

# Stanley Park Heronry Annual Report

## September 2017

### Overview

The 2017 Stanley Park great blue heron colony nesting season is complete. This season was marked by a noticeable increase in predation events from bald eagles which led to lower nesting success rates and total fledglings compared to recent years.



Heron with a Fish in Lost Lagoon— Photo: Greg Hart

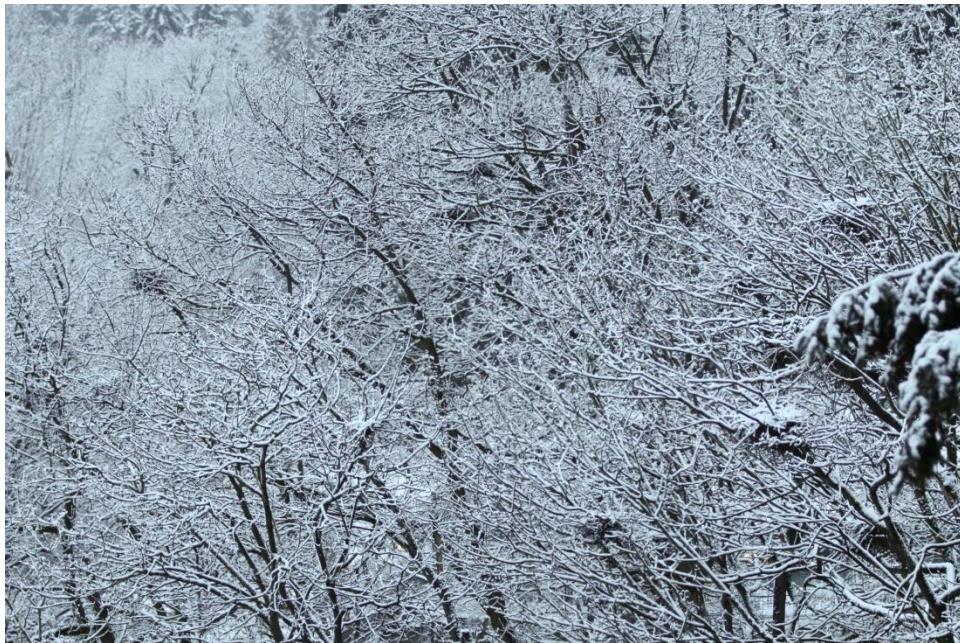
### Introduction

Continuing with last year's initiative, thanks to the Vancouver Park Board's Heron Cam, Stanley Park Ecology Society heron monitors were able to get a closer look at several nests and watch them on a more regular basis. The data collected for this year's report came from weekly Heron Cam observations, ten formal rooftop surveys, and two ground surveys.

---

A long and snowy winter persisted well into March this year causing a bit of a delay to the start of the breeding season compared to previous years. The first few adult males returned to the colony on March 2<sup>nd</sup>, but a late snowfall on March 4<sup>th</sup> and 5<sup>th</sup> caused these birds to leave. As the weather warmed and the snow melted, the herons finally returned to the nests and started roosting overnight in the colony on March 11<sup>th</sup>.

With the later start to the breeding season, the birds quickly paired up and started mating. The first eggs were spotted in the nests using the Vancouver Park Board's Heron Cam on March 27<sup>th</sup>.



March Snow on the Trees — Photo: Maria Morlin

### **Raccoons and Disturbance Surveys**

In 2010, Stanley Park Ecology Society (SPES) installed bands of new metal flashing around the base of the colony trees to protect the herons from raccoon predation. The flashing continues to be successful, as once again, we did not witness any raccoon attacks during our surveys. With support from the Vancouver Park Board, we changed out some of the old flashing, and installed new bands as needed to allow the trees to continue to grow.

Starting this year, Stanley Park Ecology Society collected data that focused on potential impact on heron behaviour of noise related disturbances. Monitors set up a stereo-

digital audio recorder to capture background noise decibel level and quality of sound. While the microphone is recording, the monitors are watching for a "flush" event, defined here as when three or more birds take off simultaneously. Combined with enough data from future years, we are aiming to learn if there is a certain quality and / or level of sound that precedes a flush event at the colony. This information could be used to create an operations timing tool to avoid maintenance work that produces sounds with the potential to cause flush events.

