



Report number 61

Population Status of Migratory Game Birds in Canada

2025



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Canada 

Cat. No.: CW69-16/61-2025E-PDF
ISBN: 978-0-660-97732-4
EC25038

Unless otherwise specified, you may not reproduce materials in this publication, in whole or in part, for the purposes of commercial redistribution without prior written permission from Environment and Climate Change Canada's copyright administrator. To obtain permission to reproduce Government of Canada materials for commercial purposes, apply for Crown Copyright Clearance by contacting:

Environment and Climate Change Canada
Public Information Centre
Place Vincent Massey building
351 St-Joseph Boulevard
Gatineau, Quebec K1A 0H3
Toll free: 1-800-668-6767
Email: enviroinfo@ec.gc.ca

Cover image: © 2025 Canadian Wildlife Habitat Conservation Stamp and Print image,
"Northward Bound – Greater Scaup" by Ken Ferris.

© His Majesty the King in Right of Canada, as represented by the Minister of the Environment,
Climate Change and Nature, 2026

Aussi disponible en français

For more information on migratory birds, please visit the Government of Canada's website: [Migratory bird conservation - Canada.ca](http://Migratorybirdconservation-Canada.ca)

Cover Art

The 2025 Canadian Wildlife Habitat Conservation Stamp image, entitled “Northward Bound – Greater Scaup” is a painting by Canadian wildlife artist Ken Ferris.

Through a special partnership with Environment and Climate Change Canada, Wildlife Habitat Canada receives the revenues from the sale of the Canadian Wildlife Habitat Conservation Stamp, purchased primarily by waterfowl hunters to validate their Migratory Game Bird Hunting Permits. The conservation stamp is also sold to stamp and print collectors and those interested in contributing to habitat conservation. Wildlife Habitat Canada has provided over \$64 million in grants to more than 1,600 habitat conservation projects across Canada since the development of the program in 1985. Since 2012, Wildlife Habitat Canada has helped to restore, enhance and conserve 1.43 million acres of wildlife habitat (www.whc.org).

For more information on Wildlife Habitat Canada or the conservation stamp and print program, please call Wildlife Habitat Canada at 613-722-2090 (in the Ottawa region) or toll-free at 1-800-669-7919, or consult the website at www.whc.org.

Population Status of Migratory Game Birds in Canada - 2025

Canadian Wildlife Service Waterfowl Technical Committee CWS Migratory Birds Regulatory Report Number 61

Authors:

This report was prepared by the Canadian Wildlife Service Waterfowl Technical Committee. The main authors of this document are Frédérique Tremblay and Jackson Kusack of the Wildlife Management and Regulatory Affairs Division in the Wildlife Management Directorate of the Canadian Wildlife Service.

Recommended citation for this report:

Canadian Wildlife Service Waterfowl Technical Committee. 2025. *Population Status of Migratory Game Birds in Canada: 2025*. CWS Migratory Birds Regulatory Report Number 61.

Comments:

Comments regarding this national report, the regulation-setting process or other concerns relating to national migratory game birds should be sent to Environment and Climate Change Canada's Canadian Wildlife Service, National Capital Region Office:

Director of Wildlife Management and Regulatory Affairs
Wildlife Management Directorate
Canadian Wildlife Service
Environment and Climate Change Canada
351 St. Joseph Boulevard, Gatineau QC K1A 0H3
Email: MbregsReports-Rapports-Omregs@ec.gc.ca

This report may be downloaded from the following website: [Migratory birds regulatory report series](#)

Table of Contents

Table of Contents.....	3
1 Executive summary	4
1.1 Eastern range.....	4
1.2 Western range.....	4
1.3 Geese	4
2 Background	4
3 Migratory Game Bird Hunting Permit sales and harvest.....	5
4 Population surveys	7
4.1 Waterfowl Breeding Population and Habitat Survey	7
4.2 Eastern Waterfowl Survey.....	8
4.3 Other waterfowl surveys.....	9
5 Habitat conditions	10
6 Dabbling and diving ducks	12
6.1 Primary surveys for dabbling and diving ducks	12
6.2 Population status of dabbling and diving ducks	12
6.3 Harvest of dabbling and diving ducks	22
7 Sea ducks.....	25
7.1 Primary surveys for sea ducks.....	25
7.2 Population status of sea ducks.....	25
7.3 Harvest of sea ducks.....	32
8 Geese and swans	34
8.1 Primary surveys for geese and swans	34
8.2 Population status of geese	34
8.3 Harvest of geese and swans	45
9 Other harvested species	45
9.1 Primary surveys for other harvested species	45
9.2 Population status of other harvested species	46
9.3 Harvest of other harvested species	51
10 References	53
11 Appendix A	56
11.1 Breeding population estimate and trends of game birds from the Waterfowl Breeding Population and Habitat Survey	56
11.2 Breeding population estimates and trends of ducks from the Eastern Waterfowl Survey	57
11.3 Breeding population estimate and trends in ducks from the British Columbia Plateau Breeding Waterfowl Survey.....	58
11.4 Breeding population estimate and trends in geese and ducks from Lincoln estimates.....	59

1 Executive summary

1.1 Eastern range

In 2025, there were approximately 3.44 million breeding ducks in the Eastern Waterfowl Survey (EWS) area. Since 1990, American Black Duck and Mallard numbers have increased. Other duck species (Green-winged Teal, American Wigeon, and Ring-necked Duck) have shown no significant change since 1990. From 2021 to 2025, numbers of American Black Duck have increased and numbers of all other species have shown no significant changes (Green-winged Teal, American Wigeon, Mallard, and Ring-necked Duck). In 2025, the most common species were Hooded Merganser (675,000), Ring-necked Duck (573,000), Mallard (569,000), American Black Duck (560,000) and Common Merganser (399,000).

1.2 Western range

In 2025, there were approximately 34.8 million breeding ducks in the Traditional Survey Area of the Waterfowl Breeding Population and Habitat Survey (WBPHS). In the Traditional Survey Area, numbers of Green-winged Teal, Gadwall, Northern Shoveler, Redhead, Ring-necked Duck, and Ruddy Duck have increased since 1970. Numbers of Mallard, Northern Pintail, and Scaup sp. have decreased. Since 1970, other duck species (American Wigeon, Blue-winged Teal, and Canvasback) have fluctuated but showed no significant changes overall. From 2021 to 2025, numbers of Blue-winged Teal, Gadwall, and Mallard have decreased and numbers of all other species have shown no significant changes (Green-winged Teal, American Wigeon, Canvasback, Northern Pintail, Northern Shoveler, Redhead, Ring-necked Duck, Ruddy Duck, and Scaup sp.). In 2025, the most common species were Mallard (6.55 million), Blue-winged Teal (4.43 million), Scaup sp. (3.68 million), American Wigeon (3.19 million) and Northern Shoveler (2.76 million).

1.3 Geese

There are 6 populations of geese for which population size is derived from Lincoln estimates. From the long-term record (1976 to 2024), 3 populations have increased (Cackling Goose, Mid-continent Greater White-fronted Goose, and Mid-continent Lesser Snow Goose) and 3 populations have shown no significant changes (Atlantic Brant, Western Arctic Lesser Snow Goose, and Ross's Goose). Since 2020, all 6 populations have shown no significant changes (Atlantic Brant, Cackling Goose, Mid-continent Greater White-fronted Goose, Mid-continent Lesser Snow Goose, Western Arctic Lesser Snow Goose, and Ross's Goose).

2 Background

Environment and Climate Change Canada (ECCC) is responsible for the conservation and management of migratory birds in Canada. Hunting regulations for migratory game birds are developed to ensure that harvest supports long-term sustainable populations of those hunted species. These regulations are reviewed and amended biennially by ECCC, with

input from the provinces, territories, and other stakeholders. The population status of migratory game birds is assessed on an annual basis to ensure that regulations are appropriate, and amendments can be made between review periods, if necessary, for conservation reasons. As part of the regulatory process to amend hunting regulations, the Canadian Wildlife Service (CWS) produces a series of regulatory reports.

The first report, *Population Status of Migratory Game Birds in Canada*, contains population and other biological information on migratory game birds. It thus provides the scientific basis for informing management decisions that ensure long-term sustainability of bird populations. ECCC publishes the Population Status of Migratory Game Birds in Canada to evaluate the status of migratory game birds and formally reviews the hunting regulations every two years. Additionally, CWS analyzes population trends after surveys are completed.

The second report, *Proposals to Amend the Canadian Migratory Birds Regulations*, outlines proposed changes to the hunting regulations and overabundant species regulations, as well as any other proposed amendments to the *Migratory Birds Regulations, 2022*. Proposed changes to the hunting regulations are developed in accordance with the [Guidelines for the Establishment of National Regulations for Migratory Bird Hunting](#). This report is also published every two years, concurrently with the revision of the hunting regulations.

The third report, *Migratory Birds Regulations in Canada*, summarizes the hunting regulations that were approved for the next two hunting seasons. This report is published every two years, concurrently with the revision of the hunting regulations.

These three reports are distributed to organizations and individuals with an interest in migratory bird conservation to provide an opportunity for input on the development of hunting regulations in Canada. They are also available on the [ECCC website](#).

3 Migratory Game Bird Hunting Permit sales and harvest

Information on the sale of Migratory Game Bird Hunting (MGBH) permits is available from 1966 onwards (Figure 3.1). Annual sales peaked in 1978 (524,946 permits sold) and subsequently declined to an all-time low in 2022, when sales were down to 140,133 permits.

In August 2014, ECCC launched a new online e-Permitting system to improve hunters' access to MGBH permits. Originally, this system allowed hunters to purchase a permit online, and the permit (along with the Canadian Wildlife Habitat Conservation [CWHC] stamp) would then be mailed to the hunter within 3 to 5 business days. As of August 2015, hunters can purchase their MGBH permit with the CWHC stamp online, receive electronic copies of the permit with stamp by email, and print the document. Since the establishment of the e-Permitting system, the number of hunters that buy their permit online has steadily increased, and in 2024, 53% of hunters bought their permit online.

Physical MGBH permits and CWHC stamps continue to be distributed and sold through some Canada Post outlets and a select number of independent vendors. Canada Post is the original MGBH permit vendor and continues to offer them in over 4,000 postal outlets.

ECCC works closely with Canada Post to promote communication with outlets and manage inventory and distribution. There are also approximately 50 independent vendors across seven provinces that sell the physical MGBH permits. More information on MGBH permit sales in Canada is available on the [ECCC website](#).

In Canada, the [National Harvest Survey](#) was initiated in 1969 to estimate the annual harvest of migratory game birds and to determine trends in hunter activity across Canada. This survey is coordinated by CWS and uses data from hunters to determine the geographic distribution of harvest and to estimate annual species-specific harvest across Canada, provincially, and, if possible, at the Hunting District/Zone level. Participants (hunters) are randomly selected from the pool of permit holders, and responses are voluntary. The survey has two components: the Harvest Questionnaire Survey, which is used to estimate the total number of migratory game birds taken by hunters, and the Species Composition Survey, which helps determine the proportion of each species in the total harvest. Harvest estimates are generated by integrating the results of these two surveys (Smith, Villeneuve, and Gendron 2022), and the data are used in harvest management decisions and to estimate abundance of some species. Supplemental surveys are undertaken to estimate the numbers of geese harvested during the Spring Conservation Season, a special conservation measure put in place to manager overabundant populations of Snow Geese, Ross's Geese, and Canada Geese.

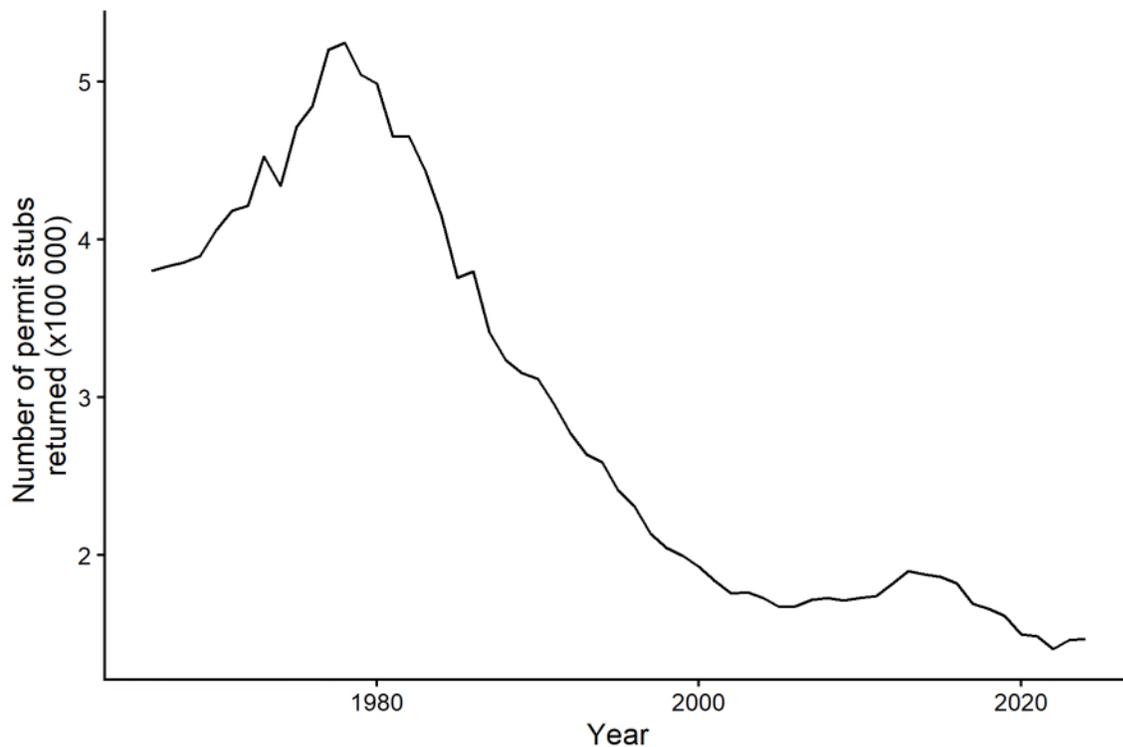


Figure 3.1: Number of Migratory Game Bird Hunting Permit stubs returned to Environment and Climate Change Canada. Note that permits that were sold, but for which stubs were not returned to Environment and Climate Change Canada, are excluded from the totals.

4 Population surveys

The CWS supports a variety of surveys to monitor migratory birds in their breeding, wintering, staging, and moulting areas. Monitoring programs include bird surveys and banding programs. Surveys of breeding migratory game birds are used to estimate population size. Banding programs are used to estimate survival, harvest numbers, and to assess movements of birds and distribution of the harvest. Banding and harvest survey data are sometimes combined using the Lincoln approach to estimate population size. Where available, estimates are presented as means, with 95% confidence intervals. The CWS uses these data to assess the status of migratory game birds in Canada, thus providing a scientific basis for the management of migratory game birds and the implementation of hunting regulations to ensure the long-term sustainability of migratory game birds. Due to COVID-19 restrictions, many surveys could not be conducted, and banding activities were also reduced substantially in 2020 and 2021.

4.1 Waterfowl Breeding Population and Habitat Survey

The Waterfowl Breeding Population and Habitat Survey (WBPHS) in western Canada and the northwestern United States of America (US) consists of extensive aerial transects to estimate the number of breeding waterfowl and to assess habitat conditions for waterfowl (i.e., the number of ponds). The survey is conducted annually between May and June and covers the Canadian Prairies and Parkland, the Canadian Western Boreal (northwestern Ontario, northern part of the Prairie provinces, northeast corner of British Columbia, western Northwest Territories, and Old Crow Flats in the Yukon), the north-central US (US Prairies), and parts of Alaska (Figure 4.1).

The survey, which uses fixed-wing aircraft, has been conducted since 1955. Breeding population estimates derived from this survey have been corrected for visibility bias (proportion of waterfowl that are not detected from the air) since 1961. Visibility correction factors are obtained from ground counts conducted by the CWS on a subset of transects in the Canadian Prairies and by the US Fish and Wildlife Service (USFWS) on a subset of transects in the northern US. In roadless areas of the Canadian Boreal Forest, correction factors are derived from a comparison of fixed-wing and helicopter counts conducted in the 1980s. Estimates of abundance derived from this survey provide important information used to set regulations for duck hunting in both Canada and the US.

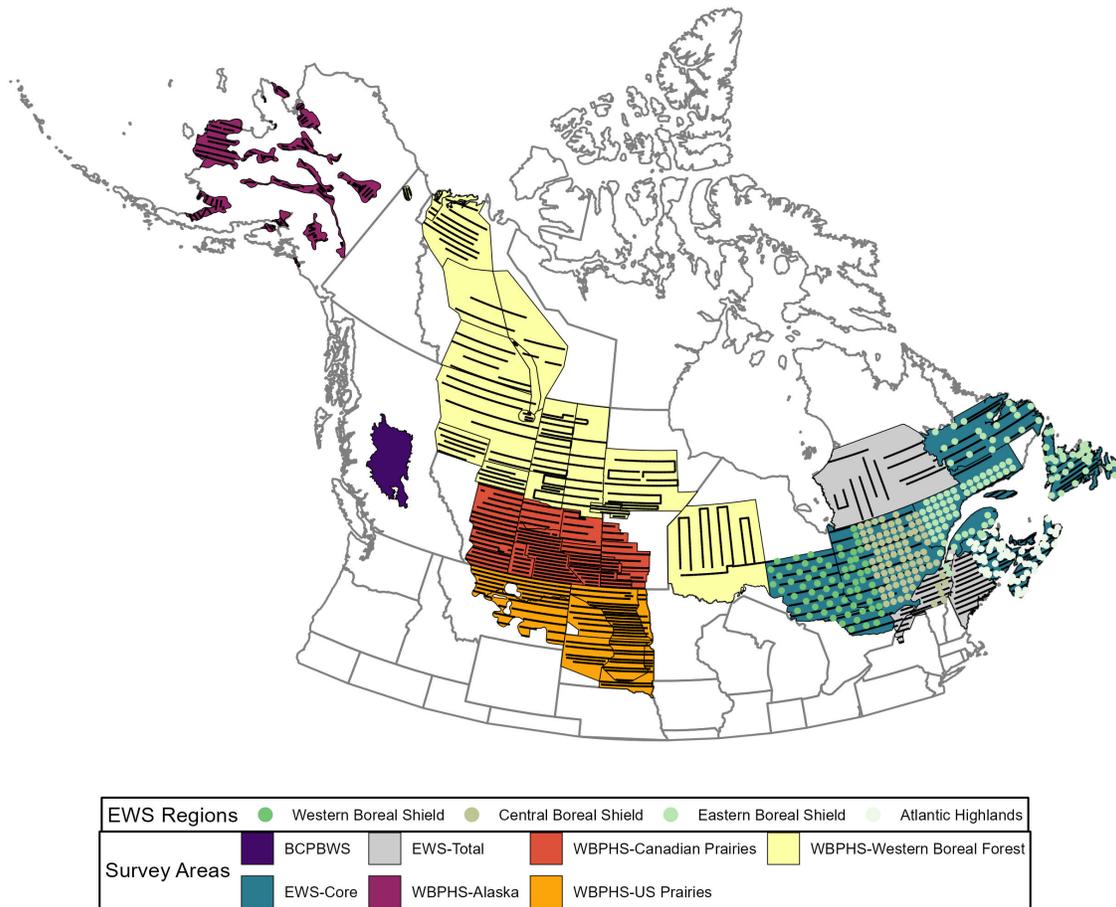


Figure 4.1: The Waterfowl Breeding Population and Habitat Survey (WBPHS) in western Canada and northwestern US, the Eastern Waterfowl Survey (EWS), and the British Columbia Plateau Breeding Waterfowl Survey (BCPBWS). Lines represent fixed-wing aircraft survey transects; dots represent helicopter survey plots.

4.2 Eastern Waterfowl Survey

The Eastern Waterfowl Survey (EWS) has been conducted annually since 1990. This early nesting breeding pair survey of waterfowl has two components: a helicopter plot survey and a fixed-wing transect survey. The CWS carries out the helicopter plot survey in Boreal Shield Regions (from northeastern Ontario to Newfoundland and Labrador) and in the Atlantic Highlands Region (Gaspé Peninsula in Québec, New Brunswick, and Nova Scotia; Figure 4.1). The USFWS conducts the fixed-wing transect survey in parts of eastern Canada and the northeastern US. The EWS is usually conducted from late April to early June, depending on regional spring phenology.

Though originally designed to survey American Black Ducks in eastern Canada, the survey provides quantitative information on other duck and bird species, notably Canada Geese and Sandhill Crane. Historically, data from the two components of this survey (CWS helicopter plot survey and USFWS fixed-wing transect survey) were analyzed separately, despite substantial overlap in geographic coverage. The two components were integrated into one survey in 2004. The EWS results are analyzed based on four regions of the core EWS area (strata: 51, 52, 63 to 68, 70 to 72): the Atlantic Highlands, the Eastern Boreal Shield, the Central Boreal Shield, and the Western Boreal Shield (Figure 4.1).

4.3 Other waterfowl surveys

Nunavut is the only province or territory not covered (at least in part) by the WBPHS and EWS.

