



www.thamesriver.on.ca

Twitter @UTRCAmarketing

Facebook @UpperThamesRiverConservationAuthority



Community Science Projects Launched! On May 11, the UTRCA launched <u>two new</u> <u>community science projects</u> aimed at involving local residents in collecting useful environmental information about the watershed. Community science engages members of the public in collecting data, which can be used to increase scientific knowledge and inform decision making.

The new Community Nature Project

encourages people to make observations about the animals and plants they see in the watershed and log them using the iNaturalist Canada platform. iNaturalist is an on-line platform where participants can record and share biodiversity information, learn more about their local environment, and connect with other naturalists. To guide people on how to use the iNaturalist platform and get involved with the Community Nature Project, the UTRCA will host a free webinar on Wednesday, May 19 from 7-8 pm. **Register for this webinar**.

The UTRCA is also working with watershed property owners to pilot a new <u>Community</u> <u>Precipitation Monitoring Project</u>. Participants will measure and record daily precipitation using the online Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) platform. CoCoRaHS is a community based network of volunteers across North America who measure and map daily precipitation. The UTRCA plans to expand the project based on the first pilot year. **Contact: <u>Erin Dolmage</u>**, **Community Education Technician**

European Gypsy Moth - They're Back!

Our news is probably not what you want to hear, especially if your trees experienced significant defoliation from this non-native invasive pest in 2020. The first hatches of this year's Gypsy Moth larvae were observed in London on April 29. UTRCA staff began manually removing Gypsy Moth egg masses in several of London's Environmentally Significant Areas (ESAs), in the fall of 2020. To date, staff have removed over 15,000 egg masses through a combination of scraping and disposing as well as smothering with dormant horticultural oil. Although these control methods were limited to the first few metres of the tree trunks, we estimate nearly 7.5 million larvae were prevented from hatching in the ESAs. We also assisted staff at Wildwood and Pittock Conservation Areas in removing several thousand egg masses in early 2021.



Main photo and top inset: Gypsy moth egg masses and hatching caterpillars on April 29. On average, 500 larvae may emerge from one egg mass. Lower inset: A larger caterpillar can be identified by the pairs of blue and red dots along its back.

The Gypsy Moth was first introduced to North America in 1869. They were first detected in Ontario in 1969 and the first major outbreak occurred in Eastern Ontario in the early 1980s. Since that time, the invasive forest pests have continued to spread.

The population is cyclical in nature, building and collapsing about every 10 years. The last outbreak in the London area occurred in 2009. Population collapse is usually caused by a virus (*Nuclear polyhedrosis*) that spreads quickly from infected larvae to non-infected larvae, killing them. Dead larvae hanging on the tree in an upside down 'V' are a sign that the virus is at work in the population. A fungus (*Entomophaga maimaiga*) can also cause population collapse, particularly during cool wet weather. Dead larvae that appear brittle and hanging vertically on the tree trunks are a sign that the fungus is at work. History has also shown that the population builds for approximately three years and then collapses. 2021 is year three in the population expansion; we can only hope that this will be the year that it also collapses.

Even if the virus or fungus take hold in 2021, we will probably continue to see some significant defoliation. If the larvae are present, homeowners can use the burlap banding technique to capture and kill larvae. To do this, drape a piece of burlap over a length of twine and tie it around your tree at chest height. During the heat of the day, the larvae will retreat from the crown of the tree and seek shade under the burlap. At this point, you can collect and kill them by scraping them into a pail of soapy water, or burning.

- <u>How to Remove Gypsy Moth Egg Masses</u> -(YouTube video)
- **Provincial information on Gypsy Moth**

• <u>2021 Gypsy Moth Prediction</u> Contact: <u>John Enright</u>, Forester, or <u>Brandon</u> <u>Williamson</u>, Land Management Technician



certain fields are able to withstand the erosive forces of wind and water. UTRCA Conservation Services staff are working with a producer in Middlesex County and another in Oxford County to establish three acre soil health plots, to demonstrate whether fields can be returned to good health and productivity. On each farm, small sections of highly erodible and less productive land were planted into a cover crop / forage crop mix and will be left for multiple years before being put back into row crop production. Before and after yield measurements will be compared to see if there is a response to this project.

