

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

**Kootenay Connect: Columbia Wetlands**  
**Restoration of Habitats and Species at Risk in the Columbia Valley**  
**Year 6 (2024-2025)**



Rachel Darvill, BSc., MSc., R.P.Bio.  
Golden Community Action Forum - January 23,



Environment and  
Climate Change Canada  
Canadian Wildlife Service

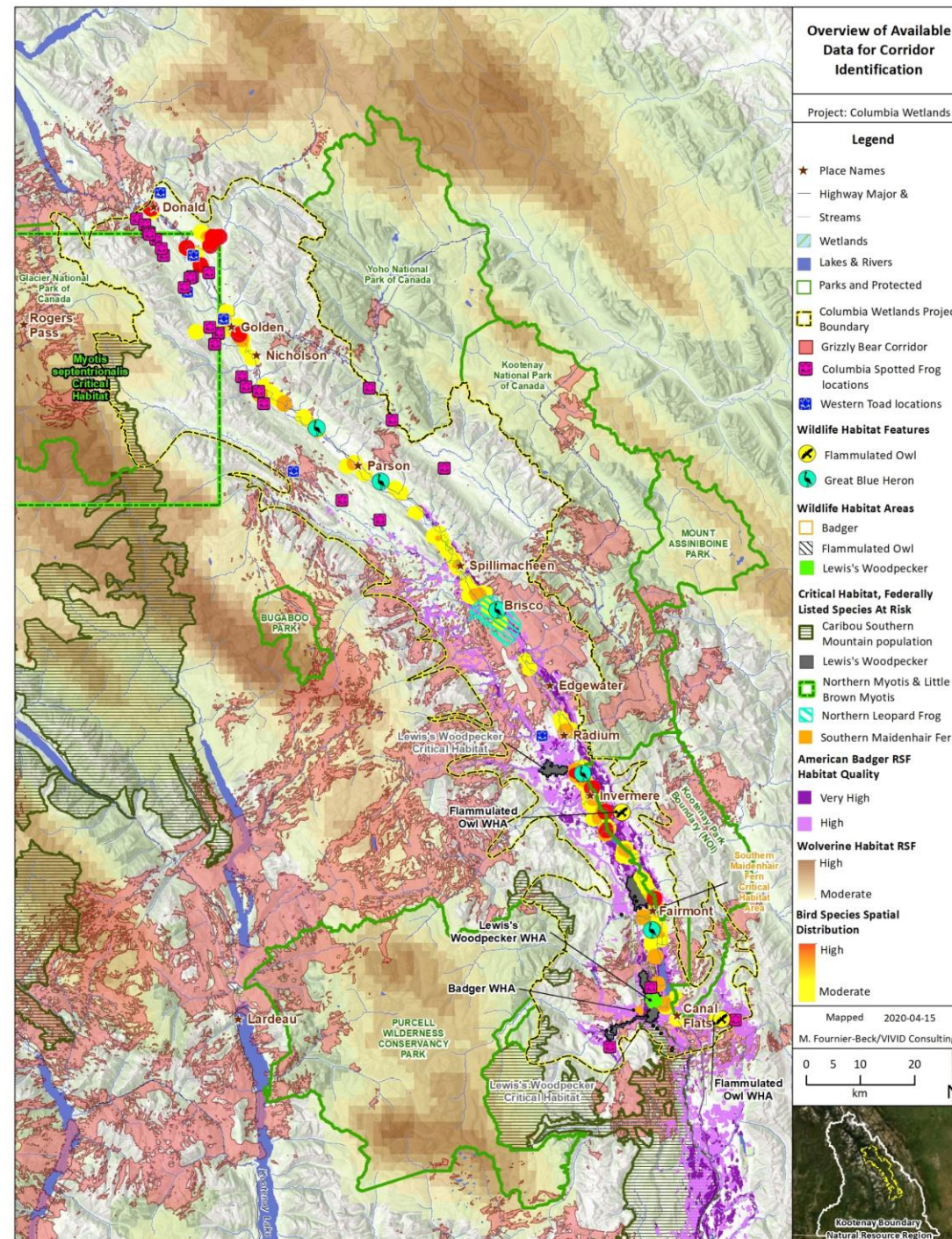
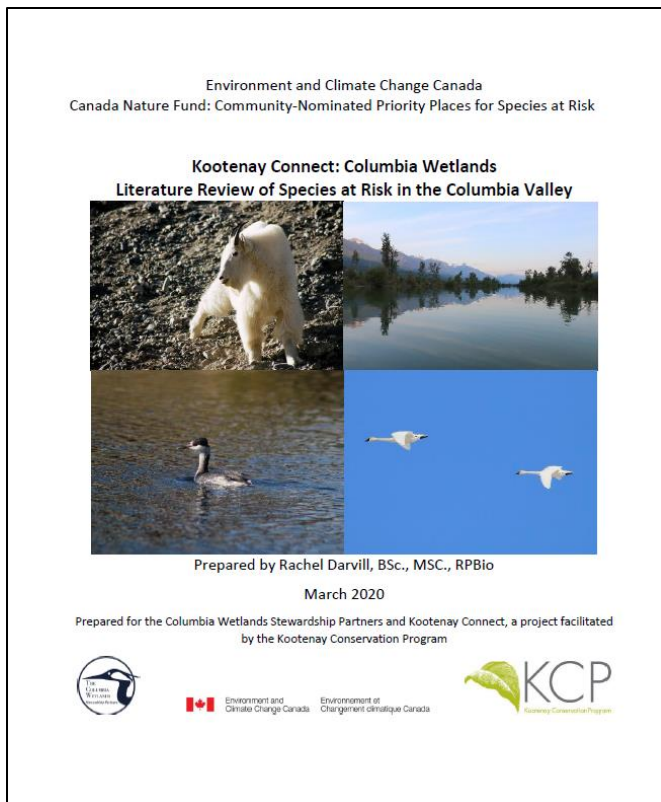


