

An Ecological Assessment of Nebraska's Wetland Resources

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Background

Wetlands encompass habitats where the characteristics of terrestrial and aquatic ecosystems meet. Wetlands are important and increasingly threatened ecosystems in the landscape that provide many ecosystem services. Since 1867, Nebraska has lost nearly 35% of its wetland resources and only 3% of remaining wetlands in Nebraska are owned by state, federal, or other conservation and management organizations. Although trends in wetland quantity have been tracked, the ecological condition and quality of these wetlands remains unknown.



Research Questions

1. What is the current ecological condition of Nebraska's wetland resources?
2. What factors influence the occupancy of Nebraska wetlands by native amphibians?
3. How does ecological condition affect the current distribution of the chytrid fungus in native amphibians?



Methods

We will visit 110 wetlands located in 11 wetland complexes/BUL's across the state. At each wetland site, we will perform three levels of assessment: 1) Large-scale landscape assessment 2) Rapid assessment 3) Intensive ecological assessment.. Furthermore, to assess the use of wetland by native amphibians, we will also conduct call surveys and collect amphibian disease samples at each wetland site.

Expected Outcomes

1. A better understanding of the factors influencing the current condition of Nebraska's wetlands;
2. Recommendations for the best methods to assess wetland condition in Nebraska;
3. Knowledge of how ecological condition affects wetland reliant species and associated diseases.

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