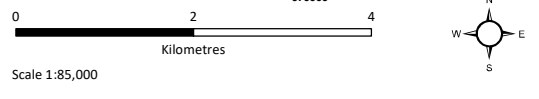


**Crown Mountain Coking Coal Project**

**LEGEND**

- High-Quality Gillette's Checkerspot Spring-Summer Habitat
- Watercourse
- Waterbody
- Wetland
- Provincial Park/Protected Area
- Terrestrial Local Study Area
- Project Footprint
- Highway
- Arterial/Collector Road
- Local/Resource Road
- Railway
- Transmission Line
- British Columbia/Alberta Border



Scale 1:85,000

Map Drawing Information:  
 Data Provided By NWP Coal Canada Ltd, Dillon Consulting Limited, Keefer Ecological Services Ltd, Province of British Columbia GeoBC Open Data, Government of Alberta Open Data, Natural Resource Canada.  
 Imagery Provided By Landsat 8 (Aug 2018), and GeoBC Ortho Imagery (Aug 2016).  
 Map Created By: RB  
 Map Checked By: JM  
 Map Coordinate System: NAD 1983 UTM Zone 11N

**Figure 15.9-4**  
 High-Quality Gillette's Checkerspot Spring-Summer Habitat in the Terrestrial Local Study Area

**NWP Coal Canada Ltd**

Project: 12-6231  
 Status: FINAL  
 Date: 2022-01-14

Clearing will begin in Construction and Pre-Production, with initial portions of the 1,283 ha footprint (including the buffer) prepared for the mine site facilities, a portion of the North Pit, the Interim Sediment Pond, roads, the conveyor, the powerline, and the rail loadout. During Operations, progressive clearing of the pits, Mine Rock Storage Facility, and Main Sediment Pond will continue through to Year 15. Habitat loss will have a continuous adverse effect until progressive reclamation begins in Year 10 of Operations. With progressive reclamation between Years 10 and 15 and continued reclamation in the Reclamation and Closure phase, the effect of habitat loss will begin to decline.

A 100 m wide corridor has been allocated for construction of the 2.7 km long overland coal conveyor. Not all portions of the corridor will require clearing, and temporary construction areas will rapidly revegetate, though may not represent high-quality Gillette's checkerspot habitat for several decades.

Post mine reclamation will restore a mosaic of coniferous forest, open alpine tundra, rock outcrops, shrub and graminoid dominated brushland, talus slopes, wetlands, and riparian areas (described in Section 15.9.3.4 and in the Ecological Restoration Plan, Chapter 33, Section 33.4.1.3). Reclamation will begin in Year 10 of Operations for limited areas and then accelerating at the end of Operations. Shrubs that provide nectar for Gillette's checkerspot will become available at 10 to 25 years post-closure. Forest will begin to become established at 50 years post-closure onward and begin to provide some high-quality habitat for Gillette's checkerspot.

Habitat degradation of areas outside the Project footprint can occur from potential introduction and spread of invasive species, changes in vegetation vigour from dust deposition, and surface water runoff from the Project footprint that can contain suspended solids and affect vegetation. Mitigation for each of these effects was described in Chapter 13 and found to have no residual effects to each of the ecosystem VCs.

The Project footprint includes a buffer area intended to account for uncertainty in precise boundaries of disturbance. Not all of the buffer area will be disturbed, and the calculations of habitat loss are therefore conservative and may be overestimated.

The residual effect to Gillette's checkerspot from habitat loss and degradation is characterized as follows:

- Duration: *Long-term*, lost habitat will begin to be reclaimed prior to the end of the Reclamation and Closure phase.
- Magnitude: Moderate, there will be up to 8.9% of high-quality Gillette's checkerspot spring-summer habitat lost in the Terrestrial LSA.
- Geographic Extent: *Discrete*, as the effect of habitat loss will be within the Project footprint only.
- Frequency: *Continuous*, the effect of habitat loss and degradation is expected to be continuous until lost habitat is reclaimed.
- Reversibility: *Reversible long-term*, the effect of habitat loss is anticipated to begin to be reversible once the Project footprint is reclaimed.
- Context: Low, Gillette's checkerspot have a high sensitivity and low resilience to human activities.

#### 15.9.3.5.3 Determination of Significance

Gillette's checkerspot is a species of global conservation concern (G3) and is currently ranked as Blue-listed (S2S3 2000) in B.C. Surveys as recently as 2014 and as far back as 2008 showed populations in the southeastern portions of B.C. in the Flathead and Upper Elk River drainages near the Project; however, only two observations of four individuals were confirmed in the Terrestrial LSA, and none were observed within the Project footprint. That stated, baseline studies and habitat suitability index modelling did reveal high-quality spring-summer habitat in the Project footprint and Terrestrial LSA that will be lost.

Based on the characterization of residual effects, known occurrence, and ecology of Gillette's checkerspot, despite an 8.9% loss of high-quality Gillette's checkerspot in the Terrestrial LSA, it is not anticipated that the Project would limit the ability of Gillette's checkerspot to persist and maintain self-sustaining populations outside of the Project footprint with the predicted loss outlined above. Therefore, the residual effects of a change in Gillette's checkerspot habitat availability and distribution (and by extension, known occurrence and abundance) arising from the Project are considered not significant.

#### 15.9.3.5.4 Likelihood and Confidence

Effects from Project activities that are determined to be not significant do not require a characterization of likelihood.

There is a good understanding of Gillette's checkerspot ecology and a moderate understanding of the habitat availability and distribution (and by extension, their known occurrence and abundance) in the Terrestrial LSA based on current modelling and past field surveys. The confidence in the determination of residual effects to Gillette's checkerspot is moderate. A better understanding of Gillette's checkerspot occurrence and abundance may improve this level of confidence with more recent surveys; however, this is may not be plausible due to their low population in Canada.

#### 15.9.3.5.5 Summary of Residual Effects Assessment

Residual effects and the selected mitigation measures, characterization criteria, significance determination, likelihood, and confidence are summarized in Table 15.9-6. There are no significant residual effects on Gillette's checkerspot anticipated as a result of the Project.

### 15.9.4 Cumulative Effects Assessment

Cumulative environmental effects are the result of Project residual environmental effects interacting with the effects of other past, present, and reasonably foreseeable future projects or activities to produce a combined/overlapping effect. The objective of the cumulative effects assessment is to consider overlapping effects for all residual adverse effects, not only those predicted to be significant (EAO, 2013). The assessment of cumulative effects on Gillette's checkerspot requires that:

- The Project results in a residual adverse environmental effect on Gillette's checkerspot;
- A residual Project effect interacts cumulatively with effects from other projects or activities (i.e., an effect of the Project overlaps spatially and temporally with those of other projects or activities that have been or will be carried out);
- The other projects or activities have been or will be carried out and are not hypothetical; and
- The cumulative effect is likely to occur.

Table 15.9-6: Summary of Residual Effects on Gillette’s Checkerspot

Residual Effect	Project Phase(s)	Mitigation Measures	Summary of Residual Effects Characterization	Significance (Significant, Not Significant)	Likelihood (High, Moderate, Low)	Confidence (High, Moderate, Low)
Habitat Loss and Degradation	<ul style="list-style-type: none"> <li>Construction and Pre-Production</li> <li>Operations</li> </ul>	<ul style="list-style-type: none"> <li>Minimizing disturbance and encroachment into natural vegetation</li> <li>Project design</li> <li>Progressive reclamation</li> </ul>	Duration: Long-term Magnitude: Moderate Geographic Extent: Discrete Frequency: Continuous Reversibility: Reversible long-term Context: Low	Not Significant	Not Applicable	Moderate

Further information regarding the cumulative effects assessment methodology is provided in Chapter 5, Section 5.3.5.4.

An assessment of cumulative effects is required for Gillette's checkerspot due to the possibility that potential Project residual effects on Gillette's checkerspot may remain after implementation of proposed mitigation measures. Habitat loss and degradation was found to have a residual (but not significant) Project effect for Gillette's checkerspot.

#### 15.9.4.1 Assessment Boundaries

##### 15.9.4.1.1 Spatial Boundaries

The assessment of cumulative effects for Gillette's checkerspot was conducted for the Birds, Bats, and Amphibians RSA, as defined in Section 15.2.3.1. The Birds, Bats, and Amphibians RSA is approximately 12,634 km<sup>2</sup>. It includes all operating and proposed mines within the Elk Valley and several developed areas including the municipal boundaries of Sparwood, Elkford, Fernie, and Crowsnest Pass.

##### 15.9.4.1.2 Temporal Boundaries

The temporal boundaries for the Project include periods of Construction and Pre-Production, Operations, Reclamation and Closure, and Post-Closure, as identified in Section 15.2.3.2.

Temporal cases used in the assessment of cumulative effects includes the following:

1. Base Case – The current status of the VC prior to the start of the Project, including all appropriate past and present projects and/or activities – generally represented by existing conditions;
2. Project Case – Status of the VC with the Project in place, over and above the Base Case – generally represented by the Project effects assessment; and
3. Future Case – The status of the VC as a result of the Project Case in combination with all reasonably foreseeable future projects and/or activities that could be carried out.

The comparison of the Project Case with the Future Case allows the Project contribution to cumulative effects of all past, present, and reasonably foreseeable future projects and/or activities to be determined.

##### 15.9.4.1.3 Technical Boundaries

In addition to those presented in Section 15.2.3.4, technical boundaries or constraints imposed on the assessment due to limitations in the ability to predict the effects of the Project include the following:

- Information on species ranges and population numbers in the region is variable and, in some cases, limited;
- Habitat availability (including habitat suitability, resource selection, and habitat use) was assessed from occupancy and habitat modelling. The models have inherent uncertainty and are an imperfect representation;
- There is limited knowledge of the precise scope and extent of potential effects of past, present, and reasonably foreseeable projects, aside from the Project. The geographic extents of footprints are from publicly available sources and their accuracy cannot be guaranteed; and
- There is limited knowledge of species and individual responses to disturbance, and the relationship to potential population-level effects is not well understood.

#### 15.9.4.2 Identifying Past, Present, and Reasonably Foreseeable Projects and/or Activities

Descriptions of the past, present, and reasonably foreseeable projects and/or activities for consideration in the cumulative effects assessment are provided in Chapter 5, Section 5.3.5.3.

Several past, present, and reasonably foreseeable projects or activities are expected to interact with Gillette's checkerspot, which may result in a potential for adverse cumulative effects (Table 15.9-7). Maps showing the location of the past, present, and reasonably foreseeable future projects or activities are presented in Figure 5.3-4 to Figure 5.3-6 (Chapter 5).

As noted in Chapter 5, Section 5.3.5.3, the following projects were considered as past, present, or reasonably foreseeable future projects and/or activities in the cumulative effects assessment but were not included:

- Coal Mountain Phase 2, as the environmental assessment was placed on hold by Teck Coal Limited in 2016;
- Mount Brussil of (Baymag Mine) by Baymag, due to no temporal overlap;
- Barnes Lake Phosphate Exploration Project by Fertoz International Inc., given that the project is in exploration phase and no project has been proposed; and
- Cabin Ridge Coal by Warburton Group is in exploration and no project has been proposed.

#### 15.9.4.3 Mitigation for Cumulative Effects

Cumulative effects can be reduced through minimizing local Project-related effects using the mitigation measures described for the Project (Section 15.9.3.4). It is assumed that other projects in the region will also adopt similar measures. Addressing cumulative effects often requires regional stakeholder involvement and government-led initiatives to implement effective management plans and monitoring programs. NWP will participate in regional initiatives, where relevant and appropriate, and will adopt new management practices and measures to meet regional planning objectives, where possible.

#### 15.9.4.4 Potential Residual Cumulative Effects

##### 15.9.4.4.1 Assessment Methods

The assessment of potential cumulative effects on Gillette's checkerspot was characterized by calculating the loss of high-quality spring-summer habitat within the Birds, Bats, and Amphibians RSA for the Base Case, the Project Case, and the Future Case. High-quality spring-summer habitat was defined as areas with high and very high habitat suitability. The habitat suitability mapping for Gillette's checkerspot used for the Project and Future Cases is the same as used for the Base Case. Ecosystems change over time through natural successional processes (e.g., forest regrowth) and natural disturbance regimes (e.g., fire). Habitat suitability for Gillette's checkerspot will therefore also change over time. For the purposes of the assessment of cumulative effects, the assumption is that while ecosystems are dynamic, the general amount and distribution of ecosystems (and therefore suitable habitat for Gillette's checkerspot) in the Birds, Bats, and Amphibians RSA is approximately the same for the Base, Project, and Future Cases, aside from habitat losses from the reasonably foreseeable future projects and activities that are included in the Future Case. Reasonably foreseeable future projects and activities were assumed to result in complete removal of suitable wildlife habitat. This is a conservative approach, as some activities will not result in complete loss of habitat (e.g., cutblocks provide food resources for some species) and some physical disturbance footprints are restored over time (e.g., mine reclamation).

Table 15.9-7: Project-Gillette's Checkerspot Interactions Matrix for Potential Cumulative Effects

Past, Present, or Reasonably Foreseeable Future Projects or Activities	Ranking of Potential Cumulative Effect Gillette's Checkerspot	Justification / Rationale
Past or Present Projects and/or Activities that Have Been Carried Out		
Natural Resource Extraction – Mining (past)	I	Has occurred within the potential range of Gillette's checkerspot and their habitat.
Coal Mountain Operations	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Elkview Operations	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Line Creek Operations	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Fording River Operations	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Greenhills Operations	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Kootenay West Mine	I	Does not occur within the potential range of Gillette's checkerspot.
Elkhorn Quarry West (Windermere Mining Operations)	I	Does not occur within the potential range of Gillette's checkerspot.
Marten Phosphate Project	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Energy - Elko Dam	I	Does not occur within the potential range of Gillette's checkerspot.
Kooacanusa Reservoir	I	Does not occur within the potential range of Gillette's checkerspot.
Forestry	II	Occurs within the potential range of Gillette's checkerspot and their habitat.
Energy - Pipelines	II	Occurs within the potential range of Gillette's checkerspot and their habitat.
Energy - Electrical Transmission	II	Occurs within the potential range of Gillette's checkerspot and their habitat.
Transportation	II	Occurs within the potential range of Gillette's checkerspot and their habitat.
Recreation and Tourism	I	Occurs within the potential range of Gillette's checkerspot and their habitat, though adverse effects are expected to be minimal or absent.
Commercial, Residential, and Industrial Use	II	Occurs within the potential range of Gillette's checkerspot and their habitat.
Parks and Protected Areas	I	Occurs within the potential range of Gillette's checkerspot and their habitat, though adverse effects are expected to be minimal or absent.

Past, Present, or Reasonably Foreseeable Future Projects or Activities	Ranking of Potential Cumulative Effect Gillette's Checkerspot	Justification / Rationale
Agriculture	I	Occurs within the potential range of Gillette's checkerspot and their habitat. Not all effects are adverse.
Natural Processes or Events	I	Magnitude of effect on at-risk bat VCs likely very small.
Reasonably Foreseeable Future Projects and/or Activities That Will Be Carried Out		
Michel Coal Project	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Grassy Mountain Coal Project	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Tent Mountain Mine	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Fording River Extension Project	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Bingay Main Project	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Elan Hard Coking Coal Project	III	Occurs within the potential range of Gillette's checkerspot and their habitat.
Climate Change	III	May affect habitat availability of Gillette's checkerspot.
Natural Processes or Events	III	Magnitude of effect on Gillette's checkerspot likely very small.

Notes:

I – Residual Project effects do not act cumulatively with those of other past, present, or reasonably foreseeable future projects and/or activities. Not carried forward in the assessment.

II – Residual Project effects act cumulatively with those of other past, present, or reasonably foreseeable future projects and/or activities, but are unlikely to result in significant cumulative effects; or residual Project effects act cumulatively with existing significant cumulative effects but the Project will not measurably contribute to these cumulative effects on the VC. Carried forward in the assessment.

III – Residual Project effects act cumulatively with those of other past, present, or reasonably foreseeable future projects and/or activities, and may result in significant cumulative effects; or residual Project effects act cumulatively with existing significant cumulative effects and the Project may measurably contribute to adverse changes in the state of the VC. Carried forward in the assessment.



#### 15.9.4.4.2 Characterization of Residual Cumulative Effects

##### Habitat Loss and Degradation

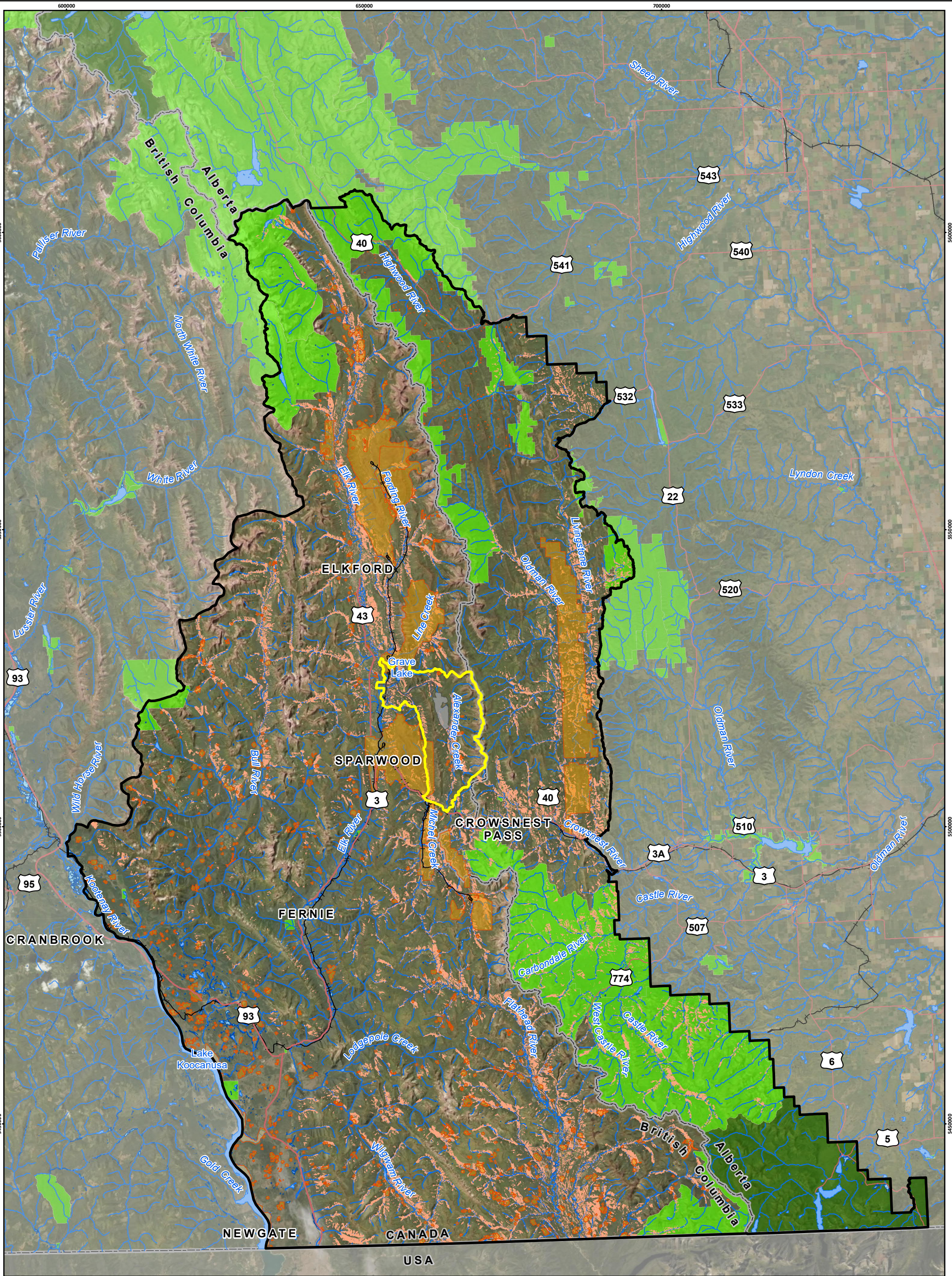
Many present and reasonably foreseeable future projects and activities occur within the range of Gillette's checkerspot and in potentially suitable habitat and thus involve habitat loss or alteration of Gillette's checkerspot habitat (Figure 15.9-5). The Base Case incorporates the cumulative loss or alteration of Gillette's checkerspot habitat as a result of past and present projects and was the basis for the assessment of Project effects. For the Future Case that includes both the Project and all other reasonably foreseeable future projects and activities, approximately 11.7% of high-quality Gillette's checkerspot spring-summer habitat is predicted to be lost within the Birds, Bats, and Amphibians RSA (Table 15.9-8). The Project is predicted to contribute 0.19% of that loss.

Table 15.9-8: Change in High-Quality Gillette's Checkerspot Habitat for the Base Case, the Project Case, and the Future Case in the Birds, Bats, and Amphibians RSA

VC	Season	Amount (ha) of High-Quality Habitat (Change from Base Case in Brackets)			Change as Proportion of Birds, Bats, and Amphibians RSA	
		Base Case	Project Case	Future Case	Base Case to Project Case	Base Case to Future Case
Gillette's Checkerspot	Spring/Summer	103,461	103,269 (-192)	91,339 (-12,122)	-0.19%	-11.7%

The residual cumulative effect to Gillette's checkerspot from habitat loss and degradation arising from the Project in combination with those of other past, present, and reasonably foreseeable future projects and activities is characterized as follows:

- Duration: *Long-term*, lost habitat will begin to be reclaimed prior to the end of the Reclamation and Closure phase.
- Magnitude: *Moderate*, there will be up to 11.7% of high-quality Gillette's checkerspot spring-summer habitat lost in the Birds, Bats, and Amphibians RSA due to the development of the Project and all other reasonably foreseeable future projects and activities. The Project contribution to these losses is expected to be a 0.19% loss of high-quality spring-summer habitat in the Birds, Bats and Amphibians RSA.
- Geographic Extent: *Regional*, as the effect of habitat loss of the Future Case will be in the Birds, Bats, and Amphibians RSA.
- Frequency: *Continuous*, the effect of habitat loss and degradation is expected to be continuous until lost habitat is restored.
- Reversibility: *Reversible long-term*, the effect of habitat loss is anticipated to begin to be reversible once the Project footprint is reclaimed.
- Context: *Low*, Gillette's checkerspot have high sensitivity and low resilience to human activities.

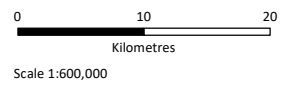


**Crown Mountain Coking Coal Project**

**Figure 15.9-5**  
 High-Quality Gillette's Checkerspot Spring-Summer Habitat and Reasonably Foreseeable Future Projects and Activities in the Birds, Bats, and Amphibians Regional Study Area

**LEGEND**

- High-Quality Gillette's Checkerspot Spring-Summer Habitat
- Reasonably Foreseeable Future Projects and Activities
- Birds/Bats/Amphibians Regional Study Area
- Terrestrial Local Study Area
- Crown Mountain Coking Coal Project
- Highway
- Railway
- Watercourse
- Waterbody
- Wetland
- Provincial Park/Protected Area
- National Park
- British Columbia/ Alberta Border



Map Drawing Information:  
 Data Provided By NWP Coal Canada Ltd, Dillon Consulting Limited, Keefer Ecological Services Ltd, Province of British Columbia GeoBC Open Data, Government of Alberta Open Data, Natural Resource Canada.  
 Imagery Provided By ESRI.  
 Map Created By: LMM  
 Map Checked By: HEB  
 Map Coordinate System: NAD 1983 UTM Zone 11N



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#### 15.9.4.4.3 Determination of Significance

Gillette’s checkerspot is a species of global conservation concern and is currently ranked as Blue-listed in B.C. Historical Gillette’s checkerspot abundance data for the Birds, Bats, and Amphibians RSA are not available, and little is known about the population within the Project study areas. However, based on the characterization of the residual cumulative effects, the Project in combination with reasonably foreseeable future projects and activities would not limit the ability of Gillette’s checkerspot to persist and maintain self-sustaining populations in the Birds, Bats, and Amphibians RSA. The residual cumulative effects of habitat loss and degradation on Gillette’s checkerspot arising from the Project in combination with other past, present, and reasonably foreseeable future projects and activities during all phases are therefore considered not significant.

