

CHARACTERISTICS OF FALL BLACKBIRD ROOSTS IN THE SUNFLOWER- GROWING REGION OF NORTH DAKOTA

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Introduction

In the fall, millions of blackbirds form large flocks and roost overnight in cattail marshes. In some years, blackbirds can cause more than \$10,000,000 in damage to ripening sunflower fields in North Dakota, South Dakota, and Minnesota. To help reduce the sunflower damage caused by blackbirds, wildlife managers use Rodeo®, an aquatic herbicide, to decrease the amount of roosting habitat available and disperse large blackbird roosts.

Methods

The physical characteristics of active blackbird roosts were compared to potential, but inactive roosts. Marsh transects were performed to record the physical characteristics of each marsh. Observers recorded water depth, cattail height, cattail density, and bird use. Bird-use surveys were conducted around active and potential roosts to record the behavior and habitat used by blackbird flocks. Surveys were conducted in the morning when blackbird activity was at its peak.

Results

A total of 20 marshes were observed in this study - 11 active roosts and 9 potential roosts. A MANOVA was used to test for a difference between the physical characteristics at active roosts and potential roosts (Figure 1). Statistically, there was no difference in cattail density ($P = 0.183$) or cattail height ($P = 0.229$) between active and potential roosts. Water depth was the only measured characteristic for which a difference was detected ($P = 0.002$). Bird-use surveys indicated that 43% of the blackbirds observed were feeding in sunflower, and 43% were found loafing in cattail marshes (Figure 2).

Conclusions

Generally, active blackbird roosts were located in cattail marshes that had an average water depth greater than 25 cm in depth. Sunflower fields planted near attractive roosting

habitat tended to harbor more blackbirds than did other habitats. Sunflower producers and wildlife managers may be able to reduce local sunflower damage by manipulating emergent vegetation found in water greater than 25 cm.

Acknowledgements

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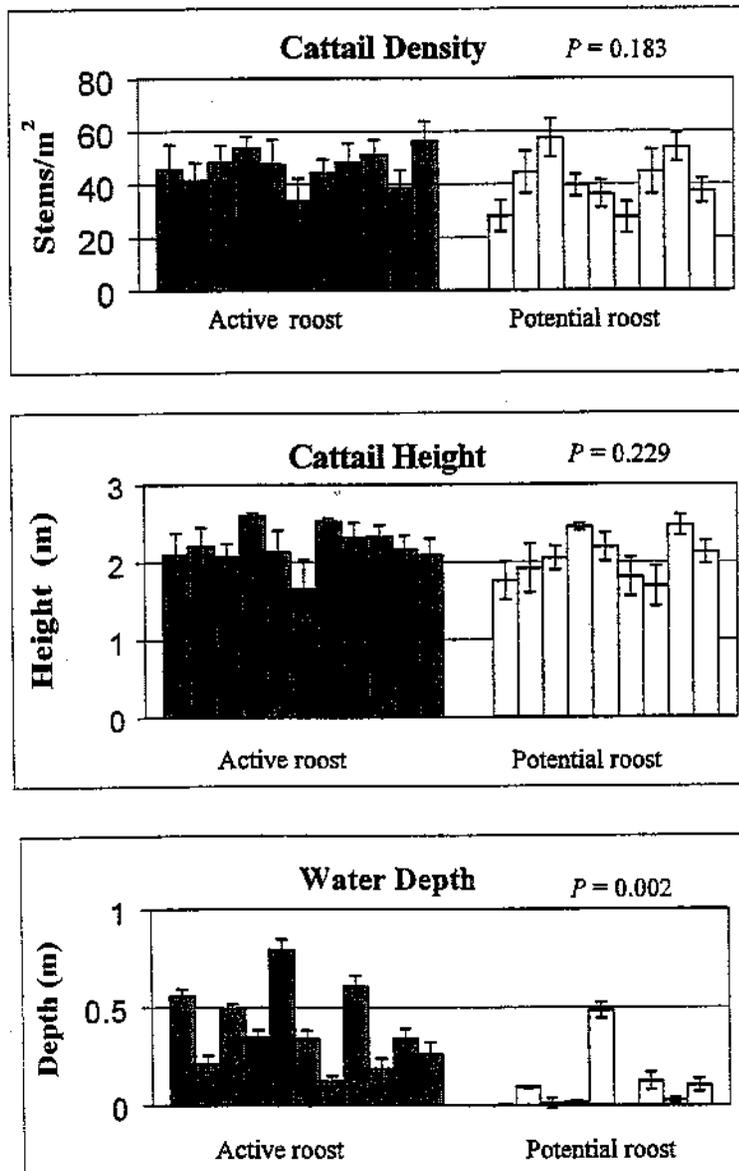


Figure 1. Characteristics measured at active and potential roosts.

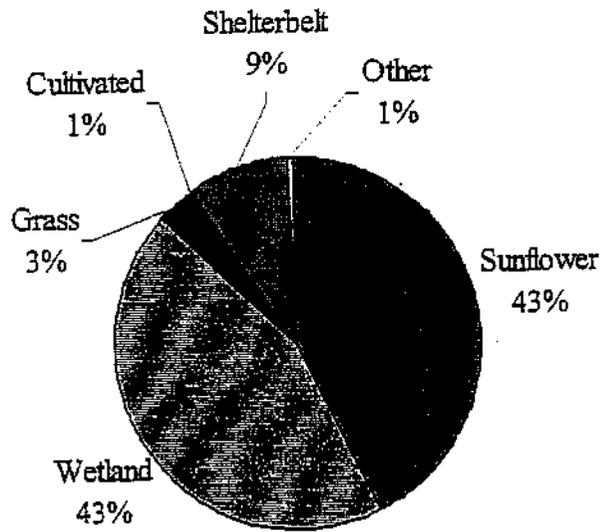


Figure 2. Habitat used by blackbirds during fall migration

The 1999 Sunflower Research Workshop, sponsored by the National Sunflower Association, took place on January 18 and 19, 2000, at the Ramada Plaza Suites, Fargo, ND. The workshop was very well attended and received by public and private researchers from the United States and Canada, as well as other interested parties.

This volume contains nearly all the presentations given at the 1999 workshop. Some of the papers are summarized or abstract form.

The National Sunflower Association would like to extend its appreciation to those presenting papers/posters at this annual Sunflower Research Workshop and to those who participated by their

attendance and questions. Special thanks are extended to the NSA Research Forum Planning Committee, Dr. Gary J. Brewer, NDSU, Dr. Laurence D. Charlet, USDA-ARS and Pat Duhigg, Seeds 2000. Thanks also to Dr. Laurence D. Charlet, USDA-ARS (Sunflower Research Unit) and Dr. Gary J. Brewer, NDSU, for their expertise in moderating the workshop sessions.

Questions regarding these proceedings may be directed to the National Sunflower Association, 4023 State Street, Bismarck, ND 58501.

Note: The papers in these proceedings should not be reprinted in part or in total without the expressed consent of the author(s) involved.

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