

Sea Duck Joint Venture
Annual Project Summary for Endorsed Projects
FY 02 – (October 1, 2001 to Sept 30, 2002)

Project Title: No. 5: Local survival and patterns of philopatry for Harlequin Ducks wintering in outer Jericho Bay, Maine.

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Partners: U.S. Fish and Wildlife Service (USFWS), Maine Outdoor Heritage Fund (MOHF), Maine Department of Inland Fisheries and Wildlife (MDIFW), Acadia National Park (ANP), Canadian Wildlife Service (CWS), Maine Audubon Society (MAS), Coastal Maine Biological Research Station (CMBRS), and Petit Manan National Wildlife Refuge (PMNWR).

Project Description: The small population size and limited distribution of Harlequin Ducks wintering in eastern North America has led to concern about the status of this species in the western Atlantic. Given this species longevity and low reproductive output, survival of adults may have a greater influence on population recovery than annual fecundity. We are monitoring patterns in annual survival and philopatry for Harlequin Ducks wintering in the vicinity of Isle au Haut, Maine using mark/resight efforts.

Objectives: Our objectives are to 1) examine survival of adult and juvenile harlequin ducks in the Isle au Haut, Maine area using capture-recapture methods; 2) describe patterns of movement and site tenacity based on multiple resightings of banded birds; and 3) determine spring staging sites, spring migration sites, breeding areas, and moulting locations of harlequin ducks that winter in Maine.

Preliminary Results: Since the fall of 1997, we captured and banded 442 harlequin ducks (202 adult males, 62 first year males, 145 adult females, and 33 first-winter females) at 16 locations in the Isle au Haut area. We relied on observations of banded birds to track the capture histories and movements of individuals because net recaptures were low (11.5%). During the winter of 2001-02, we were on IAH and other adjacent islands for 89 days of field work and we read a total of 1052 bands representing 180 individuals, including 14 birds originally banded at moulting or breeding sites in Canada. During the spring of 2001, we assisted with the implantation of satellite transmitters into 8 male Harlequin Ducks from the Isle au Haut wintering area. These birds were tracked north to breeding and moulting sites during the summer of 2001 before the battery packs ran out of power. By late June or early July, four birds were tracked to moulting sites in southwestern Greenland, including a bird that likely bred in interior Gaspé Peninsula (M. Robert, Canadian Wildlife Service, pers. comm.). During the winter of 2001-02, we searched for these satellite tagged birds along the Maine coast and observed (based on band-reading efforts) 7 of the 8 satellite tagged birds wintering back along the coast of Maine.

Project Status: Data analysis is currently underway to estimate survival and describe patterns of movement and site tenacity of birds wintering in Maine. With over 900 Harlequin Ducks banded at breeding, moulting, and wintering sites in the western Atlantic over the past five years, we hope to continue our band-reading efforts in Maine to help describe population ranges and degree of potential overlap of sub-populations.

FY02 Project Funding Sources (US\$) (complete only if funded by a SDJV partner e.g., USFWS, CWS, DU, USGS, or Flyway rep; this is used to document how SDJV appropriated funds are matched):

SDJV (USFWS) Contribution	Other U.S. federal contributions	U.S. non-federal contributions	Canadian federal contributions	Canadian non-federal contributions	Source of funding (agency or organization)
	\$16,000				USFWS
		\$16,000			MOHF
		\$8,000 ¹			MDIFW
	\$3,000 ¹				ANP
			\$2,970		CWS
		\$2,000 ²			MAS
		\$2,000 ¹			CMBRS
	1,000 ¹				PMNWR

¹ Amount includes in-kind contribution.

² Amount includes volunteer assistance with project.

Total Expenditures by Category (US\$) (complete only if project is funded by a SDJV partner e.g., USFWS, CWS, DU, USGS, or Flyway rep; dollar amounts should include all partner contributions):

ACTIVITY	BREEDING	MOLTING	MIGRATION	WINTERING	TOTAL
Banding				\$8,000	
Surveys				\$42,970	
Research					
Communication					
Coordination					