Since 2006, British Columbia has instead monitored waterfowl using the British Columbia Plateau Breeding Waterfowl Survey (BCPBWS), a small-scale helicopter survey. This survey is run cooperatively by CWS, Ducks Unlimited Canada, and the USFWS and covers 11 million hectares. The survey is accomplished by helicopter using a technique similar to that of the WBPHS, except that all waterfowl sightings are geo-referenced.

Estimates and trends in abundance of many arctic-breeding goose population (Atlantic Brant, Cackling Goose, Mid-continent Greater White-fronted Goose, Mid-continent Lesser Snow Goose, Western Arctic Lesser Snow Goose, and Ross's Goose) are now calculated from band recovery data and harvest estimates using Lincoln methods (Alisauskas, Drake, and Nichols 2009). Lincoln estimates represent population abundance during the goose banding season (July and August) and are typically not available for the current year because of the timing of data collection. Some Subarctic and temperate breeding Canada Goose populations (e.g., Atlantic and Southern Hudson and James Bay Populations) are still monitored by surveys conducted while geese are paired on nests. The Greater Snow Goose population is monitored by a survey on spring staging areas in Québec and Ontario.

The Southern Ontario Waterfowl Plot Survey (SOWPS) was initiated in 1971 to monitor the early-nesting duck populations and their habitat. Surveys are primarily ground-based, but some remote locations are surveyed by helicopter. The survey consists of 351 plots, each 0.64 km² in area, primarily outside of the EWS area. Data from this survey have also been important in monitoring the population of temperate breeding Canada Geese in southern Ontario.

Since 1935, annual Midwinter Waterfowl Surveys (hereafter Midwinter Surveys) conducted mostly by fixed-wing aircraft with some ground surveys have provided population indices for many waterfowl species based on wintering counts in Ontario as well as the US. Midwinter Surveys, however, are not based on a statistical sampling plan, and some wintering habitats are not covered, so results are best used for evaluating relative abundance and distribution in select wintering areas.

5 Habitat conditions

Environmental conditions on the breeding grounds influence surveys in two ways. First, high quality habitat can increase the true abundance of migratory birds on the landscape by increasing breeding success or attracting migrants. Second, environmental conditions can influence migratory birds' arrival and breeding phenology, changing the perceived abundance at the time of survey.

Moisture conditions in the Prairies are cyclic, and levels of precipitation heavily influence breeding success in the Prairies by changing the number of wetlands available for breeding and the persistence of ponds throughout the breeding season. During the WBPBS, observers count the number of ponds on the landscape in May as an indication of breeding conditions (Figure 5.1). The Palmer Drought Index is another widely used measure of habitat conditions in southern Canada. This index combines precipitation and temperature data to estimate overall dryness, with lower numbers representing drought conditions and higher numbers representing wet conditions (Figure 5.2).

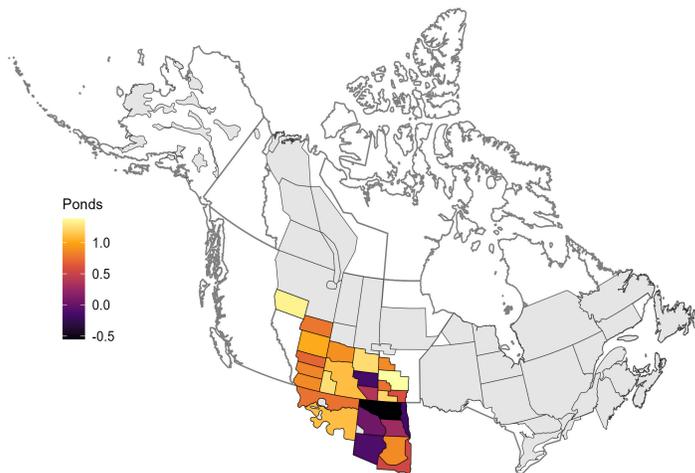


Figure 5.1: The 2025 May Pond Index of the Waterfowl Breeding Population and Habitat Survey compared to the 10-year regional average. Comparisons are mean-centered and scaled by standard deviation within each strata. Positive values represent areas with more ponds than the 10-year regional average, and negative values represent areas with fewer ponds than average. Grey areas represent strata of the WBPBS where ponds are not surveyed.

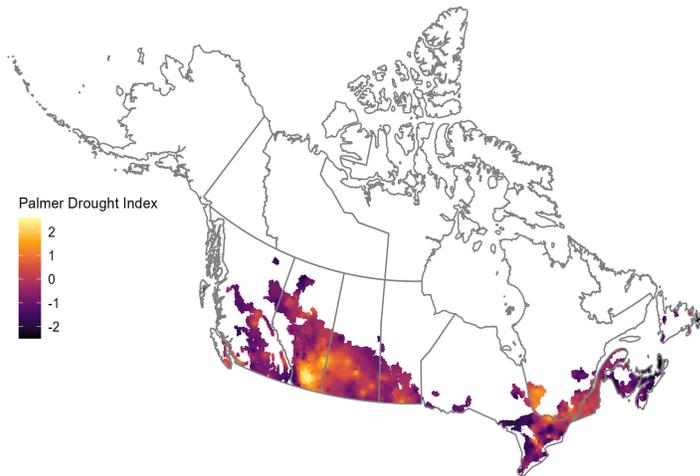


Figure 5.2: The 2025 agricultural year Palmer Drought Index (September 2024 to August 2025) compared to the 10-year average. Comparisons are mean-centered and scaled by standard deviation by location. Positive values represent areas that are wetter than the 10-year average for the area, and negative values represent areas that are dryer than average. Source: (Agriculture and Agrifood Canada 2025).

The timing of spring thaw also influences the total number and species of birds counted. Surveys must occur during the breeding period to provide accurate counts of breeding birds on the landscape. Spring temperatures and snow conditions influence when breeding begins for many species (Figures 5.3 and 5.4). Colder springs with late snowmelt may delay breeding, resulting in fewer birds being detected in northern breeding areas and/or higher counts in southern areas if the survey is conducted while birds are still migrating through the area (Naugle et al. 2000; Schummer et al. 2018; Roy et al. 2019).

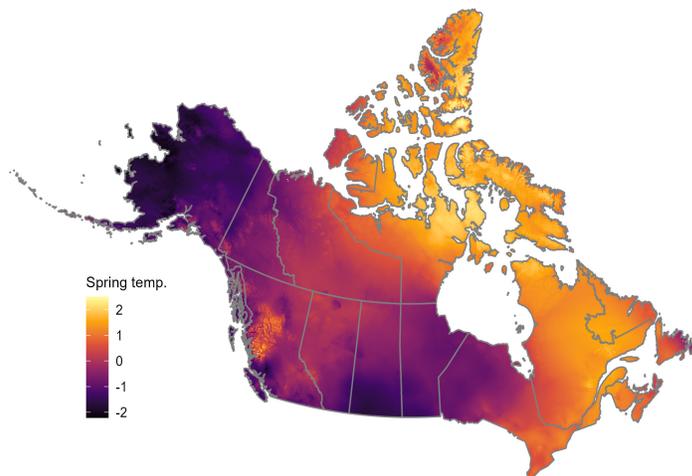


Figure 5.3: The 2023 spring temperatures (mean daily highs for March to April) compared to the 10-year average. Comparisons are mean-centered and scaled by standard deviation

by location. Positive values represent areas with warmer spring temperatures compared to the 10-year average for the area, while negative values represent areas with colder spring temperatures than average. Source: (Thornton et al. 2022).

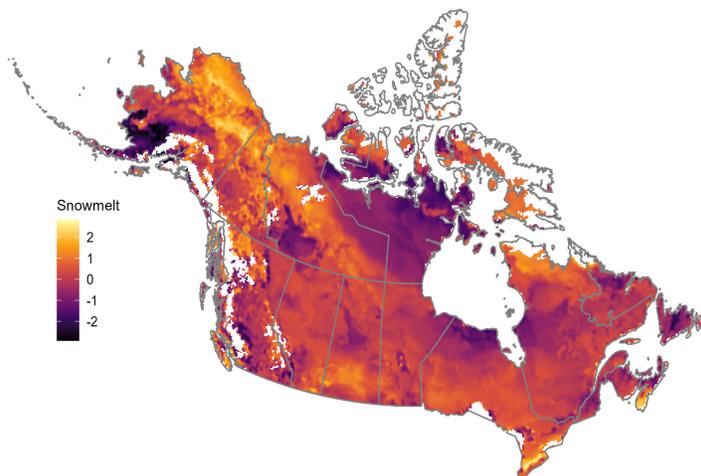


Figure 5.4: The 2025 snowmelt date compared to the 10-year average. Comparisons are mean centered-centered and scaled by standard deviation by location. Positive values represent areas where the snow melted later than 10-year average for the area, while negative values represent areas where snow melted earlier than average. Source: (U.S. National Ice Center 2008).

6 Dabbling and diving ducks

6.1 Primary surveys for dabbling and diving ducks

Most dabbling and diving ducks are monitored through the WBPHS, which covers western Canada and the northwestern US, the EWS, which covers eastern Canada, and the BCPBWS, which covers interior British Columbia. Multiple smaller scale waterfowl surveys provide additional regional information on waterfowl abundance and in some cases provide more detailed information for species that have restricted ranges or those that are not captured well by large-scale surveys. Unless the WBPHS, EWS, and BCPBWS do not provide adequate information about a species' population status across their range, this report does not refer to smaller-scale waterfowl surveys.

6.2 Population status of dabbling and diving ducks

Abundances of most species of dabbling and diving ducks have shown no significant long-term trend or are increasing in Canada. Of the 12 species of dabbling and diving ducks found in western Canada that are monitored by the WBPHS, 3 have shown no significant changes since 1970, 6 have increased, and 3 have decreased. Over the past five years, 9 have shown no significant changes and 3 have decreased. Of the 5 principal species in eastern Canada that are monitored by the EWS, 3 have shown no significant changes and 2

have increased since 1990. In the short term, 4 have shown no significant changes since 2015 and one species has increased.

There are currently approximately 31.8 million breeding dabbling and diving ducks in the WBPHS survey area; the most common species are Mallard, Blue-winged Teal, Scaup sp. and American Wigeon. In the EWS survey area, there are 1.95 million breeding dabbling and diving ducks, and the most common species are Ring-necked Duck, Mallard, American Black Duck and Green-winged Teal. In the BCPBWS survey area, there are 343 thousand breeding ducks, and the most common species are Ring-necked Duck, Mallard, Scaup sp. and Green-winged Teal.

6.2.1 American Black Duck

In the core area of the EWS, the population of American Black Duck has significantly increased since 1990 and over the past five years (Figure 6.4). The Atlantic Highlands, Eastern Boreal Shield, and Central Boreal Shield Populations have significantly increased since 1990. Populations in all other regions of the EWS showed no significant changes during this time. The Eastern Boreal Shield Population has significantly increased since 2021. Populations in all other regions of the EWS showed no significant changes from 2021 to 2025. In 2025, there were 560 (499 – 630) thousand American Black Ducks in the core survey area of the EWS. This estimate is 11% above the 10-year average of 502 thousand birds.

6.2.2 Mallard

In the Traditional Survey Area of the WBPHS, the abundance of Mallard has significantly decreased since 1970 (Figure 6.5). More specifically, abundance increased in Alaska, decreased in the Canadian Prairies, and exhibited no significant changes in all other regions. Over the past five years, abundance of Mallard has significantly decreased across the entire survey area. More specifically, in the short term, abundance decreased in the Canadian Prairies and the US Prairies and exhibited no significant changes in all other regions. In 2025, there were 6.55 (6.04 – 7.07) million Mallards in the Traditional Survey Area of the WBPHS. This estimate is 23% below the 10-year average of 8.46 million birds. The 2025 Mallard population in this region was below the NAWMP population objective of 7.77 million birds.

In the core area of the EWS, since 1990, the population of Mallard has significantly increased, but over the past five years, this population has not changed significantly (Figure 6.4). The Atlantic Highlands, Eastern Boreal Shield, Central Boreal Shield, and Western Boreal Shield Populations have significantly increased since 1990. The Atlantic Highlands Population has significantly increased since 2021. Populations in all other regions of the EWS showed no significant changes from 2021 to 2025. In 2025, there were 569 (394 – 886) thousand Mallards in the core survey area of the EWS. This estimate is 3.6% above the 10-year average of 549 thousand birds.

In Southern Ontario, since 1971, the population of Mallard has significantly increased, but over the past five years, this population has not changed significantly in this region. In

2025, there were 117 (95.7 – 142) thousand Mallard breeding pairs (Figure 6.1). This estimate is 2.8% above the 10-year average of 113 thousand breeding pairs.

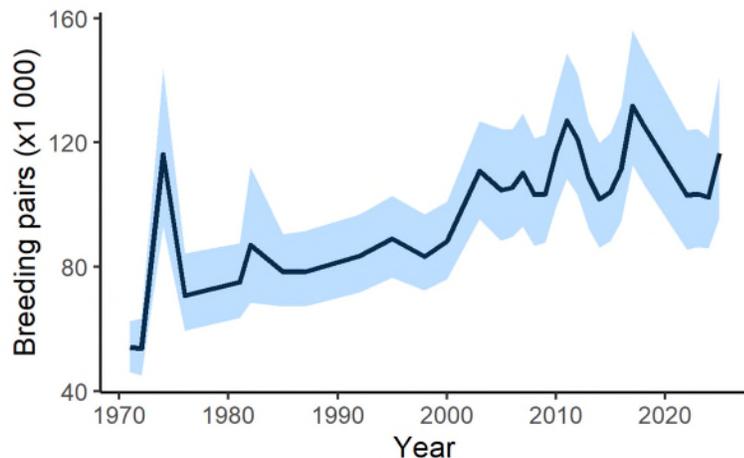


Figure 6.1: Indicated breeding pairs of Mallard in southern Ontario. Black line represents the breeding pair estimate, and the shaded area represents the 95% confidence interval.

In the British Columbia Plateau, the population of Mallard has not changed significantly since 2006 and over the past five years (Figure 6.6). In 2025, there were 81.3 (69.9 – 92.7) thousand birds. This estimate is 3.3% above the 10-year average of 78.7 thousand birds.

6.2.3 Northern Pintail

In the Traditional Survey Area of the WBPHS, the abundance of Northern Pintail has significantly decreased since 1970 (Figure 6.5). More specifically, abundance increased in the Western Boreal Forest, decreased in the Canadian Prairies and the US Prairies, and exhibited no significant changes in all other regions. Over the past five years, abundance of Northern Pintail has not changed significantly across the entire survey area. More specifically, in the short term, abundance in the Canadian Prairies increased, decreased in the US Prairies, and exhibited no significant changes in all other regions. In 2025, there were 2.24 (1.91 – 2.57) million Northern Pintails in the Traditional Survey Area of the WBPHS. This estimate is 2.4% below the 10-year average of 2.29 million birds. The 2025 Northern Pintail population in this region was below the NAWMP population objective of 3.15 million birds.

In the British Columbia Plateau, the population of Northern Pintail has not changed significantly since 2006 and over the past five years (Figure 6.6). In 2025, there were 4.92 (1.06 – 8.77) thousand birds. This estimate is 17% above the 10-year average of 4.21 thousand birds.

6.2.4 Green-winged Teal

In the Traditional Survey Area of the WBPHS, the abundance of Green-winged Teal has significantly increased since 1970 (Figure 6.5). More specifically, abundance increased in

the Western Boreal Forest, decreased in the Canadian Prairies, and exhibited no significant changes in all other regions. Over the past five years, abundance of Green-winged Teal has not changed significantly across the entire survey area. More specifically, in the short term, abundance decreased in Alaska and exhibited no significant changes in all other regions. In 2025, there were 2.55 (2.11 – 2.99) million Green-winged Teal in the Traditional Survey Area of the WBPHS. This estimate is 16% below the 10-year average of 3.04 million birds. The 2025 Green-winged Teal population in this region was above the NAWMP population objective of 2.4 million birds.

In the core area of the EWS, the population of Green-winged Teal has not changed significantly since 1990 and over the past five years (Figure 6.4), but the Atlantic Highlands Population has significantly increased since 1990. Populations in all other regions of the EWS showed no significant changes during this time. In the short term, there were no significant changes in any region of the EWS. In 2025, there were 234 (186 – 301) thousand Green-winged Teal in the core survey area of the EWS. This is similar to the 10-year average of 238 thousand birds.

In the British Columbia Plateau, the population of Green-winged Teal has not changed significantly since 2006 and over the past five years (Figure 6.6). In 2025, there were 44.1 (33.8 – 54.4) thousand birds. This estimate is 5.8% above the 10-year average of 41.7 thousand birds.

6.2.5 Blue-winged Teal

In the Traditional Survey Area of the WBPHS, the abundance of Blue-winged Teal has not changed significantly since 1970 (Figure 6.5). More specifically, abundance increased in the US Prairies, decreased in the Canadian Prairies, and exhibited no significant changes in all other regions. Over the past five years, abundance of Blue-winged Teal has significantly decreased across the entire survey area. More specifically, in the short term, abundance decreased in the US Prairies and exhibited no significant changes in all other regions. In 2025, there were 4.43 (3.99 – 4.87) million Blue-winged Teal in the Traditional Survey Area of the WBPHS. This estimate is 25% below the 10-year average of 5.9 million birds. The 2025 Blue-winged Teal population in this region was below the NAWMP population objective of 5.48 million birds.

In the British Columbia Plateau, since 2006, the population of Blue-winged Teal has significantly increased, but over the past five years, this population has not changed significantly (Figure 6.6). In 2025, there were 11.3 (6.69 – 15.9) thousand birds. This estimate is 63% above the 10-year average of 6.92 thousand birds.

6.2.6 American Wigeon

In the Traditional Survey Area of the WBPHS, the abundance of American Wigeon has not changed significantly since 1970 (Figure 6.5). More specifically, abundance increased in the Western Boreal Forest and the US Prairies and decreased in Alaska and the Canadian Prairies. Over the past five years, abundance of American Wigeon has not changed significantly across the entire survey area. More specifically, in the short term, abundance in the Western Boreal Forest increased, decreased in Alaska, and exhibited no significant

changes in all other regions. In 2025, there were 3.19 (2.66 – 3.73) million American Wigeons in the Traditional Survey Area of the WBPHS. This estimate is 16% above the 10-year average of 2.75 million birds. The 2025 American Wigeon population in this region was above the NAWMP population objective of 2.52 million birds.

In the core area of the EWS, the population of American Wigeon has not changed significantly since 1990 and over the past five years (Figure 6.4). The Western Boreal Shield Population has significantly increased since 1990. Populations in all other regions of the EWS showed no significant changes during this time. In the short term, there were no significant changes in any region of the EWS. In 2025, there were 17.7 (0.155 – 35.2) thousand American Wigeons in the core survey area of the EWS. This estimate is 30% above the 10-year average of 13.6 thousand birds.

In the British Columbia Plateau, the population of American Wigeon has not changed significantly since 2006 and over the past five years (Figure 6.6). In 2025, there were 19.6 (14.4 – 24.8) thousand birds. This estimate is 4.9% below the 10-year average of 20.6 thousand birds.

6.2.7 Gadwall

In the Traditional Survey Area of the WBPHS, the abundance of Gadwall has significantly increased since 1970 (Figure 6.5). More specifically, abundance increased in the Western Boreal Forest, the Canadian Prairies, and the US Prairies and exhibited no significant changes in all other regions. Over the past five years, abundance of Gadwall has significantly decreased across the entire survey area. In the short term, there were no significant changes in any region of the WBPHS. In 2025, there were 2.41 (2.19 – 2.64) million Gadwalls in the Traditional Survey Area of the WBPHS. This estimate is 19% below the 10-year average of 3 million birds. The 2025 Gadwall population in this region was below the NAWMP population objective of 2.43 million birds.

In the British Columbia Plateau, the population of Gadwall has not changed significantly since 2006 and over the past five years (Figure 6.6). In 2025, there were 5.03 (1.74 – 8.32) thousand birds. This estimate is 17% above the 10-year average of 4.31 thousand birds.

6.2.8 Northern Shoveler

In the Traditional Survey Area of the WBPHS, the abundance of Northern Shoveler has significantly increased since 1970 (Figure 6.5). More specifically, abundance increased in Alaska, the Western Boreal Forest, and the Canadian Prairies and exhibited no significant changes in all other regions. Over the past five years, abundance of Northern Shoveler has not changed significantly across the entire survey area. More specifically, in the short term, abundance decreased in Alaska and the US Prairies and exhibited no significant changes in all other regions. In 2025, there were 2.76 (2.44 – 3.08) million Northern Shovelers in the Traditional Survey Area of the WBPHS. This estimate is 20% below the 10-year average of 3.43 million birds. The 2025 Northern Shoveler population in this region was below the NAWMP population objective of 2.99 million birds.

6.2.9 Wood Duck

Estimating the breeding population of Wood Duck is difficult because the species' breeding behaviour and habitat use result in low detection from traditional fixed-wing surveys (Zimmerman et al. 2015). In the eastern portion of its range, the Wood Duck is best surveyed by the SOWPS. Since 1971, the population of Wood Duck has significantly increased, but over the past five years, this population has not changed significantly. In 2025, there were 51.5 (38.8 – 69.2) thousand Wood Duck breeding pairs in southern Ontario (Figure 6.2). This estimate is 11% above the 10-year average of 46.5 thousand breeding pairs.

