

Webinar Series: Introduction to Owls



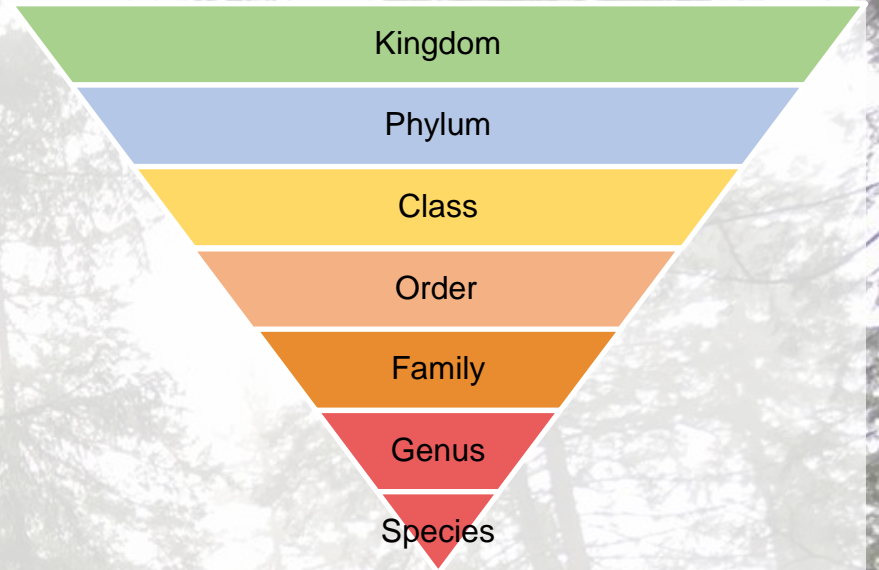
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Northern Spotted Owl Breeding Program Facility Coordinator
October 23, 2020

Overview

- Intro to the NSOBP
- What are owls
 - Why owls are important
- Owl Biology
 - diet and hunting
 - physiology
- Owl adaptations
- The Northern Spotted Owl
 - NSPOW vs BDOW
- How to help owls
- Small Eyes
- Get involved



What are Owls?



- Order: Strigiformes
 - Two Families: Strigidae (true owls) and Tytonidae (barn owls)
- Over 200 species worldwide (found on every continent except Antarctica)
- Raptors (bird of prey); hunt other animals for food
- Have several unique adaptations that make them excellent hunters

FALSE

- Owls can be
 - nocturnal
 - crepuscular
 - diurnal



Owls of BC

- 16 species in Canada, all can be found in BC except the Eastern Screech Owl
 - Barn Owl
 - Barred Owl (not native)
 - Boreal Owl
 - Burrowing Owl
 - Flammulated Owl
 - Great Grey Owl
 - Great Horned Owl
 - Long-eared Owl
 - Northern Hawk Owl
 - Northern Pygmy Owl
 - Northern Saw-whet Owl
 - Northern Spotted Owl
 - Short-eared Owl
 - Snowy Owl
 - Western Screech Owl

Northern Spotted Owl Breeding Program

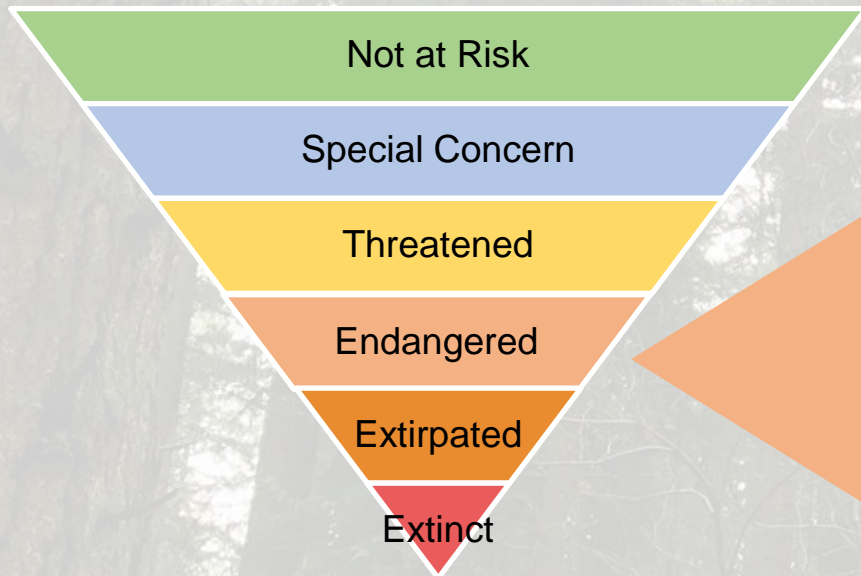
Mission: To restore the population of Northern Spotted Owls in BC through captive breeding and release into protected habitat