#### 15.9.4.4.4 Likelihood and Confidence

Effects that are determined to be not significant do not require a characterization of likelihood.

There is a good understanding of Gillette’s checkerspot ecology and a moderate understanding of their habitat availability and distribution (and by extension, their known occurrence and abundance) in the Birds, Bats, and Amphibians RSA. The confidence in the determination of the significance of residual cumulative effects to Gillette’s checkerspot is therefore moderate.

#### 15.9.4.5 Summary of Cumulative Effects Assessment

Residual cumulative effects and the selected mitigation measures, characterization criteria, significance determination, likelihood, and confidence for Gillette’s checkerspot are summarized in Table 15.9-9.

Table 15.9-9: Summary of Cumulative Effects on Gillette’s Checkerspot

Residual Cumulative Effect	Mitigation Measures	Summary of Cumulative Residual Effects Characterization	Significance (Significant, Not Significant)	Confidence (High, Moderate, Low)
Habitat Loss and Degradation	<ul style="list-style-type: none"> <li>Minimizing local Project-related effects</li> <li>Participate in regional initiatives, where relevant and appropriate, and adoption of new management practices and measures to meet regional planning objectives, where possible</li> </ul>	Duration: Long-term Magnitude: Moderate Geographic Extent: Regional Frequency: Continuous Reversibility: Reversible long-term Context: Low	Not Significant	Moderate

### 15.9.5 Follow-up Strategy

A follow-up program is used to verify environmental effects predictions or to verify the effectiveness of mitigation measures where there is uncertainty (i.e., low to moderate confidence). The confidence in the residual Project effect and the residual cumulative effect of habitat loss and alteration on Gillette’s checkerspot was classified as moderate. Where environmental effects exceed that predicted under the

effects assessment, or mitigation measures prove to be ineffective, alternative strategies are developed to adaptively manage the Project's effects on wildlife VCs.

Gillette's checkerspot was not observed within the footprint during baseline surveys; however, since suitable habitat exists, there is still potential for its presence. To verify predictions and as a mitigation measure, pre-disturbance surveys for Gillette's checkerspot will be completed in high-quality habitats within the Project footprint. Locations of high-quality Gillette's checkerspot habitat will be identified based on and informed by the baseline surveys, the habitat suitability mapping, and terrestrial ecosystem mapping. High-quality habitats within disturbance footprints will then be surveyed during the prime flight window for the species and during weather conditions suitable for adult butterfly activity.

Other wildlife monitoring outlined in the Wildlife Management and Monitoring Plan (Chapter 33, Section 33.4.1.13) to support the verification of mitigation measures and effects predictions relating 33 Gillette's checkerspot will include:

- Monitoring of footprint and habitat losses/gains to track and compare the planned footprint with the actual footprint and to track ecological restoration;
- Recording and reporting on wildlife mortality, incidents, accidents, or near misses; and
- Monitoring of species occurrence at the local level by Project personnel documenting incidental observations of wildlife (i.e., wildlife sighting and incidents).

## 15.9.6 Summary and Conclusions

Gillette's checkerspot is a species of global conservation concern and is currently ranked as Blue-listed in B.C. Surveys as recently as 2014 and as far back as 2008 showed populations in the southeastern portions of B.C. in the Flathead and Upper Elk River drainages near the Project; however, only two observations of four individuals were confirmed in the Terrestrial LSA, and none were observed within the Project footprint. The potential effects of the Project on Gillette's checkerspot were determined to be focused on habitat loss and degradation. Various mitigation measures will avoid or minimize potential effects to Gillette's checkerspot, though potential residual effects may remain. These residual effects were determined to be not significant. There will be incremental loss of Gillette's checkerspot habitat arising from the effects of the Project in combination with those of other past, present, and reasonably foreseeable future projects and activities, though determined to be not significant. Follow-up monitoring is to include pre-disturbance surveys in high-quality habitat, and footprint and facility monitoring.

## 15.10 References

Adams, I. T. and Kinley, T. A. (2004). *Badger: Taxidea taxus jeffersonii*. In K. Paige (Ed.), *Accounts and measures for managing identified wildlife* [Version 2004] (pp. 333-342). British Columbia Ministry of Water, Lands, and Air Protection.

[https://www.env.gov.bc.ca/wld/frpa/iwms/documents/Mammals/m\\_badger.pdf](https://www.env.gov.bc.ca/wld/frpa/iwms/documents/Mammals/m_badger.pdf)

Ager, A. A., Johnson, B. K., Kern, J. W., and Kie, J. G. (2003). Daily and seasonal movements and habitat use by female Rocky Mountain elk and mule deer. *Journal of Mammalogy*, 84(3), 1076-1088.

<https://doi.org/10.1644/BBa-020>

- Alberta Environment and Parks. (2020). Fish and wildlife internet mapping tool [Interactive map]. <https://www.alberta.ca/access-fwmis-data.aspx>
- Allen, A. W. (1982). Habitat suitability index models: Marten [Publication No. 82/10.11]. U.S. Fish and Wildlife Service. [https://pubs.er.usgs.gov/publication/fwsobs82\\_10\\_11](https://pubs.er.usgs.gov/publication/fwsobs82_10_11)
- Altman, B. and Sallabanks, R. (2020). Olive-sided flycatcher (*Contopus cooperi*). In A.F. Poole (Ed.), *Birds of the World*. Cornell Lab of Ornithology. <https://doi.org/10.2173/bow.olsfly.01>
- Andersen, D. E., DeStefano, S., Goldstein, M. I., Titus, K., Crocker-Bedford, C., Keane, J. J., Anthony, R.G., and Rosenfield, R. N. (2005). Technical review of the status of northern goshawks in the western United States. *Journal of Raptor Research*, 39(3), 192-209.
- Anderson, D. P., Forester, J. D., Turner, M. G., Frair, J. L., Merrill, E. H., Fortin, D., Mao, J. S. and Boyce, M. S. (2005). Factors influencing female home range sizes in elk (*Cervus elaphus*) in North American landscapes. *Landscape Ecology*, 20(3), 257-271. <https://doi.org/10.1007/s10980-005-0062-8>
- Apps, C. D. (2000). Space-use, diet, demographics, and topographic associations of lynx in the Southern Canadian Rocky Mountains: a study. In L.F. Ruggiero, K.B. Aubry, S.W. Buskirk, G.M. Koehler, C.J. Krebs, K.S. McKelvey, and J.R. Squires (Eds.), *Ecology and Conservation of Lynx in the United States* (pp. 351–371). United States Department of Agriculture, Forest Service. [http://www.fs.fed.us/rm/pubs/rmrs\\_gtr030/rmrs\\_gtr030\\_351\\_372.pdf](http://www.fs.fed.us/rm/pubs/rmrs_gtr030/rmrs_gtr030_351_372.pdf)
- Apps, C. D. (2007). *Ecology and conservation of Canada lynx in the southern Canadian Rocky Mountains* [Unpublished doctoral dissertation]. University of Calgary.
- Apps, C. D., Dibb, A., and Fontana, A. J. (1999). Lynx ecology in the Southern Canadian Rocky Mountains: preliminary results and conservation implications. In L.M. Darling (Eds.), *Proceedings of a Conference on the Biology and Management of Species and Habitats at Risk* (pp. 713-720). British Columbia Ministry of Environment, Lands, and Parks. <https://www.env.gov.bc.ca/wld/documents/ca11apps1.pdf>
- Apps, C. and Lamb, C. (2019). *Scale-integrated Grizzly Bear habitat modeling to inform environmental assessment for NWP Coal's Crown Mountain project*. NWP Coal Canada Ltd.
- Apps, C., and McLellan, B. (2008). *Grizzly Bear habitat selection and suitability across multiple scales in the Flathead and Lower Elk Drainages, British Columbia*. Aspen Wildlife Research Inc. and Matrix Solutions Inc.
- Apps, C., McLellan, B., and Servheen, C. (2013). *Multi-scale population and behavioural responses by grizzly bears to habitat and human influence across the southern Canadian Rocky Mountain* [Version 2.0]. Aspen Wildlife Research.
- Apps, C. D., McLellan, B. N., Woods, J. G., and Proctor, M. F. (2004). Estimating grizzly bear distribution and abundance relative to habitat and human influence. *The Journal of Wildlife Management*, 68(1), 138-152. <https://www.jstor.org/stable/3803777>

- Apps, C. D., Newhouse, N. J., and Kinley, A. T. (2002). Habitat associations of American badgers in southeastern British Columbia. *Canadian Journal of Zoology*, 80, 1228- 1239. <https://doi.org/10.1139/z02-119>
- Apps, C., Weaver, J. L., Paquet, P. C., Bateman, B., and McLellan, B. N. (2007). *Carnivores in the southern Canadian Rockies: Core areas and connectivity across the Crow'snest highway*. Wildlife Conservation Society Canada.
- Aubry, K. B., Koehler, G. M., and Squires, J. R. (2000). Ecology of Canada lynx in southern boreal forests. In L.F. Ruggiero, K.B. Aubry, S.W. Buskirk, G.M. Koehler, C.J. Krebs, K.S. McKelvey, J.R. Squires (Eds.), *Ecology and conservation of lynx in the United States* (pp. 373–396). United States Department of Agriculture, Forest Service. <https://www.fs.usda.gov/treearch/pubs/50636>
- Avian Power Line Interaction Committee (APLIC). (2012). *Reducing avian collisions with power lines*. Edison Electric Institute. [http://www.aplic.org/uploads/files/15518/Reducing\\_Avian\\_Collisions\\_2012watermarkLR.pdf](http://www.aplic.org/uploads/files/15518/Reducing_Avian_Collisions_2012watermarkLR.pdf)
- Balkenhol, N., Schwartz, M. K., Inman, R. M., Copeland, J. P., Squires, J. S., Anderson, N. J., and Waits, L. P. (2020). Landscape genetics of wolverines (*Gulo gulo*): Scale-dependent effects of bioclimatic, topographic, and anthropogenic variables. *Journal of mammalogy*, 101(3), 790-803. <https://doi.org/10.1093/jmammal/gyaa037>
- Banci, V. and Harestad, A. S. (1990). Home range and habitat use of wolverines *Gulo gulo* in Yukon, Canada. *Ecography*, 13(3), 195-200. <https://doi.org/10.1111/j.1600-0587.1990.tb00608.x>
- Bartelt, P.E., Peterson, C.R., and Klaver, R.W. (2004). Sexual differences in the postbreeding movements and habitats selected by western toads (*Bufo boreas*) in southeastern Idaho. *Herpetologica*, 60(4), 455-467. <https://doi.org/10.1655/01-50>
- Bayne, E. (2005). *Trends and trajectories of forest bird populations in Tembec Tree Farm Licence # 14: An examination of spatial scale and analytical approach*. University of Alberta. [http://www.env.gov.bc.ca/wildlife/wsi/reports/2669\\_WSI\\_2669\\_RPT1H.PDF](http://www.env.gov.bc.ca/wildlife/wsi/reports/2669_WSI_2669_RPT1H.PDF)
- Bayne, E. M., Boutin, S., and Moses, R. A. (2008a). Ecological factors influencing the spatial pattern of Canada lynx relative to its southern range edge in Alberta, Canada. *Canadian Journal of Zoology*, 86(10), 1189-1197. <https://doi.org/10.1139/Z08-099>
- Bayne, E. M., Habib, L., and Boutin, S. (2008b). Impacts of chronic anthropogenic noise from energy-sector activity on abundance of songbirds in the boreal forest. *Conservation Biology*, 22(5), 1186–1193. <https://doi.org/10.1111/j.1523-1739.2008.00973.x>
- Beese, W. J., and Bryant, A. A. (1999). Effect of alternative silvicultural systems on vegetation and bird communities in coastal montane forests of British Columbia, Canada. *Forest Ecology and Management*, 115(2), 231-242. [https://doi.org/10.1016/S0378-1127\(98\)00402-2](https://doi.org/10.1016/S0378-1127(98)00402-2)

- Bender, L. C., Cook, J. G., Cook, R. C., and Hall, P. B. (2008). Relations between nutritional condition and survival of North American elk *Cervus elaphus*. *Wildlife Biology*, 14(1), 70-80. [https://doi.org/10.2981/0909-6396\(2008\)14\[70:RBNCAS\]2.0.CO;2](https://doi.org/10.2981/0909-6396(2008)14[70:RBNCAS]2.0.CO;2)
- Binkley, D., Sisk, T., Chambers, C., Springer, J., and Block, W. (2007). The role of old-growth forests in frequent-fire landscapes. *Ecology and Society*, 12(2), 18. <http://www.ecologyandsociety.org/vol12/iss2/art18/>
- Bird, C.D., Hilchie, N.G., Pike, E.M., and Sperling, F.A.H. 1995. *Alberta butterflies*. Alberta Public Affairs Bureau/Queen's Printer.
- Bissonette, J. A., and Steinkamp, M. J. (1996). Bighorn sheep response to ephemeral habitat fragmentation by cattle. *The Great Basin Naturalist*, 56(4), 319-325. <https://www.jstor.org/stable/41712957>
- Bleich, V.C., Bowyer, R.T., Pauli, A.M., Nicholson, M.C., and Anthes, R.W. (1994). Mountain sheep *Ovis canadensis* and helicopter surveys: Ramifications for the conservation of large mammals. *Biological Conservation*, 70(1), 1-7. [https://doi.org/10.1016/0006-3207\(94\)90292-5](https://doi.org/10.1016/0006-3207(94)90292-5)
- Bleich, V. C., Bowyer, R. T., and Wehausen, J. D. (1997). Sexual segregation in mountain sheep: resources or predation? *Wildlife Monographs*, 134(1), 3-50. <https://www.jstor.org/stable/3830743>
- Bleich, V. C., Davis, J. H., Marshal, J. P., Torres, S. T., and Gonzales, B. J. (2009). Mining activity and habitat use by mountain sheep (*Ovis canadensis*). *European Journal of Wildlife Research*, 55(3), 183-191. <https://doi.org/10.1007/s10344-008-0234-3>
- Bowman, J., Ray, J. C., Magoun, A. J., Johnson, D. S., and Dawson, F. N. (2010). Roads, logging, and the large-mammal community of an eastern Canadian boreal forest. *Canadian Journal of Zoology*, 88(5), 454-467. <https://doi.org/10.1139/Z10-019>
- Bond, S., Gall, M., Gayton, D., Harris, R., Munroe, B., Neil, R., Page, H., Rockafellow, W., and Witbeck, S. (2013). *Blueprint for action 2013: Progress and learning 1997-2013* (S. Bond, B.J.R. Harris, and D. Gayton, Eds.). Rocky Mountain Trench Ecosystem Restoration Program.
- Bowyer, R. T., Van Ballenberghe, V., and Kie, J. G. (2003). Moose (*Alces alces*). In G.A. Feldhamer, B. Thompson, and J.A. Chapman (Eds.), *Wild mammals of North America: Biology, management, and conservation* (pp. 931-964). The Johns Hopkins University Press.
- Boyce, M. S. (1991). Migratory behaviour and management of elk (*Cervus elaphus*). *Applied Animal Behaviour Science*, 29(14), 239-250. [https://doi.org/10.1016/0168-1591\(91\)90251-R](https://doi.org/10.1016/0168-1591(91)90251-R)
- Brennan, L. A., Tri, A. N., and Marcot, B. G. (Eds.). (2019). *Quantitative analyses in wildlife science*. JHU Press.

- Briggs, J. M., Knapp, A. K., Blair, J. M., Heisler, J. L., Hoch, G. A., Lett, M. S., and McCarron, J. K. (2005). An ecosystem in transition: causes and consequences of the conversion of mesic grassland to shrubland. *BioScience*, 55(3), 243-254. [https://doi.org/10.1641/0006-3568\(2005\)055\[0243:AEITCA\]2.0.CO;2](https://doi.org/10.1641/0006-3568(2005)055[0243:AEITCA]2.0.CO;2)
- Brigham, M. (2020). Bats of British Columbia. In: B. Klinkenberg (Ed.), *E-Fauna B.C.* University of British Columbia. <https://ibis.geog.ubc.ca/biodiversity/efauna/BatsofBritishColumbia.html>
- British Columbia Badger Recovery Team (B.C. Badger Recovery Team). (2016). *Recovery plan for American badger (Taxidea taxus) in British Columbia*. British Columbia Ministry of Environment. <http://webcache.googleusercontent.com/search?q=cache:KV-aRfcE6dwJ:a100.gov.bc.ca/pub/eirs/viewDocumentDetail.do%3FfromStatic%3Dtrue%26repository%3DBDP%26documentId%3D12601+%&cd=1&hl=en&ct=clnk&gl=ca>
- British Columbia Conservation Data Centre (B.C. CDC). (1994a). *Species summary: Anas platyrhynchos – Mallard*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=18910>
- British Columbia Conservation Data Centre (B.C. CDC). (1994b). *Species summary: Alces alces - Moose*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=18686>
- British Columbia Conservation Data Centre (B.C. CDC). (1994c). *Species summary: Martes Americana – American marten*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=34795>
- British Columbia Conservation Data Centre (B.C. CDC). (1994d). *Species summary: Cinclus mexicanus – American dipper*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=15068>
- British Columbia Conservation Data Centre (B.C. CDC). (1995a). *Species summary: Lynx Canadensis – Canada lynx*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=16007>
- British Columbia Conservation Data Centre (B.C. CDC). (1995b). *Species summary: Histrionicus histrionicus – Harlequin duck*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=18564>
- British Columbia Conservation Data Centre (B.C. CDC). (1999). *Species Summary: Accipiter gentilis – Northern goshawk*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=18100>
- British Columbia Conservation Data Centre (B.C. CDC). (2004). *Species summary: Rana luteiventris – Columbia spotted frog*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=18779>



- British Columbia Conservation Data Centre (B.C. CDC). (2005a). *Species summary: Ursus arctos – Grizzly bear*. British Columbia Ministry of Environment.  
<https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=16065>
- British Columbia Conservation Data Centre (B.C. CDC). (2005b). *Species summary: Gulo Gulo – Wolverine*. British Columbia Ministry of Environment.  
<https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=16929>
- British Columbia Conservation Data Centre (B.C. CDC). (2010a). *Species summary: Agelaius phoeniceus – Red-winged blackbird*. British Columbia Ministry of Environment.  
<https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=16571>
- British Columbia Conservation Data Centre (B.C. CDC). (2010b). *Species summary: Anaxyrus boreas – Western toad*. British Columbia Ministry of Environment.  
<https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=16554>
- British Columbia Conservation Data Centre (B.C. CDC). (2014). *Species summary: Myotis septentrionalis – Northern myotis*. British Columbia Ministry of Environment.  
<http://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=16442>
- British Columbia Conservation Data Centre (B.C. CDC). (2015a). *B.C. species and ecosystems explorer [Dataset]*. British Columbia Ministry of Environment. <http://a100.gov.bc.ca/pub/eswp/>
- British Columbia Conservation Data Centre (B.C. CDC). (2015b). *Conservation status report: Oreamnos americanus – Mountain goat*. British Columbia Ministry of Environment.  
<https://a100.gov.bc.ca/pub/eswp/esr.do?id=17814>
- British Columbia Conservation Data Centre (B.C. CDC). (2015c). *Conservation status report: Ovis Canadensis – Bighorn sheep*. British Columbia Ministry of Environment.  
<https://a100.gov.bc.ca/pub/eswp/esr.do?id=17814>
- British Columbia Conservation Data Centre (B.C. CDC). (2015d). *Species summary: Myotis lucifugus – Little brown myotis*. British Columbia Ministry of Environment.  
<http://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=14375>.
- British Columbia Conservation Data Centre (B.C. CDC). (2015e). *Species summary: Lasiurus borealis – Eastern red bat*. British Columbia Ministry of Environment.  
<http://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=29449>
- British Columbia Conservation Data Centre (B.C. CDC). (2016a). *Conservation status report: Lithobates pipiens – Northern leopard frog*. British Columbia Ministry of Environment.  
<https://a100.gov.bc.ca/pub/eswp/esr.do?id=15361>
- British Columbia Conservation Data Centre (B.C. CDC). (2016b). *Conservation status report: Rana luteiventris – Columbia spotted frog*. British Columbia Ministry of Environment.  
<https://a100.gov.bc.ca/pub/eswp/esr.do?id=18779>

- British Columbia Conservation Data Centre (B.C. CDC). (2019a). *B.C. species and ecosystem explorer* [Dataset]. British Columbia Ministry of Environment. <http://a100.gov.bc.ca/pub/eswp/>
- British Columbia Conservation Data Centre (B.C. CDC). (2019b). *CDC iMap* [web application]. British Columbia Ministry of Environment. <https://maps.gov.bc.ca/ess/hm/imap4m/>
- British Columbia Conservation Data Centre. (B.C. CDC). (2020a). *CDC iMap* [web application]. British Columbia Ministry of Environment. <https://maps.gov.bc.ca/ess/hm/imap4m/>
- British Columbia Conservation Data Centre (B.C. CDC). (2020b). *Conservation status report: Euphydryas gillettii – Gillette's checkerspot*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/esr.do?id=14670>
- British Columbia Conservation Data Centre (B.C. CDC). (2021). *Generalized locations – Euphydryas gillettii (Gillette's checkerspot)*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/eoMap.do?id=14670>
- British Columbia Conservation Data Centre (B.C. CDC). (n.d.a). *CDC iMap* [web application]. British Columbia Ministry of Environment. <http://maps.gov.bc.ca/ess/sv/cdc/>
- British Columbia Conservation Data Centre (B.C. CDC). (n.d.b). *B.C. species and ecosystems explorer* [Dataset]. B.C. Ministry of Environment. <http://a100.gov.bc.ca/pub/eswp/>
- British Columbia Conservation Data Centre (B.C. CDC). (n.d.c.). *Species Summary: Accipiter gentilis atricapillus – Northern goshawk, atricapillus subspecies*. British Columbia Ministry of Environment. <https://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=15688>
- British Columbia Environmental Assessment Office (EAO). (2013). *Guideline for the selection of valued components and assessment of potential effects*. <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/environmental-assessments/guidance-documents/eao-guidance-selection-of-valued-components.pdf>
- British Columbia Environmental Assessment Office (EAO). (2018). Application information requirements: Crown Mountain coking coal project. NWP Coal Canada Ltd. [https://projects.eao.gov.bc.ca/api/document/5ae234fccf072d002a31a99c/fetch/Application\\_Information\\_Requirements](https://projects.eao.gov.bc.ca/api/document/5ae234fccf072d002a31a99c/fetch/Application_Information_Requirements)
- British Columbia Ministry of Agriculture. (2013). *Land use inventory report: Elk Valley East Kootenay. Strengthening Farming Program*. [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/agricultural-land-and-environment/strengthening-farming/land-use-inventories/rdek2011\\_elkluireport.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/agricultural-land-and-environment/strengthening-farming/land-use-inventories/rdek2011_elkluireport.pdf)
- British Columbia Ministry of Environment (B.C. MOE). (2010). *Kootenay elk management plan: 2010-2014*. [www.env.gov.bc.ca/kootenay/emp/emp.htm](http://www.env.gov.bc.ca/kootenay/emp/emp.htm)