### Nest Surveys



**Bald Eagle in the Heron Nests — Photo: Heron Cam**

In 2017, the ground surveys counted 104 nests in the trees of the colony area. 84 of these were determined to be active nests by noting the presence of an adult heron either in the nest or nearby (within one meter). The rooftop surveys identified a sample of 50 nests to monitor for the season. These nests were chosen because they were most likely to be visible from the roof all season, even after leaves filled out in the canopy. The nest productivity and fledgling numbers from these 50 nests is assumed to be indicative of the entire colony and the 2017 numbers are based on this data.

It is worth noting that ground surveys revealed successful active nests in each of trees X, Y, and Z. However, these trees cannot be observed from the rooftop and were not included in our sample. There is definitely a sampling bias regarding our sample nests

chosen. The nests chosen were not random, they were selected because we could view and gather data on from the nearby rooftop. There is a real possibility that these nests that are located in our view are also the nests that are the most accessible for eagle predation. This would negatively skew the results of nesting success and productivity.

Rooftop surveys were conducted on: March 16, March 28, April 11, April 24, May 9, May 30, June 13, June 27, July 11, and July 25. To determine the number of successful fledglings, we used the number of heron chicks visible in our sample from the July 11<sup>th</sup> count. This is the last data point before the chicks started to fledge. The birds were quite large and developed at this time and this is when eagle attacks dropped off. While it is impossible to know for certain if all of the 43 chicks counted on July 11<sup>th</sup> lived to fledge, it is the best data point available for these calculations.

## Results

The percent of successful nests (defined as a nest that raises a chick to the fledgling stage) was lower than previous years. In our sample, 52% (26 of the 50) nests produced fledglings (see Figure 1). This success rate is not dissimilar to other previous years: 54% in 2009 and 57% in 2011 and 2014.

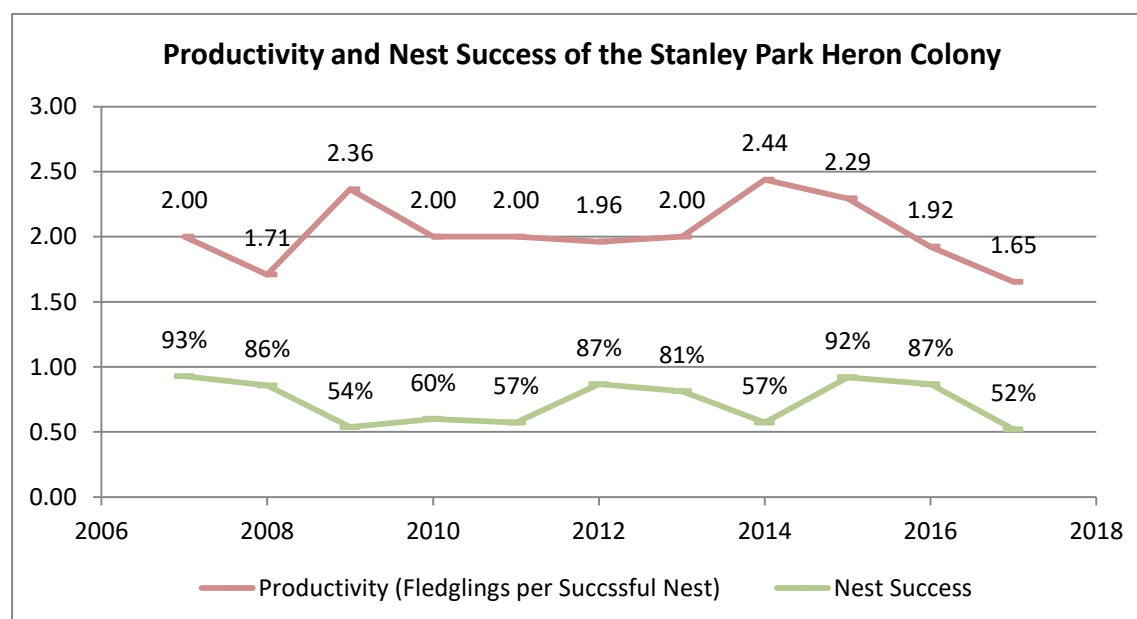


Figure 1: Productivity and nest success of the Stanley Park great blue heron colony 2007-2017.

