

15 years in the making- northern spotted owls returned to forest in the Fraser Canyon

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Overview

- **Introductions**
- **History of the Northern Spotted Owl Breeding Program**
- **Northern Spotted Owl Cultural Importance**
- **Breeding Season**
 - **Behaviours**
 - **Artificial Incubation**
 - **Hand-rearing**
- **Initial Releases**
- **Challenges**
- **Small Eyes**
- **Q&A and Get Involved**



History of the NSOBP

- **2007: NSOBP founded**
- **2011: artificial incubation and double clutching**
- **2012: first artificially incubated chick born (n=1)**
- **2014: partnership with BCCF**
- **2019: first double clutch chicks (n=2)**
- **2021: 31 resident owls, most chicks born in a single year (n=10)**
- **2022: 3 northern spotted owls released into the wild**



Our Mission

To restore the population of NSPOW in BC through captive breeding and release into protected habitat

- **Minimum 10 breeding pairs and releasing up to 20 individuals per year**
- **Create a self-sustaining population of ~250 individuals**
- **300,000 hectares of protected habitat through the Province of BC**
- **Consultation, collaboration, and consent with First Nation communities to work towards reconciliation**



What does the spotted owl represent?

- identity and cultural traditions are intricately related to geography and ecosystems
- indicators in our woods called the 'messengers' that bring back the messages of how the health of the woods, the old growth
- conservations of mutual knowledge sharing, storytelling, and shared lived experiences in the spirit of reconciliation





where birds in
wintering track



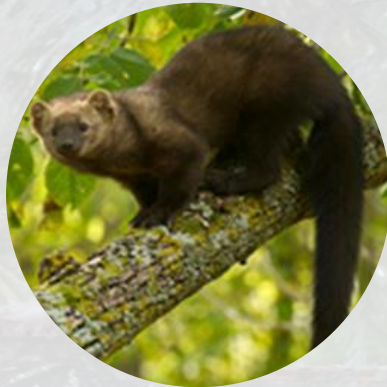
Status:



The Northern Spotted Owl is currently listed as a Federally ***Endangered Species*** under the Species at Risk Act (SARA) and the Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

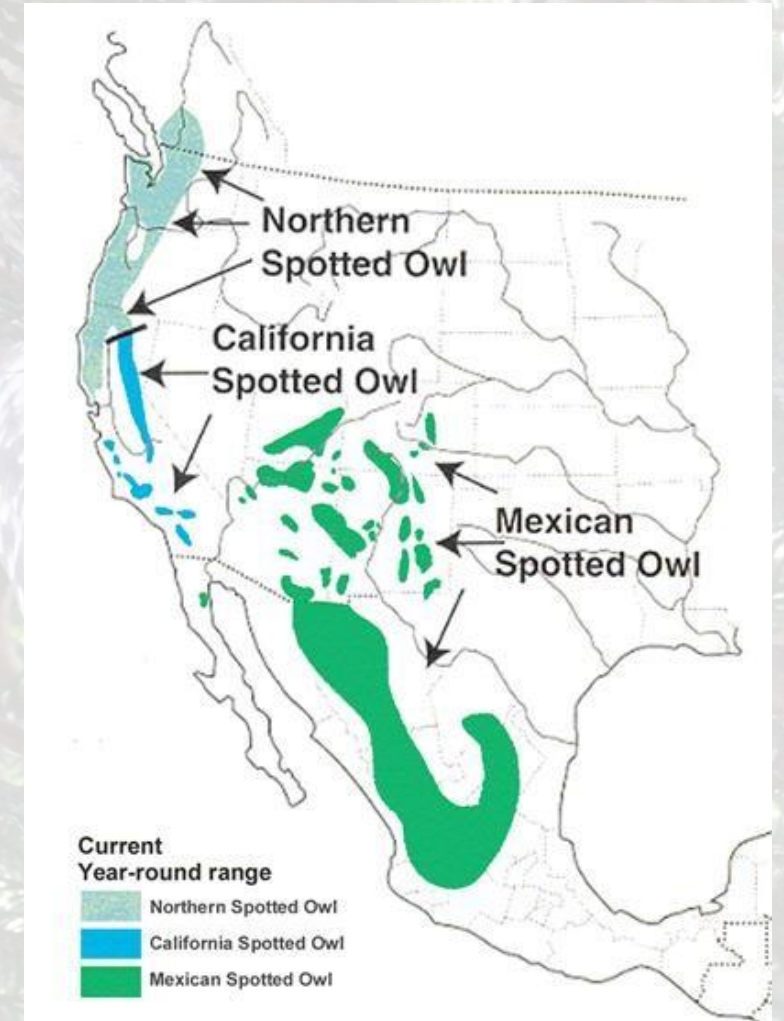


Umbrella Species



Range

- Global range is SW British Columbia, along the west coast of Washington, Oregon, and Northern California
- Canadian range is entirely in the old growth forests of BC; North to Lillooet, East to Hope, and West to the coast
 - Some release areas are within the Bridge-Seton and Coquitlam Watersheds
- British Columbia consists of 204 recognized First Nation communities, with multiple nations having ties to the spotted owl
- Spô'zêm First Nation in the Fraser Canyon has played a significant role in the NSOBP to date