- Began in 2007 with 6 individuals
- In 2014, became a part of the non-profit British Columbia Conservation Foundation
- Create a self-sustaining population of ~200 individuals
- 300,000 hectare of protected habitat

The Northern Spotted Owl

Strix occidentalis caurina

- Rarest owl in Canada
- Fewer than 10 left in the wild
- Canadian range is exclusively in the old growth forests of BC



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)



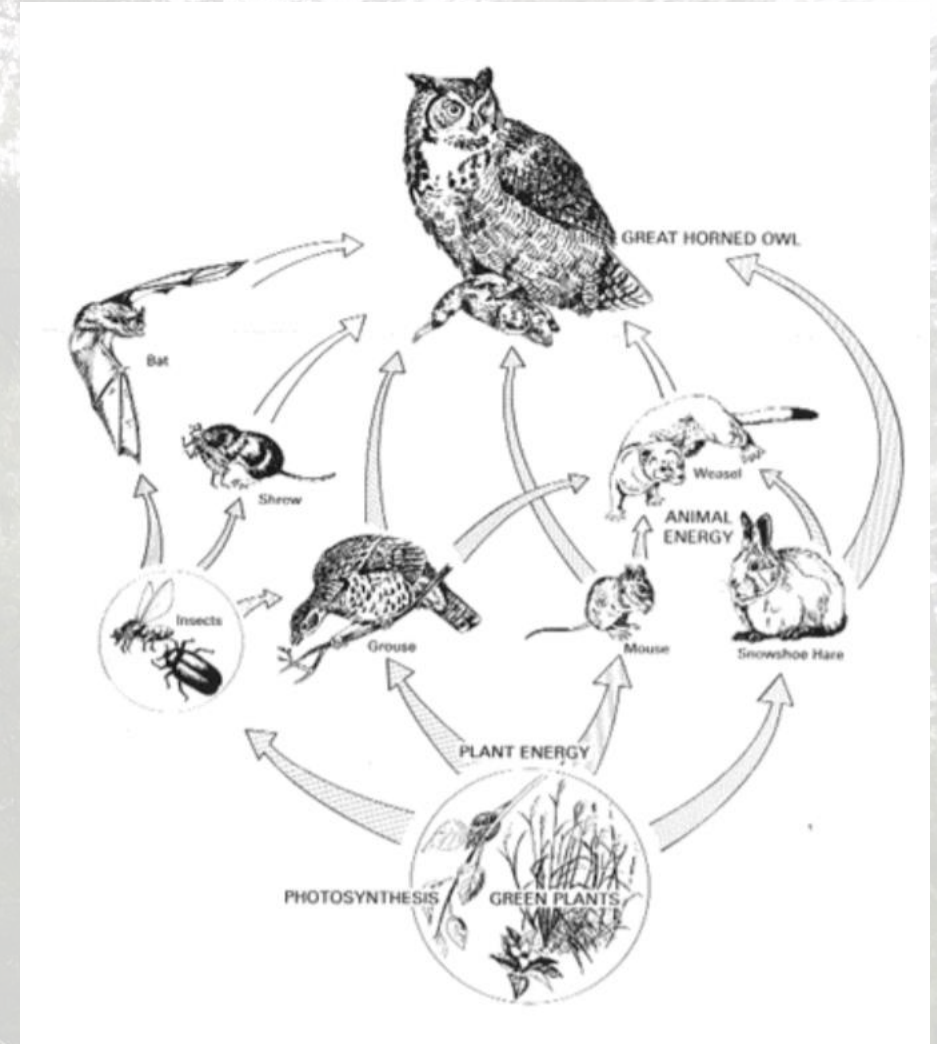
Why Are Northern Spotted Owls Endangered?

