



STANLEY PARK ECOLOGY SOCIETY

Annual Report 2019 - 2020
Adapting to Change

Stanley Park Ecology Society



MISSION

Stanley Park Ecology Society promotes awareness of and respect for the natural world through collaborative leadership in environmental education, research, and conservation in Stanley Park.

VISION

Stanley Park is a model representing harmony between nature and people, inspiring and empowering communities to make choices that sustain healthy ecosystems.

We gratefully acknowledge that the land on which we gather and help steward is the unceded and traditional territories of the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish) Nation, and Səlílwataʔ/Selilwitulh (Tseil-Waututh) Nation. Since time immemorial, Coast Salish peoples have lived reciprocally with the land, harvesting and cultivating foods and medicines and practicing ceremony. The abundance of these lands and waters, which enables us to live, work, and play here today, is a result of the past and on-going stewardship and advocacy of the Coast Salish peoples.

Cover page: An ochre star (*Pisaster ochraceus*) at low tide (Photo: Justine Kaseman)

This page: Conservation Technician Meghan Cooling conducts an intertidal survey near Slhxi7lsh/Siwash Rock (Photo: Justine Kaseman/SPES)

Adapting to Change



Bat boxes at Beaver Lake await the spring arrival of female little brown bats (*Myotis lucifugus*) and Yuma myotis bats (*Myotis yumanensis*). Bats are extremely vulnerable to temperature changes, so placing multiple boxes facing in different directions on the same tree or pole allows the female bats and their young to choose a shelter that is not too hot and not too cold. (Photo: Meghan Cooling/SPES)

This past year has seen monumental change for all of us - from our changing environment to the changing ways in which we interact due to COVID-19. Stanley Park Ecology Society (SPES) has had a year of adaptation, identifying opportunities throughout the challenges.

When COVID-19 hit Vancouver this spring, SPES cancelled nearly all our educational programming and habitat restoration work during our regularly busiest season. We were uncertain how big of a revenue loss we should expect, what capacity of staffing could be sustainable and what SPES programs could look like in the weeks, months, and year to come. We had to reevaluate every program from the ground up. Flexibility and adaptation have been our strength to move through these times as a collective of dedicated staff and volunteers. Every program was evaluated for new practices, and in some cases, required a complete shift in operations to be able to return. We are proud to present these successful adaptations in this report.

Change is a constant in nature and in the Park. Every natural space in Stanley Park is continually impacted by natural and human forces, and our Conservation team studies what this environmental change may mean for the ecological integrity of Stanley Park. They have developed robust monitoring practices and collected wildlife data throughout Stanley Park. This year, our Conservation Department compiled the past 10 years of data collection into one comprehensive snap-shot of the trends and health of our natural areas. We will be sharing the results of this monumental work in the "State of the Park Report on the Ecological Integrity of Stanley Park 2020" at our upcoming AGM.

By the end of this past fiscal year, we were successfully running education programs online and opening up select in-person programs, implementing creative strategies for a full summer season, and securing grant support to help mitigate the early impacts of the pandemic. This year will highlight an adapted SPES, one that has become resilient to the changes around us, and has found creative new directions for how we can collaboratively lead in the environmental education, research, and conservation of Stanley Park. Thank you for supporting us through this journey.

Dylan Rawlyk
Executive Director



1st Northern Pacific Tree Frog chorus recorded at Beaver Lake since surveys began in 2015



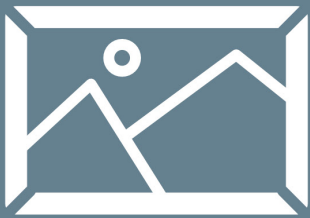
12 new bat boxes installed around Beaver Lake and South Creek Trail



121 children participated in eight week-long summer day camps



1739 native plants planted in restoration sites



1 new Nature House display co-created with Langara Design class



2.84 hectares of Park habitat restored



44 heron nest adopters supported **15** Great Blue Heron surveys



42 songbird species recorded during breeding bird surveys



20 Tree and Violet-green swallow chicks hatched in nest boxes on Lost Lagoon



9290 volunteer hours donated by **574** volunteers



3649 interactions between EcoRanger interpreters and Park visitors



997 coyote sightings reported to the Co-existing with Coyotes program

YOUR IMPACT

CONSERVATION: Evidence-based action

Survey Firsts

This year SPES added new wildlife surveys to its roster of bird, amphibian, bat, beaver and stream invertebrate surveys:

