

Summary of the proposed final Management Plan for the Buff-breasted Sandpiper (*Tryngites subruficollis*) in Canada

This is a summary of the information provided in the proposed final management plan for the Buff-breasted Sandpiper. Buff-breasted Sandpiper was listed as a species of Special Concern under the *Species at Risk Act* in 2017.

The management plan is a plan that sets the goals and objectives for maintaining a sustainable population level for Buff-breasted Sandpiper. The summary provided here is based on the information in the English version of the proposed final Buff-breasted Sandpiper management plan in Canada. An English copy of this document has been provided to you for reference.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Assessment and Species Status Information (Pages 1-3)

These pages provide the COSEWIC assessment table, which is also included here. It describes why COSEWIC has assessed the Buff-breasted Sandpiper as a species of Special Concern, where it occurs in Canada, and the history of the species status over the years.

This section also provides information on the status of the species throughout Canada, how it is protected in the provinces and territories, and the status given to the species by other conservation programs such as NatureServe. NatureServe has assessed the status of Buff-breasted Sandpiper in Nunavut as S3B, S3M. S = territorial level, 3 = Vulnerable, B = breeding, M = migrant.



Buff-breasted Sandpiper at Seal River Estuary
Important Bird Area © Christian Artuso

Date of Assessment: May 2012

Common Name (population): Buff-breasted Sandpiper

Scientific Name: *Tryngites subruficollis* **

COSEWIC Status: Special Concern

Reason for Designation: The Canadian Arctic supports about 87% of the North American breeding range of this shorebird and about 75% of its global population. The species was once common and perhaps even abundant historically, but it suffered severe declines stemming from intensive market hunting in the late 1800s and early 1900s. By the 1920s, it was thought to be at the brink of extinction. Its population has grown since hunting was banned in North America, but numbers remain much lower than those before hunting began. There is evidence for population decline in recent decades, and many conservation organizations consider the species to be of concern throughout its range. However, this species is difficult to monitor effectively, and data necessary to estimate population trends are currently lacking. Outside the breeding period, loss and degradation of its specialized grassland habitat, both on its wintering grounds in South America and along its migration routes, are believed to pose the most significant threats.

Canadian Occurrence: Yukon, Northwest Territories, Nunavut, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec

COSEWIC Status History: Designated Special Concern in May 2012.

**The scientific name of the Buff-breasted Sandpiper (*Calidris subruficollis*) changed in 2013 (Chesser et al. 2013), after COSEWIC assessment in May 2012. Documents developed under the *Species at Risk Act* (SARA) must follow the species nomenclature used in Schedule 1 of SARA.



Species Information (Pages 3-8)

This section of the proposed management plan for Buff-breasted Sandpiper provides descriptive information such as what they look like, where they live and what they need to survive.

Species Description

- Buff-breasted Sandpiper is a medium-sized, buff-coloured arctic-breeding shorebird. Males weigh around 70 g and females 55 g.
- They are marked with dark brown spots or streaks along the crown and sides of the breast.
- The species has yellow legs and a black bill.
- Males, females and juveniles are similar in colouration.
- Buff-breasted Sandpipers are the only North American shorebird with an exploded lek mating system. A lek is a gathering of males displaying to entice visiting females. In an exploded lek, the males are further away from one another than in a typical lek.

Species Population and Distribution

- Buff-breasted Sandpiper breeds in low densities in the tundra along the coastline of Alaska and Canada from Point Barrow, Alaska through the Northwest Territories and to the Boothia Peninsula and as far north as Melville, Bathurst, and Devon Islands, Nunavut.
- Their local distribution is patchy and variable between and within years.
- Males may display at multiple leks across the breeding range, and <10% of males return to previous leks.
- Buff-breasted Sandpipers migrate south mainly following the Midcontinental flyway through the prairies and the plains with multiple stopover locations.

- Their wintering grounds include the coast of central Argentina, southeast Uruguay, and southeast Brazil.
- On their northbound migration, birds stop in the Llanos plains of Columbia and Venezuela before crossing the Gulf of Mexico, representing an important stopover site.
- Birds show high wintering site fidelity, meaning they return to the same winter location every year.