- British Columbia Ministry of Environment (B.C. MOE). (2014a). *Policy for mitigating impacts on environmental values (environmental mitigation policy)*.  
[https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/environmental-mitigation-policy/em\\_policy\\_may13\\_2014.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/environmental-mitigation-policy/em_policy_may13_2014.pdf)
- British Columbia Ministry of Environment (B.C. MOE). (2014b). *Procedures for mitigating impacts on environmental values (environmental mitigation procedures)* [Version 1.0].  
[https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/environmental-mitigation-policy/em\\_procedures\\_may27\\_2014.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/environmental-mitigation-policy/em_procedures_may27_2014.pdf)
- British Columbia Ministry of Environment (B.C. MOE). (2016). *Best management practices for bats in British Columbia*.  
<http://a100.gov.bc.ca/pub/eirs/viewDocumentDetail.do?fromStatic=true&repository=BDP&documentId=12460>
- British Columbia Ministry of Environment (B.C. MOE). (2017). *Environmental DNA protocol for freshwater aquatic ecosystems* [Version 2.2]. <https://www.hemmera.com/wp-content/uploads/2018/08/171115-eDNA-protocol-V2.2.pdf>
- British Columbia Ministry of Environment and Climate Change Strategy (ENV). (2019). *British Columbia approved water quality guidelines: Aquatic life, wildlife & agriculture summary report*.  
[https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/water-quality-guidelines/approved-wqgs/wqg\\_summary\\_aquaticlife\\_wildlife\\_agri.pdf](https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/water-quality-guidelines/approved-wqgs/wqg_summary_aquaticlife_wildlife_agri.pdf)
- British Columbia Ministry of Environment, Land, and Parks (MELP). (1995). *A future for the grizzly: British Columbia grizzly bear conservation strategy*. Province of British Columbia.  
<https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/wildlife-wildlife-habitat/grizzly-bears/futureforgrizzly1995.pdf>
- British Columbia Ministry of Environment, Lands and Parks (MELP). (2000). *Bighorn sheep in British Columbia: Ecology, conservation and management*.  
<https://www.env.gov.bc.ca/wld/documents/bighorn.pdf>
- British Columbia Ministry of Forests (MOF). (1995). *Forest practices code: Riparian management area guidebook*. <https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/silviculture/silvicultural-systems/silviculture-guidebooks/riparian-management-area-guidebook>
- British Columbia Ministry of Forests (MOF). (1999). *Forest in-growth and encroachment: a provincial overview from a range management perspective*.  
<https://www.for.gov.bc.ca/hfd/library/documents/bib46692.pdf>

- British Columbia Ministry of Forests, Lands, and Natural Resource Operations (FLNRO). (2013). *Guidelines for raptor conservation during urban and rural Land development in British Columbia (2013): A companion document to Develop with Care 2012*.  
[https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/raptor\\_conservation\\_guidelines\\_2013.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/raptor_conservation_guidelines_2013.pdf)
- British Columbia Ministry of Forests, Lands, and Natural Resource Operations (FLNRO). (2014a). *Develop with care 2014: Environmental guidelines for urban and rural land development in British Columbia*.  
<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/best-management-practices/develop-with-care>
- British Columbia Ministry of Forest, Lands, and Natural Resource Operations (FLNRO). (2014b). *Guidelines for amphibian and reptile conservation during urban and rural land development in British Columbia (2014)*. [https://www.env.gov.bc.ca/wld/documents/bmp/HerptileBMP\\_complete.pdf](https://www.env.gov.bc.ca/wld/documents/bmp/HerptileBMP_complete.pdf)
- British Columbia Ministry of Forests, Lands, and Natural Resource Operations (FLNRO). (2015). *Provincial framework for moose management in British Columbia*.  
[https://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/provincial\\_framework\\_for\\_moose\\_management\\_bc.pdf](https://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/provincial_framework_for_moose_management_bc.pdf)
- British Columbia Ministry of Forests, Lands and Natural Resource Operations (FLNRO). (2016). *Best management practices for amphibian and reptile salvages in British Columbia [Version 1.0]*.  
<http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=10351>
- British Columbia Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (FLNRORD). (2018). *Provincial caribou recovery program- 2017/18 annual report*.  
[https://www.for.gov.bc.ca/ftp/HTH/external/!publish/Caribou%20Recovery%20Program/Reports/17\\_18\\_Caribou%20Annual%20Report.pdf](https://www.for.gov.bc.ca/ftp/HTH/external/!publish/Caribou%20Recovery%20Program/Reports/17_18_Caribou%20Annual%20Report.pdf)
- British Columbia Ministry of Forests, Lands and Natural Resource Operations and Rural Development (FLNRORD). (2020). *2020-2022 Hunting and trapping regulations synopsis: Effective July 1, 2020 to June 30, 2022*. <https://www2.gov.bc.ca/assets/gov/sports-recreation-arts-and-culture/outdoor-recreation/fishing-and-hunting/hunting/regulations/2020-2022/hunting-trapping-synopsis-2020-2022.pdf>
- British Columbia Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (FLNRORD). (n.d.). Biogeoclimatic maps (zone or subzone/variant) [Map]. Biogeoclimatic Ecosystem Classification Program. <https://www.for.gov.bc.ca/hre/becweb/resources/maps/index.html>
- British Columbia Ministry of Water, Land, and Air Protection (MWLAP). (2004). *Accounts and measures for managing identified wildlife: Southern Interior forest region [Version 2004]*.  
[env.gov.bc.ca/wld/frpa/iwms/documents/Accounts\\_and\\_Measures\\_South.pdf](https://www.env.gov.bc.ca/wld/frpa/iwms/documents/Accounts_and_Measures_South.pdf)
- Brown, L. and Amadon, D. (1989). *Eagles, hawks and falcons of the world [Volume 2]*. McGraw-Hill Book Company.

- Browne, C. L. and Paszkowski, C. A. (2010a). Hibernation sites of western toads (*Anaxyrus boreas*): Characterization and management implications. *Herpetological Conservation and Biology*, 5(1), 49-63.
- Browne, C.L. and C.A. Paszkowski. (2010b). Factors affecting the timing of movements to hibernation sites by western toads (*Anaxyrus boreas*). *Herpetologica*, 66(3), 250-258. <https://doi.org/10.1655/08-071.1>
- Browne, C.L., C.A. Paszkowski, A.L Foote, A. Moenting, and S.M. Boss. (2009). The relationship of amphibian abundance to habitat features across spatial scales in the boreal plains. *Écoscience*, 16:209-223. <https://doi.org/10.2980/16-2-3220>
- Broquet, T., Johnson, C. A., Petit, E., Thompson, I., Burel, F., and Fryxell, J. M. (2006). Dispersal and genetic structure in the American marten, *Martes americana*. *Molecular ecology*, 15(6), 1689-1697. <https://doi.org/10.1111/j.1365-294X.2006.02878.x>
- Bull, E. L. (2000). Seasonal and sexual differences in American marten diet in northeastern Oregon. *Northwest Science*, 74(3), 186-191. <https://www.fs.usda.gov/treearch/pubs/5502>
- Bull, E.L. (2009). Dispersal of newly metamorphosed and juvenile western toads (*Anaxyrus boreas*) in northeastern Oregon, USA. *Herpetological Conservation and Biology*, 4(2), 236-247. [http://www.herpconbio.org/Volume\\_4/Issue\\_2/Bull\\_2009.pdf](http://www.herpconbio.org/Volume_4/Issue_2/Bull_2009.pdf)
- Bull, E.L. and C. Carey. (2008). Breeding frequency of western toads (*Bufo boreas*) in northeastern Oregon. *Herpetological Conservation and Biology*, 3(2), 282-288. [https://www.fs.fed.us/pnw/pubs/journals/pnw\\_2008\\_bull001.pdf](https://www.fs.fed.us/pnw/pubs/journals/pnw_2008_bull001.pdf)
- Bull, E. and Hayes, M. (2001). Post-breeding season movements of Columbia spotted frogs (*Rana luteiventris*) in northeastern Oregon. *Western North American Naturalist*, 61(1), 119-123.
- Bunkley, J.P., McClure, C.J.W., Kleist, N.J., Francis, C.D., and Barber, J.R. (2015). Anthropogenic noise alters bat activity levels and echolocation calls. *Global ecology and conservation*, 3, 62-71. <https://doi.org/10.1016/j.gecco.2014.11.002>
- Burger, A. E. (2015). Spotted sandpiper. In P. J. A. Davidson, R. J. Cannings, A. R. Couturier, D. Lepage, and C. M. Di Corrado (Eds.), *The atlas of the breeding birds of British Columbia, 2008-2012*. Bird Studies Canada. <http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=SPSA&lang=en>
- Burley, P. (2020). *Access management compliance and enforcement program (AMCEP) May-June 2020 report*. British Columbia Conservation Officer Service. <https://sparwood.civicweb.net/document/104238>
- Buskirk, S. W. (1984). Seasonal use of resting sites by marten in south-central Alaska. *The Journal of wildlife management*, 48(3), 950-953. <https://doi.org/10.2307/3801445>

- Buskirk, S. W. and McDonald, L. L. (1989). Analysis of variability in home-range size of the American marten. *The Journal of Wildlife Management*, 53(4) 997-1004. <https://doi.org/10.2307/3809601>
- Buskirk, S. W. and Powell, R. A. (1994). Habitat ecology of fishers and American martens. In S.W. Buskirk, A.S. Harestad, and M.G. Raphael (Eds.), *Martens, sables, and fishers: Biology and conservation* (pp. 283-296). Cornell University Press.
- Buskirk, S. W. and Ruggiero, L. F. (1994). American marten. In L.F. Ruggiero, K.B. Aubry, S.W. Buskirk, J.L. Lyon, and W.J. Zielinski (Eds.), *The scientific basis for conserving forest carnivores: American marten, fisher, lynx, and wolverine in the western United States* (pp. 7-30) [Publication No. RM-254]. United States Department of Agriculture, Forest Service. <https://doi.org/10.2737/RM-GTR-254>
- Buskirk, S. W. and Zielinski, W. J. (1997). American marten (*Martes americana*) ecology and conservation. In J.E. Harris and C.V. Ogan (Eds.), *Mesocarnivores of northern California: biology, management, and survey techniques, workshop manual* (pp.17-22). The Wildlife Society, Humboldt State University. <https://www.fs.usda.gov/treesearch/pubs/3504>
- Campbell, R. W., Dawe, N. K., McTaggart-Cowan, I., Cooper, J. M., and Kaiser, G. W. (1997). *The birds of British Columbia - Volume 3 - Passerines: Flycatchers through vireos*. University of British Columbia Press.
- Campbell, R. W., Dawe, N. K., McTaggart-Cowan, I., Cooper, J. M., Kaiser, G. W, and McNall, M. C. E. (1990). *The birds of British Columbia - Volumes 1 and 2 - Nonpasserines*. University of British Columbia Press.
- Canadian Environmental Assessment Agency (CEAA). (2015a). *Guidelines for the preparation of an environmental impact statement pursuant to the Canadian environmental assessment act, 2012, Crown Mountain Coking Coal Project, NWP Coal Canada Ltd*. <https://iaac-aeic.gc.ca/050/evaluations/document/132452>
- Canada Environmental Assessment Agency (CEAA). (2015b). *Determining whether a designated project is likely to cause significant adverse environmental effects under CEAA 2012*. <https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/determining-whether-designated-project-is-likely-cause-significant-adverse-environmental-effects-under-ceaa-2012.html>
- Canadian Environmental Assessment Act, SC 2012, c. 19, s. 52.*
- CanAus Coal Limited. (2015). Project description: Michel Creek Coking Coal Project- Loop Ridge Mine. <https://iaac-aeic.gc.ca/050/documents/p80110/102881E.pdf>
- Cannings, R.J. (2004). Gillette's checkerspot. In. K. Paige (Ed.), *Accounts and measures for managing identified wildlife* [Version 2004] (pp. 13-17). British Columbia Ministry of Water, Lands, and Air Protection. [https://www.env.gov.bc.ca/wld/frpa/iwms/documents/Invertebrates/i\\_gillettscheckerspot.pdf](https://www.env.gov.bc.ca/wld/frpa/iwms/documents/Invertebrates/i_gillettscheckerspot.pdf)

- Cannings, R.J. (2015). Flammulated owl. In P.J.A. Davidson, R.J. Cannings, A.R. Couturier, D. Lepage, and C.M. Di Corrado (Eds.), *The Atlas of the breeding birds of British Columbia, 2008-2012*. Bird Studies Canada. <http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=FLOW&lang=en>
- Carroll, C., Noss, R. F., and P. C. Paquet. (2001). Carnivores as focal species for conservation planning in the Rocky Mountain region. *Ecological Applications*, 11(4), 961- 980. [https://doi.org/10.1890/1051-0761\(2001\)011\[0961:CAFSFC\]2.0.CO;2](https://doi.org/10.1890/1051-0761(2001)011[0961:CAFSFC]2.0.CO;2)
- Cassirer, E. F., Schirato, G., Sharpe, F., Groves, C. R., and Anderson, R. N. (1993). Cavity nesting by harlequin ducks in the Pacific Northwest. *The Wilson Bulletin*, 105(4), 691-694.
- Cegelski, C. C., Waits, L. P., Anderson, N. J., Flagstad, O., Strobeck, C., and Kyle, C. J. (2006). Genetic diversity and population structure of wolverine (*Gulo gulo*) populations at the southern edge of their current distribution in North America with implications for genetic viability. *Conservation Genetics*, 7(2), 197-211. <https://doi.org/10.1007/s10592-006-9126-9>
- Chow, E. (2019). *Kootenay remote camera wildlife monitoring project*. British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development. <https://wildcams.ca/projects/kootenay-remote-camera-monitoring-project/>
- Christianson, D., and Creel, S. (2010). A nutritionally mediated risk effect of wolves on elk. *Ecology*, 91(4), 1184-91. <https://doi.org/10.1890/09-0221.1>
- Chytky P. and Fraser D.F. (2015). Williamson's sapsucker. In P.J.A. Davidson, R.J. Cannings, A.R. Couturier, D. Lepage, and C.M. Di Corrado (Eds.), *The atlas of the breeding birds of British Columbia, 2008-2012*. Bird Studies Canada. <https://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=WISA&lang=en>
- Ciarniello, L.M., J. Paczkowski, D. Heard, I. Ross, and Seip, D. (2001). *Parsnip grizzly bear population and habitat project: 2000 progress report* [Unpublished report]. British Columbia Ministry of Environment, Lands, and Parks. [https://www.env.gov.bc.ca/wildlife/wsi/reports/762\\_2000GRIZPARSNIP.PDF](https://www.env.gov.bc.ca/wildlife/wsi/reports/762_2000GRIZPARSNIP.PDF)
- Ciarniello, L. M., Boyce, M. S., Heard, D. C., and Seip, D. R. (2005). Denning behavior and den site selection of grizzly bears along the Parsnip River, British Columbia, Canada. *Ursus*, 16(1), 47-58. [https://doi.org/10.2192/1537-6176\(2005\)016\[0047:DBADSS\]2.0.CO;2](https://doi.org/10.2192/1537-6176(2005)016[0047:DBADSS]2.0.CO;2)
- Ciarniello, L. M., Boyce, M. S., Seip, D. R., and Heard, D. C. (2007). Grizzly bear habitat selection is scale dependent. *Ecological Applications*, 17(5), 1424-1440. <https://doi.org/10.1890/06-1100.1>
- Ciuti, S., Muhly, T. B., Paton, D. G., McDevitt, A. D., Musiani, M., and Boyce, M. S. (2012). Human selection of elk behavioural traits in a landscape of fear. *Proceedings of the Royal Society B: Biological Sciences*, 279(1746), 4407-4416. <https://doi.org/10.1098/rspb.2012.1483>

- Clark, P. E., Krueger, W. C., Bryant, L. D., and Thomas, D. R. (2000). Livestock grazing effects on forage quality of elk winter range. *Journal of Range Management*, 53(1), 97-105.  
<https://doi.org/10.2307/4003399>
- Clauss, M., Kaiser, T., and Hummel, J. (2008). The morphophysiological adaptations of browsing and grazing mammals. In I.J. Gordon and H.H.T. Prins (Eds.), *The ecology of browsing and grazing* (pp. 47-88). Springer, Berlin, Heidelberg. [https://doi.org/10.1007/978-3-540-72422-3\\_3](https://doi.org/10.1007/978-3-540-72422-3_3)
- Clevenger, A.P., Apps, C., Lee, T., Quinn, M., Paton, D., Poulton, D., and Ament, R. (2010). *Highway 3: Transportation mitigation for wildlife and connectivity in the crown of the continent ecosystem*. [http://ftp.rockies.ca/files/reports/H3%20Final%20Report%200607\\_June8.pdf](http://ftp.rockies.ca/files/reports/H3%20Final%20Report%200607_June8.pdf)
- Clevenger, A. P., Mowat, G., Barrueto, M., and Fisher, J. T. (2016). *Mapping the wolverine way: Understanding landscape and human effects on wolverine abundance, distribution and connectivity in the Canadian Crown of the Continent (CCoC) ecosystem*. United States Geological Survey. <https://www.sciencebase.gov/catalog/item/59a46e8ee4b077f005673466>
- Cogswell, H. L. (1977). *Water birds of California*. University of California Press.
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2002). *COSEWIC assessment and status report on the western toad Bufo boreas in Canada*. [https://www.sararegistry.gc.ca/virtual\\_sara/files/cosewic/sr\\_western\\_toad\\_e.pdf](https://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_western_toad_e.pdf)
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2011). *COSEWIC assessment and status report on the barn swallow Hirundo rustica in Canada*. [https://www.sararegistry.gc.ca/virtual\\_sara/files/cosewic/sr\\_barn\\_swallow\\_0911\\_eng.pdf](https://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_barn_swallow_0911_eng.pdf)
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2012a). *COSEWIC assessment and status report on the Grizzly Bear Ursus arctos in Canada*. [https://www.sararegistry.gc.ca/virtual\\_sara/files/cosewic/sr\\_ours\\_grizz\\_bear\\_1012\\_e.pdf](https://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_ours_grizz_bear_1012_e.pdf)
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2012b). *COSEWIC assessment and status report on the American Badger Taxidea taxus in Canada*. [https://www.registrelep-sararegistry.gc.ca/virtual\\_sara/files/cosewic/sr\\_blaireau\\_am\\_badger\\_1113\\_e.pdf](https://www.registrelep-sararegistry.gc.ca/virtual_sara/files/cosewic/sr_blaireau_am_badger_1113_e.pdf)
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2012c). *COSEWIC assessment and status report on the Western Toads Anaxyrus boreas in Canada*. <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/cosewic-assessments-status-reports/western-toad-2012.html>
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2013a). *COSEWIC Assessment and status report on the Little Brown Myotis - Myotis lucifugus, Northern Myotis - Myotis septentrionalis, and the Tri-colored Bat - Perimyotis subflavus in Canada*. <https://publications.gc.ca/site/eng/9.579593/publication.html>



- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2013b). *COSEWIC Assessment and status report on the harlequin duck (Histrionicus histrionicus) Eastern population in Canada*. <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/cosewic-assessments-status-reports/harlequin-duck-eastern-population-2013.html>
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2013c). *COSEWIC Assessment and status report on the Northern goshawk (Accipiter gentilis laingi) in Canada*. [https://wildlife-species.canada.ca/species-risk-registry/virtual\\_sara/files/cosewic/sr\\_autour\\_palombes\\_northern\\_goshawk\\_1213\\_e.pdf](https://wildlife-species.canada.ca/species-risk-registry/virtual_sara/files/cosewic/sr_autour_palombes_northern_goshawk_1213_e.pdf)
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2014). *COSEWIC assessment and status report on the Wolverine Gulo gulo in Canada*. [https://www.sararegistry.gc.ca/virtual\\_sara/files/cosewic/sr\\_Wolverine\\_2014\\_e.pdf](https://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_Wolverine_2014_e.pdf)
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2016). *COSEWIC assessment and status report on the evening grosbeak (Coccothraustes vespertinus) in Canada*. [https://wildlife-species.canada.ca/species-risk-registry/virtual\\_sara/files/cosewic/sr\\_Evening%20Grosbeak\\_2016\\_e.pdf](https://wildlife-species.canada.ca/species-risk-registry/virtual_sara/files/cosewic/sr_Evening%20Grosbeak_2016_e.pdf)
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2018a). *COSEWIC assessment and status report on the olive-sided flycatcher (Contopus cooperi) in Canada*. <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/cosewic-assessments-status-reports/olive-sided-flycatcher-2018.html>
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2018b). *COSEWIC assessment and status report on the common nighthawk (Chordeiles minor) in Canada*. <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/cosewic-assessments-status-reports/common-nighthawk-2018.html>
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (n.d.). *COSEWIC wildlife species assessment: status categories*. <https://www.cosewic.ca/index.php/en-ca/assessment-process/wildlife-species-assessment-process-categories-guidelines/status-categories.html>
- Cook, R. C., Cook, J. G., Vales, D. J., Johnson, B. K., Mccorquodale, S. M., Shipley, L. A., Riggs, R. A., Irwin, L. L., Murphie, S. L., Murphie, B. L., Schoenecker, K. A., Geyer, F., Hall, P. B., Spencer, R. D., Immell, D. A., Jackson, D. H., Tiller, B. L., Miller, P. J. and Schmitz, L. (2013). Regional and seasonal patterns of nutritional condition and reproduction in elk. *Wildlife Monographs*, 184(1), 1-45. <https://doi.org/10.1002/wmon.1008>
- Cooper, J.M. and Beauchesne, S.M. (2003). *Short-eared owl and American bittern inventory in the Columbia Basin, 2003*. Columbian Basin Fish & Wildlife Compensation Program. [http://www.sgrc.selkirk.ca/bioatlas/pdf/Short-eared\\_Owl\\_And\\_American\\_Bittern\\_Inventory\\_in\\_The\\_Columbia\\_Basin.pdf](http://www.sgrc.selkirk.ca/bioatlas/pdf/Short-eared_Owl_And_American_Bittern_Inventory_in_The_Columbia_Basin.pdf)

- Cooper, J. M., and Stevens, V. (2000). *A review of the ecology, management and conservation of the northern goshawk in British Columbia*. British Columbia Ministry of Environment, Lands, and Parks. <https://pdfs.semanticscholar.org/a997/1e58ec82a726ef92ca4f46161b58fb71bc30.pdf>
- Copeland, J. P., McKelvey, K. S., Aubry, K. B., Landa, A., Persson, J., Inman, R. M., Krebs, J., Lofroth, E., Golden, H., Squires, J.R., Magoun, A., Schwartz, M.K., Wilmot, J., Copeland, C.L., Yates, R.E., Kojola, I., and May, R. (2010). The bioclimatic envelope of the wolverine (*Gulo gulo*): Do climatic constraints limit its geographic distribution? *Canadian Journal of Zoology*, 88(3), 233-246. <https://www.fs.usda.gov/treesearch/pubs/34712>
- Copeland, J. P., Peek, J. M., Groves, C. R., Melquist, W. E., Mckelvey, K. S., McDaniel K.S., Long, C.D. and Harris, C. E. (2007). Seasonal habitat associations of the wolverine in central Idaho. *The Journal of Wildlife Management*, 71(7), 2201-2212. <https://www.fs.usda.gov/treesearch/pubs/28928>
- Corkran, C. C. and Thoms, C. (1996). *Amphibians of Oregon, Washington and British Columbia: A field identification guide*. Lone Pine Publishing.
- Corn, P.S. (1998). Effects of ultraviolet radiation on boreal toads in Colorado. *Ecological Applications*, 8(1), 18-26. <https://doi.org/10.2307/2641308>
- Cornell University. (2019). *Spotted sandpiper identification*. The Cornell Lab. [https://www.allaboutbirds.org/guide/Spotted\\_Sandpiper/lifehistory](https://www.allaboutbirds.org/guide/Spotted_Sandpiper/lifehistory)
- Côté, S.D. (1996). Mountain goat responses to helicopter disturbance. *Wildlife Society Bulletin*, 24(4), 681-685. <https://www.jstor.org/stable/3783158>
- Côté, S. D., and Festa-Bianchet, M. (2003). Mountain goat (*Oreamnos americanus*). In G. A. Feldhamer, B. Thompson, and J. Chapman (Eds.), *Wild mammals of North America: Biology, management, and conservation* (pp. 1061-1075). The John Hopkins University Press.
- Cox, R.K. and Cullington, J. (2009). *Wetland ways: Interim guidelines for wetland protection and conservation in British Columbia*. Wetland Stewardship Partnership. <https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-planning-strategies/wetlands-in-bc>
- Craig, J. and Holroyd, S. (2013). *Kootenay community bat project – Frequently asked questions*. Columbia Basin Trust. [http://www.bcbats.ca/attachments/KCBP\\_FAQ\\_WEB\\_Dec2013.pdf](http://www.bcbats.ca/attachments/KCBP_FAQ_WEB_Dec2013.pdf)
- Cristescu, B., Senhouse, G. B., Symbaluk, M., and Boyce, M. S. (2011). *Land-use planning following resource extraction- Lessons from grizzly bears at reclaimed and active open-pit mines* [Paper presentation]. British Columbia Mine Reclamation Symposium, University of British Columbia. <https://dx.doi.org/10.14288/1.0042615>
- Cushman, S. A., Raphael, M. G., Ruggiero, L. F., Shirk, A. S., Wasserman, T. N., and O'Doherty, E. C. (2011). Limiting factors and landscape connectivity: The American marten in the Rocky Mountains. *Landscape Ecology*, 26(8), 1137. <https://doi.org/10.1007/s10980-011-9645-8>

