# **APPENDIX SERIES C: SPECIES LISTS**

APPENDIX C1:
ALRF Common Plant Species List

Group	Common Name	Latin name
Tree	Hybrid spruce	Picea engelmannii x glauca
	Sub-alpine fir	Abies lasiocarpa
	Douglas fir	Pseudotsuga menziesii
	Lodgepole pine	Pinus contorta
	Western hemlock	Tsuga heterophylla
	Paper birch	Betula papyrifera
	Black cottonwood	Populus trichocarpa
	Trembling aspen	Populus tremuloides
Shrub	Alder	Alnus viridis
	Common snowberry	Symphoricarpos albus
	Devil's club	Oplopanax horridus
	Birch leaved spirea	Spiraea betulifolia
	Pink spirea	Spiraea douglasii
	Highbush cranberry	Viburnum edule
	Black twinberry	Lonicera involucrata
	Velvet leaved blueberry	Vaccinium myrtilloides
	Oval leaf blueberry	Vaccinium ovalifolium
	Black huckleberry	Vaccinium membranaceum
	Saskatoon berry	Amelanchier alnifolia
	Red raspberry	Rubus idaeus
	Western mountain ash	Sorbus scopulina
	Sitka mountain ash	Sorbus sitchensis
	Prickly rose	Rosa acicularis
	Red osier dogwood	Cornus stolonifera
	Tall Oregon grape	Mahonia aquifolium
	Beaked hazelnut	Corylus cornuta
	Thimbleberry	Rubus parviflorus
	Black gooseberry	Ribes lacustre
	Red elderberry	Sambucus racemosa
	Douglas maple	Acer glabrum
	Willow	Salix spp.
Fern	Lady fern	Athyrium filix-femina
	Spiny wood fern	Dryopteris expansa
	Oak fern	Gymnocarpium dryopteris
Clubmoss	Various species	Lycopodium spp.

Table C1 - Continued...

Group	Common Name	Latin name
Herb	Bunchberry	Cornus canadensis
	Queens cup	Clintonia uniflora
	Wild sarsaparilla	Aralia nudicaulis
	Common mitrewort	Mitella nuda
	Three leaved foamflower	Tiarella trifoliata
	One leaf foamflower	Tiarella unifoliata
	Trailing raspberry	Rubus pubescens
	Indian hellebore	Veratrum viride
	Five-leaved bramble	Rubus pedatus
	Rosy twistedstalk	Streptopus roseus
	Prince's pine	Chimaphila umbellata
	Twinflower	Linnaea borealis
	Hawkweed	Hieracium spp.
	Oxeye daisy	Chrysanthemum leucanthemum
	Yarrow	Achillea millefolium
	Palmate coltsfoot	Petasites palmatus
	Hooker's fairybells	Disporum hookeri
	False Solomon's seal	Smilacina racemosa
	Lily-of-the-valley	Maianthemum canadense
	Goat's beard	Aruncus dioicus
	Strawberry	Fragaria spp.
	Red clover	Trifolium pratense
	Wintergreen	Pyrola spp.
	Red paintbrush	Castilleja miniata
	Bedstraw	Galium spp.
	Horsetail	Equisetum spp.
Bryophytes	Electrified cat's tail	Rhytidiadelphus triquetrus
	Red stemmed feather moss	Pleurozium schreberi
	Knights plume	Ptilium crista-castrensis
	Step moss	Hylocomium splendens
	Common leafy moss	Plagiomnium medium
	Large leafy moss	Rhizomnium glabrescens
	Common green sphagnum	Sphagnum girgensohnii
	Shiny liverwort	Pellia neesiana
Lichens	Lungwort	Lobaria pulmonaria
	Freckled lichen	Peltigera aphthosa
	Toad pelt	Peltigera scabrosa
	Pixie cup lichen	Cladonia spp.
	Reindeer lichen	Cladina spp.

**APPENDIX C2:** 

Observed upland bird species for the mid-elevational SBSwk1 plateau forests around the ALRF and adjacent forest types.