We hope that demonstrating this best management practice and the improvements to long term soil health will inspire other landowners to consider this approach on their farms. **Contact: Craig Merkley, Conservation Services Specialist**

Controlled Drainage Demo Day

If COVID-19 restrictions permit, UTRCA staff will host a demonstration day on June 10 at the new UTRCA demonstration farm near Thorndale. Landowners will be able to see a contour controlled drainage system and in-line water level control structures being installed. **Contact: Brad Glasman, Manager, Conservation Services**





New partnership hatches between Start.ca & UTRCA

Start.ca is London-based technology service company providing internet, phone, TV, and business services. The company has a strong corporate directive to give back to the communities where their customers live. In 2019, Start.ca and the UTRCA partnered on the GREEN Leaders Initiative. This program develops leadership skills and promotes civic action around local environmental issues. UTRCA Education and Partnership staff delivered the program to 17 grade 7 and 8 watershed classes, and the success of this partnership inspired both sides to explore new ways to work together.

The challenges of the past year motivated Start.ca to seek other ways to generate some additional funding for local organizations whose work Start.ca supports. The GREEN Leaders Initiative partnership led Start.ca to understand other aspects of the UTRCA's programs, and increased their interest in finding more ways to support UTRCA efforts, outside of education.

The result is the newly launched UTRCA/Start.ca Sponsorship Program! Start.ca will donate \$25 for any new Start.ca subscriber who is directed from social media posts or selects "UTRCA support" during sign up. There is no additional cost to the subscriber. The donations support UTRCA efforts to create and protect wildlife habitat, improve water quality, and foster community engagement.

The program went live on April 27 and will run for one year, promoted through UTRCA and Start.ca social media, newsletters, blogs, and email. Start.ca is a fast growing company. In 2020 they averaged 1200 new subscribers per month. With new promotions and new services coming in 2021, the hope is for even higher numbers. The goals of the partnership are twofold:

- for new Start.ca subscribers to learn more about UTRCA programs and choose to support local habitat and water quality efforts with their subscription, and
- for UTRCA supporters to learn about Start.
 ca, a service-first local tech company with a corporate DNA of philanthropy, and support this company with their subscription.

The Start.ca team's values were demonstrated throughout our work together on the GREEN Leaders Initiative and continue through the development of this new sponsorship opportunity. Our two organizations have a shared passion for the environment and improving the lives of the watershed residents, and the UTRCA is thrilled to team up with Start. ca again. We are hoping that when pandemic restrictions ease, Start.ca employees will be able to get out in the field to help with projects and see their sponsorship dollars at work.

To sign up, visit **www.start.ca/SpeciesAtRisk** or call 1-888-706-0001.

Contact: <u>Brad Hertner</u>, Community Partnership Specialist

Spring Weather Affecting Groundwater & Streams

The weather conditions over the late winter and early spring have benefited stream water quality and local groundwater recharge. The snow melt was gradual with minimal rain and runoff, creating ideal conditions for water to seep into the ground to help recharge local aquifers and well supplies. These recharge conditions were important as groundwater levels, measured at our monitoring wells, were lower at the end of 2020 and continue to be below normal levels this spring as a result of reduced precipitation in the watershed (46% of normal for February to April). The UTRCA has 28 monitoring wells that measure water levels continuously, as part of the Provincial Groundwater Monitoring Network. This province-wide monitoring program started as a result of the drought years in 1998-1999. The data is used in-house by the Low Water Response Team for the Ontario Low Water Response Program. These wells are also sampled for water quality to understand emerging issues in local groundwater. The UTRCA has an additional 15 monitoring wells that are sampled for water quality, in partnership with the City of London. The water quality and quantity data is used for plan review and is **available online**.



Kaela Orton, Monitoring Technician, downloads groundwater level data at the monitoring well at the Golspie Swamp.

So far this year, conditions have been generally good for stream water quality. There were no major winter thaws or significant winter/spring rainstorms or runoff, which are the events when most of the sediment and pollutant load is typically delivered to the Thames River each year. As a result of the reduced runoff, streams have been running very clear this spring, supplied mainly by groundwater discharge sources. These conditions will help to reduce this year's contaminant load, including nutrients, both locally in the Thames and downstream to Lake St. Clair and Lake Erie. UTRCA staff monitors water quality in the river year-round. This includes the 28 subwatersheds in the Upper Thames monitored monthly for water chemistry and bacteria as part of the Ministry of Environment, Conservation, and Parks Provincial Water Quality Monitoring Network. This monitoring program has run for over 50 years and provides a good measure of long term pollutant levels.

