



Northern Spotted Owl Breeding Program

www.nsobreedingprogram.com

2021 Newsletter





Northern Spotted Owl

Breeding Program

“ONE OF CANADA’S MOST ENDANGERED SPECIES”

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The NSOBP acknowledges the unceded traditional and ancestral lands of **Kwantlen First Nation** upon which the NSOBP facility resides.

RECORD BREAKING BREEDING SEASON!

The spring of 2021 at the Northern Spotted Owl Breeding Program (NSOBP) will be remembered as remarkable in many ways and marked a new chapter in this long-term project. There were many high points, including the record-breaking successful hatch of SEVEN first clutch chicks (see below) and THREE second clutch chicks that were all hand-reared and returned to nests.

“THE SUCCESS OF THESE EIGHT CHICKS SMASHES THE 2019 RECORD OF FOUR CHICKS...”

Northern Spotted Owls will lay 1-3 eggs per clutch and can successfully rear multiple chicks in the wild, but at the NSOBP we had never had to return two chicks to a single nest as we have always had a surplus of nesting females to adopt chicks. But with so many chicks and a limited number of nesting females in 2021, it was a full house in a few of the nests. Our most notable superstar pair Oregon and Skalula raised two clutches with two chicks each! As soon as her first two chicks fledged, they were removed from her aviary to be fostered by another family and then two new second clutch chicks were put into Skalula’s nest where she happily adopted and immediately began caring for these new young nestlings.



This breeding season was exciting but came with its own challenges. Unfortunately, two of the ten chicks became sick while on the nest. Despite intensive care from the NSOBP on-site team and off-site veterinary care, the chicks did not survive. By the end of the spring, a total of EIGHT Northern Spotted Owl chicks

had fledged and are currently growing more and more each day. The success of these eight chicks smashes the 2019 record of four chicks produced in a single year.

As with the circle of life, our excitement for these new chicks was dampened by the death of five adult owls, three of which were our oldest owls at the NSOBP and no longer breeding. The loss of these owls came as a shock to the team as we had never experienced this number of adult deaths before in one year. Though we were extremely concerned that a virus or disease had spread into the captive population, necropsies showed that all of these owls died from different underlying health conditions.

With the loss of older and non-breeding individuals, the addition of eight Northern Spotted Owl chicks is significant to the future of the breeding program and releasing owls into the wild. Female chicks will be paired up with genetically compatible males for the 2022 breeding season to create a more genetically diverse population, including incorporating genetics from northern California (read “Welcome Cali” article on pg. 12 for more!). Some of the other male chicks born in 2021 will be candidates for release by the provincial government into protected forests. This will come with new challenges and everyone at the

NSOBP will be focused on setting these pre-release candidates up for success as much as possible. Thank you to everyone that was involved with caring for this year’s chicks and for the continued commitment to gaining a better understanding of the Northern Spotted Owl.

OUTREACH & FUNDRAISING DURING COVID-19

The ongoing COVID-19 pandemic has continued to affect our outreach programming. We had to get creative with online content this past year to keep our supporters and the community engaged. From launching our brand new Adopt a Chick campaign (pg. 10) to our first ever online auction (pg. 13) we managed to keep busy despite the notable decrease in typical outreach events.

As a non-profit program, the Northern Spotted Owl Breeding Program (NSOBP) relies heavily on donations to support ongoing operations. Our summers are usually full of community-based outreach events where we are able to collect donations. This year we had to brainstorm new fundraising ideas, and one of our most successful has been our ongoing bottle drive!

**“AS A NON-PROFIT PROGRAM,
THE NSOBP RELIES HEAVILY ON
DONATIONS TO SUPPORT
ONGOING OPERATIONS.”**

We created an account with Return-It Express, which has made it so easy for us to collect returnable bottles and cans and receive a deposit. The bottle drive has also inspired new partnerships with Township 7 Vineyards and Winery, and Roots and Wings Distillery who are generous enough to donate their empties to us! A special thank you to our volunteers that have taken on the responsibility of picking up and dropping off bottles each week! [For more information on how to contribute to our bottle drive, visit our [website](#)].

Aside from collecting donations, outreach events are very important to us as they allow us to raise awareness for the Northern Spotted Owl. As we were unable to attend many in-person events, we developed several virtual ones to continue to engage and educate the public. Our biggest virtual outreach event was our celebration of International Owl Awareness Day back in August.

