

WHO IS LIKELY TO FUND WILDLIFE MANAGEMENT IN THE FUTURE AND WHAT MIGHT THAT LOOK LIKE?



Why?

As hunting participation declines, the current model of wildlife conservation funding in the United States is in jeopardy because it relies on revenues from hunting licenses and excise taxes on firearms and ammunition. Similarly, state wildlife agencies and wildlife management areas (WMAs) are also in jeopardy due to dependence on hunter-related funds to support the agency and pay for habitat management activities. This is especially true for coastal wetlands management for waterfowl and other migratory species that depend on infrastructure to control water levels. Shifts in recreation to wildlife watching creates new possibilities for funding wildlife conservation. This research explores possible options.

Objectives

- Compare stakeholders' support for wildlife management area (WMA) funding options.
- Determine support for WMA funding options by predicting likelihood of taking action in the next 12 months.
- Develop a typology of WMA stakeholder-based support for WMA funding options.

Background

The study area included five state-owned 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), anglers (n = 254; 10.2% response rate), and community members (n = 84; 2.8% 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.
- For community members, a randomly selected sample of non-seasonal currently occupied residences within a 50-mile radius of one of the study sites was purchased from Dynata, Inc.
- Data from the four groups were merged and they were treated as 4 distinct groups in analyses, which included multiple regression. A K-means cluster analysis was used to identify typology, and Chi-squared and one-way ANOVA tests were used for comparisons.
- The Michigan State University Institutional Review Board approved this study (Project 00003031) on August 9, 2019.

Results

Sociodemographics

Overall, the average age of respondents was 55 years, a majority were male (56%), and nearly three-quarters (73%) had at least an Associate degree. Twenty-one percent of respondents reported a household income less than \$50,000. Most (84%) of respondents reported some knowledge of at least one of the six WMAs included in this study. Most (63%) of respondents correctly identified the source of funding for WMAs, though waterfowl hunters (82%) correctly identified it more frequently than anglers (66%), birdwatchers (58%), or community members (52%). Nearly all respondents reported at least one nature activity in the last year, and two-thirds were members of an environmental/conservation organization. Respondents identified most strongly as conservationists.

Stakeholders' support for WMA funding options and taking action

The funding options explored were purchasing a duck stamp, purchasing a songbird stamp, contributing directly to WMAs, and paying taxes. Respondents rated purchasing a WMA access permit highest when looking at the results individually. However, after factor analysis, purchasing a songbird conservation stamp had the highest respondent rating. Differences were detected among the four groups in likelihood of taking action in the next 12 months:

- Waterfowl hunters were most likely to purchase a duck stamp;
- Birdwatchers were more likely to purchase a hypothetical songbird stamp.
- Generally, anglers and community members had lower support for all options.