Adapted from Lance and Phinney (2001)

Common Name	Latin Name	Observed Habitat	
Sharp-shinned hawk	Accipiter striatus	Mature forest	
Northern saw-whet owl	Aegolius acadicus	Mature forest	
Cedar waxwing	Bombycilla cedrorum	Retention patches and edges of early seral habitat	
Ruffed grouse	Bonasa umbellus	Mature forest and edges of early seral habitat	
Great horned owl	Bubo virginianus	Mature forest	
Red-tailed hawk	Buteo jamaicensis	Retention patches and edges of early seral habitat	
Pine siskin	Carduelis pinus	Mature forest and edges of early seral habitat	
Purple finch	Carpodacus purpureus	Mature forest and edges of early seral habitat	
Swainson's thrush	Catharus ustulatus	Mature forest and edges of early seral habitat	
Brown creeper	Certhia americana	Mature forest	
Northern harrier	Circus cyaneus	Early seral habitat and tree edges	
Evening grosbeak	Coccothraustes vespertinus	Retention patches and edges of early seral habitat	
Northern flicker	Colaptes auratus	Retention patches and edges of early seral habitat	
Olive-sided flycatcher	Contopus borealis	Retention patches and edges of early seral habitat	
Western wood-pewee	Contopus sordidulus	Retention patches and edges of early seral habitat	
Common raven	Corvus corax	Retention patches and edges of early seral habitat	
Yellow-rumped warbler	Dendroica coronata	Mature forest and edges of early seral habitat	
Magnolia warble	Dendroica magnolia	Mature forest and edges of early seral habitat	
Pileated woodpecker	Dryocopus pileatus	Mature forest and edges of early seral habitat	
Alder flycatcher	Empidonax alnorum	Retention patches and edges of early seral habitat	
Hammond's flycatcher	Empidonax hammondii	Mature forest and edges of early seral habitat	
Least flycatcher	Empidonax minimus	Retention patches and edges of early seral habitat	
Dusky flycatcher	Empidonax oberholseri	Retention patches and edges of early seral habitat	
Spruce grouse	Falcipennis canadensis	Mature forest and edges of early seral habitat	
Merlin	Falco columbarius	Retention patches and edges of early seral habitat	
American kestrel	Falco sparverius	Early seral habitat and tree edges	
Common snipe	Gallinago gallingo	Early seral habitat and tree edges	
Varied thrush	Ixoreus naevius	Mature forest and edges of early seral habitat	
Dark-eyed junco	Junco hyemalis	Mature forest and edges of early seral habitat	
Red crossbill	Loxia curvirostra	Mature forest and edges of early seral habitat	
White-winged crossbill	Loxia leucoptera	Retention patches and edges of early seral habitat	
Lincoln's sparrow	Melospiza lincolnii	Early seral habitat and tree edges	

Table C2 - Continued...

Common Name	Latin Name	Observed Habitat	
Song sparrow	Melospiza melodia	Early seral habitat and tree edges	
MacGillivray's warbler	Oporornis tolmiei	Mature forest and edges of early seral habitat	
Savannah sparrow	Passerculus sandwichensis	Early seral habitat and tree edges	
Gray jay	Perisoreus canadensis	Mature forest and edges of early seral habitat	
Black-blacked woodpecker	Picoides arcticus	Mature forest and edges of early seral habitat	
Three-toed woodpecker	Picoides tridactylus	Mature forest and edges of early seral habitat	
Hairy woodpecker	Picoides villosus	Retention patches and edges of early seral habitat	
Pine grosbeak	Pinicola enucleator	Retention patches and edges of early seral habitat	
Western tanager	Piranga ludoviciana	Mature forest and edges of early seral habitat	
Black-capped chickadee	Poecile atricapillus	Retention patches and edges of early seral habitat	
Boreal chickadee	Poecile hudsonicus	Mature forest	
Ruby-crowned kinglet	Regulus calendula	Mature forest and edges of early seral habitat	
Golden-crowned kinglet	Regulus satrapa	Mature forest and edges of early seral habitat	
Northern waterthrush	Seiurus novaboracensis	Retention patches and edges of early seral habitat	
Rufous hummingbird	Selasphorus rufus	Early seral habitat and tree edges	
American redstart	Setophaga ruticilla	Mature forest and edges of early seral habitat	
Mountain bluebird	Sialia currucoides	Retention patches and edges of early seral habitat	
Red-breasted nuthatch	Sitta canadensis	Mature forest and edges of early seral habitat	
Red-breasted sapsucker	Sphyrapicus ruber	Mature forest and edges of early seral habitat	
Clay-colored sparrow	Spizella pallida	Retention patches and edges of early seral habitat	
Chipping sparrow	Spizella passerina	Mature forest and edges of early seral habitat	
Calliope hummingbird	Stellula calliope	Retention patches and edges of early seral habitat	
Great gray owl	Strix nebulosa	Retention patches and edges of early seral habitat	
Tree swallow	Tachycineta bicolor	Retention patches and edges of early seral habitat	
Greater yellowlegs	Tringa melanoleuca	Early seral habitat and tree edges	
Winter wren	Troglodytes troglodytes	Mature forest and edges of early seral habitat	
American robin	Turdus migratorius	Mature forest and edges of early seral habitat	
Orange-crowned warbler	Vermivora celata	Retention patches and edges of early seral habitat	
Cassin's vireo	Vireo cassinii	Mature forest and edges of early seral habitat	
Warbling vireo	Vireo gilvus	Mature forest and edges of early seral habitat	
Wilson's warbler	Wilsonia pusilla	Mature forest and edges of early seral habitat	
White-throated sparrow	Zonotrichia albicollis	Mature forest and edges of early seral habitat	

