Environment and Climate Change Canada Canada Nature Fund: Community-Nominated Priority Places for Species at Risk

Kootenay Connect: Columbia Wetlands, Year 3 (2021-2022) Conservation Planning and Actions for Species at Risk in the Columbia Wetlands





CWSP AGM, May 16, 2022

Rachel Darvill, R.P. Bio







Environment and Climate Change Canada Environnement et Changement climatique Canada



## Western Painted Turtle

- Developed basking log installation guide inc. lit review. Locations selected based on where basking sites lacking (inventory in 2020).
- Windermere District R&G Club installed 16 basking logs at 3 sites. Thank you!
- Volunteer recruitment (poster, social media, PRs) & coordination (dates, maps, data forms, waivers).
- Monitored basking logs at Radium Mill Pond & Dorothy Lake. <u>26 volunteers in</u> 2021.





Turtles need safe basking sites for thermoregulation. We have installed some basking logs and we need your help to see how frequently the new logs are being used by turtles!

If interested in turtle monitoring please email us at: cvpaintedturtle@gmail.com





-Dorothy Lake visited 226x from May 5 – Nov 3. Use at all logs at Dorothy Lake. 1,233 WPT observations.

-Radium logs monitored 85x from April 29 – Oct 16. No WPT at Radium. No monitoring Armstrong Bay in 2022. --GBHE, AMWI, CAGO, merganser spp., + additional waterfowl also seen using basking logs.

-Monitoring in 2022 at Radium Mill Pond & Armstrong Bay (Col Lk).







	Basking Structures at Dorothy Lake								
Name of basking log	Dorothy 1 (previously deployed at this site)	Dorothy 2a	Dorothy 2b	Dorothy 3a	Dorothy 3b	Dorothy 4a	Dorothy 4b	Dorothy 5	*Other
Number of turtles observed on log	723	16	7	35	142	111	38	88	73

### WPT Nesting Beds – Enhancement/Creation



- Vertical and horizontal fencing (with rocks). T-posts
- 200ft & 286ft of fence. Fence ends into water to discourage predators. Skunks have aversion to water, swim only out of necessity.
- Zehnder Farm success, some skunks got in during early winter (ice).





## WPT Crossing signs

- Help to reduce road mortality.
- Worked with MoTI, they agreed to print and install WPT Slow Down signs at two areas to help address WPT road mortality concerns: Lake Enid and Westside Road in (xinging) Spillimacheen.





## Lewis's Woodpecker

- Brochure & poster Fairmont area that has a high habitat suitability for LEWO. Unauthorized logging on private land in ESA without permit from RDEK. Created educational materials to help prevent this type of activity in future in CH/WHAs.
- In 2021, conducted LEWO inventory on Findlay Creek FSR for possible LEWO nests sites. No LEWO.
- Provided LEWO nest site data to TNT and consulting company working on EA for possible development.
- In 2022, more LEWO inventories for possible CH or WHA expansions. Nest site locations useful to inform future land management decisions.





THE LEWIS'S WOODPECKER IS A THREATENED SPECIES. THERE IS HABITAT FOR THIS SPECIES IN THE FAIRMONT COMMUNITY AND WE NEED YOUR HELP IN PROTECTING IT. THE OFFICIAL COMMUNITY PLAN ALSO HAS REGULATIONS (SUCH AS A DEVELOPMENT PERMIT APPLICATION PROCESS) TO PROTECT THIS BREEDING HABITAT.

This information is provided to you by the Columbia Wetlands Stewardship Partners. If you want more information, please contact us at cvpaintedturtle@gmail.com









### **American Badger project**

-Soliciting sighting information from the public (posters, social media requests) – learn where American badgers are breeding/feeding/burrowing in the Columbia Valley.

-Communications campaign – posters, social media, newspapers, etc.

### **American Badger Sighting Information Wanted**



#### It's still winter, but when the snow was gone...

...had you seen an endangered American Badger or one of its burrow entrances (large elliptical hole often seen with a mound of dirt at the entrance) in the Columbia Valley? If so, we want to hear from you! Please let us know when, where, and what you saw it. To do so, please email us at badgersightings@gmail.com

This project is directed by the Columbia Wetlands Stewardship Partners. If you would like more information, please contact us.



#### 18 • The Columbia Valley Pioneer March 3, 2022 American badger sightings wanted for the Columbia Valley

#### Submitted by Rachel Darvill

Did you know that there are American badgers living in the Columbia Valley? Southeastern British Columbia is the northern extent of where American badgers live. Unfortunately, the American badger is an endangered species and needs our help!