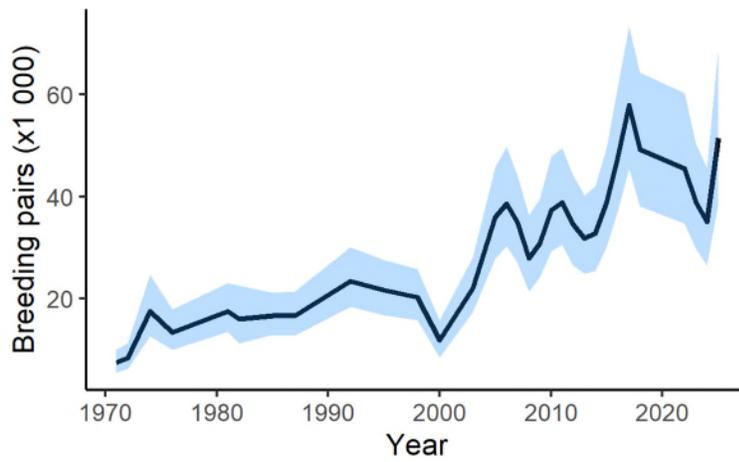


Figure 6.2: Indicated breeding pairs of Wood Duck in southern Ontario. The black line represents breeding pair estimate, and the shaded area represents the 95% confidence interval.

Wood duck populations are also estimated using Lincoln estimates in the eastern and western portions of their range. The Lincoln method estimated that there were 4.34 (3.6 – 5.09) million Eastern Wood Ducks in 2024 (Figure 6.3). This estimate is 5.4% above the 10-year average of 4.12 million birds. The Lincoln method indicates that the Eastern Population peaked in 1998 at 6.34 (5.2 – 7.48) million birds. Since 1961, the Eastern Population of Wood Duck has significantly increased, but over the past five years, this population has not changed significantly.

There were 59.2 (8.45 – 110) thousand Western Wood Ducks in 2024 (Figure 6.3), as estimated using the Lincoln method. Since 1961, the Western Population of Wood Duck has significantly increased, but over the past five years, this population has not changed significantly. This estimate is 36% below the 10-year average of 92.5 thousand birds. The Lincoln method indicates that the Western Population peaked in 1998 at 307 (23.2 – 590) thousand birds.

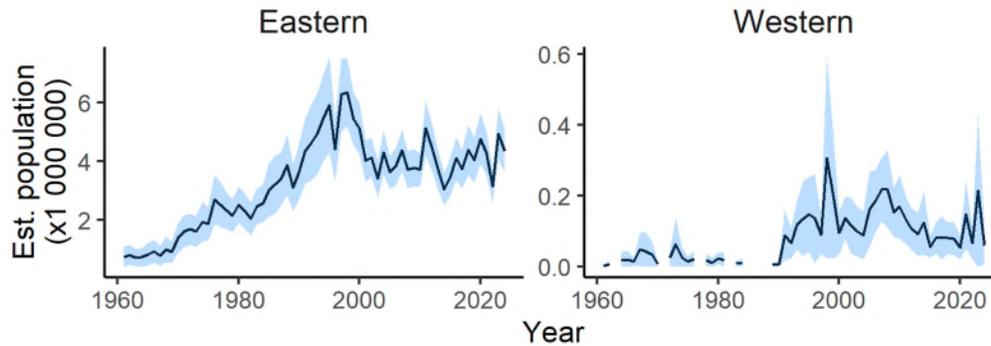


Figure 6.3: Lincoln estimates of population size for adult Wood Ducks in Eastern and Western North America. Lines represent population estimates, and shaded areas represent 95% confidence intervals. Source: (F. Baldwin, ECCC - CWS, unpubl. data).

6.2.10 Ring-necked Duck

In the Traditional Survey Area of the WBPHS, the abundance of Ring-necked Duck has significantly increased since 1970 (Figure 6.5). More specifically, abundance increased in the Western Boreal Forest and the Canadian Prairies and exhibited no significant changes in all other regions. Over the past five years, abundance of Ring-necked Duck has not changed significantly across the entire survey area. More specifically, in the short term, abundance decreased in the Canadian Prairies and the US Prairies and exhibited no significant changes in all other regions. In 2025, there were 1.53 (1.28 – 1.79) million Ring-necked Ducks in the Traditional Survey Area of the WBPHS. This estimate is 2.4% below the 10-year average of 1.57 million birds.

In the core area of the EWS, the population of Ring-necked Duck has not changed significantly since 1990 and over the past five years (Figure 6.4). The Atlantic Highlands and Eastern Boreal Shield Populations have significantly increased since 1990. Populations in all other regions of the EWS showed no significant changes during this time. In the short term, there were no significant changes in any region of the EWS. In 2025, there were 573 (466 – 716) thousand Ring-necked Ducks in the core survey area of the EWS. This estimate is 7.7% above the 10-year average of 532 thousand birds.

In the British Columbia Plateau, the population of Ring-necked Duck has not changed significantly since 2006 and over the past five years (Figure 6.6). In 2025, there were 89.2 (72.2 – 106) thousand birds. This estimate is 8.4% above the 10-year average of 82.3 thousand birds.

6.2.11 Redhead

In the Traditional Survey Area of the WBPHS, the abundance of Redhead has significantly increased since 1970 (Figure 6.5). More specifically, abundance increased in the Canadian Prairies and the US Prairies and exhibited no significant changes in all other regions. Over the past five years, abundance of Redhead has not changed significantly across the entire survey area or in any region of the WBPHS. In 2025, there were 918 (765 – 1070) thousand

Redheads in the Traditional Survey Area of the WBPHS. This estimate is 6.1% below the 10-year average of 978 thousand birds. The 2025 Redhead population in this region was above the NAWMP population objective of 811 thousand birds.

6.2.12 Canvasback

In the Traditional Survey Area of the WBPHS, the abundance of Canvasback has not changed significantly since 1970 (Figure 6.5). More specifically, abundance increased in the US Prairies and exhibited no significant changes in all other regions. Over the past five years, abundance of Canvasback has not changed significantly across the entire survey area or in any region of the WBPHS. In 2025, there were 690 (573 – 808) thousand Canvasbacks in the Traditional Survey Area of the WBPHS. This estimate is 5% above the 10-year average of 657 thousand birds. The 2025 Canvasback population in this region was above the NAWMP population objective of 605 thousand birds.

6.2.13 Ruddy Duck

In the Traditional Survey Area of the WBPHS, the abundance of Ruddy Duck has significantly increased since 1970 (Figure 6.5). More specifically, abundance increased in the Canadian Prairies and the US Prairies and exhibited no significant changes in all other regions. Over the past five years, abundance of Ruddy Duck has not changed significantly across the entire survey area or in any region of the WBPHS. In 2025, there were 764 (569 – 960) thousand Ruddy Ducks in the Traditional Survey Area of the WBPHS. This is similar to the 10-year average of 760 thousand birds.

In the British Columbia Plateau, the population of Ruddy Duck has not changed significantly since 2006 and over the past five years (Figure 6.6). In 2025, there were 6.67 (3.31 – 10) thousand birds. This estimate is 68% above the 10-year average of 3.97 thousand birds.

6.2.14 Scaup

Lesser and Greater Scaup are closely related and nearly identical in their overall appearance, which can make it difficult to distinguish one species from the other, particularly when observing them from the air. As such, the abundance of Greater Scaup and Lesser Scaup are combined into Scaup sp. for reporting, although Lesser Scaup make up a larger proportion of the continental Scaup sp. population than do Greater Scaup (Anteau et al. 2020).

In the Traditional Survey Area of the WBPHS, the abundance of Scaup sp. has significantly decreased since 1970 (Figure 6.5). More specifically, abundance increased in the US Prairies and decreased in Alaska, the Western Boreal Forest, and the Canadian Prairies. Over the past five years, abundance of Scaup sp. has not changed significantly across the entire survey area or in any region of the WBPHS. In 2025, there were 3.68 (3.27 – 4.08) million Scaup sp. in the Traditional Survey Area of the WBPHS. This estimate is 7.7% below the 10-year average of 3.98 million birds. The 2025 Scaup sp. population in this region was below the NAWMP population objective of 4.67 million birds.

In the core area of the EWS, the population of Scaup sp. has not changed significantly since 1990 and over the past five years (Figure 6.4). The Atlantic Highlands Population has significantly increased since 1990. Populations in all other regions of the EWS showed no significant changes during this time. There were no significant five-year trends in any region of the EWS. In 2025, there were 11.4 (1.44 – 21.4) thousand Scaup sp. in the core survey area of the EWS. This is similar to the 10-year average of 11.5 thousand birds.

In the British Columbia Plateau, the population of Scaup sp. has not changed significantly since 2006 and over the past five years (Figure 6.6). In 2025, there were 53.8 (33.3 – 74.3) thousand birds. This estimate is 14% above the 10-year average of 47.2 thousand birds.

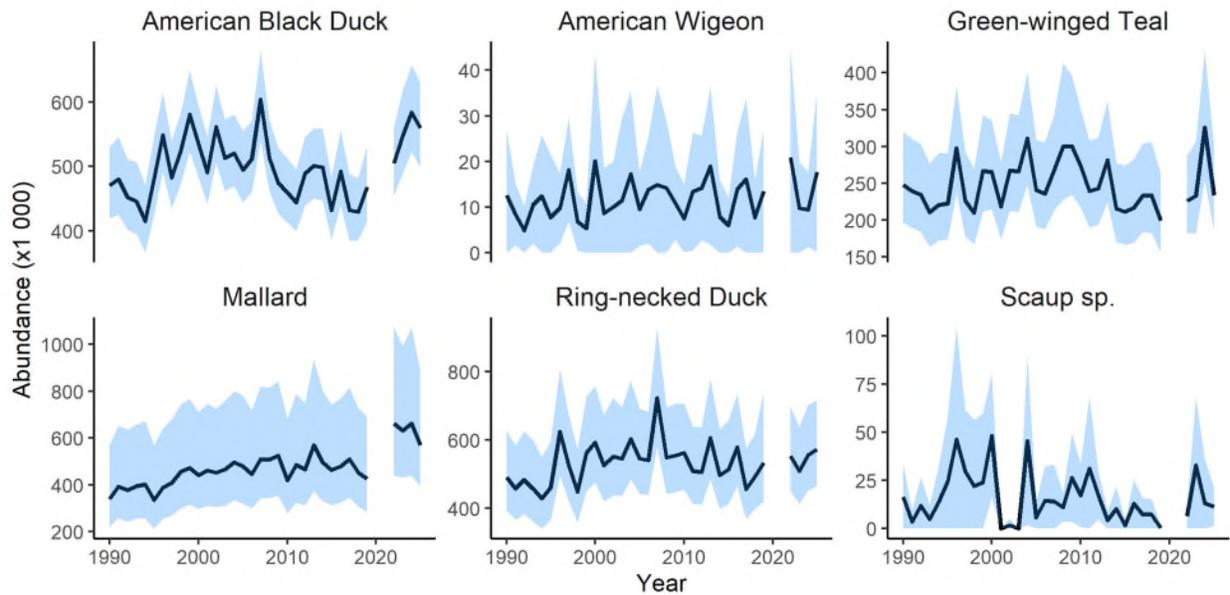


Figure 6.4: Breeding population estimates for dabbling and diving ducks in the Eastern Waterfowl Survey. Black lines represent population estimates, and shaded areas represent 95% credible intervals. Figure shows combined results of helicopter and fixed-wing aircraft surveys across the core survey area (strata: 51, 52, 63 to 68, 70 to 72).

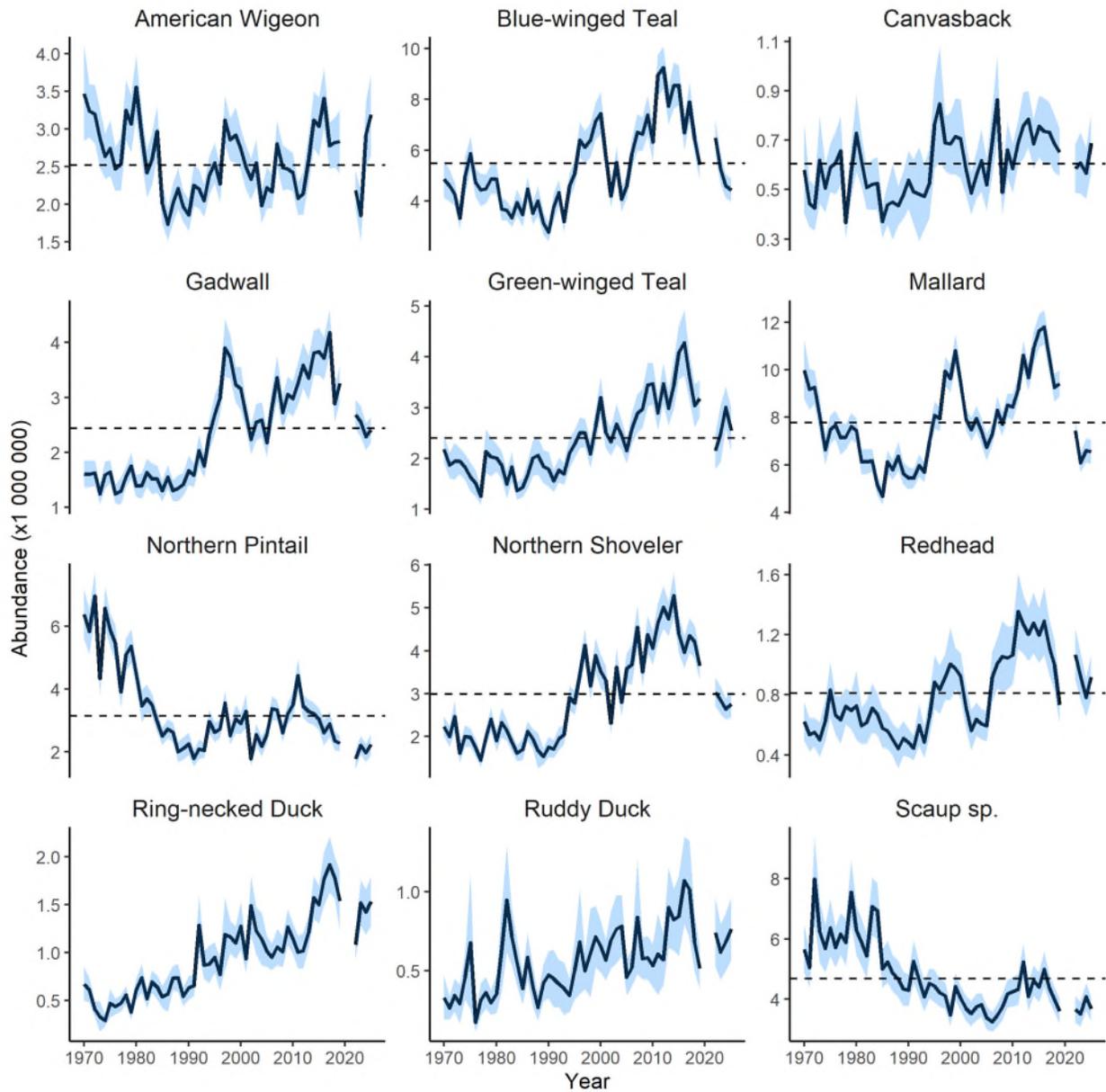


Figure 6.5: Breeding population estimates for dabbling and diving ducks based on the Waterfowl Breeding Population and Habitat Survey in western Canada and the northwestern US. Black lines represent population estimates in the Traditional Survey Area, shaded areas represent 95% confidence intervals, and horizontal dashed lines represent NAWMP long-term goals for the survey area.

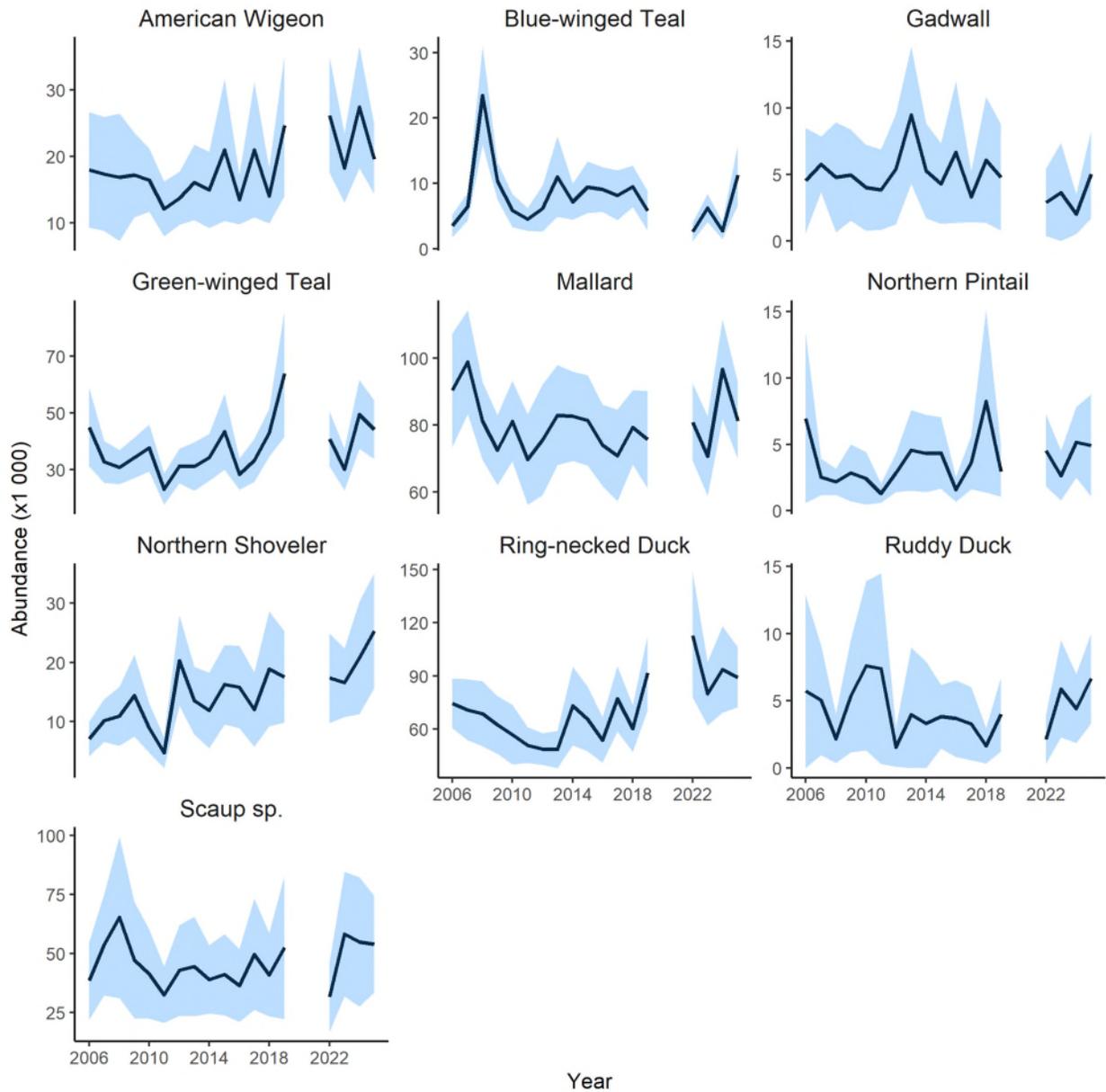


Figure 6.6: Breeding population estimates for dabbling and diving ducks in the British Columbia Central Plateau. Black lines represent population estimates, and shaded areas represent 95% confidence intervals.

6.3 Harvest of dabbling and diving ducks

Annual dabbling and diving duck harvest peaked in 1976 when approximately 3.69 million ducks were harvested in Canada (Figure 6.7). Following declines in MGBH permit sales, harvest of American Black Duck, Green-winged Teal, American Wigeon, Blue-winged Teal, Canvasback, Gadwall, Greater Scaup, Lesser Scaup, Mallard, Northern Pintail, Northern Shoveler, Redhead, Ring-necked Duck, Ruddy Duck, and Wood Duck has significantly decreased since 1976. Harvest of Green-winged Teal, American Wigeon, Canvasback,

Gadwall, Lesser Scaup, Mallard, Northern Pintail, and Northern Shoveler has significantly increased over the past five years. Harvest of Wood Duck has significantly decreased over the past five years. Harvest of American Black Duck, Blue-winged Teal, Greater Scaup, Redhead, Ring-necked Duck, and Ruddy Duck remained stable over this period. In 2024, there were approximately 691 thousand ducks harvested. Mallards comprised 48% of the duck harvest, followed by American Black Ducks (8.1%), Green-winged Teal (7.5%), Northern Pintails (6.5%), and Wood Ducks (5.5%).

