, and sometimes even old vehicles have also been found to cause blockages.

Sedimentation

Sediment deposits and inputs can build up and allow vegetation to grow across sections of stream, creating land bridges and impeding fish passage. Preventative measures such as installing brush mats, live staking eroding banks, and digging sediment traps along clay roadways can help stop these inputs.

What can you do?

If you notice any culvert, crossing or stream blockage issues in the watershed, please get in touch with us so we can assess the issue and try to find a solution!



Looking downstream into a fish ladder



A rusted and decaying culvert



A hung culvert with very low flow

CONTACT INFORMATION

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[The Wheatley River Improvement Group](https://www.facebook.com/wheatleyriverimprovementgroup)



[@wheatleyriverimprovementgroup](https://www.instagram.com/wheatleyriverimprovementgroup)

A Special Thanks to Rackham's Pond Landowners:

Grant & Nancy Rackham
Steven Rackham
Melvin & Debbie Ling
Craig & Michele Ling
Charles & Laura Lipnicki
Phillip & Shirley Weatherbee
Jody Mokler
Susan Axworthy

CORPORATE SPONSORS & FUNDING SOURCES

- Blue Bay Farms Ltd.
- Canada Summer Jobs Program
- Conseil Acadien de Rustico
- Creekfield Homeowner's Association
- Cymbria Campground
- Cymbria Lions Club
- D & B Developments
- ECO Canada Employment Program
- Gallant's Country Food Market
- Island Honey Wine Company
- Lilacs and Lanterns
- Oyster Bed Esso
- PEI Climate Challenge Fund
- PEI Watershed Management Fund
- PEI Wildlife Conservation Fund
- PEI Jobs for Youth Program
- Rackham Electric
- Rassicot Farm
- Skills PEI Student Funding
- Storybook Adventures
- Vanco Farms Ltd.

WHEATLEY RIVER IMPROVEMENT GROUP 2022 MEMBERSHIP

Would you like to be a part of restoring and protecting our watershed? This is your chance to help; join or renew your WRIG membership! All proceeds and donations go directly back into the community as we work to preserve and enhance the quality of the environment in the watershed.

Sponsor:	\$100.00
Group:	\$50.00
Family:	\$20.00
Individual:	\$10.00

Name: _____

Address: _____

Telephone: _____

Email: _____

Add to WRIG's email list? YES ___ NO ___

Amount enclosed: \$_____

The membership form is also available online here

Please mail the completed form and
payment (cash or cheque) to:
**2184 Church Road Hunter River,
PE, C0A 1N0**

Or send an e-transfer to:
manager@wheatleyriver.ca

Thank you for your support!