# CANOE brand® Canoe Forest Products



Canoe Forest Products Ltd.
Forest Operations

# Species at Risk Guidebook

(Including Protection for Birds, Nests and Eggs) (Version 1.0)

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(Note: Cover picture is a Western Toad which is not threatened or endangered, however these toads are protected under the British Columbia Wildlife Act)

#### **Purpose**

As a part of Canoe Forest Products Limited's (CFP's) Sustainable Forest Management Plan and in order to meet Objectives 4.1 and 4.2 of the Sustainable Forestry Initiative® Standard, this guidebook is compiled to:

- 1. Promote the conservation of native biological diversity (including species, wildlife habitats, and ecological community types) and
- 2. Help protect threatened and endangered species that occur within CFP's operating area.

This guidebook assists: in identifying relevant species at risk (SAR), reporting of new occurrences, ensuring proper management of relevant species at risk, and protecting sites that contain viable occurrences of critically imperiled or imperiled species and communities.

In addition, this guidebook assists to prevent harm to birds, nests and eggs as protected under BC's Wildlife Act.

#### **Species at Risk**

In brief, CFP's Species at Risk were determined through the following filter process:

- 1. A broad list of Species at Risk was generated using the BC's Ministry of Environment's "BC Species and Ecosystem Explorer". Lists for animals, plants, and ecological communities were refined using available local criteria (i.e. biogeoclimatic zones within CFP's operating area). Initial CFP SAR were derived from: Committee on the Status of Endangered Wildlife in Canada's (COSEWIC) endangered and threatened species lists; and BC Listed endangered and threatened species lists.
- 2. For species at risk where known occurrence is mapped and available on BC's Ministry of Environment's "BC Species and Ecosystem Explorer". Lists were filtered down to those within CFP's operating area or within 20 km of CFP's operating area.
- 3. For species at risk, where known occurrence is masked to protect sensitive sites, the CDC reviewed CFP's operating area. Lists were filtered down to those species at risk with occurrences within CFP's operating area.
- 4. Where possible lists were further refined by reviewing local factors that would make it very unlikely for CFP's forest operations to have an impact (i.e. the IDF xh1 is very unlikely to be impacted by CFP's forest operations).

The lists created are intended to be reviewed annually and revisions to this guidebook are likely.

#### **Animals**

See Appendix A for a more complete description of each Species at Risk. CFP's SAR list of animals has been narrowed down to:

Species	Class	Potential for impact
Caribou	Mammal	Possible within Seymour,
		Anstey, TFL33, and Three
		Valley FDUs
Western Grebe	Bird	Limited (occurrence
		restricted to Shuswap Lake)
Great Basin Spadefoot	Amphibian	Limited (occurrence near
		Wallensteen Lake)
Mormon Fritillary (sp. erinna)	Insect	Limited (Mountain
		meadows and fell fields)
Hoffman's Checkerspot	Insect	Very unlikely* (no local
_		occurrence)
Sonora Skipper	Insect	Very unlikely* (no local
		occurrence)
Viceroy	Insect	Very unlikely* (extirpated
		and no local occurrence)

<sup>\*</sup>Species where the potential for impact is "very unlikely" will not be considered further.

#### **Plants**

See Appendix B for a more complete description of each Species at Risk. CFP's SAR list of plants has been narrowed down to:

Species	Class	Potential for impact
Bearded sedge	Monocots	Limited (shorelines and wet
		meadows)
Brown beak-rush	Monocots	Limited (fens and
		shorelines)
Satinflower	Monocots	Possible (moist rocky
		bluffs)
Yellow widelip orchid	Monocots	Limited (moist thickets and
		fens)
Hairy water-clover	Fern	*Very unlikely (inundated
		lake margins)
Mexican mosquito fern	Fern	*Very unlikely (sloughs and
		pools)
Rocky Mountain clubrush	Monocots	*Very unlikely (shallow
		water)
Smooth goldenrod	Dicots	*Very unlikely (no local
		occurrence)

<sup>\*</sup>Species where the potential for impact is "very unlikely" will not be considered further.

#### **Ecological Communities**

See Appendix C for a more complete description of each Species at Risk. CFP's SAR list of ecological communities has been narrowed down to:

Species	Ecosystem Group	Potential for impact
Red-osier dogwood / sedges	Riparian, Shrub, Wetland	Limited (IDFmw2 flats and
		depressions; swamps and
		bogs)
Few-flowered spike-rush /	Wetland, Herbaceous	Limited (MSdm2 Fen,
hook mosses		sloping peatlands)
Three-way sedge	Wetland Herbaceous	Limited (ICH wk1 fens,
		marshes, and lake margins)
Nuttall's alkaligrass –	Herbaceous, Wetland,	*Very unlikely (MSdm2
foxtail barley	Grassland	small alkali pot holes)

<sup>\*</sup>Communities where the potential for impact is "very unlikely" will not be considered further.

