

Sea Duck Joint Venture
Annual Project Summary for Endorsed Projects
FY 2008

Project Title : Sea Duck Migration Monitoring - Point Lepreau Bird Observatory (SDJV FY08 Proposal #24)

Principal Investigator(s): Saint John Naturalists' Club Inc., P. O. Box 2071, Saint John, N.B., Canada E2L 3T5

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Partners (anyone else providing some kind of support): None.

Project Description (issue being addressed, location, general methodology):

The Point Lepreau Bird Observatory (PLBO), a project of the Saint John Naturalists' Club, had been monitoring spring migration of sea ducks annually through the Bay of Fundy for the previous 12 years to assess population trends. It amassed a significant amount of migration data on several key sea duck species and wanted to continue in 2008.

In spring the Bay funnels a significant proportion of the East Coast populations of Black and Surf Scoter and Common Eider (*S. m.dresseri* and *S. m. borealis*) past Point Lepreau. Situated at 45.06° N, 66.46° W, the Point is the most prominent finger of land jutting into the Bay on the mainland coast. There are lesser numbers of other sea ducks, including Eastern Harlequins.

These species breed in more northern latitudes and winter further south along the Atlantic seaboard. During spring migration the geography of the Bay of Fundy funnels large numbers of these birds past the observatory as they head north during a narrow six-week timeframe. This makes it a key location on the Atlantic Coast for migration data collection.

Various indicators suggest that several of these sea duck populations (scoters in particular) have been steadily declining over recent decades. A preliminary analysis of the PLBO data also suggests this trend, and we wanted to continue monitoring for a 13th year to avoid a gap in the data.

Another important aspect is that volunteers, making the data collection very cost-effective, put in many of the hours logged at the observatory.

Objectives:

1. Share the migration data with scientists studying and managing scoters and the other sea duck species. The detailed information will help indicate whether Black and Surf Scoters, Common Eiders, Eastern Harlequin and other sea duck populations are recovering, stable or declining, and contribute to an estimate of overall Eastern population levels.
2. Identify periods of peak migration in the Bay of Fundy and what species and numbers of seabirds are involved, and educate local oil management at the large Irving refinery in Saint John about the threat to seabirds posed by oil spills.

Preliminary Results (include maps, photos, figures/tables as appropriate):

Sea duck migration was monitored from March 19 to May 13, 2008, a period of eight weeks. A Dedicated Observer was contracted on weekdays for the six week interval March 31 – May 12 and volunteers covered weekends and the shoulder weeks as much as possible, as well as assisted the Dedicated Observer on many weekdays when migration was heaviest. The Dedicated Observer was present a total of 30 days during the heaviest part of the migration flow.

A total of 32 different volunteers contributed a total of 234 observation hours over 45 days during the eight week count period. This contribution combined with another 128 hours that volunteers spent travelling to and from the site and an additional 33 hours of administrative time brought the total volunteer time invested by members of the Saint

John Naturalists' Club to 395 hours. At an average of \$20 per hour, this represented an "in kind" contribution of \$7,900 CAD or about the same in US currency (at the time).

As part of the Dedicated Observer's duties, all daily count data as well as weather and sea state information was added to the Club's computerized database to bring the accumulated results to 13.5 years.

Dr. Ian Cameron, Professor Emeritus Physics (retired) at the University of New Brunswick, Saint John is a volunteer counter and also conducts extensive data analysis to attempt to determine abundance trends for several of the most prominent species monitored. He is still in the process of working on the information, both for 2008 and earlier years.

Project Status:

The primary mission of continuing the monitoring for a 13th year to avoid a gap in the data was completed successfully.

The first objective of sharing the data with Canadian Wildlife Service (CWS) scientists responsible for studying and managing scoters and the other sea duck species will be met eventually, as we move forward. At present the CWS is rationalizing its programs and budgets and was not able to assist with funding in 2008. We are continuing to work closely with Keith McAloney at the CWS office in Atlantic Canada toward the formation of a long-term partnership.

Further analysis by Dr. Cameron may indicate whether Black and Surf Scoter and Common Eiders populations are recovering, stable or declining, and could contribute to an estimate of overall Eastern population levels. This work is continuing.

The second objective to identify periods of peak migration in the Bay of Fundy and what species and numbers of seabirds are involved is also continuing and with the additional spring data from 2008 we will be even more confident to predict the periods of heaviest migration, by sea duck species.

This objective also includes educating local oil management at the large Irving refinery in Saint John about the threat to seabirds posed by oil spills and this work continues. The Club has already used the data from the 12 previous seasons in a submission to environmental studies of the potential impact of an expansion of the local refinery which would double its daily production from 300,000 barrels to 600,000 and increase container ship traffic in the Bay by up to ten fold. We will look for other opportunities in the future.

Submitted by: Jim Wilson - Chair, PLBO Committee

September 24, 2008