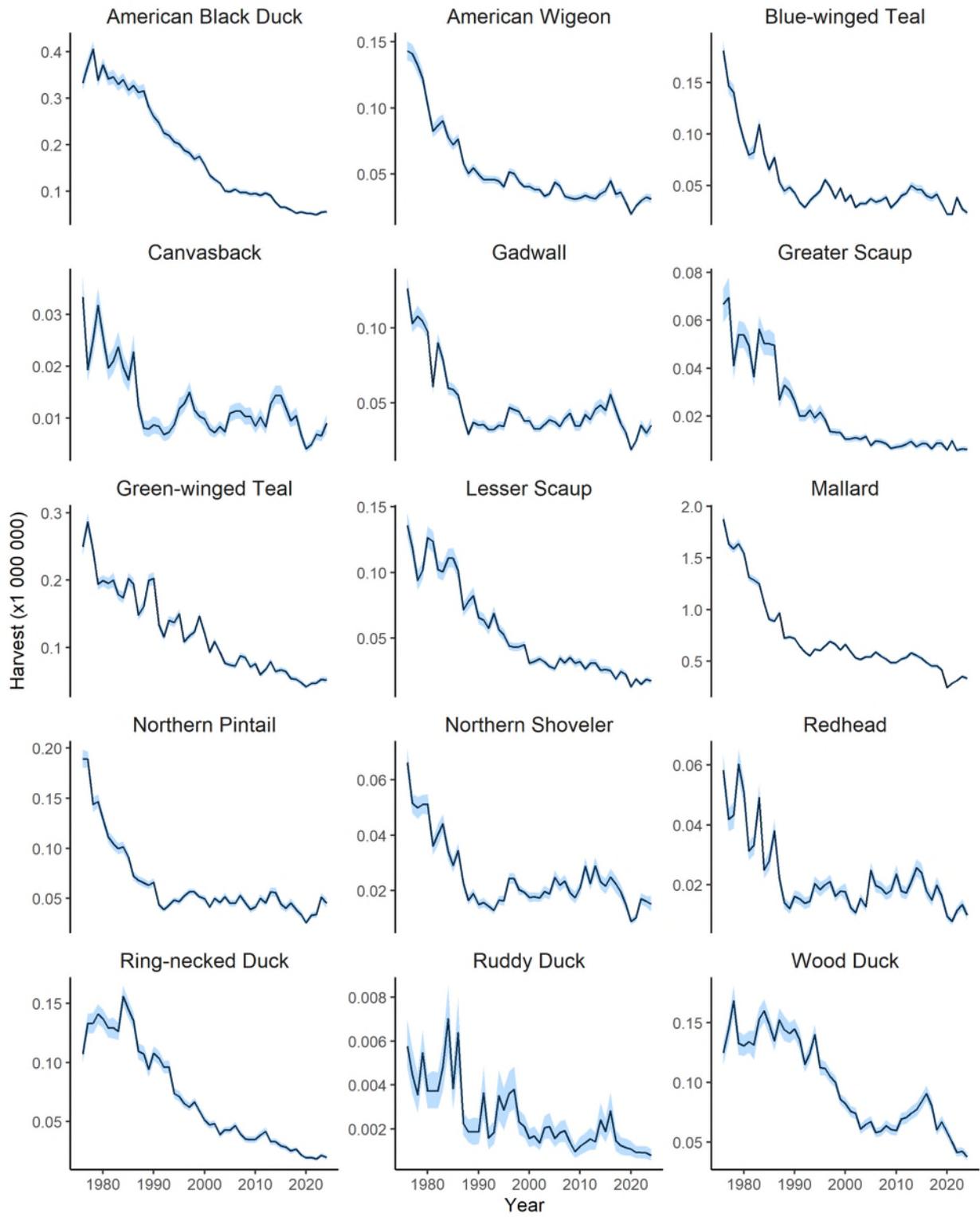


Figure 6.7: Estimated harvest in Canada of dabbling and diving ducks by species, from the National Harvest Survey (Smith, Villeneuve, and Gendron 2022). Black line represents the harvest estimate, and the shaded area represents the 95% confidence interval.

7 Sea ducks

7.1 Primary surveys for sea ducks

Most species of sea ducks are poorly monitored by traditional waterfowl surveys. In particular, the WBPHS, which is used as a basis for monitoring populations and setting population goals for many North American waterfowl, is not well-suited to surveying sea duck populations. This is because the core breeding range of half of North America's sea duck species lies outside the area covered by the WBPHS, and the survey is conducted too early to effectively count breeding sea ducks, which generally nest later than dabbling and diving ducks. Additionally, some species of sea ducks are difficult to differentiate from a fixed-wing aircraft; therefore, WBPHS estimates represent pooled counts for some sea duck groups (e.g., Scoter sp., Goldeneye sp., Merganser sp.). Helicopter surveys, such as the EWS, do allow observers to distinguish between species, but survey timing is earlier than is optimal for counting breeding sea ducks.

7.2 Population status of sea ducks

7.2.1 Bufflehead

In the Traditional Survey Area of the WBPHS, the abundance of Bufflehead has significantly increased since 1970 (Figure 7.4). More specifically, abundance increased in the Western Boreal Forest and the Canadian Prairies and has not changed significantly in all other regions. Over the past five years, abundance of Bufflehead has not changed significantly across the entire survey area or any region of the WBPHS. In 2025, there were 1.38 (1.17 – 1.6) million Buffleheads in the Traditional Survey Area of the WBPHS. This estimate is 12% above the 10-year average of 1.24 million birds. The 2025 Bufflehead population in this region was above the NAWMP population objective of 984 thousand birds.

The breeding range of Bufflehead in the core area of the EWS is primarily restricted to the Western Boreal Shield region. In this region, since 1990, the population of Bufflehead has significantly decreased, but over the past five years, this population has not changed significantly (Figure 7.5). In 2025, across the Western Boreal Shield region of the EWS, there were 7.6 (1.42 – 13.8) thousand Buffleheads. This estimate is 70% below the 10-year average of 25.2 thousand birds.

In the British Columbia Plateau, since 2006, the population of Bufflehead has significantly increased, but over the past five years, this population has not changed significantly (Figure 7.6). In 2025, there were 51.3 (43.8 – 58.7) thousand birds. This estimate is 4.5% above the 10-year average of 49 thousand birds.

7.2.2 Long-tailed Duck

Long-tailed Duck is not frequently surveyed by any current monitoring program.

7.2.3 Harlequin Duck

There are two populations of Harlequin Ducks: Eastern and Western. Neither population is surveyed regularly by any monitoring program. The Western Population breeds in Alaska, the Yukon, British Columbia, Alberta, Montana, Wyoming, Idaho, and Washington.

The Eastern Population contains two distinct subpopulations that winter separately. One subpopulation breeds in the northern half of Québec and Labrador, and winters in Greenland; the other subpopulation breeds in southern Labrador, Newfoundland, the North Shore and the Gaspé Peninsula of Québec, and New Brunswick, and winters mostly in eastern North America (Québec, Maritimes, Saint-Pierre-et-Miquelon [France], and Maine). There appears to be little mixing between these subpopulations (Scribner et al. 2000; M. Robert et al. 2008; Thomas et al. 2008). The Eastern Population declined in the 1980s and was listed as Special Concern under the Canadian *Species at Risk Act* in 2003. Hunting of this population has been closed since 1990, and the population has since increased. Based on the Christmas Bird Count, there are 5682 (5065 – 6354) Harlequin Ducks at the main wintering sites in Newfoundland, Saint-Pierre-et-Miquelon, New Brunswick and Nova Scotia (Gutowsky et al. 2022). The number of Harlequin Ducks wintering in eastern Canada is increasing, and their distribution has expanded, particularly in Nova Scotia (Gutowsky et al. 2022). In Quebec, 480 Harlequin Ducks were counted during the triennial Barrow's Goldeneye winter survey in February 2024.

7.2.4 Common Goldeneye

The Common Goldeneye is surveyed in the east by the EWS and in the west by the WBPHS. Fixed-wing airplane survey protocols do not distinguish between Common Goldeneye and Barrow's Goldeneye, but Barrow's Goldeneye are rare in the WBPHS survey area. Therefore, numbers presented for the WBPHS predominately represent Common Goldeneyes.

In the Traditional Survey Area of the WBPHS, the abundance of Goldeneye sp. (mostly Common Goldeneye) has significantly increased since 1970 (Figure 7.4). More specifically, abundance increased in the Western Boreal Forest and the Canadian Prairies and exhibited no significant changes in all other regions. Over the past five years, abundance of Goldeneye sp. has not changed significantly across the entire survey area. More specifically, in the short term, abundance in the Western Boreal Forest increased and exhibited no significant changes in all other regions. In 2025, there were 826 (630 – 1020) thousand Goldeneye sp. in the Traditional Survey Area of the WBPHS. This estimate is 17% above the 10-year average of 704 thousand birds.

In the core area of the EWS, the population of Common Goldeneye has not changed significantly since 1990 and over the past five years (Figure 7.5). The Central Boreal Shield and Western Boreal Shield Populations have significantly increased and the Eastern Boreal Shield Population has significantly decreased since 1990. Populations in all other regions of the EWS showed no significant changes during this time. In the short term, there were no significant changes in any region of the EWS. In 2025, there were 226 (151 – 301) thousand

Common Goldeneyes in the core survey area of the EWS. This estimate is 9.5% below the 10-year average of 250 thousand birds.

7.2.5 Barrow's Goldeneye

There are two populations of Barrow's Goldeneye in Canada: Eastern and Western. The Eastern Population was listed as Special Concern under Canada's *Species at Risk Act* in 2003.

Since 2002, the Eastern Population of Barrow's Goldeneye has been surveyed by the Barrow's Goldeneye triennial winter survey (Figure 7.1). This survey, conducted by helicopter to allow the distinction between Barrow's and Common Goldeneye, covers the St. Lawrence Estuary and the western portion of the Gulf of St. Lawrence, where more than 90% of the Eastern Population winters (M. Robert and Savard 2006; Environment Canada 2013; Michel Robert 2013). In 2024, there were 11.6 (11.1 – 12.1) thousand Barrow's Goldeneye in the surveyed area, which is 5.5% below the estimate from 2020, when the survey was last conducted (Figure 7.1).

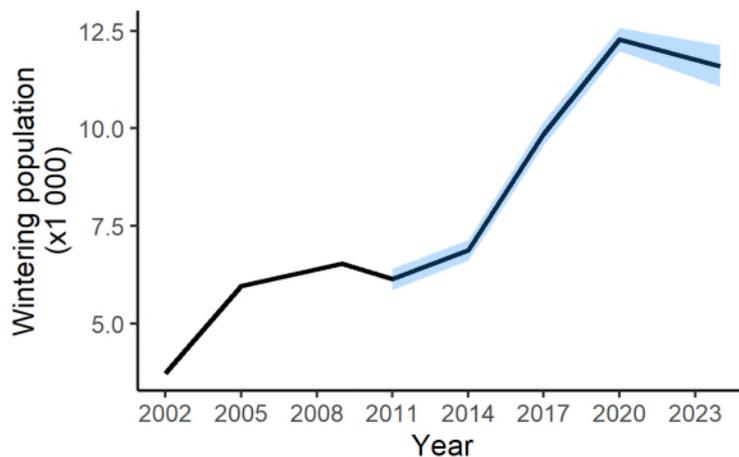


Figure 7.1: Eastern Population Barrow's Goldeneye Winter Survey. From 2011 onward, numbers are corrected from photos. Black line represents the population estimate, and the shaded area represents the 95% confidence interval.

The British Columbia Plateau Breeding Waterfowl Breeding Survey best monitors the Western Population of Barrow's Goldeneye. Though the survey does not distinguish between Common Goldeneye and Barrow's Goldeneye, Barrow's Goldeneye heavily dominate counts in this region. In 2025, there were 21 (15.4 – 26.7) thousand Goldeneye sp. in the British Columbia Plateau (Figure 7.6). Since 2006, the population of Goldeneye sp. has significantly decreased, but over the past five years, this population has not changed significantly.

7.2.6 Common Eider

There are four populations of Common Eider: Pacific, Northern, Hudson Bay, and American. The Pacific and Hudson Bay Populations are not monitored regularly.

The Northern Common Eider has been monitored on its wintering grounds in eastern Canada, and Saint-Pierre-et-Miquelon (France) since 2003. When this survey was last conducted in 2023, there were 121 (117 – 125) thousand male Common Eiders. This is a 29% decrease since 2018, when there were 171 (162 – 179) thousand male Common Eiders (Figure 7.2).

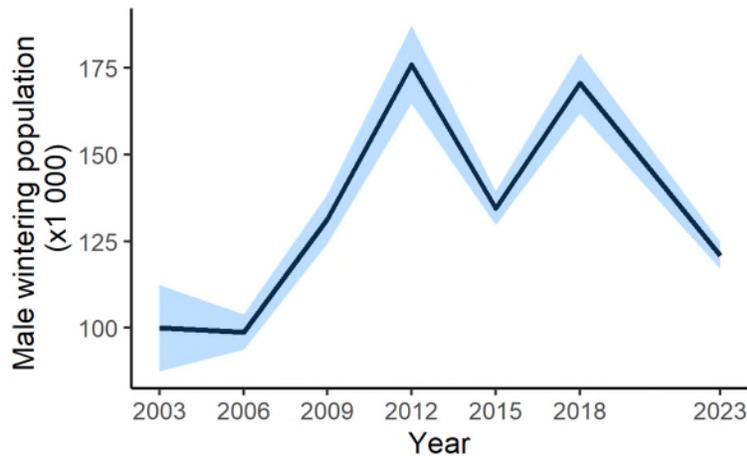


Figure 7.2: Estimated number of wintering adult male Northern Common Eider. Black line represents the population estimate, and the shaded area represents the 95% confidence interval.

The American Common Eider has been monitored during the breeding season on the New Brunswick coast since 1991 and in the St. Lawrence Estuary and Gulf in Québec since 2003. Both surveys indicate long-term population declines, except in the Gulf (Figure 7.3). In New Brunswick, Common Eiders are surveyed every three years, and in 2017, there were 2,560 breeding pairs (Figure 7.3A). In 2025, in the four largest breeding colonies in the St. Lawrence Estuary in Québec, there were 11.8 thousand Common Eider nests (Figure 7.3B). In 2022, in the Gulf of St. Lawrence Migratory Bird Sanctuaries in Québec, there were 13.1 thousand Common Eider nests (Figure 7.3C).

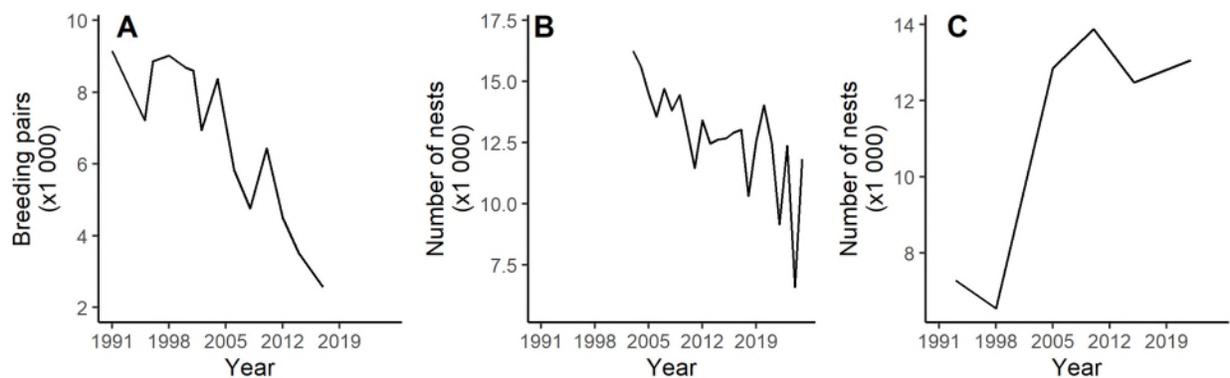


Figure 7.3: American Common Eider breeding populations. A) Estimated number of breeding pairs of American Common Eider in New Brunswick. B) Number of American Common Eider nests at the four largest breeding colonies in the St. Lawrence Estuary,

Québec. C) Number of American Common Eider nests in the Gulf of St. Lawrence Migratory Bird Sanctuaries, Québec.

7.2.7 King Eider

King Eider is not frequently surveyed by any current monitoring program.

7.2.8 Mergansers

Neither the WBPHS nor the BCPBWS distinguishes between the three species of North American mergansers (Common, Red-breasted, and Hooded Mergansers). Abundance counts of mergansers provided by the WBPHS represent all three species, and counts provided by the BCPBWS represent combined counts of Common and Hooded Mergansers. In eastern Canada, the EWS does provide abundance counts for each of the three Merganser species, given the distinction of the species is possible during the helicopter part of the survey. However, the EWS does not capture Red-breasted Mergansers well because it only covers part of their breeding range and they nest too late to be appropriately monitored by this survey.

In the core area of the EWS, the population of Common Merganser has significantly increased since 1990 and over the past five years (Figure 7.5). In 2025, there were 399 (322 – 476) thousand Common Mergansers in the core survey area of the EWS. This estimate is 9.1% above the 10-year average of 366 thousand birds.

In the core area of the EWS, the population of Hooded Merganser has significantly increased since 1990 and over the past five years (Figure 7.5). In 2025, there were 675 (506 – 844) thousand Hooded Mergansers in the core survey area of the EWS. This estimate is 69% above the 10-year average of 399 thousand birds.

In the Traditional Survey Area of the WBPHS, the abundance of Merganser sp. has significantly increased since 1970 (Figure 7.4). More specifically, abundance increased in Alaska, the Western Boreal Forest, and the Canadian Prairies and exhibited no significant changes in all other regions. Over the past five years abundance of Merganser sp. has not changed significantly across the entire survey area or in any region of the WBPHS. In 2025, there were 863 (626 – 1,100) thousand Merganser sp. in the Traditional Survey Area of the WBPHS. This estimate is 4% above the 10-year average of 830 thousand birds.

In the British Columbia Plateau, the population of Merganser sp. has not changed significantly since 2006 and over the past five years (Figure 7.6). In 2025, there were 11.3 (8.98 – 13.6) thousand birds. This is similar to the 10-year average of 11.2 thousand birds.

7.2.9 Scoters

Scoters are poorly surveyed across Canada. The BCPBWS does not distinguish among the three species of North American scoters (White-winged, Surf, and Black Scoters). The EWS does distinguish among scoter species but only covers a portion of the Surf Scoter and

Black Scoter breeding range and does not cover the breeding range of the White-winged Scoter.

In the core area of the EWS, the population of Surf Scoter has not changed significantly since 1990 and over the past five years (Figure 7.5). Since 1990, there were no significant changes in any region of the EWS. There has been a significant decline in the population of Central Boreal Shield over the last five years. Populations in all other regions of the EWS has not changed significantly from 2021 to 2025. In 2025, there were 84.2 (21.4 – 147) thousand Surf Scoters in the core survey area of the EWS. This estimate is 20% below the 10-year average of 106 thousand birds.

In the core area of the EWS, since 1990, the population of Black Scoter has significantly increased, but over the past five years, this population has not changed significantly (Figure 7.5). In both the long term and short term, there were no changes in any region of the EWS. In 2025, there were 21.4 (0 – 50.5) thousand Black Scoters in the core survey area of the EWS. This estimate is 26% below the 10-year average of 29 thousand birds.

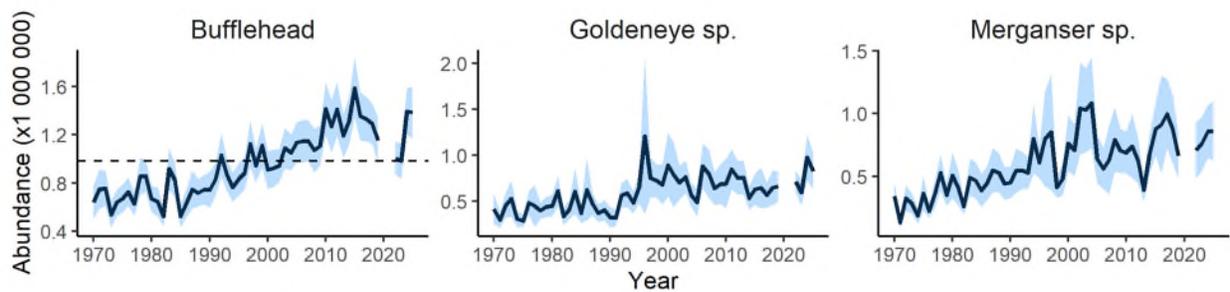


Figure 7.4: Sea duck breeding population estimates based on the Waterfowl Breeding Population and Habitat Survey in western Canada and the northwestern US. Black lines represent population estimates in the Traditional Survey Area, shaded areas represent 95% confidence intervals.

