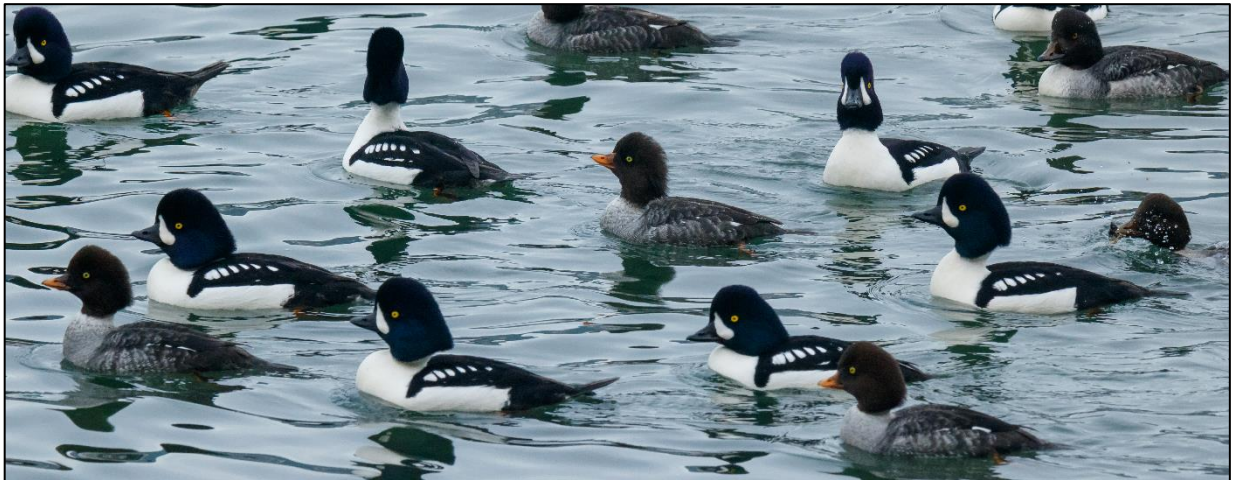




Winter Waterbird Survey 2019

On Sunday, November 24, 2019, Stanley Park Ecology Society (SPES) staff and volunteers conducted the tenth annual Winter Waterbird Survey. The purpose of the survey is to count all the birds that use the seashore along the Stanley Park seawall as part of our long-term monitoring efforts in Stanley Park.



Barrow's Goldeneyes off the Seawall in Stanley Park. Photo: Frank Lin

Important Bird Area (IBA): English Bay - Burrard Inlet

Stanley Park's shoreline is part of the English Bay - Burrard Inlet Important Bird Area (IBA) of Canada because of the high concentration of wintering waterbirds that use this area. As a co-caretaker for this IBA, SPES works in partnership with Bird Studies Canada to provide monitoring for the IBA by conducting annual winter bird surveys along the seawall, posting informative signage, and raising awareness of the threats these birds are facing in the local community.

Over the past few decades, local naturalists and bird watchers have been seeing declines in many species of wintering waterbirds that use the Park's marine habitat. These declines indicate that threats to the ecological integrity of this IBA such as habitat loss, overfishing, pollution and increased tanker traffic, are negatively impacting birds and highlight the need for increased bird conservation in the area. Collecting census information is vital in tracking the populations of bird species that depend on this IBA.

Bird Census Methods

Surveys are conducted by SPES staff and volunteers who walk the length of the seawall and count all birds seen between the wall and 500 m offshore. The survey area is stratified into four zones to compare the habitat use of different bird groups.

Surveys are repeated at the same time each year following the same methodology so that results can be compared over time. In this significant wintering site, the primary species observed are those that rely on the intertidal areas of this IBA for food and shelter during the winter months, including Barrow's Goldeneye and Surf Scoter.

Large flocks of surf scoter are only present early in the winter and in late spring but smaller flocks will persist throughout the season. Secondary species, such as Bufflehead, Black Oystercatcher and Horned Grebe, are fewer in number throughout the season. Other species counted include resident birds that take advantage of the intertidal resource throughout the year such as Bald Eagle, Song Sparrow, and Northwestern Crow.