- Habitat loss and fragmentation
- Competition from barred owls

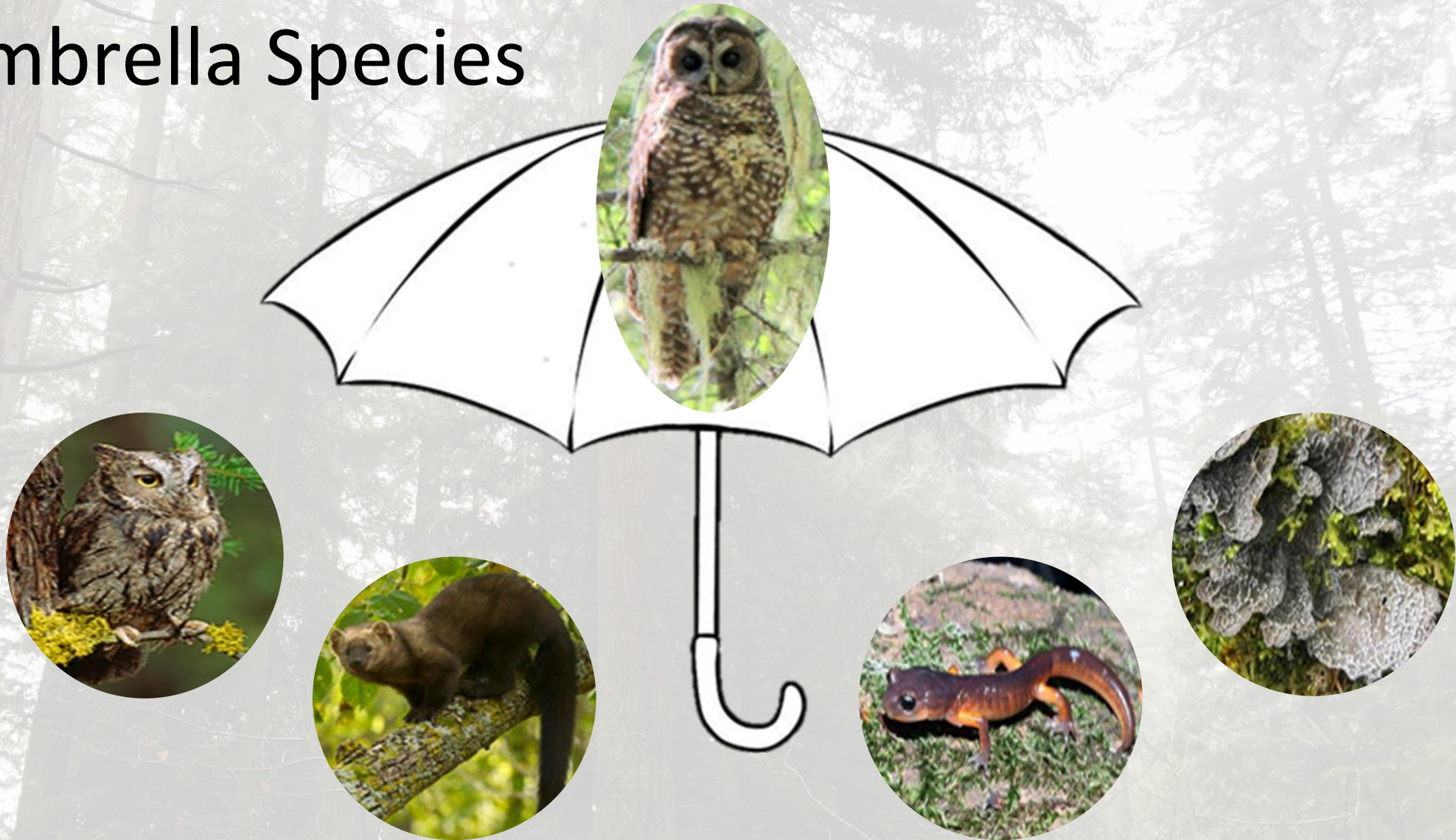


Why Are Owls Important?

