STANLEY PARK ECOLOGY SOCIETY

Wildlife that Breed in Stanley Park: Highlights of the 2022 Season

Numerous species of wildlife live on and travel through the lands of the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish), and səlilwətaɬ (Tsleil-Waututh) Nations, upon which the peninsula of Stanley Park lies.

Heron with two chicks, Frank Lin

As an urban park with a mosaic of ecosystems (*e.g*. forests, wetlands, freshwater, intertidal), Stanley Park is a hotspot of biodiversity at the edge of the otherwise dense urban center of Vancouver. The abundance of resources available during the late spring and summer months attracts many wildlife species to nest and raise young in Stanley Park.

Many aspects of the land and waters of what we now know as Stanley Park have been altered throughout time from the onset of colonization, all which have contributed to influencing local wildlife populations. Indigenous families that had lived here and stewarded the land for thousands of years were displaced and unjustly removed. The Park also experienced selective logging from 1860 to 1880, and the peninsula was made a military reserve in 1863. The Park experienced historic windstorm damage in 2006, and is affected by long-term environmental stressors such as the introduction of invasive species, anthropogenic impacts due to nearby development, and climate change. It is important to continue to observe, study, and document changes in wildlife populations within the Park in order to understand the impact that historic and current stressors have on species that call Stanley Park home. This will in turn inform how to proceed with conservation efforts.

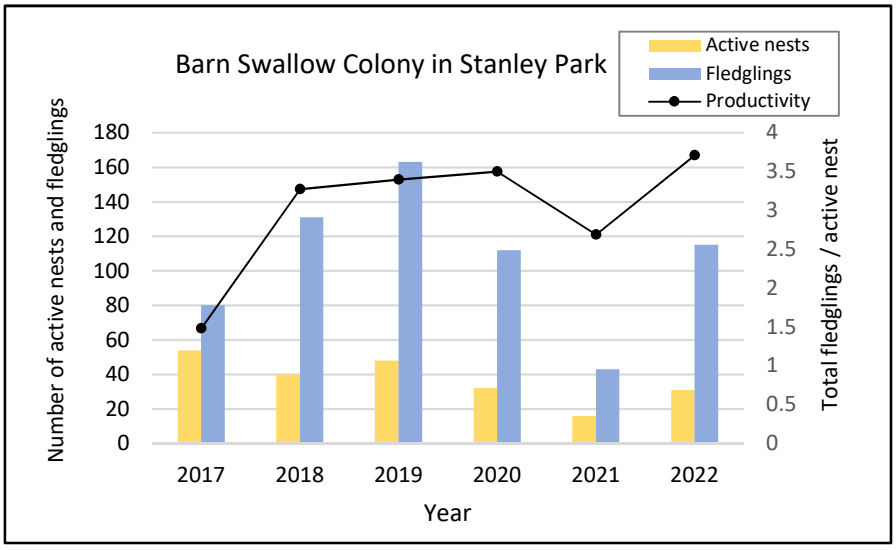
Juvenile Bald Eagles, Martin Passchier

As of the end of 2021, the Stanley Park Ecology Society's (SPES) Lifelist had confirmed records (observed as of 2010) for 882 different species of fauna (vertebrates and invertebrates) in Stanley Park. With the help of dedicated volunteers, SPES conducts seasonal surveys to monitor several of these wildlife species within the Park. All of SPES' surveys of wildlife serve as bio-indicators for the State of the Park's Ecological Integrity (SOPEI).

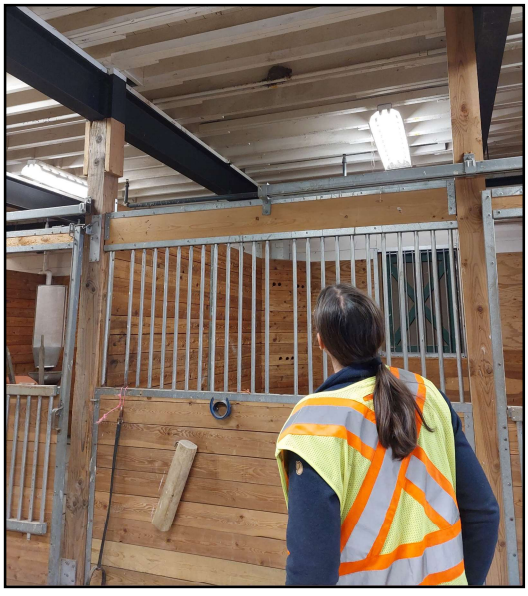
115 Barn Swallows chicks observed in 2022, recovering from last year's count