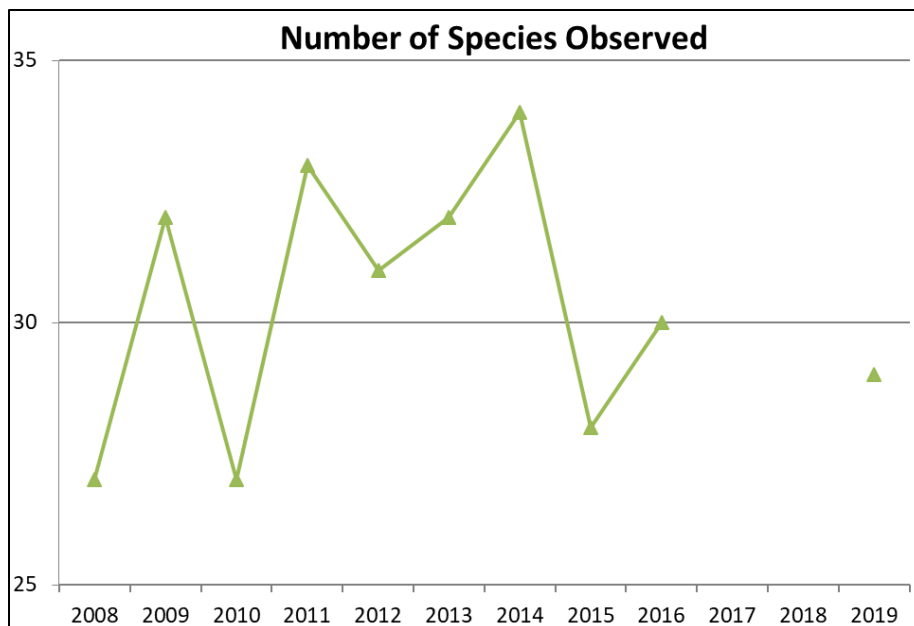
Pelagic Cormorants on Siwash Rock.

Photo: Liron Gertsman

Bird Census Results

The total number of species of birds observed this year was slightly lower than average at 29 (see Figure 1). For a complete list of birds observed see Appendix 1. The total number of birds counted in 2019 was the lowest since 2011 (see Figure 2). In the 2009/10 season, huge flocks of Surf Scoter were present in the Park in early November.

Figure 1: Total number of bird species observed along the Stanley Park foreshore during winter surveys in 2008-2019) excluding 2017 and 2018, when no surveys were done by SPES).





SPES volunteer bird survey crews. Photo: Frank Lin

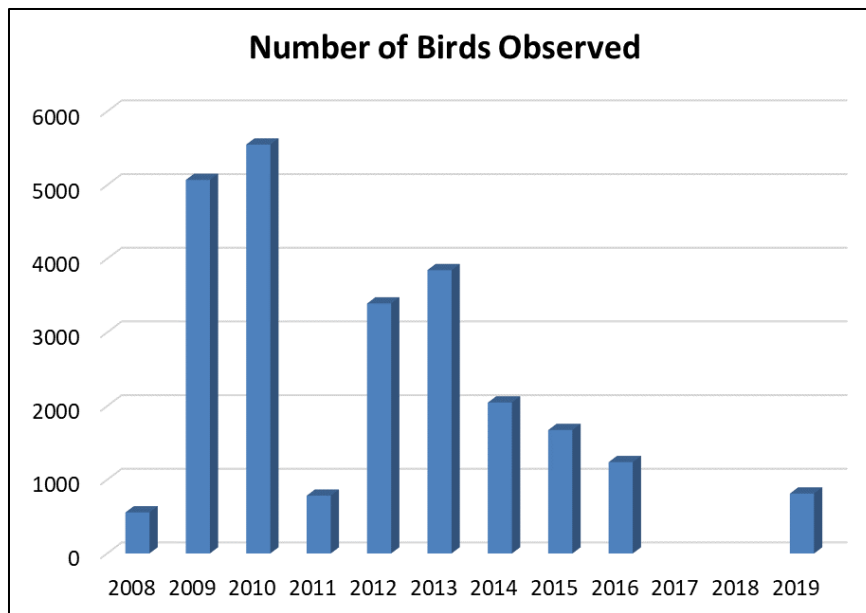
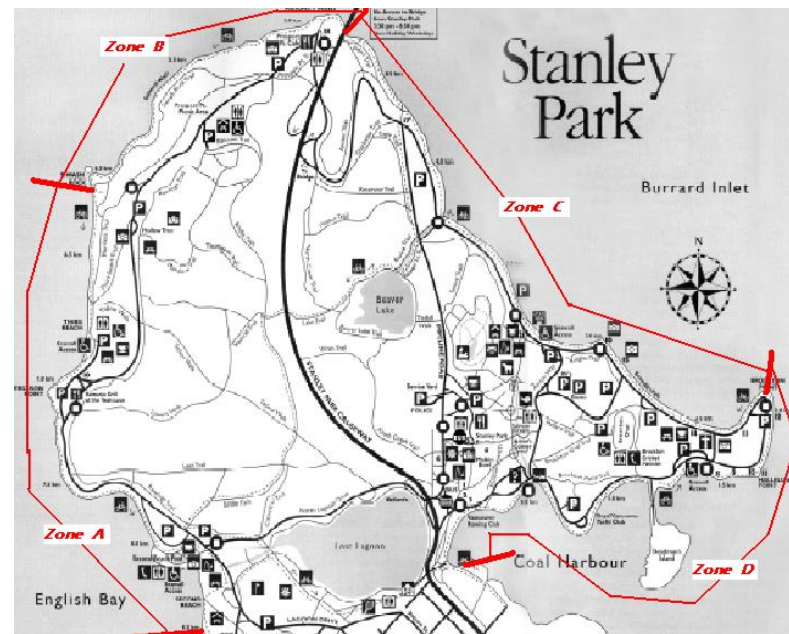