- In collaboration with the Entomological Society of BC we held our first **Insect BioBlitz** at Beaver Lake on July 21, 2019. Experts and volunteers identified 83 insect species of which 18 were exotic. Four native species had not been identified before in Stanley Park!
- SPES assumed the Caretaker role in November 2019 for an “Important Bird and Biodiversity Area” (IBA) stretching along the seawall from Brockton Point to Lions Gate Bridge (SPES monitors another IBA section between Ferguson Point and Siwash Rock). Our monthly **Coastal Waterbird Surveys** in these IBAs recorded 30 waterbird species among 1,909 individual birds. SPES submits this data to the Birds Canada IBA Program, a science-based initiative to identify, conserve, and monitor a network of sites that provide essential habitat for Canada’s bird populations.
- SPES began **Douglas squirrel** (*Tamiasciurus douglasii*) surveys in Stanley Park in 2020. Native to the Pacific Northwest, this species is sensitive to urban development and tree cover fragmentation which makes it an ideal measure of the Park’s terrestrial ecological integrity. SPES records the calls of the squirrels in both forested and disturbed areas to determine the squirrel population density in each.

Nest Bests

April 2019 to August 2019 marked the most successful breeding season yet for the **Tree Swallows** (*Tachycineta bicolor*) and **Violet-green Swallows** (*Tachycineta thalassina*) arriving from Central America and Mexico to nest on Lost Lagoon. Swallow nest boxes, installed every spring on the lake since 2009, allow us to study these birds’ reproductive cycle and their population numbers, which have declined precipitously in the past 30 years. Volunteers monitoring the nests noted that 87% of the boxes were inhabited, producing 20 chicks. This is good news in the face of a global reduction in swallow breeding habitat and a drastic decline in insect populations which form the bulk of the birds’ diet.



I don't have a lot of experience in identifying sea-birds, but this survey helped me to become more familiar with them. The expert knowledge of a number of advanced birders was greatly welcome!

Erica Foulkes
Volunteer
Coastal Waterbird Survey

Male Barrow's Goldeneyes (*Bucephala islandica*) show off their breeding displays by the Stanley Park seawall.
(Photo: Frank Lin)

EDUCATION: Connecting people to nature

School's Out

As we entered the 2019/2020 school year, SPES's Education Department was set to host a record-breaking number of school field trips in Stanley Park, including our newly developed winter birding program for schools. In response to the threat of the COVID-19 pandemic, SPES cancelled its spring school program season, including our fully-booked Nature Ninjas Urban Camping program in Stanley Park. In the face of this loss, our team of creative educators pivoted to develop new online and outreach programming for the following school year while successfully re-tooling the upcoming sold-out summer day camps with pandemic safety measures for in-person Park exploration and fun.

Pivot! Pivot! Pivot!

Despite our cancellation of all in-person private and public programming from mid-March to June (including the closure of the Stanley Park Nature House), the COVID-19 outbreak created unique opportunities for SPES as an organization. Our team of public educators piloted and launched online educational programming, reaching larger and new audiences within our community, across BC, and beyond to Ontario and the US. 629 people registered between April and June for our online workshops featuring topics like owls, river otters, mushrooms, and bird songs. Some of these workshops wait listed over 100 people! By June, other local organizations were approaching SPES for guidance on how to successfully pivot their programs to an online platform.

Teaching the Teachers

As teachers aim to move more of their lessons outdoors during the COVID-19 pandemic, SPES's teacher workshops are more relevant than ever. This past year, SPES educators introduced 120 teachers to a variety of ways of connecting youth to nature within the BC curriculum. In addition to hosting teachers in Stanley Park during the Provincial Professional Development Day in October 2019, SPES educators presented their Outdoor Ecological Education workshops in January and February 2020 at conferences for the Independent Schools Association of BC, the Burnaby School District, and the West Vancouver School District. With our May 2020 teacher workshops cancelled due to COVID-19 restrictions, SPES's education team took the time to develop COVID-friendly online and outreach programming for future teacher workshops.

SPES educators developed educational online workshops and safe ways of interacting with summer day campers during the COVID-19 outbreak.



(Photo: SPES)

STEWARDSHIP: Caring for wildlife and habitats

Coexisting with Coyotes


SPES's Co-existing with Coyotes (CwC) program continued this past year to share co-existence tips with over 2500 city dwellers through 13 presentations, walks, community events, and site visits. Our advice was especially relevant in spring 2020 during the COVID-19 pandemic when self-quarantining resulted in a heightened human presence in neighbourhoods during the work day resulting in more coyote sightings and encounters – and just as coyote breeding season behavior was in full swing!