**“ASIDE FROM COLLECTING
DONATIONS, OUTREACH EVENTS
ARE VERY IMPORTANT TO US AS
THEY ALLOW US TO RAISE
AWARENESS FOR THE
NORTHERN SPOTTED OWL.”**

International Owl Awareness Day is celebrated on August 4th each year, but we thought owls deserved more than just one day! So, we teamed up with four other owl-some organizations to celebrate owls for a whole week! Each day a different organization shared a Facebook Live video to talk about their organization and how they help owls.

We want to give a shout-out to the World Bird Sanctuary (St. Louis, Missouri), Orphan Wildlife Rehabilitation (Delta, BC), Cascades Raptor Centre (Eugene, Oregon), and The Burrowing Owl Conservation Society of BC (Oliver, BC) for joining us for this event, and for all the amazing conservation work they do for owls!

If you missed out on this event don't worry, all the videos are still available on [Facebook](#)!



SINGLES



Small Eyes



Georgia



Sequoia

Donate at our
website:
[www.nsobreeding
program.com/adopt
-an-owl](http://www.nsobreedingprogram.com/adopt-an-owl)

NEW AND IMPROVED:

ADOPT-AN-OWL

Here at the Northern Spotted Owl Breeding Program (NSOBP), our long-time supporters and donors are very special to us. Thus, we are always looking for new ways to engage with our donors and provide as many perks as our limited resources allow. For this reason, we decided to revamp our Adopt-an-Owl campaign to provide further incentives to donors interested in directly contributing to the care of our owls.

“SYMBOLIC ADOPTIONS ARE \$25/MONTH AND DONATIONS CAN BE MADE AS MONTHLY OR ONE-TIME PAYMENTS.”

Members of the Adopt-an-Owl campaign choose a resident owl at the NSOBP to symbolically adopt from a list of available owls on our website (www.nsobreedingprogram.com/adopt-an-owl). Symbolic adoptions are \$25/month and donations can be made as monthly or one-time payments. By providing three levels of adoption packages, we have been able to **raise \$8,128 over the past year** in funds for the care of our owls! These donations ensure the owls are provided with the best care possible and go directly to initiatives such as aviary maintenance, veterinary care, and providing high quality food for our resident owls (read “Rodent Colony: A Behind the Scenes” on pg. 16 for more information).

“THESE DONATIONS... GO DIRECTLY TO INITIATIVES SUCH AS AVIARY MAINTENANCE, VETERINARY CARE, AND PROVIDING HIGH QUALITY FOOD FOR OUR RESIDENT OWLS.”

We would also like to extend a special thank you to the Abbotsford Community Foundation Mary Wakefield Animal Welfare Grant for contributing \$2000 to the Adopt-an-Owl Program.

Owls up for Adoption

PAIR-BONDED COUPLES



**Jay
&
Bella**



**Sedin
&
Amore**



**Oregon
&
Skalula**



**Einstein
&
Zalea**



The following donors contributed to the care of their adopted owls for at least one year:

STEPHANIE PALCICH

→ Sally

JOLENE PATRICK

→ Skalula

JOAN PACHOLKO

→ Small Eyes

LINDA SCHILLING

→ Sequoia

ASHLEY BEDARD

→ Zalea

MR. OPTIK

→ Sedin

**SARTORI
ENVIRONMENTAL INC**

→ Jay

JANICE WHITE

→ Georgia

TYLER CHINSKY

→ Skalula

AMY YOSHIMARU

→ Sedin

FIFTH ANNIVERSARY: FWCP LIVE STREAM

For the fifth year in a row, a live nest stream was hosted by one of our partners, the Fish and Wildlife Compensation Program (FWCP).

This year featured Chick B who was born in the early hours of April 16, 2021 after over one month of artificial incubation, 85 hours of hatching. Chick B is the first offspring of Jay and Bella, but after one week of hand-rearing by the NSOBP team, Chick B was returned to experienced foster parents Sedin and Amoré.

While Chick B was being hand-reared, Amoré was sitting on a “dummy” egg. This egg was left in the nest when Chick B was returned so that everyone was able to see how much the chick was growing by comparing his size to the egg. While Amoré was expecting her egg to hatch and a small, 30g chick to be in her nest, she did not seem too bothered when she was given a chick weighing almost four times that instead! She also didn't mind that the chick was not biologically hers and both parents took to Chick B without hesitation.



