



Northern Spotted Owl Breeding Program

2022 Newsletter

www.nsobreedingprogram.com



Table of Contents



4 NSOBP 2022 Update

5 An Enchanting Outreach Experience

6 Releases 15 years in the Making

10 Building Relationships: SpôzêM Nation

12 Owl Photo Collage

14 Adopt an Owl: A Sneak Peak

15 Exclusive to Old Growth Forest

16 Adopt an Egg & Chick: The Beginnings

18 Avian Influenza Outbreak

19 In the Dark

20 Thank you Volunteers & Sponsors

22 Our Neighbours are Wild



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

Northern Spotted Owl Breeding Program 2022 Update

Going into the 2022 breeding season, we knew that we had a lot to live up to after such a successful year in 2021. Ultimately seven chicks survived to adulthood last year, which was over twice as many as previous years' records. Unfortunately things didn't go quite as smoothly this year, with a number of new challenges and hurdles to overcome, only three chicks survived to see their first fall.

Despite this unexpected result, 2022 still turned out to be an exciting time with a young pair bonding and producing fertile eggs, and mating attempts observed in another young pair. Two out of the three chicks from this year are female and will be paired with males ahead of next year's breeding season. Although it is unlikely that the young females will bond within their first year, pairing them with suitable mates is an important step towards the future of the breeding program.



The highlight of 2022 lies outside of eggs, chicks, pair bonding, and the live nest camera. Instead the year will be remembered for the first year that northern spotted owls born at the Northern Spotted Owl Breeding Program (NSOBP) were released into protected habitat. It has been a long time coming, but after a lot of hard work from so many passionate folks contributing their expertise from various organizations, three male northern spotted owls were released into the wild in July 2022.

"Thank you to the Fish and Wildlife Compensation Program for their continued support in getting the live feed up and running and an extra thank you for funding new cameras"

This release will be an important learning opportunity for the NSOBP and while the success of the release is measured in smaller micro-achievements, it could be many years before the ultimate goal of one of these males becoming a father is realized. Thank you to the many hands from the NSOBP, provincial government, and Spô'zê'm First Nation for their collaboration, thoughtfulness, and willingness to learn from each other to make the release possible. Check out "Releases 15 years in the making" on page six to learn more about the releases!



We continued the annual live webcam in 2022, but for the first time featured Jay and Bella. Thank you to the Fish and Wildlife Compensation Program for their continued support in getting the live feed up and running, and an extra thank you for funding new cameras. The images this year were particularly amazing because of the great resolution. We weren't able to fix our audio issues, but hopefully next year we will be able to see AND hear the adults in the nest as they interact with their chicks.

An Enchanting Outreach Experience

Outreach and community engagement events are essential when it comes to conservation work, and the Northern Spotted Owl Breeding Program (NSOBP) has participated in many of these events over the years. However with the pandemic, outreach events were put on hold and community engagement had to evolve into a virtual experience. With pandemic related restrictions being eased, we were ready and excited to finally get back out into the community again. Ahead of the busy 24/7 care for the owl chicks in the spring, we had one event scheduled: Enchanted Forest hosted by Metro Vancouver Regional Parks. One of this year's interns, Katherine, was able to attend. Read on to hear all about her experience!

to speak to so many people! I can say that our station along the trail was a big hit as we had many visitors coming to hear about our work and say hi to Small Eyes, the only glove trained northern spotted owl (NSPOW) owl in Canada.

Before arriving to Enchanted Forest, I was feeling a bit nervous about the questions I would be asked, and what sort of impact I was going to provide to our visitors. However, part way through the event I became more and more confident with answering

"By the end of the day, I was exhausted but invigorated with what I had experienced."



As an intern for the NSOBP, my days usually involved a mixture of animal care for both rodents and owls, camera monitoring, and learning the ins and outs of artificial incubation and chick rearing. However, this year the NSOBP got to finally go back to participating in outreach events for the first time since early 2020, and I was lucky enough to be there for the first event!

