

Sea Duck Joint Venture
Annual Project Summary for Endorsed Projects
FY 2008 – (October 1, 2007 to Sept 30, 2008)
Reporting Deadline: September 29, 2008

Project Title:

Distribution, habitat characteristics, prey abundance and diet of surf scoters (*Melanitta perspicillata*) and long-tailed ducks (*Clangula hyemalis*) in polyhaline wintering habitats in the mid-Atlantic region: a comparison of shallow coastal lagoons and Chesapeake Bay environs (SDJV #104)

Principal Investigator(s):

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Partners:

Gary Costanzo, Migratory Game Bird Program Manager, Virginia Department of Game and Inland Fisheries

Project Description:

Populations of most sea duck species are either decreasing or little is known about their status. Even less is known about specific ecological associations along the Atlantic coast of the U.S. SDJV has identified information on population ecology and habitat requirements as “crucial” to properly manage sea duck populations.

We are targeting surf scoters (*Melanitta perspicillata*) and long-tailed ducks (*Clangula hyemalis*) wintering in polyhaline portions of Chesapeake Bay and nearby mid-Atlantic coastal bays.

Our study combines frequent field surveys of the distribution and abundance of sea ducks with habitat descriptors (e.g., grain size in soft-sediment habitats, seagrass cover and oyster reef density), prey species abundance and water quality (temperature, salinity, dissolved oxygen and turbidity) to evaluate sea duck habitat utilization across the two study areas.

Objectives:

1. Compare the distribution, fine-scale habitat characteristics and diet of surf scoters and long-tailed ducks in two discrete mid-Atlantic environs:
 - a. Polyhaline area of the lower Chesapeake Bay;
 - b. Coastal bays seaward of the Delmarva Peninsula;

2. Qualitatively compare these results to previous studies in the fresher mesohaline portion of Chesapeake Bay;
3. Investigate the proximity of winter foraging habitat to oyster reefs, seagrass beds and emergent shorelines for both species.

Preliminary Results:

The field portion of this project will not begin until October 2008 and will continue into April 2009 while sea ducks are on their winter habitat in the Chesapeake Bay region.

Project Status:

We have received internal approvals to proceed forward with this project from: Institutional Animal Care and Use Committee, Institutional Biosafety Committee and the Vessel Safety Committee. We have also received scientific collection permits from the USFWS and Virginia Department of Game and Inland Fisheries.

All field supplies have been procured. We have made initial contact with the airplane service contractor for aerial bird surveys and have gone over the survey protocol. Surveys are planned to begin the week of October 6th or 13th. Detailed sampling protocols have been developed for all aspects of the study.

Project Funding Sources (US\$). Complete only if funded by SDJV in FY08; this is used to document: 1) how SDJV-appropriated funds are matched, and 2) how much partner resources are going into sea duck work. Include approximate dollar value of in-kind contributions in costs. Add rows as needed for additional partners.

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)
\$35,793		\$36,985			VA Institute of Marine Science

Total Expenditures by Category (SDJV plus all partner contributions; US\$). Complete only if project was funded by SDJV in FY08; total dollar amounts should match those in previous table.

ACTIVITY	BREEDING	MOLTING	MIGRATION	WINTERING	TOTAL
Banding (include only if this was a major element of study)					
Surveys (include only if this was a major element of study)				\$6,900	\$6,900
Research				\$65,878	\$65,878
				Total	\$72,778