OCTOBER 2022

THE WTCAC FALL NEWSLETTER

The official newsletter of the
Wisconsin Tribal Conservation Advisory Council

This issue:

Wild Rice Harvest on Rice Lake

“This lake is sacred to us because our migration story told us to go find the “food that grows on water” and Manoomin is that food. My dad who is no longer with us, was one of 5 rice chiefs; these rice chiefs knew the lake well because they’ve been harvesting it for over 50 years. The chiefs let the community know when it was time to harvest and when to let the lake rest. Now my brother is a rice chief. Generations trying to carry on what we’ve been taught”

-Tina Van Zile, Environmental Director for Sokaogon Chippewa Community Mole Lake Band of Lake Superior Chippewa and WTCAC President on the cultural significance of Rice Lake-Tribal Regenerative Agriculture Workshop, August 2022

2022 Summer Intern: Joey Billyboy

Hello once again! This is my third summer working for WTCAC. It has been such a great experience for me. I'm a nontraditional student and that has been the biggest challenge for me because finding internships that help families are limited. Working with WTCAC has helped me grow as a person and gave me the tools I needed to succeed to move forward with my career in conservation.

While working with WTCAC a few summers ago they told us about the 1994 Tribal Grant, for which I was awarded a full-ride scholarship. I am attending Northwest Indian College in Washington State to get my Bachelor of Science in Native Environmental Science. The 1994 scholarship will help me move forward with a career with Natural Resources Conservation Services (NRCS) to become a Soil Conservationist.

I was stationed on my reservation Lac Courte Oreilles at the Lac Courte Oreilles Conservation Department for my internship with WTCAC. This was my first year in the office due to the pandemic and got the opportunity to gain so much knowledge and experience. I was taught about our tribal ceded territory, fishing rights and how we got them, the Tribble brothers, and how they had a major impact on people and our rights. I also learned how to give out permits for fishing, hunting, and gathering along with the rules and regulations that went with it. I got to learn about our treaty's rights along with heritage and tradition, our land and land use, and the problems we are facing as an Indian country.

I also got to spend some time at the LCO farm, where some of the projects help the community by having a community garden, along with the gardening tools and assistance you need. Accomplishing this will help bring back our traditional foods. They also teach you about different kinds of plants, their benefits, and how to cook and use them. Some of the educational experiences the LCO farm can provide is having students come from the tribal school to help with the planting, weeding, etc. One of the goals is to give the tools to the next generation to thrive in our traditional lands and how to use them as our ancestors did.

What Native Science and being a scientist means to me as an indigenous person is that it is important to have those ancestral memories, the depth of the meanings in our relationship with mother earth, and our seven teachings that have the values of healing.

"Working with WTCAC has helped me grow as a person and gave me the tools I needed to succeed to move forward with my career in conservation."

2022 Summer Intern: Ryan Metoxen

My name is Ryan Metoxen-Hamilton. I am a current student at the University of Wisconsin-Stevens Point. I am currently working towards a major in Biology, but thinking about changing minor to something towards forestry or environmental mangment. This summer I had an internship with Oneida Nation - Eco - Services Department and Wisconsin Tribal Conservation Advisory Council. (WTCAC). My main job duties were doing insect surveys, trapping non-native invasive pest insects throughout Oneida lands. I have also been providing some outreach materials to inform Oneida Nation residents about the invasive insect and plant spieces that are common in our area. In addition I have helped collect sample from 3 different streams to determine the stream's health. I have also help release a beetle called galerucella that eat only purple loosestrife plants to help control the plants population. This was the experiences I had in the internship with Oneida Nation - Eco - Services Department and Wisconsin Tribal Conservation Advisory Council. (WTCAC).


