



COVID-19 RESPONSE



Extension
UNIVERSITY OF WISCONSIN-MADISON

Natural Resources

The Natural Resources Institute works at the crossroads of communities, natural resources, and agriculture. The Institute helps individuals and communities make informed decisions that support the state's rich land, water, and mineral resources. Our diverse programs harness leading-edge university research and are led by a network of local, state, and regional specialists who work closely with a broad and devoted group of partners to provide the information and leadership to support thriving communities and resilient and productive natural resources. Encompassing geology and groundwater research, water and forestry programming, conservation training for professionals, Master Naturalist volunteer training, and citizen science and youth environmental education, we're working to ensure that our resources remain at the heart of our communities, economies, and state identity.

Teachers, students, and caregivers need safe, outdoor learning opportunities and in-home STEM learning activities

The COVID-19 pandemic significantly disrupted in-person learning in schools and youth education throughout the state. This situation quickly demanded that educators, caregivers, and youth group leaders shift how they can effectively reach students. Because of this, there was an increased need for the adoption of new tools. This also prompted the development of science-based teaching materials and safe outdoor activities that educators could incorporate into their educational offerings.

How Extension responded

New at-home educational kits have been created to support teachers and guide families with children through activities related to STEM (Science, Technology, Engineering, Math) learning, and to encourage creativity, environmental observation, problem-solving, and community service. In addition, our county-based educators, researchers and facilitation experts created guides and activities for families and individuals to safely explore their immediate natural environments in their neighborhoods.

Examples of this include:

- Online curriculum and teaching materials for teachers that support them in teaching about owls, which will help students to learn about animal

IN-DEPTH

Creating curriculum for school-age students

The Rivers2Lake education program at Extension's Lake Superior National Estuarine Research Reserve transitioned into providing virtual mentoring to

teachers enrolled in year-long outdoor and place-based learning professional development. Teachers identified a need for place-based outdoor opportunities for students that would be applicable across grade levels. Reserve staff then worked with the Superior School District to clearly define this need. Rivers2Lake staff and interns then began making weekly videos that shared local phenology and encouraged students to make observations in their backyard. Accompanied with worksheets for kindergarten to grade 5, the weekly videos helped Reserve staff connect with students and provide an opportunity to support the school district as it responded to COVID-19.



adaptations and to develop an awareness of one of the different types of animals that might live in their neighborhood.

- Printable activity sheets for families that provide instructions and natural history information to help them to independently and safely explore the natural world in their neighborhood.
- A virtual curriculum for families that allows them to learn about fungi, do a safe scavenger hunt, and teaches how to make a spore print to assist them in engaging in nature-based experiences.
- A resource list for youth group leaders that provides access to science and nature-based activities to help them engage children while schools are closed.
- Online information for residents where they learn about options for enjoying the outdoors while staying safe at home. This has encouraged people to stay active and appropriately use outdoor spaces during COVID-19 restrictions.
- Materials for a backyard scavenger hunt for parents and K-12 students where residents can learn about phenology and springtime natural resources changes to better understand and appreciate their local ecosystems.

Protecting Wisconsin's natural resources through adult-learning, professional training, and engaging community-based volunteers

The COVID-19 pandemic disrupted the abilities of communities, organizations, professionals, and volunteers to plan and work in-person around their natural resource-based missions. Outreach specialists, educators, researchers, affiliates, and support teams have navigated complex issues and facilitated informed decisions and actions to support a healthy environment and resilient natural resources.

