

Behavior of birders in Louisiana

John Areno,^{1,4} Morgan Burns,¹ Kayleigh Eppling,¹ Destiny Garcia,¹ Joshua Johnson,² Layne Shelton,¹ Stephane Simo,¹ Zimao Tian,² and Terri J. Maness³



¹Undergraduate Student, ²Graduate Student, ³Assistant Professor, ¹⁻³School of Biological Sciences, ⁴School of Forestry, Louisiana Tech University

Introduction

One fifth of the adult population in the United States regularly birdwatch and this recreational activity annually generates over \$82 billion for the US economy (Carver 2009). We wanted to determine the preferences of birders in Louisiana to accurately emulate birder behavior for a subsequent study that assessed the potential effects of birder activity on bird behavior (see additional poster from the authors at this symposium). Our goals for this project were to:

- Gather demographic information about Louisiana birders
- Determine the main types of areas visited by Louisiana birders
- Gather information about amenities preferred by Louisiana birders
- Determine the typical behavior of Louisiana birders while birding

Methods

- An online survey¹ generated with SurveyMonkey (https://www.surveymonkey.com/) was sent to members of LABIRD, an email bulletin board dedicated to disseminating information about birds of Louisiana. A link to the survey was included in an email sent to listserve members.
- Respondents were allowed to opt out of the survey after following link in the email invitation.
- The survey included 25 questions and respondents were allowed to skip questions or exit the survey at any time.

Results

- 87 members of LABIRD followed the link to our survey, with only one person opting out of the survey.
- 76 respondents completed the entire survey

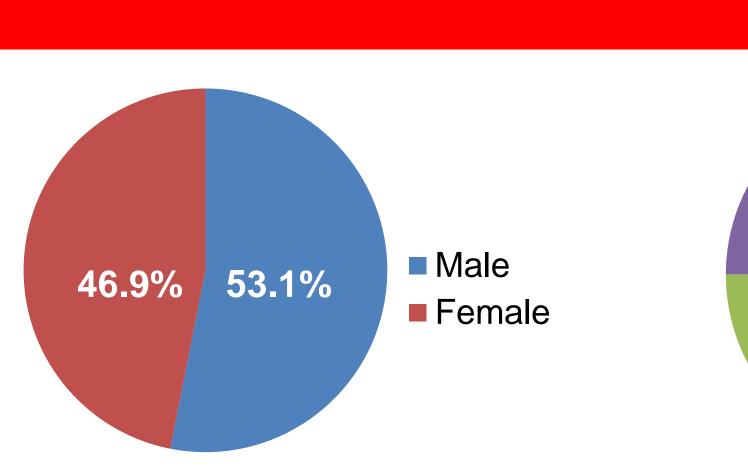


Fig. 1. The percentage of males and females that responded to our survey. 95% confidence interval (95CI) for males = 42.3 - 63.6%; and for females = 36.4 - 57.7%.

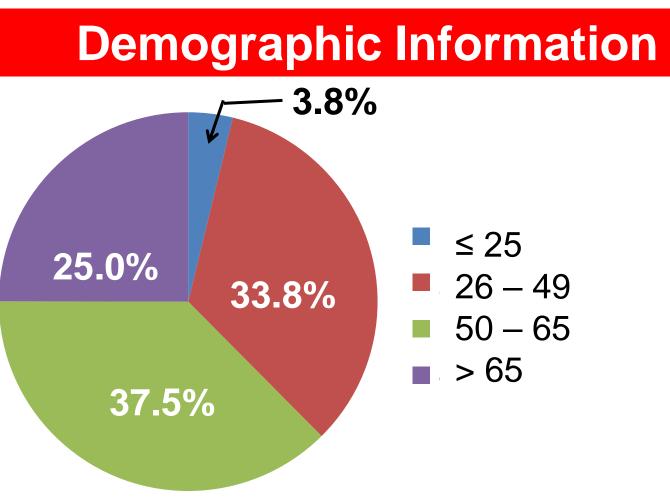


Fig. 2. Age (years) class percentages of survey respondents. 95CI interval for $\leq 25 = 1.3 - 10.3\%$; 26 - 49 = 24.0 - 44.2%; 50 - 65 = 27.3 - 50.0%; and > 65 = 16.6 - 35.1%.

