



COURTESY OF THE PROVINCIAL MUSEUM OF ALBERTA, PHOTOGRAPH BY EDGAR JONES

# Alberta's Bay-breasted Warbler

(*Dendroica castanea*)

## special concern

## status

**Alberta:** Recommended by the Endangered Species Conservation Committee (ESCC) as a Species of Special Concern

**British Columbia:** At Risk

**Saskatchewan:** Sensitive

**Manitoba:** Secure

**Ontario:** Secure

**Quebec:** Secure

**New Brunswick:** Secure

**Nova Scotia:** Secure

**Prince Edward Island:** Secure

**Labrador:** Undetermined

**Newfoundland:** Secure

**Yukon Territory:** At Risk

**Northwest Territories:** Undetermined

**Canada (COSEWIC):** Not assessed by COSEWIC; national general status is Secure

**USA:** Secure (breeding) – N5B



## Description

The bay-breasted warbler is a small (about 14 cm long; 13 g), secretive wood warbler that is difficult to spot and tends to remain in the mid- to upper levels of the forest canopy. The breeding male has a chestnut crown, throat and flanks, cream-coloured underparts, a black mask, a creamy patch on each side of the neck and two white wing bars. The female is duller, with only a faint chestnut cap. The extremely high-pitched, weak song (*see-seese-seese-see*) of this warbler is not distinctive and is difficult for some people to hear.

## Distribution

This neotropical migrant winters in Central and South America and breeds across the boreal forest of Canada and in the northeastern United States. It is found in Alberta's boreal forest and foothills, near the northern and western limits of its range. This warbler is rarely observed during its migration in Alberta, and is uncommon in most areas of the province. Therefore, little is known about its ecology. Individuals are known to arrive in Alberta in mid- to late May and leave for fall migration from mid-August through mid-September.

## Habitat

Bay-breasted warblers can be found in mature stands, but appear to require old forest stands (120+ years old) with canopies dominated by spruce or fir trees. Typical habitat for this species in Alberta is found in old mixedwood

stands of white spruce and aspen or balsam poplar, but pure coniferous and deciduous forest with conifer understorey can provide habitat. Bay-breasted warblers have rarely been found in disturbed sites during the breeding season and are considered a forest specialist species. They usually nest in coniferous trees.

## Population

The bay-breasted warbler is a relatively uncommon songbird in Alberta's forests, and there is limited information available on its overall distribution, abundance and habitat requirements. This species is also difficult to census, is locally distributed and tends to respond strongly to outbreaks of spruce budworm. Consequently, it is difficult to estimate population size and trends. Limited data from the Breeding Bird Survey suggest that Canadian populations of this warbler have declined over the last three decades, and numbers are expected to continue to decline in disturbed areas.

## Threats

Habitat fragmentation and loss threaten the breeding habitat of the bay-breasted warbler. Contributing to this are forestry activities, agricultural expansion, and energy extraction activities such as oilsands development in the boreal forest, all of which continue to increase. Removal of older stands combined with short rotation lengths (time interval between successive harvests) tend to keep

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forests at younger stages of maturity. Exploration for oil and gas contributes to the loss of habitat and leads to fragmentation of the remaining forest by creating long-term linear disturbances such as roads and cutlines. This loss of habitat quantity and quality has been implicated in the population declines of neotropical songbirds across North America. Similar habitat change affects the wintering grounds of these species.

## Management

The bay-breasted warbler and its nests are protected under the *Migratory Birds Convention Act* of 1917, which fulfilled a 1916 treaty between Canada and the United States.

There are no management activities specific to the bay-breasted warbler in Alberta, and detailed information on the population trend and habitat use is lacking. Existing research projects cover some of the types of forest used by this species, but long-term, large-scale studies across all appropriate

habitats are needed to provide the information necessary for proper management of this and other old growth-dependent species. Modifications to resource extraction activities that currently affect the preferred habitat of the bay-breasted warbler will be critical to lessen their impact on this species.

## What You Can Do To Help

**As a member of the public, a land manager, or an industrial developer:**

- Volunteer for the annual Breeding Bird Survey in northern Alberta. Go to <http://www.mp2-pwrc.usgs.gov/bbs/participate> for more information.
- Report any observations of the bay-breasted warbler to the nearest office of the Fish and Wildlife Division, Alberta Sustainable Resource Development.
- Contact wildlife management staff at the nearest Fish and Wildlife Division office for information on ways in which you can minimize impacts on bay-breasted warbler populations and habitat.