The NSOBP was invited to be part of the Enchanted Forest event that took place in March at Aldergrove Regional Park. Enchanted Forest promotes people to get outside and explore nature, while finding fun and interactive stations about BC forests and ecosystems. Enchanted Forest had over 800 people come out this year, so we were lucky to get

questions about what the breeding season duties were, population distribution, the importance of NSPOW to old growth ecosystems, reasons for population decline, and how to distinguish a NSPOW from a more commonly seen barred owl. I watched as people of all ages became excited when first meeting Small Eyes, but actively ask questions and learn about the importance of our work and how they can get involved. By the end of the day, I was exhausted but invigorated with what I had just experienced. While the Enchanted Forest was our first outreach event in almost two years, we are happy to report that we have been to many more since and continue to spread knowledge about the NSPOW and the work that is done year round at the NSOBP.

Releases 15 years in the Making

The Northern Spotted Owl Breeding Program (NSOBP) began in 2007 with an ambitious goal of restoring the population of northern spotted owls in British Columbia to 250 individuals, through captive breeding and carefully monitored releases into protected habitat.

Starting with a founding population of only six individuals and as the only place in the world breeding this species in captivity, everyone involved knew there would be a long journey

valued collaborations with the field team and the Spô'zêm First Nation.

In early August 2022, we were able to release three spotted owls into protected habitat in the Fraser Valley, the first release of its kind anywhere in the world! It was a small step towards our ultimate goal of creating a self-sustaining population of spotted owls in British Columbia, and a lot of work went on behind the scenes to make it possible.



"STARTING WITH A FOUNDING POPULATION OF ONLY SIX INDIVIDUALS AND AS THE ONLY PLACE IN THE WORLD BREEDING THIS SPECIES IN CAPTIVITY. EVERYONE INVOLVED KNEW THERE WOULD BE A LONG JOURNEY AHEAD."



ahead. Over the years, there were successes in increasing egg production, increasing fertility, and ultimately increasing the number of chicks born each year.

However, the elusive "release plan" had yet to be realized until this year! The time was right when we considered factors such as the success of the 2021 breeding season, an unbalanced sex ratio among the captive owl population, the capacity limits of the breeding centre, and

Consultation with First Nations

The B.C. government was responsible for determining the release locations. Based on the type of habitat available and the location of a known wild spotted owl, release sites were identified within the traditional territory of the Spô'zêm First Nation. This led to ongoing consultations and collaboration with that community, as well as recognizing the important role of traditional knowledge that has been passed down through generations.

Determining suitable release candidates

Northern spotted owls are monogamous, and a strong pair bond is important for laying fertile eggs and raising chicks. Over the years, females born at the NSOBP were paired up with genetically suitable mates, but, as luck would have it, there was always a surplus of male owls.

Six of these surplus males were considered candidates for release into the wild in the summer of 2022. Due to resource limitations and wanting to start small, only the top three candidates were released. Their candidacy was based on the following factors.

Age: They should be between one and two years old to decrease the risk of habitation of older individuals. This also recognizes that survivorship is low in juveniles during their first winter, since they require more food in their first year (in addition to other environmental factors that all owls endure).

Genetics: Some of the breeding pairs at the NSOBP have produced more offspring than others. Females were retained for breeding, but if there were more than two male offspring, some would be kept for future breeding while the surplus males would be eligible for release into the wild.

Hunting Skills: All pre-release candidates were gradually introduced to live prey while at the NSOBP and eventually all of the food offered to them was live. Their hunting style and success were monitored closely to determine which owls were the most skilled hunters.

Veterinary Exam: Each year the owls undergo a routine health check. This year, the health check was conducted earlier in the year to determine if individuals were in good shape to be released.



Soft release aviaries

There are two main methods to introduce wild animals to a new environment: “soft” release and “hard” release. A hard release could be as simple as driving the owl from captivity to the release location and letting it fly away.

A soft release is a gradual process that allows the animal to acclimate to its new surroundings for a pre-determined amount of time in an enclosure erected at the release site. Then the enclosure doors are opened, allowing the animal to leave at its own pace while still being offered food. While there are pros and cons to both methods, it was decided that a soft release would be the most suitable in this case.

Aviaries very similar in size to those at the breeding centre were built in the release areas. Special attention was given to shade availability, proximity to old growth, prey populations, and site security. After two days and a few logistical challenges, the aviaries were finished! Shortly after, the owls arrived and were monitored over the next few weeks. Staff and volunteers were on site 24/7 as guardians, to provide food and be ready to help in case of an emergency.



“A soft release is a gradual process that allows the animal to acclimate to its new surroundings for a pre-determined amount of time in an enclosure erected at the release site.”

