

HARLEQUIN DUCK (*HISTRIONICUS HISTRIONICUS*)

POPULATION STATUS AND HABITAT USE IN RHODE ISLAND



Photo by Mike Salerno

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HABITAT USE IN RHODE ISLAND**

BY
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ABSTRACT. The wintering population of Harlequin Ducks (*Histrionicus histrionicus*) in eastern North America was likely always small, but declined substantially throughout the 20th century. With a hunting prohibition in place since 1990, the species has shown signs of recovery along the Atlantic Coast. To assess the historical status of Harlequin Ducks in Rhode Island (USA), I reviewed Christmas Bird Count records within the state and local survey data collected by the U. S. Fish and Wildlife Service. During the winter of 2005-2006, I surveyed Harlequin Ducks at two sites in southern Rhode Island, Beavertail State Park and Sachuest Point National Wildlife Refuge, to assess the size of the current population, evaluate the precision of surveys, and quantify habitat use. The Harlequin Duck population in Rhode Island generally increased from 1975 to 2005. However, changes in local populations over the last five years suggested a possible redistribution of individuals within the state. In the winter of 2005-2006, 62% of the population was male and all individuals exhibited a strong preference for rocky habitats close to shore. I found significant effects of tide and time of day on the number of individuals observed. Numbers were the highest during low tide morning surveys. Having benefited from the hunting ban, the Harlequin Duck population in Rhode Island contained approximately 150 individuals in 2005-2006 and exhibited sex ratios typical of larger populations of this species on the Pacific Coast. In the future, the most precise estimates of the state population could be obtained by conducting surveys in the morning during low tide at multiple sites throughout the winter. As Harlequin Ducks continue to face threats associated with a variety of human activities, I recommend continued monitoring of this species at known and potential wintering sites in Rhode Island.