WHAT MAKES PEOPLE CARE ABOUT WILDLIFE MANAGEMENT?

Photos: MDNR

Why?

Changing socio-demographics and wildlife value orientations, along with increasing urbanization, are driving changes in the foundation of wildlife management. Anticipating the decline in hunting participation and revenue, transitioning and building a new foundation for effective wildlife management and stewardship is the issue for wildlife scholars and leaders.

Objectives

- Using pro-environmental behaviors as a framework, the goal is to understand what strategies may be helpful at promoting stewardship in support of wildlife conservation and management. Specifically to explore stewardship potential by examining factors that influence conservation behaviors.

Background

The study area included five state-owned wildlife management areas (WMAs) and one federally owned WMA located in southeastern Michigan from Lake Huron's Saginaw Bay region south to western Lake Erie (Figure 1). While the five state-owned lands are managed primarily for wetlands conservation for waterfowl and waterfowl hunting, these lands also provide ample non-hunting-related wildlife recreation opportunities. The federally owned lands are primarily managed for wildlife habitat for migratory birds. Three of the WMAs are in top birdwatching areas in Michigan. State and federal investment in infrastructure for wetland and habitat management occurs to achieve WMA objectives. Results from a 2018 visitor-use study revealed that angling is the most dominant use after waterfowl hunting in autumn, and 82% of respondents come from within a 50-mile radius, which is represented by a 31-county area in Central and Southeast Michigan.

Methods

- In 2019, responses from Internet and mail-back surveys sent to randomly selected samples of waterfowl hunters (n = 316; 14.8% response rate), birdwatchers (n = 1,133; 24.0% response rate), and anglers (n = 254; 10.2% response rate) from the 31 counties in Central and Southeastern Michigan proximate to the 6 WMAs of this project were used for this research.
    - The Cornell Lab of Ornithology provided the birdwatcher sampling frame from its list of registered eBird users who reported bird sightings in the 31-county area and were Michigan residents.
    - The 2018 Michigan resident waterfowl hunting license purchasers from the 31-county area, and registrants of the managed waterfowl hunters at the study sites were the sampling frame for waterfowl hunters.
    - For anglers, the sampling frame was purchasers of the 2018 Michigan resident fishing license from the 31-county area.
    - Waterfowl hunter and angler lists were compared to each other and duplicates removed.

- Data from the three groups were merged (n = 1,759) and used in a three-block hierarchical multiple regression model for hypothesis testing.
- The Michigan State University Institutional Review Board approved this study (Project 00003031) on August 9, 2019.

Results

Sociodemographics

Overall, the average respondent age was 55 years, and a majority (56%) were male. At least 72% of respondents had at least an associate or bachelor's degree. Twenty-one percent of respondents reported annual household income of <$50,000. The majority of respondents (61%) reported that they visited at least one of the WMAs in this study in the past 12 months.

Participation, identity, and conservation behavior variables

Nearly all respondents reported participating in nature activities in the past 12 months. Most respondents (66%) were members of a conservation or environmental organization. [1]Respondents identified most strongly as a conservationist (M = 3.98). [2]Making yards or land more desirable to wildlife was the conservation behavior most reported by respondents (M = 3.99), followed by voting to support a policy or regulation that supports conservation (M = 3.66).

Modeling frequency of conservation behaviors

The three-block model that included socio-demographic, recreation participation, and identity variables as independent variables had the highest variance explained. The following is a summary of the significant predictors of frequency of conservation behaviors:

- Gender (male) and age were negatively related to conservation behavior, and education was positively related.
- WMA visitation was positively associated with conservation behavior.
- Centrality of activity and membership in an environmental or conservation organization were positively related to conservation behavior.
- Waterfowl hunter, outdoor enthusiast, and conservationist identity salience variables were positively related to conservation behavior.

Figure 1. Lake Huron's Saginaw Bay region south to western Lake Erie

Footnotes:

[1] Mean scores rated on a scale of 1-5 (1=not at all, 2=slightly, 3=moderately, 4=strongly, 5=very strongly)

[2] Mean scores rated on a scale of 1-5 (1=never, 2=rarely, 3=occasionally, 4=often, 5=very often)

Discussion

Getting people to visit WMAs is an important first step because those who visit are likely to engage in conservation behaviors. Partnerships and engagement with local organizations to get people outdoors shows a lot of promise. Similarly, people who consider wildlife activities central to their lifestyles are likely to engage in conservation behaviors. Membership in environmental or conservation organizations had an effect on predicting frequency of conservation behaviors. Therefore, marketing stewardship opportunities to organizational members would likely yield volunteers or volunteer initiatives. Appealing to conservation identities, specifically that of waterfowl hunters, outdoor enthusiasts, or conservationists will also be important. WMA partnerships with conservation organizations could develop opportunities to internalize identities or to facilitate social connections, such as volunteer or mentor programs, etc., or foster group identity and group norms that include conservation behaviors and stewardship.

Adapted from original research: Avers, B.A. (2022). Exploring stakeholders' support for and stewardship of Michigan's coastal wildlife management areas. [Doctoral dissertation, Michigan State University]

Key findings

- A first step at expanding the stakeholder base is to get people to visit wildlife management areas (WMAs) using a variety of methods and invitations.
- Viewing the outdoor recreation activity as a central part of one's lifestyle is an important component of predicting conservation behaviors.
- If the goal is to increase frequency of conservation behaviors, communication messages should include waterfowl hunters, outdoor enthusiasts, and conservationist identities.
- Consider developing partnerships with local organizations to invite people to join or engage with current organizations.
- Consider establishing or fostering a "Friends" group for facilitating relationships and stewardship activities.

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