Releases 15 years in the Making

Acclimation process

The owls spent the next few weeks getting familiar with the sights and sounds of their new home. They adjusted quickly, soon found their favourite spots to roost in during the day and keenly observed the pikas (small, rodents native to the area) that hid in the rocks behind the aviaries just out of reach. Field cameras were installed that allowed for close monitoring of the owls with minimal disturbance to them, but the wires were quickly chewed by a mischievous rodent. It seemed like food was going to be plentiful for the owls in this forest!



Since the acclimation period took place in the middle of summer, the possibility of extreme temperatures (up to 38 C) needed to be considered. The owls needed to have enough space available to them to find cooler “micro-climates” in shaded areas. The aviaries were installed so a rockface provided shade on one side. On the opposite side was a drop-off towards a rushing river, so a cool breeze was always blowing up towards the owls. The aviaries stayed cooler than where their human guardians were stationed and temperatures dropped at night to provide some relief from the heat.

Regular checks were conducted throughout the day and night to make sure the owls were behaving as expected. During the day, the owls slept most of the time, but they are nocturnal so this is exactly what we expected! When the sun began to set, food would be released into the aviary (live mice and rats) to allow the owls to further hone their hunting skills.

Post-release tracking

Once the owls had acclimated to their new surroundings (meaning they were exhibiting normal behaviours, successfully hunting, and vocalizing), they were weighed and fitted with GPS and radio trackers. These trackers allow the field team to locate each owl and we are learning a lot about their movements.

Will they go far from the soft release aviaries? Will they stay close to each other? Will they leave the protected forest habitat, establish a home territory, or find a mate?

“The GPS and radio trackers will transmit for about a year and the field team will closely monitor the owls so we can answer these questions. The information that’s gathered will help plan future releases of spotted owls into the wild.”

The GPS and radio trackers will transmit for about a year and the field team will closely monitor the owls so we can answer these questions. The information that’s gathered will help plan future releases of spotted owls into the wild.





Acknowledgements

One of the biggest things we've learned over the last few months as we prepared for the owl releases is that there is a HUGE group of people equally passionate about spotted owls. It takes an entire team to make something like this happen.

At the NSOBP, we are with the owls every day and our small team works together each day to ensure we are giving the owls in our care the best possible lives. While we might consider ourselves experts in owl husbandry, when it comes to veterinary medicine, scheduling, logistics, permitting, construction, communications, security, mapping, administration, safety, and so much more are all crucial to the release process.

We would like to thank everyone who dropped off supplies, stayed up finishing last-minute details, remained flexible and adaptable to the release schedule, and made countless contributions to this project in many other ways. Although it's too early to say that the release of the owls is a success, each step along the way was carefully planned and executed well.

Lastly, thank you to the Spô'zêm First Nation community for welcoming us so warmly and for being such great partners in this journey. We are excited to know there are spotted owls flying free again in these protected areas after so many years of being absent.



Building Relationships:

Spô'zêm Nation

British Columbia consists of 204 recognized First Nation communities and a goal of the Northern Spotted Owl Breeding Program (NSOBP) has been to further our learning and to rightfully acknowledge indigenous communities and incorporate traditional knowledge into the breeding program and community outreach. The NSOBP is located in Langley and we would like to extend a respectful land acknowledge the Kwantlen First Nation people whose land extends from Richmond and New Westminster in the west, to Surrey and Langley in the south, east to Mission, and to the northernmost reaches of Stave Lake. We recognize and honor the traditional land and skies of the Northern Spotted Owl (NSPOW) and the release sites that have been determined through collaboration between the Province of BC and distinct First Nation communities. These collaborations have been ongoing to support NSPOW's return to their inherent homelands. These communities will be vital future release activities.

For the 2022 releases, the Province of BC determined that Spô'zêm First Nation would be an ideal release area because it was historically active for the NSPOW, composed of expansive, continuous, and protected habitat, and was already home to the last known wild NSPOW in British Columbia. Consultation, collaboration, and consent with Spô'zêm First Nation is



Chief Hobart of the Spô'zêm First Nation says a prayer at the release site to Spô'zêm youth and other spotted owl release team members.

