

Sea Duck Joint Venture
Annual Project Summary for Endorsed Projects
FY 03 – (October 1, 2003 to Sept 30, 2004)
Reporting Deadline: October 1, 2004

Project Title: Survival and recruitment of Common Eiders (*Somateria mollissima dresseri*) in the Gulf of Maine.

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Project Description: Banding efforts for common eiders have not been constant over time. Survival and recovery rates are only available for adult females and there is a need for information on the other age-sex classes. During the 1970s to mid- 1980s there was an effort to band female eiders on a few islands in Maine. Numbers of adult females banded per year ranged from 120 to 609. Since then, 0-50 birds have been banded each year. Kremenz et al. (1996) analyzed banding data for the Atlantic coast population of eiders and only had sufficient data for the years 1976-1986 for Maine. He found recovery rates were low and survival was high. Because these estimates are more than 15 years old, harvest has been increasing, and recruitment rate is likely declining, there is a need to obtain better estimates of survival and recovery rates for eiders.

We will select islands and archipelagos and attempt to capture a majority of the nesting females on each. Birds will be captured by hand nets and in drive traps set up along the perimeter of a nesting colony. Birds will be banded with standard USGS bands. Each year we will return to the same islands and band unmarked birds and record bands of previously banded birds (returns). In addition, we will attempt to capture pre-fledged ducklings and molting adults of all age/sex classes using drive traps, rocket nets, and night lighting techniques, near islands where nesting gulls are controlled and on other nesting islands. This is a joint study with USGS, Maine DIFW, and USFWS

Objectives: We propose a long-term banding effort (5-10 years) to determine survival, recruitment, and recovery rates of common eiders in the Atlantic coast population, especially Maine. We will use traditional band analysis methodologies as well as mark-recapture methods. In addition, we will compare recruitment to the population between islands where populations of nesting gulls are controlled and islands with nesting gulls.

Preliminary Results: This was the 3rd full year of the study. Nesting phenology was 2-3 weeks later than past years. Predators have affected nesting on several islands. On Compass Island presence of Bald eagles has reduced the nesting population from several hundred to fewer than 100 females. We found evidence of a coyote on Western Island and no birds nested there this year. Eagles have killed several nesting females on Green Island including several previously banded birds. We only captured nesting females from colonies on 4 islands: Captures included 263 new birds banded and 109 returns. Molting birds did not show up in the numbers we had seen previously. No molting stayed around Petit Manan Island (our Primary drive trap site) during July or August. We had a flock of about 600-1,000 birds around

Metinic Island. We caught 233 molting birds at Metinic Island. A flock of 6-7,000 molting birds showed up around Petit Manan Island the last week of August. Weather and rough sea conditions made drive trapping efforts difficult. We captured and banded 745 new eiders at Green and Petit Manan Islands. In addition we had 34 recaptures of our birds and 5 foreign retraps. Captures included 9 local birds, 822 AHY females, and 408 AHY males. Our total bandings for the past 2 seasons is 5,569 new birds banded.

Project Status: Project is ongoing. We will continue the banding effort over the next several years.

Project Funding Sources (US\$):

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)
	\$25,000				USGS PWRC
	\$10,000				USFWS, R-5 Migratory Birds
		\$10,000			Maine DIFW
	\$35,000				USFWS, Petit Manan NWR

Total Expenditures by Category (US\$):

ACTIVITY	BREEDING	MOLTING	MIGRATION	WINTERING	TOTAL
Banding	*	*			*
Surveys					
Research	\$50,000*	\$30,000*			\$80,000*
Communication					
Coordination					

* The banding is the research effort.