

2021 Report

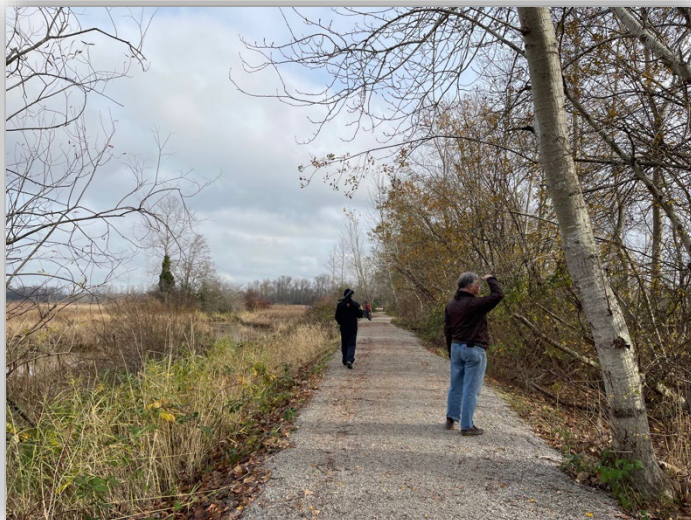
Fraser River Estuary IBA eBird Survey

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EXECUTIVE SUMMARY

Birds Canada, a BirdLife International IBA partner, held a third successful bird count within the Fraser River Estuary Important Bird Area on November 20, 2021. Sixty-five volunteer surveyors detected 132 bird species and more than 180,000 individuals in this crucial wintering bird hotspot!



South Arm Marshes, Ladner. Photo: Anne Murray.



Richmond Nature Park. Photo: Rémi Torrenta.



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INTRODUCTION



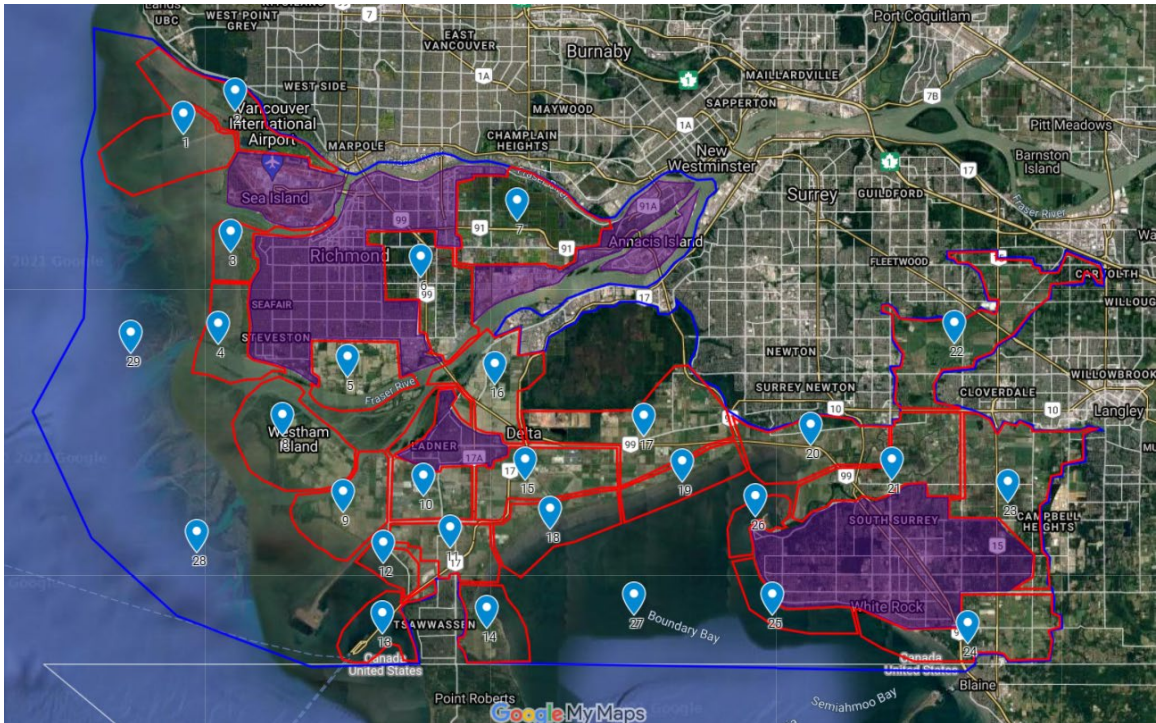
Every birder generally agrees that birding in the Fraser River Estuary, just south of Vancouver, is an incredible experience if the weather cooperates, especially during the winter months (because of the ocean-moderated climate), and during shorebird migration (as one of the most important stopover locations along the Pacific Flyway)! The large delta created by the Fraser River provides extremely productive estuarine waters, mudflats and coastal marsh habitat that are perfect for waterfowl, shorebirds, gulls, and raptors.