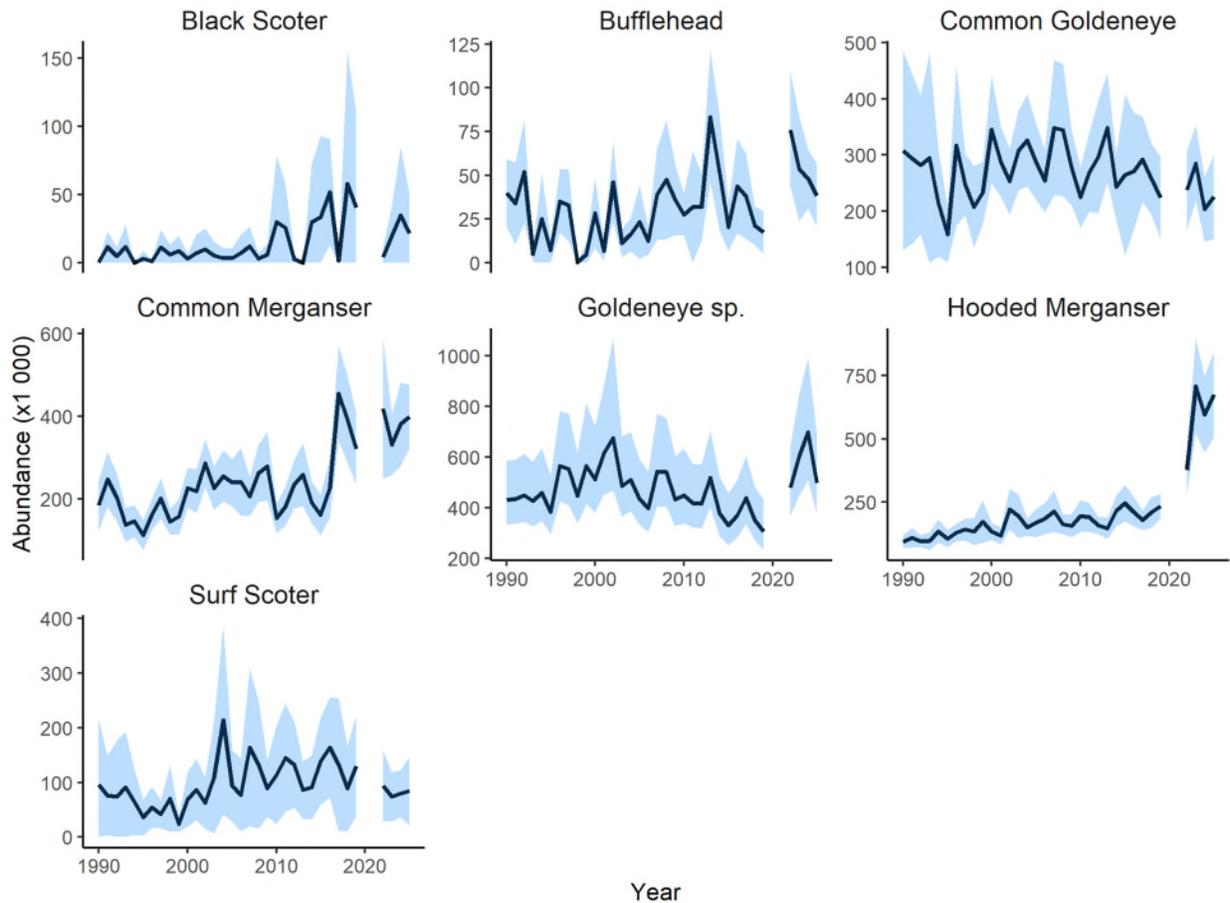


Figure 7.5: Breeding population estimates for sea ducks in the Eastern Waterfowl Survey. Black lines represent population estimates, and shaded areas represent 95% credible intervals. Figure shows the combined results of helicopter and fixed-wing aircraft surveys across the core survey area for Bufflehead and Goldeneye sp. For other species, population estimates are design-based estimates from the helicopter component of this survey.

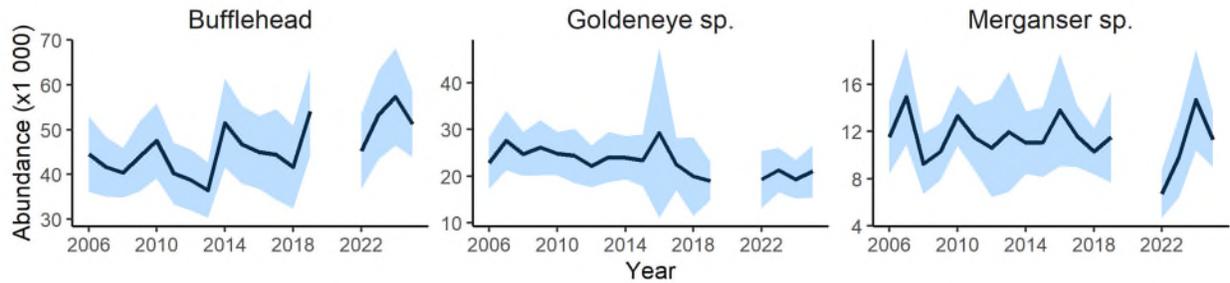


Figure 7.6: Total spring breeding population estimates for sea ducks in the British Columbia Plateau. Black lines represent population estimates, and shaded areas represent 95% confidence intervals.

7.3 Harvest of sea ducks

Annual sea duck harvest peaked in 1977 when approximately 387 thousand sea ducks were harvested in Canada (Figure 7.7). Following declines in MGBH permit sales, harvest of Barrow's Goldeneye, Black Scoter, Bufflehead, Common Eider, Common Goldeneye, Common Merganser, Harlequin Duck, Hooded Merganser, King Eider, Long-tailed Duck, Red-breasted Merganser, Surf Scoter, and White-winged Scoter has significantly decreased since 1976. Harvest of Black Scoter, Bufflehead, Common Eider, and Common Goldeneye has significantly decreased over the past five years. Harvest of Barrow's Goldeneye, Common Merganser, Harlequin Duck, Hooded Merganser, King Eider, Long-tailed Duck, Red-breasted Merganser, Surf Scoter, and White-winged Scoter remained stable over this period. In 2024, there were approximately 44.7 thousand sea ducks harvested. Buffleheads comprised 26% of the sea duck harvest, followed by Common Goldeneyes (17%), Hooded Mergansers (15%), Common Eiders (9.9%), and Common Mergansers (8.5%).

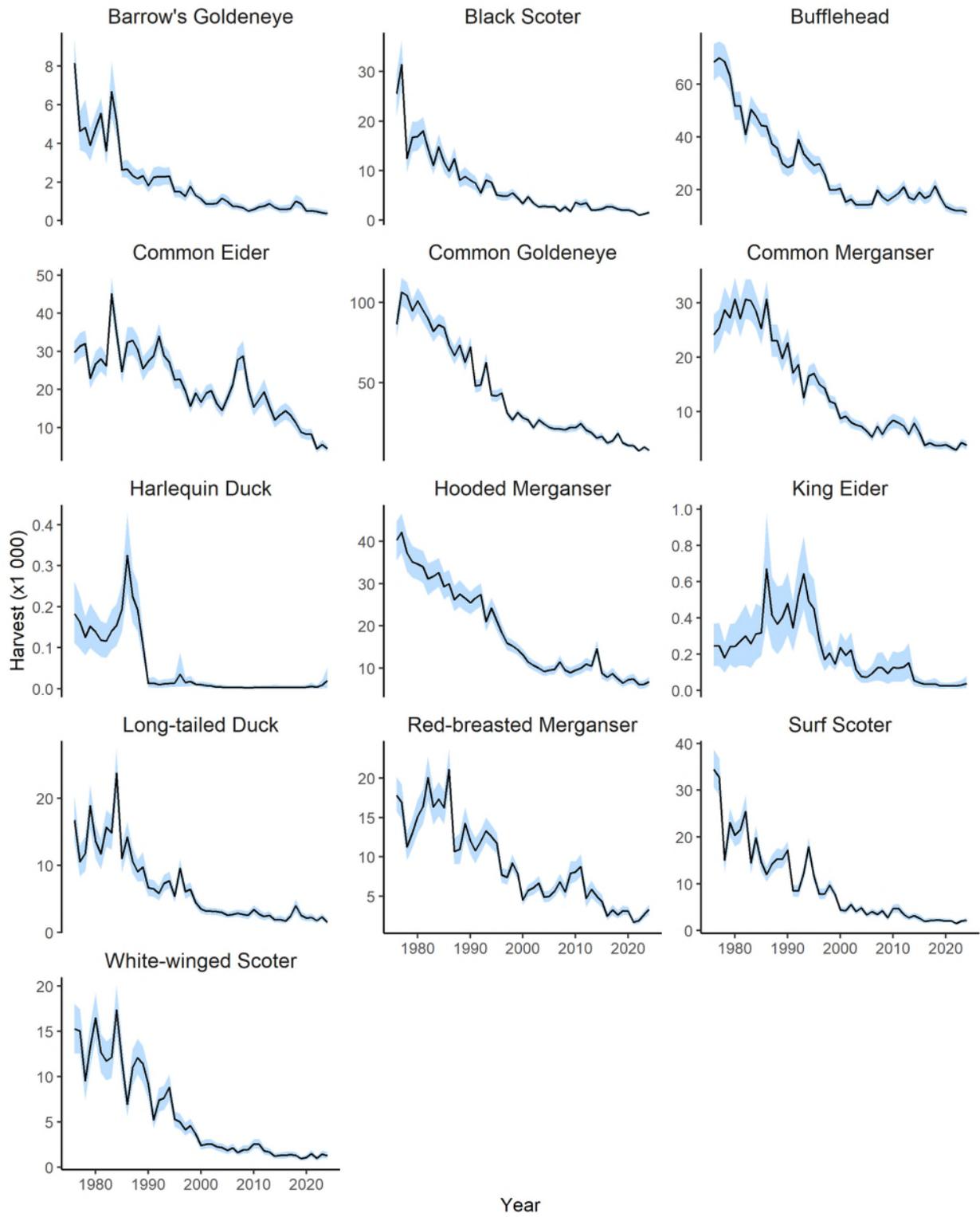


Figure 7.7: Estimated harvest in Canada of sea ducks by species, from the National Harvest Survey (Smith, Villeneuve, and Gendron 2022). Black lines represent harvest estimates, and

shaded areas represent 95% confidence intervals. Harlequin Duck graph represents the harvest that is occurring in the Western Population.

8 Geese and swans

8.1 Primary surveys for geese and swans

Most goose population estimates and trends in abundance are primarily calculated from band recovery data and harvest estimates using Lincoln methods. Some goose and swan populations are also monitored through specific annual or occasional surveys carried out during the breeding season or, in some cases, during migration or wintering periods.

8.2 Population status of geese

8.2.1 Population status of overabundant geese

An overabundant species is defined in the *Migratory Birds Regulations, 2022* as one that, ‘as a result of the rate of increase of the population of that species or its overabundance, is injurious to or threatens agricultural, environmental or other similar interests’. Once a species is formally listed as overabundant, liberalization of the hunting regulations and amendments to the *Migratory Birds Regulations, 2022* in Canada and the *Migratory Bird Treaty Act* in the US allows harvest of those species to occur outside of the normal hunting season (i.e., September 1 to March 10). Greater Snow Goose was designated as overabundant in Canada in 1998 and the US in 2009. Mid-continent Lesser Snow Goose was designated as overabundant in Canada and the US in 1999. Ross’s Goose was declared overabundant in 1999 in the US, and in 2014 in Canada. The Western Arctic Population of Lesser Snow Goose was designated as overabundant in Canada in 2014. Temperate-breeding Canada Goose was designated as overabundant in southern Manitoba in 2020 following rapid population growth which led to agricultural damage and human safety concerns.

Light Goose (Lesser Snow Goose, Greater Snow Goose, and Ross’s Goose) foraging significantly alters plant communities in Arctic and Subarctic staging and nesting areas where abundance is particularly high. In these areas, foraging by geese has reduced ground cover of their preferred forage plant species and has changed the soil chemistry (Iacobelli and Jefferies 1991; Alisauskas, Charlwood, and Kellett 2006). The amount of habitat affected by foraging geese has increased as populations have grown, and there are continued concerns that expansion of the area affected by geese could eventually lead to loss of ecosystem function and significant impacts on other species. Concerns about the impact of light geese on sensitive Arctic and Subarctic ecosystems prompted managers to increase hunter harvest of some species of geese.

8.2.1.1 Lesser Snow Goose

There are three populations of Lesser Snow Goose: Mid-continent, Western Arctic, and Wrangel Island. Lesser Snow Geese nest in coastal and inland areas of the Arctic in colonies

that range from a few hundred to several hundred thousand birds. For management purposes, these colonies are grouped into three regions: eastern, central, and western Arctic. The eastern and central Arctic colonies collectively form the Mid-continent Population of Lesser Snow Geese, which migrates through the Prairie provinces and mainly winters in the Central and Mississippi Flyways. Those nesting on Banks Island, on the Northwest Territories mainland near the Mackenzie River Delta, and on the north slope of Alaska, comprise the Western Arctic Population. These birds migrate through Alberta and western Saskatchewan and mainly winter in the Pacific Flyway. The Wrangel Island Population nests on Wrangel Island, off the northeast coast of Siberia, and winters on the Pacific Coast at the mouth of the Fraser-Skagit Rivers in British Columbia and Washington, in the Central Valley of California, and in smaller numbers in Oregon. All three populations overlap somewhat during migration and in the wintering areas.

Using the Lincoln method, we estimated that there were 5.14 (3.99 – 6.28) million adult Mid-continent Lesser Snow Geese in 2024 (Figure 8.8). Since 1976, the Mid-continent Population of Lesser Snow Goose has significantly increased, but over the past five years, this population has not changed significantly. This estimate is 13% below the 10-year average of 5.88 million geese. The Mid-continent Population peaked in 2008 at 14.6 (11.5 – 17.7) million individuals.

The size of the Western Arctic Population of Lesser Snow Geese is estimated using the Lincoln method. We estimated that there were 1.85 (1.19 – 2.51) million adult Western Arctic Lesser Snow Geese in 2024 (Figure 8.8). The Western Arctic Population of Lesser Snow Goose has not changed significantly since 1988 and over the past five years. This estimate is 26% above the 10-year average of 1.47 million birds. The Western Arctic Population peaked in 2018 at 2.06 (1.39 – 2.72) million individuals.

The Wrangel Island Population of Lesser Snow Geese are monitored through a ground survey conducted by Russian biologists during the breeding season. Since 1970, the Wrangel Island Population of Lesser Snow Goose has significantly increased, but over the past five years of the survey, this population has not changed significantly. In 2022, there were approximately 750 thousand Lesser Snow Geese on Wrangel Island (Figure 8.1). This estimate is 80% above the 10-year average of 417 thousand birds. The 2022 Wrangel Island Population of Lesser Snow Geese was above the NAWMP population objective of 120 thousand birds.

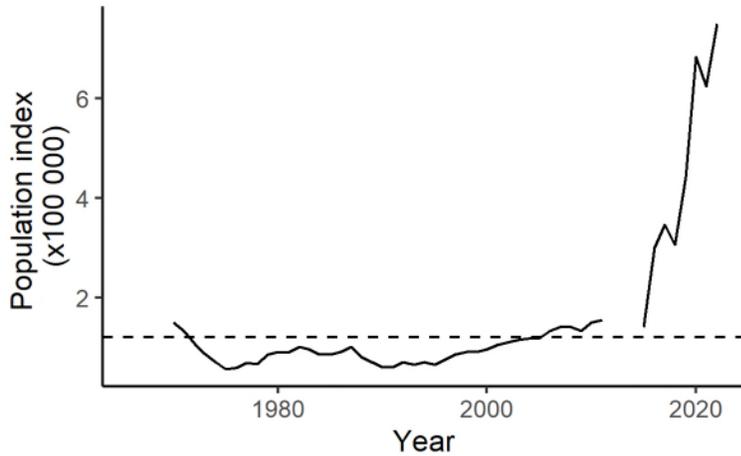


Figure 8.1: Population index of Lesser Snow Geese on Wrangel Island, Russia. Horizontal dashed line represents the NAWMP long-term goal for the survey area. Data were not gathered in 2012 and 2014. Source: (Olson 2022).

8.2.1.2 Greater Snow Goose

Greater Snow Geese are monitored on their spring staging areas in southern Québec and eastern Ontario. The spring survey has expanded greatly since the inaugural survey in 1965 and now covers a large territory extending from Lake Champlain (south) to Lake St. Jean (north) and from eastern Ontario (west) to Chaleur Bay (east). Since 1965, the population of Greater Snow Goose has significantly increased, but over the past five years, this population has significantly decreased (Figure 8.2). Since being designated as overabundant in 1998, the Greater Snow Goose population has fluctuated between 428 thousand and 1.01 million birds. In 2025, there were 428 (415 – 441) thousand Greater Snow Geese. The 2025 Greater Snow Goose population was below the NAWMP population objective of 500 to 750 thousand birds.

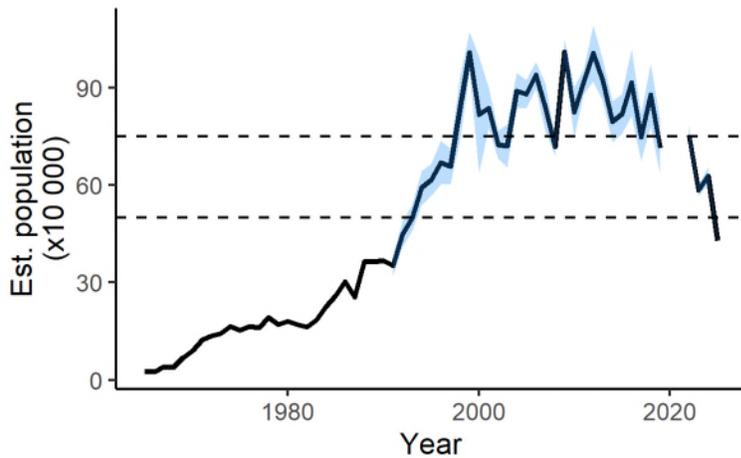


Figure 8.2: Greater Snow Goose population estimates during the spring staging period in southern Québec and eastern Ontario. Shaded area represents the 95% confidence

intervals. Estimates from 1998 to 2000 were corrected for flocks not observed during the survey, using data from a telemetry study. Estimates from 2002 onward are based on a revised methodology. Horizontal dashed lines represent upper and lower NAWMP goals for the survey area.

8.2.1.3 Ross's Goose

Using the Lincoln method, we estimated that there were 841 (625 – 1060) thousand Ross's Geese in 2024 (Figure 8.8). This estimate is 36% below the 10-year average of 1.32 million geese. The population peaked in 2014 at 3.88 (2.83 – 4.94) million geese. This population has not changed significantly since 1990 and over the past five years.

A single colony of Ross's Goose has been monitored at Karrak Lake in the Queen Maud Gulf (Ahiak) Bird Sanctuary, Nunavut since 1993. Since 1993, the size of this colony has not changed significantly, but over the past five years of the survey, it has significantly decreased. In 2019, there were 233 (212 – 254) thousand Ross's Geese nesting at Karrak Lake (Figure 8.3). This estimate is 60% below the 10-year average of 583 thousand birds.

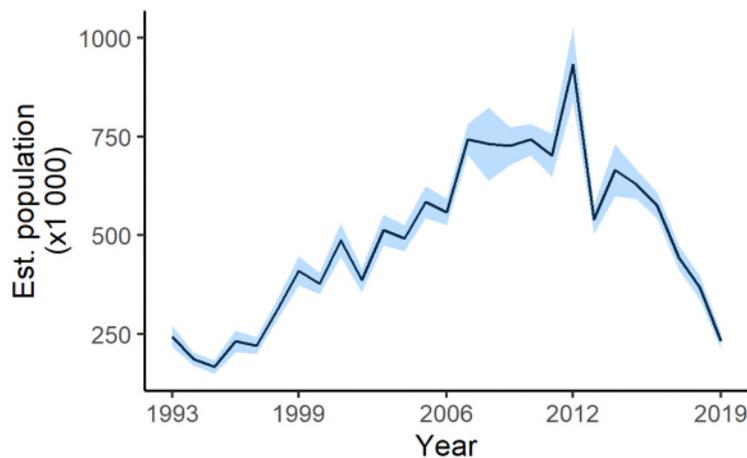


Figure 8.3: Estimated numbers of Ross's Geese that attempted to nest at Karrak Lake, Nunavut, 1993 to 2019. Black line represents the population estimate, and shaded area represents the 95% confidence interval.

8.2.2 Population status of other geese and swans

8.2.2.1 Canada Goose

Canada geese are divided into Subarctic breeding populations and temperate breeding populations.

8.2.2.1.1 Subarctic Canada Geese

There are three populations of Subarctic breeding Canada Geese: the North Atlantic, Atlantic, and Southern Hudson Bay Populations.

The North Atlantic population breeds in Labrador, insular Newfoundland, eastern Québec, and western Greenland, and winters primarily in southern Atlantic Canada and New England. The North Atlantic Population is monitored by the EWS in Canada. The North Atlantic Population of Canada Goose has not changed significantly since 1990 and over the past five years. There were 57.4 (41.9 – 80.3) thousand Canada Goose breeding pairs in 2025 (Figure 8.4). This estimate is 9.2% above the 10-year average of 52.6 thousand breeding pairs.

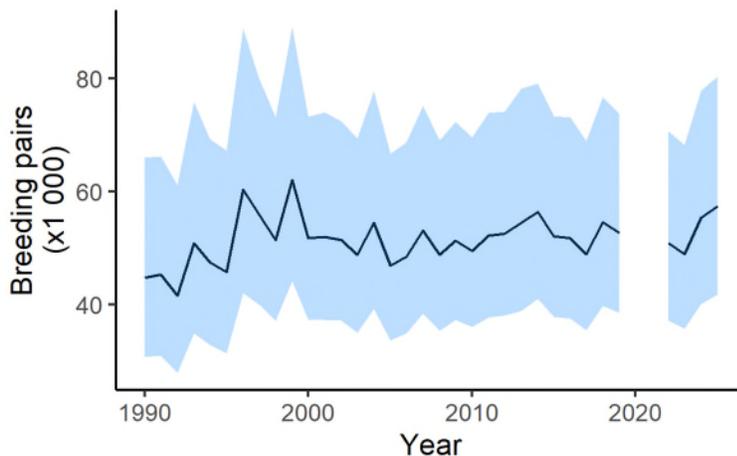


Figure 8.4: Estimated number of breeding pairs in the North Atlantic Canada Goose Population based on integrated fixed-wing airplane and helicopter counts from the EWS.

