

FEATURE ARTICLES

MALLARD DUCKLING SURVIVAL IN THE GREAT LAKES REGION

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Abstract. Survival of young in waterfowl is poorly understood, particularly in regions outside of the traditional prairie breeding areas. Further, traditional methods of survival estimation lack the ability to statistically characterize between the extremes of random and catastrophic mortality events. We estimated Mallard (*Anas platyrhynchos*) duckling survival rates for 121 broods at nine study sites across the Great Lakes region from 2001–2003, using a novel statistical method that allows for the partitioning of random and correlated mortality processes. Results indicated that survival increased rapidly with age, did not change with hatching dates, did not differ among years, but varied across site-by-year replicates. Rates of random mortality were found to vary among site-years, while rates of correlated mortality varied little across site-years. In contrast to most studies of Mallard duckling survival, seasonal increases in duckling survival were not detected. We speculate that the observed patterns in survival rates with hatching date are related to productivity in Great Lakes brood-rearing wetlands and temperate regional climate.

Key words: *Anas platyrhynchos, duckling age, duckling mortality, duckling survival, Great Lakes, hatching date, Mallard.*