

ABSTRACT

Waterfowl are one of our Nation's most precious and abundant natural resources, and preserving habitat well suited to their needs has long been a goal of private and public entities alike. In this study, I focused on the American Black Duck (*Anas rubripes*), a species seeing a large decline in numbers since the mid-20th century. Using a satellite telemetry dataset collected by Ducks Unlimited during 2008 and 2009 in the context of the Protected Areas Database of the United States (PAD), I addressed the land use habits of *A. rubripes* to assess the efficacy of costly conservation efforts implemented through conservation easements and the maintenance of wildlife refuges and management areas. Most analyses were conducted at the stopover level, grouping telemetry points within a 0.5 decimal degree diameter. By creating distributions and studying correlations, this study finds that during wintering months *A. rubripes* registered more telemetry points in PAD lands where hunting is allowed in-season; during migration, lands outside of the PAD were more frequently used. This could be attributed to waterfowl specific management practices creating prime habitat during wintering and food needs being fulfilled by residual agricultural products during migration. This suggests an increased importance of management efforts in wintering habitats. Climate variables were also assessed to test reported influences of temperature and precipitation on distribution and stopover behaviors, but study data did not demonstrate a correlation between stopover length and temperature or precipitation at arrival and departure. A finer scale geospatial analysis using more detailed information about hunting status and protection level is recommended to further interpret available data.