Skelúle? is the name for owl in Nlaka'pamux, the language of the Spôzêm First Nation.

important to these releases and Chief James Hobart spoke eloquently and passionately about this and how it relates to their Skelúle?'s message saying *"consultation indicates that we're being heard, collaboration affirms that we're being respected, and consent validates the willingness to work towards reconciliation. This project confirms what we've known for a long time. There are indicators in our woods that we call the 'messengers' that bring us back the messages of how the health of the woods, the old growth, our kwátłp."*

"For the 2022 releases, the Province of BC determined that Spôzêm First Nation would be an ideal release area because it was historically active for the NSPOW, composed of expansive, continuous, and protected habitat and was already home to the last known wild NSPOW in British Columbia."

The plight of the NSPOW is meaningful to the people of Spô'zêm First Nation as it represents the loss of their messengers and the loss of indigenous stewardship. Chief Hobart has expressed his Nations connection to the land through knowledge sharing, *"Our identity and cultural traditions are intricately related to our geography and our ecosystems. We are People of the River, the Fraser River, and the surrounding Cascade and Pacific Coastal Mountains. The River is our home, the mountains and mountain valleys are our backyard. The spotted owl has been orally documented amongst our Spô'zêm artists whose renditions of their encaptured spirit lives forever in our hearts, our teachings, our traditions. Like us, they are an important entity in the balance of our sustainable existence."*

Taking guidance from Spô'zêm leaders, members and technical support team, the owls arrived in the land their Ancestors called home. The soft release plan was designed to support the owls in learning their past and connecting to their future.

When the owls first arrived to the soft release aviaries, Chief Hobart included Spô'zêm and Squamish youth to witness parts of the Skelúle?'s journey, teaching the next generation on how to continue the work being done today. Chief Hobart welcomed all in attendance as we learned together how to rebuild the health of the land and our future through traditional knowledge and land stewardship. Chief Hobart opened the ceremony with a prayer to bless the owls, the lands, and its guardians. A prayer that taught us to acknowledge those that came before us, but also to think about the younger generations that will come after us.

Over the next few weeks, as we witnessed the owls acclimated to their traditional lands, community members would visit their relatives. Those of us from the NSOBP and other organizations were tasked with monitoring the owls' wellbeing. We were all able to spend time together, initiating conversations of mutual knowledge sharing, storytelling, and shared lived experiences. In the teachings we received on the indigenous connections between Spô'zêm and Skelúle? we developed our own connections to Spô'zêm's peoples, the land, and the spirit of reconciliation.

The release was a monumental collaborative effort between staff at the NSOBP, members of



Yoda (left), descended from a pair of wild northern spotted owls in Spô'zêm territory, with his housed mate Georgia (right).

the Ministry of Land, Water and Resource Stewardship within the Province of BC, the BC Conservation Foundation NSPOW field crew, and Spô'zêm First Nation, and their technical support worker from Sk̓wxwú7mesh Úxwumixw. Each member of this team had different backgrounds, skills, and knowledge that together allowed for this release to happen. This was an important first step towards restoring the population of NSPOW in British Columbia.

When Chief Hobart was asked about this new pathway forward he said: *“What I was most proud of is that we're not sitting there doing nothing. We're doing something. If we make a mistake, we are making a mistake falling forward. I'm most excited about hearing back a year from now, or even two months from now, the sounds of our Skelúle?'s calling in their own woods and finding out that they have found a home, have found themselves. Our sky relatives knew our songs, our drums, our traditions. Their ancestral spirits will remember Spô'zêm peoples as their land stewards. That's what's going to excite me. When that next step happens, it will be truly beautiful.”*



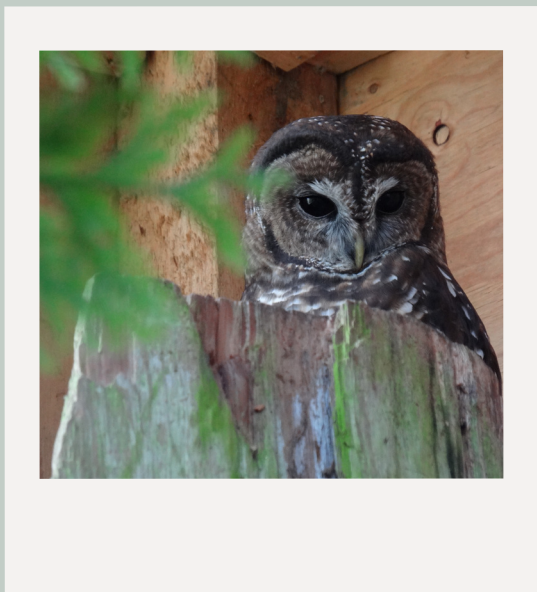
“I'm most excited about hearing back a year from now, or even two months from now, the sounds of our Skelúle?'s calling in their own woods and finding out that they have found a home, have found themselves.”