Monitoring is done to better understand stream health and emerging issues as well as help guide implementation programs to protect water quality. The data is needed to measure progress toward environmental targets in the Upper Thames watershed including the 5-year Watershed Report Cards, with an upcoming report card in 2022.

Contact: <u>Linda Nicks</u>, Hydrogeologist, or <u>Karen</u> <u>Maaskant</u>, Water Quality Specialist

Natural Heritage Presentation going on (virtual) Road Show

Cathy Quinlan, the UTRCA's Terrestrial Biologist, presented information on changes in the watershed's woodland and natural cover to the Board of Directors at a recent meeting. Collecting and interpreting long-term environmental data and reporting it back to member municipalities is an essential role of the UTRCA.



The UTRCA has been mapping forest cover and other vegetation cover for many years. GIS and digital air photography allow staff to more accurately map vegetation cover and track changes; even small changes to small woodlots can be tracked and measured, over time. Our Watershed Report Cards relay these changes through the forest conditions grades and data, every five years. http://thamesriver.on.ca/ watershed-health/watershed-report-cards/

Tracking changes in vegetation provides an indicator of watershed health. Natural cover helps protect watershed residents from the worst effects of climate change, conserve local species, and provides many other ecosystem services. By overlaying the last updated mapping and the newest photography, staff can see:

- Losses woodland and other vegetated areas that were cleared for urban development, agriculture, aggregates, etc.;
- Gains new natural vegetation areas (e.g., young tree plantations, new meadows); and
- Changes vegetation areas that matured or changed from one type of habitat to another (e.g., meadow to thicket).

This work is an example of the valuable environmental information collected by the UTRCA on behalf of its member municipalities. Staff will be providing the presentation to municipal staff, committees and councils over the next few months, as well as to interested partners. **Contact: Cathy Quinlan**, **Terrestrial Biologist**

Upper Medway Update

Farmers in the Upper Medway are once again using check blocks or check strips to gain insights into the use of cover crops on their fields. For the second spring in a row, Conservation Services staff



sampled these field trials to look at differences in soil moisture, temperature, and residue between areas of the field with and without a cover crop. Crop yield data will be collected later this spring, which can assist farmers in making decisions regarding cover crops.

Staff continue to collect water quality samples to investigate the impact of over winter cover on sediment and nutrient losses from the watershed. The spring runoff was lower than normal this year and water levels have remained low since March. This may provide a unique comparison between previous, wetter years when looking for connections between what occurs on the landscape and in-stream water quality.

Check out the **video from one of the fields** this past fall.

Contact: <u>Tatianna Lozier</u>, Agricultural Soil & Water Quality Technician

Friends of Stoney Creek

Wally and Westly from the Friends of Stoney Creek are preparing the second plot for the Friends' pollinator garden, which UTRCA staff will plant later this month. COVID-19 delayed the project, but the extra year allowed the Friends to use chemical-free methods to prepare the plots.



A tarp was used at one site to eradicate the grass and the second site was prepped by rototilling. The City of London's Neighbourhood Decision Making program provided funding for the project. **Contact: Linda Smith, Community Partnership Specialist**

Inspiring a Healthy Environment, UTRCA Style

For the second spring in a row, community groups and students adhered to the provincial stay-at-home order in an effort to stop the spread of COVID-19. Various UTRCA staff stepped up and stepped out to ensure the planting of 2200 trees and shrubs was completed in the UTRCA's Communities for Nature Program. While we would rather have worked directly with the various Rotary Clubs, students, and community groups, we are grateful for their support in other ways to get new trees in the ground.



Funding for some of the projects was received from TD Friends of the Environment Foundation, EcoAction, South London Rotary, St. Marys Rotary, Town of St. Marys, City of Stratford, Andrew Hodges Funeral Home, Evans and Logan Funeral Homes, Brock and Visser Funeral Homes in Woodstock and Thamesford, Zorra Township residents, and the Habitat Stewardship Program.

Tree nurseries are also feeling the impact of the pandemic, and we want to thank our partners who delivered in spite of their own challenges. Worker shortages, demand out-pacing supply, and delivery scheduling complications made for another interesting spring planting season.

Thank you to all staff who worked together on the projects, to the UTRCA fleet staff who made sure we had vehicles to transport trees, and to the health and safety staff who work behind the scenes to ensure proper protocol is followed during these unusual times.