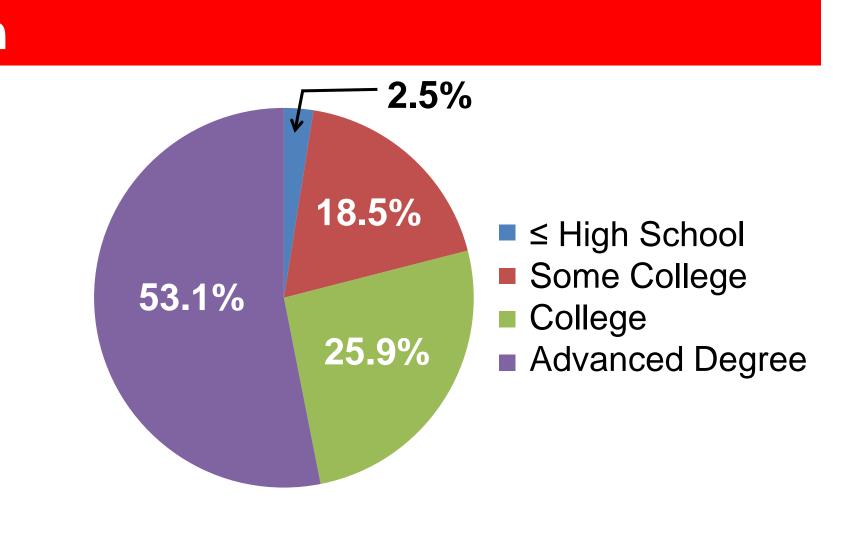


Fig. 3. Highest education level attained by respondents. 95Cl for \leq High school = 0.8 – 8.5%; Some College = 11.6 – 28.4%; College = 17.6 – 36.4%; and Advanced Degree = 42.3 – 63.6%.

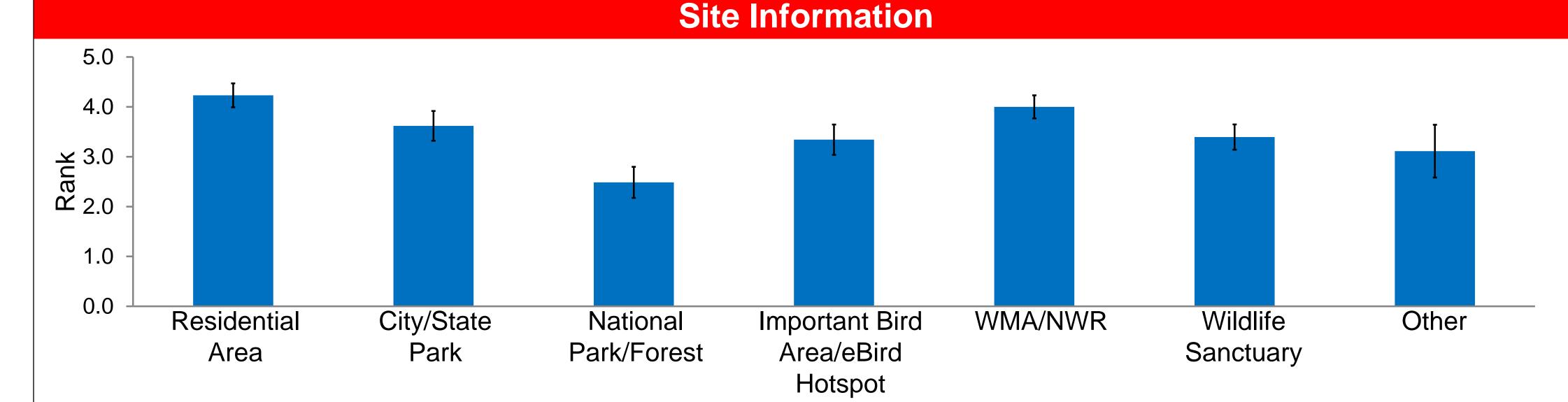


Fig. 4. The areas visited by birders in Louisiana as an average rank. Respondents were asked to rank areas they bird as "most typical" = 5.0, "typical" = 3.0, or "rare" = 1.0. Important Bird Areas are designated by the National Audubon Society (http://web4.audubon.org/bird/iba/) and eBird is a national database of bird sightings managed by the Cornell Laboratory of Ornithology (http://ebird.org/). WMA = Wildlife Management Area, while NWR = National Wildlife Refuge. Responses for "other" included roadsides and private property. Error bars indicate 95% confidence limits.