Environnement et  
Changement climatique Canada  
Service canadien de la faune



# Literature Review for SAR in the Columbia Valley

- 65 SAR and 21 at-risk ecological communities
- spatial occurrences entered into tables then into maps to provide a detailed overview of the spatial occurrences.



# Kootenay Connect/CWSP- SAR initiatives in the Columbia Valley

Some actions that have been taken:

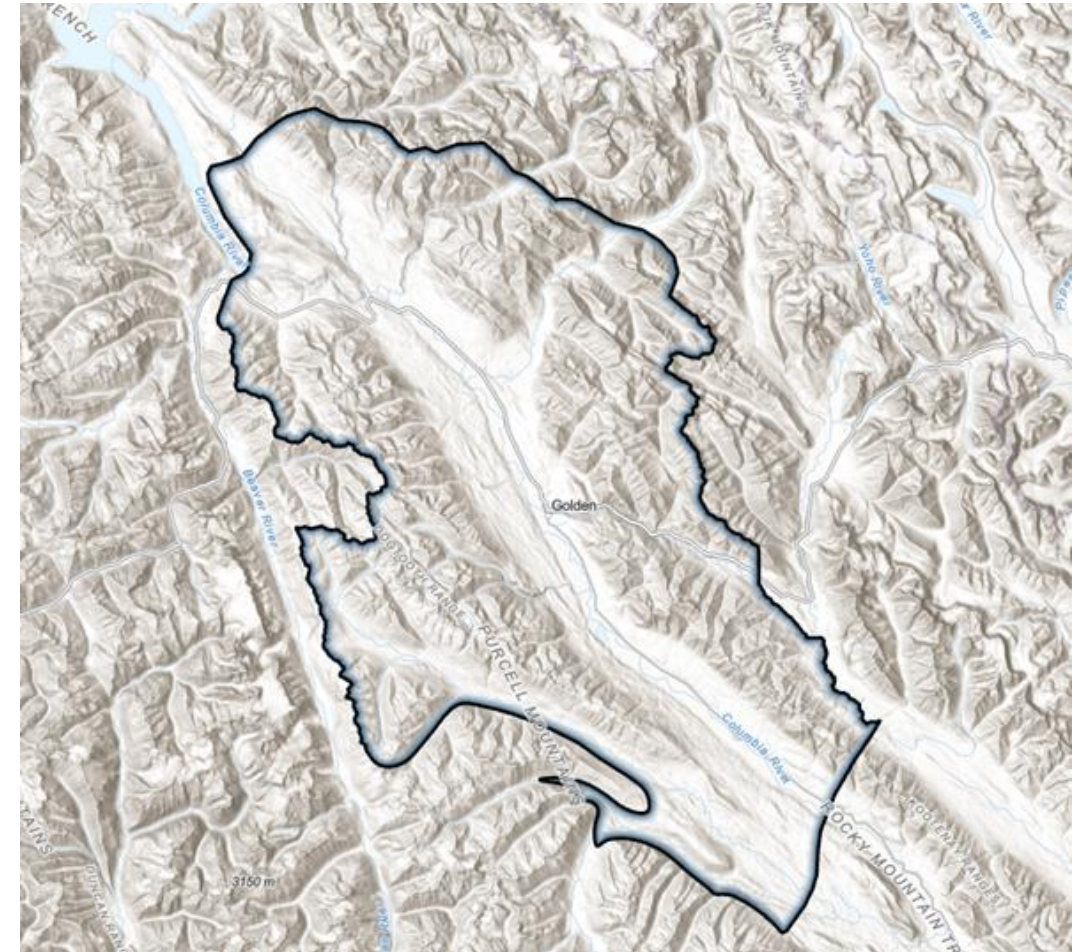
- Public engagement to determine where turtles and badgers were.
- WPT nesting bed creation, basking logs.
- Inventories for American Badger burrows, Lewis's Woodpecker nest sites, and at-risk ecological communities to establish WHFs, WHAs, CH and KBA.
- But... what about the Golden area?

Thank you to the Lake Windermere District Rod & Gun Club for their support and efforts!



# The Golden area is ecologically unique

- Golden is at the confluence of Columbia & Kicking Horse Rivers; between Rocky & Purcell mountain ranges.
- Several additional and significant ecological features, e.g., alpine, Columbia Wetlands, higher elevation wetlands, Spillimacheen River, additional waterbodies.
- Local climate varies significantly.
- Due to the topographical/geological/climatic variation, the area is host to unique ecological values and attributes.



# Zooming in on Golden

What do we already know?

## Data Sources

**DataBC (CDC):** all public WSI Incidental and Survey observations, WHFs, species and ecosystems at risk, CH, elk UWR, fish obs., bighorn sheep distribution.