The Atlantic Population nests in northern Québec, especially along the shores of Ungava Bay and eastern Hudson Bay (where 80% of breeding birds are found), and in the interior of the Ungava Peninsula. The Atlantic Population winters from New England to South Carolina, with the largest concentration occurring on the Delmarva Peninsula. The Atlantic Population has been monitored on their breeding grounds since 1993. The survey covers the flat coastal tundra of Ungava Bay and Hudson Bay and associated taiga and inland tundra, the areas of highest densities (Malecki and Trost 1990; Rodrigue 2013; Harvey, Rodrigue, and Earsom 2019). The southern part of the Atlantic Population range is monitored through the EWS in the Québec boreal forest.

On the Ungava peninsula, since 1990, the Atlantic Population of Canada Goose has significantly increased, but over the past five years, this population has not changed significantly. There were 150 (119 – 181) thousand Canada Goose breeding pairs in 2025 (Figure 8.5A). This estimate is 8.7% above the 10-year average of 138 thousand breeding pairs. The Atlantic Population in Ungava was below the NAWMP objective of 225,000 breeding pairs. In the Quebec boreal forest, the Atlantic Population of Canada Goose has not changed significantly since 1990 and over the past five years. There were 16 (9.65 – 22.3) thousand breeding pairs in 2025 (Figure 8.5B). This estimate is 18% above the 10-year average of 13.6 thousand breeding pairs.

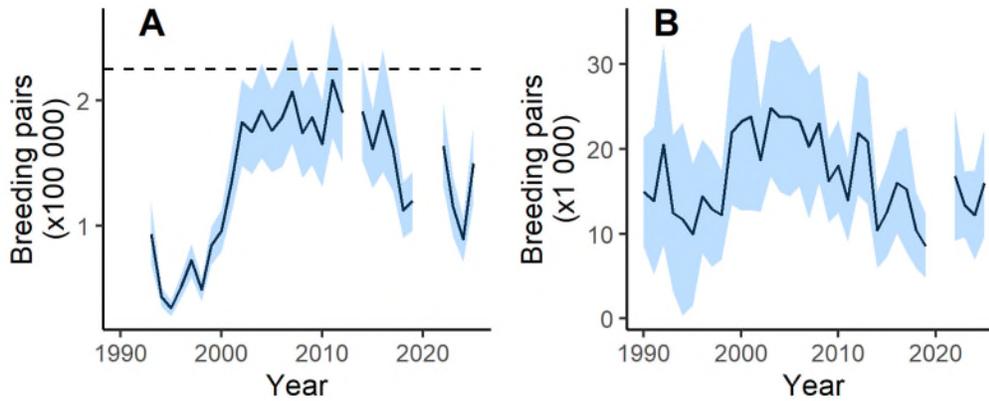


Figure 8.5: A) Estimated number of Atlantic Population Canada Goose breeding pairs on the Ungava Peninsula, Québec. B) Estimated number of Atlantic Population Canada Goose breeding pairs in the boreal forest in Québec based on the EWS (helicopter portion of the survey only). Black lines represent breeding pair estimates, and shaded areas represent 95% confidence intervals. Horizontal dashed line represents NAWMP goal for the survey area.

The Southern Hudson Bay Population nests along western and southern James Bay, southern Hudson Bay, and in adjacent interior lowland muskeg of Ontario and Manitoba, and winters in the Mississippi and Atlantic Flyway. This population is monitored through an aerial survey conducted by Ontario Ministry of Natural Resources. In 2025, there were 65 (59.1 – 70.8) thousand Canada Geese in the Southern Hudson Bay Population (Figure 8.6). This estimate is 26% below the 10-year average of 88.1 thousand geese.

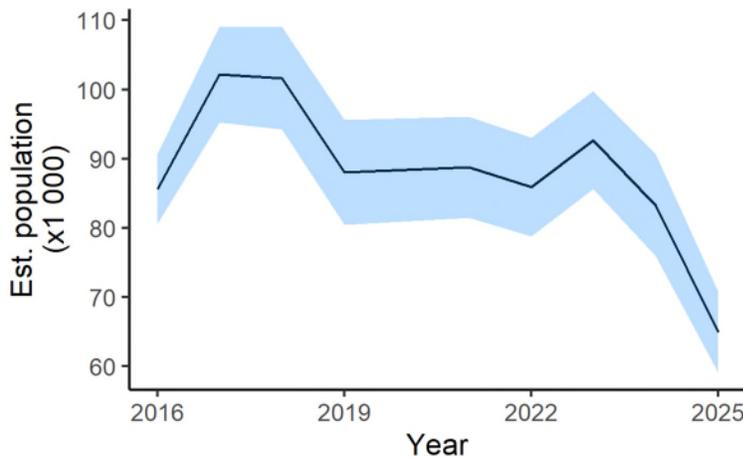


Figure 8.6: Abundance of Southern Hudson Bay Population of Canada Geese surveyed by the Ontario Ministry of Natural Resources. Black line represents the population estimate, and shaded area represents the 95% confidence interval.

8.2.2.1.2 Temperate Canada Geese

Temperate-breeding Canada Geese breed in central and southern Ontario, southern Québec, the Maritimes, southern areas of Prairie provinces, and British Columbia.

In southern Québec, temperate Canada Geese are monitored by the EWS and the St. Lawrence Lowlands Breeding Waterfowl Survey, a helicopter plot survey. Since 2004, this population has significantly increased, but over the past five years, this population has not changed significantly. Combining numbers obtained through these surveys, there were 22.4 (14.5 – 30.3) thousand breeding pairs of temperate Canada Geese in Québec in 2025 (Figure 8.7A). This estimate is 29% above the 10-year average of 17.4 thousand breeding pairs.

In southern Ontario, temperate Canada Geese are monitored by the SOWPS. Since 1971, this population has significantly increased, but over the past five years, this population has not changed significantly. In 2025, there were 60.3 (47.8 – 75.3) thousand breeding pairs of Canada Geese in southern Ontario (Figure 8.7B). This estimate is 9.5% above the 10-year average of 55 thousand breeding pairs.

Temperate Canada Geese nesting in the Prairie Parklands are monitored by the WBPBS in strata 26 to 40. Since 1970, this population has significantly increased, but over the past five years, this population has significantly decreased. In 2025, there were 893 (774 – 1010) thousand Canada Geese in the Prairie Parklands (Figure 8.7C). This estimate is 20% below the 10-year average of 1.11 million geese.

Temperate Canada Geese nesting in southern British Columbia are monitored by the BCPBWS. This population has not changed significantly since 2006 and over the past five years. In 2025, there were 28.9 (23.6 – 34.2) thousand breeding pairs of Canada Geese on the British Columbia Plateau (Figure 8.7D). This estimate is 4.6% below the 10-year average of 30.3 thousand breeding pairs.

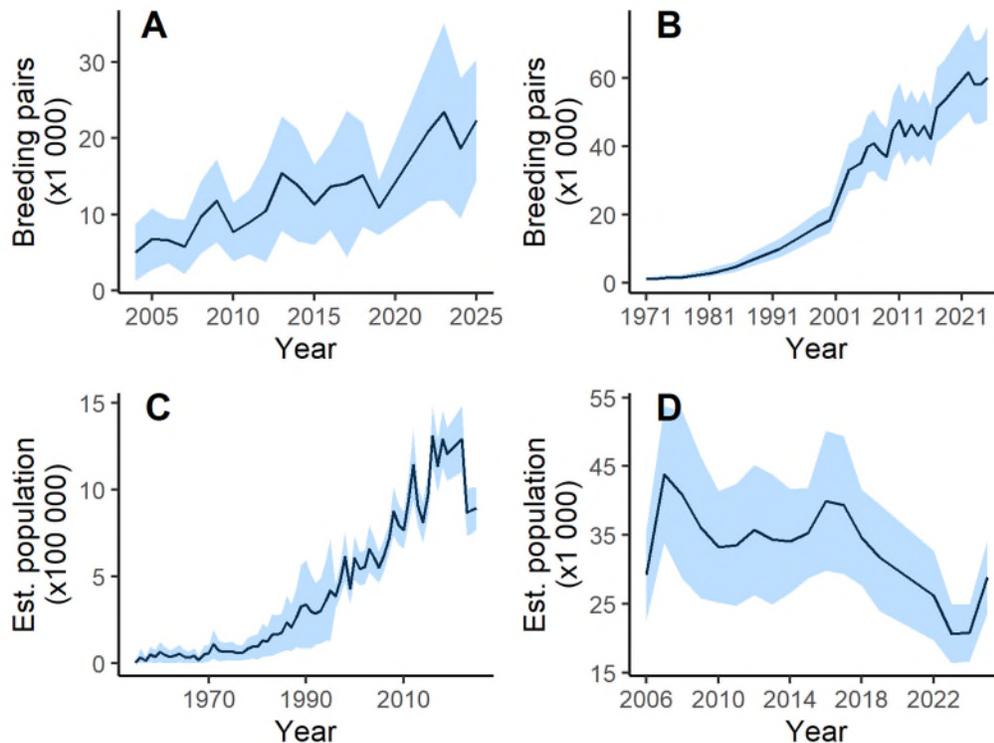


Figure 8.7: Temperate-breeding Canada Geese. A) estimated breeding pairs in southern Québec based on the St. Lawrence Lowlands Survey and the EWS, B) estimated breeding pairs in southern Ontario based on the SOWPS, C) estimated population in strata 26 to 40 of the WBPHS, and D) estimated population in the British Columbia Plateau based on the BCPBWS. Black lines represent breeding pair (A, B) or population (C, D) estimates, and shaded areas represent 95% confidence intervals.

8.2.2.2 Cackling Goose

Using the Lincoln method, we estimated that there were 893 (626 – 1160) thousand Cackling Geese in 2024 (Figure 8.8). This estimate is 14% below the 10-year average of 1.04 million geese. The population peaked in 2010 at 2.07 (1.29 – 2.85) million geese. Since 1976, this population has significantly increased, but over the past five years, this population has not changed significantly.

8.2.2.3 Greater White-fronted Goose

There are three populations of Greater White-fronted Goose: the Mid-continent, Tule, and Pacific Populations. The Tule and Pacific Populations breed in southern Alaska and winter primarily in California. These populations are not discussed in this report. The Mid-continent Population includes all White-fronted Geese that breed in Canada and in interior and northern Alaska, and that winter in the Central and Mississippi Flyways of the US.

Using the Lincoln method, we estimated that there were 2.92 (2.07 – 3.76) million Greater White-fronted Geese in the Mid-continent Population in 2024 (Figure 8.8). This estimate is

14% above the 10-year average of 2.55 million geese. The Mid-continent Population peaked in 2014 at 3.77 (2.74 – 4.81) million geese. Since 1976, this population has significantly increased, but over the past five years, this population has not changed significantly.

The Midwinter Survey provides an abundance index for Greater White-fronted Goose. This survey indicates that there were 925 thousand Greater White-fronted Geese in 2023. This estimate is 66% above the 10-year average of 558 thousand birds.

8.2.2.4 Brant

There are four distinct populations of Brant recognized in North America: the Atlantic, Eastern High Arctic, Black, and Western High Arctic Populations. The Atlantic Brant Population nests on islands in the Canadian eastern Low Arctic and winters on the Atlantic Coast from Massachusetts to North Carolina. The Eastern High Arctic Population breeds on islands in Canada's eastern High Arctic, and winters in Ireland; this population is not surveyed in Canada. Black Brant nest in the central and western Canadian Low Arctic, Alaska, and western Russia, and winters along the Pacific Coast. Western High Arctic Brant nest on islands in the western High Arctic and winter mainly in Puget Sound, Washington.

Using the Lincoln method, we estimated that there were 87.6 (50.1 – 125) thousand Atlantic Brant in 2024 (Figure 8.8). This estimate is 29% below the 10-year average of 124 thousand geese. The Atlantic Population peaked in 2009 at 520 (337 – 703) thousand geese. This population has not changed significantly since 1980 and over the past five years.

Black and Western High Arctic Brant are surveyed annually during the Midwinter Survey in the Pacific. During aerial surveys, it is difficult to separate the two populations of Brant that winter on the west coast of North America. However, the Midwinter Survey indicates that there were 108 thousand Brant in 2024. This estimate is 23% below the 10-year average of 141 thousand birds. The Midwinter Survey indicates that the Brant population size peaked in 2012 at 177 thousand birds. An increasing proportion of these populations overwinter north of the areas surveyed, so the observed declines may be in part due to a redistribution of birds in winter.

8.2.2.5 Tundra Swan

Tundra swans are widely distributed across North America and divided into two sub-populations for management purposes. The Western and Eastern Populations have relatively distinct breeding, migration and wintering areas. The Western Population breeding range is limited to western Alaska and is separated from the western extent of the Eastern Population's breeding range by the Brooks mountain range. The Western Population of Tundra Swans migrate south using two primary routes. Most of the Western Population migrate along an interior route with an important staging stopover in southern Alberta. The remaining Western Population Tundra Swans migrate south using a more western route along the Pacific coast. The Eastern Population's breeding range extends across the Nearctic and sub-arctic regions of Canada, including northern Ontario, Manitoba

and the North slope of Alaska. The population migrates south and eastward towards the lower Great Lakes and mid-Atlantic coastal region of the US, where it winters in a relatively small range.

The primary surveys used to monitor the Western Population Tundra Swan are the WBPBS and the Yukon-Kuskokwim Delta Coastal Zone Survey. The population is also monitored by the Pacific Flyway Winter Tundra Swan Survey. This survey indicates that there were 72.9 thousand swans in 2025, which is a slight decline from 72.4 thousand in 2024. In 2025 the Western Population Tundra Swan was above the NAWMP population objective of 60,000 birds.

The Midwinter Survey provides an abundance index for the Eastern Population Tundra Swan, within its wintering range. This survey indicates that there were 77.2 thousand Tundra Swans in 2025. This estimate is 21% below the 10-year average of 97.8 thousand birds. In 2025 the Eastern Population Tundra Swan was below the NAWMP population objective of 80,000 birds.

8.2.2.6 Trumpeter Swan

There are no recent surveys for Trumpeter Swan.

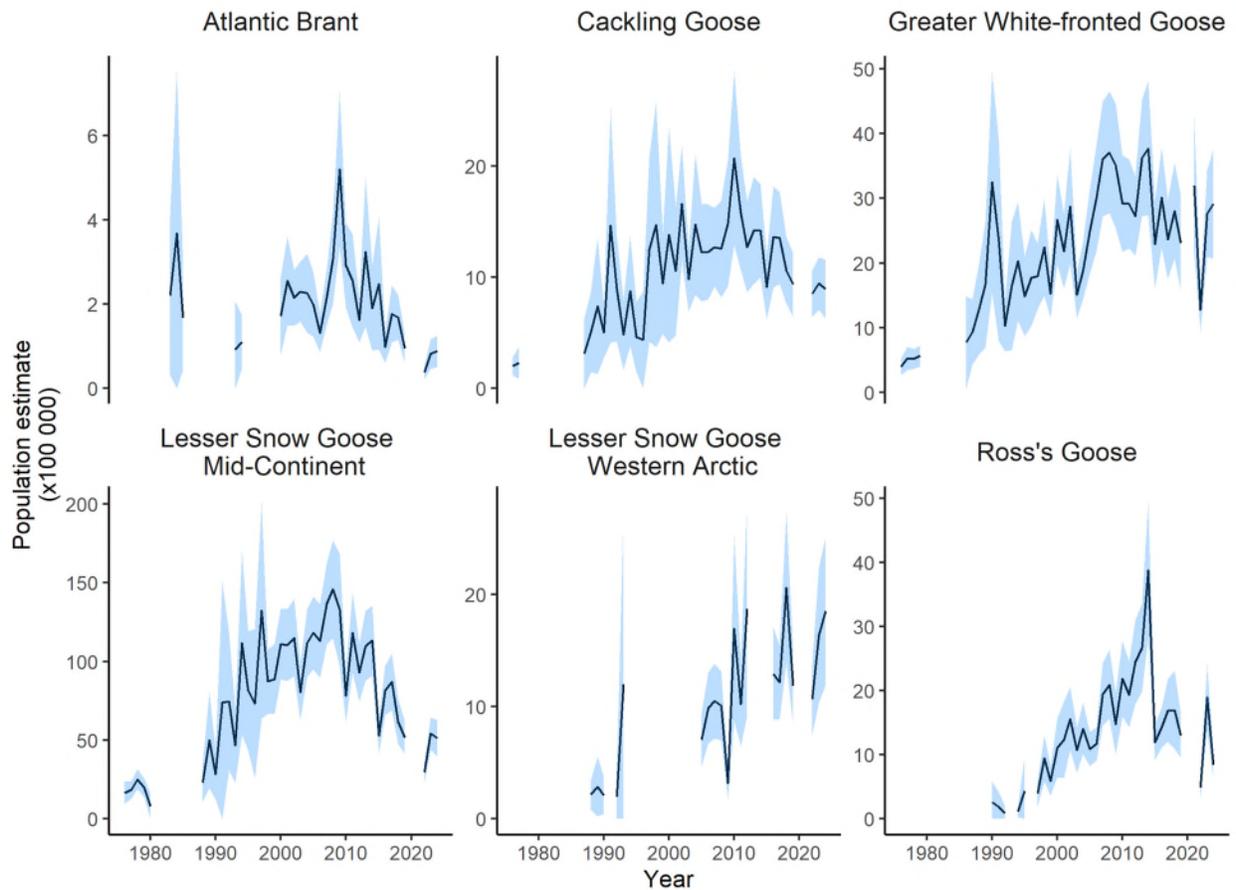


Figure 8.8: Lincoln estimates of population size for adult geese. Black lines represent population estimates, and shaded areas represent 95% confidence intervals. Source: (J. Dooley, USFWS, unpubl. data).

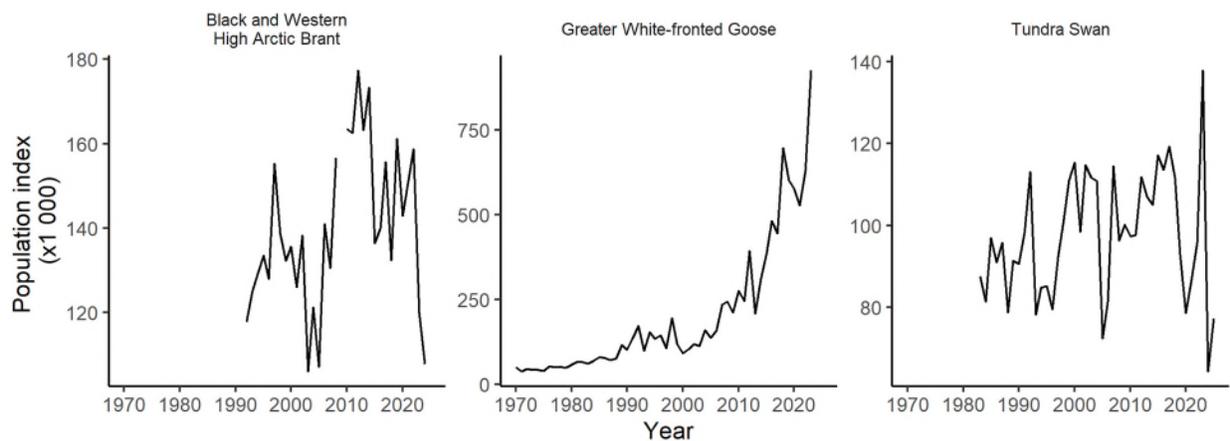


Figure 8.9: Midwinter population indices for geese and swans surveyed by the Midwinter Waterfowl Survey.

8.3 Harvest of geese and swans

Goose harvest has not declined following declines in MGBH permit sales, and has instead increased since the late 1990s. Harvest of Atlantic Brant has significantly decreased since 1976. Harvest of Cackling Goose, Canada Goose, Greater White-fronted Goose, Ross's Goose, and Snow Goose has significantly increased. Harvest of Cackling Goose, Canada Goose, Greater White-fronted Goose, Ross's Goose, and Snow Goose has significantly increased over the past five years. Harvest of Atlantic Brant remained stable over this period. In 2024, there were 880 thousand geese harvested in Canada. Canada Geese comprised 63% of the harvest, followed by Snow Geese (15%), Cackling Geese (9.9%), Greater White-fronted Geese (9.1%), and Ross's Geese (2.9%). There are currently no open season for swans in Canada, though there are hunting seasons in several Central and Atlantic Flyway states in the US.

