

## MEMORANDUM

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**DATE:** March 12, 2021

**TO:** Wendy King (Slocan Lake Stewardship Society)

**FROM:** Ryan Durand, M.Sc., R.P.Bio. (EcoLogic Consultants Ltd.) and Tyson Ehlers, B.Sc., R.P.Bio. (Masse Environmental Consultants Ltd.)

**SUBJECT:** Bonanza Biodiversity Corridor - Preliminary Summary of Biodiversity and Species-at-Risk Results

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The Bonanza Biodiversity Corridor (BBC) is known as a biodiversity hot spot, with a diverse and ever-increasing list of species confirmed in the area. The 2020 biodiversity and species-at-risk (SAR) surveys resulted in the collection of several hundred species that were not previously known to occur in the area. The following is a summary of the data that has been collected to date for the BBC. The full lists of species are in the attached Excel file (Bonanza Biodiversity Summary Master 2021-03-09.xlsx).

### Methods

The biodiversity summary was compiled from a variety of sources, including:

- ◆ data collected in the BBC from 2019–2020 as part of this project by Durand and Ehlers,
- ◆ data collected from previous projects and personal observations by Durand and Ehlers,
- ◆ data mining of community science resources including iNaturalist and e-Bird,
- ◆ tracking lists and species occurrences from the British Columbia Conservation Data Centre,
- ◆ data from previous inventories including SWAMP and the BC Wildlife Federation Bioblitz, and
- ◆ data from other inventories, and personal knowledge, from local biologists, naturalists and experts.

### Preliminary Results

A total of 994 taxa have been recorded in the BBC. As these records are from a variety of sources, the actual number of species is likely different, and expected to be larger. The records were sorted based on unique values and filtered by assigned taxonomic classification; higher classifications may represent species already tallied or the filter may have excluded records for unique species that have not been determined.

**Table 1. Summary of Species Confirmed in the Bonanza Biodiversity Corridor**

Lifeform	No. of Taxa
Amphibian	4
Arthropod	82
Bird	154
Fish	16
Fungus	203
Lichen	7
Mammal	28
Mollusc	21
Myxomycete	39
Plant	438
Reptile	2
Total	994

A total of 25 species that have provincial and/or federal conservation ranks have been identified in the BBC. The list includes 3 Endangered, 8 Threatened, and 4 Special Concern species from the federal *Species at Risk Act* (SARA); three Endangered, 11 Threatened, and 2 Special Concern species from the federal Committee on the Status of Endangered Wildlife in Canada (COSEWIC); and one Red, 18 Blue, and 409 Yellow species tracked by the British Columbia Conservation Data Centre. All conservation ranks are current as of March 5, 2021.

**Table 2. Summary of Species with Conservation Ranks Confirmed in the Bonanza Biodiversity Corridor**

BC List	No. of taxa	COSEWIC	No. of taxa	SARA	No. of taxa
Red	1	Endangered	3	Endangered	3
Blue	18	Threatened	11	Threatened	8
Yellow	409	Special Concern	2	Special Concern	4
Accidental	1	Not at Risk	14		
Exotic	28				
No Status	99				
Unknown	5				

**Table 3. Species-at-Risk Confirmed in the Bonanza Biodiversity Corridor**

Scientific Name	English Name	Lifeform	BC Status	COSEWIC	SARA
<i>Anaxyrus boreas</i>	Western Toad	Amphibian	Yellow	Special Concern	Special Concern
<i>Aechmophorus occidentalis</i>	Western Grebe	Bird	Red	Special Concern	Special Concern
<i>Buteo platypterus</i>	Broad-winged Hawk	Bird	Blue		
<i>Chordeiles minor</i>	Common Nighthawk	Bird	Yellow	Special Concern	Threatened
<i>Coccothraustes vespertinus</i>	Evening Grosbeak	Bird	Yellow	Special Concern	Special Concern
<i>Contopus cooperi</i>	Olive-sided Flycatcher	Bird	Blue	Special Concern	Threatened
<i>Cygnus columbianus</i>	Tundra Swan	Bird	Blue		
<i>Cypseloides niger</i>	Black Swift	Bird	Blue	Endangered	Endangered
<i>Euphagus carolinus</i>	Rusty Blackbird	Bird	Blue	Special Concern	Special Concern
<i>Hirundo rustica</i>	Barn Swallow	Bird	Blue	Threatened	Threatened
<i>Podiceps auritus</i>	Horned Grebe	Bird	Yellow	Special Concern	Special Concern
<i>Progne subis</i>	Purple Martin	Bird	Blue		
<i>Riparia riparia</i>	Bank Swallow	Bird	Yellow	Threatened	Threatened
<i>Oncorhynchus clarkii lewisi</i>	Westslope (Yellowstone) Cutthroat Trout	Fish	Blue	Special Concern	Special Concern
<i>Salvelinus confluentus</i>	Bull Trout	Fish	Blue	Special Concern	
<i>Corynorhinus townsendii</i>	Townsend's Big-eared Bat	Mammal	Blue		
<i>Gulo gulo luscus</i>	Wolverine	Mammal	Blue	Special Concern	Special Concern
<i>Myotis lucifugus</i>	Little Brown Bat	Mammal	Yellow	Endangered	Endangered
<i>Oreamnos americanus</i>	Mountain Goat	Mammal	Blue		
<i>Ursus arctos</i>	Grizzly Bear	Mammal	Blue	Special Concern	Special Concern
<i>Cryptomastix mullani</i>	Coeur d'Alene Oregonian	Mollusc	Blue		
<i>Hemphillia camelus</i>	Pale Jumping-slug	Mollusc	Blue		
<i>Berula erecta</i>	Cut-leaved Water-parsnip	Plant	Blue		
<i>Botrychium montanum</i>	Mountain Moonwort	Plant	Blue		
<i>Pinus albicaulis</i>	Whitebark Pine	Plant	Blue	Endangered	Endangered

### **Summary and Next Steps**

These preliminary results re-enforce the importance of the BCC as a biodiversity and SAR hotspot. The species inventory data will guide the 2021 field surveys to focus on under-studied taxonomic groups (e.g., lichens), specific habitat types that have a high potential to support SAR that are known to occur, those that may potentially occur in the BBC, and additional species that have not been observed in the BBC to date. The 2021 field surveys will also focus on confirming species-level identification when possible.