- Cushman, S. A. and Wasserman, T. N. (2017). Quantifying loss and degradation of former American marten habitat due to the impacts of forestry operations and associated road networks in northern Idaho, USA [Chapter 12]. In D.W. Macdonald, C. Newman, and L.A. Harrington (Eds.), *Biology and Conservation of Musteloids* (pp. 292-303). Oxford University Press.  
<https://doi.org/10.1093/oso/9780198759805.003.0012>
- Davidson, P. W. (1991). East Kootenay bighorn sheep enhancement project: Completion report [Unpublished report]. British Columbia Ministry of Environment.
- Davis, R. (2009). *Simulation of fire dynamics and range of natural variability of forest stand structure in the Cranbrook Timber Supply Area, southeastern British Columbia*. University of British Columbia.
- Davis, T.M. (2000). *Ecology of the western toads (Bufo boreas) in forested areas on Vancouver Island: Final report*. University of Victoria.  
<https://www.for.gov.bc.ca/hfd/library/FRBC1999/FRBC1999MR113.pdf>
- Davis, A.K., Schroeder, H., Yeager, I., and Jana Pearce. (2018). Effects of simulated highway noise on heart rates of larval monarch butterflies, *Danaus plexippus*: implications for roadside habitat suitability. *Biology Letters*, 14(5). <https://doi.org/10.1098/rsbl.2018.0018>
- DeCesare, N. J., and Pletscher, D. H. (2006). Movements, connectivity, and resource selection of Rocky Mountain bighorn sheep. *Journal of Mammalogy*, 87(3), 531-538. <https://doi.org/10.1644/05-MAMM-A-259R1.1>
- Demarchi, D.A. (1968). *An ecological study of Rocky Mountain bighorn sheep winter ranges in the East Kootenay Region of British Columbia*. Canadian Wildlife Service.
- Demarchi, D.A. (1977). Canada's mountain sheep – their present status and future prospects. In T. Mosquin and C. Suchal (Eds.), *Proceedings of the symposium on Canada's threatened species and habitats* (pp. 46-50). Canadian Nature Federation and World Wildlife Fund.
- Demarchi, D. A. (2004). Bighorn sheep: *Ovis canadensis*. In K. Paige (Ed.), *Accounts and measures for managing identified wildlife* [Version 2004] (pp. 391-409). British Columbia Ministry of Water, Lands, and Air Protection. [https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/accounts-measures-for-managing-identified-wildlife/mammals\\_bighorn\\_sheep.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/accounts-measures-for-managing-identified-wildlife/mammals_bighorn_sheep.pdf)
- Demarchi, D.A., and Demarchi, R.A. (1987). Wildlife habitat impact – The impact of settlement. In A. Murray (Ed.), *Our wildlife heritage: 100 years of wildlife management* (pp. 192). The Centennial Wildlife Society of British Columbia.
- Demarchi, M.W. and Demarchi, D.A. (1994). *Rocky Mountain bighorn sheep in the Kootenay Region: A habitat and population enhancement plan to 2004*. British Columbia Environment, Lands, and Parks.
- Demarchi, R. A., Hartwig, C. L., and Demarchi, D. A. (2000). *Status of the Rocky Mountain bighorn sheep in British Columbia*. British Columbia Ministry of Environment, Lands and Parks.

- DeMars, C. (2014). *Fall ungulate distribution within the Crown Mountain Project Area, East Kootenay Region, BC*. Keefer Ecological Services Ltd.
- DeMars, C. (2015). *Spring ungulate distribution within the Crown Mountain Project Area, East Kootenay Region, BC*. Keefer Ecological Services Ltd.
- DeMars, C., and Tipper, G. (2014). *Winter ungulate distribution within the Crown Mountain Project Area, East Kootenay Region, BC*. Keefer Ecological Services Ltd.
- D'Eon, R. G. (2004). Snow depth as a function of canopy cover and other site attributes in a forested ungulate winter range in south British Columbia. *Journal of Ecosystems and Management*, 3(2), 1-9. <https://jem-online.org/index.php/jem/article/view/269>
- Des Rosiers-Ste.Marie, C. (2019). *Remote camera study: Crown Mountain coking coal project*. Keefer Ecological Services Ltd.
- Di Corrado, C. (2015). Rusty blackbird. In P.J.A. Davidson, R.J. Cannings, A.R. Couturier, D. Lepage, and C.M. Di Corrado (Eds.), *The atlas of the breeding birds of British Columbia, 2008-2012*. Bird Studies Canada. <http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=RUBL&lang=en>
- Dingle, H., and Drake, V. A. (2007). What is migration? *BioScience*, 57(2), 113–121. <https://doi.org/10.1641/B570206>
- Dodd, N. L., Gagnon, J. W., Boe, S., and Schweinsburg, R. E. (2007). Assessment of elk highway permeability by using global positioning system telemetry. *The Journal of Wildlife Management*, 71(4), 1107-1117. <https://doi.org/10.2193/2006-106>
- Drilling, N., Titman, R.D., and McKinney, F. (2020). Mallard (*Anas platyrhynchos*) [Version 1.0]. In (S.M. Billerman (Ed.), *Birds of the World*. Cornell Lab of Ornithology. <https://doi.org/10.2173/bow.mallar3.01>
- Ducks Unlimited (2019). *Waterfowl migration flyways*. <https://www.ducks.org/conservation/where-ducks-unlimited-works/waterfowl-migration-flyways>
- Dulc, S. and Hobbs, J. (2013). *Gillette's checkerspot inventory and monitoring in the Flathead River Basin: 2013 surveys – Final report*. British Columbia Ministry of Forests, Lands, and Natural Resource Operations. [www.auroraecological.com/assets/aurora-gillettes.pdf](http://www.auroraecological.com/assets/aurora-gillettes.pdf)
- Duquette, J. (2008). *Population ecology of badgers (Taxidea taxus) in Ohio* (Unpublished master's thesis). Ohio State University.
- EBA Engineering Consultants Ltd. (2004). *Line Creek operations - Burnt Ridge south pit biophysical assessment*. Elk Valley Coal Corporation

- Eldridge, D. J. (2004). Mounds of the American Badger (*Taxidea taxus*): Significant features of North American shrub-steppe ecosystems. *Journal of Mammalogy*, 85(6), 1060-1067.  
<https://doi.org/10.1644/BEH-105.1>
- Eldridge, D. J. (2009). Badger (*Taxidea taxus*) mounds affect soil physical and hydrological properties in a degraded shrub-steppe. *American Midland Naturalist*, 161(2), 350-358.  
<https://doi.org/10.1674/0003-0031-161.2.350>
- Eldridge, D. G. and Whitford, W. G. (2008). Badger (*Taxidea taxus*) disturbances increase soil heterogeneity in a degraded shrub-steppe ecosystem. *Journal of Arid Environments*, 73, 66-73.  
<https://www.ars.usda.gov/research/publications/publication/?seqNo115=236085>
- Elk Valley Cumulative Effects Management Framework (EV-CEMF) Working Group (2018). *Elk Valley cumulative effects assessment and management report*.  
[https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/cumulative-effects/final\\_elk\\_valley\\_ceam\\_12122018.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/cumulative-effects/final_elk_valley_ceam_12122018.pdf)
- Environment Canada. (2007a). *Recovery strategy for the grizzly bear (Ursus arctos) prairie population, in Canada. Species at Risk Act Recovery Strategy Series*.  
<https://www.sararegistry.gc.ca/default.asp?lang=En&n=DB5B7683-1>
- Environment Canada. (2007b). *Management plan for the harlequin duck (Histrionicus histrionicus), eastern population in Atlantic Canada and Québec. Species at Risk Act Management Plan Series*.  
<https://sararegistry.gc.ca/default.asp?lang=En&n=EED0C835-1>
- Environment Canada. (2007c). *Wind turbines and birds: A guidance document for environmental assessment*. Canadian Wildlife Service.  
[https://publications.gc.ca/collections/collection\\_2013/ec/CW66-363-2007-eng.pdf](https://publications.gc.ca/collections/collection_2013/ec/CW66-363-2007-eng.pdf)
- Environment Canada. (2013). *Bird conservation strategy for Bird conservation region 10 Pacific and Yukon region: Northern Rockies abridged version*.  
<https://canada.ca/content/dam/eccc/migration/main/mbc-com/b0e2c86b-57e6-419a-b3e9-e1cd1808adfe/bcr-10-pyr-final-abridged-feb2013.pdf>
- Environment Canada. (2014a). *Final, proposed, candidate and early candidate/draft critical habitat for the proposed Trans Mountain Expansion Project*. Canadian Wildlife Service.
- Environment Canada. (2014b). *Summary of critical habitat information for the Trans Mountain Expansion Project*. Canadian Wildlife Service.
- Environment Canada. (2015). *Recovery strategy for the Rocky Mountain tailed frog (Ascaphus montanus) in Canada. Species at Risk Act Recovery Strategy Series*.  
<https://www.sararegistry.gc.ca/default.asp?lang=En&n=2DF2ACAB-2>

- Environment Canada. (2016a). *Recovery strategy for the olive-sided flycatcher (Contopus cooperi) in Canada*. Species at Risk Act Recovery Strategy Series. [https://www.sararegistry.gc.ca/virtual\\_sara/files/plans/rs\\_olive-sided%20flycatcher\\_e\\_final.pdf](https://www.sararegistry.gc.ca/virtual_sara/files/plans/rs_olive-sided%20flycatcher_e_final.pdf)
- Environment Canada. (2016b). *Recovery strategy for the common nighthawk (Chordeiles minor) in Canada*. Species at Risk Act Recovery Strategy Series. [https://www.registrelep-sararegistry.gc.ca/virtual\\_sara/files/plans/rs\\_common%20nighthawk\\_e\\_final.pdf](https://www.registrelep-sararegistry.gc.ca/virtual_sara/files/plans/rs_common%20nighthawk_e_final.pdf)
- Environment and Climate Change Canada (ECCC). (2014). *Little brown myotis, northern myotis and tri-colored myotis*. [https://www.canada.ca/content/dam/eccc/migration/sara/42e533d4-dcc7-4172-906a-023e02c10b42/fs\\_chauvesouris\\_bats\\_gen-v03\\_0215\\_e.pdf](https://www.canada.ca/content/dam/eccc/migration/sara/42e533d4-dcc7-4172-906a-023e02c10b42/fs_chauvesouris_bats_gen-v03_0215_e.pdf)
- Environment and Climate Change Canada (ECCC). (2017). *Bird conservation regions and strategies*. <https://www.canada.ca/en/environment-climate-change/services/migratory-bird-conservation/regions-strategies.html>
- Environment and Climate Change Canada (ECCC). (2018). *Recovery strategy for the little brown myotis (Myotis lucifugus), the northern myotis (Myotis septentrionalis), and the tri-colored Bat (Perimyotis subflavus) in Canada*. Species at Risk Act Recovery Strategy Series. [https://publications.gc.ca/collections/collection\\_2018/eccc/En3-4-308-2018-eng.pdf](https://publications.gc.ca/collections/collection_2018/eccc/En3-4-308-2018-eng.pdf)
- Environment and Climate Change Canada (ECCC). (2019a). *Guidelines to reduce risk to migratory birds*. <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html>
- Environment and Climate Change Canada (ECCC). (2019b). *The status of birds in Canada -Version 2019 [Dataset]*. <https://wildlife-species.canada.ca/bird-status/index-eng.aspx?sY=2019&sL=e>
- Environment and Climate Change Canada. (2020). *Management plan for the western toad (Anaxyrus boreas), calling and non-calling populations, in Canada*. Species at Risk Act Management Plan Series. [https://wildlife-species.canada.ca/species-risk-registry/virtual\\_sara/files/plans/mp\\_western\\_toad\\_calling\\_non-calling%20populations\\_final\\_e.pdf](https://wildlife-species.canada.ca/species-risk-registry/virtual_sara/files/plans/mp_western_toad_calling_non-calling%20populations_final_e.pdf)
- Ehrlich, P. R., Dobkin, D. S., and Wheye, D. (1992). *Birds in jeopardy: The imperiled and extinct birds of the United States and Canada, Including Hawaii and Puerto Rico*. Stanford University Press.
- Ethier, D. M., Laflèche, A., Swanson, B. J., Nocera, J. J., and Kyle, C. J. (2012). Population subdivision and peripheral isolation in American badgers (*Taxidea taxus*) and implications for conservation planning in Canada. *Canadian Journal of Zoology*, 90(5), 630-639. <https://doi.org/10.1139/z2012-029>
- Executive Order U-4-006. BC. G. A. R. 582. (2005).
- Fahrig, L., and Ryntwinski, T. (2009). Effects of roads on animal abundance: an empirical review and synthesis. *Ecology and Society*, 14(1), 21. <https://doi.org/10.5751/ES-02815-140121>

- Fenneman, J., (2019). *Cinclus mexicanus* – American dipper. In B. Klinkenberg (Ed.), *E-Fauna B.C.* University of British Columbia.  
<http://linnet.geog.ubc.ca/efauna/Atlas/Atlas.aspx?sciname=Cinclus%20mexicanus>
- Fensome, A.G., and Mathews, F. (2016). Roads and bats: A meta-analysis and review of the evidence on vehicle collisions and barrier effects. *Mammal Review*, 46(4), 311-323.  
<https://doi.org/10.1111/mam.12072>
- Festa-Bianchet, M. (1988). Seasonal range selection in bighorn sheep: conflicts between forage quality, forage quantity, and predator avoidance. *Oecologia*, 75(4), 580-586.  
<https://doi.org/10.1007/BF00776423>
- Fisher, J. T., Bradbury, S., Anholt, B., Nolan, L., Roy, L., Volpe, J. P., and Wheatley, M. (2013). Wolverines (*Gulo gulo luscus*) on the Rocky Mountain slopes: Natural heterogeneity and landscape alteration as predictors of distribution. *Canadian Journal of Zoology*, 91(10), 706-716.  
<https://doi.org/10.1139/cjz-2013-0022>
- Fisher, J. T., and Wilkinson, L. (2005). The response of mammals to forest fire and timber harvest in the North American boreal forest. *Mammal Review*, 35(1), 51-81. <https://doi.org/10.1111/j.1365-2907.2005.00053.x>
- Forest and Range Practices Act (FRPA)*, SBC (2002), c. 69
- Fortin, D., Beyer, H. L., Boyce, M. S., Smith, D. W., Duchesne, T., and Mao, J. S. (2005). Wolves influence elk movements: behaviour shapes a trophic cascade in Yellowstone National Park. *Ecology*, 85(5), 1320-1330. <https://doi.org/10.1890/04-0953>
- Fraser, D.A. (2006). *Range resources assessment procedure: Rangeland health brochure 9*. British Columbia Ministry of Forests and Range. [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/rangelands/rangeland\\_health\\_brochure9.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/rangelands/rangeland_health_brochure9.pdf)
- Fraser, D.F. and Ramsay, L. (2015). Lewis's woodpecker. In P.J.A. Davidson, R.J. Cannings, A.R. Couturier, D. Lepage, and C.M. Di Corrado (eds.). *The atlas of the breeding birds of British Columbia, 2008-2012*. Bird Studies Canada.  
<http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=LEWO&lang=en>
- Freeze, B. S. Willms, W. D., and Rode, L. (1999). Economics of maintaining cow condition on fescue prairie in winter. *Journal of Range Management*, 52(2), 113-119. <https://doi.org/10.2307/4003503>
- Fryxell, J.M., Falls, J.B., Falls, E.A., Brooks, R.J., Dix, L., and Strickland, M.A. (1999). Density dependence, prey dependence, and population dynamics of martens in Ontario. *Ecology* 80(4), 1311-1321.  
[https://doi.org/10.1890/0012-9658\(1999\)080\[1311:DDPDAP\]2.0.CO;2](https://doi.org/10.1890/0012-9658(1999)080[1311:DDPDAP]2.0.CO;2)
- Fuller, T.K. and D.M. Heisey. (1986). Density-related changes in winter distribution of snowshoe hares in northcentral Minnesota. *Journal of Wildlife Management*, 50(2), 261-264.  
<https://doi.org/10.2307/3801908>

- Gaines, W.L., Harrod, R.J., and Lehmkuhl, J. F. (1999). *Monitoring biodiversity: Quantification and interpretation* [Publication No. PNW-GTR-443]. United States Department of Agriculture, Forest Service. <https://doi.org/10.2737/PNW-GTR-443>
- Gayton, D. V. (2001). *Ground work: Basic concepts of ecological restoration in British Columbia*. Kamloops, British Columbia: Southern Interior Forest Extension and Research Partnership.
- Geist, V. (1971). *Mountain sheep: a study in behaviour and evolution*. University of Chicago Press.
- George, H., Gorman, W. and VanDine, D. (1987). Late quaternary geology and geomorphology of the Elk Valley, southeastern British Columbia. *Canadian Journal of Earth Sciences*, 24(4), 741 – 751. <https://doi.org/10.1139/e87-072>
- Gibson, C. and Sheets, D. (1997). *Natal Ridge elk study*. Elkview Coal Corporation.
- Gillingham, M. P., and Parker, K. L. (2008). Differential habitat selection by Moose and Elk in the Besa-prophet area of northern British Columbia. *Alces: A Journal Devoted to the Biology and Management of Moose*, 44, 41-63. <https://alcesjournal.org/index.php/alces/article/view/36>
- Gillis, E. A., Green, D. J., Middleton, H. A., and Morrissey, C. A. (2008). Life history correlates of alternative migratory strategies in American Dippers. *Ecology*, 89(6): 1687 -1695. <https://doi.org/10.1890/07-1122.1>
- Golder Associates Ltd. (2014). *Historical Qualitative Analysis of Environmental Changes in the Elk Valley 1890 to Present: Pre-Development Study Draft 3*.
- Golder Associates Ltd. (2015a). *Elkview operations Baldy Ridge extension project: Annex J- Wildlife and wildlife habitat baseline report*. Teck Coal Limited.
- Golder Associates Ltd. (2015b). *Elkview operations Baldy Ridge extension project: Annex Q – Selenium concentrations in aquatic biota baseline report*. Teck Coal Limited.
- Goodrich, J. M. and Buskirk, S. W. (1998). Spacing and ecology of North American badgers (*Taxidea taxus*) in a prairie-dog (*Cynomys leucurus*) complex. *Journal of Mammalogy*, 79(1), 171-179. <https://doi.org/10.2307/1382852>
- Gooliaff, T. J., and Stent, P. (2018). *2017/18 Bull River and Elk Valley moose inventory*. British Columbia Ministry of Forests, Lands, Natural Resource Operations, and Rural Development.
- Gorley, R. A. (2016). *A strategy to help restore moose populations in British Columbia*. British Columbia Ministry of Forests, Lands and Natural Resource Operations Fish and Wildlife Branch. <https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/wildlife-wildlife-habitat/moose/restoring-and-enhancing-moose-populations-in-bc-july-8-2016.pdf>



- Goudie., R.I., Brault, S., Conant, B., Kondratyev, A. V., Petersen, M. R., and Vermeer, K. (1994). The status of sea ducks in the North Pacific rim: Toward their conservation and management. *Trans. N. Am. Wild. Nat. Resour. Conf.* 59, 27-49.
- Government of Alberta. (2013). *Sensitive species inventory guidelines*.  
<https://open.alberta.ca/dataset/93d8a251-4a9a-428f-ad99-7484c6ebabe0/resource/f4024e81-b835-4a50-8fb1-5b31d9726b84/download/2013-sensitivespeciesinventoryguidelines-apr18.pdf>
- Government of British Columbia (Government of B.C.). (1994). *Species account – Marten (m-maam)*.  
[https://a100.gov.bc.ca/pub/acat/documents/r1665/whr\\_4146\\_mmaam\\_1098220467224\\_07a33d337dd7428586868202f6bc05bd.pdf](https://a100.gov.bc.ca/pub/acat/documents/r1665/whr_4146_mmaam_1098220467224_07a33d337dd7428586868202f6bc05bd.pdf)
- Government of British Columbia (Government of B.C.). (2017). *British Columbia ungulate species regional population estimates and status- Preseason 2017* [Data sheet].  
[https://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/2017\\_Provincial\\_Ungulate\\_Numbers\\_Sept\\_18\\_Final.pdf](https://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/2017_Provincial_Ungulate_Numbers_Sept_18_Final.pdf)
- Government of British Columbia (Government of B.C.). (n.d.). *6.3 Canada lynx species account*.  
[http://a100.gov.bc.ca/appsdata/acat/documents/r1632/tem\\_4163\\_mlyca\\_1097880633088\\_05387b1f8bfb43e5b386e0bd340b5b45.pdf](http://a100.gov.bc.ca/appsdata/acat/documents/r1632/tem_4163_mlyca_1097880633088_05387b1f8bfb43e5b386e0bd340b5b45.pdf)
- Government of Canada. (2011). *Species profile: Canada lynx*. [https://wildlife-species.canada.ca/species-risk-registry/species/speciesDetails\\_e.cfm?sid=324](https://wildlife-species.canada.ca/species-risk-registry/species/speciesDetails_e.cfm?sid=324)
- Government of Canada. (2018). *Species profile: Grizzly bear western population*. [https://wildlife-species.canada.ca/species-risk-registry/species/speciesDetails\\_e.cfm?sid=1195](https://wildlife-species.canada.ca/species-risk-registry/species/speciesDetails_e.cfm?sid=1195)
- Government of Canada. (2019). *Species at risk public registry*. <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>
- Gray, R. W. and Blackwell, B. A. (2005). Forest health, fuels, and wildfire: Implications for long-term ecosystem health. British Columbia Forest Practices Board.  
<https://doi.org/10.13140/RG.2.1.3106.3202>
- Gyug, L., Hamilton, T. and Austin, M. (2004). Grizzly Bear (*Ursus arctos*). In. K. Paige (Ed.), *Accounts and measures for managing identified wildlife* [Version 2004] (pp. 361-380). British Columbia Ministry of Water, Lands, and Air Protection.  
[https://www.env.gov.bc.ca/wld/frpa/iwms/documents/Mammals/m\\_grizzlybear.pdf](https://www.env.gov.bc.ca/wld/frpa/iwms/documents/Mammals/m_grizzlybear.pdf)
- Guide Outfitters Association of British Columbia [GOABC]. (2016). *Moose enhancement and recovery strategy*. <https://www.goabc.org/wp-content/uploads/2016/08/GOABCMooseEnhancementProgram-web.pdf>
- Halfwerk, W., Holleman, L.J.M., Lessells, C.M., and Slabbekoorn, H. (2011). Negative impact of traffic noise on avian reproductive success. *Journal of Applied Ecology*, 48(1), 210-219.  
<https://doi.org/10.1111/j.1365-2664.2010.01914.x>