Figure 2: Total number of individual birds observed along the Stanley Park foreshore during winter surveys in 2008-2019 (excluding 2017 and 2018, when no surveys were done by SPES).

To better understand the distribution of the different groups of bird species, Stanley Park's shoreline is divided into four zones (see Figure 3). This year, Zone A on the west side of the Park again had the highest concentrations of sea ducks, mainly Barrow's Goldeneye and Bufflehead, and the greatest diversity of species (see Figure 4), though diversity was quite even across zones this year. This area also has an abundance of their primary food source, the blue mussel (*Mytilus edulis*).

Figure 3: Stanley Park Winter Waterbird Survey zones



Zone C also had a quite high number of sea ducks once again because of the large numbers of Barrow's Goldeneye and Bufflehead. This zone had the highest proportion of gulls due to a congregation of Mew Gulls offshore.

Zone D is typically where dabbling ducks are observed, and this was the case again this year. This zone's habitat is a mix of sandy beaches, mud flats and rocky intertidal areas, but it is also one of the areas of the seashore most highly used by people and boats.

Loons and grebes were found predominantly in zone A and B, and gulls were found in high numbers in all zones. As usual, cormorants were found throughout all zones, but were mostly concentrated around their roosting sites under the Lions Gate Bridge, on the Prospect Point cliffs in zones B and C. Two Brandt's Cormorants were seen, one in zone A, the other in zone D. This is the first time this red-listed species has been recorded during a Winter Waterbird Survey.