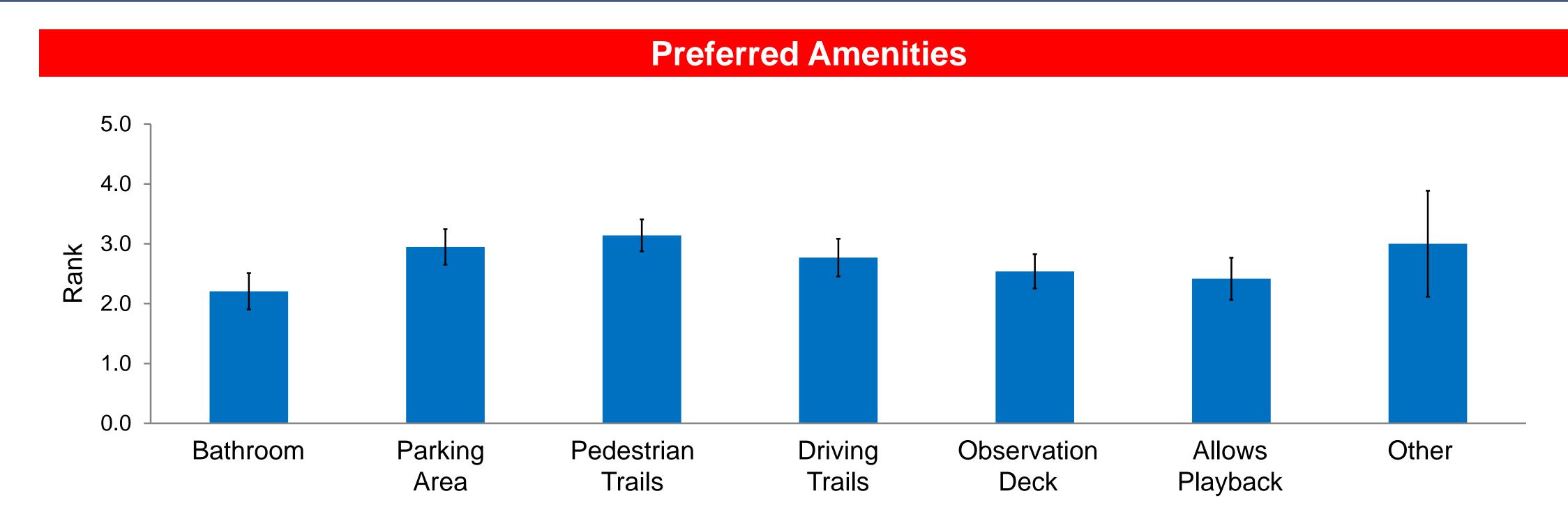


Fig. 5. Site amenities preferred by birders in Louisiana as an average rank. Respondents were asked to rank amenities as "much preferred" = 5.0, "preferred" = 3.0, or "don't care or usually consider" = 1.0. Playback is the use of recorded bird song. Responses for "other" included photo blind, benches, and undisturbed or natural habitat. Error bars indicate 95% confidence limits.

Birder Behavior

Most Louisiana birders use playback (Fig. 8). Using only the playback group, we found that birders use playback all year long, but use it most during the winter and least during the breeding season (Spring use = 73.2%, Summer breeding season = 33.9%; Fall = 76.8; Winter = 91.1%). Birders played species specific songs and predator songs to make birds more visible, used medium – high volume on their playback devices (91.1% of respondents), and played a song 1 – 5 times at a site (96.4% of respondents) before moving to a new location. Approximately 85% of Louisiana birders frequently visit the same area to bird.