**iNaturalist:** publicly available occurrence data

**Cori Lausen:** bat capture sites in the Columbia Wetlands.

**Michael Proctor:** Grizzly Bear habitat below 2300m, potential movement/travel areas.

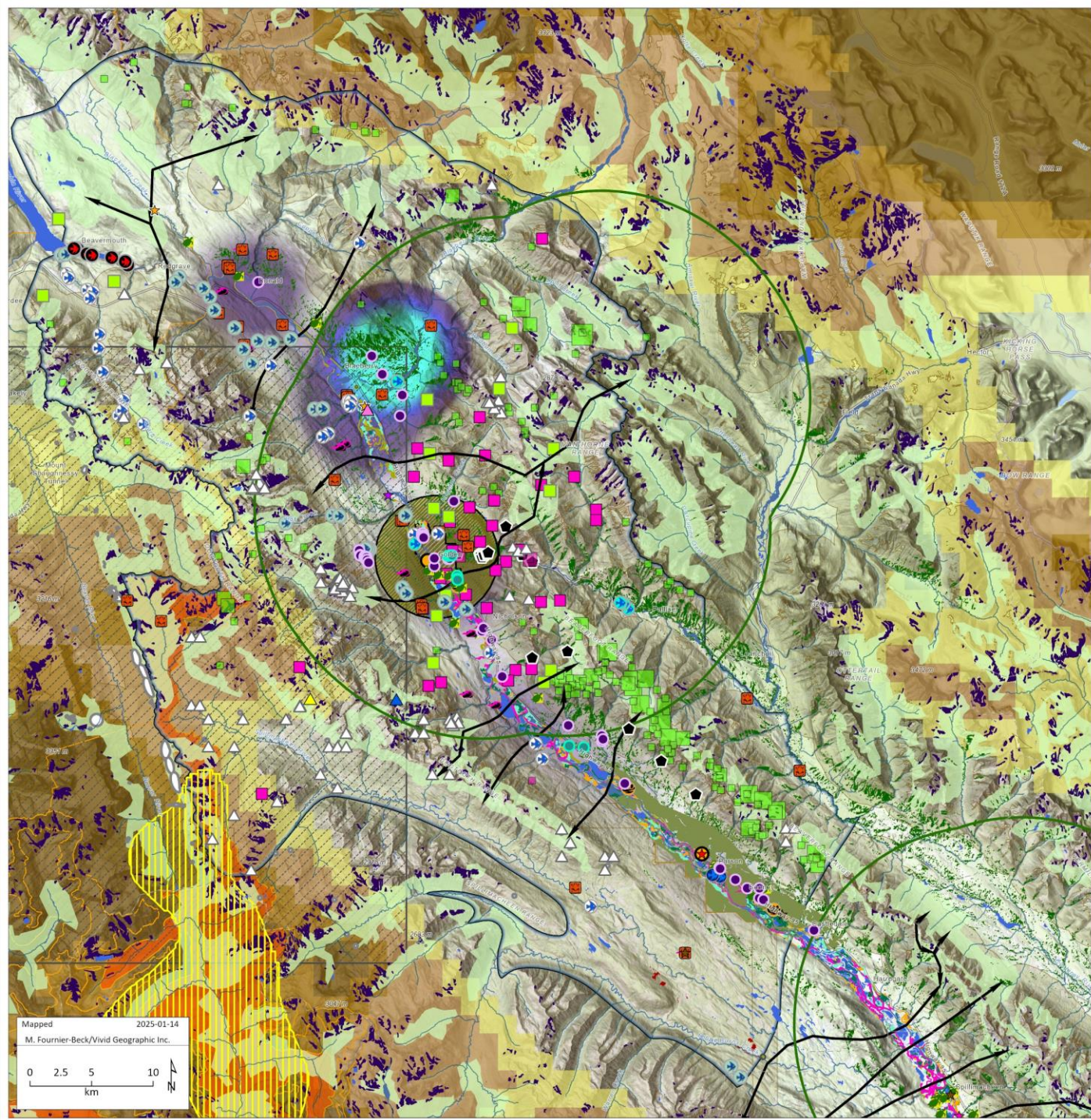
**Mowat et al 2020:** Wolverine Habitat Density (not predictive habitat).

**Ryan Durand:** ecosystems at risk.

**Rachel Darvill:** Columbia Wetlands Waterbird Survey, Marsh Bird Monitoring Project, Barn and Bank swallow colonies.

**BC Gov't (Anna McIndoe):** Limber Pine. **eBird** (until 2020)

Additional secured data (not shown here) for BH sheep and Mountain Goat.