Nest cameras showing multiple ladies in the nest

After Chick B fledged, we were able to take a blood sample and mail it off to the lab to determine if Chick B was a boy or a girl. Everyone was eagerly awaiting the results and within the week, the results came in, Chick B was a boy! This meant that he needed a name, and after some pouring through name suggestions, the winning name was announced as “Beau”. Beau has lived up to his name and is as handsome as his mother Bella is beautiful!

“BEAU HAS LIVED UP TO HIS NAME AND IS AS HANDSOME AS HIS MOTHER BELLA IS BEAUTIFUL!”



Skalula feeding two chicks seen on her nest camera

We were so happy to be able to share some incredible images of Chick B on our live stream this year (see below). Thousands of people tuned in throughout those four weeks in the spring and were able to watch Chick B grow from a small chick that required constant care to a large fluffball that was able to fledge from the nest on May 19.

We'd like to thank the FWCP for hosting the stream. Technology changes quickly and the current cameras we have installed are beginning to their age, with only black and white images and no audio. The FWCP has generously purchased some new cameras for next year's live stream. These new cameras will have an even better image quality and have audio too! And of course, a big thank you to everyone that watched and shared the webcam for your support. We're looking forward to sharing these great new images next breeding season too!



MY INTERN EXPERIENCE by Kelly

Moving to a different province and starting my first “grown up job” during a pandemic was daunting, but getting to work with such an amazing team of senior staff and interns really helped me feel more at home. I am so grateful that I found this internship because it has given me hands on conservation experience and a whole host of new skills for my future career.

“...WATCHING FOR THE [SPOW] DEVELOPMENT MILESTONES PUT THE CHICKEN TO SHAME.”

The first few weeks of the internship were a blur. We learned so much about the differences between the subpopulations of Spotted Owls, breeding programs, egg anatomy and development, and husbandry techniques. We also got a crash course in artificial incubation with chicken eggs. We learned how to handle the eggs, why weight loss is important, what candling is, and got to see them hatch. At that point, it was the most exciting thing we had ever seen, and we couldn't wait to meet our chicken babies.



Owl Food Preparation

Once we had our basic information down, we learned how to check the owls in the mornings. It ended up being a game of hide and seek at first. I couldn't believe how good their camouflage is! Gradually we learned how to do more and more, which included owl food preparation and monitoring behaviour using the remote camera monitoring systems.

When we got into breeding season, it was nonstop and so exciting! Assisting the senior staff with pulling eggs, doing the daily egg checks and data entry, and watching for the development milestones put the chicken to shame. We were seeing endangered animals come into the world.



Chick Feed

Chick Return to Nest



Once the chicks started to hatch, we got really busy. They required constant monitoring, the eggs still needed to be checked, and the normal daily operations still needed to happen! The team here at the Northern Spotted Owl Breeding Program (NSOBP) is so passionate and hardworking, and it was inspiring to be able to work with everyone and learn from them.

“[THE INTERNSHIP] HAS MADE ME A BETTER BIOLOGIST AND A MORE CONFIDENT PERSON.”

This has been the most positive and rewarding experience of my life. Every single day I learned something and thought to myself “this job can't get any better,” and then I would show up the next day and it somehow would be. Going to work every day was such a pleasure, that I found myself a bit disappointed on my days off. I learned so much from my fellow interns and the incredible technicians here, and it has made me a better biologist and a more confident person. It has also given me insight into what I want to do in my career. I have loved every moment of my internship and I can't wait to follow along and see where the NSOBP goes!

2021 BREEDING SEASON MILESTONES

88 % Fertility

(Previous year = 76%)

Five Chicks from
first clutch

(Previous best =two chicks)

Three Chicks from
second clutch

(Previous best =two chicks)

EIGHT total Chicks
welcomed in 2021

First chicks from
pair-bonded couples:

Oregon & Skalula

Jay & Bella

Welcomed Cali, first
owl with genetics from
Northern California at
the NSOBP

ADOPT AN EGG & CHICK

Another breeding season has come and gone, with new milestones reached and new chicks welcomed! During our annual Adopt an Egg and Chick fundraisers donors receive an inside look into the care and practices that occur during the breeding season.

Adopt an Egg follows the journey of a Northern Spotted Owl egg from the Northern Spotted Owl Breeding Program (NSOBP). These six weekly updates take donors through egg lay, egg pull, artificial incubation, and finally hatch! Along with their weekly emails, donors also receive access to an exclusive activities page. All activities were created by NSOBP staff and the 2021 Breeding Season interns.

