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# Patuxent Wildlife Research Center

## Population Demographics and Breeding Ecology of the Long-tailed Duck (*Clangula hyemalis*) in Churchill, Manitoba, in Relation to Global Climate Change

***The Challenge:*** Population surveys conducted on the west coast of North America suggest drastic declines for the long-tailed ducks (*Clangula hyemalis*) and there also is concern for wintering populations on the Atlantic coast. In many areas of its range there also is a disparate sex ratio that favors males. The population demographics and breeding ecology of long-tailed ducks in Churchill, Manitoba, were extensively studied 40 years ago, but more information is needed for better population management of this species. New information was obtained with field studies during 2004-13.

***The Science:*** This study revealed the close association of long-tailed ducks and common eiders (*Somateria mollissima*) with arctic terns (*Sterna paradisaea*), which nest simultaneously and in the same habitat. Both duck species seem to benefit from the presence of aggressive terns by reducing predation by herring gulls (*Larus argentatus*), whose numbers are increasing in the study area. Site fidelity of long-tailed ducks to the Churchill breeding area was documented by the mist-net capture of 11 (7.8%) ducks banded the previous years. One banded female captured in the same nest bowl she used in previous year.

***The Future:*** Understanding the Churchill population of long-tailed ducks could have important implications in understanding populations in more remote northern areas, especially in regard to global climate change. The use of islands or narrow peninsulas as nesting sites for ducks and terns was an important characteristic of nesting sites that have potential benefits from reduced predation.

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