Threats

- **Habitat Loss and Fragmentation**
 - **Logging and urban development**



Threats

- **Competition from Barred Owls**
 - Not native to the PNW
 - Larger, more aggressive, generalist; can outcompete for food and habitat
 - Hybridization



Breeding Season

- **February:** courtship begins
- **March:** eggs are laid
- **April:** second clutch eggs laid, first clutch chicks born and returned
- **May:** first clutch chicks fledge, second clutch chicks born and returned
- **June to October:** chicks stay with adults until the fall
- **Behaviours:** Allopreening, nest calling, cup-forming, prey delivery, copulation, belly feathers, female in nest



Allopreening



2018-03-05 18:44:08 4Plex P2 Aviary



2019-03-01 17:39:49 ScudShaniaRoost 2

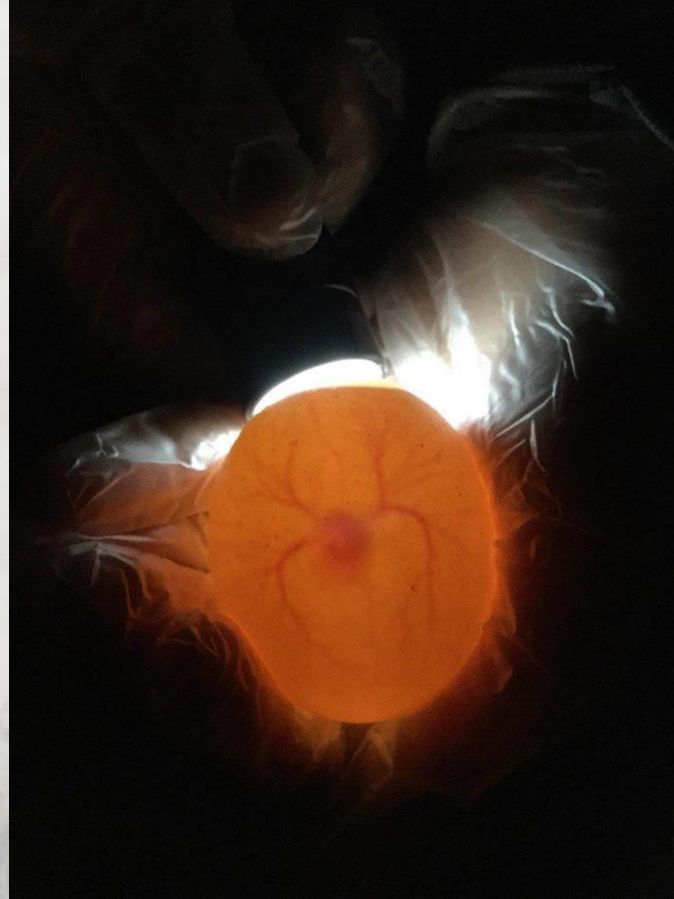




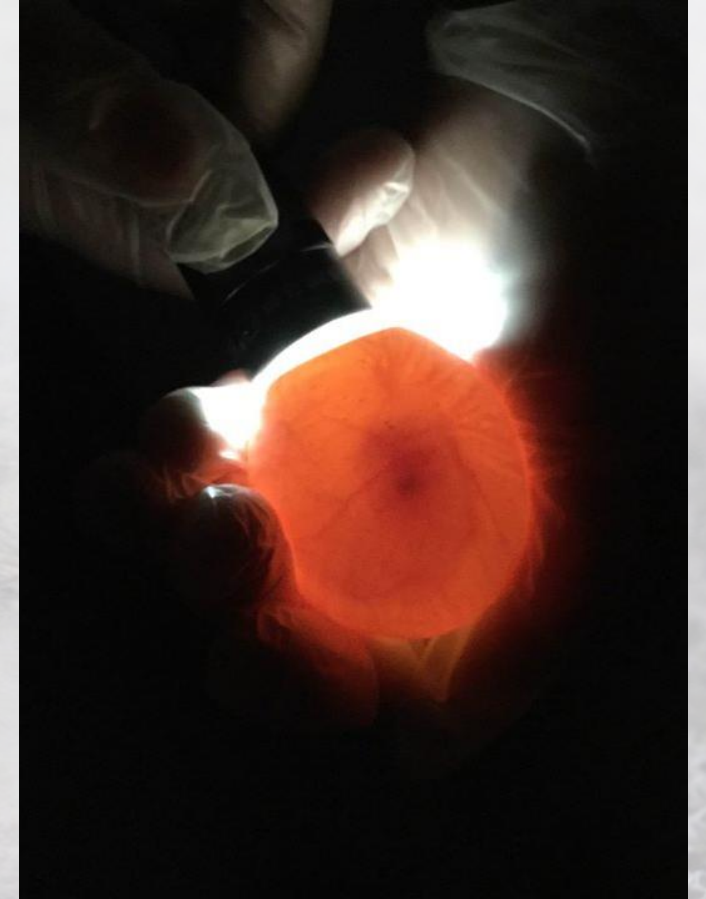
Artificial Incubation: Development



The "Spider"
Day 6



The Embryo
Day 7

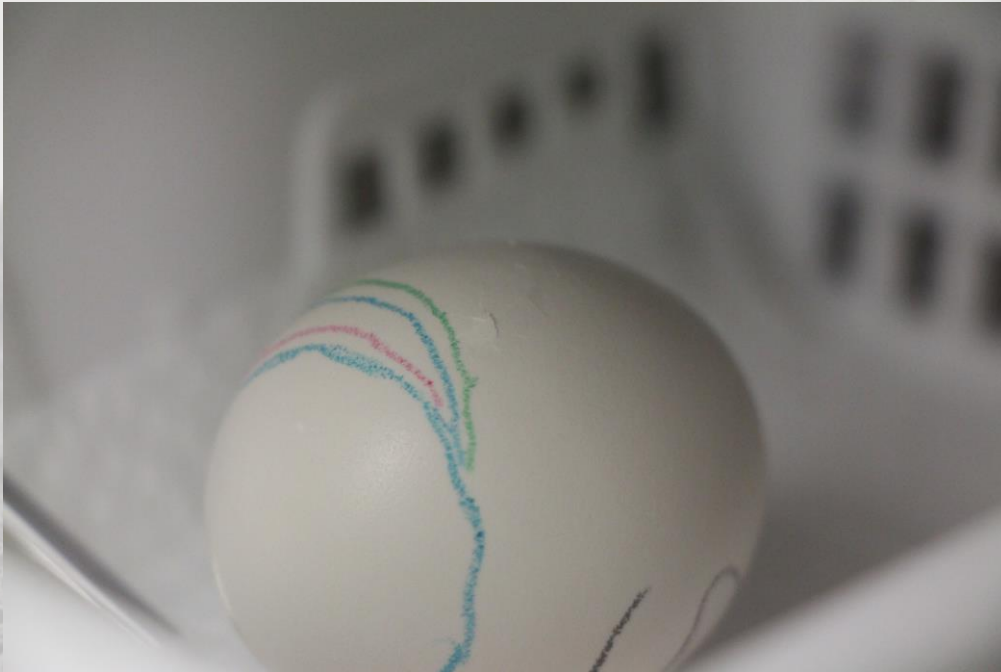


The Eye Spot
Day 11



Hand-raising Chicks

- Once egg pips, chick takes an additional 80 hours to hatch
- Begin 24/7 shifts once first egg pips
- Chicks ~30g when they hatch, are altricial

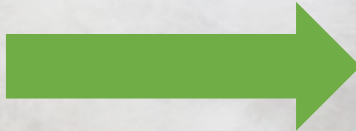


Hand-raising Chicks

- Hand-raised for at least 10 days before they are returned to the nest



48 Hours Old



10 Days Old



Initial Releases

- **Three males released into the Fraser Canyon with collaboration with Spuzzum First Nation**
- **Suitability for release based on: sex ratio, age, health, hunting abilities**
- **Soft release to acclimate to surrounding environment**
- **Radio and GPS tracking devices to monitor movement**
- **Too early to determine if successful**



Challenges

- **First and only breeding program in the world for this species**
- **Captive diet differs from wild diet**
- **Double clutching and artificial incubation**
- **Potential inbreeding**
- **Low juvenile survivorship in the wild**
- **BDOW control and determining suitable territories**



Small Eyes

- Hatched in May 2009
- Diagnosed with bilateral microphthalmia
- Retired from breeding population in 2018
- Began training to become an educational ambassador
- Only glove-trained NSPOW in Canada



Get Involved

- **Volunteering**
- **Bottle Drive**
- **Presentations**
- **Adopt an Owl**
- **Follow us on social media**
- **Tell your friends**



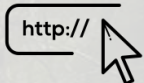
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Outreach &
Education

Questions?



Thank you!