Invasive Insect Pests in Oneida
"Oak Ambrosia Beetle"

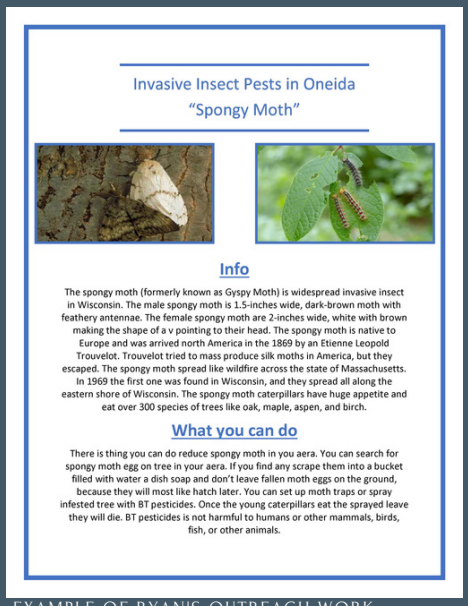
Info

The oak ambrosia beetle is invasive species of beetle that is native to eastern and southern parts of Asia like Japan, Taiwan, and India. The oak ambrosia beetle is a reddish-brown beetle with golden brown underside that grows to be 4mm long. They have flattened heads that is darker than their bodies. The signs that an oak of the infected with the oak ambrosia beetle is sawdust, holes in the bark, wilting, and leave discoloration.

What you can do

Things you can do to help control the spread of the oak ambrosia beetle. You can monitor their population in your area by setting traps like multi-funnel traps. You can also help control the population by spraying the trunk of the infected tree with insecticide or use trunk injection. You can also wrap and adhesive plastic wrap to deter the beetles and you can remove or destroyed infected materials by burning them.

EXAMPLE OF RYAN'S OUTREACH WORK


Invasive Insect Pests in Oneida
"Spongy Moth"

Info

The spongy moth (formerly known as Gyspy Moth) is widespread invasive insect in Wisconsin. The male spongy moth is 1.5-inches wide, dark-brown moth with feathery antennae. The female spongy moth are 2-inches wide, white with brown making the shape of a v pointing to their head. The spongy moth is native to Europe and was arrived north America in the 1869 by an Etienne Leopold Trouvelot. Trouvelot tried to mass produce silk moths in America, but they escaped. The spongy moth spread like wildfire across the state of Massachusetts. In 1969 the first one was found in Wisconsin, and they spread all along the eastern shore of Wisconsin. The spongy moth caterpillars have huge appetite and eat over 300 species of trees like oak, maple, aspen, and birch.

What you can do

There is thing you can do reduce spongy moth in you aera. You can search for spongy moth egg on tree in your aera. If you find any scrape them into a bucket filled with water a dish soap and don't leave fallen moth eggs on the ground, because they will most like hatch later. You can set up moth traps or spray infested tree with BT pesticides. Once the young caterpillars eat the sprayed leave they will die. BT pesticides is not harmful to humans or other mammals, birds, fish, or other animals.

EXAMPLE OF RYAN'S OUTREACH WORK

TRIBAL REGENERATIVE AGRICULTURE WORKSHOPS: South Central, WI July 2022

BY GREGORY GAUTHIER, JONATHAN PRUITT, AND TOM MELNARIK

Growing up, we were taught that it is both useful and responsible to have a basic idea of where our food comes from. Current events, unpredictable supply chains, and high prices at the markets have made food sovereignty a higher priority for many tribal nations and citizens. Many tribal producers have already been practicing regenerative agriculture for years, but exactly how is that defined, and what does that mean in practice?

I recently asked Dan Cornelius about his thoughts on regenerative agriculture. Dan, who worked for Intertribal Agriculture Council (IAC) for many years and recently took a job with UW Madison explained it as, "Going back to ways Tribes have always done things to grow food, care for the land, and its ability to give back." Dan and his family run a farm near Madison that puts this idea into practice. They have goats, chickens, cattle, a large garden area, and hoop houses that help provide for their needs. Dan's definition of regenerative agriculture also takes on a community approach of providing for elders. He has been the driving force behind food box programs and is always working to make the food in them more nutritious and traditional. Some food from his farm goes into these efforts. He has also advocated for education and the use of USDA programs by individual producers.