- Birding/aesthetic value
- Top predators, maintain prey populations
 - Beneficial to farmers
- Indicator species
- Umbrella species



Umbrella Species



Where Do Owls Live

- Owls can live in a variety of different habitats
- Generalist vs Specialist



Rarely! Owls are typically cavity nesters

- Owls will nest in hollows of trees, tangles of branches, nest boxes, etc
- Burrowing owls and Snowy owls are examples of exceptions



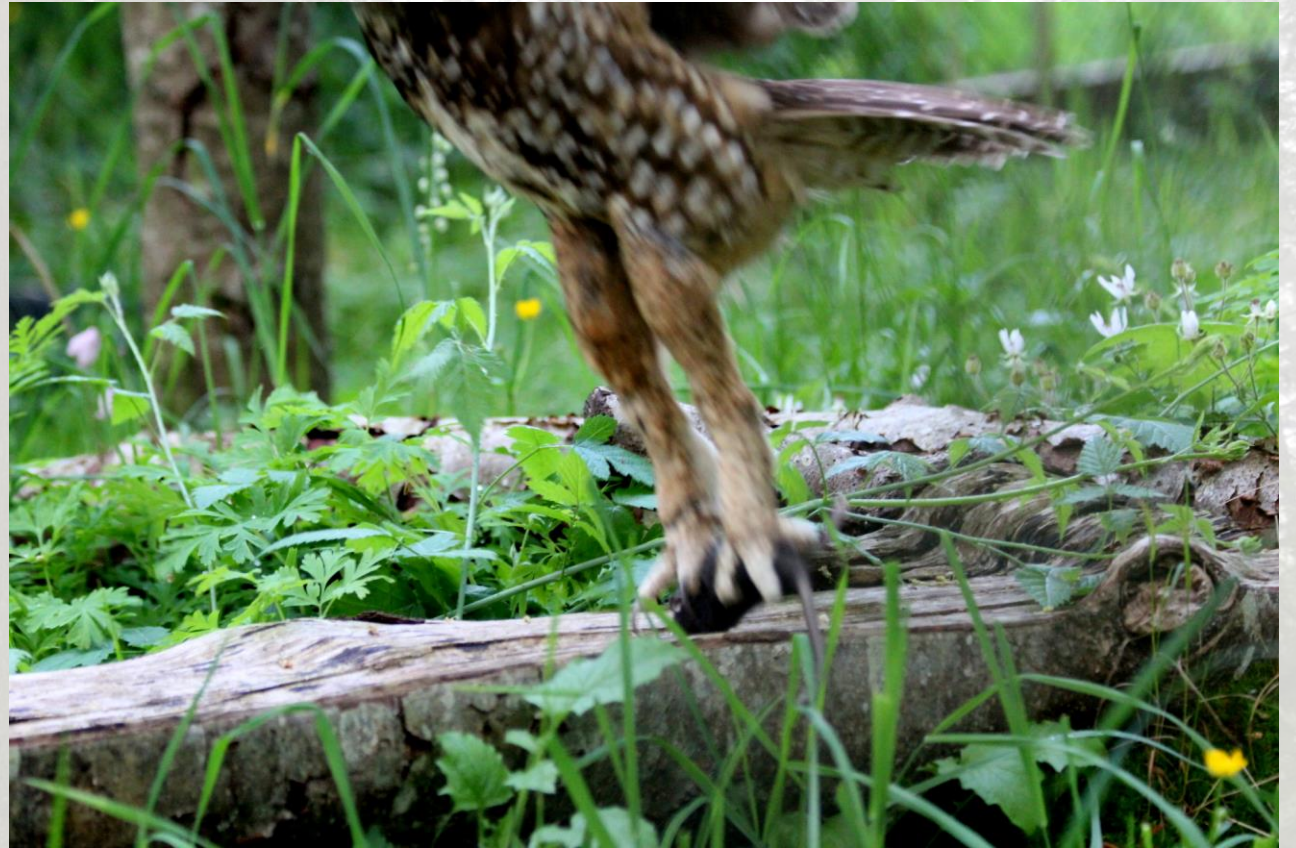
Nest Stumps at the NSOBP

- In the wild Northern Spotted Owls will nest in snags of large old growth trees, up to 80ft in the air
- At the NSOBP we provide nest stumps to mimic their nesting habitat
- Nest stumps: 40cm deep, 35-45 cm in diameter
 - lined with cedar mulch
- On shelf 20ft high, access to two nesting options



How Do Owls Hunt?

- Strong sharp talons
- Ambush predators



What Do Owls Eat?

