

Osborn, R.G., K.F. Higgins, R.E. Usgaard, C.D. Dieter, and R.D. Neiger. 2000. Bird Mortality Associated with Wind Turbines at the Buffalo Ridge Wind Resource Area, Minnesota. *American Midland Naturalist* 143:41-52

Abstract -Recent technological advances have made wind power a viable source of alternative energy production and the number of windplant facilities has increased in the United States. Construction was completed on a 73 turbine, 25 megawatt windplant on Buffalo Ridge near Lake Benton, Minnesota in Spring 1994. The number of birds killed at existing windplants in California caused concern about the potential impacts of the Buffalo Ridge facility on the avian community. From April 1994 through Dec. 1995 we searched the Buffalo Ridge windplant site for dead birds. Additionally, we evaluated search efficiency, predator scavenging rates and rate of carcass decomposition. During 20 mo of monitoring we found 12 dead birds. Collisions with wind turbines were suspected for 8 of the 12 birds. During observer efficiency trials searchers found 78.8% of carcasses. Scavengers removed 39.5% of carcasses during scavenging trials. All carcasses remained recognizable during 7 d decomposition trials. After correction for biases we estimated that approximately 36 + 12 birds (<1 dead bird per turbine) were killed at the Buffalo Ridge windplant in 1 y. Although windplants do not appear to be more detrimental to birds than other man-made structures, proper facility siting is an important first consideration in order to avoid unnecessary fatalities.