- Chief Hobart



The art above was made by Dawn Blacklock. Dawn married into and embraced the Stó:lō First Nation culture. She honours and respects the origin of the multiple skills and crafts of the Indigenous people of Canada. Dawn gifted the owl dreamcatcher to the NSOBP. The owl represents wisdom, intuition, magic, and prophecy.





Adopt an Owl: A Sneak Peak

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

Amy Yoshimaru
Sedin

Ashley Bedard
Zalea

Debbie Trevitt
Jay

Diane Rudesal
Bella

Ellen Denstedt &
Carolyn Denstedt
Einstein

Jan Dobson
Bella

Janice White
Georgia

Joan Pacholko
Small Eyes

Joey Godwin
Bella

Linda Schilling
Sequoia

Magnus Eriksson
Zalea

Myfanwy Little
Amore

Sartori
Environmental Inc
Jay

Tyler Chinsky
Skalula

At the Northern Spotted Owl Breeding Program (NSOBP) we enjoy interacting and educating the public about northern spotted owls and the efforts the NSOBP is taking to help save this iconic and critically endangered species. Throughout the year we are able to do this in different ways, from outreach events to campaigns such as Adopt an Egg, Adopt a Chick, and Adopt an Owl.

Though many of our events and campaigns are seasonal, we are able to showcase an individual owl through Adopt an Owl for an entire year or more! Symbolic adoptions are \$25/month and payments can be made monthly or as a one-time donation. A variety of packages are available depending on each donor's wants. A six-month package (\$150 or more) provides the donor with a spotted owl plush, while a yearly donation (\$300 or more) the donor will receive a photobook of the owl they have chosen to adopt. An Adopt an Owl membership includes multiple emails of exclusive content about what the selected owl is getting up to throughout the year. Read on below to hear a short exclusive update from earlier this year about Oregon, one of the spotted owls who is up for adoption!

"Oregon and Skalula are the proud foster parents to one chick from first clutch! Both are very devout parents, Oregon prey delivering food and Skalula ripping up the prey into smaller pieces for the small baby while also providing warmth in the nest. Chick F has been growing up fast having "fledged" onto the top of the nest stump on May 20th, however the chick did not officially exit the nest until May 21st when it fell onto the nest shelf below. Juveniles have been recorded fledging from 33-38 days old. This makes for a new record for the NSOBP at 29 days for their initial leap and 30 days old when they officially fledged from the nest! There is no need to worry about Chick F and their little tumble as it is very common for young chicks to lose their balance as they first start using their talons and wings to perch and explore."

Oregon & Skalula



Jay & Bella



Sedin & Amore



Einstein & Zalea



Sequoia



Small Eyes



Georgia



Exclusive to Old Growth Forest

What's home for a wild spotted owl? In Canada, these chocolate brown owls are only found in old-growth forests where trees are 100-200 years old. The forests are mainly made up of Douglas-fir, western hemlock, and western red cedar trees that stand almost 20 meters tall. They are so large that they shade the bushes and ferns from the sun, creating space underneath and between the trees. These spaces are perfect for a spotted owl to navigate through the canopy, hunting woodrats and flying squirrels. The forests also have great habitat for lots of other wildlife, which means there's plenty of food for the owls.

"Spotted owls need connected forest 5x the size of Stanley Park to call home- no living near cities or towns for them."

After generations of living among centuries-old trees, northern spotted owls are incredibly adapted to life in these ancient forests. As cavity nesters, spotted owls need the snags provided by dead standing trees. Spotted owls need connected forest 5x the size of Stanley Park to call home- no living near cities or towns for them. They don't like human development. Since only 3% of old-growth forests are still standing in British Columbia, there's less space for each owl to find enough food and for young owls to find their own home.

The amount of old-growth forests spotted owls need are no longer found in the Lower Mainland and spotted owls are unable to disperse to Vancouver Island. If you spot an owl in these areas, it's probably the spotted owl's close relative – the barred owl. Barred owls are more aggressive and competitive. They can move freely across forests, highways, towns, large bodies of water - you name it. This has helped them invade western North America. Because of their flexibility, barred owls also easily kick out northern spotted owls from the few areas that can still support them.