APPENDIX C3: Threatened and Endangered Species within the Omineca Region: Animal Species

		Status				
Scientific Name	Common Name	Provincial	BC Status*	COSEWIC	Global	ALRF Presence Known/Unknown
Acipenser transmontanus	White Sturgeon (Upper Fraser River population)	S1 (2010)	Red	E (2012)	G4T1 (2001)	Known
Valvata tricarinata	Threeridge Valvata	S1S2 (2015)	Red		G5 (2015)	Unknown
Acroloxus coloradensis	Rocky Mountain Capshell	S3S4 (2015)	Blue	NAR (2001)	G3G4 (2014)	Unknown
Ardea herodias herodias	Great Blue Heron	S3? (2017)	Blue		G5T5 (2000)	Unknown
Asio flammeus	Short- eared Owl	S3B,S2N (2015)	Blue	SC (2008)	G5 (2014)	Known
Botaurus lentiginosus	American Bittern	S3B (2015)	Blue		G5 (2016)	Unknown
Buteo platypterus	Broad-winged Hawk	S3?B (2015)	Blue		G5 (2014)	Unknown
Cicindela hirticollis	Hairy-necked Tiger Beetle	S2S4 (2017)	Blue		G5 (2008)	Unknown
Contopus cooperi	Olive-sided flycatcher	S3S4B (2015)	Blue	T (2007)	G4 (2008)	Known
Cypseloides niger	Black Swift	S2S3B (2015)	Blue	E (2015)	G4 (2015)	Unknown
Euphagus carolinus	Rusty Blackbird	S3S4B (2015)	Blue	SC (2017)	G4 (2014)	Unknown
Galba obrussa	Golden Fossaria	S2S3 (2015)	Blue		G5 (2015)	Unknown
Galba parva	Pygmy Fossaria	S3S5 (2015)	Blue		G5 (2015)	Unknown
Gulo gulo luscus	Wolverine	S3 (2010)	Blue	SC (2014)	G4T4 (1996)	Known
Hirundo rustica	Barn swallow	S3S4B (2015)	Blue	T (2011)	G5 (2014)	Unknown
Myotis septentrionalis	Northern Myotis	S3S4 (2015)	Blue	E (2013)	G1G2 (2015)	Unknown
Numenius americanus	Long-billed Curlew	S3B (2015)	Blue	SC (2011)	G5 (2014)	Unknown
Oeneis jutta chermocki	Jutta Arctic	S3 (2013)	Blue		G5T4Q (1999)	Unknown
Oreamnos americanus	Mountain Goat	S3 (2015)	Blue		G5 (1996)	Unknown
Pekania pennanti	Fisher	S3 (2015)	Blue		G5 (2005)	Known
Physella propinqua	Rocky Mountain Physa	S3S4 (2015)	Blue		G5Q (2015)	Unknown
Planorbula campestris	Meadow Rams-horn	S3S4 (2015)	Blue		G4G5 (2015)	Unknown
Podiceps nigricollis	Eared Grebe	S3B ( 2015)	Blue		G5 (1996)	Unknown
Rangifer tarandus	Caribou (northern mountain population)	S2S3 (2017)	Blue	E/SC (2014)	G5T4T5 (2013)	Unknown
Salvelinus confluentus	Bull Trout	S3S4 (2011)	Blue	SC (2012)	G4 (2011)	Unknown
Somatochlora forcipata	Forcipate Emerald	S3? (2015)	Blue		G5 (2015)	Unknown
Sphaerium striatinum	Striated Fingernail clam	S3S4 (2015)	Blue		G5 (2015)	Unknown
Tympanuchus phasianellus columbianus	Sharp-tailed Grouse	S2S3 (2005)	Blue		G4T3 (2016)	Known
Ursus arctos	Grizzly Bear	S3? (2015)	Blue	SC (2002)	G4 (2000)	Known