- Halko, R., Hebert, K., and Sam, D. (2000). *East Kootenay moose aerial survey* [Unpublished report]. British Columbia Ministry of Environment Lands and Parks.
- Hamel, S., Garel, M., Festa-Bianchet, M., Gaillard, J., and Côté, S. D. (2009). Spring normalized difference vegetation index (NDVI) predicts annual variation in timing of peak crude protein in mountain ungulates. *Journal of Applied Ecology*, 46(3), 582-589. <https://doi.org/10.1111/j.1365-2664.2009.01643.x>
- Hamer, D. and Herrero, S. (1987b). Grizzly bear food and habitat in the front ranges of Banff National Park, Alberta. *Bears: Their Biology and Management*, 7, 199-213.
- Hamer, D. and Herrero, S. (1987a). Wildfire's influence on grizzly bear feeding ecology in Banff National Park, Alberta. *Bears: Their Biology and Management*, 7, 179-186.
- Hamer, D. (1996). Buffaloberry [*Shepherdia canadensis* (L.) Nutt.] fruit production in fire-successional bear feeding sites. *Rangeland Ecology & Management/Journal of Range Management Archives*, 49(6), 520-529.
- Hamilton, G. D., and Drysdale, P. D. (1975). Effects of cutover width on browse utilization by moose. *Proc. N. Am. Moose Conf.* 11, 5-26.
- Hanson, A., I. Goudie, A. Lang, C. Gjerdrum, R. Cotter, and Donaldson, G. (2009). *A framework for the scientific assessment of potential project impacts on birds*. Canadian Wildlife Service Technical Report Series No.508. Atlantic Region. 61 pp. [https://publications.gc.ca/collections/collection\\_2010/ec/CW69-5-508-eng.pdf](https://publications.gc.ca/collections/collection_2010/ec/CW69-5-508-eng.pdf)
- Hapeman, P. (1995). *A preliminary study of the reptiles and amphibians of Jasper National Park*. A report Parks Canada, Jasper National Park.
- Harding, L. E., Graham, M. and Paton, D. (2005). Accumulation of selenium and lack of severe effects on productivity of American dippers (*Cinclus mexicanus*) and spotted sandpipers (*Actitis Macularia*). *Arch. Environ. Contam. Toxicol.* 48(3), 414–423. <https://doi.org/10.1007/s00244-004-0004-5>
- Hargis, C.D., Bissonette J.A. and Turner, D.L. (2001). The influence of forest fragmentation and landscape pattern on American martens. *Journal of Applied Ecology*, 36(1), 57-172. <https://www.jstor.org/stable/2655704>
- Harper, W.L, Cooper, J.M., Simpson, K., Hamilton, J., Dunham, K.A., and Eastman, D.S. (2001). *Guidelines for evaluating, avoiding and mitigating impacts of major development projects on wildlife in British Columbia*. Osiris Wildlife Consulting. <https://docplayer.net/7937504-Guidelines-for-evaluating-avoiding-and-mitigating-impacts-of-major-development-projects-on-wildlife-in-british-columbia.html>
- Harris, G., Nielson, R. M., Rinaldi, T., and Lohuis, T. (2014). Effects of winter recreation on northern ungulates with focus on moose (*Alces alces*) and snowmobiles. *European Journal of Wildlife Research*, 60(1), 45-58. <https://doi.org/10.1007/s10344-013-0749-0>

- Hatler, D.F. (2001). *Mountain goats and helicopters in the Kootenay Region, British Columbia: a preliminary assessment* [Unpublished report]. Canadian Mountain Helicopters.
- Hatler, D.F. and Beal, A. M. M. (2003). *British Columbia furbearer management guidelines: Lynx*. British Columbia Ministry of Forests, Lands and Natural Resources. <https://www2.gov.bc.ca/assets/gov/sports-recreation-arts-and-culture/outdoor-recreation/fishing-and-hunting/hunting/trapping/lynx.pdf>
- Hatler, D.F., Blood, D. A., and Beal, A. M. M. (2003). *British Columbia furbearer management guidelines: Marten*. British Columbia Ministry of Forests, Lands and Natural Resources. <https://www2.gov.bc.ca/assets/gov/sports-recreation-arts-and-culture/outdoor-recreation/fishing-and-hunting/hunting/trapping/marten.pdf>
- Hausleitner, D. and Lowey, J. (2018). *Badger burrow surveys in the Crown Mountain area of southeastern British Columbia July 3-4, 2018*. Keefer Ecological Services Ltd.
- Hawley, V.D. and Newby, F.E. 1957. Marten home ranges and population fluctuations. *Journal of Mammalogy*, 38(2), 174-184. <https://doi.org/10.2307/1376307>
- Hebblewhite, M., and Merrill, E. H. (2009). Trade-offs between predation risk and forage differ between migrant strategies in a migratory ungulate. *Ecology*, 90(12), 3445-3454. <https://doi.org/10.1890/08-2090.1>
- Heinemeyer, K., Squires, J., and Copeland, J. (2010). *Investigating the interactions between wolverines and winter recreation use: Annual Report 2010*. Round River Conservation Studies, UFSF Rocky Mountain Research Station. [https://www.roundriver.org/wp-content/uploads/pubs/wolverine/reports/idaho\\_wolverine\\_2010\\_annual-report\\_FINAL.pdf](https://www.roundriver.org/wp-content/uploads/pubs/wolverine/reports/idaho_wolverine_2010_annual-report_FINAL.pdf)
- Heinemeyer, K., Squires, J., Hebblewhite, M., O'Keefe, J. J., Holbrook, J. D., and Copeland, J. (2019). Wolverine in winter: Indirect habitat loss and functional responses to backcountry recreation. *Ecosphere*, 10(2), e02611. <https://doi.org/10.1002/ecs2.2611>
- Henny, C., Kaiser, J., Packard, H., Grove, R., and Taft, M. (2005). Assessing mercury exposure and effects to American dipper in headwater streams near mining sites. *Ecotoxicology*, 14(7), 709-725. <https://doi.org/10.1007/s10646-005-0023-7>
- Hesse, G. (2010). *British Columbia urban ungulate conflict analysis*. British Columbia Ministry of Environment. <https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/wildlife-wildlife-habitat/staying-safe-around-wildlife/urbanungulatesconflictanalysisfinaljuly5-2010.pdf>
- Hobbs, J. (2008). *Gillette's checkerspot (Euphydryas gillettii) survey – 2008*. British Columbia Ministry of Environment. [http://www.env.gov.bc.ca/wildlife/wsi/reports/4448\\_WSI\\_4448\\_RPT1.PDF](http://www.env.gov.bc.ca/wildlife/wsi/reports/4448_WSI_4448_RPT1.PDF)

- Hodges, K. E. (2000). Ecology of snowshoe hares in southern boreal and montane forests [Chapter 7]. In L.F. Ruggiero, K.B. Aubry, S.W. Buskirk, G.M. Koehler, C.J. Krebs, K.S. McKelvey, and J.R. Squires (Eds.), *Ecology and Conservation of Lynx in the United States* (pp. 163-206). United States Department of Agriculture, Forest Service. <https://www.fs.usda.gov/treearch/pubs/50630>
- Hofmann, R. R. (1989). Evolutionary steps of ecophysiological adaptation and diversification of ruminants: a comparative view of their digestive system. *Oecologia*, 78(4), 443-457. <https://doi.org/10.1007/BF00378733>
- Holechek, J. L., Pieper, R. D., and Herberl, C. H. (2001). *Range management principles and practice* [6<sup>th</sup> Edition]. Pearson.
- Hoodicoff, C. S. (2003). *Ecology of the badger (Taxidea taxus jeffersonii) in the Thompson region of British Columbia: Implications for conservation* [Unpublished master's thesis]. University of Victoria. [http://www.badgers.bc.ca/pubs/Hoodicoff\\_thesis.pdf](http://www.badgers.bc.ca/pubs/Hoodicoff_thesis.pdf)
- Hoodicoff, C. (2005). *Badger recovery science: Best management practices for prey enhancement*. Entwood Ecological Consulting. [http://badgers.bc.ca/pubs/Hoodicoff\\_2005\\_BMP\\_pre\\_y\\_enhancement.pdf](http://badgers.bc.ca/pubs/Hoodicoff_2005_BMP_pre_y_enhancement.pdf)
- Hoodicoff, C. S., Larsen, K. W., and Weir, R. D. (2009). Home range size and attributes for badgers (*Taxidea taxus jeffersonii*) in south-central British Columbia, Canada. *The American Midland Naturalist*, 162(2), 305-317. <https://doi.org/10.1674/0003-0031-162.2.305>
- Hoodicoff, C. and Packham, R. (2007). *Caribou region badger project: Year end report 2006-07*. Vernon: Summit Environmental Consultants, Ltd., British Columbia Ministry of Environment. [http://badgers.bc.ca/pubs/Cariboo\\_Badger\\_2007.pdf](http://badgers.bc.ca/pubs/Cariboo_Badger_2007.pdf)
- Hornocker, M. G. and H. S. Hash. (1981). Ecology of the wolverine in northwestern Montana. *Canadian Journal of Zoology*, 59, 1286-1301. <https://doi.org/10.1139/z81-181>
- Hudson, R. J., and White, R. G. (1985). *Bioenergetics of Wild Herbivores*. CRC Press.
- Inman, R. M., Magoun, A. J., Persson, J., and Mattisson, J. (2012). The wolverine's niche: linking reproductive chronology, caching, competition, and climate. *Journal of Mammalogy*, 93(3), 634-644. <https://doi.org/10.1644/11-MAMM-A-319.1>
- Isaac, L. (2018). *Baseline report: Acoustic and live capture inventory of bats for the Crown Mountain Project*. VAST Resource Solutions Inc.
- IUCN SSC Amphibian Specialist Group (IUCN). (2015a). *Western toad - Anaxyrus boreas*. The IUCN Red List of Threatened Species 2015. <http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T3179A53947725.en>.

- IUCN SSC Amphibian Specialist Group (IUCN). (2015b). *Columbia spotted frog* - *Rana luteiventris*. The IUCN Red List of Threatened Species 2015. <http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T58649A78908785.en>
- Jalkotzy, M. (2000). *Habitat selection of bighorn ewes on three winter ranges in the East Kootenays* [Unpublished report]. East Kootenay Wildlife Association and Arc Wildlife Service Ltd. [http://www.sgrc.selkirk.ca/bioatlas/pdf/Habitat\\_Selection\\_by\\_Bighorn\\_Ewes.pdf](http://www.sgrc.selkirk.ca/bioatlas/pdf/Habitat_Selection_by_Bighorn_Ewes.pdf)
- James, J.D. (1998). *Status of the Columbia spotted frog (Rana luteiventris) in Alberta*. Alberta Environmental Protection, Alberta Conservation Association. [https://www.ab-conservation.com/downloads/AWSR/Reptile%20Amphibian%20and%20Fish%20Reports/Status%20of%20Columbia%20Spotted%20Frog%20in%20Alberta\\_1998.pdf](https://www.ab-conservation.com/downloads/AWSR/Reptile%20Amphibian%20and%20Fish%20Reports/Status%20of%20Columbia%20Spotted%20Frog%20in%20Alberta_1998.pdf)
- Janis, C. M., Scott, K. M., and Jacobs, L. L. (2005). *Evolution of tertiary mammals of North America: Volume 1, terrestrial carnivores, ungulates, and ungulate like mammals*. Cambridge University Press.
- Jannett, F. J., Jr., Broschart, M. R., Grim, L. H., and Schaberl, J. P. (2007). Northerly range extensions of mammalian species in Minnesota. *American Midland Naturalist*, 158, 168-176.
- Jansen, B. D., Krausman, P. R., Heffelfinger, J. R., and Devos, J. C. (2007). Bighorn Sheep selection of landscape features in an active copper mine. *Wildlife Society Bulletin*, 34, 1121-1126. [https://doi.org/10.2193/0091-7648\(2006\)34\[1121:BSSOLF\]2.0.CO;2](https://doi.org/10.2193/0091-7648(2006)34[1121:BSSOLF]2.0.CO;2)
- Jansen, B. D., Krausman, P. R., Bristow, K. D., Heffelfinger, J. R., and Devos, J. C. (2009). Surface mining and ecology of desert bighorn sheep. *The Southwestern Naturalist*, 54(4), 430-438. <https://doi.org/10.1894/TAL-01.1>
- Jeffersonii Badger Recovery Team. (2008). *Recovery strategy for the badger (Taxidea taxus) in British Columbia*. British Columbia Ministry of Environment. [https://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/badger\\_jeffersonii\\_rcvry\\_strat18092008.pdf](https://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/badger_jeffersonii_rcvry_strat18092008.pdf)
- Jenkins, K., and Starkey, E. (1996). Simulating secondary succession of elk forage values in a managed forest landscape, western Washington. *Environmental Management*, 20(5), 715-724. <https://doi.org/10.1007/BF01204142>
- Jones, L.C., W.P. Leonard, and D.H. Olson (Eds.). (2005). *Amphibians of the Pacific Northwest*. Seattle Audubon Society.
- Kearney, S. P., Coops, N. C., Stenhouse, G. B., Nielsen, S. E., Hermosilla, T., White, J. C., and Wulder, M. A. (2019). Grizzly bear selection of recently harvested forests is dependent on forest recovery rate and landscape composition. *Forest Ecology and Management*, 449(1), 117459. <https://doi.org/10.1016/j.foreco.2019.117459>

- Kelly, M. J., Betsch, J., Wultsch, C., Mesa B., and Mills L. S. (2012). Noninvasive sampling for carnivores. In L. Boitani and R. A. Powell (Eds.), *Carnivore ecology and conservation: A handbook of techniques* (pp.47-69). Oxford University Press.
- Kennedy, P. L. (2003). *Northern goshawk (Accipiter gentilis atricapillus): A technical conservation assessment*. Colorado State University.  
[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5182005.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5182005.pdf)
- Kingery, H. E. and Willson, M. F. (2020). American dipper (*Cinclus mexicanus*) [Version 1.0]. In P.G. Rodewald (Ed.), *Birds of the world*. Cornell Lab of Ornithology.  
<https://doi.org/10.2173/bow.amedip.01>
- Kinley, T. A. (2007). *Rocky Mountain bighorn sheep habitat and population assessment for the East Kootenay Trench*. East Kootenay Wildlife Association.  
[https://www.env.gov.bc.ca/wildlife/wsi/reports/5002\\_WSI\\_5002\\_RPT\\_2002.PDF](https://www.env.gov.bc.ca/wildlife/wsi/reports/5002_WSI_5002_RPT_2002.PDF)
- Kinley, T. A. (2009). *Badger ecology and habitat in the Mist Mountain study area, with occurrence records for other species at risk*. Sylvan Consulting Ltd.
- Kinley, T. A., & Newhouse, N. J. (2008). Ecology and translocation-aided recovery of an endangered badger population. *Journal of Wildlife Management*, 72, 113-122.
- Kinley, T. A., Whittington, J., Dibb, A. D., and Newhouse, N. J. (2014). Badger resource selection in the Rocky Mountain Trench of British Columbia. *Journal of Ecosystems and Management*, 14(3), 1–22.  
<https://jem-online.org/index.php/jem/article/view/566>
- Kjell, D., Bergström, R., Duncan, P., and Pastor, J. (2006). *Large herbivore ecology, ecosystem dynamics and conservation*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511617461>
- Klafki, R. W. (2014). *Road ecology of a northern population of badgers (Taxidea taxus) in British Columbia, Canada* [Unpublished master's thesis]. Thompson Rivers University.
- Knight, E. (2018). *Canadian nightjar survey protocol*. Bird Studies Canada, Environment and Climate Change Canada, Regroupement Quebec Oiseaux, WildResearch. <http://wildresearch.ca/wp-content/uploads/2015/10/National-Nightjar-Survey-Protocol-WildResearch.pdf>
- Knutson, M.G., W.B. Richardson, D.M. Reineke, B.R. Gray, J.R. Parmelee and S.E. Weick. (2004). Agricultural ponds support amphibian populations. *Ecological Applications*, 14(3), 669-684.  
<https://doi.org/10.1890/02-5305>
- Koehler, G. M. (1990). Population and habitat characteristics of lynx and snowshoe hares in north central Washington. *Canadian Journal of Zoology*, 68(5), 845–851. <https://doi.org/10.1139/z90-122>

- Koehler, G. M. and Aubry, K. B. (1994). Lynx. In L.F. Ruggiero, K.B. Aubry, S.W. Buskirk, J.L. Lyon, and W.J. Zielinski (Eds.), *The scientific basis for conserving forest carnivores: American marten, fisher, lynx, and wolverine in the western United States* (pp. 74-98) [Publication No. RM-254]. United States Department of Agriculture, Forest Service. <https://doi.org/10.2737/RM-GTR-254>
- Koehler, G. M. and Brittell, J. D. (1990). Managing spruce-fir habitat for lynx and snowshoe hare. *Journal of Forestry*, 88(10), 10-14. <https://doi.org/10.1093/jof/88.10.10>
- Koehler, G. M. and Hornocker, M. G. (1977). Fire effects on marten habitat in the Selway Bitterroot Wilderness. *The Journal of Wildlife Management*, 41(3), 500-505. <https://doi.org/10.2307/3800522>
- Koehler, G.M., Moore W.R., and Taylor A.R. (1975). Preserving the pine martin: Management guidelines for western forests. *Western Wildlands*, 2(3), 31-36.
- Kondla, N.G., Guppy, C.S., and Shepard, J.H. (2000). Butterflies of conservation interest in Alberta, British Columbia, and Yukon. In L.M. Darling (Eds.), *Proceedings of a Conference on the Biology and Management of Species and Habitats at Risk* (pp. 95-100). British Columbia Ministry of Environment, Lands, and Parks. <http://www.env.gov.bc.ca/wld/documents/bl09kondla.pdf>
- Kondla, N. G. (2005). *Gillette's checkerspot in the southern headwaters at risk (SHARP) project area*. Alberta Sustainable Resource Development.
- Kootenay Inter-Agency Management Committee (KIAMC). (1997). *Kootenay/Boundary land use plan implementation strategy*. [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/kootenayboundary-region/kootenayboundary-rlup/kootenayboundary\\_rlup\\_implementation\\_strategy.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/kootenayboundary-region/kootenayboundary-rlup/kootenayboundary_rlup_implementation_strategy.pdf)
- Kortello, A. and Hausleitner, D. (2014). *Abundance and distribution of wolverine in the Kootenay Region 2013 field season report: Purcell Mountains*. Seepanee Ecological Consulting. [http://wolverinefoundation.org/wp-content/uploads/2014/03/Kootenay-Wolverine-Project-2013\\_final-report.pdf](http://wolverinefoundation.org/wp-content/uploads/2014/03/Kootenay-Wolverine-Project-2013_final-report.pdf)
- Kortello, A., Hausleitner, D., and Mowat, G. (2019). Mechanisms influencing the winter distribution of wolverine (*Gulo gulo luscus*) in the southern Columbia Mountain, Canada. *Wildlife Biology*, 2019(1), 1-13. <https://doi.org/10.2981/wlb.00480>
- Kramer-Schadt, S., Revilla, E., Wiegand, T., and Breitenmoser, U. (2004). Fragmented landscapes, road mortality and patch connectivity: Modelling influences on the dispersal of Eurasian lynx. *Journal of Applied Ecology*, 41(4), 711-723. <https://doi.org/10.1111/j.0021-8901.2004.00933.x>
- Krausman, P. R. (1999) Some basic principles of habitat use. In K.L. Launchbaugh, K.D. Sanders, J.L. Mosley (Eds.), *Proceedings - Grazing behaviour of livestock and wildlife* (pp. 85-90). University of Idaho. <https://www.webpages.uidaho.edu/range456/readings/krausman.pdf>

- Krausman, P.R., and Bowyer, R.T. (2003). Mountain sheep (*Ovis canadensis* and *O. dalli*). In G.A. Feldhamer, B.C. Thompson, J.A. Chapman (Eds.), *Wild mammals of North America: Biology, management, and conservation* (pp. 1095-1115). The Johns Hopkins University Press.
- Krebs, C. J. (2009). *Ecology: The experimental analysis of distribution and abundance* [6<sup>th</sup> Edition]. Pearson.
- Krebs, C., Boonstra, R., Boutin, S., Sinclair, A., Smith, J., Gilbert, S., Martin, K., O'Donoghue, M., and Turkington, R. (2014). Trophic dynamics of the boreal forests of the Kluane Region. *Arctic*, 67(5), 71-81. <https://doi.org/10.14430/arctic4350>
- Krebs, J. A. and Lewis, D. (2000). Wolverine ecology and habitat use in the North Columbia Mountains: Progress report. In L.M. Darling (Eds.), *Proceedings of a Conference on the Biology and Management of Species and Habitats at Risk* (pp. 695-703). British Columbia Ministry of Environment, Lands, and Parks. <https://www.env.gov.bc.ca/wld/documents/ca08krebs.pdf>
- Krebs, J., Lofroth, E., Copeland, J., Banci, V., Cooley, D., Golden, H., and Shults, B. (2004). Synthesis of survival rates and causes of mortality in North American wolverines. *Journal of Wildlife Management*, 68(3), 493-502. <https://www.jstor.org/stable/3803381>
- Krebs, J., Lofroth, E.C, and Parfitt, I. (2007). Multiscale habitat use by wolverines in British Columbia, Canada. *Journal of Wildlife Management* 71(7), 2180-2192. <https://www.jstor.org/stable/4496328>
- Kroesen, L. P., Hik, D. S., and Cherry, S. G. (2020). Patterns of decadal, seasonal and daily visitation to mineral licks, a critical resource hotspot for mountain goats *Oreamnos americanus* in the Rocky Mountains. *Wildlife Biology*, 2020(4), wlb.00736. <https://doi.org/10.2981/wlb.00736>
- Krohn, W. B. (2012). Distributional changes of American martens and fishers in eastern North America, 1699-2001: Chapter 4. In K.B. Aubry, W.J. Zielinski, M.G. Raphael, G. Proulx, and S.W. Buskirk (Eds.), *Biology and conservation of martens, sables, and fishers: A new synthesis* (pp. 58-74). Cornell University Press. <https://www.jstor.org/stable/10.7591/j.cttn34sk>
- Ktunaxa Nation Council (KNC). (2020). *Technical memorandum: Ktunaxa Nation Council recommended minimum standards for proponents in determining significance of effects in environmental assessments (EAs) in the Elk Valley*.
- Kuzyk, G. W., Dielman, P., Jex, B., Procter, C., Reid, A., Schwantje, H., Teske, I., and Thiessen, C. (2012). Population and harvest trends of mountain sheep and mountain goats in British Columbia. *Biennial Symposium of the Northern Wild Sheep and Goat Symposium*, 18,17-102.
- Kyle, C. J. and Strobeck, C. (2002). Connectivity of peripheral and core populations of North American wolverines. *Journal of Mammalogy*, 83(4), 1141-1150. [https://doi.org/10.1644/1545-1542\(2002\)083<1141:COPACP>2.0.CO;2](https://doi.org/10.1644/1545-1542(2002)083<1141:COPACP>2.0.CO;2)



- Kyle, C.J., Weir, R.D., Newhouse, N.J., Davis, H., and Strobeck, C. (2004). Genetic structure of sensitive and endangered northwestern badger populations (*Taxidea taxus taxus* and *T. T. Jeffersonii*). *Journal of Mammology*, 85(4), 633-639. <https://doi.org/10.1644/BRB-129>
- Lamb, C. T., Ford, A. T., McLellan, B. N., Proctor, M. F., Mowat, G., Ciarniello, L., Nielsen, S.E. and Boutin, S. (2020). The ecology of human–carnivore coexistence. *Proceedings of the National Academy of Sciences*, 117(30), 17876-17883. <https://doi.org/10.1073/pnas.1922097117>
- Lamb, C. T., Mowat, G., Reid, A., Smit, L., Proctor, M., McLellan, B. N., Nielsen, S. E., and Boutin, S. (2018). Effects of habitat Quality and Access Management on the density of a recovering grizzly bear population. *Journal of Applied Ecology*, 55(3), 1406–1417. <https://doi.org/10.1111/1365-2664.13056>
- Lamb, C. T., Mowat, G., McLellan, B. N., Nielsen, S. E., and Boutin, S. (2016). Forbidden fruit: human settlement and abundant fruit create an ecological trap for an apex omnivore. *Journal of Animal Ecology*, 86(1), 55-65. <https://doi.org/10.1111/1365-2656.12589>
- Larsen, T. A., Nielsen, S. E., Cranston, J., and Stenhouse, G. B. (2019). Do remnant retention patches and forest edges increase grizzly bear food supply? *Forest Ecology and Management*, 433(2019), 741-761. [https://ace-lab.ca/assets\\_b/Larsen\\_etal\\_2018\\_ForEcoMngt.pdf](https://ace-lab.ca/assets_b/Larsen_etal_2018_ForEcoMngt.pdf)
- Larson, C. L., Reed, S. E., Merenlender, A. M., and Crooks, K. R. (2016). Effects of recreation on animals revealed as widespread through a global systematic review. *PloS one*, 11(12), e0167259. <https://doi.org/10.1371/journal.pone.0167259>
- Laundré, J. W. (1994). Resource overlap between mountain goats and bighorn sheep. *Great Basin Naturalist* 54(2), 114–121. <https://doi.org/10.2307/41712820>
- Layberry, R. A., Hall, P.W., and Lafontaine, J.D. (1998). *The butterflies of Canada*. University of Toronto Press.
- Lee, T., Clevenger, A. P., and Lamb, C. (2019). *Amendment: Highway 3 transportation mitigation for wildlife and connectivity in Elk Valley of British Columbia*. Mistakis Institute. [http://www.rockies.ca/files/reports/Hwy%203\\_Lee%20et%20al.\\_ReportAmendment\\_2019\\_Final.pdf](http://www.rockies.ca/files/reports/Hwy%203_Lee%20et%20al._ReportAmendment_2019_Final.pdf)
- Leonard, W. P., Leonard, N. P., Storm, R. M., and Petzel, P. E. (1996). *Rana pretiosa* (Spotted frog): Behaviour and reproduction. *Herpetology Review*, 27(4), 195.
- Litvaitis, J. A., Sherburne, J. A., and Bissonette, J. A. (1985). Influence of understory characteristics on snowshoe hare habitat use and density. *Journal of Wildlife Management*, 49(4), 866–873. <https://doi.org/10.2307/3801359>
- Lofroth, E. C. (1993). *Scale dependent analysis of habitat selection by martin* [Unpublished master's thesis]. Simon Fraser University.