A colony of Barn Swallows (*Hirundo rustica*) returns to Stanley Park every spring to the Royal Canadian Mounted Police (RCMP) horse barn and Vancouver Parks Board (VPB) service yard. They migrate in large flocks in the spring from their over-wintering habitat in Central and South America. Barn Swallows build mud cup style nests, and a colony will mostly use the same nests from year to year with some repairs. However up to a few new nests have been observed being built per year at this colony.

This year **115 chicks were observed over 33 active nests**, a bounce-back from 2021 which saw the lowest numbers since the beginning of monitoring efforts (43 chicks observed hatched over 16 active nests).



Barn Swallows are part of a taxonomic grouping of birds called "aerial insectivores", referring to their method of catching and eating insect prey almost exclusively while in flight. Aerial insectivore populations in Canada have seen a roughly 60% decline since 1970, and as a result are classified as Threatened under the federal Species at Risk Act. These declines are attributed to loss of nesting and foraging habitat, population declines in aerial insect populations, pesticide use, and climate change.



Volunteer observing swallow nest, Marisa Bischoff

Barn Swallow chicks, Erika Hyde

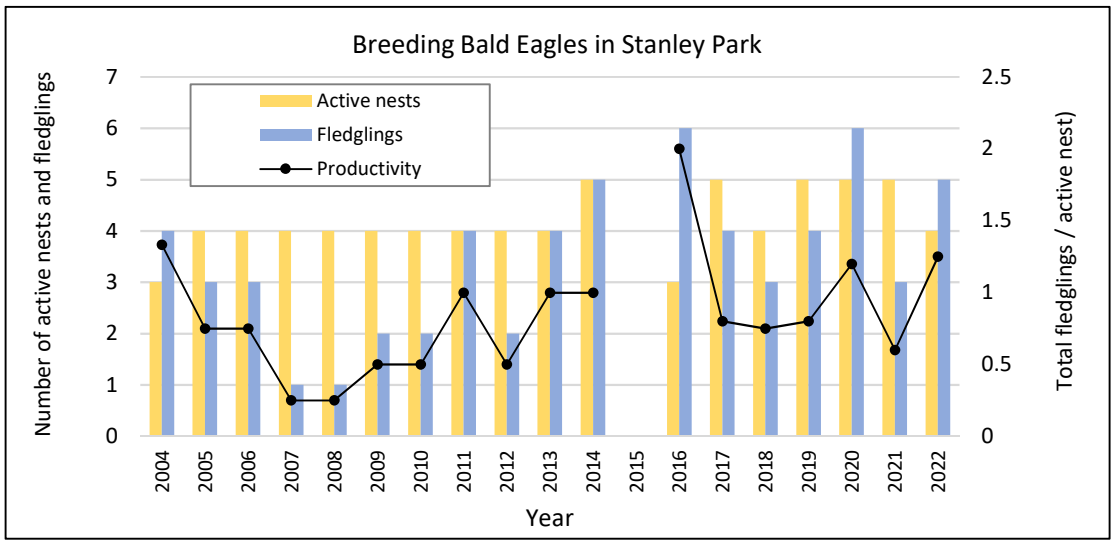
Five Bald Eagle Chicks in 2022

Bald Eagle (*Haliaeetus leucocephalus*) pairs separate during migration, then re-unite for the breeding season, forming the same breeding pair year after year. Mating can start as early as October upon returning from the north. An Eagle's diet consists mostly of fish, but also carrion, mammals, gulls, waterfowl, and garbage.

Although this summer saw a dramatic decline in the success of chicks in nests monitored around the rest of the Lower Mainland, the Eagle fledglings in Stanley Park were relatively successful.

Claudia Kowalski

This year, out of the five nests that were being monitored in Stanley Park, four nests were active, of which three produced successful offspring**. In total, five eaglets were observed to have fledged over three nests**.