Fortunately, there are over 300,000 hectares of protected spotted owl habitat. Here at the NSOBP, our mission is to breed the spotted owls in our care so that their offspring can be released into these protected areas.

"Because of their flexibility, barred owls also easily kick out northern spotted owls from the few areas that can still support them."

As much as we love spotted owls, the odds of us seeing one in the wild are incredibly low. But there may be a future where we go out camping in the backcountry and find a spotted owl family roosting in a towering Douglas-fir nearby!



Adopt an Egg & Chick: The Beginnings

The busiest time of year at the Northern Spotted Owl Breeding Program (NSOBP) is, of course, the breeding season! This is also our most exciting time of year and we look forward to sharing details of the work we do through our Adopt an Egg and Adopt a Chick weekly emails. This annual fundraising campaign gives donors an even greater insight into what it takes to artificially incubate a Northern Spotted Owl (NSPOW) egg and what the first few months of that chick's life looks like.

"This annual fundraising campaign gives donors an even greater insight into what it takes to artificially incubate a Northern Spotted Owl (NSPOW) egg and what the first few months of that chick's life looks like."

This year we were able to raise over \$2000 to purchase various supplies that are required throughout the breeding season such as gloves, masks, paper towel, gauze, and cleaning solutions. In the past we have also been able to make bigger purchases such as an Infrared Thermometer, an Egg Buddy, and incubator supplies and equipment.

Want a little sneak peak about what you can expect in these emails? Read on for a preview of the type of content you can expect in your inbox!

"This year we were able to raise over \$2000 to purchase various supplies that are required throughout the breeding season such as gloves, masks, paper towel, gauze, and cleaning solutions."

In the last few days of your egg's approximate 32 day incubation period the chick begins a process called Draw Down. As discussed in a previous email, a pocket of air at the blunt end of the egg, called the "air cell", increases in size as the egg ages. Nearing the last few days of its incubation the air cell gets drastically bigger as the chick prepares to hatch. The series of coloured lines marks how much the air cell grew in the last few days. As the chick prepares to hatch, it positions itself in order to break the inner membrane and pip into the air cell, in a process called an Internal Pip. This aids in the chick beginning to use their lungs for respiration. The chick then breaks through the shell with an External Pip (small crack seen in picture below) and takes its first real breath of air. By measuring the draw down, we can predict when and where the chick will externally pip and begin its hatching journey.

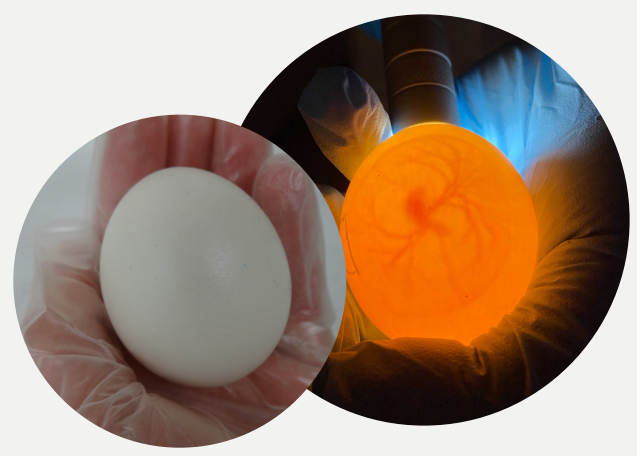


That's just a snippet of what you might find in your Adopt an Egg emails. You'll also receive exclusive photos and videos. If you'd like to be involved, check out our website in April. We are so appreciative for those that donated this year and in the previous years! Thank you for your support!

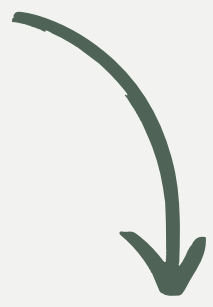


Releases

see pg 6-9 for more info



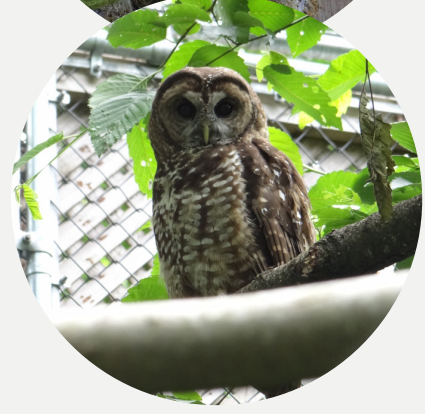
Incubation



Hand Raising



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



Adulthood



Parent Rearing



Avian Influenza Outbreak

While the Covid-19 pandemic seems to be winding down, at the Northern Spotted Owl Breeding Program (NSOBP) we are still on edge about a different virus; the H5N1 Highly Pathogenic Avian Influenza (HPAI). More commonly known as the bird flu, HPAI is a contagious viral infection that can affect all birds.