- Carnivores; typically hunt small rodents



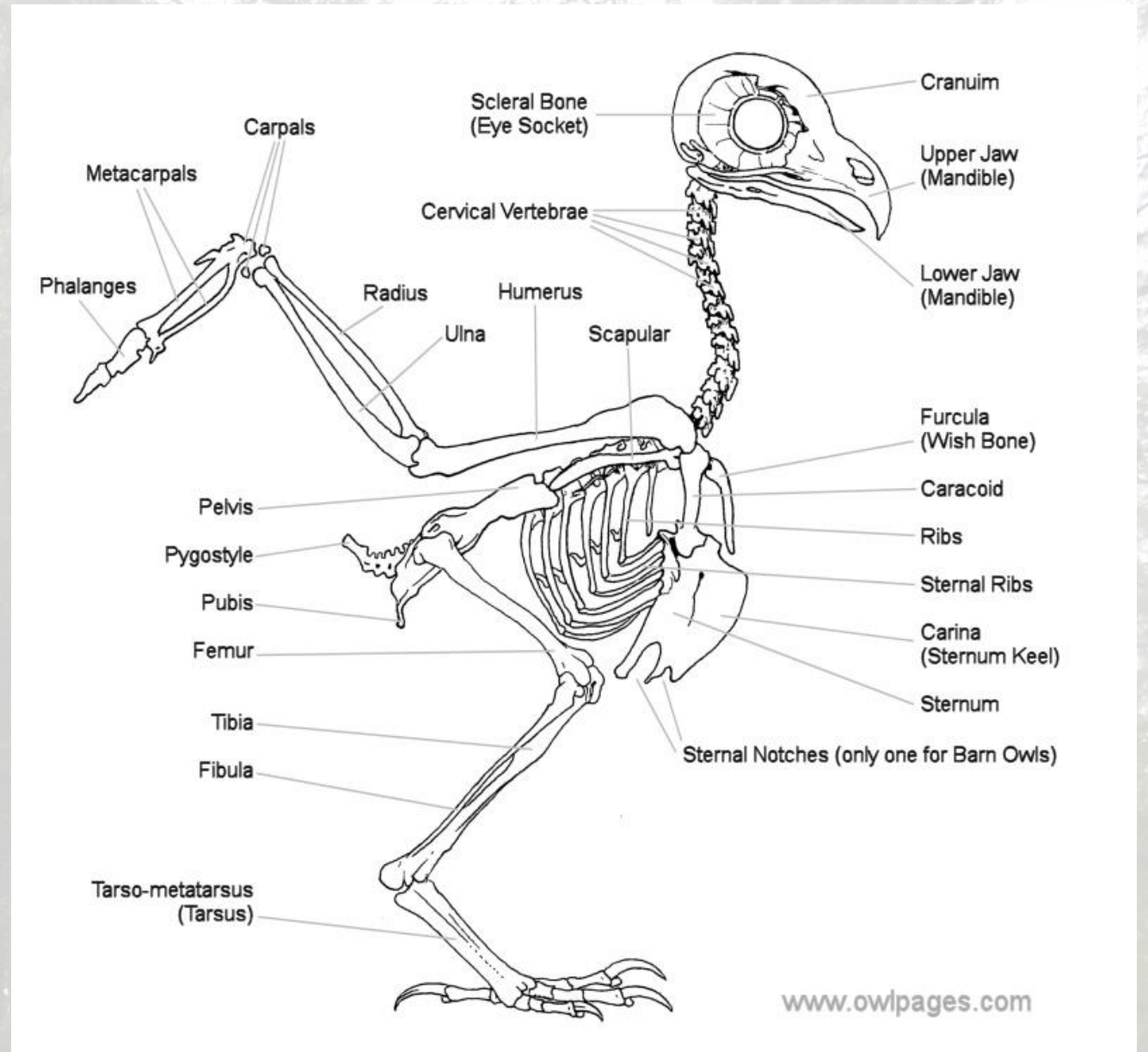
Pellets

- Swallow prey whole
- Two stomachs
- Indigestible material (fur/feathers/bones) compressed into a pellet
- Once every ~24 hours



Owl Physiology

- Hollow bones
- 14 cervical vertebrae