Even the open farmland serves as important habitat for many species. There, geese and ducks feed, Great Blue Herons hunt in the ditches, raptors scan for prey, and large flocks of shorebirds rest when the tide forces them off the coast.

The [Fraser River Estuary](#) has been designated an [Important Bird and Biodiversity Area](#) (IBA) because of the incredible abundance and diversity of birds that rely on it. Sites can be designated as IBAs when birds of one species are found in numbers that meet global, regional (country), or local (province, state, and subspecies) [thresholds](#) that are generally equal to 1% of the population of the species for that area. In Canada, a site can also be designated an IBA if 20,000 or more individuals of a given species are counted there. This site is also transitioning to become a [Key Biodiversity Area](#).

On November 20, 2021, Birds Canada organized a third annual count of the entire [Fraser River Estuary Important Bird Area](#), in spite of a difficult context of pandemic (the 2020 count was cancelled) and flooding emergency crisis. The goal of the count is to provide an annual count of waterbird and raptor species present in the Fraser River Estuary and increase awareness about the importance of the estuary. **Sixty-five birders** participated in the count, including many local birders and a few beginners willing to learn from more experienced volunteers. They submitted **153 checklists**. Participants focused their counting on waterbirds (such as shorebirds, waterfowl, gulls, marsh birds) and raptors, but also documented the presence of other avian species.

All data collection was conducted through [eBird Canada](#), primarily through the eBird app. The eBird Canada portal allows checklists to be submitted using an “IBA Canada (protocol)”, instead of the commonly used “traveling”, “stationary”, or “incidental” checklists. This protocol tool allows all data that is submitted on the same day to be combined into species totals within IBA boundaries. This assumes observers are not double counting birds. This is managed by dividing the IBA into distinct count zones (see map below, or [map of the IBA](#)) and communicating between observers about moving flocks of birds.



Map of Fraser Estuary IBA and count regions. Purple areas are omitted from the count.

RESULTS

During the 2021 count, **132 species** and **more than 180,000 individuals** were detected in total, highlighting the impressive winter diversity in the Fraser River Estuary. This includes 24 duck, 11 shorebird and 8 gull species. Five species of hawks and four species of owls were detected, as well as 397 individual Bald Eagles.

In 2021, the **American Wigeon count exceeded the global IBA threshold** for the third consecutive year; **both Cackling Goose and Dunlin exceeded the Canadian IBA threshold**; and **Great Blue Heron (*fannini*) and Peregrine Falcon (Peale's) exceeded the IBA subspecies thresholds** again this year. Peregrine Falcons were not all identified to subspecies, but Peale's is the common subspecies in British Columbia, so it is likely several of the individuals were Peale's. **Snow Goose totals surpassed 50,000 individuals**, a significant number for Canadian IBAs, although this number may be an overestimation as most individuals were flying overhead during the day across different zones and across the US/Canada border.

Uncommon or rare species

detected included: one Blue-winged Teal, one Snowy Owl, and one Rusty Blackbird! It was also the first time that Greater White-fronted Goose, Ruddy Duck, Spotted Sandpiper, Common Murre, Western Gull, Common Redpoll, American Tree Sparrow and White-throated Sparrow were detected since the beginning of the count in 2018.

Snowy Owls and the threat of disturbance:

One lucky volunteer was fortunate enough to come across a stunning Snowy Owl while undertaking the survey. While Snowy Owls are known to frequent the delta this is the first year we have one included in the survey. Unfortunately we will not be able to publically report on which part of the delta it was found as owls are subject to high levels of harassment from those wishing to get an in-person look. As with grizzly bears, killer whales and other charismatic species it appears we need regulation and enforcement to keep people a respectful distance from the birds.