Avian influenza most commonly occurs in an agricultural setting, where birds have high contact with each other, but this year it was found in wild birds in BC as well. Wild birds contract the virus from food sources and unfortunately avian influenza has an extremely high fatality rate for raptors and they often do not show signs of illness until right before death. Given the conservation status of the northern spotted owl and having the majority of the BC population housed on a single property, an outbreak of this virus could be devastating.

Given these concerns, NSOBP has taken action to protect the owls in our care:

- Placing water sources under cover to reduce exposure to fecal matter from wild birds.
- Disinfecting shoes when coming on-site, and upon entering or exiting an aviary
- Wearing PPE while working with young chicks
- Keeping any extra dishes or materials properly stored
- Monitoring the BC government tracking of the virus to evaluate our risk of exposure
- Washing our hands/using hand sanitizer often and keeping our work clothes clean

- Regularly disinfecting materials used with the adult owls, chicks and our rodent colony
- Continuous monitoring of the health and safety of our owls

As of August 2022, the avian influenza order affecting the NSOBP was revoked, meaning that the risk of transmission in our area was very low. Despite this, we continue to be diligent regarding biosecurity throughout the year to ensure the owls are as safe and healthy as possible.

Wondering how you can help?

Here are some recommendations:

- Personal bird feeders and bird baths should be taken down entirely or cleaned on a regular schedule with a weak solution of bleach. Ensure they are rinsed and dried before re-use.
- Domestic/pet birds should have minimized contact with wild birds and water sources should be placed inside or under cover.



In the Dark

It is not uncommon that we find ourselves sitting in the dark, flashlights in hand, when the power goes out. Over the years of windstorms and downed trees, we have come to perfect our power outage procedure at the Northern Spotted Owl Breeding Program. Once the lights go out, we wait up to half an hour to see if the power will come back on. The incubators are well insulated and can hold their temperature for short periods of time.



"If the power doesn't come back on, we wheel out the generator which will be used to power the incubators containing eggs and chicks."

If the power doesn't come back on, we wheel out the generator which will be used to power the incubators containing eggs and chicks. Our maintenance manager Vince inspects the generator regularly, keeps it fueled, and teaches everyone at the

facility how to operate it. It is important that the incubators stay at specific temperatures for the eggs and chicks, therefore we carefully monitor these incubators to make sure they aren't losing any heat or overheating after being plugged in to the generator. In some cases, we may have to move eggs to different incubators if we can only keep a few powered on.

"We also carefully record how long the power was out and keep a close eye on the incubators to make sure they are functioning properly."

While having the facility in a rural area has its perks, one of the downsides is that we are not in a high priority area for BC Hydro to restore power. The owls, which are nocturnal, certainly don't mind living in the dark! Once the power comes back on, we unplug the incubators from the generator, allow the generator to cool down and move back any eggs that were relocated. We also carefully record how long the power was out and keep a close eye on the incubators to make sure they are functioning properly. If everything goes according to plan, the chicks and eggs won't notice any changes and can focus on growing into spotted owls!



Thank You Volunteers & Sponsors

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 2022, 24 volunteers generously donated almost 830 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 eggs are being incubated and chicks were being hand-raised.

After being unable to have our annual thank you dinner last year, we were excited to thank our volunteers once again for their help with a Christmas dinner at Roots & Wings Distillery. We had a delicious meal catered by Down 2 Earth and sipped on Roots & Wings creative cocktails. Our volunteers do not often get to meet their fellow volunteers due to scheduling so events like these are always fun!