Juvenile Bald Eagle, Arwen Wieser

Juvenile Bald Eagles at their nest, Marisa Bischoff

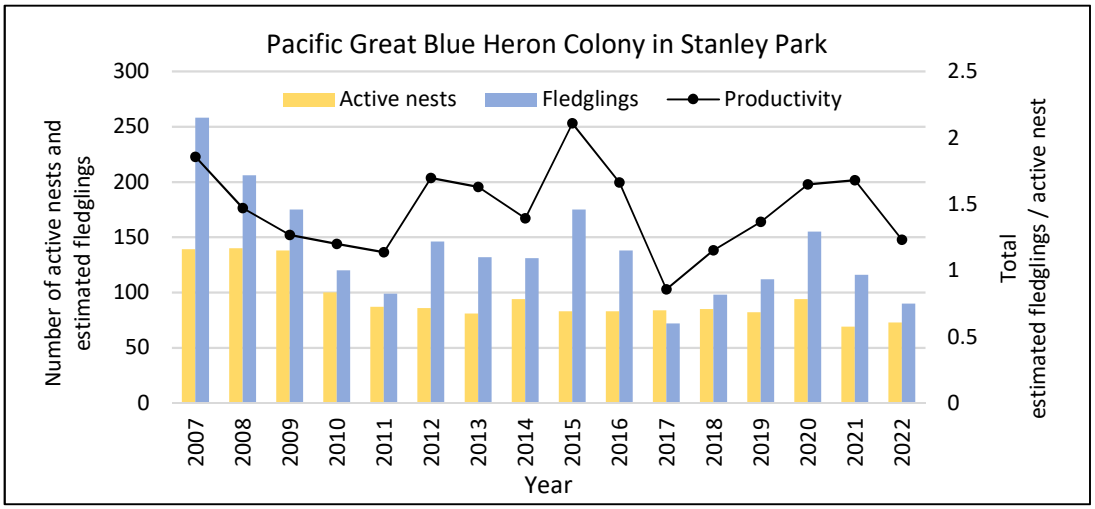
73 Pacific Great Blue Heron nests and 90 estimated chicks in 2022


Frank Lin

The Pacific subspecies of Great Blue Heron (*Ardea herodias fannini*) is designated as blue-listed provincially (*i.e.:* of special concern), with almost 80% of BC's population found in and around the Fraser River Delta.

The Heron colony (heronry) is a popular attraction in Stanley Park, both in person and via the City of Vancouver's Heron Cam, which captures many exciting moments of courtship, mating, nest building, incubation, caring for chicks, and fledging behaviours.

In 2022 SPES observed **73 active nests and an estimated 90 fledglings**, which is lower than the estimated total of 116 fledglings in 2021. A total of 90 nests were counted in 2022, the same amount as in 2021. Both the productivity (average number of fledglings per nest) and nest success were lower this year than the historical average.