**“THROUGH EVERYONE’S GENEROUS DONATIONS
[TOWARD ADOPT AN EGG] WE WERE ABLE TO
RAISE ALMOST \$2,000!”**

This year’s goal for the Adopt an Egg campaign was \$1,500. Through everyone’s generous donations we were able to raise almost \$2,000! The proceeds from Adopt an Egg are put towards the various supplies that are needed throughout the breeding season. These items include paper towel, disinfectants, sterile gauze, disposable gloves, and distilled water. These materials are important for keeping the incubators and the NSOBP’s facilities as sterile as possible. The cost of disposable gloves has risen significantly this year, so we are particularly appreciative of these donations which allow us to keep up with demand for this required item.

Over the past five years we have also used the donations to buy a computer to keep up-to-date records about the health of the eggs and chicks, an infrared temperature device to better monitor the temperatures of the eggs, and an Egg Buddy.

This year marks the 2nd annual Adopt a Chick campaign. These four weekly updates provide insight into Handraising, return to nest, and fledging of the Northern Spotted Owl chicks. This year through your generous donations we raised \$1,050. A donation of \$25 provides a week of mice for one growing baby!

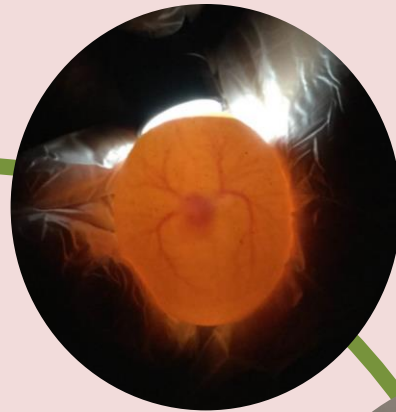
**“2ND ANNUAL ADOPT A CHICK... WE RAISED
\$1,050! A DONATION OF \$25 PROVIDES A WEEK
OF MICE FOR ONE GROWING BABY.”**

We want to thank everyone who donated to the Adopt an Egg and Adopt a Chick fundraisers this year along with those that have donated throughout the last years since we began these fundraisers.

ADULTHOOD

INCUBATION

Upcoming
Releases



**Breeding
Cycle of the
Northern
Spotted Owl
at the NSOBP**



PARENT REARING

HAND RAISING

WELCOME CALI!

The Northern Spotted Owl is an iconic species of the Pacific Northwest that resides in old growth forests as far north as Lillooet here in British Columbia and as far south as the San Francisco Bay Area in California.

The species is endangered in Canada and there are estimated to be fewer than six Northern Spotted Owls left in the wild in Canada. This is where the Northern Spotted Owl Breeding Program (NSOBP), located in Langley, comes into play. At the start of this year, there were 28 Northern Spotted Owls living at the NSOBP facilities, with a goal of breeding these owls in captivity for release into protected habitat to restore the population of Northern Spotted Owls in British Columbia.

“[THE NSOBP’S] GOAL OF BREEDING THESE OWLS IN CAPTIVITY FOR RELEASE INTO PROTECTED HABITAT TO RESTORE THE POPULATION OF NORTHERN SPOTTED OWLS IN BRITISH COLUMBIA.”

Northern Spotted Owls lay their eggs in March and chicks hatch in April, but on March 3 the NSOBP welcomed the newest addition to the breeding program, an adult male Northern Spotted Owl named Cali. Cali was originally rescued by WildCare, a wildlife rehabilitation organization in San Rafael, California, when he was admitted in 2018 for an injury that resulted in the loss of his left eye. It was determined that he was just a year old at the time, but after many months of care and rehab, he was determined to be unreleasable due to his loss of vision. Cali was then transferred to the Portland Audubon Society in the hopes he would become an education bird, but unfortunately due to his wild origins, he wasn't able to adjust to training with people.

Due to COVID-19 and the US-Canada border closures, transferring Cali from Portland to Langley proved to be more difficult than initially anticipated. Cali spent nearly two years at the



Portland Audubon Society before finally making his way to his new home in Canada. Cali is the first owl to reside at the NSOBP with genetics from northern California! Although he arrived too late in the breeding season to be introduced to a female for the 2021 breeding season, next year he will be paired up with a suitable female with the hope that they will produce offspring with unique genetics. In-breeding is a common occurrence in endangered species and can often contribute to a species' decline, which makes Cali's role so important for the future of his species!

“CALI IS THE FIRST OWL TO RESIDE AT THE NSOBP WITH GENETICS FROM NORTHERN CALIFORNIA.”