The COVID-19 pandemic curtailed our delivery of CwC programs to an additional 5000 people. However, in partnership with the Canadian Wildlife Federation (CWF), SPES offered its first online coyote webinar in April 2020, as well as our first program for a national audience of 40 youth across Canada through the CWF's WILD Outside Program. Locally, SPES presented its first "Communities & Coyotes" workshop online in June 2020 in response to coyote sightings around UBC neighbourhoods.

Hanging with Herons

Throughout the Pacific Great Blue Heron (*Ardea herodias fannini*) breeding season, from February through August, SPES's Urban Wildlife Coordinator and volunteers monitor the birds' journey from egg to fledgling in the Stanley Park colony. 15 nest surveys over the 2020 season revealed 94 active nests with 155 fledglings - comparable to other years. The Park Board's live online Heron Cam provided a birds-eye view of the nests for 20,248 people (a record), while over 200 Park visitors learned about the nesting dramas unfolding above their heads at 20 EcoRanger "Heron Help Desk" interpretive stations during the summer.

SPES submits its annual heron survey data to federal biologists to contribute to regional population studies. This information also informs Park management plans to help ensure the breeding success and survival of this federally listed species of "Special Concern."

A young coyote with light brown and grey fur is standing on a gravel path. It is looking towards the camera with its ears perked up. To its right is a dense area of green foliage, and the background is a blurred green forest.

A young coyote crosses
Merilees Trail in Stanley Park.
(Photo: Andreas Kupries)

I am very aware of the great website and support that SPES provides British Columbia as it relates to coyotes. As a matter of course, the Conservation Officers use the SPES website as the 'go to' site when providing education to the public on coyote behavior and life history.

Murray J. Smith
BC Conservation Officer

PARK PROFESSIONALS: Sharing Knowledge. Building skills.

An EcoRanger volunteer scans the heron colony for news to share at SPES's on-site "Heron Help Desk."



Learning from Knowledge Keepers

The Traditional Ecological Knowledge (TEK) held by individuals of the Musqueam, Squamish, and Tsleil-Waututh Nations – combined with SPES's Western science-based conservation work – can provide a more holistic picture of Stanley Park's ecological integrity and contribute to a better understanding of how the Park's ecosystems are changing in response to natural and human impacts. In November 2019, SPES's Conservation Technician attended the "Symposium on Integrating Traditional Ecological Knowledge in Conservation" hosted by the Wild Bird Trust at Maple Wood Flats in North Vancouver, BC. Representatives from the Tsleil-Waututh community and several organizations including Birds Canada and WildResearch shared best practices and methods to integrate TEK in conservation work.

Wetland Stewards

In October 2019, SPES's Stewardship Coordinator attended The BC Wildlife Federation's "Wetlands Institute", a 7-day environmental stewardship workshop aimed at supporting wetlands conservation. SPES's understanding of wetland types and functions, wetland restoration, and wetland regulations is important for supporting wetland habitats like Stanley Park's Beaver Lake and its bog.

Targeting Invaders

Stewardship Coordinator Jeannine Johnstone, an ESRI ambassador licensed to train youth in the use of ESRI ArcGIS mapping software, led 112 TREK highschool students through a four day project of mapping invasive English ivy and holly growing along 2.8 km of trails in Stanley Park. COVID-19 restrictions, however, forced the students to leave the mapped invasives in situ for future eradication. Jeannine presented the mapping project at the ESRI Users Conference on October 22, 2019.

In the News

SPES's Conservation Department conducted 11 interviews with major news outlets (CBC, Radio Canada, CityTV, CTV News, Vancouver Sun, The Tyee, The Star, The Globe and Mail, and The Georgia Straight) to share awareness and tips about coexisting with coyotes, herons, beavers, and other wildlife in the city.

(Photo: Dannie Piezas/SPES)



Amphibian Training, Fraser Valley Conservancy, March 2020, Agassiz, BC
SPES Conservation team members (L to R: Justine Kaseman, Ariane Comeau, Meghan Cooling) acquired frog wrangling skills for conducting amphibian surveys in Stanley Park. Proper hand washing protocol was followed before handling this native Northern red-legged frog (*Rana aurora*) and Oregon spotted frog (*Rana pretiosa*).