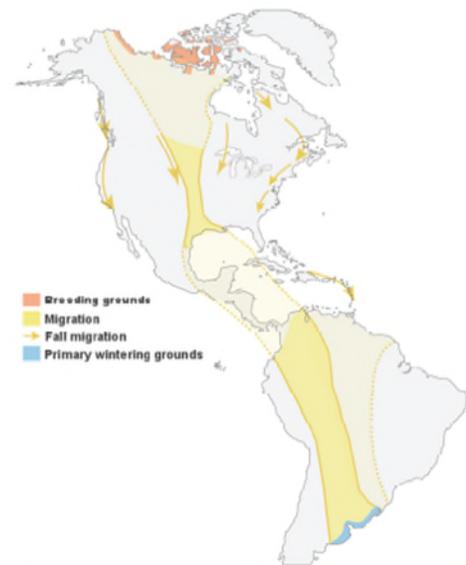


Figure 1. Distribution of the Buff-breasted Sandpiper in the Americas. Shaded yellow areas are migration corridors where the species is found at low densities; the species funnels through areas represented in dark yellow (from Cornell Lab - Birds of North America's Website, McCarty et al. 2017).

Population Size and Trends

- Surveys from stopover sites in the United States estimate the Buff-breasted Sandpiper population to include 56,000 individuals.
- Since stopover durations are short and some birds skip monitored sites, the actual population size might be higher.
- Surveys on the wintering ground suggest a smaller population estimate or the existence of unknown high density wintering sites.

- Arctic Program for Regional and International Shorebird Monitoring (PRISM) surveys from 1997-2007 across Arctic Alaska showed a population estimate of 42,839 individuals.
- PRISM surveys in the Canadian Arctic from 2010-2017 showed higher densities than expected, currently the results are being evaluated to ensure accuracy.
- PRISM estimates have unique challenges because the species breeds at variable densities and they breed in dry upland areas that are less surveyed than wetlands.
- Estimating trends is difficult because of the unpredictable locations on the breeding grounds.
- Historically, Buff-breasted Sandpipers numbered in the hundreds of thousands but by the end of the 19th century, extensive hunting resulted in very low population levels
- The creation of the Migratory Birds Convention Act in 1917 and the Migratory Birds Treaty Act in 1918 lowered the hunting pressure, likely slowing the rapid decline.
- It is unknown whether the population recovered or remained at low levels between the 1920s and 1970s.
- However, declines have been seen since the 1980s.
- Females nest away from the lek sites in well drained, grassy tundra.
- When not incubating, females forage in areas with little vegetation.
- After hatching, females forage with their brood in wetter areas, but remain in the uplands.
- Historically, during the North American portion of migration, Buff-breasted Sandpipers would stop in short-grass prairies, but most have been converted to agriculture.
- As a result, migrating Buff-breasted Sandpipers congregate in areas that resemble short-grassed areas like newly planted crops, pastures, lawns etc.
- They winter in the Pampas biome, and show high fidelity, preferring short-grass areas.
- Buff-breasted Sandpipers feed on insects, with some seeds, plant material and aquatic zooplankton (particularly after brood-rearing).
- On the wintering grounds, birds eat adult and larval beetles, ants, flies, spiders and earthworms.

Needs (Breeding, Migration, Non-breeding and Diet)

- Buff-breasted Sandpiper is an upland species, preferring to breed on drier, elevated tundra.
- Males begin foraging and displaying in the spring in the first snow-free areas.
- Groups of 2 – 20 males display together in a lek. Males will display at one lek for a short time then move to another lek.
- Males leave the breeding grounds once females begin nesting.

Threats (Pages 9-18)

This section of the proposed management plan describes the things that might cause Buff-breasted Sandpiper populations to drop. Threats to Buff-breasted Sandpiper can affect habitat, but can also affect individuals, nests and eggs.

The main threats to Buff-breasted Sandpiper are:

- **Renewable energy**– potential for direct mortality or avoidance of habitat from the development of wind farms. In the US, most wind farms occur along the main migratory route for Buff-breasted Sandpiper.