Badgers have stocky and flattened bodies with short, powerful legs. As few as one hundred mature badgers live in the East Kootenay region. Here they are vulnerable to being wiped out from increasing threats like roadkill, the loss of open habitat needed, and urban development. But, together we can work to keep them living here for denning, foraging, resting and as a generations to come. There is a new project supported by source of shelter. the Columbia Wetlands Stewardship Partners (CWSP) that is currently taking observational reports from the burrow sites are found in areas that we have already desigpublic - recording all badger roadkill sites, dens, burrows, and dead or alive sightings.

Leading project biologist Rachel Darvill states, "We are interested in knowing where American badgers are using dens in the Columbia Valley, especially where areas

ulations, but first we need to identify where those important areas are."

Badgers have large home ranges with hundreds of different burrows per individual. The burrows have an entrance that resembles a large elliptical hole, often with a mound of dirt at the entrance. Badgers often change locations daily and reuse burrows from year to year, making it important to ensure that unoccupied burrows are

"We are also interested if any badger denning and where a badger lives, where a badger hole exists, or have zly bear and elk," says Darvill.

"It has been shown that soil and prey availability are the key defining features or requirements for badger (ECCC) through the Canada Nature Fund with equal of high suitable badger habitat overlap with public crown habitat," says Darvill. Their primary food source in our matching funding from local partners. land. These areas can be conserved through various reg-



as gophers). "Like badgers, Columbian ground squirrels also live in burrows, and at first glance it can be confusing to distinguish these holes from the ones badgers make," says Dar-

locally referred to

Do you know

you seen a badger in the Columbia Valley before? If so, nated as wildlife corridors (through Kootenay Connect) please let us know by contacting the CWSP with your that are important to other large ranging species like griz-observations at badgersightings@gmail.com. This project is a partnership with Kootenay Connect and is financially supported by Environment and Climate Change Canada

### American badger project

- Map overlays badger resource selection function (RSF) model (Kinley, Whittington, Dibb & Newhouse, 2014) with crown land.
- WHAs only apply on crown land.
- Establish badger WHAs in areas we can identify as critical habitat (e.g., concentration of burrows, abundant prey sources). There is only 1 WHAs for American Badgers in the Columbia Valley area- down by Canal Flats.
- Create and submit WHA application for badgers in the winter of 2022-23.
- Location data can be useful for other planning processes.
- So far, 62 sightings reported from the public. Most on private land. Ground truthing at crown land locations.



## **Osprey Monitoring**

- Not a SAR. Formally facing severe population declines (1950s-1970s). Pops have rebounded since DDT (an insecticide used in agriculture) was used, related population declines seen.
- Highly specialized feeding and nesting behaviors. Osprey food sources accumulate toxins in their tissues.
- Bio-indicator of ecosystem health.
- Sensitive to influences (anthropogenic, climatic), e.g., pollutant accumulation, water quality, discarded plastics/twine causing nest entanglement.
- Osprey can be affected land/water management practices but also threatened by human disturbance, predation and displacement by other species.
- Inventoried OSPR nest sites (72 nests in 2021) 3x in 2021.





- Through support from CWSP and WSG, collected 3 yrs of data. No serious cause for concern.
- Some morality from heat wave reported in 2021. Some egg loss, chick mortality, predation events noted.
- Required continued long-term monitoring and if a declining # of occupied nests is observed, this would be a cause for concern. Could indicate that something negative is changing in the ecosystem.
- Need to access whether particular areas are seeing nest failures.

Year	#ofospreynests recorded	# of osprey nests active during beginning of season	# of osprey nests either presumed or known to have produced fledglings
2019	59	43	27
2020	65	43	19
2021	72	39	27

# Upper Columbia Swallow Habitat Enhancement Project (UCSHEP) – 2021

### Upper Columbia Swallow Habitat Enhancement Project Providing Landscape Level Benefits

a) Providing citizen-science opportunities to monitor at-risk swallows.

b) Erecting ANS in places where current nests are being (or slated to be) removed, and significant nesting areas to increase habitat availability.

c) Restoring and enhancing suitable breeding habitat sites for bank and barn swallows.

d) Providing nest cups to private landowners to help attract BARS, enhancing structures already in place.

e) Outreach re: swallows, how they are at risk, regulations protecting them.

d) Installing 3 Motus Wildlife Tracking System towers in Columbia Valley. Tag and track BANS to learn about movements around breeding colonies, roosting sites, migratory routes and wintering grounds. (*Collaboration with regional & international partners to support habitat connectivity and protection. May also help inform future development.* 











Thank you to the UCCSHEP funders and partners.

For questions, please contact: Rachel Darvill, BSc., MSc., R.P.Bio

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