Bird use of early successional sandbar vegetation for nesting: What do we lose by managing sandbars for plovers and terns?

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INTRODUCTION

• Bare sandbars are necessary for two federally listed species - Interior Least Tern (Sternula antillarum) and Piping Plover (Charadrius melodus).
• New sandbar formation is limited along the Missouri River, but habitat is maintained for sandbar-dependent species by preventing the colonization of early successional cottonwood-willow forest.
• Early successional forest may supply habitat for a diverse bird community.
• An understanding of the biological tradeoffs to vegetation management options is necessary for a balanced ecosystem-based approach to sandbar management.

METHODS Data Collection: 2018

• Point Counts
  • Breeding Season: 7 locations visited twice at least 10 days apart
  • Fall Migration: 4 locations weekly for several weeks
• Nest Monitoring: 3-4 day frequency at 3 locations (N = 97, 14 Species)
• Nest Success: Mayfield Method

STUDY AREA

Study Locations

ACKNOWLEDGMENTS

RESULTS

Species Observed

Migration 60
Breeding Season 48
Nest Success

Average for 14 species 26%

CONCLUSIONS

• Cumulative nest survival recorded in nearby mature riparian forest 36% and in farmstead woodlots 44%, Yellow Warbler nest success reported as 28% (Gentry et al.2006).

Overall, nesting birds were less successful during the 2018 breeding season than we expected. The 2018 breeding season experienced higher water levels than a typical year and this may have influenced nest success. Further comparisons of species-specific nest survival will help identify key breeding areas and migratory stopover sites.

Literature Cited: