

**Feasibility Statements For Harlequin Duck
Goal and Objectives
2001 – 2016**

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Goal: Increase the distribution and abundance of Harlequin Ducks wintering in Maine and increase the publics' understanding and appreciation of Harlequin Ducks and their wintering requirements in Maine.

Population Objective: By 2016, increase the number of wintering Harlequin Ducks in Maine by 20% by working cooperatively with the Harlequin Recovery Team.

Desirability: Population viability for Harlequin Ducks is maintained only by high rates of adult survival. The eastern North American population is still relatively small, combined with seasonal concentrations of a large portion of this population at a limited number of sites. Maine supports a significant portion of this population during the winter. Increasing the wintering population in Maine by reducing adult mortality will increase the stability of the population of Harlequin Ducks throughout eastern North America.

Feasibility: The Department and the Harlequin Recovery Team can increase the number of Harlequin Ducks wintering in Maine with collaborative efforts. However, this objective may require periodic coast-wide monitoring, annual monitoring at more traditional sites, and protection of winter habitats. A long-term financial commitment by the Department is needed to conduct these management actions.

Capability of Habitat: During the late 1800s to early 1900s, the Harlequin Duck population in eastern North America declined substantially; this decline was especially notable in Maine and Nova Scotia. More protective measures (reduced season length and bag limits) eventually came into effect beginning in the 1980s, leading to season closure in Maine in 1989. Estimates of wintering populations in Maine have ranged from ≥ 655 in February 1995 to 1,100 in 2001. Based on historic and current estimates of the number of wintering Harlequin Ducks, the Department believes habitat is capable of supporting a 20% increase in the Maine wintering population.

Possible Consequences: Increasing survival of the wintering population of Harlequin Ducks in Maine will increase the stability of the eastern North American population. Human-related activities may need to be limited around critical wintering areas, with possible public and commercial resistance to management approaches.

Research Objective: Determine the factors limiting over-wintering survival of Harlequin Ducks in Maine by 2010.

Desirability: The eastern North American population is still relatively small, with seasonal concentrations of a large portion of this population at a limited number of sites. These factors leave Harlequin Ducks particularly vulnerable to human-related activities (e.g., habitat degradation and pollution, human disturbance, accidental take during waterfowl season). Stability of Harlequin Duck populations is maintained through high adult survival. Identifying limiting factors to winter survival of Harlequin Ducks in Maine will contribute to efforts to increase the size of the eastern North American population.

Feasibility: The Canadian Wildlife Service is the lead agency coordinating recovery actions for Harlequin Ducks in eastern North America, with cooperation and participation by provincial and U.S. (federal and state) wildlife agencies. Department biologists, in collaboration with other agencies and scientists, will be able to identify factors limiting over-winter survival of Harlequin Ducks in Maine. This objective requires a financial commitment by the Department.

Capability of Habitat: Maine supports a significant portion of the eastern North American population of Harlequin Ducks during winter. Harlequin Ducks winter in Maine principally off the southern shore of Isle au Haut and adjacent islands in Penobscot and Jericho Bays; this region is important to the management of Harlequin Ducks in eastern North America.

Possible Consequences: Identification of limiting factors will aid in determining appropriate management strategies for increasing the population of Harlequin Ducks in eastern North America. Human-related activities may need to be limited around critical wintering areas, leading to public and commercial resistance to management approaches.

Habitat Objective: Identify and map by 2002, and maintain through 2016, all important Harlequin Duck wintering habitats in Maine.

Desirability: Identifying and maintaining important wintering habitats for Harlequin Ducks in Maine is critical to the management of this species throughout eastern North America. Wintering habitat for Harlequin Ducks is restricted to traditionally used rocky shorelines or exposed outcroppings that are consistently ice-free. These marine habitats are vulnerable to contamination by pollutants and disturbance by human-related activities. The Department is responsible for defining and mapping waterfowl habitats of high and moderate value that require protection under the Natural Resources Protection Act of 1988; irregardless of any possible management actions, these habitats need to be identified and mapped.

Harlequin Duck Feasibility Statements

Feasibility: Currently, wintering areas in Maine are surveyed by the Department, other scientists, and interested individuals. The Department is able to map known wintering locations in a Geographic Information System and record associated information in databases. Maintenance of wintering habitats requires collaboration of conservation partners and, if necessary, management actions to prevent the degradation of these habitats. This management requires a stable financial commitment by the Department.

Capability of Habitat: In Maine, Harlequin Ducks winter principally off the southern shore of Isle au Haut and adjacent islands in Penobscot and Jericho Bays and in Casco Bay off Portland. Concentrations of Harlequin Ducks have been observed from Schoodic Peninsula to Outer Double Shot Island (Cutler) late in the wintering season.

Possible Consequences: Management of Harlequin Ducks wintering in Maine will be aided by consolidating numerous references of Harlequin Duck wintering locations. Maintaining the quality of wintering habitat will assist in stabilizing the Harlequin Duck population in eastern North America. Human-related activities may need to be limited around critical wintering areas, with possible public and commercial resistance to management approaches.

Outreach Objective: By 2003, develop and implement, in conjunction with partners, an outreach program to promote an understanding and appreciation of Harlequin Ducks and their wintering requirements in Maine.

Desirability: Male Harlequin Ducks were sought as trophy birds when they were legally hunted in Maine prior to 1989. Even with hunting seasons closed for Harlequin Ducks, there is a high public demand for nonconsumptive uses of wildlife, including rare species such as the Harlequin Duck. However, hens are still vulnerable during the waterfowl season due to being mistaken for other waterfowl species (e.g., hen scoters). The Harlequin Duck's wintering population is vulnerable because a significant portion of the eastern North American population winters in Maine (mostly in Penobscot and Jericho Bays). Outreach activities are needed to promote an awareness and understanding of this wintering duck (including its habitat requirements, vulnerability of these habitats to contamination by pollutants and disturbance by humans, and harlequin identification).

Feasibility: Department biologists and Information and Education staff, in conjunction with interested partners, can meet this Public Outreach Objective. The Department will need to provide assistance and some financial support to its partners.

Capability of Habitat: Not applicable.

Harlequin Duck Feasibility Statements

Possible Consequences: Accidental take of hen Harlequin Ducks will hopefully decrease as outreach efforts focus on Harlequin identification and hunter education. Human disturbance of critical wintering habitat in Maine may decrease as people have increased understanding of the Harlequin Duck's wintering requirements. This awareness also may aid in protecting these vulnerable habitats from pollution and degradation.