Productivity (defined as the number of fledges per successful nest) dropped to 1.65 fledges. In our sample 26 successful nests yielded 43 fledglings (see Figure 1).

We believe that this year’s drop in productivity and nest success is due to the many documented bald eagle attacks. We witnessed eagle attacks on every rooftop survey and on many other occasions via the Heron Cam.

During the season there were a total of 104 nests in the trees. However, the number of active nests remained constant at around 84. This is lower than the most productive times for the colony, but also consistent with the observations of the last few years. Based on the monitoring data, we estimate the colony produced a total of 72 fledglings (see figure 2).

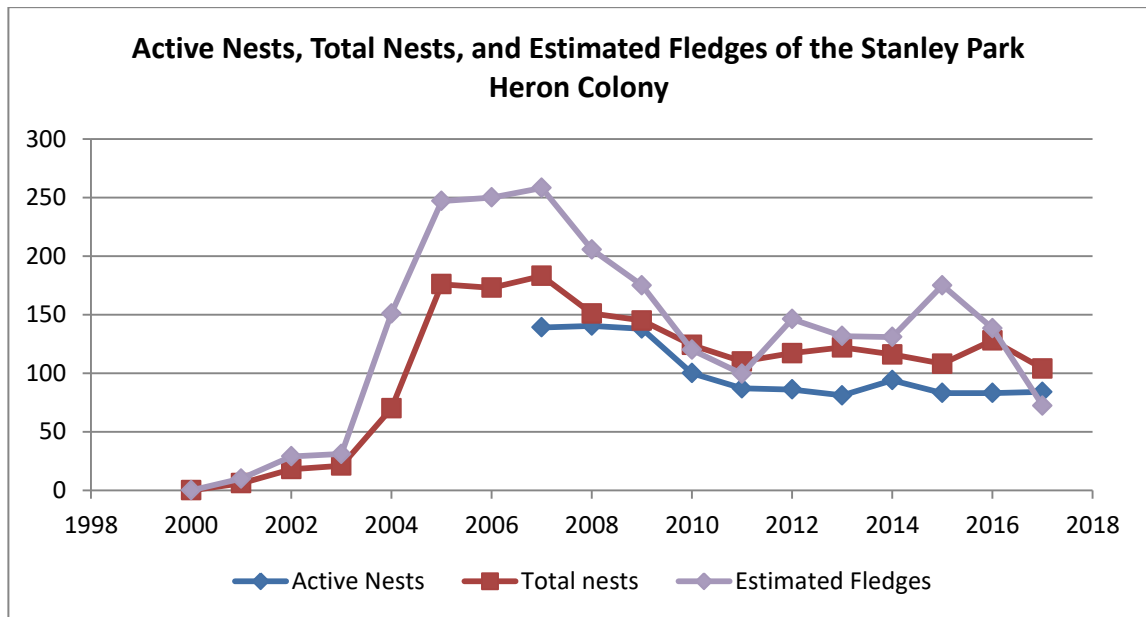


Figure 2: Totals for the Stanley Park great blue heron colony (2000-2017).

### Heron Cam

The Vancouver Park Board Heron Cam allowed the story of the herons to be broadcast to a larger audience. The web camera was active 24/7 from March until breeding season ended in late July. The web page allowed viewers to control the camera for short periods of time by scrolling through different pre-defined views, and directed them to an ‘ask an expert’ email service for answering questions about the herons.

---

We continue to receive positive feedback from the public on both the Vancouver Park Board's Heron Cam and the "ask an expert" email feature built into the webpage. The following are examples of typical responses:

"Just loving the webcam and seeing all the romance in action. Thanks so much!" – Torrie

"Wow... thanks for such a complete and extensive response!" – Jean

We have a monthly "Heron Update" newsletter that goes out throughout the breeding season. At the start of the season we had 180 people on the mailing list, and by the end of the season that number had more than doubled to 389 people.