<sup>\*</sup>Red = Extirpated, Endangered, or Threatened, Blue = Special Concern

(BCCDC, 2013) **145** 

APPENDIX C4:
Threatened and Endangered Species within the Omineca Region: Plant Species

		Status				
Scientific Name	Common Name	Provincial	BC Status*	COSEWIC	Global	ALRF Presence Known/Unknown
Acorus americanus	American sweet-flag	S2 (2015)	Red		G5 (2015)	Unknown
Myrinia pulvinata		S1S2 (2015)	Red		G4G5 (1991)	Unknown
Nymphaea tetragona	Pygmy waterlily	S1S2 (2015)	Red	· · · · · · · · · · · · · · · · · · ·	G5 (1995)	Unknown
Taraxia breviflora	Short-flowered evening-primrose	S1 (2000)	Red		G5 (1988)	Unknown
Draba fladnizensis	Austrian draba	S3 (2015)	Blue	•	G4 (1988)	Unknown
Malaxis brachypoda	White adder's-mouth orchid	S2S3 (2015)	Blue		G4G5Q (2015)	Unknown
Meesia longiseta		S3 (2015)	Blue	•	G5 (2012)	Unknown
Nephroma isidiosum	Pebbled paw lichen	S3 (2010)	Blue		G3G5 (2006)	Unknown
Oxytropis campestris var. davisii	Davis' locoweed	S3 (2001)	Blue		G5T3 (2015)	Unknown
Pinus albicaulis	Whitebark pine	S2S3 (2013)	Blue	E(2010)	G3G4 (2011)	Unknown
Pyrola elliptica	Shinleaf wintergreen	S3 (2015)	Blue		G5 (2015)	Unknown
Rhodobryum roseum		S2S3 (2015)	Blue		G5 (1991)	Unknown
Sphagnum wulfianum		S2S3 (2015)	Blue		G5 (2015)	Unknown
Usnea glabrescens	Spotted beard	S3 (2010)	Blue		G5 (2015)	Known

<sup>\*</sup>Red = Extirpated, Endangered, or Threatened, Blue = Special Concern

(BCCDC, 2013)

APPENDIX C5: Threatened and Endangered Ecological Communities within the SBSwk1 Biogeoclimatic Subzone