### Overview of Available Data for the Golden Corridor

Project: Kootenay Connect

**Legend**

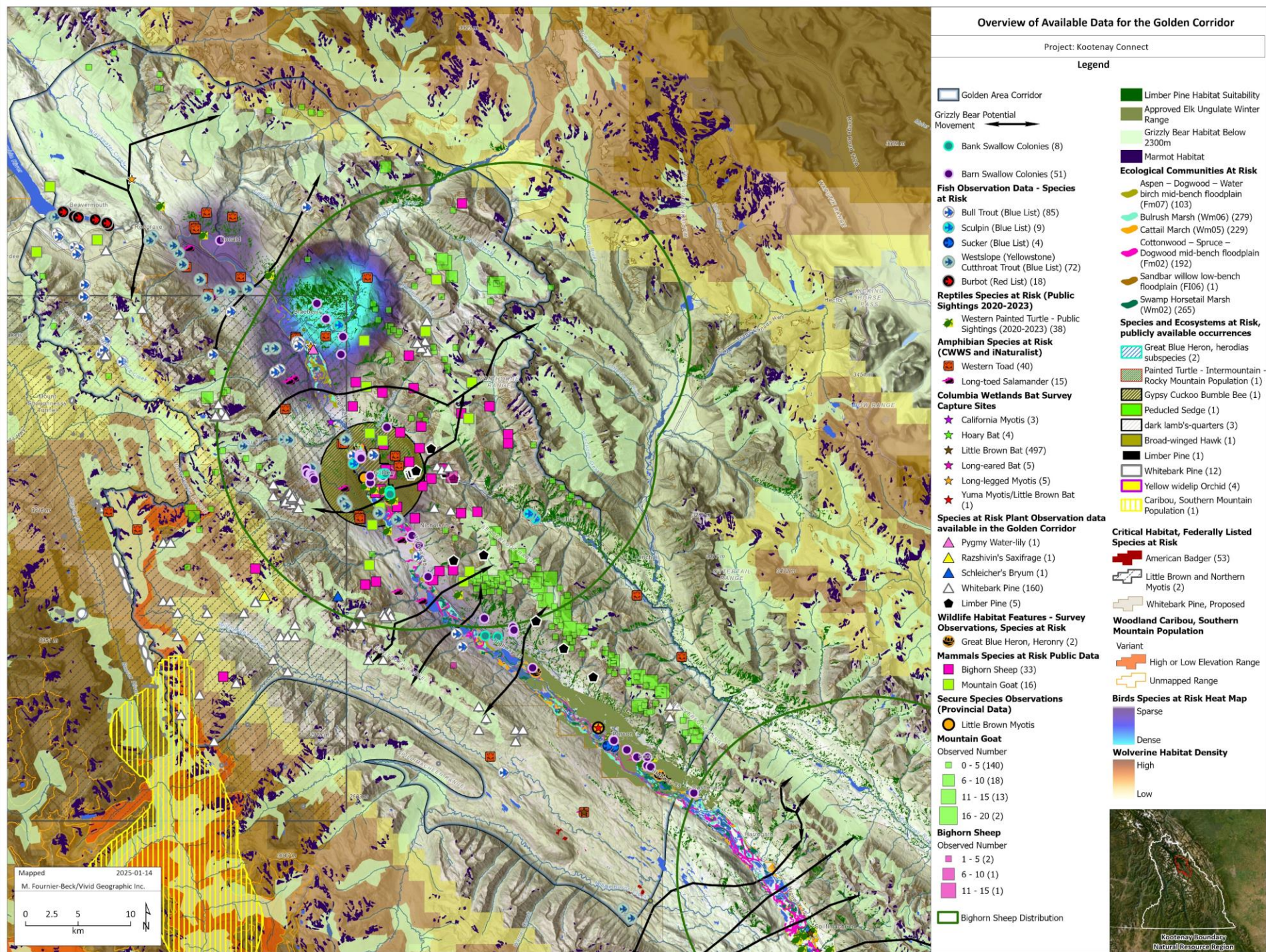
- Golden Area Corridor
- Grizzly Bear Potential Movement
- Bank Swallow Colonies (8)
- Barn Swallow Colonies (51)
- Fish Observation Data - Species at Risk**
  - Bull Trout (Blue List) (85)
  - Sculpin (Blue List) (9)
  - Sucker (Blue List) (4)
  - Westslope (Yellowstone) Cutthroat Trout (Blue List) (72)
  - Burbot (Red List) (18)
- Reptiles Species at Risk (Public Sightings 2020-2023)**
  - Western Painted Turtle - Public Sightings (2020-2023) (38)
- Amphibian Species at Risk (CWWS and iNaturalist)**
  - Western Toad (40)
  - Long-toed Salamander (15)
- Columbia Wetlands Bat Survey Capture Sites**
  - California Myotis (3)
  - Hoary Bat (4)
  - Little Brown Bat (497)
  - Long-eared Bat (5)
  - Long-legged Myotis (5)
  - Yuma Myotis/Little Brown Bat (1)
- Species at Risk Plant Observation data available in the Golden Corridor**
  - Pygmy Water-lily (1)
  - Razshivin's Saxifrage (1)
  - Schleicher's Bryum (1)
  - Whitebark Pine (160)
  - Limber Pine (5)
- Wildlife Habitat Features - Survey Observations, Species at Risk**
  - Great Blue Heron, Heronry (2)
- Mammals Species at Risk Public Data**
  - Bighorn Sheep (33)
  - Mountain Goat (16)
- Secure Species Observations (Provincial Data)**
  - Little Brown Myotis
- Mountain Goat Observed Number**
  - 0 - 5 (140)
  - 6 - 10 (18)
  - 11 - 15 (13)
  - 16 - 20 (2)
- Bighorn Sheep Observed Number**
  - 1 - 5 (2)
  - 6 - 10 (1)
  - 11 - 15 (1)
- Bighorn Sheep Distribution
- Limber Pine Habitat Suitability
- Approved Elk Ungulate Winter Range
- Grizzly Bear Habitat Below 2300m
- Marmot Habitat
- Ecological Communities At Risk**
  - Aspen - Dogwood - Water Birch mid-bench floodplain (Fm07) (103)
  - Bulrush Marsh (Wm06) (279)
  - Cattail Marsh (Wm05) (229)