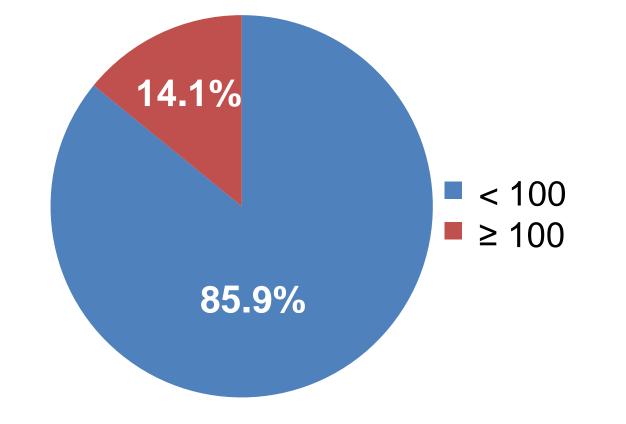


Fig 6. Typical distance Louisiana birders traveled to bird in miles. 95CI for < 100 = 76.4 - 91.9; and $\ge 100 = 8.1 - 23.5\%$.

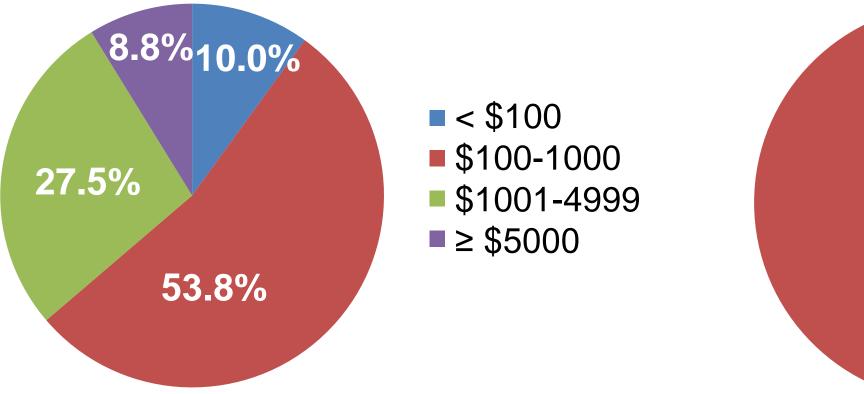


Fig 7. The average amount of money spent by Louisiana birders for birding in a year. 95Cl for < \$100 = 0.0 – 4.6%; Occasionally = 9.1 – 25.0%; and Frequently = 75.0% - 91.4%.

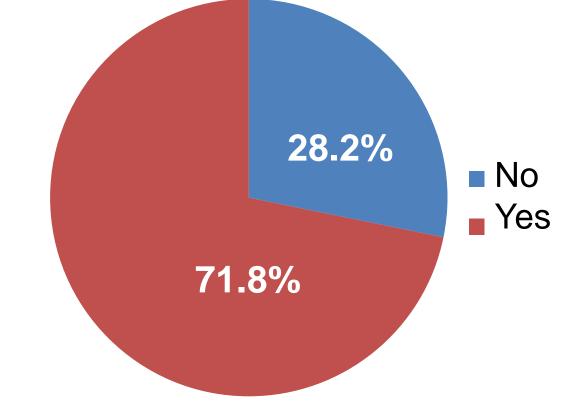


Fig 8. Percentage of Louisiana birders that use playback. 95Cl for No = 19.4 – 39.1% and Yes = 60.9 – 80.6%.

Conclusions

- Louisiana birders are equally likely to be male or female (Fig. 1), they are generally older (Fig. 2), and highly educated (Fig. 3).
- Louisiana birders bird most often in residential areas, wildlife management areas or national wildlife refuges, and city/state parks (Fig. 4).
- Louisiana birders prefer birding sites to have parking areas, pedestrian trails, and driving trails (Fig. 5).
- Louisiana birders stay within 100 miles of home to bird (Fig. 6), most spend between \$100 and \$5000 a year on birding activities (Fig. 7). And most birders use playback (Fig. 8) at all times of year to make birds more visible.

This information may assist resource planners and conservation organizations to better meet the needs of birders. Designing sites that birders frequent can provide much needed tourism dollars to underdeveloped regions and areas that want to preserve their natural heritage.

References

Carver, E. 2009. Birding in the United States: A demographic and economics analysis. USFWS Report 2006-4.

¹Human Use Committee approval: HUC 1163