Scientific Name	Common Name	Biogeoclimatic Unit	Provincial	BC Status*	Global
Picea engelmannii x glauca/ Spiraea douglasii/ Gymnocarpium dryopteris	Hybrid white spruce/ hardhack/ oak fern	SBSwk1/06	S2 (2015)	Red	GNR
Populus spp Picea spp./ Cornus stolonifera	Cottonwood - spruces/ red- osier dogwood	SBSwk1/Fm02 Flood – Middle bench	S2? (2010)	Red	GNR
Alnus incana/ Cornus stolonifera/ Athyrium filix- femina	Mountain alder/ red- osier dogwood/ lady fern	SBSwk1/Fl02 Flood – Low bench	S2 (2004)	Blue	G3G4
Betula nana/ Carex aquatilis	Scrub birch/ water sedge	SBSwk1/Wf02 Wetland - Fen	S3 (2010)	Blue	G4
Carex lasiocarpa/ Drepanocladus aduncus	Slender sedge/ common hook-moss	SBSwk1/Wf05 Wetland - Fen	S3 (2010)	Blue	G3
Carex limosa – Menyanthes trifoliate/ Drepanocladus spp.	Shore sedge – buckbean/ hook-mosses	SBSwk1/Wf08 Wetland - Fen	S3 (210)	Blue	G3
Equisetum fluviatile – Carex utriculata	Swamp horsetail – beaked sedge	SBSwk1/Wm02 Wetland - Marsh	S3 (2010)	Blue	G4
Picea mariana/ Lysichiton americanus/ Sphagnum spp.	Black spruce/ skunk cabbage/ peat-mosses	SbSwk1/Ws09 Wetland - Swamp	S2S3 (2004)	Blue	GNR
Picea mariana/ Menyanthes trifoliate/ Sphagnum spp.	Black spruce/ buckbean/ peat-mosses	SBSwk1/Wb11 Wetland - Bog	S3 (2008)	Blue	GNR
Pinus contorta/ Vaccinium membranaceum/ Cladina spp.	Lodgepole pine/ black huckleberry/ reindeer lichens	SBSwk1/02	S3 (2015)	Blue	G3
Pinus contorta/ Vaccinium membranaceum - Vaccinium myrtilloides	Lodgepole pine/ black huckleberry – velvet- leaved blueberry	SBSwk1/03	S3 (2015)	Blue	GNR
Pseudotsuga menziesii – Picea engelmannii x glauca/ Ptilium crista-castrensis	Douglas-fir – hybrid white spruce/ knights plume	SBSwk1/04	S3 (2015)	Blue	G3
Salix sitchensis/ Carex sitchensis	Sitka willow/ Sitka sedge	SBSwk1/Ws06 Wetland - Swamp	S3 (2004)	Blue	G3
Trichophorum cespitosum/ Campylium stellatum	Tufted club rush/ golden star moss	SBSwk1/Wf11 Wetland - Fen	S2S3 (2004)	Blue	G2G3

(BCCDC, 2013)

#### **APPENDIX C6:**

# Code definitions for threatened and endangered species

### **Global Rank**

Rank	Definition
GX	Presumed Extinct (species) – Not located despite intensive searches and virtually no likelihood of rediscovery.  Eliminated (ecological communities)–Eliminated throughout its range, with no restoration potential due to extinction of dominant or characteristic species
G1	Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2	Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3	Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4	Apparently Secure – Uncommon but not rare, some cause for long-term concern due to declines or other factors.
G5	Secure – Common, widespread and abundant.
GNR	Unranked–Global rank not yet assessed.
T#	Infraspecific Taxon (trinomial) – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank. Rules for assigning T-ranks follow the same principles outlined above for global conservation status ranks. For example, the global rank of a critically imperiled subspecies of an otherwise widespread and common species would be G <sub>5</sub> T <sub>1</sub> . A T-rank cannot imply the subspecies or variety is more abundant than the species as a whole-for example, a G <sub>1</sub> T <sub>2</sub> cannot occur. A vertebrate animal population, such as those listed as distinct population segments under the U.S. Endangered Species Act, may be considered an infraspecific taxon and assigned a T-rank, in such cases a Q is used after the T-rank to denote the taxon's informal taxonomic status.

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Table C6 - Continued...

#### **Provincial Rank**

CDC Conservation Status Ranks (S = Provincial, N = National, G = Global)