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

Volunteer Positions

- Rodent Care and Cleaning
- Site Maintenance and Invasive Species Removal
- Outreach
- Errand Driver



Thank you to the following organizations for their donations towards our 2021 Auction:

Alejandro Bertolo, Artists for Conservation, Beaty Biodiversity Museum, Berezan Liquor Store, Camp Beer Co, Vancouver Canucks, Cedar Rim Nursery, Cork It Wine Making, Craigdarroch Castle, Downtown Langley Business Association, Driediger Farms Market, Everything Wine, Fraser Valley Cider Company, Goat & Pebble, Greater Vancouver Zoo, Honeybee Centre, JJ Bean Coffee Roasters, Krause Berry Farms & Estate Winery, Manning Park Resort, Museum of Anthropology, Oak & Smoke Rentals, Old Spaghetti Factory, Paddle West Kayaking, Project Climbing Cloverdale, Ralph's Farm Market, Roots & Wings, Scandinave Spa Whistler, Sea to Sky Gondola, Sew Kool Embroidery & Screen-Printing Ltd., Silent Forest Designs, The Keg, Township 7 Vineyards & Winery, Toy Traders, Vancouver Corporate Yoga, Vancouver Water Adventures.



GORDON & PATRICIA GRAY
Animal Welfare Foundation

THE
ERIC S. MARGOLIS
FAMILY FOUNDATION



KENNETH M
MOLSON
FOUNDATION

The Northern Spotted Owl
Breeding Program would
like to thank the groups,
corporations, private
businesses, and family
foundations for their
financial and in-kind
support.

Canada



ABBOTSFORD
COMMUNITY
FOUNDATION



INNERGEX

BC hydro



Thank you also to:

Bremner Trio Hydro Corporation

Fitzhenry Foundation

Georgina Sawyer Memorial Foundation

Peter and June Young Legacy Fund held
at Vancouver Foundation

The Edward Young Reid II and Lester
John Bartson III



We also want to thank those that
contributed to this year's newsletter:

Jasmine McCulligh, Jenna Kissel,
Alyssa de Wit, Paula Gomez Villalba,
Megan Cruickshank, Katherine Fegan,
Hayley Madden, Melissa Mark.

Special thanks to:

Lenore Baker (Sḱw̓xwú7mesh
Úxwumixw Indigenous knowledge
holder)

Felipe Fittipaldi (Photographer for BC
Government Communications and
Public Engagement)

Our Neighbours are Wild

The Northern Spotted Owl Breeding Program is in rural Langley, with no sidewalks or subdivisions nearby, we have a different type of neighbour to contend with. On any given day we might see coyotes, weasels, deer, bears, and even wild barred owls and great-horned owls. While most of these wildlife encounters are not dangerous, we still take many precautions to ensure our safety at the facility.

Whenever we are away from the main buildings, such as to check on the owls in their aviaries, we carry bear spray and whistles. Last summer, WildSafe BC came on site for an afternoon of training, including a live demo of how to safely use

"Last summer, WildSafe BC came on site for an afternoon of training, including a live demo of how to safely use bear spray to compliment online wildlife safety training courses."

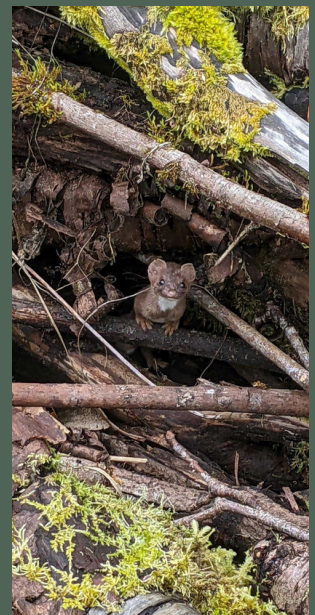
bear spray to compliment online wildlife safety training courses. Staff and volunteers have all been trained on safe refuges in case of a dangerous wildlife encounter and when it is time to go to the compost pile, we go in pairs as wildlife are known to gather at the very nice smelling compost.



Photo taken from WildSafe BC.

How can you help make your yard WildSafe?

There are a few things you can do to minimize wildlife encounters. Wildlife are attracted to areas that have easily accessible food so by removing potential food sources, such as picking up fallen fruit, hanging bird feeders so they are inaccessible to bears and keeping cats and other pets indoors, you can help reduce wildlife conflict. You can also remove access points to your yard by pruning overhead branches that lead to your roof or balcony, using solid fencing such as wood panel fences to deter deer or bears and removing unnecessary wood piles or heavy brush which act as shelter for many smaller species. For more info and tips on reduce wildlife conflicts, please refer to the WildSafeBC website.







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."



**BRITISH COLUMBIA
CONSERVATION
FOUNDATION**

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

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