- Zygodactyl toes



b) 270°



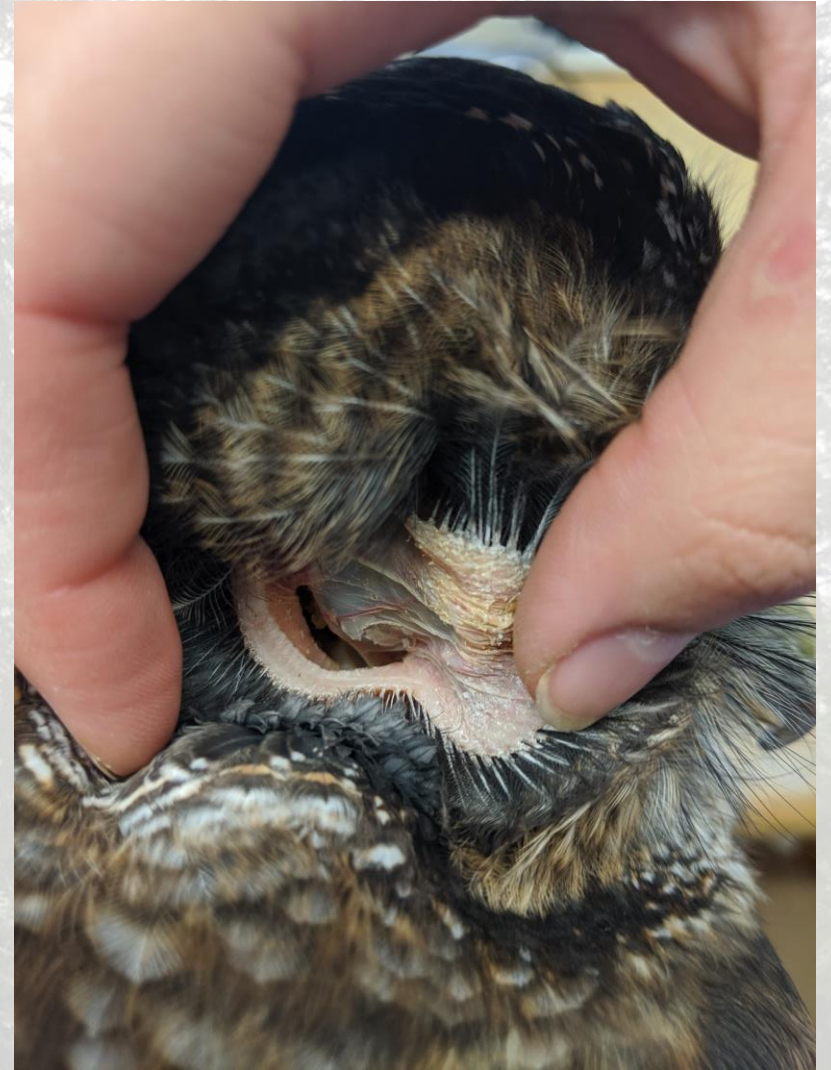
Owl Adaptations

- Owls have excellent eyesight and hearing
- An owl's eyes take up $\frac{2}{3}$ of the space in their skull
- Owl eyes are not spherical
- Owls cannot move their eyes in their sockets



