Living with Wildlife: 
Informing Conservation through Partnerships, Stakeholder Engagement, and Science

Impact Statement

INVESTIGATORS
Robert Gates, Marne Titchenell, Jeremy Bruskotter, Mazeika Sullivan, Stanley Gehrt, Stephen Matthews, Christopher Tonra, William Peterman, Alia Dietsch and Gabriel Karns

SUMMARY
Over 5 million Ohioans engage in wildlife-based recreation, contributing $3.3 billion to the economy. Wildlife also promotes physical and spiritual well-being and is a sensitive indicator of environmental quality and ecosystem capacity. As wildlife management increases in size and complexity, the School of Environment and Natural Resources (SENR) works with scholars, managers, and stakeholders to share information and build collaborations, ensuring sustainable wildlife populations and habitats that are valued and conserved now and in the future.

SITUATION
Human-wildlife relationships reflect interactions of natural and social systems. Problems develop as natural and cultural environments change. Government agencies and NGOs are challenged by competing interests of diverse stakeholders and scientific uncertainties about the systems they manage. Among the most pressing issues facing wildlife conservation are: biodiversity loss, invasive species, changing climate, unsustainable hunting levels, human-wildlife conflicts, and diminishing public support for wildlife programs. Fulfilling the land grant mission of The Ohio State University we provided science-based research and training for current and future wildlife professionals, community leaders, and private landowners. In 2017, we focused our efforts on impacts of energy and resource development, sustainable use of natural resources, human-wildlife conflicts, and conservation of wildlife diversity on public and private lands across Ohio.
RESPONSE

Our Terrestrial Wildlife Ecology Lab, Ohio Biodiversity Conservation Partnership, and Ohio State Extension programs supported science-based conservation via partnerships with agencies and stakeholders. SENR faculty and staff engaged industry to test best practices to manage energy right-of-ways for pollinators and other wildlife. We assisted the Ohio Division of Wildlife in developing a socially and ecologically sustainable plan for deer harvest management. We studied river otters, a former extirpated species, to identify sustainable management strategies. We did research on rattlesnakes, amphibians, and forest birds to develop ecologically sustainable management plans for forests where fire and tree harvest are used for restoration. We studied effects of water quality on aerial insect-eating birds in rivers and streams. We disseminated information through extension programs like the Ohio Community Wildlife Cooperative and organized a workshop aimed at reducing wildlife-livestock conflicts.

IMPACT

Adopting best practices for managing energy right-of-ways helped improved habitat for pollinators and promote biodiversity on greater than 360,000 acres, which helped to achieve national pollinator conservation goals. Deer conservation and management helped strike a balance between approximately 500,000 hunters that contribute $853 million to the Ohio economy and Ohio farmers whose crops are depredated. Our river otter research improved the ability of managers to balance population and harvest goals while minimizing human-wildlife conflicts in 42 counties. Considering impacts of forest restoration on rattlesnakes and other wildlife influenced the use of fire and tree harvest on 3.3 million acres of public land in southeast Ohio. Studies of imperiled aerial insect-eating birds in seven central Ohio counties demonstrated effects of land use and water quality. Research impacts were magnified by our Wildlife Extension team, which delivered 57 presentations on human-wildlife conflicts to a 4,372 professionals, volunteers, and homeowners. Multimedia pertaining to rattlesnakes and coyotes received 289,900 views. The Ohio Community Wildlife Cooperative facilitated networking and dissemination of science-based knowledge through an annual conference attended by community leaders, city planners, and resource managers from 90 Ohio municipalities and park districts. Over 2,000 visitors to the Olentangy River Wetland Research Park learned about human impacts on rivers and wetlands inhabited by aerial insect-eating birds.

CONTACT

School of Environment and Natural Resources • 2021 Coffey Rd, Columbus, OH 43210
614-292-2265 • senr.osu.edu