How Extension responded

Our educators and researchers rapidly transitioned existing programming to online platforms and created greater visibility and access to existing web-based learning. This work has ensured that professional communities, organizations and residents had uninterrupted access to training, learning materials and

IN-DEPTH

Spurring urban biodiversity via virtual instruction



Cities and suburbs across America contain millions of acres of lawns that could instead feature more ecological-friendly native plant gardens. Native plants help support local biodiversity by providing food and shelter for pollinators vital to human foods. Wehr Nature Center leadership and staff in collaboration with Milwaukee County Parks created an online series devoted to learning about the importance of native planting. This event was transformed from an in-person workshop to a series of online events in which 100 percent of attendees reported that they were inspired to plant native plants.

other resources vital for their work. This training also included supporting our vibrant group of Extension-supported volunteers during the pandemic restrictions. Annually, Extension-supported volunteers provide 700,000 hours of service to communities across Wisconsin.

Examples of this include:

- An online series in which participants learned about biodiversity to encourage planting of native plant gardens that will benefit pollinators and other wildlife to improve the local environment.
- Virtual workshop for Master Naturalist instructors focusing on networking, idea sharing, and professional development opportunities to strengthen and improve the skills of instructors across the state.
- Online training courses for plan commission and zoning board members to learn about their roles in community planning and land use regulation. This work resulted in more effective administration of duties during COVID-19 and beyond.
- An education and outreach program for schools and farmers in which participants learned about the benefits of native prairie to increase adoption of native prairie and improve habitats, soils, and water quality within agroecosystems.
- Online soil health education resources for educators, conservation agencies, and livestock and crop advisors to improve farm resilience and environmental quality.
- A series of resources for small business owners focusing on reducing the potential for ground and surface water contamination

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Virtual connection for Master Naturalist instructors

Extension's Master Naturalist program supports a network of highly dedicated volunteers and instructors committed to conservation service, leadership, and lifelong learning. Through expert-led trainings typically held both outdoors and in the classroom, Master Naturalists are equipped to address environmental challenges facing the state. In the past, Master Naturalist instructors have held retreat events to share knowledge and receive training to better support volunteers. Due to the COVID-19 pandemic, this event was held online, coordinated by Master Naturalist leadership and staff. Instructors discussed programming at their organizations during COVID-19 restrictions and provided critical feedback for updating and transforming their curriculum. This work resulted in enhanced training and retention of volunteers to provide valuable service throughout the state.



Ensuring volunteers collect scientific data on Wisconsin's Natural Resources

There are numerous natural resource initiatives led by Extension, University of Wisconsin, and natural resource partners that rely on volunteers to collect environmental data across Wisconsin. These data are critical to expanding knowledge and awareness of the health and resilience of our land and water resources over time. However, COVID-19 travel restrictions and safety concerns has impacted the ability of volunteers to collect this information.

How Extension responded

Extension created various support materials and technical solutions for volunteers so they could continue collecting data safely and reliably.

Examples of this include:

- A citizen science data collection system was created to allow for the reporting of information gathered remotely by individuals.
- Online workshops for citizen science data collectors to facilitate recording phenology individually and remotely.

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Guiding data collection during pandemic restrictions

The Purple Loosestrife Biocontrol program was suspended during the COVID-19 pandemic



and resulting statewide restrictions. Those restrictions led to limiting beetle rearing to home-based projects or work projects by partners, whose staff followed strict local guidelines aligned with the program guide. These guidelines included advanced COVID-19 resources and safety procedures woven throughout each step of the program, to be implemented along various phases of loosened restrictions.

More ways we're helping businesses, communities, youth, and families

Keeping a focus on our values to transform lives and communities, UW-Madison Extension is leading businesses, communities, youth, and families in the response to the COVID-19 outbreak. We are uniquely positioned across the state to link university research to those in need of guidance and practical resources. Extension staff in counties and tribal nations are making connections to financial aid and instruction, providing best practices for emerging needs, and reinforcing connections for healthy communities. To see how Extension responded to COVID-19 across the state and across program areas, visit fyi.extension.wisc.edu/covid19/impacts.

in **72** COUNTY OFFICES
on **5** CAMPUSES
and within **5** TRIBAL NATIONS

Find more information about
Extension Natural Resources
program areas and topics at
go.wisc.edu/nri