Cali has settled well into his new home. He received a clean bill of health from NSOBP veterinary staff and continues to eat all food offered to him each night. We usually find him everyday roosting in his new favourite tree. The NSOBP is a non-profit project, and you can help contribute to his care and food costs by donating at www.nsobreedingprogram.com.

FIRST EVER ONLINE AUCTION

In the fall of 2020, we hosted our first online auction. This was our largest community fundraising event of the year as we attempted to recoup from fundraising opportunities cancelled due to the COVID-19 pandemic. We typically rely heavily on in-person fundraising from public tours, presentations, and community outreach events and had to adapt quickly to ensure our owls continued to receive the care they require to thrive and reproduce at the Northern Spotted Owl Breeding Program.

“WE ARE ESPECIALLY GRATEFUL TO ROOTS AND WINGS DISTILLERY WHO NOT ONLY DONATED THE MOST POPULAR PRIZE OF THE AUCTION BUT ALSO HOSTED OUR SOCIALLY DISTANCED PICK-UP EVENT FOR LOCAL DONORS WHO WON ITEMS.”

The auction was a great success. An important aspect of this fundraiser was partnering with local organizations in order to showcase their work and encourage our supporters to shop local during these unprecedented times. We sourced 49 prizes from many different organizations and artists, including local Langley and Surrey businesses such as Driediger Farms, Republica Coffee Roasters, Honeybee Centre, Wild Birds Unlimited, and more! We are especially grateful to Roots and Wings Distillery who not only donated the most popular prize of the auction (a gift basket featuring an assortment of products offered in their tasting room), but also hosted our socially distanced Pick-Up Event for local donors who won items.

OVERALL, THE AUCTION RAISED OVER \$2500! THESE FUNDS WENT DIRECTLY TO CARE FOR THE OWLS, AND WE ARE SO GRATEFUL TO EVERYONE WHO PARTICIPATED. THANK YOU!



WIZE
SPIRITS CO.



VANCOUVER



CRAIG DARROCH CASTLE®
CANADA'S CASTLE

HOW TO TELL:

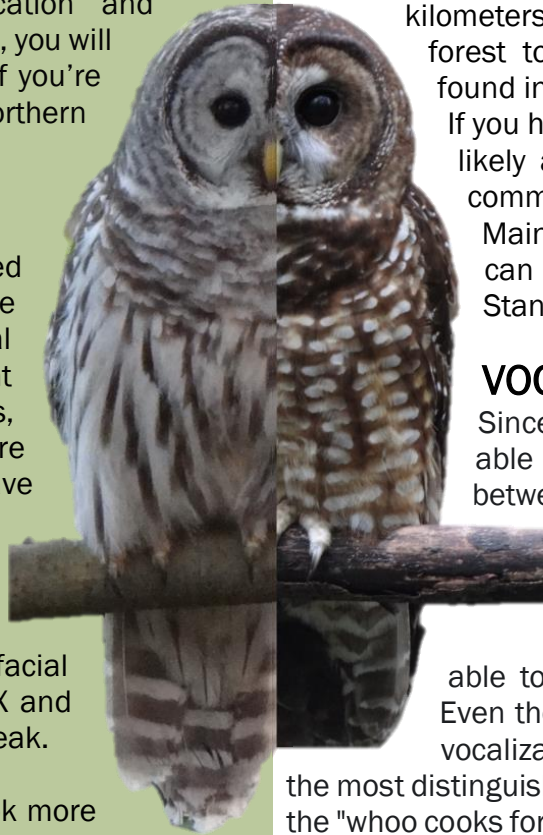
BARRED OWL VS SPOTTED OWL

When they are not side-by-side, it can be tricky to tell a Northern Spotted Owl apart from a Barred Owl. They are often mistaken for each other because they are both medium sized, brown owls with white patterning. They are also two of only three species of owl in British Columbia with dark brown eyes (the third being the Barn Owl). However, by understanding the differences in their physical appearance, geographical location and habitat, and vocalization or calls, you will be better equipped to identify if you're looking at a Barred Owl or a Northern Spotted Owl.

PHYSICAL APPEARANCE

From the Front: Northern Spotted Owls have a dark chocolate brown plumage with horizontal white spots. Barred Owls are light grey with vertical brown stripes, or "bars", for which they are named. Though they both have dark brown eyes, Northern Spotted Owls have a brown facial disk with a very distinct white X around their eyes and beak. Barred Owls have a white facial disk with a less distinct white X and tend to have a brighter yellow beak.