WTCAC, USDA, and UW Madison hosted a series of education days this past summer, open to all Tribal members, natural resources staff, and partners to look at what is being done on the local levels regarding regenerative agriculture. In July, a two-day workshop near Madison began by exploring organic approaches to farming, particularly weed control and ways to build soil health. The group then visited a FEED (Food Enterprise and Economic Development) kitchen in Madison where their model of providing a food preparation area accessible to all may be applicable on a Tribal level. Dan then took us out to Silverwood County Park to look at an example of indigenous agriculture and to explain how a community incubator farm model works. Then we were all invited to Dan's farm, called Yowela for a dinner featuring indigenous food as well as a tour of his gardens and pasture. Dan uses NRCS funding for energy audits, rotational grazing, and hoop houses. His garden consists of indigenous varieties of corn, beans, and squash grown with a three-sisters philosophy.

> "Going back to ways Tribes have always done things to grow food, care for the land, and its ability to give back."
>
> -Dan Cornelius

Tribal Regenerative Agriculture Workshops: South Central, WI July 2022 continued...

The second day featured a tour of the new UW-Madison meat processing facility. Animals from the UW farm system are slaughtered, butchered, packaged, and sold there. While offering classes for credit in meat processing, they also do extensive research on new meat products for large meat suppliers and donors to the facility. Of interest is their research into and the development of animal parts that can be used for medicinal purposes. The tour also gave those attending ideas for doing something similar, but maybe on a smaller scale. For example, during our tour of the Oneida Nation in August, we looked at a mobile slaughterhouse unit that can process large animals on the farm and a chicken processing room that serves as a white corn processing facility as well.

We wrapped up our second day with a tour of a community garden and a visit to another of UW Madison's research farms. I was impressed with the diversity of crops and the amount of food that can be grown in small plots in community gardens. At the research farm, the thing that struck me most was the value they placed on indigenous seed stores and the different plots they have for growing them out and increasing the seed banks. They work closely with Native communities in Wisconsin to ensure that these seed banks are not lost.

The lunches and dinners for the July regenerative agriculture workshops were prepared and catered by Wild Bearies and Chef Elena Terry. Wild Bearies is a Ho-Chunk startup business that prepares delicious indigenous cuisine. Check out their Facebook Page! Wild Bearies | Wisconsin Dells WI | Facebook

The workshops were attended by tribal members and natural resource staff from Ho-Chunk, Oneida, Forest County Potawatomi, Menominee, and Mole Lake. Thank you to all of the presenters and everyone that made the workshops a success!

Check out the next WTCAC Spring Newsletter to read more about the August-Northeast, WI Tribal Regenerative Agriculture Workshop!

2023 WTCAC Summer Internship Program Annoucement

WE ARE NOW ACCEPTING APPLICATIONS FOR THE 2023 SUMMER INTERNSHIP SEASON

IN 2009 WTCAC ESTABLISHED THE WISCONSIN NATIVE AMERICAN STUDENT SUMMER INTERNSHIP PROGRAM FOR STUDENTS PURSUING DEGREES IN NATURAL RESOURCES, BIOLOGICAL SCIENCES, AGRICULTURE, AGRICULTURAL BUSINESS, FORESTRY, CIVIL ENGINEERING AND ANIMAL HEALTH AND HUSBANDRY. SINCE THEN, MORE THAN 60 STUDENTS HAVE PARTICIPATED IN WTCAC INTERNSHIPS RESULTING IN PLACEMENTS WITH NATURAL RESOURCES CONSERVATION SERVICE, FOREST SERVICE (STATE AND PRIVATE FOREST), FOREST SERVICE (NATIONAL PARK AND FOREST SERVICE) ANIMAL PLANT HEALTH INSPECTION SERVICE (VETERINARY SERVICES AND PPQ) ANIMAL HEALTH INSPECTION SERVICE (WILDLIFE SERVICES) RISK MANAGEMENT, AS WELL AS TRIBAL PLACEMENTS IN WISCONSIN, MICHIGAN, AND MINNESOTA.