- Lofroth, E. C. and Banci, V. (1991). *Marten habitat suitability research project - Working plan*. British Environment.
- Lofroth, E. C. and Krebs, J. (2007). The abundance and distribution of wolverines in British Columbia, Canada. *Journal of Wildlife Management*, 71(7), 2159-2169. <https://doi.org/10.2193/2007-094>
- Lofroth, E. C. and Steventon, J.D. (1990). Managing for marten winter habitat in interior forests of British Columbia. In A. Chambers (Ed.), *Wildlife forestry symposium (a workshop on resource integration for wildlife and forestry managers) Prince George, British Columbia* (pp. 66-76). British Columbia Ministry of Environment, British Columbia Ministry of Forests. <https://www.for.gov.bc.ca/hfd/pubs/Docs/Frr/FRR160part2.pdf>
- Logier, E. B. S. (1932). Some accounts of the amphibians and reptiles of British Columbia: Contributions to the Royal Ontario Museum of Zoology. *Trans. Royal Canadian Inst.* 18(40), 311-336.
- Lopez-Alfaro, C., Robbins, C. T., Zedrosser, A., and Nielsen, S. E. (2013). Energetics of hibernation and reproductive trade-offs in brown bears. *Ecological Modelling*, 270, 1-10. <https://doi.org/10.1016/j.ecolmode.2013.09.002>
- Lowenberger, F.J. (1973). *Reclamation of strip mine overburden through tree planting* [Unpublished master's thesis]. University of British Columbia.
- Lyon, L. J., Aubry, K. B., Zielinski, W. J., Buskirk, S. W., and Ruggiero, L. F. (1994). The scientific basis for conserving forest carnivores: Considerations for management. In L.F. Ruggiero, K.B. Aubry, S.W. Buskirk, J.L. Lyon, and W.J. Zielinski (Eds.), *The scientific basis for conserving forest carnivores: American marten, fisher, lynx, and wolverine in the western United States* (pp. 128-137) [Publication No. RM-254]. United States Department of Agriculture, Forest Service. <https://doi.org/10.2737/RM-GTR-254>
- MacCallum, N. B. (1991). *Bighorn sheep use of an open pit coal mine in the foothills of Alberta* (Unpublished master's thesis). University of Calgary.
- MacCallum, B. N., and Geist, V. (1992). Mountain restoration: soil and surface wildlife habitat. *GeoJournal*, 27(1), 23-46. <https://doi.org/10.1007/BF00150633>
- MacKenzie, K. L. (2004). *The effects of livestock grazing on the habitat suitability of grassland-dependant vertebrate species in British Columbia: A literature Review*. British Columbia Ministry of Water, Land and Air Protection.
- MacKenzie, W.H. (2012). *Biogeoclimatic ecosystem classification of non-forested ecosystems in British Columbia*. Province of British Columbia. <https://www.for.gov.bc.ca/hfd/pubs/Docs/Tr/Tr068.pdf>
- Mackenzie, D. L., Nichols, J. D., Lachman, G. B., Droege, S., Royle, A., and Langtimm, C. A. (2002) Estimating site occupancy rates when detection probabilities are less than one. *Ecology*, 83(8), 2248-2255. [https://doi.org/10.1890/0012-9658\(2002\)083\[2248:ESORWD\]2.0.CO;2](https://doi.org/10.1890/0012-9658(2002)083[2248:ESORWD]2.0.CO;2)

- MacKillop, D. J., Ehman, A. J., Iverson, K. E., and McKenzie, E. B. (2018). *Land management handbook 71: A field guide to site classification and identification for southeast British Columbia: The East Kootenay*. Province of British Columbia. <https://www.for.gov.bc.ca/hfd/pubs/docs/lmh/LMH71.pdf>
- Magoun, A. J. and Copeland, J. P. (1998). Characteristics of wolverine reproductive den sites. *Journal of Wildlife Management*, 62(4), 1313-1320. <https://doi.org/10.2307/3801996>
- Mahon, T. and Doyle, F. (2003). *Foraging habitat selection, prey abundance, and reproductive success of northern goshawks in Northwest British Columbia*. Houston Forest Products, Babine Forest Products. <https://www.for.gov.bc.ca/hfd/library/FIA/2003/R2003-141a.pdf>.
- Mahon, T., McClaren, E., and Doyle, F. (2008). *Parameterization of the northern goshawk (Accipiter gentilis laingi) habitat model for coastal British Columbia: Nesting and foraging habitat suitability models and territory analysis model*. <http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=20674>
- Manly, B.F.J., McDonald, L.L., Thomas, D.L., McDonald, T.L., and Erickson, W.P. (2002) *Resource selection by animals* [2<sup>nd</sup> Edition]. Kluwer Academic Publishers, Dordrecht, the Netherlands.
- Marcot, B. G., Lorenz, T. J., Fischer, P., Weinstein, B. G., and Cowell, S. (2019). Efficacy of automated detection of motion in wildlife monitoring videos. *Wildlife Society Bulletin*, 43(4), 726-736. <https://doi.org/10.1002/wsb.1016>
- Martell, A. (2015a). American dipper. In P. J. A. Davidson, R. J. Cannings, A. R. Couturier, D. Lepage, and C. M. Di Corrado (Eds.), *The Atlas of the breeding birds of British Columbia, 2008-2012*. Bird Studies Canada. <http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=AMDI&lang=en>
- Martell, A. (2015b). Evening grosbeak. In P.J.A. Davidson, R.J. Cannings, A.R. Couturier, D. Lepage, and C.M. Di Corrado (Eds.), *The atlas of the breeding birds of British Columbia, 2008-2012*. Bird Studies Canada. <http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=EVGR&lang=en>
- Martin, K., Aitken, K., and Wiebe, K. (2004). Nest sites and nest webs for cavity-nesting communities in interior British Columbia, Canada: Nest characteristics and niche partitioning. *The Condor*, 106(1), 5-19. <https://doi.org/10.1093/condor/106.1.5>
- Mattson, D. J. (1997). Use of ungulates by Yellowstone grizzly bears *Ursus arctos*. *Biological Conservation*, 81(1-2), 161-177.
- McKelvey, K. S., Aubry, K. B., and Ortega, Y. K. (2000). History and distribution of lynx in the contiguous United States. In L.F. Ruggiero, K.B. Aubry, S.W. Buskirk, G.M. Koehler, C.J. Krebs, K.S. McKelvey, and J.R. Squires (Eds.), *Ecology and Conservation of Lynx in the United States* (pp. 207-264). United States Department of Agriculture, Forest Service. <https://www.fs.usda.gov/treesearch/pubs/50631>

- McKelvey, K. S., Copeland, J. P., Schwartz, M. K., Littell, J. S., Aubry, K. B., Squires, J. R., Parks, S.A., Elsner, M.M., and Mauger, G. S. (2011). Climate change predicted to shift wolverine distributions, connectivity, and dispersal corridors. *Ecological Applications*, 21(8), 2882-2897. <https://www.fs.usda.gov/treesearch/pubs/40192>
- McLellan, B. N. (1989). Dynamics of grizzly bear population during a period of industrial resource extraction. I. Density and age-sex composition. *Canadian Journal of Zoology*, 67(8), 1856-1860. <https://doi.org/10.1139/z89-264>
- McLellan, B. N. (2011). Implications of a high-energy and low-protein diet on the body composition, fitness, and competitive abilities of black (*Ursus americanus*) and grizzly (*Ursus arctos*) bears. *Canadian Journal of Zoology*, 89(6), 546-558. <https://doi.org/10.1139/z11-026>
- McLellan, B. N. (2015). Some mechanisms underlying variation in vital rates of Grizzly Bear on a multiple use landscape. *Journal of Wildlife Management*, 79(5), 749-765. <https://doi.org/10.1002/jwmg.896>
- McLellan, B. N. and Hovey, F. W. (1995). The diet of grizzly bears in the Flathead drainage of southeastern British Columbia. *Canadian Journal of Zoology*, 73(4), 704-712. <https://doi.org/10.1139/z95-082>
- McLellan, B. N. and Hovey, F. W. (2001). Habitats selected by grizzly bears in a multiple use landscape. *Journal of Wildlife Management*, 65(1), 92-99. <https://doi.org/10.2307/3803280>
- Messick, J. P. (1987). North American badger. In M. Novak, J. A., Baker, M. E. Obbard, and M. Mallock (Eds.), *Wild furbearer management and conservation in North America* (pp. 587-597). Ontario Ministry of Natural Resources.
- Migratory Birds Convention Act* (MBCA), SC 1994, c. 22. <https://laws-lois.justice.gc.ca/eng/acts/m-7.01/>
- Mikhail, A., Lewis, J.E., and Yack, J.E. (2018). What does a butterfly hear? Physiological characterization of auditory afferents in *Morpho peleides* (Nymphalidae). *Journal of Comparative Physiology A*, 204, 791-799. <https://doi.org/10.1007/s00359-018-1280-2>
- Milko, R. (1998). *Wetlands environmental assessment guideline*. Canadian Wildlife Service, Environment Canada. [https://publications.gc.ca/collections/collection\\_2019/eccc/CW66-174-1998-eng.pdf](https://publications.gc.ca/collections/collection_2019/eccc/CW66-174-1998-eng.pdf)
- Millennium EMS Solutions Ltd. (2016). *Grassy Mountain coal project wildlife assessment*. <https://www.ceaa-acee.gc.ca/050/documents/p80101/115615E.pdf>
- Ministerial Order M213. BC. G. A. R. 582. (2018)
- Ministerial Order U-4-006. BC. G. A. R. 582. (2005)
- Minta, S. C. (1993). Sexual differences in spatio-temporal interaction among badgers. *Oecologia*, 96(3), 402-409. <https://doi.org/10.1007/BF00317511>

- Mitchell, M. S. and Hebblewhite, M. (2011). Carnivore habitat ecology: integrating theory and application. In L. Boitani and R. A., Powell (Eds.), *Carnivore ecology and conservation: A handbook of techniques* (pp. 218-255). Oxford University Press.  
[https://www.umt.edu/mcwru/documents/Mitchell\\_Publications/Chapter%2010.pdf](https://www.umt.edu/mcwru/documents/Mitchell_Publications/Chapter%2010.pdf)
- Morgan, D., Proctor, M., Mowat, G., McLellan, B., Hamilton, and Turney, L. (2020). *Conservation ranking of grizzly bear population units – 2019*. British Columbia Ministry of Environment and Climate Change Strategy. [https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/wildlife-wildlife-habitat/grizzly-bears/bc\\_gbpu\\_2019\\_ranking.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/wildlife-wildlife-habitat/grizzly-bears/bc_gbpu_2019_ranking.pdf)
- Morris, R. L. and Tanner, W. W. (1969). The ecology of the western spotted frog, *Rana pretiosa pretiosa* Baird and Girard, a life history study. *Great Basin Naturalist*, 29(2), 45-81.
- Morrissey, C. A. (2004). Effect of altitudinal migration with a watershed on the reproductive success of American dippers. *Canadian Journal of Zoology*, 82(5): 800-807. <https://doi.org/10.1139/z04-042>
- Morrissey, C. A., Bendell-Young, L. I., and Elliott, J. E. (2004). Seasonal trends in population density, distribution, and movement of American dippers within a watershed of southwestern British Columbia, Canada. *The Condor*, 106(4), 815-825. <https://doi.org/10.1650/7455>
- Morrissey, C. A., Bendell-Young, L. I., and Elliott, J. E. (2005). Assessing trace-metal exposure to American dipper in mountain streams of southwestern British Columbia, Canada. *Environmental Toxicology and Chemistry*, 24(4), 836-845. <https://doi.org/10.1897/04-110r.1>
- Morrissey, C. A. and Olenick, R. J. (2004). American dipper, *Cinclus mexicanus*, preys upon larval tailed frogs, *Ascaphus truei*. *The Canadian Field Naturalist*, 118(3), 446-448.  
<https://doi.org/10.22621/cfn.v118i3.22>
- Mountain Goat Management Team (MGMT). (2010). Management plan for the mountain goat (*Oreamnos americanus*) in British Columbia. British Columbia Ministry of Environment.
- Mowat, G. (2006). Winter habitat associations of American martens *Martes americana* in interior wet-belt forests. *Wildlife Biology*, 12(1), 51-61. [https://doi.org/10.2981/0909-6396\(2006\)12\[51:WHAOAM\]2.0.CO;2](https://doi.org/10.2981/0909-6396(2006)12[51:WHAOAM]2.0.CO;2)
- Mowat, G., Clevenger, A. P., Kortello, A. D., Hausleitner, D., Barrueto, M., Smit, L., Lamb, C., DorsEy, B. and Ott, P.K. (2020a). The sustainability of wolverine trapping mortality in southern Canada. *Journal of Wildlife Management*, 84(2), 213-226. <https://doi.org/10.1002/jwmg.21787>
- Mowat, G., Conroy, C., Podrasky, K., Morgan, D., Davies, R., MacDonald, R., Chow, E., van Rensen, C., and Ayele, T. (2018). *Grizzly bear cumulative effects assessment report: Elk Valley, Kootenay-Boundary Region*. Elk Valley Cumulative Effects Management Framework.  
[https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/cumulative-effects/final\\_ev-cemf\\_grizzly\\_bear\\_cea\\_report\\_edited\\_20180524.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/cumulative-effects/final_ev-cemf_grizzly_bear_cea_report_edited_20180524.pdf)

- Mowat, G., Heard, D.C., and Schwarz, C.J. (2013). Predicting grizzly bear density in western North America. *PLoS ONE*, 8(12), e82757. <https://doi.org/10.1371/journal.pone.0082757>
- Mowat, G. and Lamb, C. (2016). *Population status of the South Rockies and Flathead grizzly bear populations in British Columbia, 2006-2014*. British Columbia Ministry of Forests, Lands, and Natural Resource Operations. <https://doi.org/10.13140/RG.2.1.3520.3446>
- Mowat, G. and Paetkau, D. (2002). Estimating marten *Martes americana* population size using hair capture and genetic tagging. *Wildlife Biology*, 8(1), 201-209. <https://doi.org/10.2981/wlb.2002.034>
- Mowat, G., Poole, K. G., and O'Donoghue, M. (2000). Ecology of lynx in northern Canada and Alaska [Chapter 9]. In L.F. Ruggiero, K.B. Aubry, S.W. Buskirk, G.M. Koehler, C.J. Krebs, K.S. McKelvey, J.R. Squires (Eds.), *Ecology and conservation of lynx in the United States* (pp. 265-306). United States Department of Agriculture, Forest Service. <https://www.fs.usda.gov/treearch/pubs/50632>
- Mowat, G., Smit, L., Lamb, C., and Faught, N. (2020b). *South Rockies grizzly bear inventory: progress report 2006-2019*. British Columbia Ministry of Forests, Lands, Natural Resource Operations, and Rural Development.
- Mowat, G. and Ramcharita, R. (1999). *A review of grizzly bear habitat use and habitat management options for the Kootenay Region of British Columbia*. British Columbia Ministry of Environment, Lands, and Parks.
- Mowat, G., and Slough, B. (2003). Habitat preference of Canada lynx through a cycle in snowshoe hare abundance. *Canadian Journal of Zoology*, 81(10), 1736–1745. <https://doi.org/10.1139/z03-174>
- Munro, R. H. M., Nielsen, S. E., Price, M. H., Stenhouse, G. B., and Boyce, M. S. (2006). Seasonal and diel patterns of grizzly bear diet and activity in west-central Alberta. *Journal of Mammalogy*, 87(6), 1112-1121. <https://doi.org/10.1644/05-MAMM-A-410R3.1>
- Murray, D. L. and Boutin, S. (1991). The influence of snow on lynx and coyote movements: does morphology affect behavior? *Oecologia*, 88(4), 463–469. <https://doi.org/10.1007/BF00317707>
- Muths, E. (2003). Home range and movements of boreal toads in undisturbed habitat. *Copeia*, 2003(1), 160-165. <https://www.jstor.org/stable/1448609>
- Nagorsen, D. W. (2005). *Royal B.C. museum handbook – The mammals of British Columbia: Rodents and lagomorphs of British Columbia Volume 4*. Royal British Columbia Museum.
- Nagorsen, D. and Brigham, M. (1993). Northern myotis. In B. Klinkenberg (Ed.), *E-Fauna BC*. University of British Columbia. <http://linnet.geog.ubc.ca/efauna/Atlas/Atlas.aspx?sciname=Myotis%20septentrionalis>
- NatureServe. (n.d.). *Conservation status assessment*. <https://www.natureserve.org/conservation-status-assessment>

- Naylor, L. M., Wisdom, M. J., and Anthony, R. G. (2009). Behavioral responses of North American elk to recreational activity. *Journal of Wildlife Management*, 73(3), 328-338. <https://doi.org/10.2193/2008-102>
- Newhouse, N. J. and Kinley, T. A. (2000). *Ecology of American badgers near their range limit in southeastern British Columbia*. Columbia Basin Fish and Wildlife Compensation Program. [http://www.sgrc.selkirk.ca/bioatlas/pdf/The\\_Ecology\\_of\\_Badgers\\_in\\_SE\\_BC.pdf](http://www.sgrc.selkirk.ca/bioatlas/pdf/The_Ecology_of_Badgers_in_SE_BC.pdf)
- Nielsen, S. E., Boyce, M. S., and Stenhouse, G. B. (2004). Grizzly bears and forestry: I. Selection of clearcuts by grizzly bears in west-central Alberta, Canada. *Forest Ecology and Management*, 199(1), 51-65. <https://doi.org/10.1016/j.foreco.2004.04.014>
- Nielsen, S. E., McDermid, G., Stenhouse, G. B., and Boyce, M. S. (2010). Dynamic wildlife habitat models: seasonal foods and mortality risk predict occupancy-abundance and habitat selection in grizzly bears. *Biological Conservation*, 143(7), 1623-1634. <https://doi.org/10.1016/j.biocon.2010.04.007>
- Northern Cascades Grizzly Bear Recovery Team (NCGBRT). (2004). *Recovery plan for grizzly bears in the Northern Cascades of British Columbia*. British Columbia Ministry of Water, Land and Air Protection.
- Nussbaum, R.A., Brodie, E. D. Jr., and Storm, R. M. (1983). *Amphibians and reptiles of the Pacific Northwest*. University Press of Idaho.
- Ohanjanian, P., Adama, D., and Davidson, A. (2006). *An amphibian inventory of the East Kootenays with an emphasis on Bufo boreas, 2005*. Columbia Basin Fish and Wildlife Compensation Program. [http://www.sgrc.selkirk.ca/bioatlas/pdf/An\\_Amphibian\\_Inventory\\_of\\_the\\_East\\_Kootenays.pdf](http://www.sgrc.selkirk.ca/bioatlas/pdf/An_Amphibian_Inventory_of_the_East_Kootenays.pdf)
- Ohlendorf, H.M., Hothem, R.L., and Welsh, D. (1989). Nest success, cause-specific nest failure, and hatchability of aquatic birds at selenium-contaminated Kesterson Reservoir and a reference site. *The Condor*, 91(4), 787-796. <https://doi.org/10.2307/1368061>
- Olsson, M.P.O., J. Cox, J. Larkin, D. Maehr, P. Widén and M. Wichrowski. (2007). Movement and activity patterns of translocated elk (*Cervus elaphus nelsoni*) on an active coal mine in Kentucky. *Wildlife Biology in Practice*, 3(1), 1-8. <https://doi.org/10.2461/wbp.2007.3.1>
- Ontario Ministry of Natural Resources. (1984). Guidelines for moose habitat management in Ontario.
- Ovaska, K., Sopuck, L., Engelstoft, C., Matthias, L., Wind, E., and MacGarvie, J. (2004). *Best management practices for amphibians and reptiles in urban and rural environments in British Columbia*. British Columbia Ministry of Water, Land and Air Protection. [http://www.valdes-island-conservancy.org/uploads/5/6/1/8/5618893/bmp\\_herpetiles.pdf](http://www.valdes-island-conservancy.org/uploads/5/6/1/8/5618893/bmp_herpetiles.pdf)
- Painter, L. E., Bescha, R. L., Larsen, E. J., and Ripple, W. J. (2015) Recovering aspen follow changing elk dynamics in Yellowstone: evidence of a trophic cascade? *Ecology*, 96(1), 252-263. <https://doi.org/10.1890/14-0712.1>

- Paton, D. G. (2012). *Connectivity of elk migration in Southwestern Alberta* [Unpublished master's thesis]. University of Calgary.
- Pauly, G.B. (2008). *Phylogenetic systematics, historical biogeography, and the evolution of vocalizations in nearctic toad (Bufo)* [Ph.D. Dissertation]. University of Texas.  
<https://repositories.lib.utexas.edu/handle/2152/17896>
- Payer, D. C. and Harrison, D. J. (2003). Influence of forest structure on habitat use by American marten in an industrial forest. *Forest ecology and Management*, 179(1-3), 145-156.  
[https://doi.org/10.1016/S0378-1127\(02\)00517-0](https://doi.org/10.1016/S0378-1127(02)00517-0)
- Pearse, A. T. and Ratti, J. T. (2004). Effects of predator removal on mallard duckling survival. *Journal of Wildlife Management*, 68(2), 342-350. [https://doi.org/10.2193/0022-541X\(2004\)068\[0342:EOPROM\]2.0.CO;2](https://doi.org/10.2193/0022-541X(2004)068[0342:EOPROM]2.0.CO;2)
- Peck, J. (2000). Seeing the forest through the eyes of a hawk: An evaluation of recent efforts to protect Northern Goshawk populations in southwestern forests. *Natural Resources Journal*, 40(1), 125–156.  
<https://www.jstor.org/stable/24888531>
- Peek, J. M. (1998). Habitat relationships. In A.W. Franzmann and C.C. Schwartz (Eds.), *Ecology and management of the North American moose* (pp. 351-375). Smithsonian Institution Press.
- Peek, J., Beecham, J., Garshelis, D., Messier, F., Miller, S., and Strickland, D. (2003). *Management of grizzly bears in British Columbia: A review by an independent scientific panel*. British Columbia Ministry of Water, Land and Air Protection.
- Penteriani, V. (2002). Goshawk nesting habitat in Europe and North America. *Ornis Fennica*, 79(4), 149-163.
- Phelps, D.E., Jamieson, B., and Demarchi, R.A. (1983). *The history of mountain goat management in the Kootenay Region of British Columbia*. British Columbia Ministry of Environment.  
<http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=3778>
- Philips, B. and Szkorupa, T. (2011). *East Kootenay elk monitoring project*. Province of British Columbia.
- Philips, B., Szkorupa, T., Mowat, G., and Stent, P. (2008). *2008 East Kootenay Trench elk inventory*. British Columbia Ministry of Forests, Lands, and Natural Resource Operations.
- Pigeon, K. E., Nielsen, S. E., Stenhouse, G. B., and Côté, S. D. (2014). Den selection by grizzly bears on a managed landscape. *Journal of Mammalogy*, 95(3), 559-571. <https://doi.org/10.1644/13-MAMM-A-137>
- Pilliod, D. S. and Peterson, C. R. (1997). *Alpine lake ecology: effects of fish stocking on amphibian populations, 1995 progress report*. United States Department of Agriculture, Forest Service.