  - Cottonwood - Spruce - Dogwood mid-bench floodplain (Fm02) (192)
  - Sandbar willow low-bench floodplain (F106) (1)
  - Swamp Horsetail Marsh (Wm02) (265)
- Species and Ecosystems at Risk, publicly available occurrences**
  - Great Blue Heron, herodias subspecies (2)
  - Painted Turtle - Intermountain - Rocky Mountain Population (1)
  - Gypsy Cuckoo Bumble Bee (1)
  - Peduced Sedge (1)
  - dark lamb's-quarters (3)
  - Broad-winged Hawk (1)
  - Limber Pine (1)
  - Whitebark Pine (12)
  - Yellow widelpip Orchid (4)
  - Caribou, Southern Mountain Population (1)
- Critical Habitat, Federally Listed Species at Risk**
  - American Badger (53)
  - Little Brown and Northern Myotis (2)
  - Whitebark Pine, Proposed
- Woodland Caribou, Southern Mountain Population Variant**
  - High or Low Elevation Range
  - Unmapped Range
- Birds Species at Risk Heat Map**
  - Sparse
  - Dense
- Wolverine Habitat Density**
  - High
  - Low

Mapped 2025-01-14  
M. Fournier-Beck/Vivid Geographic Inc.

0 2.5 5 10 km

Kootenay Boundary Natural Resource Region

- Clustered data where people are concentrated.
- Lack of data in many places - notably the West Bench, north end and higher elevations.
- Valley bottom has high levels of biodiversity – provides critical habitats for migrating birds, amphibians, inverts and fish.



# Recommendations for next steps

Map is hot off the press!

Larger area:

- Add ecosystem services and Indigenous values.
- CSRD should develop an OCP.
- Fill data gaps.
- Form a multi-stakeholder committee to develop management strategies.

Valley bottom (2025):

1. Develop and implement project to reduce growing light pollution problem.
2. Collaborate with landowners who own SAR habitat - educate on the existence of SAR or sensitive habitat features and develop strategies to maintain or improve those .
3. Expand boundaries of the CWWMA.