INTERNSHIPS FOR 2023 INCLUDE POTENTIAL OPPORTUNITIES TO WORK WITH:

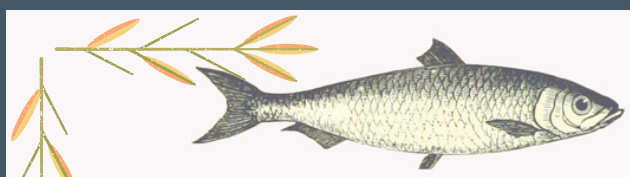
- WI TRIBES ON PEST SURVEY, EDUCATION AND OUTREACH
- UNITED STATES FOREST SERVICE
- NATURAL RESOURCES CONSERVATION SERVICE
- ANIMAL AND PLANT HEALTH INSPECTION SERVICE, WILDLIFE SERVICE
- NATIONAL AGRICULTURAL STATISTICAL SERVICE
- OTTAWA NATIONAL FOREST VISITOR CENTER

MINIMUM QUALIFICATIONS:

- MUST BE 18 YEARS OR OLDER
- MUST BE ENROLLED FULL-TIME IN A COLLEGE OR UNIVERSITY LOCATED IN WISCONSIN
- MUST BE AN ENROLLED MEMBER OF A FEDERALLY RECOGNIZED TRIBE IN WISCONSIN
- MUST HAVE A CUMULATIVE GPA OF 2.5 OR HIGHER

TO APPLY: SEND A COVER LETTER OF INTEREST, UNOFFICIAL TRANSCRIPTS, AND TRIBAL ENROLLMENT VERIFICATION TO MJOHNSON@WTCAC.ORG

Training Announcements



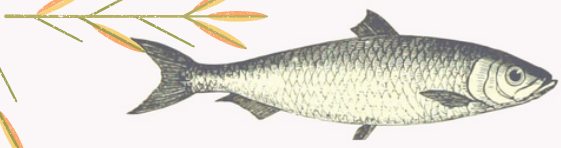
AFDO/SEAFOOD ALLIANCE HACCP TRAINING COURSE

NOVEMBER 1-3, 2022

RED CLIFF BAND OF LAKE SUPERIOR CHIPPEWA
LEGENDARY WATERS RESORT & CASINO
37600 ONIGAMIING DR, BAYFIELD, WI 54814

CONTACT LAURIE WHITE TO REGISTER
(715) 292-8726 or lwhite@glifwc.org

GLIFWC WILL COVER EXPENSES FOR GLIFWC TRIBAL MEMBERS & GLIFWC TRIBAL MEMBER EMPLOYEES



AFDO/SEAFOOD ALLIANCE HACCP TRAINING COURSE

DECEMBER 13-15, 2022

BAY MILLS RESORT & CASINO
11386 WEST LAKESHORE DRIVE
BRIMLEY, MI 49715

CONTACT LAURIE WHITE TO REGISTER
(715) 292-8726 or lwhite@glifwc.org

GLIFWC WILL COVER EXPENSES FOR GLIFWC TRIBAL MEMBERS & GLIFWC TRIBAL MEMBER EMPLOYEES

WICCI Report, warmer winters and extreme rain are stressing Wisconsin's forest resources

By Dea Larsen Converse, WICCI Communications Director

A focus on climate impacts to Wisconsin's forests in the most recent assessment from the Wisconsin Initiative on Climate Change Impacts (WICCI) shows that warming temperatures and changing precipitation patterns are impacting Wisconsin's urban and rural forests. Wisconsin's average daily temperature has become three degrees Fahrenheit warmer and precipitation has increased 17 percent, about five inches, since 1950. The last two decades have been the warmest on record and last decade was the wettest.