- Pilliod, D. S., Peterson, C. R., and Ritson, P. I. (2002). Seasonal migration of Columbia spotted frogs (*Rana luteiventris*) among complementary resources in a high mountain basin. *Canadian Journal of Zoology*, 80(11), 1849-1862. <https://doi.org/10.1139/z02-175>
- Pilliod, D.S. and Wind, E. (2008). *Habitat management guidelines for amphibians and reptiles of the Northwestern United States and Western Canada* [Publication No. HMG-4]. Partners in Amphibian and Reptile Conservation. [https://static1.squarespace.com/static/57e01f421b631ba91823f357/t/57ffc473beba9d1102029/1476379779446/NWPARC\\_habitat\\_management\\_guidelines.pdf](https://static1.squarespace.com/static/57e01f421b631ba91823f357/t/57ffc473beba9d1102029/1476379779446/NWPARC_habitat_management_guidelines.pdf)
- Player, D. and Keim, J. (2015). *Review of potential noise and vibration effects to bats*. Matrix Solutions Inc. <https://projects.eao.gov.bc.ca/api/document/58869665e036fb010576921e/fetch>
- Poole, K. G. (1994). Characteristics of an unharvested lynx population during a snowshoe hare decline. *The Journal of Wildlife Management*, 58(4), 608-618. <https://doi.org/10.2307/3809673>
- Poole, K. G. (2006). *A population review of mountain goats in the Kootenay Region*. Aurora Wildlife Research. [https://a100.gov.bc.ca/pub/acat/documents/r10478/PopulationReviewofMountainGoatsintheKootenayRegio\\_1183747367492\\_2122b7c6117049c098b0aa4125f15fa3.pdf](https://a100.gov.bc.ca/pub/acat/documents/r10478/PopulationReviewofMountainGoatsintheKootenayRegio_1183747367492_2122b7c6117049c098b0aa4125f15fa3.pdf)
- Poole, K. G. (2007). *A population review of moose in the Kootenay Region*. Aurora Wildlife Research. [https://a100.gov.bc.ca/pub/acat/documents/r10183/KootenayRegionmoosepopulationreview\\_1176919560877\\_8b30e7865e3b4870a6df97fb4df74c3f.pdf](https://a100.gov.bc.ca/pub/acat/documents/r10183/KootenayRegionmoosepopulationreview_1176919560877_8b30e7865e3b4870a6df97fb4df74c3f.pdf)
- Poole, K. G. (2011). *Habitat use, seasonal movements, and population dynamics of bighorn sheep in the Elk Valley – interim report to March 2011*. Aurora Wildlife Research. [https://www.env.gov.bc.ca/wildlife/wsi/reports/2585\\_WSI\\_2585\\_RPT\\_2011.PDF](https://www.env.gov.bc.ca/wildlife/wsi/reports/2585_WSI_2585_RPT_2011.PDF)
- Poole, K. G. (2013). *Habitat use, seasonal movements, and population dynamics of bighorn sheep in the Elk Valley* [Unpublished report]. Aurora Wildlife Research.
- Poole, K. G. (2017). *Elk movements and survival in the Elk Valley: Preliminary analysis* [Unpublished report]. Aurora Wildlife Research.
- Poole, K. G. (2018). *Elk movements and survival in the Elk Valley: Year 3 final report - March 2018* [Unpublished report]. Aurora Wildlife Research.
- Poole, K. G. (2019). *East Kootenay bighorn sheep inventory January-February 2019*. Aurora Wildlife Research.
- Poole, K.G. and Adams, I. (2002). *Mountain goat monitoring in Canadian Mountain Holidays' Bugaboo and Bobbie Burns heli-skiing areas, East Kootenay, September 2002*. Aurora Wildlife Research.

- Poole, K.G. and Ayotte, J. (2019). *Kootenay region bighorn sheep management plan – Draft for discussion*. Aurora Wildlife Research.  
<https://www.ferniergc.com/documents/Kootenay%20BHS%20Draft%20mgmt%20plan%20%2023Apr19.pdf>
- Poole, K. G. and Heard, D. C. (2003). Seasonal habitat use and movements of Mountain Goats, *Oreamnos americanus*, in East-central British Columbia. *Canadian Field-Naturalist*, 117(4), 565-576.  
<https://doi.org/10.22621/cfn.v117i4.825>
- Poole, K. G. and Klafki, R. (2005). *Mountain Goat survey in the East Kootenay, British Columbia, August 2005* [Unpublished report]. Aurora Wildlife Research.
- Poole, K., Kinley, T., and Klafki, R. (2008). *Moose inventory of the Lodgepole (MU-4-02), Upper Flathead (MU 4-01), and Lower Elk (MU 4-23B), East Kootenay, December 2007 and January 2008*. Aurora Wildlife Research. [http://www.env.gov.bc.ca/wildlife/wsi/reports/4335\\_WSI\\_4335\\_RPT.PDF](http://www.env.gov.bc.ca/wildlife/wsi/reports/4335_WSI_4335_RPT.PDF)
- Poole, K. G., and Mowat, G. (2005). Winter habitat relationships of deer and elk in the temperate interior mountains of British Columbia. *Wildlife Society Bulletin*, 33(4), 1288-1302.  
[https://doi.org/10.2193/0091-7648\(2005\)33\[1288:WHRODA\]2.0.CO;2](https://doi.org/10.2193/0091-7648(2005)33[1288:WHRODA]2.0.CO;2)
- Poole, K. G., Serrouya R., Teske, I. E., and Podrasky K. (2016). Rocky Mountain bighorn sheep (*Ovis canadensis canadensis*) winter habitat selection and seasonal movements in an area of active coal mining. *Canadian Journal of Zoology*, 94(11), 733–745. <https://doi.org/10.1139/cjz-2016-0069>
- Poole, K. G. and Stuart-Smith, K. (2004). *Winter habitat selection by moose in the East Kootenay, British Columbia, final report*. Tembec Industries and Aurora Wildlife Research.  
[https://www.env.gov.bc.ca/wildlife/wsi/reports/2486\\_TEMBEC%20MOOSE%20REPT%20FINAL.PDF](https://www.env.gov.bc.ca/wildlife/wsi/reports/2486_TEMBEC%20MOOSE%20REPT%20FINAL.PDF)
- Poole, K. G. and Stuart-Smith, K. (2005). Fine-scale winter habitat selection by moose in interior montane forests. *Alces: A Journal Devoted to the Biology and Management of Moose*, 41(1), 1-8.  
<https://alcesjournal.org/index.php/alces/article/download/399/481/2323>
- Poole, K. G. and Stuart-Smith, K. (2006). Winter habitat selection by female moose in western interior montane forests. *Canadian Journal of Zoology*, 84 (12), 1832-1832. <https://doi.org/10.1139/z06-184>
- Poole, K. G., Stuart-Smith, K., and Teske, I. E. (2009). Wintering strategies by mountain goats in interior mountains. *Canadian Journal of Zoology* 87(3): 273-283. <https://doi.org/10.1139/Z09-009>
- Poole, K., Teske, I., Podrasky, K., Berdusco, J., Conroy, C., MacDonald, R., Davies, R., Schwantje, H., Chow, E., VanRensen, C., and Ayele, T. (2018). *Bighorn sheep cumulative effects assessment report: Elk Valley, Kootenay-Boundary Region*. [https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/cumulative-effects/ev-cemf\\_bighorn\\_sheep\\_cea\\_report\\_20190325\\_draft.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/cumulative-effects/ev-cemf_bighorn_sheep_cea_report_20190325_draft.pdf)
- Poole, K. G., Wakelyn, L. A., and Nicklen, P. N. (1996). Habitat selection by lynx in the Northwest Territories. *Canadian Journal of Zoology*, 74(5), 845-850. <https://doi.org/10.1139/z96-098>

- Proctor, M.F, McLellan, B.N., Strobeck, C., and Barclay, R.M.R. (2005). Genetic analysis reveals demographic fragmentation of grizzly bears yielding vulnerably small populations. *Proc Biol Sci*, 272(1579), 2409-2416. <https://doi.org/10.1098/rspb.2005.3246>
- Proctor, M. F., Lamb, C. T., and MacHutchon, A. G. (2017). *The grizzly dance of berries and bullets: The relationship between bottom up food resources, huckleberries and top down mortality risk on grizzly bear population processes in southeast British Columbia*. Trans-border Grizzly Bear Project.
- Proctor, M. F., McLellan, B. N., Stenhouse, G. B., Mowat, G., Lamb, C. T., and Boyce, M. (2018). *Canadian grizzly bear management series: Resource roads and grizzly bears in British Columbia and Alberta*. Trans-border Grizzly Bear Project.
- Proctor, M. F., Nielson, S. E., Kasworm, W. F., Servheen, C., Radandt, T. G., Machutchon, A. G., and Boyce, M. S. (2015). Grizzly bear connectivity mapping in the Canada-United States trans-border region. *Journal of Wildlife Management*, 79(4), 544-558. <https://doi.org/10.1002/jwmg.862>
- Proctor, M. F., Paetkau, D., McLellan, B. N., Stenhouse, G. B., Kendall, K. C., Mace, R. D., Kasworm, W. F., Servheen, C., Lausen, C. L., Gibeau, M. L., Wakkinen, W. L., Haroldson, M. A., Mowat, G., Apps, C. D., Ciarniello, L. M., Barclay, R. M. R., Boyce, M. S., Schwartz, C. C., and Strobeck, C. (2012). Population fragmentation and inter-ecosystem movements of grizzly bears in western Canada and the Northern United States. *Wildlife Monographs*, 180(1), 1-46. <https://doi.org/10.1002/wmon.6>
- Province of British Columbia (Province of B.C.). (2020a). *Elk Valley cumulative effects management framework*. <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/cumulative-effects-framework/regional-assessments/kootenay-boundary/elk-valley-cemf>
- Province of British Columbia (Province of B.C.). (2020b). *Wildfire season summary*. <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/about-bcws/wildfire-history/wildfire-season-summary>
- Provincial Western Toads Working Group. (2014). *Management plan for western toads (Anaxyrus boreas) in British Columbia*. British Columbia Ministry of Environment.
- Quinn, D. and Klafki, R. (2015). *Crown Mountain furbearer surveys*. Keefer Ecological Services.
- Rahme, A. H., Harestad, A. S., and Bunnell, F. L. (1995). *Status of the badger in British Columbia*. British Columbia Ministry of Environment, Lands, and Parks.
- Ralph, C. J., Geupel, G. R., Pyle, P., Martin, T. E., and DeSandte, D. F. (1993). *Handbook of field methods for monitoring landbirds* [PSW-GTR-144]. United States Department of Agriculture, Forest Service. <https://doi.org/10.2737/PSW-GTR-144>
- Ralph, C. J., Sauer, J. R., and Droege, S. (1995). *Monitoring bird populations by point counts* [Publication No. PSW-GTR-149]. United States Department of Agriculture, Forest Service. [https://www.fs.fed.us/psw/publications/documents/psw\\_gtr149/psw\\_gtr149.pdf](https://www.fs.fed.us/psw/publications/documents/psw_gtr149/psw_gtr149.pdf)

- Rea, R. V. (2003). Modifying roadside vegetation management practices to reduce vehicular collisions with moose *Alces alces*. *Wildlife Biology*, 9(4), 81-91. <https://doi.org/10.2981/wlb.2003.030>
- Reed, J. M., Oring, L. W., and Gray, E. M. (2020). Spotted sandpiper (*Actitis macularius*) [Version 1.0]. In A. F. Poole, (Ed.), *Birds of the World*. Cornell Lab of Ornithology. <https://doi.org/10.2173/bow.sposan.01>
- Renecker, L. A. and Hudson, R. J. (1990). Behavioral and thermoregulatory responses of moose to high ambient temperatures and insect harassment in aspen-dominated forests. *Alces: A Journal Devoted to the Biology and Management of Moose*, 26, 66-72.
- Resource Information Standards Committee (RISC). (1998a). *Ground-based Inventory methods for selected ungulates: Moose, elk and deer: Standards for components of British Columbia's biodiversity No. 33* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/grndb.pdf>
- Resource Information Standards Committee (RISC). (1998b). *Inventory methods for riverine birds: Harlequin duck, belted kingfisher, and American dipper: Standards for components of British Columbia's biodiversity No. 12* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/rbirds.pdf>
- Resource Information Standards Committee (RISC). (1998c). *Inventory methods for pond-breeding amphibians and painted turtle: Standards for components of British Columbia's biodiversity No. 37* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/pond.pdf>
- Resource Information Standards Committee (RISC). (1999a). *Inventory methods for woodpeckers: Standards for components of British Columbia's biodiversity No. 19* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/woodml20.pdf>
- Resources Information Standards Committee (RISC). (1999b). *British Columbia wildlife habitat rating standards* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/whrs.pdf>
- Resources Information Standards Committee (RISC). (1999c). *Inventory methods for medium-sized territorial carnivores: Coyote, red fox, lynx, bobcat, wolverine, fisher, and badger: Standards for components of British Columbia's biodiversity No. 25* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/mstc.pdf>

Resources Information Standards Committee (RISC). (1999d). *Inventory methods for bats: Standards for components of British Columbia's biodiversity No. 20* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/bats.pdf>

Resource Information Standards Committee (RISC). (1999e). *Inventory methods for waterfowl and allied species: Loons, grebes, swans, geese, ducks, American coot and Sandhill Crane: Standards for components of British Columbia's biodiversity No. 18* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/waterfowl.pdf>

Resource Information Standards Committee (RISC). (1999f). *Inventory methods for forest and grassland songbirds: Standards for components of British Columbia's biodiversity No. 15* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/songml20.pdf>

Resources Information Standards Committee (RISC). (2001). *Inventory methods for raptors: Standards for components of British Columbia's biodiversity No. 11* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. [https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/rapt\\_ml\\_v2.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/rapt_ml_v2.pdf)

Resources Information Standards Committee (RISC). (2002). *Aerial-based inventory methods for selected ungulates: bison, mountain goat, mountain sheep, moose, elk, deer and caribou. Standards for components of British Columbia's biodiversity No. 32* [Version 2.0]. British Columbia Ministry of Environment, Lands, and Parks. [https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/unga\\_ml20\\_final.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/unga_ml20_final.pdf)

Resources Information Standards Committee (RISC). (2019). *Wildlife camera metadata protocol: Standards for components of British Columbia's biodiversity No. 44* [Version 1.0]. British Columbia Ministry of Environment, Lands, and Parks. [https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/wcmp\\_v1.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/wcmp_v1.pdf)

Reynolds, R. T., Graham, R. T., Reiser, M. H., Bassett, R. L., Kennedy, P. L., Boyce, D. A., Goodwin, G., Smith, R., and Fisher, E. L. (1992). *Management recommendations for the northern goshawk in the southwestern United States* [Publication No. RM-217]. United States Department of Agriculture, Forest Service. [https://www.fs.fed.us/rm/pubs\\_rm/rm\\_gtr217.pdf](https://www.fs.fed.us/rm/pubs_rm/rm_gtr217.pdf)

Rice, C. G. (2008). Seasonal altitudinal movements of mountain goats. *The Journal of Wildlife Management*, 72(8), 1706-1716. <https://doi.org/10.2193/2007-584>

Rioux, S., Savard, J.P.L., and Gerick, A.A. (2013). Avian mortalities due to transmission line collisions: A review of current estimates and field methods with an emphasis on applications to the Canadian electric network. *Conservation and Ecology*, 8(2), 7. <http://dx.doi.org/10.5751/ACE-00614-080207>

- Ripple, W. J. and Beschata, R. L. (2004). Wolves, elk, willows, and trophic cascades in the upper Gallatin Range of southwestern Montana. U. S. A. *Forest Ecology and Management*, 200(1-3), 161-181. <https://doi.org/10.1016/j.foreco.2004.06.017>
- Ripple, W. J., Estes, J. A., Beschta, R. L., Wilmers, C. C., Richie, E. G., Hebblewhite, M., Berger, J., Elmhagen, B., Letnic, M., Nelson, M. P., Schmitz, O. J., Smith, D. S., Wallach, A. D., and Wirsing, A. (2014). Status and ecological effects of the world's largest carnivores. *Science*, 343(6167). <https://doi.org/10.1126/science.1241484>
- Ripple, W. J., Larsen, E. J., Renkin, R. A., and Smith, D. W. (2001). Trophic cascades among wolves, elk, and aspen on Yellowstone National Parks northern range. *Biological Conservation*, 102(3), 227-234. [https://doi.org/10.1016/S0006-3207\(01\)00107-0](https://doi.org/10.1016/S0006-3207(01)00107-0)
- Ritchie, C. and T.P. Sullivan. (1989). *Monitoring methodology for assessing the impact of forest herbicide use on small mammal populations In: British Columbia*. Pacific Forestry Centre, British Columbia Ministry of Forests.
- Roberts, W. (1992). Declines amphibian populations in Alberta. In C.A. Bishop and K.E. Pettit (Eds.), *Declines in Canadian amphibian populations: designing a national monitoring strategy* (pp. 14-16). Canadian Wildlife Service
- Robertson, G. J. and Goudie, R. I. (1999). Harlequin Duck (*Histrionicus histrionicus*). In P. Davidson (Ed.), *The birds of North America online*. Cornell Lab of Ornithology.
- Robitaille, J. F. and Aubry, K. (2000). Occurrence and activity of American martens (*Martes americana*) in relation to roads and other routes. *Acta Theriologica*, 45(1), 137-143. <https://doi.org/10.4098/AT.arch.00-15>
- Ruediger, B., Claar, J., Gniadek, S., Holt, B., Lewis, L., Mighton, S., Naney, B., Patton, G., Rinaldi, T., Trick, J., Vandehey, A., Wahl, F., Warren, N., Wenger, D., and Williamson, A. (2000). *Canada lynx conservation assessment and strategy* [2<sup>nd</sup> Edition] [Publication No. R1-00-53]. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service.
- Ruggiero, L. F., K. S. McKelvey, K. B. Aubry, J. P. Copeland, D. H. Pletscher, and I. G. Hornocker. (2007). Wolverine conservation and management. *Journal of Wildlife Management*, 71(7), 2145–2146. <https://doi.org/10.2193/2007-217>
- Ryder, J. M. (2015). Red-winged Blackbird. In P. J. A. Davidson, R. J. Cannings, A. R. Couturier, D. Lepage, and C. M. Di Corrado (Eds.). *The atlas of the breeding birds of British Columbia, 2008-2012*. Bird Studies Canada. <http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=RWBL&lang=en>
- Safford, K. (2004). Modelling critical winter habitat of four ungulate species in the Robson Valley, British Columbia. *Journal of Ecosystem & Management*, 4(2).
- Salt, J. R. (1979). Some elements of amphibian distribution and biology in the Alberta Rockies. *Alberta Nat.*, 9(3), 125- 136.

- Saskatchewan Ministry of Environment. (2015). *Species detection survey protocols: Common nighthawk survey protocol* [Publication No. 2015-15.0]. Government of Saskatchewan.  
<http://www.environment.gov.sk.ca/adx/asp/adxGetMedia.aspx?DocID=ae248a4a-8f91-46b4-8798-246827540829>
- Sawaya, M.A., and Clevenger, A.P. (2014). Effects of transportation infrastructure on fine-scale genetic structure of wolverines in Banff and Yoho National Parks. In: A.P. Clevenger and M. Barrueto (Eds). *Trans-Canada Highway Wildlife and Monitoring Research* (pp. 172-190). [https://arc-solutions.org/wp-content/uploads/2015/12/Banff-TCH-Wildlife-Monitoring-Research-Final-Report-2014\\_withappendices1.pdf](https://arc-solutions.org/wp-content/uploads/2015/12/Banff-TCH-Wildlife-Monitoring-Research-Final-Report-2014_withappendices1.pdf)
- Sawaya, M. A., Clevenger, A. P., and Schwartz, M. K. (2019). Demographic fragmentation of a protected wolverine population bisected by a major transportation corridor. *Biological Conservation*, 236, 616-625. <https://doi.org/10.1016/j.biocon.2019.06.030>
- Sawyer, H., Nielson, R. M., Lindzey, F. G., Keith, L., Powell, J. H., and Abraham, A. A. (2010). Habitat selection of Rocky Mountain Elk in a nonforested environment. *Journal of Wildlife Management*, 71(3), 868-874. <https://doi.org/10.2193/2006-131>
- Scales, M. (2006). Well positioned and growing: Elk Valley Coal. *Canadian Mining Journal*.  
<https://www.canadianminingjournal.com/featured-article/well-positioned-and-growing/>
- Schwartz, M. K., Copeland, J. P., Anderson, N. J., Squires, J. R., Inman, R. M., McKelvey, K. S., L. Pilgrim, L., Waits, L. and Cushman, S. A. (2009). Wolverine gene flow across a narrow climatic niche. *Ecology*, 90(11), 3222-3232. <https://doi.org/10.1890/08-1287.1>
- Schwartz, M. K., Mills, L. S., McKelvey, K. S., Ruggiero, L. F., and Allendorf, F. W. (2002). DNA reveals high dispersal synchronizing the population dynamics of Canada lynx. *Nature*, 415(6871), 520-522.  
<https://doi.org/10.1038/415520a>
- Schroeder, J., Nakagawa, S., Cleasby, I.R., and Burke, T. (2012). Passerine birds breeding under chronic noise experience reduced fitness. *PLoS ONE*, 7(7), e39200.  
<https://doi.org/10.1371/journal.pone.0039200>
- Scobie, D. (2002). *Status of the American badger (Taxidea taxus) in Alberta*. Alberta Conservation Association. <https://open.alberta.ca/publications/0778519880>
- Scraftford, M. A., Avgar, T., Abercrombie, B., Tigner, J., and Boyce, M. S. (2017). Wolverine habitat selection in response to anthropogenic disturbance in the western Canadian boreal forest. *Forest Ecology and Management*, 395(1), 27-36. <https://doi.org/10.1016/j.foreco.2017.03.029>
- Shackleton, D. (1999). *Royal B.C. museum handbook - The mammals of British Columbia: Hoofed mammals of British Columbia Volume 3*. Royal British Columbia Museum.
- Shackleton, D. (2013). *Royal B.C. museum handbook - The mammals of British Columbia: Hoofed mammals of British Columbia Volume 3* [Revised edition]. UBC Press.

