

MN Marshbird Survey Summary for Surveyors

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Survey Setup and Adjustments

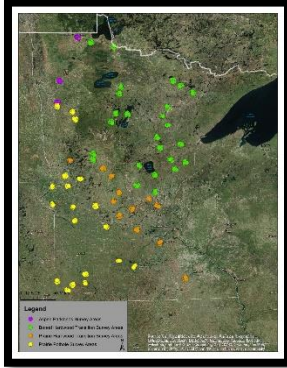


Figure 1 Surveyed Locations

On May 1st 2016, we kicked off the first season of the statewide waterbird survey. Of the original 65 PSU locations selected through remote sensing and ground truthing, 10 were deleted because of poor habitat or lack of access and 2 were dropped due to no coverage. We were able to add 3 survey routes to supplement some of the areas we lost while the survey was in progress. In total, 56 survey routes (~370 survey sites) were successfully surveyed in all three survey windows. We plan on designating 12 additional PSU sites for next season and potentially adjusting some of the existing routes for better access.

Species Summary

We identified 6 focal species (American Bittern, Least Bittern, Pied-billed Grebe, Sora, Virginia Rail, and Yellow Rail) and 10 secondary species for our survey protocol.

Focal species were detected in 20% of all observations including surveys conducted with no data (30%). The Sora and Virginia Rail appear to be the most represented focal species on the survey with the Yellow Rail showing the lowest number of observations. Of the secondary species monitored, the yellow-headed black bird was observed in the highest numbers and relatively early in the season which may indicate we were picking up on some migratory flocks. In the coming months we will conduct a more robust analysis of where the focal species were observed in order to begin to parse out some species detection and habitat suitability questions.



Figure 2LEBI by Rebecca Holmes

Volunteers in Action



Figure 3 Volunteer Training by K Hall

- Participants: 33 volunteers covered 37 routes (some volunteers adopted 2 survey routes)
- Each surveyor spent 1 full day in training – 8 hours
- Time each volunteer spent surveying was approximately 15 hours (3 hours per survey @ three times throughout the season, plus scouting, prep time) *NOTE: Data entry time and commute time not included in the overall volunteer time spent (i.e. conservative estimate)*

Total volunteer hours: 33*23 = 759 hours

Impressively, all of the survey data was entered into the online database prior to the deadline! This amazing accomplishment is thanks to the help of Reed and Alison on staff as well as to all of our dedicated volunteers. The habitat data entry portal is still under development, so that will be a winter job for me prior to the start of our next season.

Ongoing Effort

As this is the first year of the survey, our current data set summary is preliminary. A more advanced analysis will be conducted after the second season is completed. One important element of our analysis going forward will focus on detectability. We have used the standardized marshbird survey protocol with the intention of collaborating regionally in order to determine marshbird population trends and potentially habitat needs throughout the Midwest. An investigation into species detectability under this standardized protocol would inform us on which species are more responsive to the call-back protocol and which are not. The differences in detectability and/or response to the playback on a species by species basis should inform our interpretation of survey results. For example, consider our low initial observations of Yellow Rail in this pilot season, it is possible that this methodology may not be appropriate to adequately detect Yellow Rails, or the protocol may need to be modified (i.e. time of day) in order to better survey for this species. As with many initial efforts, there are currently more questions than answers. However, as ever inquisitive birders, we look forward to continuing to refine our approach in order to develop a solid foundation for an ongoing secretive marshbird survey effort in Minnesota. Stay tuned in for updates and participation rallying cries in early spring!



Figure 4 AMBI by Margo Burnison