- **Fire and fire suppression**– Buff-breasted Sandpiper prefer recently burned grassland. Current fire suppression, allows growth of woody vegetation and reduces habitat availability.
- **Severe weather events** – Climate change causing an increase in severe storms, juveniles are particularly at risk as they migrate along the Atlantic coast where they are more likely to encounter hurricanes.
- **Oil and gas drilling** – Mainly in Alaska but could lead to loss of habitat and disturbance, including reduced nesting success and increased predation.
- **Mining and quarrying** – infrastructure associated is in upland areas where breeding occurs.

Management Objectives (Page 18)

The management objective for the Buff-breasted Sandpiper in Canada is:

- To maintain the population size of the species over a period of 10 years ranging from 2025 to 2035.

Broad Strategies and Conservation Measures (Pages 19-25)

Actions already completed or currently underway

There is little conservation work currently in Canada that specifically targets Buff-breasted Sandpiper, however, work is underway that does include Buff-breasted Sandpiper. This work includes:

- Being a focal species of the Americas Flyway Action Plan of the Arctic Migratory Birds Initiative
- Updating the full life-cycle conservation plan

- Financial incentives to farmers and ranchers to conserve and restore grassland and wetland habitats along the migratory route
- Research identifying key breeding, stopover and wintering locations using satellite and GPS tracking technology

Conservation and management of Buff-breasted Sandpiper in Canada includes:

- Conservation of breeding habitat in National Parks, Migratory Bird Sanctuaries, National Wildlife Areas and through the Inuvialuit community conservation plans
- The Ahiak Migratory Bird Sanctuary Management Plan outlines a plan for the co-management of Buff-breasted Sandpiper.
- New estimates of population size and distribution are being generated from Arctic PRISM data
- Land from the former Prairie Farm Rehabilitation Administration Community Pasture Program is being managed to benefit Buff-breasted Sandpiper.

Conservation and management of Buff-breasted Sandpiper in Canada includes:

- Designating some identified key stopover sites as sites of importance
- Restoration of destroyed migratory habitat (Asuncion Bay, Paraguay)
- Purchase of an additional 681 hectares of grassland
- The management of 15,000 hectares of Buff-breasted Sandpiper habitat at Barba Azul Nature reserve in Bolivia
- Beneficial management practices for sustainable land-use in Argentina, Paraguay, Uruguay, and Brazil
- Important wintering sites designated in Brazil and Argentina
- Surveys to provide a winter-based population estimate and trend.

The broad strategy categories of the management plan were developed to address threats across its range and are as follows:

- Livelihood, Economic and Moral Incentives
- Conservation Designation and Planning
- Institutional Development
- Research and Monitoring

There are a number of conservation measures identified in the management plan ranging from high to low priority. The high priority conservation measures include:

- Market-based incentives: provide resources to landowners through stewardship programs.
- Better Products and Management Practices: encourage wind energy sector to develop, implement, and promote beneficial management practices.
- Alliance and Partnership Development: develop new international partnerships for conservation and maintain existing ones.
- Basic Research and Status Monitoring: Centralize data from past surveys and complete the analysis of tracking studies.
- Basic Research and Status Monitoring: Monitor the species at known and potential key sites during migration. Establish a list of key sites where at least 0.2% of the population occur regularly.
- Basic Research and Status Monitoring: develop a more reliable and accurate population estimate within the next 5 years
- Basic Research and Status Monitoring: Determine fine-scale landscape features that predict habitat usage.
- Basic Research and Status Monitoring: Identify the natural processes that created and maintained suitable habitats to develop land-use practices beneficial to the species.

- Basic Research and Status Monitoring: Continue to monitor the species and its habitat on the breeding ground as part of the Arctic PRISM survey.

Measuring Progress (Page 26)

Performance indicators are used to measure progress towards achieving the management objective and monitoring implementation of the management plan.

- By 2025, a more accurate population estimate from stopover sites is available.
- By 2025, key wintering and migratory stopover sites that cumulatively support 80% of the current population estimate are identified. Key sites are defined as areas where at least 0.2% of the population (about 100 birds) occur regularly through time.
- By 2035, the Buff-breasted Sandpiper population is maintained at the 2025 level detected from stopover surveys.