- Shannon, G., McKenna, M. F., Angeloni, L. M., Crooks, K. R., Fristrup, K. M., Brown, E., Warner, K. A., Nelson, M. D., White, C., Briggs, J., McFarland, S., & Wittemyer, G. 2016. A synthesis of two decades of research documenting the effects of noise on wildlife. *Biological Reviews*, 91(4), 982–1005. <https://doi.org/10.1111/brv.12207>
- Shiple, L. A. (1999). Grazers and browsers: how digestive morphology affects diet selection. In K.L. Launchbaugh, K.D. Sanders, and J.C. Mosley (Eds.), *Grazing behavior of livestock and wildlife*. University of Idaho.
- Siddle, C.R. (2015). Bobolink. In P.J.A Davidson, R.J. Cannings, A.R. Couturier, D. Lepage, and C.M. Di Corrado (Eds.), *The atlas of the breeding birds of British Columbia, 2008-2012*. Bird Studies Canada. <http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=BOBO&lang=en>
- Simmons, A.M., and Narins, P.M. (2018). Effects of anthropogenic noise on amphibians and reptiles. In H. Slabbekoorn, R.J. Dooling, A.N. Popper, and R.R. Fay (Eds.), *Effects of anthropogenic noise on animals* (pp. 179-208). Springer Handbook of Auditory Research. [https://doi.org/10.1007/978-1-4939-8574-6\\_7](https://doi.org/10.1007/978-1-4939-8574-6_7)
- Singleton, P. H. (2002). *Landscape permeability for large carnivores in Washington: A geographic information system weighted-distance and least-cost corridor assessment* [Publication No. PNW-RP-549]. United States Department of Agriculture, Forest Service. <https://doi.org/10.2737/PNW-RP-549>
- Skovlin, J. M., Zager, P., and Johnson, B. K. (2002). Elk habitat selection and evaluation. *North American elk: ecology and management* (pp. 531-555). Smithsonian Institution Press.
- Slough, B. G. and Mowat, G. (1996). Lynx population dynamics in an untrapped refugium. *Journal of Wildlife Management*, 60(4), 946. <https://doi.org/10.2307/3802397>
- Smallidge, S. T., Baker, T. T., Vanleeuwen, D., Gould, W. R., and Thompson, B. C. (2010). Elk distributions relative to spring normalized difference vegetation index values. *International Journal of Ecology*. <https://doi.org/10.1155/2010/579808>
- Smit, C., and Putman, R. J. (2010). Large herbivores as Environmental Engineers. In R. Putman, M. Apollonio, and R. Andersen (Eds.), *Ungulate Management in Europe; problems and practices* (pp. 260-283). Cambridge University Press.
- Smyth, C. (2014). *Elk Valley bighorn sheep habitat study*. Integral Ecology Group.
- Smyth, C.R., D Paton, D., Berdusco, R., B O'Brien, B., and Sword, G. (2003). *Wildlife mitigation burn performance monitoring at the Fording Coal Ltd - Fording River Mine*. EBA Engineering Consultants Ltd., Anatum Ecological Consulting Ltd., and Fording Coal Ltd - Fording River Operations.
- South Rockies Grizzly Bear Project (SRGBP). (2019). *South Rockies Grizzly Bear Project*. <https://grizzlyresearch.ca/>



- Soutiere, E. C. (1979). Effects of timber harvesting on marten in Maine. *The Journal of Wildlife Management*, 43(4), 850-860. <https://doi.org/10.2307/3808268>
- Spahr, R., Armstrong, L., Atwood, D., and Rath, M. (1991). *Threatened, endangered, and sensitive species of the Intermountain Region*. United States Department of Agriculture, Forest Service. <https://doi.org/10.5962/bhl.title.149864>
- Species at Risk Act (SARA)*, SC 2002, c.29.
- Speich, S. M., Jones, H. L., and Benedict, E. M. (1986). Review of the natural nesting of the Barn Swallow in North America. *American Midland Naturalist*, 115, 248-254.
- Spencer, W. D. (1987). Seasonal rest-site preferences of pine martens in the northern Sierra Nevada. *The Journal of Wildlife Management*, 51(3) 616-621.
- Spencer, W. D., Barrett, R. H., and Zielinski, W. J. (1983). Marten Habitat Preferences in the Northern Sierra Nevada. *Journal of Wildlife Management*, 47(4), 1181-1186.
- Squires, J. R., Decesare, N. J., Kolbe, J. A., and Ruggiero, L. F. (2010). Seasonal resource selection of Canada lynx in managed forests of the Northern Rocky Mountains. *The Journal of Wildlife Management*, 74(8), 1648-1660. <https://doi.org/10.2193/2009-184>
- Squires, J.R. and Kennedy, P. L. (2006). Northern goshawk ecology: An assessment of current knowledge and information needs for conservation and management. *Studies in Avian Biology* 31, 8-62. <https://www.fs.usda.gov/treesearch/pubs/50153>
- Squires, J. R., and Reynolds, R. T. (1997). Northern goshawk (*Accipiter Gentilis*) [Version 2.0]. In A. F. Poole and F. B. Gill (Eds.), *The birds of North America online*. <https://doi.org/10.2173/bna.298>
- Squires, J.R., Reynolds, R.T., Orta, J., and Marks, J.S. (2020). Northern goshawk (*Accipiter gentilis*) [Version 1.0]. In S.M. Billerman (Ed.), *Birds of the world*. Cornell Lab of Ornithology. <https://doi.org/10.2173/bow.norgos.01>
- Stebbins, R. C. (2003). *A Peterson field guide to western reptiles and amphibians* [3<sup>rd</sup> Edition]. Houghton Mifflin Harcourt.
- Stenhouse, G., Boulanger, J., Lee, J., Graham, K., Duval, J., and Cranston, J. (2005). Grizzly bear associations along the eastern slopes of Alberta. *Ursus*, 16(1) 31-40. <https://www.jstor.org/stable/3873056>
- Stent, P. and Phillips, B. (2013). 2012-13 *South Trench elk inventory*. British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development. [https://www.env.gov.bc.ca/wildlife/wsi/reports/4428\\_WSI\\_4428\\_RPT\\_2013.PDF](https://www.env.gov.bc.ca/wildlife/wsi/reports/4428_WSI_4428_RPT_2013.PDF)

- Stevens, C.E., Paszkowski, C.A., and Stringer, D. (2006). Occurrence of the western toad and its use of "borrow pits" in west-central Alberta. *Northwestern Naturalist*, 87(2), 107-117.  
<https://www.jstor.org/stable/4095787>
- Stordeur, L. (1986). *Marten in British Columbia with implications for forest management*. British Columbia Ministry of Forests and Lands.  
<https://www.for.gov.bc.ca/hfd/pubs/Docs/Mr/whr/whr25.pdf>
- Stuart-Smith, K., Wells, R., and Harrower, W. (2011). *A comparison of historic, current, and future nesting habitat for the northern goshawk in the East Kootenay Region of British Columbia - Final report FSP # Y102102*. [https://www.for.gov.bc.ca/hfd/library/FIA/2011/FSP\\_Y113102b.pdf](https://www.for.gov.bc.ca/hfd/library/FIA/2011/FSP_Y113102b.pdf)
- Swain, L. (2007). *Water quality assessment of Elk River at Highway 93 near Elko 1968-2005*. British Columbia Ministry of Environment and Environment Canada.  
[https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/monitoring-water-quality/kootenay-wq-docs/wq\\_ko\\_elk\\_hwy93\\_2005.pdf](https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/monitoring-water-quality/kootenay-wq-docs/wq_ko_elk_hwy93_2005.pdf)
- Szkorupa, T. and Mowat, G. (2010). *A population review for Elk in the Kootenay Region*. British Columbia Ministry of Environment.  
[https://a100.gov.bc.ca/pub/acat/documents/r19918/Kootenayelkpopulationreview\\_final\\_\\_1395349270477\\_5349216529.pdf](https://a100.gov.bc.ca/pub/acat/documents/r19918/Kootenayelkpopulationreview_final__1395349270477_5349216529.pdf)
- Szkorupa, T., Stent, P., and Phillips, B. (2013). Elk Valley elk inventory. British Columbia Ministry of Forests, Lands and Natural Resource Operation.  
[https://www.env.gov.bc.ca/wildlife/wsi/reports/5030\\_WSI\\_5030\\_RPT\\_2013.PDF](https://www.env.gov.bc.ca/wildlife/wsi/reports/5030_WSI_5030_RPT_2013.PDF)
- Takats, D. L., Francis, C. M., Holroyd, G. L., Duncan, J. R., Mazur, K. M., Cannings, R. J., Harris, W., and Holt, D. (2001). *Guidelines for nocturnal owl monitoring in North America*. Beaverhill Bird Observatory, Bird Studies Canada.
- Talent, L., Jarvis, R., and Krapu, G. (1983). Survival of mallard broods in south-central North Dakota. *The Condor*, 85(1), 74-78. <https://doi.org/10.2307/1367893>
- Taylor, S. W., Baxter, G. J., and Hawkes, B. C. (1998, November). *Modeling the effects of forest succession on fire behavior potential in southeastern British Columbia*. III International Conference on Forest Fire Research 14th Conference on Fire and Forest Meteorology. Luso, Portugal.
- Taylor, S., and Brunt, K. (2007). Winter habitat use by mountain goats in the Kingcome River drainage of coastal British Columbia. *B.C. Journal of Ecosystems and Management*, 8(1), 32-49.
- Teck Coal Limited. (2011). *Annex J: Line Creek operations- Phase II project wildlife and wildlife habitat baseline report*.
- Teck Coal Limited. (2014). *Annex J: Fording River operations- Swift project: Wildlife and wildlife habitat baseline report*. Matrix Solutions Inc.

- Teck Coal Limited. (2015a). *Appendix J- Wildlife and wildlife habitat baseline report: Elkview operations Baldy Ridge extension project*.
- Teck Coal Limited. (2015b). *Appendix B2.3.3-1: Wildlife habitat models: Elkview operations Baldy Ridge extension project*.
- Teck Coal Limited. (2015c). *Elk Valley water quality plan*. [https://www.teck.com/media/2015-Water-elk\\_valley\\_water\\_quality\\_plan\\_T3.2.3.2.pdf](https://www.teck.com/media/2015-Water-elk_valley_water_quality_plan_T3.2.3.2.pdf)
- Teck Coal Limited. (2016). *Appendix B9.14-1: Elkview operations wildlife mitigation management plan*.
- Thomas, J.W. and Toweill, D.E. (1982). *Elk of North America: ecology and management*. Stackpole Books.
- Thompson, I. D. (1994). Marten populations in uncut and logged boreal forests in Ontario. *The Journal of Wildlife Management*, 58(2) 272-280. <https://doi.org/10.2307/3809391>
- Thompson, I. D., and Colgan, P. W. (1987). Numerical responses of martens to a food shortage in northcentral Ontario. *The Journal of Wildlife Management*, 51(4), 824-835. <https://doi.org/10.2307/3801748>
- Thompson, I. D., and Colgan, P. W. (1994). Marten activity in uncut and logged boreal forests in Ontario. *The Journal of Wildlife Management*, 58(4), 280-288. <https://doi.org/10.2307/3809392>
- Thompson, I. D., Davidson, I. J., O'donnell, S., and Brazeau, F. (1989). Use of track transects to measure the relative occurrence of some boreal mammals in uncut forest and regeneration stands. *Canadian journal of Zoology*, 67(7), 1816-1823.
- Tigner, J., Bayne, E. M., and Boutin, S. (2015). American marten respond to seismic lines in northern Canada at two spatial scales. *PLoS One*, 10(3). <https://doi.org/10.1371/journal.pone.0118720>
- Timmermann, H. R. and McNicol, J. G. (1988). Moose Habitat Needs. *The Forestry Chronicle*, 64(3), 238-245. <https://doi.org/10.5558/tfc64238-3>
- Tourism Fernie. (2021). *Seasonal wildlife updates in BC*. News. <https://tourismfernie.com/news/bc-wildfires>
- Turner, J. S. and Krannitz, P. G. (2001). Conifer density increases in semi-desert habitats of British Columbia in the absence of fire. *Northwest Science*, 75(2), 176-182.
- Turney, L. and Roberts, A. M. (2004). *Grizzly bear spring, summer and fall–Habitat suitability models*. Morice and Lakes Innovative Forest Practices Agreement.
- Ungulate Winter Range Technical Advisory Team. (2005). *Desired conditions for mule deer, elk, and moose winter range in the Southern Interior of British Columbia*. British Columbia Ministry of Water, Land and Air Protection.

- United Nations Environment Programme. (2012). *Migratory birds in the economy*.  
<http://www.worldmigratorybirdday.org/2012/index3e92.html?option=>
- United States Environmental Protection Agency (U.S. EPA). (2016). *Aquatic life ambient water quality criterion for selenium – Freshwater*. [https://www.epa.gov/sites/production/files/2016-07/documents/aquatic\\_life\\_awqc\\_for\\_selenium\\_-\\_freshwater\\_2016.pdf](https://www.epa.gov/sites/production/files/2016-07/documents/aquatic_life_awqc_for_selenium_-_freshwater_2016.pdf)
- United States Fish and Wildlife Service. (2017). *Species status assessment for the Canada lynx (Lynx canadensis) contiguous United States distinct population segment* [Version 1.0].  
[https://www.fws.gov/mountain-prairie/es/species/mammals/lynx/SSA2018/01112018\\_SSA\\_Report\\_CanadaLynx.pdf](https://www.fws.gov/mountain-prairie/es/species/mammals/lynx/SSA2018/01112018_SSA_Report_CanadaLynx.pdf)
- van Beest, F., Van Moorter, B. F. A., and Milner, J. M. (2012). Temperature-mediated habitat use and selection by a heat-sensitive northern ungulate. *Animal Behaviour*, 84(3), 723-735.  
<http://dx.doi.org/10.1016/j.anbehav.2012.06.032>
- Van Dyke, F., Probert, B. L., and Van Beek, G. M. (1995). Seasonal habitat use characteristics of moose in south-central Montana. *Alces: A Journal Devoted to the Biology and Management of Moose*, 31, 15-26. <https://alcesjournal.org/index.php/alces/article/view/867>
- Vashon, J. H., Meehan, A. L., Jakubas, W. J., Organ, J. F., Vashon, A. D., McLaughlin, C. R., Matula, G. J., Jr., and Crowley, S. M. (2008). Spatial Ecology of a Canada Lynx Population in Northern Maine. *Journal of Wildlife Management*, 72(7), 1479-1487. <https://doi.org/10.2193/2007-462>
- VAST Resource Solutions Inc. (2013). *RDEK agricultural plan*. Investment Agriculture Foundation of B.C.  
<http://www.rdek.bc.ca/web/planningbylaws/OtherPlanningFolder/RDEK%20Ag%20Plan%20Consolidation%20Oct%2014.pdf>
- Vavra, M. and Riggs, R. A. (2010). Managing multi-ungulate systems in disturbance-adapted forest ecosystems in North America. *Forestry: An International Journal of Forest Research*, 83(2), 177-187.  
<https://doi.org/10.1093/forestry/cpq004>
- Visscher, D. R. and Merrill, E. H. (2009). Temporal dynamics of forage succession for elk at two scales: implications of forest management. *Forest Ecology and Management*, 257(1), 96-106.  
<https://doi.org/10.1016/j.foreco.2008.08.018>
- Walker, L. and Millions, B. (2017). Sparwood Beaver Wetland site report and health assessment.  
<https://sparwood.civicweb.net/document/72355>
- Wall, W. B., Belisle, M., and Luke, L. A. (2011). British Columbia's interior: Moose Wildlife Habitat Decision Aid. *B.C. Journal of Ecosystems and Management*, 11(3), 45-49.
- Ward, K., and B. Chapman. (1995). The Cariboo underworld: amphibians in clearcuts and forests. *Cordillera Winter 1995*, 32-41. <https://www.for.gov.bc.ca/hfd/pubs/rsi/fsp/Cariboo/JA035.pdf>

- Washington Wildlife Habitat Connectivity Working Group. (2010). *Transboundary analyses*. <https://waconnected.org/>
- Wasserman, T. N. (2008). *Habitat relationships and gene flow of Martes americana in northern Idaho* [Unpublished master's thesis]. Western Washington University.
- Wasserman, T. N., Cushman, S. A., Littel, J. S., Shirk, A. J., and Landguth, E. L. (2013). Population connectivity and genetic diversity of American marten (*Martes americana*) in the United States northern Rocky Mountains in a climate change context. *Conservation Genetics*, 14(2), 529-541. <https://doi.org/10.1007/s10592-012-0336-z>
- Wasserman, T. N., Cushman, S. A., Schwartz, M. K., & Wallin, D. O. (2010). Spatial scaling and multi-model inference in landscape genetics: *Martes americana* in northern Idaho. *Landscape Ecology*, 25(10), 1601-1612. <https://doi.org/10.1007/s10980-010-9525-7>
- Wayland, M. and Crosley, R. (2006). Selenium and other trace elements in aquatic insects in coal mine-affected streams in the Rocky Mountains of Alberta, Canada. *Archives of Environmental Contamination and Toxicology*, 50(4), 511-22. <https://doi.org/10.1007/s00244-005-0114-8>.
- Weaver, J.L. (1993). *Lynx, wolverine, and fisher in the western United States: research assessment and agenda*. Northern Rockies Conservation Cooperative.
- Weaver, J. L. (2001). *The transboundary flathead - A critical landscape for carnivores in the Rocky Mountains*. WCS Working Papers.
- Weaver, J. L., Paquet, P. C., & Ruggiero, L. F. (1996). Resilience and conservation of large carnivores in the Rocky Mountains. *Conservation Biology*, 10(4), 964-976. <https://www.jstor.org/stable/2387133>
- Weir, R.D. (2003). *Status of the fisher in British Columbia*. B.C. Ministry of Water, Land, and Air Protection, B.C. Ministry of Sustainable Resource Management. [https://www.bcfisherhabitat.ca/wp-content/uploads/2021/07/2003\\_Weir\\_Status-of-the-fisher-in-British-Columbia.pdf](https://www.bcfisherhabitat.ca/wp-content/uploads/2021/07/2003_Weir_Status-of-the-fisher-in-British-Columbia.pdf)
- Weir, R. D. (2004). Wolverine: *Gulo gulo*. In K. Paige (Ed.), *Accounts and measures for managing identified wildlife* [Version 2004] (pp. 381-390). British Columbia Ministry of Water, Land and Air Protection. [https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/accounts-measures-for-managing-identified-wildlife/mammals\\_wolverine.pdf](https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/accounts-measures-for-managing-identified-wildlife/mammals_wolverine.pdf)
- Weir, R. D. and Almuedo, P. L. (2010). British Columbia's Southern Interior: Badger wildlife habitat decision aid. *B.C. Journal of Ecosystems and Management*, 10(3), 9-13. [http://badgers.bc.ca/cms/wp-content/uploads/2014/05/vol10\\_no3\\_art2\\_badger\\_WHDA.pdf](http://badgers.bc.ca/cms/wp-content/uploads/2014/05/vol10_no3_art2_badger_WHDA.pdf)
- Weir, R. D., Davis, H., and Hoodicoff C. S. (2003). *Conservation strategies for North American badgers in the Thompson and Okanagan Regions*. Artemis Wildlife Consultants. [http://www.badgers.bc.ca/TOB/Final\\_report.pdf](http://www.badgers.bc.ca/TOB/Final_report.pdf)

- Weir, R. D., Davis, H., Hoodicoff, C. S., and Larson, K. W. (2004). Life on a highway: sources of mortality in an endangered British Columbian badger population. In T. D. Hooper (Ed.), *Proceedings of the Species at Risk 2004 Pathways to Recovery Conference*. Victoria, British Columbia.
- Wemmer, C. M. (1987). *Biology and management of the Cervidae: Research symposia of the national zoological park*. Smithsonian Institution Press.
- White, C. A. (2001). *Aspen, elk, and fire in the Canadian Rocky Mountains* [Unpublished doctoral dissertation]. University of British Columbia.
- White, K. S., and Gregovich, D. P. (2017). Mountain goat resource selection in relation to mining-related disturbance. *Wildlife Biology*, 2017(4). <https://doi.org/10.2981/wlb.00277>
- Widen, P. (1994). Habitat quality for raptors: A field experiment. *Journal of Avian Biology*, 25(3), 219-223. <https://doi.org/10.2307/3677078>
- Widen, P. (1997). How, and why, is the goshawk (*Accipiter gentilis*) affected by modern forest management in Fennoscandia? *Journal of Raptor Research*, 31(2), 107-113.
- Wikeem, B., and Wikeem, S. (2004). *The grasslands of British Columbia*. Grasslands Conservation Council of British Columbia. <http://bcgrasslands.org/wp-content/uploads/2017/06/bcgrasslandsfinal2004ver3.pdf>
- Wildlife Act, RSBC, (1996), c. 488.
- Williams, E. H., Holdren, C.E., and Erlich, P.R. (1984). The life history and ecology of *Euphydryas gillettii* Barnes (Nymphalidae). *Journal of the Lepidopterists' Society*, 38(1), 1-12.
- Williams, M. L., Hothem, R. L., and Ohlendorf, H. M. (1989). Recruitment failure in American avocets and black-necked stilts nesting at Kesterson Reservoir, California, 1984-1985. *The Condor*, 91(4), 797-802. <https://doi.org/10.2307/1368062>
- Williams, B., Nichols, J., and Conroy, M.J. (2002). *Analysis and management of animal populations*. Academic Press.
- Willms, W. D., King, J., and Dormaar, J. F. (1997). Weathering losses of forage species on the fescue grassland in southwestern Alberta. *Canadian Journal of Plant Science*, 78(2), 265-272. <https://doi.org/10.4141/P96-172>
- Wilson, D. E., and Ruff, S. (Eds). (1999). *The Smithsonian book of North American mammals*. Smithsonian Institution Press.
- Wilson, S. F., and Shackleton, D. M. (2001). *Backcountry recreation and mountain goats: a proposed research and adaptive management plan*. University of British Columbia.
- Windward Environmental, Minnow Environmental Inc., and CH2M HILL Limited. (2014). *Elk River watershed and Lake Koochanusa, British Columbia: Aquatic environment synthesis report*. Teck Coal

Limited. [https://www2.gov.bc.ca/assets/gov/environment/waste-management/industrial-waste/industrial-waste/mining-smelt-energy/area-based-man-plan/annexes/elk\\_river\\_aquatic\\_env\\_synthesis\\_report\\_oct\\_2014.pdf](https://www2.gov.bc.ca/assets/gov/environment/waste-management/industrial-waste/industrial-waste/mining-smelt-energy/area-based-man-plan/annexes/elk_river_aquatic_env_synthesis_report_oct_2014.pdf)

Wishart, W. D. (1978). Bighorn sheep. In J.L. Schmidt and D.L. Gilbert (Eds), *Big game of North America* (pp. 161-171). Stackpole Books.

Yasukawa, K. and Searcy, W. A. (2019). Red-winged blackbird (*Agelaius phoeniceus*) [Version 2.0]. In P. G. Rodewald (Ed.), *The birds of North America*. Cornell Lab of Ornithology. <https://doi.org/10.2173/bna.rewbla.02>

Zager, P., Jonkel, C., and Habeck, J. (1983). Logging and wildfire influence on grizzly bear habitat in northwestern Montana. *Bears: Their Biology and Management*, 124-132. <https://doi.org/10.2307/3872529>

Zeller, K. A., McGarigal, K., and Whiteley, A. R. (2012). Estimating landscape resistance to movement: a review. *Landscape Ecology*, 27(6), 777-797. <https://doi.org/10.1007/s10980-012-9737-0>