

Population and Community Ecology of Small Mammals in Relation to Ecological Succession

Small mammal abundance and species diversity depends significantly on the successional of the habitat (Kaminski et al. 2007). We compared two plots in the Schmeeckle Reserve in Stevens Point, WI to determine which habitat provides a higher abundance and/or greater species diversity. The plots consisted of an early successional woodlot near the recently restored Moses Creek floodplain and the Chilla Wood plot resembling a later successional woodland habitat. We hypothesize that the species diversity of small mammals will be greater in early successional habitat (Moses Creek) compared to a later successional habitats (Chilla Wood plot). We also hypothesized that small mammal abundance will increase over time regardless of habitat type/stage. Data was collected throughout the month of October 2013 for species diversity; while abundance data was collected from the years 2011-2013. Mark and recapture methods were used along with Bailey's abundance test for estimating abundance and the Shannon-Weiner diversity index for estimating species diversity. Our results did not support an increase in abundance of small mammals from 2011-2013. Our data did show a higher diversity in the early successional habitat relative to the later successional habitat. This study can be used for managing habitats in terms of successional stages involving small mammal species in relation to desired abundances and species diversity in Schmeeckle Reserve as well as on a larger habitat scale.

Poster

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