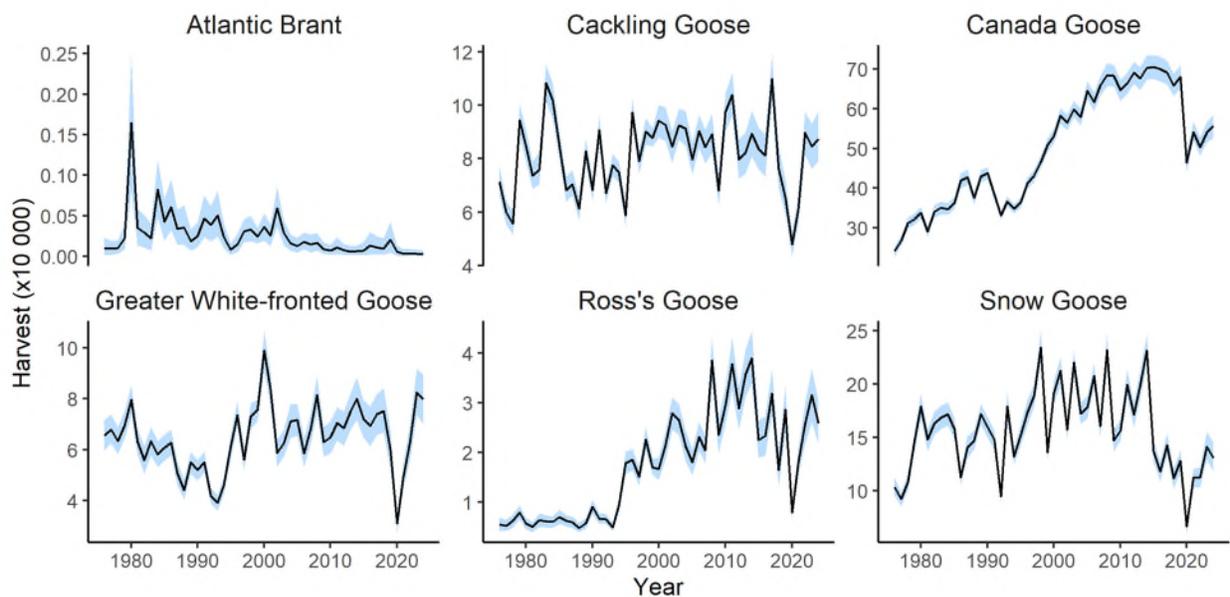


Figure 8.10: Estimated harvest in Canada of geese by species, from the National Harvest Survey (Smith, Villeneuve, and Gendron 2022). Black lines represent harvest estimates, and shaded areas represent 95% confidence intervals.

9 Other harvested species

9.1 Primary surveys for other harvested species

There is no unifying survey used to monitor populations of other harvested migratory game birds across Canada, although American Coot are surveyed in the WBPHS. Instead, many of these species have species-specific monitoring strategies or are monitored only at localized sites. Species-specific surveys are described in this report along with their results.

Mourning Dove, Band-tailed Pigeon, Wilson’s Snipe, rails and are monitored by the [North American Breeding Bird Survey \(BBS\)](#). The BBS is an international avian survey conducted annually since 1966 in the US and Canada. It is designed to monitor trends in the relative abundance of North American breeding birds at the continental, national, and regional levels, and primarily focuses on landbirds.

Virginia Rail, Sora, and Common Gallinule are monitored by the Great Lakes Marsh Monitoring Program (GLMMP). The GLMMP is a bi-national, long-term monitoring program that has coordinated citizen scientists throughout the Great Lakes basin of Ontario and the US since 1995. The program is designed to collect information about the presence and abundance of bird and amphibian species in Great Lakes coastal and inland marshes.

Mid-continent Sandhill Cranes are monitored primarily by the Mid-continent Sandhill Crane Survey, a spring aerial transect survey in key staging areas in Nebraska, US. More than 90% of the Mid-continent Population is found in that area when this survey occurs (Dubovsky 2019). In the East, Sandhill Cranes are monitored in their fall staging grounds in the Mississippi and Atlantic Flyway and by the EWS on their breeding ground in Quebec.

American Woodcock is monitored in North America using indices from the American Woodcock Singing-Ground Survey, which consists of a spring count of male courtship displays at dusk (Seamans et al. 2019). The survey covers the central and northern portions of the American Woodcock breeding range.

9.2 Population status of other harvested species

9.2.1 Mourning Dove

Mourning Dove is monitored through the BBS (Figure 9.4). Across the Canadian range, Mourning Dove has significantly increased in the short term (2013 to 2023) and long-term (1970 to 2023). Since 1970, populations in Alberta, New Brunswick, Newfoundland and Labrador, Ontario, Québec, and Saskatchewan have significantly increased, populations in British Columbia have significantly decreased, and populations in Manitoba have experienced little change. In the short term, populations in Alberta, British Columbia, Manitoba, and Saskatchewan have significantly increased, populations in Québec have significantly decreased, and populations in New Brunswick, Newfoundland and Labrador, and Ontario have remained stable.

9.2.2 Band-tailed Pigeon

Band-tailed Pigeon is monitored through the BBS (Figure 9.4). In Canada, Band-tailed Pigeon is found only in British Columbia. Since 1970, populations in British Columbia have significantly decreased. In the short term, populations in British Columbia have remained stable.

9.2.3 Sandhill Crane

There are three Sandhill Crane populations in Canada: Central Valley, Mid-continent, and Eastern. The Central Valley population primarily breeds in California, but its range extends

into the lower Fraser Valley and northern Vancouver Island in British Columbia. There are no surveys to monitor the Canadian portion of this population.

The Mid-continent Population breeds across Canada from eastern British Columbia to northern Ontario, south from the Prairies and north to Siberia, Alaska, the Yukon, Northwest Territories, and Nunavut. Since 1982, this population has significantly increased, but over the past five years, this population has not changed significantly. The photo corrected population index in 2025 was 1.44 million Sandhill Cranes, which was 200% greater than in 2024, and the photo-corrected three-year average (2023 to 2025) was 1.06 million birds (Figure 9.1A). This estimate is 66% above the 10-year average of 870 thousand cranes.

The Eastern Population of Sandhill Crane breeds from eastern and central Ontario to Labrador and south to the lower Great Lakes. Since 1979, this population has significantly increased, but over the past five years, this population has not changed significantly. In 2024, there were 91.5 thousand Eastern Sandhill Cranes (Figure 9.1B). This is similar to the 10-year average of 91.6 thousand birds.

In Québec, the EWS monitors a large breeding area of Eastern Population of Sandhill Cranes. Since 1990, this population has significantly increased, but over the past five years, this population has not changed significantly. In 2025, there were 13.9 (8.62 – 19.2) thousand Sandhill Crane breeding pairs in this region (Figure 9.1C). This estimate is 62% above the 10-year average of 8.6 thousand breeding pairs.

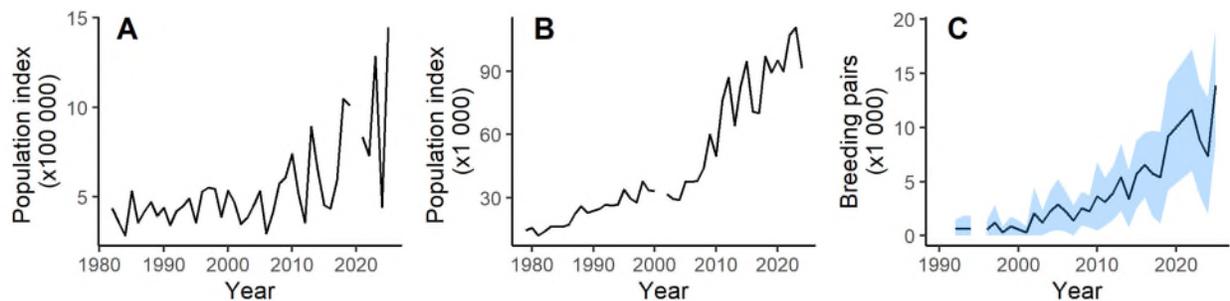


Figure 9.1: Sandhill Crane populations. A) Spring population indices for Mid-continent Sandhill Cranes on their spring staging areas (i.e., Central Platte River Valley, Nebraska, and adjacent areas) (Garrettson and Seamans 2025). B) Fall population indices for Eastern Sandhill Cranes on their fall staging areas (Garrettson and Seamans 2025). C) Breeding pairs in Québec based on the EWS (estimates based on helicopter plot survey only). In panels A and B, black lines represent population indices. In panel C, black line represents breeding pair estimate, and shaded area represents the 95% confidence interval.

9.2.4 Virginia Rail

Virginia Rail is monitored through the BBS (Figure 9.4). Across the Canadian range, Virginia Rail has not changed significantly in the short term (2013 to 2023) but has significantly increased in the long term (1970 to 2023). Since 1970, populations in British Columbia have significantly increased and populations in Alberta, Manitoba, Ontario, Québec, and

Saskatchewan have experienced little change. In the short term, populations in Alberta, British Columbia, Manitoba, Ontario, Québec, and Saskatchewan have remained stable.

In Ontario, the GLMMP indicates that there was a density of 0.251 (0.212 – 0.297) Virginia Rail per monitoring station in 2024. This estimate is 23% below the 10-year average of 0.326 birds per station. The population of Virginia Rail has significantly decreased since 1995 and over the past five years (Figure 9.5).

9.2.5 Sora

Sora is monitored through the BBS (Figure 9.4). Across the Canadian range, Sora has not changed significantly in the short term (2013 to 2023) and long term (1970 to 2023). Since 1970, populations in New Brunswick have significantly increased and populations in Alberta, British Columbia, Manitoba, Northwest Territories, Ontario, Québec, Saskatchewan, and the Yukon have experienced little change. In the short term, populations in Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Ontario, Québec, Saskatchewan, and the Yukon have remained stable.

In Ontario, the GLMMP indicates that there was a density of 0.134 (0.102 – 0.176) Sora per monitoring station in 2024. This estimate is 16% above the 10-year average of 0.116 birds per station. The population of Sora has not changed significantly since 1995 and over the past five years (Figure 9.5).

9.2.6 Common Gallinule

In Ontario, the GLMMP indicates that there was a density of 0.188 (0.147 – 0.24) Common Gallinule per monitoring station in 2024. This estimate is 6.4% above the 10-year average of 0.176 birds per station. Since 1995, the population of Common Gallinule has significantly decreased, but over the past five years, this population has not changed significantly (Figure 9.5).

9.2.7 American Coot

In the Traditional Survey Area of the WBPHS, the abundance of American Coot has not changed significantly since 1970 or over the past five years (Figure 9.2). In all regions of the WBPHS, populations did not show any short-term or long-term changes in abundance. In 2025, there were 1.12 (0.876 – 1.37) million American Coots in the Traditional Survey Area of the WBPHS. This estimate is 29% below the 10-year average of 1.59 million birds.

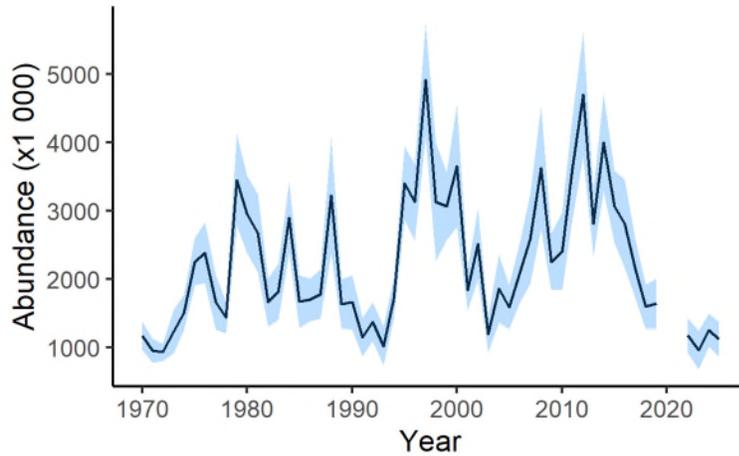


Figure 9.2: American Coot breeding population estimates based on the Waterfowl Breeding Population and Habitat Survey in Western Canada and the Northwestern US. Black line represents population estimate in the Traditional Survey Area, and shaded area represents the 95% confidence interval.

9.2.8 American Woodcock

In Canada and in the U.S., American Woodcock are currently managed based on two regions: the Eastern Management Region and the Central Management Region. American Woodcock breeding in Manitoba and Ontario belong to the Central Management Region, while those breeding in Québec and the Maritimes are part of the Eastern Management Region. Since the inception of the survey, there have been significant long-term declines in all provinces, except Manitoba and Nova Scotia where there were no significant changes (Figure 9.3). In the last five years, there were significant increases in New Brunswick and Nova Scotia.

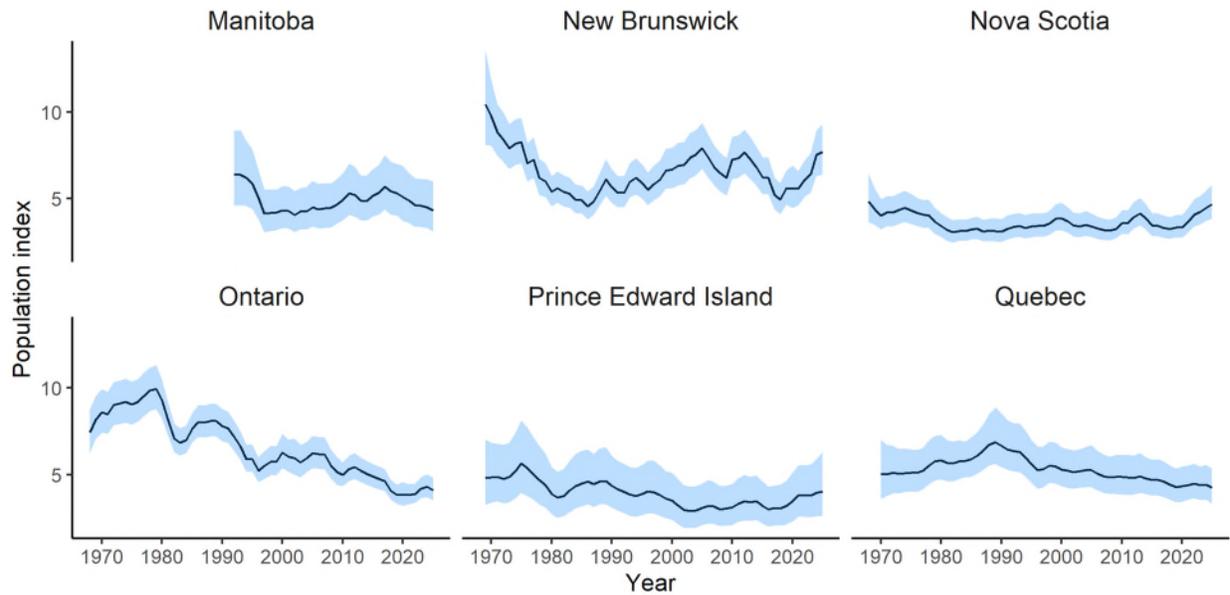


Figure 9.3: American Woodcock breeding population indices by province based on the American Woodcock Singing Ground Survey. Black lines represent population estimates, and shaded areas represent 95% confidence intervals. Source: (Seamans and Rau 2019).

9.2.9 Wilson’s Snipe

Wilson’s Snipe is monitored through the BBS (Figure 9.4). Across the Canadian range, Wilson’s Snipe has not changed significantly in the short term (2013 to 2023) and long term (1970 to 2023). Since 1970, populations in Alberta, Manitoba, and Saskatchewan have significantly increased, populations in New Brunswick and Québec have significantly decreased, and populations in British Columbia, Newfoundland and Labrador, Northwest Territories, Ontario, and the Yukon have experienced little change. In the short term, populations in Newfoundland and Labrador have significantly decreased and populations in Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Ontario, Québec, Saskatchewan, and the Yukon have remained stable.

9.2.10 Common Murre

Common Murre is not frequently surveyed by any current monitoring program.

9.2.11 Thick-billed Murre

Thick-billed Murre is not frequently surveyed by any current monitoring program.

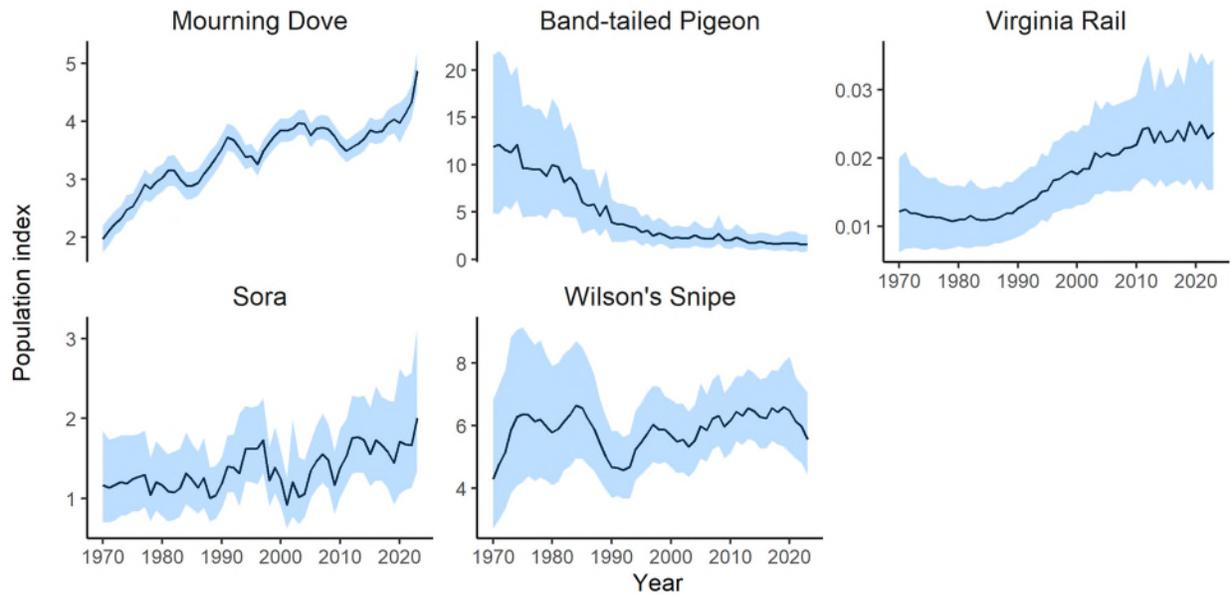


Figure 9.4: Canada-wide population indices for Mourning Dove, Band-tailed Pigeon, Virginia Rail, Sora, and Wilson’s Snipe based on the Breeding Bird Survey. Black lines represent population indices, and shaded areas represent 95% credible intervals.

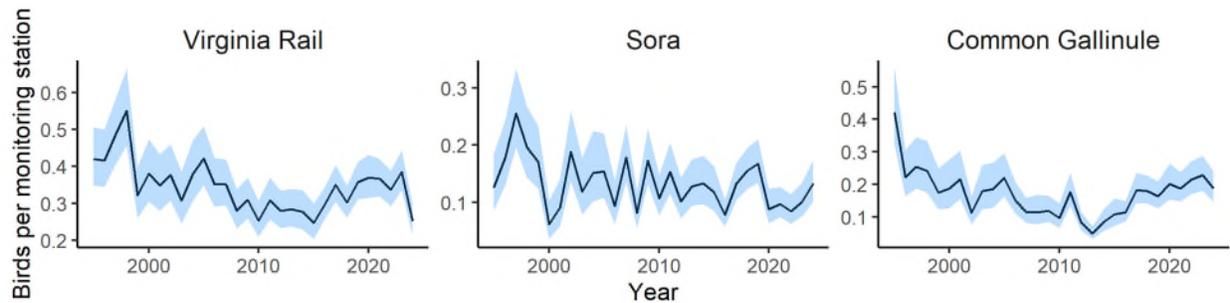


Figure 9.5: Population indices for Virginia Rail, Sora, and Common Gallinule based on the Great Lakes Marsh Monitoring Program in Ontario. Black lines represent population estimates, and shaded areas represent 95% confidence intervals.

9.3 Harvest of other harvested species

Harvest of American Coot, American Woodcock, Band-tailed Pigeon, and Wilson’s Snipe has significantly decreased since 1976. Harvest of Sandhill Crane (Mid-continent Population) has significantly increased over the long term and over the past five years. Harvest of American Coot, American Woodcock, Band-tailed Pigeon, and Wilson’s Snipe remained stable over this period. In 2024, there were 3.05 (2.35 – 3.76) thousand American Coot, 14.3 (11.6 – 17.1) thousand Sandhill Crane, 108 (40 – 195) Band-tailed Pigeon, 2.83 (2.13 – 3.54) thousand Wilson’s Snipe, and 19.3 (16.8 – 21.7) thousand American Woodcock harvested in Canada (Figure 9.6).

Mourning Dove harvest significantly increased in the 2010s, following the establishment of open seasons in Ontario in 2013 and Québec in 2016; previously only British Columbia had an open season. Over the past five years, Mourning Dove harvest has not changed significantly. In 2024, there were 17.3 (13.9 – 21) thousand Mourning Dove harvested in Canada, primarily in Ontario.

There are no data for murre harvest prior to 2013, although harvest restrictions implemented in the mid-1990s appear to have reduced annual harvest from approximately 750 thousand murre to approximately 250 thousand by the early 2000s (Chardine et al. 1999). In 2024, there were 18.9 (12.4 – 25.7) thousand Common Murre and 36.5 (27.7 – 45.8) thousand Thick-billed Murre harvested in Canada.

