



Managing Ohio's Forest Resources

Impact Statement 2020

FUNDING SOURCES

USDA Capacity Grants (McIntire-Stennis, Hatch); Other Federal Grants; Internal Ohio State Grants; Federal and State Agencies

INVESTIGATORS

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SUMMARY

Ohio's forests are transforming due to changes in natural disturbance regimes, including introduction of invasive species and absence of disturbance such as fire. Young forest habitat is disappearing as forests age. Re-introducing natural disturbance and reducing forest canopies along agricultural fields have been used to mitigate these problems. The Woodland Stewards program offers a variety of programs and publications to help private landowners, agencies and NGOs manage their forestlands.

SITUATION

Ohio has approximately 8 million acres of forest land, of which 85% is in private ownership and the remaining 15% in state and federal ownership. Healthy forests are critical for sustaining biodiversity, wildlife habitat, and support over 120,000 jobs in Ohio's \$10 billion forest products industry. Over the last century, invasion of non-native insects, diseases and plants, land use change, and the absence of natural fires have caused major changes in the species composition and structure of Ohio's forests. Long-term studies have found that oak forests are changing to forests dominated by species that are uncharacteristic of historic Ohio forests. Ohio's forests overall are also getting older, causing loss of young trees that many wildlife species depend on. The future of Ohio's forests depends on improving our understanding of these changes and successful development and implementation of management strategies to reverse them.



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RESPONSE

SENR faculty have pioneered new approaches including managing some forests in an early successional state; developing “soft” habitat edges along maturing woodlots for wildlife; and educating private landowners on how to manage forests under changing climate conditions. Further, as Ohio’s population becomes more urban, our faculty have provided research and teaching to expand our understanding of the importance of urban forests as part of larger ecosystems. We also conduct economic and human dimensions research to better understand drivers of forest management decisions and to quantify the value of forests for timber and non-timber purposes. Our Ohio Woodland Stewards Program provides workshops and materials to meet the educational needs of Ohio’s private woodland owners, as well as public agency and NGO forest managers.

IMPACT

Our work is regularly used to support local, state and federal initiatives to manage forests and wildlife resources. In southwestern Ohio as part of the National Bobwhite Conservation Initiative our research was used to develop wildlife habitat incentives for private-woodland owners. We also collaborated with US Forest Service and others to help recover and sustain our state’s critical oak forests. Information about understory plants and guidance about the appropriate timing, frequency and severity of planned disturbances, has allowed forest managers to better identify and anticipate changes in forest composition and non-native invasive species encroachment pattern, and take steps that lead to more successful oak forest regeneration. Our work with urban forest managers has helped improve efforts to restore riparian forests. In collaboration with colleagues in neighboring states, our Woodland Stewards workshops on non-native invasive species has trained 2589 natural resource professionals and over 9815 landowners. Our smart phone app is being utilized to track Ohio’s new invasive insect threat - spotted lanternfly. Citizen scientists and natural resource professionals are using it to track both the host plant and insect. Finally, our work has documented the contribution forests make to the state’s economy, leading to greater public and private support for this important sector. Every year, a wide spectrum of stakeholders relies on our Ohio Timber Price Report to make critical decisions about forest harvests.



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