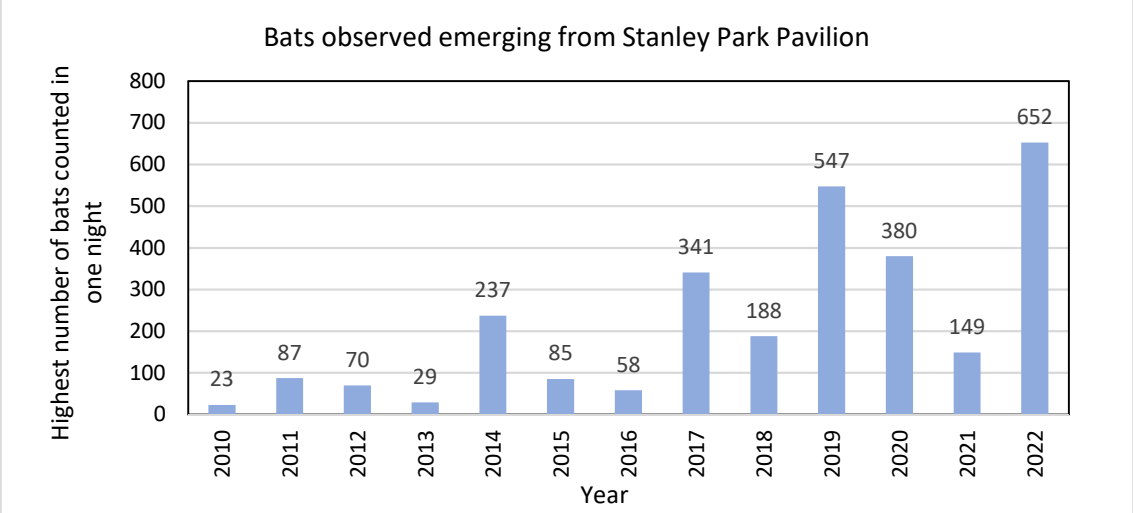

Frank Lin


Frank Lin

Highest count of Bats since beginning of monitoring efforts

There are at least five species of bats that utilize habitat within Stanley Park during the late spring and summer months, including Yuma myotis (*Myotis yumanensis)*, California myotis (*Myotis californicus*), Little Brown myotis (*Myotis lucifugus*), Big Brown bats (*Eptesicus fuscus*), and Silver-haired bats (*Lasionycteris noctivagans*). Bats arrive at their summer roost site pregnant, and give birth to their young in the late spring. They form maternity roosts, where females sleep during the day and leave their young at night while they go out and forage. After emerging from their roosts, bats fly towards waterbodies and wetlands such as Beaver Lake and Lost Lagoon that attract small flying insects.

The Stanley Park Pavilion has a maternity roost, and bats emerging from the attic of the building are counted every two weeks in the summer months. This summer volunteers observed an all-time single-night count of **approximately 652 bats** on June 20th. This is a significant increase from last year's highest count which occurred on May 26, 2021 where a total of 149 bats counted. The extreme summer temperatures in 2021 may have contributed to the low counts that year.



Silver-haired Bat in Stanley Park near the Pavilion on 20 April, 2022
Frank Lin

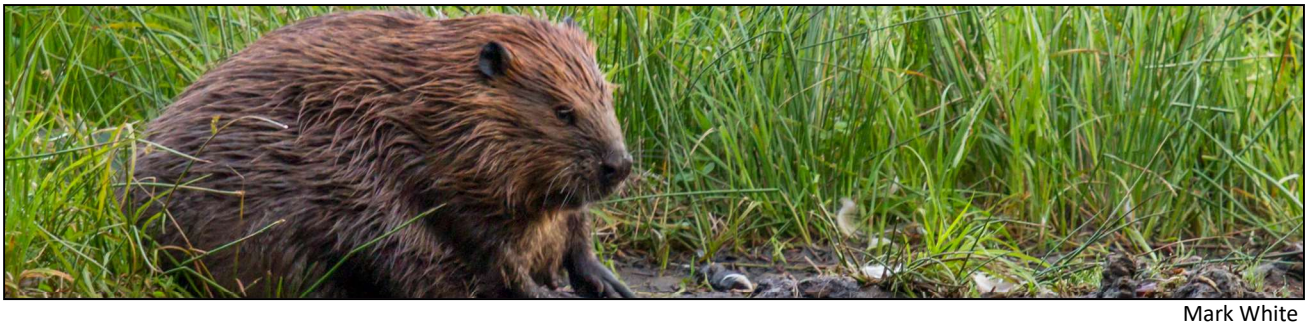
Volunteer checking a bat box for sleeping bats, CS Ling

Young Beavers seen in Lost Lagoon for the first time since 2017

Beaver munching on a pacific willow branch in Lost Lagoon, Marisa Bischoff

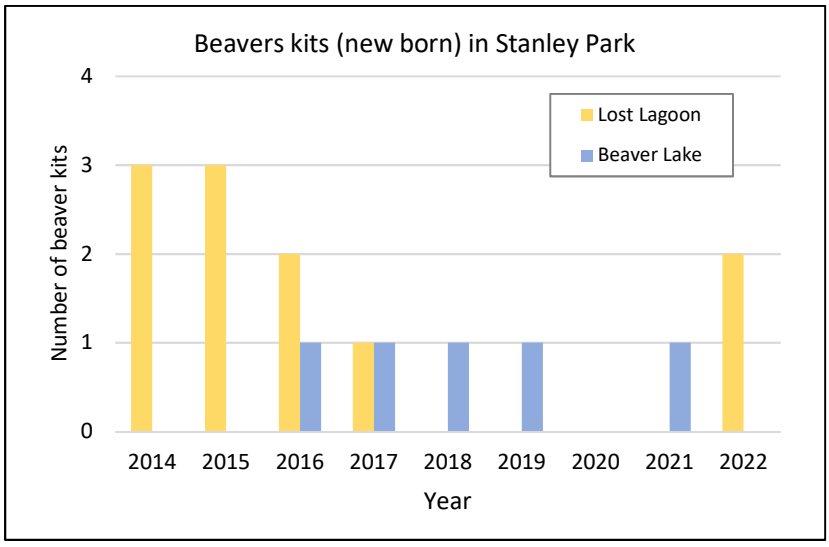
This year SPES volunteers observed an estimated **three to four beavers at Lost Lagoon and three beavers at Beaver Lake**. Due to a four year absence of Beaver kits observed in Lost Lagoon, it was theorized last year that the beaver couple in Lost Lagoon were aging and were no longer capable of rearing young. However, volunteer surveyors observed what appeared to be either one or two juvenile beavers in Lost Lagoon this summer. It is unknown whether the adult beaver couple in Lost Lagoon are the same parents from previous years, having kits for the first time in five years, or if it is a new pair that took over the territory.