From the Back: Barred Owls look more brown from the back than the front but are still not as dark as the Northern Spotted Owl (see dichotomous key). The Barred Owl has more grey patterning throughout their plumage while the Northern Spotted Owl is predominately brown. The Northern Spotted Owl is named after the little white spots on the top and back of their heads.



GEOGRAPHY & HABITAT

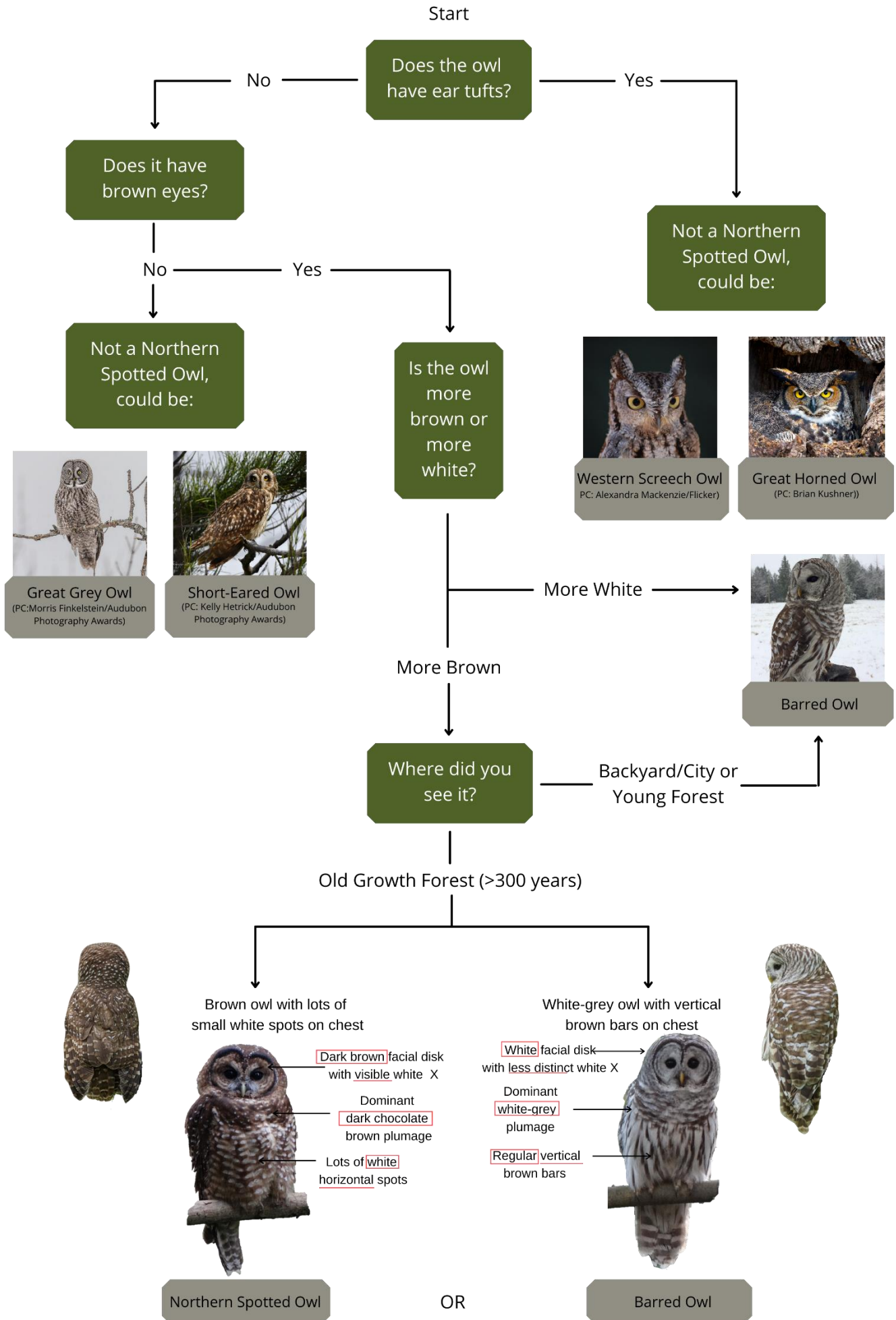
With fewer than six wild Spotted Owls left in British Columbia, sightings are improbable and exceedingly rare! If you suspect you have sighted a Northern Spotted Owl, take note of the location. Northern Spotted Owls are exclusively found in old growth forest and are NOT found on Vancouver Island. They require 3000 hectares (30 kilometers squared) of 100+ year old forest to survive. Barred Owls can be found in both forested and urban areas. If you have an owl in your backyard, it is likely a Barred Owl. Barred Owls are common throughout the Lower Mainland and Vancouver Island and can be found in areas such as Stanley Park.