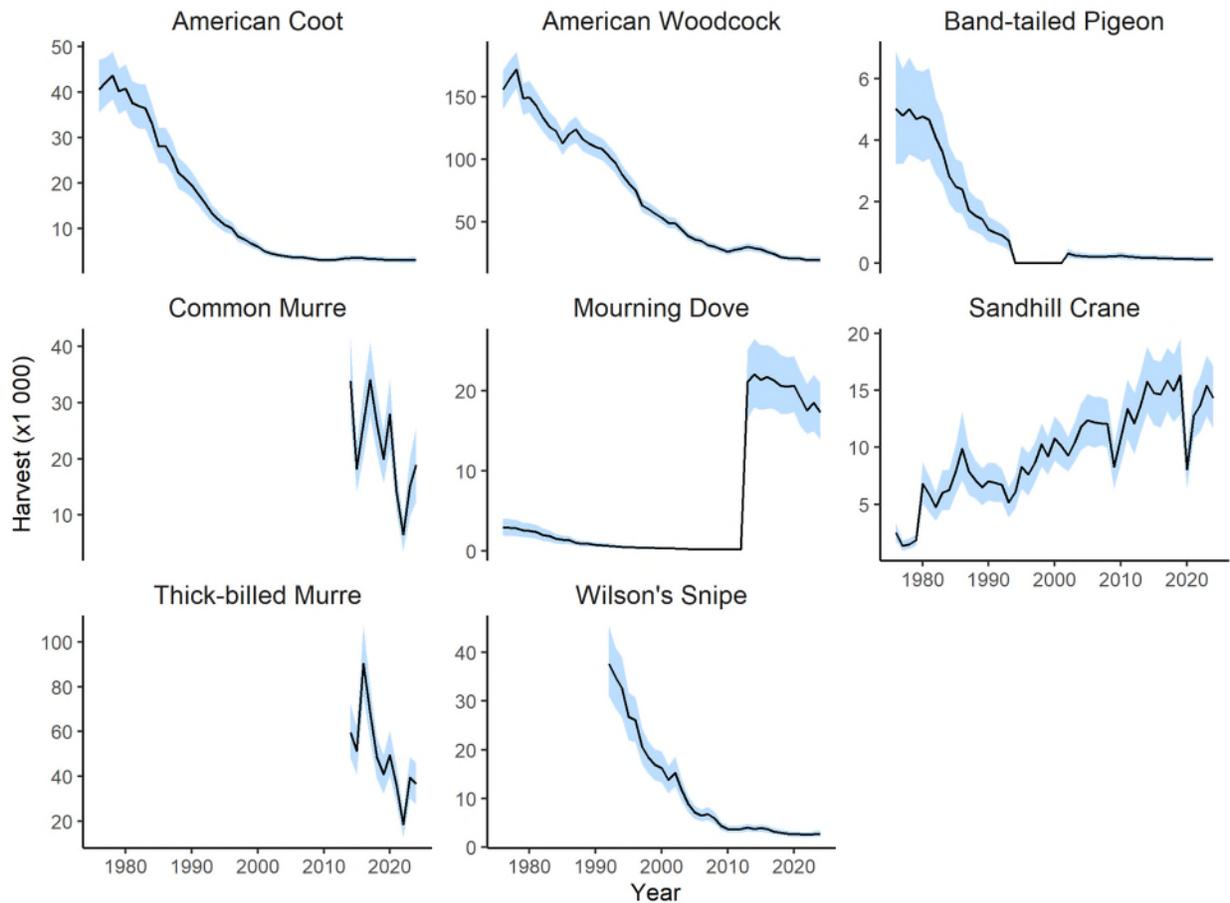


Figure 9.6: Estimated harvest in Canada of other hunted species from the National Harvest Survey (Smith, Villeneuve, and Gendron 2022). Black lines represent harvest estimates, and shaded areas represent 95% confidence intervals.

10 References

- Agriculture and Agrifood Canada. 2025. "Canadian Drought Monitor." <https://open.canada.ca/data/en/dataset/292646cd-619f-4200-afb1-8b2c52f984a2>.
- Alisauskas, R. T., J. W. Charlwood, and D. K. Kellett. 2006. "Vegetation Correlates of the History and Density of Nesting by Ross's Geese and Lesser Snow Geese at Karrak Lake, Nunavut." *Arctic* 59 (2): 201–10. <http://www.jstor.org/stable/40512794>.
- Alisauskas, R. T., K. L. Drake, and J. D. Nichols. 2009. "Filling a void: abundance estimation of North American populations of arctic geese using hunter recoveries." In *Modeling Demographic Processes in Marked Populations*, edited by D.L. Thomson, E.G. Cooch, M.J. Conroy, and Springer, 463–89. New York; London: Springer. <https://pubs.usgs.gov/publication/5211448>.
- Anteau, M. J., J.-M. DeVink, D. N. Koons, J. E. Austin, C. M. Custer, and A. D. Afton. 2020. "Lesser Scaup (*Aythya affinis*), version 1.0." In *Birds of the World*, edited by A. F. Poole. Ithica, NY, USA: Cornell Lab of Ornithology. <https://doi.org/10.2173/bow.leszca.01>.
- Chardine, J. W., B. T. Collins, R. D. Elliot, H. Lévesque, and P. C. Ryan. 1999. "Trends in the annual harvest of murre in Newfoundland and Labrador." *Bird Trends* 7.
- Dubovsky, J. A. 2019. "Status and Harvests of Sandhill Cranes: Mid-Continent, Rocky Mountain, Lower Colorado River Valley and Eastern Populations." Administrative {Report}. Lakewood, Colorado: U.S. Fish; Wildlife Service.
- Environment Canada. 2013. "Management Plan for the Barrow's Goldeneye (*Bucephala islandica*), Eastern Population, in Canada." Species at Risk Act Management Plan Series. Ottawa, Ontario, Canada: Environment Canada. <https://publications.gc.ca/site/eng/409662/publication.html>.
- Garrettson, P. E., and M. E. Seamans. 2025. "Status and Harvests of Sandhill Cranes: Mid-Continent, Rocky Mountain, Lower Colorado River Valley, and Eastern Populations 2025." Lakewood, Colorado, USA: U.S. Fish; Wildlife Service.
- Gutowsky, S. E., G. J. Robertson, M. L. Mallory, N. R. McLellan, S. G. Gilliland, J. Paquet, A. A. d'Entremont, and R. A. Ronconi. 2022. "Increased abundance and range expansion of harlequin ducks *Histrionicus histrionicus* wintering in Eastern Canada." *Endangered Species Research* 49: 187–98. <https://doi.org/10.3354/esr01213>.
- Harvey, W. F., J. Rodrigue, and S. D. Earsom. 2019. "A Breeding Pair Survey of Atlantic Population Canada Geese in Northern Québec—2019." Unpublished Joint Report of the Maryland Department of Natural Resources and the Canadian Wildlife Service, Québec Region.
- Iacobelli, A., and R. L. Jefferies. 1991. "Inverse Salinity Gradients in Coastal Marshes and the Death of Stands of *Salix*: The Effects of Grubbing by Geese." *Journal of Ecology* 79 (1): 61–73. <https://doi.org/10.2307/2260784>.

Malecki, R. A., and R. E. Trost. 1990. "A breeding ground survey of Atlantic flyway Canada Geese, *Branta canadensis*, in northern Québec." *Canadian Field-Naturalist* 104 (4): 575–78. <https://doi.org/10.5962/p.356453>.

Naugle, D. E., R. R. Johnson, T. R. Cooper, M. M. Holland, and K. F. Higgins. 2000. "Temporal distribution of waterfowl in eastern South Dakota: Implications for aerial surveys." *Wetlands* 20: 177–83. [https://doi.org/10.1672/0277-5212\(2000\)020\[0177:TADOWIE\]2.0.CO;2](https://doi.org/10.1672/0277-5212(2000)020[0177:TADOWIE]2.0.CO;2).

Olson, S. M. 2022. "Pacific Flyway Data Book, 2022." Helena, Montana, USA: U.S. Department of Interior, Fish; Wildlife Service, Division of Migratory Bird Management.

Robert, Michel. 2013. "Barrow's Goldeneye." In *Status of Québec Waterfowl Populations, 2009*, edited by C. Lepage and D. Bordage, 190–94. Technical Report Series 525. Québec: Canadian Wildlife Service, Environment Canada.

Robert, M., G. H. Mittelhauser, B. Jobin, G. Fitzgerald, and P. Lamothe. 2008. "New Insights on Harlequin Duck Population Structure in Eastern North America as Revealed by Satellite Telemetry." *Waterbirds* 31 (sp2): 159–72. <https://doi.org/10.1675/1524-4695-31.sp2.159>.

Robert, M., and J.-P.L. Savard. 2006. "The St. Lawrence River Estuary and Gulf: A stronghold for Barrow's Goldeneyes Wintering in Eastern North America." *Waterbirds* 29 (4): 437–50. [https://doi.org/10.1675/1524-4695\(2006\)29\[437:TSLREA\]2.0.CO;2](https://doi.org/10.1675/1524-4695(2006)29[437:TSLREA]2.0.CO;2).

Rodrigue, Jean. 2013. "Canada Goose - Atlantic Population." In *Status of Québec Waterfowl Populations, 2009*, edited by C. Lepage and D. Bordage, 190–94. Technical Report Series 525. Québec: Canadian Wildlife Service, Environment Canada.

Roy, C., N. L. Michel, C. M. Handel, S. L. Van Wilgenburg, J. C. Burkhalter, K. E. B. Gurney, D. J. Messmer, et al. 2019. "Monitoring boreal avian populations: how can we estimate trends and trajectories from noisy data?" *Avian Conservation and Ecology* 14 (2): 8. <https://doi.org/10.5751/ace-01397-140208>.

Schummer, M. L., A. D. Afton, S. S. Badzinski, S. A. Petrie, G. H. Olsen, and M. A. Mitchell. 2018. "Evaluating the waterfowl breeding population and habitat survey for scaup." *The Journal of Wildlife Management* 82 (6): 1252–62. <https://doi.org/10.1002/jwmg.21478>.

Scribner, K. T., S. Libants, R. Inman, S. Talbot, B. Pierson, and Richard B. Lancot. 2000. "Genetic Variation Among Eastern Breeding Populations of Harlequin Ducks (*Histrionicus histrionicus*)." Unpublished report of the U.S. Fish and Wildlife Service.

Seamans, M., R. Rau, D. G. Kremetz, D. E. Anderson, and T. R. Cooper. 2019. "American Woodcock Status." In *Proceedings of the Eleventh American Woodcock Symposium*, 9–17. Minneapolis, USA: University of Minnesota Libraries Publishing.

Smith, A. C., T. Villeneuve, and M. Gendron. 2022. "Hierarchical Bayesian Integrated Model for Estimating Migratory Bird Harvest in Canada." *The Journal of Wildlife Management* 86 (2): e22160. <https://doi.org/10.1002/jwmg.22160>.

Thomas, P. W., G. H. Mittelhauser, T. E. Chubbs, P. G. Trimper, R. I. Goudie, G. J. Robertson, S. Brodeur, M. Robert, S. G. Gilliland, and J.-P.L. Savard. 2008. "Movements of Harlequin Ducks in Eastern North America." *Waterbirds* 31 (sp2): 188–93.
<http://www.jstor.org/stable/40212155>.

Thornton, M. M., R. Shrestha, Y. Wei, P. E. Thornton, and S.-C. Kao. 2022. "Daymet: Monthly Climate Summaries on a 1-Km Grid for North America, Version 4 R1." Oak Ridge National Laboratory Distributed Active Archive Center. <https://doi.org/10.3334/ORNLDAAAC/2131>.

U.S. National Ice Center. 2008. "IMS Daily Northern Hemisphere Snow and Ice Analysis at 1 Km, 4 Km, and 24 Km Resolutions, Version 1." Boulder, Colorado USA.: National Snow; Ice Data Center. <https://doi.org/10.7265/N52R3PMC>.

Zimmerman, G. S., J. R. Sauer, K. Fleming, W. A. Link, and P. R. Garrettson. 2015. "Combining Waterfowl and Breeding Bird Survey Data to Estimate Wood Duck Breeding Population Size in the Atlantic Flyway." *The Journal of Wildlife Management* 79 (7): 1051–61.
<https://doi.org/10.1002/jwmg.938>.

11 Appendix A

11.1 Breeding population estimate and trends of game birds from the Waterfowl Breeding Population and Habitat Survey

Table 11.1: Breeding population estimates (in thousands), with 95% confidence intervals (CI) and trend estimates, for the Traditional Survey Area of the Waterfowl Breeding Population and Habitat Survey of Western Canada and the Northwestern US (strata: 51, 52, 63 to 68, 70 to 72). Trends are expressed as an annual percent change. Significant trends ($p < 0.05$) are indicated with an asterisk [*].

Species	Population size 2025	5-yr trend (2020 to 2025)	1970 to present trend
American Coot	1,120 (876 – 1,370)	-3.13 (-18 – 30.2)	0.46 (-0.3 – 3.4)
American Wigeon	3,190 (2,660 – 3,730)	3.8 (-0.34 – 8.3)	-0.23 (-0.48 – 0)
Blue-winged Teal	4,430 (3,990 – 4,870)	-8.01 (-13.5 – -2.82)*	-0.03 (-0.25 – 0.1)
Bufflehead	1,380 (1,170 – 1,600)	2.54 (-0.06 – 5.1)	1.3 (1.01 – 1.55)*
Canvasback	690 (573 – 808)	1.22 (-3.21 – 5.6)	0.36 (-0.11 – 0.6)
Common Goldeneye	826 (630 – 1,020)	7.01 (-0.14 – 14.4)	1.11 (0.6 – 1.59)*
Gadwall	2,410 (2,190 – 2,640)	-4.76 (-8.7 – -0.83)*	0.79 (0.57 – 1.01)*
Green-winged Teal	2,550 (2,110 – 2,990)	0.13 (-5.46 – 5.8)	0.4 (0.11 – 0.7)*
Mallard	6,550 (6,040 – 7,070)	-5.25 (-7.73 – -2.71)*	-0.63 (-0.78 – -0.48)*
Merganser sp.	863 (626 – 1,100)	4.2 (-3.32 – 11.7)	1.81 (1.33 – 2.27)*
Northern Pintail	2,240 (1,910 – 2,570)	0.99 (-5.36 – 6.8)	-1.92 (-2.17 – -1.66)*
Northern Shoveler	2,760 (2,440 – 3,080)	-4.74 (-9.9 – 0)	0.42 (0.21 – 0.63)*
Redhead	918 (765 – 1,070)	-2.49 (-8.64 – 3.6)	0.62 (0.27 – 0.93)*
Ring-necked Duck	1,530 (1,280 – 1,790)	3.19 (-2.91 – 9.1)	1.45 (0.55 – 1.91)*
Ruddy Duck	764 (569 – 960)	4.12 (-4.78 – 13.5)	1.63 (1.01 – 2.23)*
Scaup sp.	3,680 (3,270 – 4,080)	-0.08 (-2.73 – 2.5)	-0.75 (-0.94 – -0.56)*

11.2 Breeding population estimates and trends of ducks from the Eastern Waterfowl Survey

Table 11.2: Breeding population estimates (in thousands), with 95% credible intervals (CI) and trend estimates, for the core survey area of the Eastern Waterfowl Survey. Estimates are based on combined results of helicopter and fixed-wing aircraft surveys, except for those species monitored only by the helicopter survey (+). Trends are expressed as an annual percent change. Significant trends ($p < 0.05$) are indicated with an asterisk [*].

Species	2025 Breeding Population Estimate	5-yr Trend (2020 to 2025)	1990 to 2025 Trend
American Black Duck	560 (499 – 630)	1.78 (0.53 – 3.14)*	0.52 (0.16 – 0.89)*
American Wigeon	17.7 (0.155 – 35.2)	1.08 (-2.93 – 5.7)	0.88 (-0.81 – 2.6)
Black Scoter (+)	21.4 (0 – 50.5)	-2.53 (-16.2 – 12.3)	9.26 (4.46 – 14.1)*
Bufflehead	38.5 (20.5 – 56.4)	4.66 (-2.21 – 12.5)	0.08 (-1.42 – 1.6)
Common Goldeneye (+)	226 (151 – 301)	-1.09 (-3.46 – 1)	-0.21 (-1.11 – 0.6)
Common Merganser (+)	399 (322 – 476)	7.37 (4.33 – 10.8)*	2.19 (1.42 – 2.97)*
Goldeneye sp.	499 (377 – 689)	2.21 (-0.37 – 5.6)	0.47 (-0.34 – 1.3)
Green-winged Teal	234 (186 – 301)	0.23 (-1.19 – 2)	0.08 (-0.48 – 0.6)
Hooded Merganser (+)	675 (506 – 844)	11.8 (8.65 – 14.8)*	5.77 (4.96 – 6.54)*
Mallard	569 (394 – 886)	1.68 (-0.47 – 4.4)	1.51 (0.48 – 2.59)*
Ring-necked Duck	573 (466 – 716)	0.33 (-1.03 – 1.7)	0.37 (-0.14 – 0.9)
Scaup sp.	11.4 (1.44 – 21.4)	10.1 (-1.66 – 23.7)	-0.21 (-2.91 – 2.5)
Surf Scoter (+)	84.2 (21.4 – 147)	-3.38 (-8.74 – 1.8)	0.78 (-1.24 – 2.7)
White-winged Scoter (+)	1.31 (0 – 3.31)	-12.5 (-24.9 – 0.5)	-0.88 (-8.25 – 7)

11.3 Breeding population estimate and trends in ducks from the British Columbia Plateau Breeding Waterfowl Survey

Table 11.3: Number of breeding pairs (in thousands), with 95% credible intervals (CI) and trend estimates, for the Central Plateau of British Columbia from the Waterfowl Breeding Population Survey of the Central Interior Plateau of British Columbia. Trends are expressed as an annual percent change. Significant trends ($p < 0.05$) are indicated with an asterisk [*].

Species	2025 Breeding Population Estimate	5-yr Trend (2020 to 2025)	2006 to 2025 Trend
American Wigeon	19.6 (14.4 – 24.8)	0.68 (-9.04 – 8)	1.35 (-0.63 – 3.1)
Blue-winged Teal	11.3 (6.69 – 15.9)	28.4 (-4.83 – 74.4)	5.41 (2.49 – 8.41)*
Bufflehead	51.3 (43.8 – 58.7)	1.53 (-2 – 5.3)	1.11 (0.25 – 1.86)*
Canada Goose	28.9 (23.6 – 34.2)	-0.87 (-8.18 – 7.4)	-0.97 (-2.16 – 0.3)
Gadwall	5.03 (1.74 – 8.32)	-1.48 (-13 – 13.8)	-2.03 (-4.9 – 1.1)
Goldeneye sp.	21 (15.4 – 26.7)	-0.9 (-3.98 – 3.1)	-1.19 (-2.17 – -0.18)*
Green-winged Teal	44.1 (33.8 – 54.4)	0.62 (-10.2 – 11.9)	0.29 (-1.26 – 1.7)
Mallard	81.3 (69.9 – 92.7)	1.09 (-2.88 – 6)	-0.38 (-1.22 – 0.4)
Merganser sp.	11.3 (8.98 – 13.6)	3.32 (-2.58 – 14.2)	-0.28 (-1.46 – 1)
Northern Pintail	4.92 (1.06 – 8.77)	5.43 (-17.3 – 33.3)	0.1 (-4.34 – 4.1)
Ring-necked Duck	89.2 (72.2 – 106)	-0.06 (-8.66 – 8.2)	1.09 (-0.09 – 2.2)
Ruddy Duck	6.67 (3.31 – 10)	12.4 (-4.64 – 40.3)	0.97 (-2.6 – 4.8)
Scaup sp.	53.8 (33.3 – 74.3)	2.78 (-3.9 – 13.5)	0.93 (-0.96 – 2.9)

11.4 Breeding population estimate and trends in geese and ducks from Lincoln estimates

Table 11.4: Estimated population (in thousands), with 95% credible intervals (CI) and trend estimates, based on Lincoln estimates. Trends are expressed as an annual percent change. Significant trends ($p < 0.05$) are indicated with an asterisk [*].

Species	Region	Breeding Population Estimate	5-yr Trend (2020 to 2025)	1970 to 2024 Trend
Brant	Atlantic	87.6 (50.1 – 125)	2.5 (-16.2 – 24.9)	-1.31 (-5.72 – 3.6)
Cackling Goose		893 (626 – 1,160)	-0.75 (-9.36 – 9)	3.05 (2.33 – 3.81)*
Greater White-fronted Goose	Mid-continent	2,920 (2,070 – 3,760)	3.46 (-7.82 – 16.1)	4.1 (3.39 – 4.8)*
Lesser Snow Goose	Mid-continent	5,140 (3,990 – 6,280)	3.7 (-8.01 – 16.9)	2.32 (1.61 – 3.03)*
Lesser Snow Goose	Western Arctic	1,850 (1,190 – 2,510)	10.6 (-7.46 – 32.3)	4.94 (-0.77 – 10.6)
Ross's Goose		841 (625 – 1,060)	-2.15 (-21.2 – 18.6)	2.65 (-4.82 – 10.2)
Wood Duck	Eastern	4,340 (3,600 – 5,090)	0.03 (-4.69 – 4.8)	2.87 (2.43 – 3.32)*
Wood Duck	Western	59.2 (8.45 – 110)	4.42 (-14.2 – 25.4)	5.3 (3.93 – 6.7)*