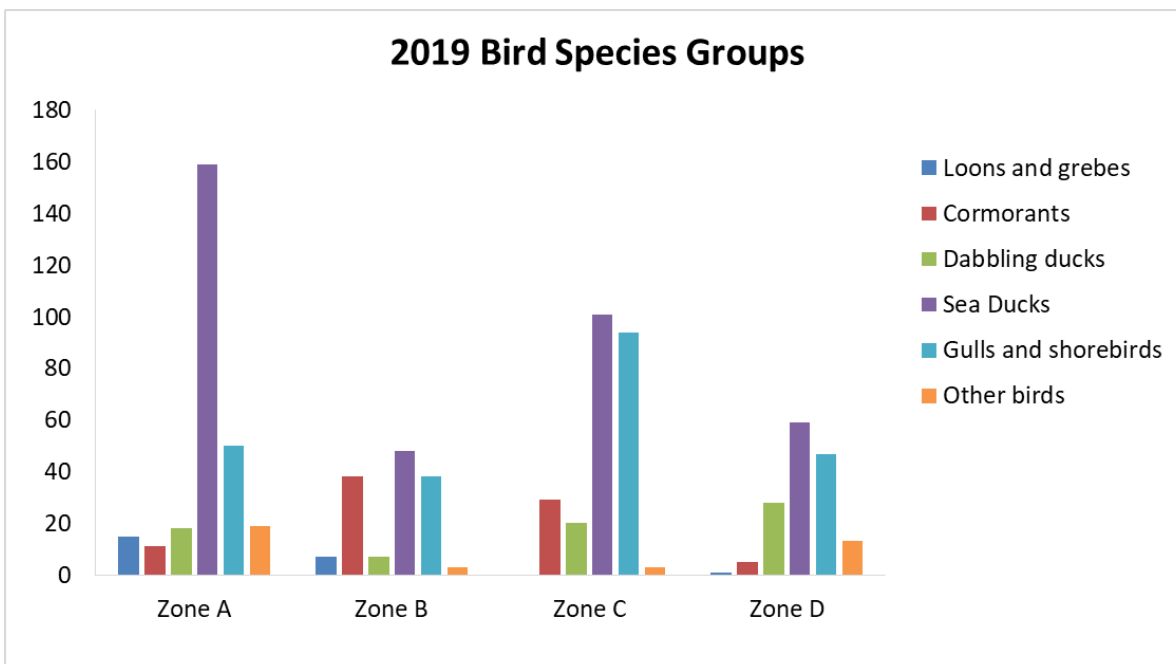


Figure 4: Wintering bird species groups across zones observed along the Stanley Park foreshore on November 24, 2019.

Bird Census Discussion

The data from this survey only shows short-term trends in the abundance of bird species wintering along Stanley Park's seawall over the last ten years and only represents a small snapshot in time each winter. It does reveal that there is a fairly consistent number of species at that time each year, but that the abundance of birds varies greatly depending on the presence and size of Surf Scoter and Barrow's Goldeneye flocks. The survey has also shown a

consistent trend over the past years that sea ducks mainly use the west side of the park while dabblers are more concentrated in Coal Harbour.

A study based on long-term winter waterbird data collected by BCIT students around the Stanley Park seawall from the years 2001/2002 to 2010/2011 shows trends in bird species and abundance specifically around the park over one decade. This research confirms declines in certain species had taken place, most dramatically in loons, grebes (including Western Grebes), and Pigeon Guillemots (Worcester, 2013). This is consistent with longer-term studies conducted by Birds Canada (Crewe et. al, 2012) which show declines in many species of wintering waterbirds in the Strait of Georgia.

Bird conservation in the English Bay – Burrard Inlet IBA is of growing concern, and the conservation of the birds' existing habitat as well as a reduction of human disturbance are needed for their protection. SPES is committed to providing ongoing public education, monitoring and stewardship of the areas around Stanley Park, but all local shorelines need attention. Please spread the word about the importance of the IBA in your community.



Horned Grebes. Photo: Frank Lin

References:

Crewe, T., K. Barry, P. Davidson and D. Lepage. 2012. [Coastal waterbird population trends in the Strait of Georgia 1999-2011: Results from the first 12 years of the British Columbia Coastal Waterbird Survey.](#) *British Columbia Birds* 22:8-35.

Worcester, R. 2013. *Changes in the abundance of wintering waterbirds along the shoreline of Stanley Park, Vancouver, British Columbia, between 2001/2002 and 2010/2011.* *British Columbia Birds* 23:41-44.

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Appendix 1

Annual Winter Waterbird Survey

November 24th, 2019

Total: 813 birds of 29 species

Species	Number Seen	Species	Number Seen
Horned Grebe	18	Common Merganser	6
Western Grebe	1	Red-breasted Merganser	7
Red-throated Loon	4	Glaucous-winged gull	104
Brandt's Cormorant	2	Glaucous-winged gull hybrid	7
Double-crested Cormorant	19	Mew Gull	113
Pelagic Cormorant	62	Ring-billed Gull	1
American Wigeon	62	Gull sp.	4
Mallard	11	Great Blue Heron	2
unidentified Scaup sp.	1	Bald eagle	5
Barrow's Goldeneye	152	Peregrine Falcon	1
Common Goldeneye	33	Common Raven	1
unidentified Goldeneye sp.	11	Northwestern Crow	18
Bufflehead	134	Dark-eyed Junco	6
Harlequin Duck	1	Song sparrow	5
Surf Scoter	22		



Western Grebe. Photo: Frank Lin