Contact: Karen Pugh, Resource Specialist



The Yellow Warbler is a migrant species that nests in London's natural areas and along the Thames River.

UTRCA Staff Help London Get Certified as a Bird Friendly City!

London is one of the first four Canadian cities to be officially certified as a Bird Friendly City by Nature Canada! The other three certified cities are Vancouver, Toronto and Calgary.

The UTRCA's Linda Smith and Julie Read have been working on the London Bird Team, along with other community partners including City of London, Friends of Stoney Creek, London Environmental Network, Nature London, Salthaven, and Western University's Advanced Facility for Avian Research. Brendon Samuels (a PhD candidate with the Advanced Facility for Avian Research) is the London Bird Team Coordinator.

Nature London has generously funded the London Bird Team and co-sponsored the recent World Migratory Bird Day Celebration along with London Environmental Network.

Nature Canada's criteria for a Bird Friendly City outline how cities can ensure they keep birds safe; protect and increase bird habitat; as well as offer educational opportunities in their communities. Being a Bird Friendly City is a cause for celebration for London as it demonstrates how much our community does to help save birds' lives! Nature Canada is hoping to certify at least 30 more Canadian cities by World Migratory Bird Day 2022.

The London Bird Team celebrated World Migratory Bird Day on Saturday, May 8. UTRCA organized and hosted two webinars: "Attracting Migratory Birds to the Forest City" with Andrea Boyer (London Public Library's Environmentalist in Residence), and "Using Physiology and Automated Telemetry to Understand Stopover and Movement of Migratory Birds and Bats in Human-Dominated Landscapes" with Dr. Chris Guglielmo (Professor of Biology, Western).

UTRCA staff also created a World Migratory Bird Day series of videos and fun bird trivia for families. Fiona Navickas and Kim Gilbert created videos and nature challenges to help Londoners learn about migrating birds, offering tips for beginner birdwatchers and outlining how viewers can help migratory birds. Cathy Quinlan filmed a segment on how to draw a migratory bird: the beautiful Canada Warbler! Steve Sauder edited all the videos and did a wonderful job promoting the event.

In addition to this special event, UTRCA makes significant contributions to London being a Bird Friendly City by ensuring birds are provided with healthy habitat for their migratory stopovers and nesting sites and by increasing London's biodiversity. UTRCA also offers ongoing community education to help London residents appreciate and protect our feathered friends.

The London Bird Team is currently running a **poll to choose a City Bird for London**.

Visit www.birdfriendlylondonca to learn

more about London's Bird Friendly City project. Please spread the word and follow the Bird Friendly London Ontario Facebook Group and @ birdfriendlyldn on Twitter.

Contact: <u>Julie Read</u>, Community Education Supervisor (Fanshawe)

Living Labs Initiative: Collaboration Program

The Living Laboratories Initiative launched in Ontario on May 10th, joining a network of projects ongoing across the country. This Initiative brings together farmers, scientists, and other collaborators to co-develop and test innovative practices and technologies to address agri-environmental issues.



The UTRCA is monitoring subwatersheds to support the Living Labs Initiative, building on years of data collection in several target areas.

The UTRCA's role is to collect water quality and quantity monitoring data and information on local adoption of Best Management Practices, which will be used to assist scientists in their research to understand the impact of land management on a variety of research objectives.

The Ontario Soil and Crop Improvement Association is managing the three-year project under agreement with Agriculture and Agri-Food Canada. Other project partners include the Lower Thames Valley Conservation Authority, Essex Region Conservation Authority, Ontario Soil Network, Innovative Farmers Association of Ontario, and Ecological Farmers Association of Ontario.

Contact: <u>Mike Funk</u>, Agricultural Soil & Water Quality Technician

On the Agenda

The next UTRCA Board of Directors meeting will be held virtually on May 25, 2021.

- Approval of 2020 Audited Financial Statements
- Fees Update to Reflect Minister's Zoning Order (MZO) Costs
- Administration and Enforcement Section 28 Status Report – Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (O.Reg157/06)
- Benefits Renewal
- Funding Sources

Please visit the "Board Agendas & Minutes" page at <u>www.thamesriver.on.ca</u> for draft agendas, audio/video recordings, and minutes. Contact: <u>Michelle Viglianti</u>, Administrative Assistant

UPPER THAMES RIVER

www.thamesriver.on.ca Twitter @UTRCAmarketing Facebook @UpperThamesRiverConservationAuthority 519-451-2800