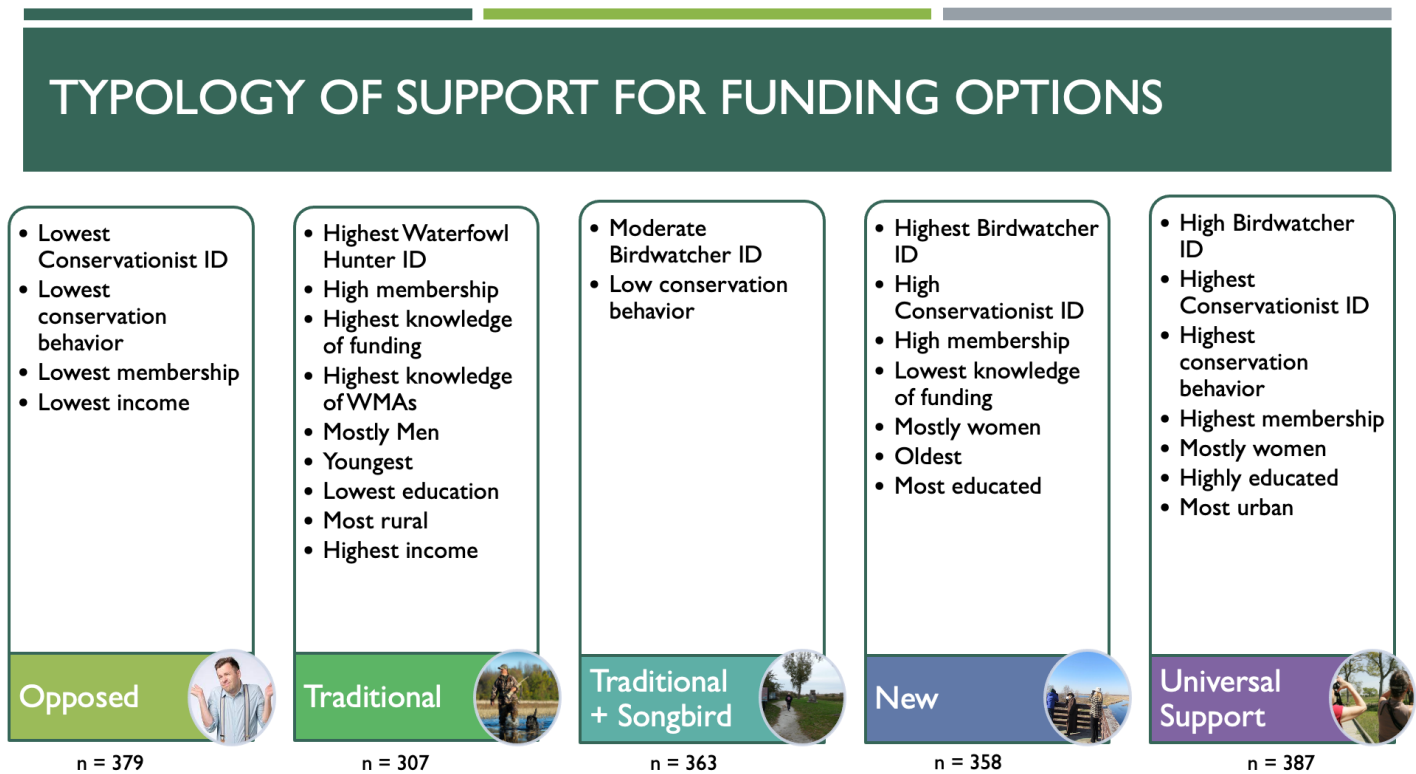
Figure 1. Lake Huron's Saginaw Bay region south to western Lake Erie



Support exists for a broader set of funding mechanisms, though differences exist by group. Each funding mechanism had different predictive factors. Likelihood of taking action in upcoming 12 months was positively predicted by frequency of conservation behavior and negatively predicted by being from a rural area. Being male was a negative predictor in three of the models. Overall:

- Strong identification as a birdwatcher was important in the new and universal support groups.
- The new and universal support groups were characterized by strong conservationist identities.
- These two groups (new and strong universal support) were likely to belong to a conservation or environmental organization.

Figure 2. Categorization of WMA stakeholder-based support for WMA funding options



Discussion

Experience with WMAs was a significant predictor of taking some actions to fund WMAs, so finding ways for people to experience them will likely be beneficial. Partnerships and engagement with local organizations to get people outdoors shows a lot of promise as well. Similarly, the more one engages in conservation behaviors, the more support for all funding options. Marketing, communication, and engagement can help build support for wildlife management and WMA funding. Messages and approaches need to be tailored to the group of interest (i.e., know your audience) and the type of funding mechanism they are most interested in. Birdwatchers appear to have a lot of interest in potential new ways of funding wildlife management. State wildlife agencies should seek to develop a diversified portfolio of traditional and new funding mechanisms. However, this is likely to be challenging as males and traditional stakeholders were generally less supportive of the funding options, especially the new ones. As a result, sustained engagement with all partners for the common good will be necessary.

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

- Getting people to start experiencing wildlife management areas (WMAs) is an important step in building support for wildlife conservation, including possibly paying a WMA access permit fee.
- Appealing to identities of conservationist, birdwatcher, or waterfowl hunter is likely to result in increased support for WMA funding.
- Current conservation behaviors are strong predictors for future actions.
- Marketing, communication, and outreach strategies should be tailored to the group of interest.
- Sustained engagement with partners and stakeholders on all sides of the funding options will be important to forge new foundations in wildlife management funding.

Contacts

Dr. Barbara Avers

Waterfowl and Wetlands Specialist, Michigan Department of Natural Resources - Wildlife Division; Adjunct Assistant Professor MSU Fisheries and Wildlife Department

aversb@michigan.gov | (517) 930-1163

Dr. Heather Triezenberg

Associate Director and Extension Program Leader, Michigan Sea Grant, MSU Extension; Extension Specialist MSU Fisheries and Wildlife Department

vanden64@msu.edu | (517) 353-5508

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