



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2004ND46B

Title: Effects of West Nile Virus Infection, Immune Function, and Age on Female Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*) Reproduction.

Project Type: Research

Focus Categories: Wetlands, Ecology, Conservation

Keywords: Wetlands, Breeding Habitat, West Nile Virus, Female Birds Immunity

Start Date: 05/16/2004

End Date: 08/15/2004

Federal Funds: \$3,000

Non-Federal Matching Funds: \$6,000

Congressional District: 1

Principal Investigator:

Wendy Reed

Abstract

The overall objective of this project is to determine the effects of female age and infection with West Nile virus on yellow-headed blackbird reproduction. The specific objectives of the research are to identify the prevalence of WNV in a free-living population of yellow-headed blackbirds, to quantify variation in immune function of female blackbirds, and to measure the relationship between female immune function, WNV infection, and age on carotenoid allocation to eggs. These objectives will allow us to evaluate potential relations between wetland bird WNV infection and increased aquatic habitat for breeding mosquitoes in North Dakota.