FINANCIALS

Statement of Activities

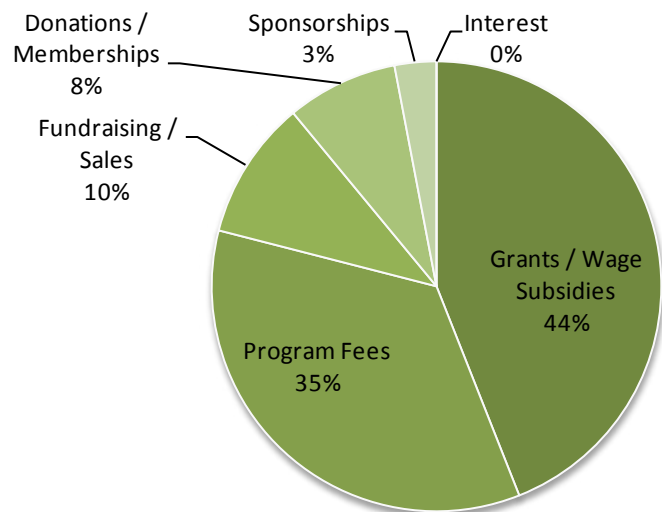
Support and Revenue	
Donations and Membership Dues	\$56,102
Fundraising, Sales & Services	\$63,870
Grants and Wage Subsidies	\$299,543
Interest	\$2,796
Program Fees	\$236,318
Sponsorship	\$20,000
Total	\$678,629
Expenses	
Administrative supplies, services, support	\$10,226
Concession Supplies and Service	\$9,241
Financial Services Charges	\$6,855
Professional fees	\$15,010
Program supplies & equipment	\$37,960
Wages and benefits	\$631,872
Total	\$711,164
Net ordinary income	\$(32,535)

The complete unaudited financial statements can be obtained through SPES for \$1 per page. The unaudited financial statements contain notes that provide additional relevant information to the financial information contained in the annual report.

Statement of Financial Position

Assets	
Cash - Unrestricted	\$166,385
Cash - Restricted	\$125,000
Accounts Receivables	\$7,136
Grants Receivable	\$60,032
Prepaid Expenses	\$3,598
Property, Plant & Equipment	\$183
Sales Tax Recoverable	\$ -
Total	\$362,334
Liabilities	
Accounts Payable & Accrued Liabilities	\$8,835
Wages Payable	\$25,557
Sales Taxes Payable	\$784
Deferred Income	\$213,266
Total	\$248,442
Net Assets	
Internally Restricted	\$125,000
Unrestricted	(\$11,291)
Invested in Property, Plant and Equipment	\$183
Total	\$113,892
Total Liabilities and Net Assets	\$362,334

Income



Expenses by Class

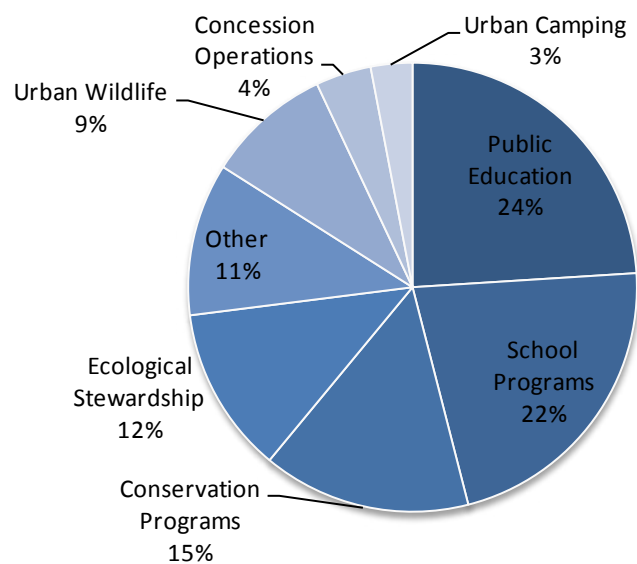


Photo: Judy Hoang

As a donor, I know my contribution goes directly to education, research, and conservation and supports the important work that the passionate staff at SPES does year round. Giving allows SPES to continue to move the needle forward in connecting people with nature.

Judy Hoang
Monthly Donor, Board Advisor

THANK YOU

We are grateful for the individuals and organizations whose generosity makes our work for Stanley Park possible.

VISIONARIES: Organizations \$75,000+



CHAMPIONS: Organizations \$30,000-\$74,999



SUSTAINERS: Organizations \$10,000-\$29,000



FRIENDS: Organizations \$1,000-\$9,999

Al Roadburg Foundation held at the Vancouver Foundation
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Individuals \$5,000+

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Emma Wiebe
Renate Wiggers
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And the 574 volunteers who collectively contributed \$139,350 in service!

Help us conduct long term conservation projects in Stanley Park. Become a monthly donor at
<http://stanleyparkecology.ca/get-involved/donor-information/donate-to-the-stanley-park-ecology-society/>

STANLEY PARK ECOLOGY SOCIETY

A Pacific forktail (*Ischnura cervula*) rests on a lily pad during SPES's Insect BioBlitz at Beaver Lake on July 21, 2019.
(Photo: Adam Blake)






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