#### Birds, Nests and Eggs

As per the WILDLIFE ACT Section 34:

A person commits an offence if the person, except as provided by regulation, possesses, takes, injures, molests or destroys (a) a bird or its egg, (b) the nest of an eagle, peregrine falcon, gyrfalcon, osprey, heron or burrowing owl, or (c) the nest of a bird not referred to in paragraph (b) when the nest is occupied by a bird or its egg.

See Appendix D for images of birds with protected nests (Sec. 34(b)).

#### **Management Strategies**

#### Stop Work

If a species at risk or bird's nest within this guidebook is observed within an area that is being impacted by CFP's forest operations, **stop work** within the area of concern and report to your CFP supervisor immediately. Work will only resume within the area of concern when your CFP supervisor has indicated it is okay to do so.

CFP staff will check to see if the species or bird's nest is adequately addressed within our Forest Stewardship Plan, Site Plans, and operational plans.

If the SAR occurrence is new, and the site is associated with critically imperiled, imperiled species or ecological community, CFP will contact the Ministry of Environment for direction on how to proceed.

#### **Operational Planning**

Consideration for CFP's Species at Risk will occur during operational planning and development of Cutting Permits and associated Road Permits. Where practical, bird nests will also be observed in the field and considered within planning and development.

#### Reporting

If species at risk identified within this guidebook are observed, then occurrences are to be documented using the attached form and forwarded to CFP's staff as soon as practicable. CFP will forward the occurrence to BC's Conservation Data Center (CDC).

#### **Occurrence**

The expectation is that CFP forest operations staff and contractors will review this document and become familiar with CFP's Species at Risk.

If during normal work duties a SAR is observed the following forms will be filled out to the best of a person's ability. It is not expected to search for SAR outside of normal work duties.

For animals use the BC Conservation Data form (Field Survey Form (Animals)) found at the back of Appendix A.

For plants use the BC Conservation Data form (Field Survey Form (Plants)) found at the back of Appendix B.

For ecological communities use the BC Conservation Data form (Conservation Evaluation Form) found at the back of Appendix C.

### **Contact Information**

This guidebook was prepared by Greg Hislop, RPF. If there are questions related to Species at Risk please contact Greg at (250) 833-1237 or <a href="mailto:ghislop@canoefp.com">ghislop@canoefp.com</a>.

#### References

The information within this guidebook is collected from a variety of resources linked through the following websites. The sole intent of this document is to educate and assist in protecting species at risk, birds, bird eggs and bird nests.

BC Species and Ecosystem Explorer, Ministry of Environment, Government of British Columbia <a href="http://a100.gov.bc.ca/pub/eswp/">http://a100.gov.bc.ca/pub/eswp/</a>

BC Conservation Data Centre, Ministry of Environment, Government of British Columbia <a href="http://www.env.gov.bc.ca/cdc/index.html">http://www.env.gov.bc.ca/cdc/index.html</a>

Species at Risk Public Registry, Government of Canada http://www.sararegistry.gc.ca/default\_e.cfm

Animal Diversity Web, University of Michigan Museum of Zoology http://animaldiversity.ummz.umich.edu/site/index.html

# Appendix A

### Animals

#### **Mountain Caribou**

Rangifer tarandus





#### Description of Animal

Larger than mule deer but smaller than elk. Cows and bulls grow antlers. Mainly medium brown body hair with a white rump patch. Wide spread crescent-shaped hooves. Short ears, tail, and snout.

#### Local Range or Known Occurrence

Camp Four Creek, McNomme Creek, Blais Creek, Mount Grace, Queest Mountain, Upper Sim Creek Three Valley

#### Habitat

Late-winter activity is mainly within open stands dominated by Subalpine Fir (Balsam) and having abundant arboreal lichen (within the upper ESSF, including its parkland subzones). Spring habitat is patches of ground where aspect, exposure, elevation or meltwater cause snow to melt sufficiently to allow foraging on ground-based foods. Summer habitats are in or adjacent to old forests dominated by Subalpine Fir or Engelmann Spruce, although there is periodic use of the Alpine. In rugged terrain and very deep snow, early-winter habitats are generally old stands of Western Hemlock and Western Redcedar. Elsewhere, early-winter habitat includes old Engelmann Spruce and Subalpine Fir in the lower to middle ESSF.

Western Grebe	Aechmophorus occidentalis
Megretti Giene	





#### Description of Animal

Highly specialized for swimming and diving. Seldom seen out of water except when on nests. Long curved neck with strongly contrasting black and white plumage. Bright red eyes.

#### Local Range or Known Occurrence

Shuswap Lake, Salmon Arm Bay

#### Habitat

Nests usually in, or very close to, water deep enough to allow bird to swim submerged. Nests typically are anchored to, or build up over, living vegetation. Larger lakes with suitable lakeshore.

# Great Basin Spadefoot Spea intermontana



#### Description of Animal

A small toad that is grey-green with numerous dark brown or reddish tubercles and spots and a grayish-white belly. Its limbs are relatively short. Its snout is blunt.