	Status	Definition
X	Presumed Extirpated or Extinct	Not located despite intensive searches and no expectation that it will be rediscovered.
Н	Historical	Not located in the last 50 years, but some expectation that it may be rediscovered.
1	Critically Imperiled	Because of extreme rarity or some factor(s) making it especially susceptible to extirpation or extinction.  Typically 5 or fewer existing occurrences3 or very few remaining individuals, e.g., fewer than 1000  Spotted Owl.
2	Imperiled	Because of rarity or some factor(s) making it very susceptible to extirpation or extinction. Typically 6 to 20 existing occurrences or few remaining individuals, e.g., 1000 to 3000 White Sturgeon.
3	Vulnerable	Because rare and local, found only in a restricted range (even if abundant at some locations), or because of some other factor(s) making it susceptible to extirpation or extinction. Typically 21 to 100 existing occurrences, e.g., Gopher Snake.
4	Apparently Secure	Because uncommon but not rare, and usually widespread in the province. Possible cause for long-term concern. Typically more than 100 existing occurrences, e.g., Olive-sided Flycatcher.
5	Secure	Because common to very common, typically widespread and abundant, and not susceptible to extirpation or extinction under present conditions, e.g., Red-osier Dogwood.
?	Unranked	Rank not yet assessed.
U	Unrankable	Due to current lack of available information.

#### (BCCDC)

	Rank Modifiers	
Е	Exotic – a species introduced by man to the province	
?	Inexact or uncertain due to limited information, qualifies the immediately preceding rank character	
Q	Taxonomic status is not clear or is in question	
Т	Designates a rank associated with a subspecies or variety.	
В	Designates a rank associated with breeding occurrences of mobile animals	
N	Designates a rank associated with non-breeding occurrences of mobile animals	

#### Table C6 - Continued...

# **COSEWIC Status Categories**

Status	Definition
Extinct (X)	A wildlife species that no longer exists
Extirpated (XT)	A wildlife species that no longer exists in the wild in Canada, but exists elsewhere.
Endangered (E)	A wildlife species facing imminent extirpation or extinction.
Threatened (T)	A wildlife species that is likely to become an endangered if nothing is done to reverse the factors leading to
Tilleateried (T)	its extirpation or extinction.
Special Concern (SC)	A wildlife species that may become threatened or endangered because of a combination of biological
Special concern (ser	characteristics and identified threats.
Data Deficient (DD)	A category that applies when the available information is insufficient (a) to resolve a wildlife species'
Bata Beneferi (BB)	eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction
Not At Risk (NAR)	A wildlife species that has been evaluated and found to be not at risk of extinction given the current
NOU AL RISK (NAK)	circumstances.

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APPENDIX C7: Listed Invasive Plants in the Omineca Region of BC (2017) and Presence (or lack thereof) within the ALRF, based on current information

Scientific Name	Common Name	ALRF Presence Known/Unknown
Gypsophila paniculata	Baby's breath	Unknown
Centaurea cyanus	Bachelors button (cornflower)	Unknown
Echium vulgare	Blueweed	Unknown
Arctium minus	Burdock	Unknown
Buddleja davidii	Butterfly bush	Unknown
Cirsium arvense	Canada Thistle	Known
Tanacetum vulgare	Common tansy	Unknown
Linaria genistifolia ssp. dalmatica	Dalmatian toadflax	Unknown
Daphne laureola	Daphne	Unknown
Knautia arvensis	Field scabious	Unknown
A. petiolata	Garlic mustard	Unknown
Impatiens glandulifera	Himalayan balsam	Unknown
Cynoglossum officinale	Hound's tongue	Unknown
Polygonum spp.	Knotweeds	Unknown
Cirsium palustre	Marsh plume thistle	Known
Centaurea montana	Mountain bluet	Unknown
Hieracium spp.	Orange hawkweed	Known
Leucanthemum vulgare	Oxeye daisy	Known
Lythrum salicaria	Purple loosestrife	Unknown
Matricaria maritima	Scentless chamomile	Unknown
Onopordum acanthium	Scotch thistle	Known
Centaurea biebersteinii	Spotted knapweed	Unknown
Centaurea diffusa	Diffuse knapweed	Unknown
Euphorbia esula	Leafy spurge	Unknown
E. myrsinities	Myrtle spurge	Unknown
E. cyparissias	Cypress spurge	Unknown
Hypericum perforatum	St. John's wort	Unknown
Carum carvi	Wild caraway	Unknown
Iris pseudacorus	Yellow flag iris	Unknown
Linaria vulgaris	Yellow toadflax	Unknown

Invasive Species Council of BC (2014) Invasive plants. Accessed Nov. 29, 2017. http://bcinvasives.ca/invasive-species/identify/invasive-plants