VOCALIZATIONS

Since sometimes you might not be able to see the owl to distinguish between species, a great way to tell them apart is by listening. Owls are quite vocal (especially at dawn and dusk) if you listen carefully, you'll be able to tell all the owl species apart. Even though owl species have different vocalizations for different occasions, the most distinguishable call from the Barred Owl is the "who cooks for you" while the Northern Spotted Owl has a four-note call. Head to the Cornell Lab of Ornithology's website www.allaboutbirds.org/guide to hear calls from a variety of bird species.

It is not always easy identifying species, but we hope these tips will help! If you still think you have found a Northern Spotted Owl, try to get a photo, or record the owl calling and email us at nsobreedingprogram@gmail.com.

HOO IS IN MY BACKYARD?



RODENT COLONY: A BEHIND THE SCENES

At the Northern Spotted Owl Breeding Program (NSOBP), we not only breed owls, but their food too! With over 30 owl mouths to feed each and every day, it is important that there is a steady stream of rodents being produced. Good nutrition is a vital component of owl fertility and chick health, so breeding our own owl food source ensures we are doing our best to raise healthy owls. On a typical day during the non-breeding season, the owls need a total of 60-70 mice or 30 (or more!) rats per day. It's an entirely different story in the spring when there are chicks! These young owls grow fast, and they do not eat prey whole, for example they are fed only muscle for the first couple days of their lives.

“...WE NEED A SEPARATE BUILDING AT THE NSOBP TO HOUSE OVER 300 ADULT MICE AND 100 ADULT RATS.”

It is important that rodent production is carefully monitored so that the food supply remains stable and any excess can be frozen in case of emergency. But the benefits do not end there! What we feed to the rodents is just as important as what we feed to the owls, so we have developed a rodent food recipe that contains a mix of grains, seeds, and proteins. The rodents are given fresh food and water daily, enrichment in the form of cardboard boxes and toilet rolls, and fresh bedding each week. Each individual is checked daily for any health concerns too. This benefits the individual rat or mice, but also prevents any sickness from spreading throughout the colony and decreases the risk of zoonotic diseases infecting the owls or even us humans! By breeding the rodents on site, we are able to control all of these environmental factors and act immediately when a rodent is not acting normally. Happy, healthy mice and rats are more nutritious mice and rats!

A rodent breeding colony of this size means that we need a separate building at the NSOBP to house over 300 adult mice and 100 adult rats. The upkeep in the appropriately named “Rodent Building” requires up to four hours each day and is a large component of our volunteer program. Many volunteers help out with the rodents by feeding, filling water bottles, washing rodent tubs, doing laundry, and recordkeeping.



In the wild, Northern Spotted Owls eat primarily small mammals, with their favourite being Northern Flying Squirrels. By breeding both mice and rats, we are able to offer the owls a variety of prey items, with the occasional day-old poultry cull added for some extra nutrition. But this doesn't exactly mimic a wild diet, so in the future, we would like to breed Northern Flying Squirrels to feed to the owls, especially those that will be released into the wild.

With so many owl chicks born this year, and hopefully even more next year, it is important that the rodent colony stays productive and supplies enough food to keep all of the owls well fed!

BIRDSCAPING YOUR OUTDOOR SPACES

ADD BIRDHOUSES – As more trees are getting cut down to allow for urbanization, birdhouses are needed to provide nesting sites and shelter for birds. Just make sure to choose species-specific birdhouses that can also be cleaned every year!



A Birdhouse at the NSOBP center in Langley.

INTRODUCE MORE NATIVE PLANTS – Introducing more native plants increases available habitat and inadvertently increases biodiversity. Check with your local garden centres, nurseries, and/or online to find suitable native plants for your area. In addition, native vegetation is low maintenance compared to their exotic counterparts as they are better adapted to our climate.

KEEP CATS INDOORS – As instinctive hunters, cats cause millions of bird deaths every year when they are let outdoors. If your cat must go outside, outdoor enclosures can be installed so cats and wildlife do not conflict.

LEAVE GARDEN CLEANUP FOR SPRING – Dead trees, fallen leaves, and dried stalks all provide food/shelter for animals to overwinter. Moreover, dead leaves help the soil by preventing against erosion, retaining moisture, and supplying nutrients via decomposition.