"Wisconsin forests cover nearly half of Wisconsin and provide a unique opportunity to address climate change by reducing concentrations of greenhouse gases while simultaneously providing essential social, environmental, and economic benefits." – Stephen Handler, WICCI Forestry Working Group Chair

Climate Impacts to Forests

- Warmer winters. Winter has warmed about twice as fast as other seasons in Wisconsin over the past few decades. In Northern Wisconsin, where most of Wisconsin's forests are located, warmer winters are reducing the snowpack that insulates trees and other organisms, impacting forest operations such as harvesting and transportation that rely on frozen ground, and creating less lethal conditions for pests and diseases.
- Deer herds. With less severe winters, especially in Northern Wisconsin, larger numbers of deer are surviving and having a big impact on forest regeneration as they browse on understory plants, including sensitive species.
- Extreme weather events. Extreme storms are happening more frequently and creating a great deal of damage in forests through flooding, erosion, and deposition of nutrients and invasive species seeds. These extreme storms also cause considerable damage to infrastructure on forest land.
- Summer droughts and longer growing seasons. Warmer temperatures, longer growing seasons, and decreasing summer precipitation in Northern Wisconsin, are increasing the risk for wildfires, pests, and disease. Reduced snowpack and earlier springs are also drying out vegetation at a faster rate in the spring and summer. While prescribed fires could help, it is becoming increasingly difficult to find a safe window to use them as the climate changes.
- Impacts on communities. While all communities in Wisconsin are at risk, historically disadvantaged communities bear a disproportionate burden and suffer the greatest harms. For example, large canopy trees can play a big role in helping urban areas become more resilient to climate change, yet studies are showing a disparity in the location of tree canopy in some cities. Also, Wisconsin tribes are working to help culturally significant species, like paper birch, adapt to changing conditions with resources like climate change vulnerability assessments.

On their webpage, the WICCI Forestry Working Group suggests solutions and offers tools to help landowners and forest managers address climate impacts.

WICCI is a nationally recognized collaboration of scientists and stakeholders working together to help foster solutions to climate change in Wisconsin.

WICCI Report, warmer winters and changing precipitation patterns are affecting WI's wealth of water resources

By Dea Larsen Converse, WICCI Communications Director

A focus on climate impacts to water resources in Wisconsin from the Wisconsin Initiative on Climate Change Impacts (WICCI) shows that warming temperatures and changing precipitation patterns are impacting Wisconsin's wealth of water resources. The last two decades have been the warmest on record in Wisconsin and the past decade has been the wettest.

"The warming climate is having an impact on water resources in Wisconsin. We need to increase the magnitude and urgency of actions to protect and restore habitat and enhance water quality to make Wisconsin's waters more resilient to climate change." – Katie Hein, WICCI Water Resources Working Group Co-Chair

Average precipitation and extreme storm events that deliver large amounts of water in short periods are increasing in Wisconsin, resulting in flooding problems. Areas with permeable soils where the water table is near the surface, like lake shorelines and wetlands, can flood after periods of higher-than-average precipitation. Streams also flood during large storms, causing damage to infrastructure, habitat loss, and risks to human health. The fast-flowing water during floods increases erosion and can also cause deep channels to form that intensify the flow of stormwater. These channels further reduce flood storage, degrade water quality, and increase downstream flooding.

The warmer water temperatures combined with more runoff from extreme precipitation events also threaten water quality. In built areas with large amounts of impervious surface, runoff receives little natural filtration, enabling sewage overflows and a wide variety of pollutants to reach surface waters. Statewide, nutrient runoff from agricultural lands fuels algal blooms, a major water quality issue. Erosion and sedimentation are also a concern in many areas, including forested lands.