Owl Adaptations

- Owls do not have external ears
 - ear tufts are not actually ears
- Ears are located on the sides of the head at the edge of the facial disc
- Facial disc funnels sound into the ears
- Asymmetrical



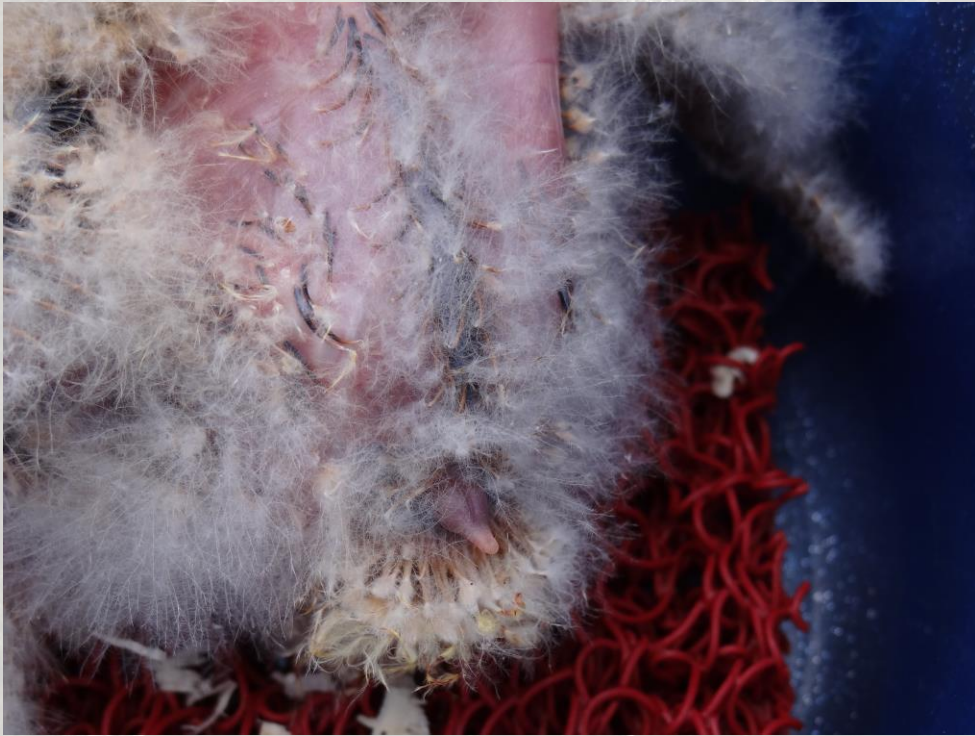
Owl Adaptations

- Silent flight
- Comb-like leading edge of primary feathers
- Breaks down turbulence, muffles the sound of the air rushing over the wing



Owl Adaptations

- Preening and Moulting



The Northern Spotted Owl

- Medium sized, 40 cm tall, wingspan of about 1 m (3 ft)
- Females (700g) are larger than males (600g)
- Lifespan: About 10 - 15 years in the wild, but can live to be over 20 in captivity
- Diet: flying squirrels, woodrats, and other rodents
- Found exclusively in the old growth forests of BC



NSPOW vs BDOW

Northern Spotted Owl



Dark brown facial disk
with distinct white X

Dark brown eyes and
dull yellow beak

Dark chocolate brown
plumage with horizontal
white spots



Barred Owl



White facial disk with
less distinct white X

Dark brown eyes and
bright yellow beak

Light grey plumage with
vertical brown bars



How You Can Help Owls

- Put up nest boxes
- Find alternatives to rodenticides
- Keep pets indoors or on a leash
- Properly dispose of garbage and food scraps
- Leave trees (including dead ones, if safe) standing
- Leave fledglings in the wild
- Take down objects owls can get tangled in (ie soccer nets, barbed wire, seasonal decorations)

Get Involved

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



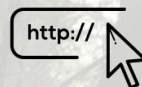
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Outreach &
Education

Adopt
An Owl



Thank you!