MINIMIZE LIGHT POLLUTION – The artificial light confuses birds, disturbs their sleep cycle, and causes collisions. To make our outdoor spaces more bird-friendly, motion detection lights can be installed, or lights can be turned off when not in use.

BIRD-SAFE ANY WINDOWS – Window strikes are common causes of injury. Window collisions can be greatly reduced by installing window blinds and closing them when not in use. Moreover, window decals that reflect UV light can also be installed. Another option is to install window screens like the types that prevent insects from entering the house.



Inside an Aviary at the NSOBP.

REDUCE THE USE OF TOXIC CHEMICALS – Toxic chemicals like pesticides and chemical fertilizers bioaccumulate in predator species. This build-up leads to poisoning.

Measures Taken at the NSOBP:

At the Northern Spotted Owl Breeding Program, with the help of our wonderful volunteers, we are actively removing any invasive species such as the Himalayan Blackberry to allow for native species to regenerate. After their removal, the brambles are kept in piles away from the removal site to create a habitat for insects to live in. We have also planted native species in our planter garden to attract more pollinators as well as left sections of our property fallow to encourage succession. We welcome all wildlife on our facility. Therefore, one can often see many bird species, squirrels, and coyotes on the property. As a result, birdhouses as well as dead trees can be found around the facility. Most importantly, our aviaries for the Northern Spotted Owls only include native plants they would encounter in their home range. These include: ferns, mosses, and trees in different stages (saplings, snags, logs). Lastly, light pollution is reduced at the facility by turning lights off when not in use and closing the blinds. Window screens are also installed and vertical lines made of tape are placed on any windows that do not have a blind.

THANK YOU: VOLUNTEERS

Much of the work that we do at the Northern Spotted Owl Breeding Program wouldn't be possible without the help of our team of dedicated volunteers. So far in 2021, 36 volunteers generously donated almost 1500 hours of their time, contributing to site maintenance, rodent care, outreach, errand driving, administrative tasks, and fundraising. All of these helping hands made all of the difference during the spring months when owl chicks were being hand-raised.

We were fortunate to have a consistent group of volunteers helping out throughout the year as we modified safety protocols in accordance with public health orders. Thank you to all of our volunteers for your patience as we adapted to new guidelines throughout the past year. Although you couldn't see our smiling faces under those masks, please know that your help is always appreciated!

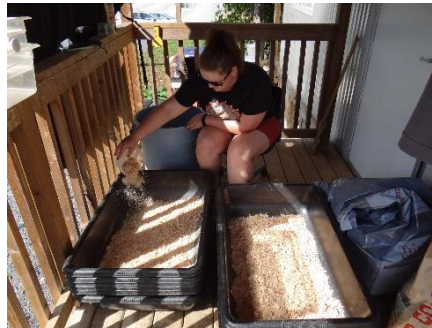
It cannot be said enough, but we are forever grateful for the dedication of this wonderful group of individuals.

Want to volunteer with the world's ONLY Northern Spotted Owl Breeding Program?

Site Maintenance & Invasive Species Removal



Errand Driver



Volunteer Positions



Rodent Care



Bottle Pick Up & Return It Driver

As of August 2021:

36 volunteers = almost 1500 hours

SPONSORS

THANK YOU ALSO TO:

DalGLISH Foundation

Edward Young Reid II and Lester John Bartson III
Canadian Charitable Foundation

Ftitzhenry Family Foundation

Georgina Sawyer Memorial Foundation

Lohn Foundation

T/Gear Trust



The Northern Spotted Owl Breeding Program gratefully acknowledges groups, corporations, and private businesses for their financial and in-kind support.



ABBOTSFORD
COMMUNITY
FOUNDATION

KENNETH M
MOLSON
FOUNDATION

GORDON & PATRICIA GRAY
Animal Welfare Foundation



TRANSMOUNTAIN





Northern
Spotted
Owl
Breeding
Program

The **Northern Spotted Owl Breeding Program** is part of the registered non-profit **British Columbia Conservation Foundation (BCCF)**.

BCCF's mission is *"To promote and assist in the conservation of the fish and wildlife resources of the Province of British Columbia through the protection, acquisition or enhancement of fish and wildlife habitat."*



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Donations can be made at at our website:
www.nsobreedingprogram.com

**Thank you for your support to help save one of
Canada's most endangered species.**