Notable increases compared to previous years included Brant, Northern Shoveler, Green-winged Teal, American Coot, Sanderling, Short-billed Gull, Double-crested Cormorant, all grebe species, all thrush species, and most sparrow species. **Notable lower numbers** included Northern Pintail, Dunlin, Long-billed Dowitcher, and Harlequin Ducks recorded a first null count compared to previous years. More survey years and the exploration of other data are recommended to see if those low numbers are part of a declining trend, or simply shifts in habitat use. Also **no boat counts** were done this year, which may explain some of the low counts.

Species counts surpassing the IBA thresholds and other interesting counts are presented in **Table 1** below. **An immense thank you to all the volunteers who contributed to the count!**

Table 1: Summary of the Fraser River Estuary IBA species counts.

Species Name	Latin Name	2021 Count	Thresholds for IBA Status			2019 Count
			Global	Regional	COSEWIC sub-spec.	
Species counts for species that exceeded IBA thresholds						
Snow Goose	<i>Anser caerulescens</i>	54,056	75,600	75,600		48,018
Cackling Goose	<i>Branta hutchinsii</i>	2,810	11,600	2,100		330
American Wigeon	<i>Mareca americana</i>	27,932	22,300	22,300		33,900
Dunlin	<i>Calidris alpina</i>	23,342	55,500	15,300		48,255
Great Blue Heron	<i>Ardea herodias</i>	275	1,200	1,200	45 (fannini)	245
Peregrine Falcon	<i>Falco peregrinus</i>	19	12,000	3,000	2 (Peale's)	19
Count totals of note that did not pass any IBA thresholds						
Brant	<i>Branta bernicla</i>	1,025	5,637	3,517		213
Trumpeter Swan	<i>Cygnus buccinator</i>	217	340	340		33
Tundra Swan	<i>Cygnus columbianus</i>	3	3,000	1,900		0
Mallard	<i>Anas platyrhynchos</i>	18,913	190,000	93,700		13,649
Green-winged Teal	<i>Anas crecca</i>	10,461	64,325	21,700		2,232
Black-bellied Plover	<i>Pluvialis squatarola</i>	1,926	6,920	2,000		1,243
Iceland Gull	<i>Larus glaucoides</i>	19	1,950	1,000		39
Short-billed Gull	<i>Larus brachyrhynchus</i>	1,573	31,000	3,000		572
Northern Harrier	<i>Circus hudsonius</i>	105	13,000	4,000		90
Sharp-shinned Hawk	<i>Accipiter striatus</i>	5	11,000	11,000		1
Cooper's Hawk	<i>Accipiter cooperii</i>	19	5,700	5,700		10
Bald Eagle	<i>Haliaeetus leucocephalus</i>	397	3,300	3,300		345
Red-tailed Hawk	<i>Buteo jamaicensis</i>	83	22,000	22,000		100
Rough-legged Hawk	<i>Buteo lagopus</i>	14	5,500	3,000		11
Barn Owl	<i>Tyto alba</i>	2	50,000	3,000		4
Short-eared Owl	<i>Asio flammeus</i>	5	20,000	7,000		12
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	1	20,000	20,000	19	1
Snowy Owl	<i>Bubo scandiacus</i>	1	3,000	1,400		0
American Kestrel	<i>Falco sparverius</i>	9	58,000	58,000		4
Merlin	<i>Falco columbarius</i>	10	5,500	5,500		2
Northern Shrike	<i>Lanius borealis</i>	12	10,000	2,000		3

NEXT STEPS

The high wintering diversity and abundance of birds demonstrates the importance of this IBA during the winter months, especially in comparison with other IBAs in Canada. However, despite the wealth of biodiversity in the Fraser River Estuary, a **large number of development and land use projects** are proposed and ongoing **within the IBA**. This **reduces the amount and quality of land available to birds**. Many count participants, local naturalist and environmental groups, and the public are concerned about the future of the IBA and the birds it supports. Birds Canada is working to **raise awareness about the importance of this IBA** through counts like this, furthering conservation and management goals within the IBA through work with partners, and by committing to outreach around the importance of birds in the Fraser River Estuary.

You can help protect the Fraser River Estuary IBA by sending the Minister of Environment [an email expressing concern about the proposed Roberts Bank Terminal 2 project on the delta](#).

More generally, anyone living near an Important Bird and Biodiversity Area can help monitor their local IBA. Find one near you by exploring [this map](#)! Counting and reporting birds through [eBird Canada](#) or other [Citizen Science projects](#) helps inform decisions that impact IBAs. Learn more about how you can [get involved at IBAs](#).



The Fraser River provides essential habitat for countless wintering and migrating waterbirds.

Photo: David Bradley.