Beavers mate for life and will continue to use the same territory year after year, maintaining a lodge, damming water, and having offspring. A beaver family can consist of 2 adults/parents, kits (newborns), yearlings (1 year-olds), and juveniles (2-3 year-olds). The older offspring help raise the family until they reach around 2-3 years of age when they leave to find their own territories.



Mark White

Beaver presence, Marisa Bischoff



Birds breeding in Stanley Park

Many birds make their nests, lay eggs, and raise young every year in Stanley Park. SPES tracks breeding bird presence within the park via point count surveys. Observers stay still and silent for a consistent amount of time at each station and record any birds seen or heard during the survey interval. These surveys are split over two days, completed once at the end of May and once at the end of June.

Wilson's Warbler, Frank Lin

A total of 47 species were detected during the surveys this year, shown in the table. Species that were detected in both May and June surveys are highlighted in green, indicating the high likelihood that these species are breeding in Stanley Park. This does not however exclude the possibility of other species breeding in Stanley Park. For example, it is known that Bald Eagles and Great-blue Herons breed in the Park, but were only detected in one of the two surveys, and so are not highlighted here.

Northern Flicker, Josephine Hrynkiw

Species Detected in 2022 Point Count Surveys	
American Crow	MacGillivray's Warbler
American Goldfinch	Northern Flicker
American Robin	Orange-crowned Warbler
Bald Eagle	Pacific Wren
Barred Owl	Pine Siskin
Black-capped Chickadee	Pileated Woodpecker
Black-headed Grosbeak	Pacific-slope Flycatcher
Brown Creeper	Purple Finch
Black-throated Gray Warbler	Red-breasted Nuthatch
Canada Goose	Red-breasted Sapsucker
Caspian Tern	Red-winged Blackbird
Chestnut-backed Chickadee	Song Sparrow
Cedar Waxwing	Spotted Towhee
Common Raven	Steller's Jay
Dark-eyed Junco	Swainson's Thrush
Downy Woodpecker	Townsend's Warbler
European Starling	Varied Thrush
Evening Grosbeak	Warbling Vireo
Great Blue Heron	White-crowned Sparrow
Golden-crowned Kinglet	Western Tanager
Glaucous-winged Gull	Willow Flycatcher
House Finch	Wilson's Warbler
Lincoln's Sparrow	Yellow-rumped Warbler
Mallard	

* Bird species detected in both May & June surveys highlighted in green

Thank you

These highlights represent a snapshot into a select few species of wildlife that SPES monitored during the breeding season in Stanley Park in 2022. It is important to keep in mind that conclusions regarding the status of wildlife populations within the Park cannot be drawn from a single breeding season. However, consistency in methodology over several years of data collection can still offer insight into general trends even if absolute numbers are approximated or estimated. Data collected from these long-term studies can help us to develop a deeper understanding of the Park's ability to support a variety of wildlife as our climate continues to change. These long-term data-gathering efforts help SPES and the VPB make conservation decisions and provides vital information to local researchers in their studies.

Thank you to all survey volunteers and donors for their passion and generosity!

Photos: Marisa Bischoff

If you would like more information on how to get involved, learn about the volunteer opportunities or to make a donation, please reach out to vols@stanleyparkecology.ca or visit www.stanleyparkecology.ca

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