### Thanks

We would like to thank our volunteers for their efforts in counting great blue herons throughout the year—in all kinds of weather. Without their help, the data for this report would not exist.

We would like to thank the Vancouver Park Board for their support of the great blue heron colony with the Heron Cam and website. These tools allow thousands of people to connect with nature and view these magnificent birds from all over the world.

We would like to thank all the people who adopted a heron nest for the 2017 season. These contributions go directly towards monitoring the herons and raising awareness about this species at risk.

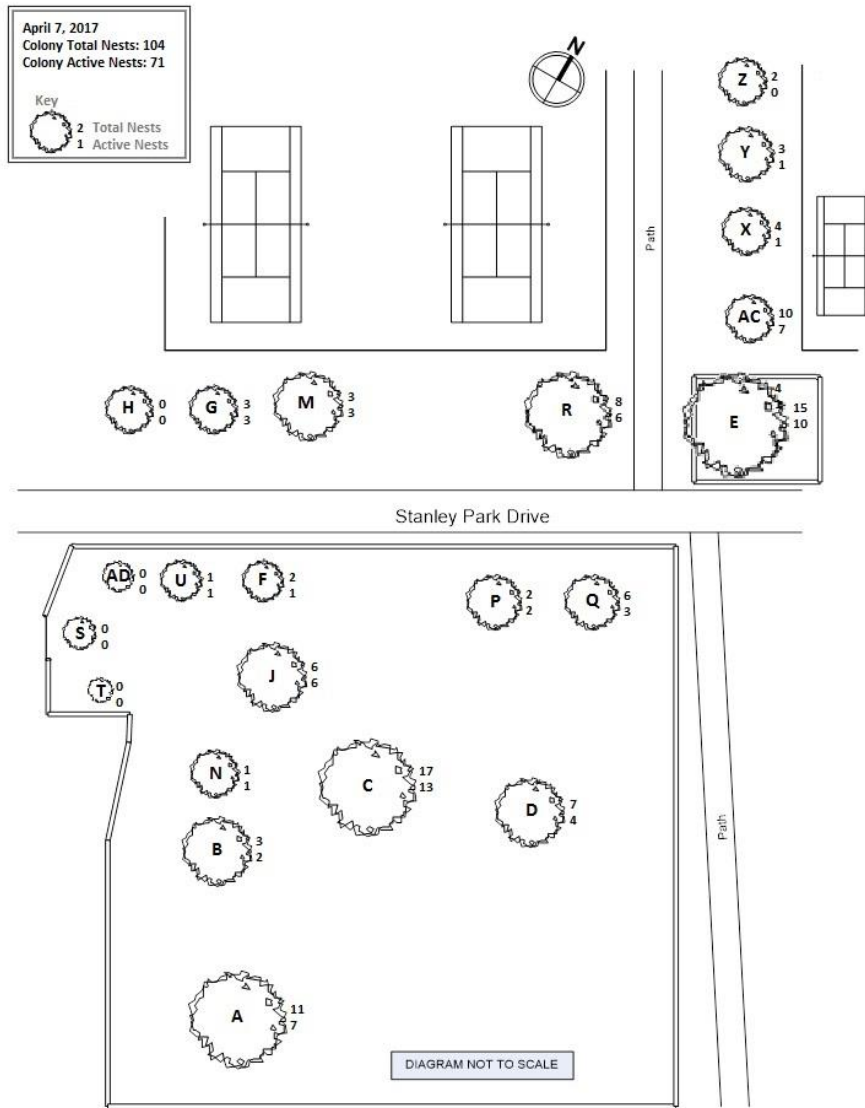
Lastly, we are grateful for everyone who comes out to the colony to enjoy these birds and everyone who reads these updates. We wish the herons well, and await their return in 2018!

Written by: Greg Hart (SPES Urban Wildlife Programs Coordinator)

Edited by: Kathleen Stormont (SPES Fundraising and Communications Specialist)

More information: [www.stanleyparkecology.ca](http://www.stanleyparkecology.ca)

Contact: [nests@stanleyparkecology.ca](mailto:nests@stanleyparkecology.ca) or 604-689-2473



Heron Colony Nest Map as Recorded on April 7, 2017