As lake water temperatures have warmed overall, the risk of fish kills and toxin-producing algal blooms is increasing. As the air temperature continues to warm, lake surface water temperatures in all lakes will also warm, changing lake ecology. Fewer lakes will be able to support cool-water fish like walleye and warm-water fish like largemouth bass will be much more common as waters warm by mid-century.
While all communities in Wisconsin are at risk from flooding and changes in the natural communities, historically disadvantaged communities bear a disproportionate burden and suffer the greatest harms. Read more about these impacts in the interviews linked to this article.

The WICCI report suggests solutions to prepare for and minimize climate impacts to water resources, like increasing water storage across the landscape, installing green infrastructure, protecting wetlands, building outside of flood zones, and installing flood warning systems. Visit the Water Resources Working Group webpage to learn more. There is hope for the future, but it is up to us.

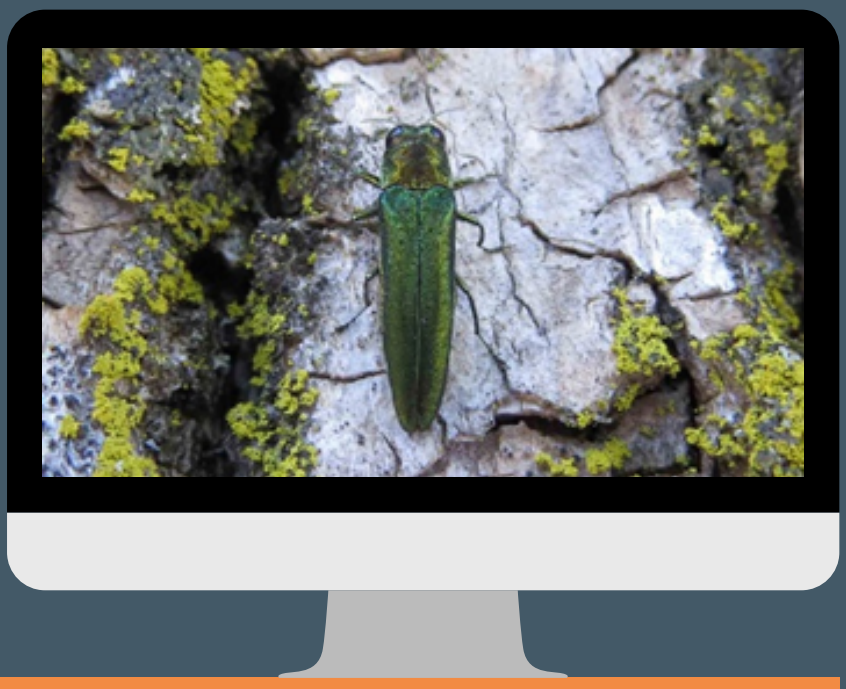
A MESSAGE FROM OUR PARTNERS AT THE WI DNR

COMMUNITY TOOLBOX

For communities planning for or currently dealing with Emerald Ash Borer (EAB), the Wisconsin Department of Natural Resources (DNR) Urban Forestry program has an EAB Community Toolbox available with relevant resources. The toolbox covers a variety of topics about EAB, from detection and writing management plans, to what to do with dead and fallen trees and how to select which species should replace them. DNR Urban Forestry Regional Coordinators are available to help community foresters as they manage their EAB infestation. The toolbox will eventually be edited and expanded to include other topics such as acute tree damage threats like storm damage and new invasive pests over time.

FOLLOW THE LINK:

Emerald Ash Borer Community Toolbox | | Wisconsin DNR



WTCAC Staff

Jeff Mears
Executive Director
920-639-7457
jmears@wtac.org

Tom Melnarik
WTCAC Civil Engineering Technician
715-902-9286
tmelnarik@wtcac.org

Jonathan Pruitt
Tribal Resource Conservationist
517-281-7035
jpruitt@wtcac.org

Melissa Johnson
Pest Survey Specialist
920-471-2356
mjohnson@wtcac.org

Greg Gauthier
Outreach and Education Coordinator
715-204-9036
ggauthier@wtcac.org