#### Local Range or Known Occurrence

Fly Hills, Wallensteen Lake

#### Habitat

Grasslands and open woodlands in the southern interior of British Columbia. Grasslands in the arid southern interior of British Columbia are endangered and cover less than 1% of BC. Wetlands and temporary pools that they require for breeding are naturally rare. Suitable terrestrial habitats for foraging, hibernation, and aestivation (summer sleep) must be available year-round. Loose, deep, and friable (crumbly) soils that allow for burrowing are thought to be important. As well, these habitats must be connected to allow for seasonal movements.

#### Mormon Fritillary (sp. erinna)

Speyeria mormonia erinna





Description of Animal

A small butterfly. Spots usually silvered. Wing span 3.8 to 6.1 cm.

Local Range or Known Occurrence

Unknown (i.e. there is no information on where occurrence may be).

#### Habitat

Mountain meadows and fell-fields (open areas where freeze-thaw cycles tend to push plants out of the soil. In addition, the high porosity of the soil makes a fell-field a difficult place for plants to grow.)

## Appendix B

### **Plants**

	Carex comosa
Bearded sedge	



#### Description of Plant

Perennial, densely tufted herb from short, stout rhizomes; stems 50-100 cm tall, shorter than the leaves.

#### Local Range or Known Occurrence

Eagle Bay

#### Habitat

Shorelines and wet meadows.

	Rhynchospora capillacea
Brown Beak-rush	



#### Description of Plant

Perennial, tufted herb, sometimes forming mats; stems more or less solid, triangular in cross-section, 10-40 cm tall.

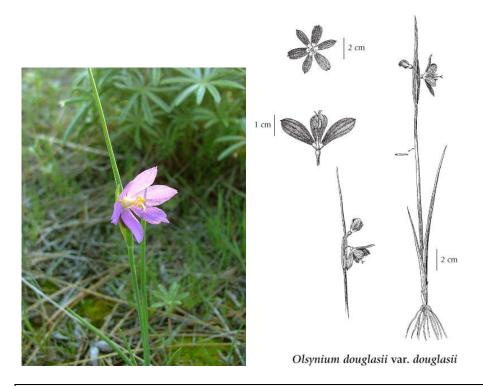
#### Local Range or Known Occurrence

Mara meadows

#### Habitat

Calcareous fens and shorelines in the montane zone.

# Satinflower Olsynium douglasii var. inflatum



#### Description of Plant

Perennial tufted herb from a fibrous root; stems somewhat compressed, simple, 10-30 cm tall.

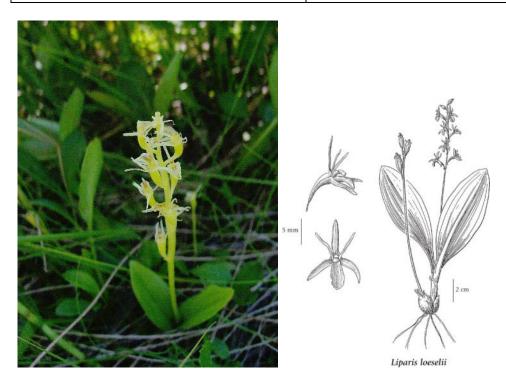
Local	Range or	Known (	Occurrence
-------	----------	---------	------------

Little Shuswap Lake

#### Habitat

Found on open sandy hillside.

# Yellow widelip orchid Liparis loeselii



#### Description of Plant

Perennial herb from bulblike bases (corms); stems 7-20 cm tall, with 2 basal leaves, smooth.

#### Local Range or Known Occurrence

Mara Meadows, White Lake, Wright Lake

#### Habitat

Moist thickets and fens in the montane zone.

# Appendix C

# **Ecological Communities**

Red-osier dogwood /sedges	Cornus stolonifera / Carex spp.
itted color degliced, recages	





Red-osier dogwood



Sedges

#### Description of Ecological Community

IDF mw2 wet flats and depressions. Water table within 50 cm of the soil surface. Spruce and Cedar swamps and bogs. Usually less than 10% canopy cover.

Plants include: Western Red Cedar, Hybrid white spruce, black twinberry, red osier dogwood, Sitka alder, and sedges.

#### Local Range or Known Occurrence

Little Shuswap, Squilax, Lee Creek, Turtle Valley

# Few-flowered spike-rush / hook-mosses

Eleocharis quinqueflora / Drepanocladus spp.



Community





Few-flowered spike-rush

narrow leaved cotton grass

#### Description of Ecological Community

The Few-flowered spike-rush – Hook-moss Fen Site Association occurs on small sloping peatlands at high elevations (mostly above 1200 m) throughout the Sub-Boreal, Central, and Southern Interior. It is rare throughout most of its range, occurring only in slope positions with continual slow surface seepage.

Few-flowered spike-rush and narrow leaved cotton grass dominate.

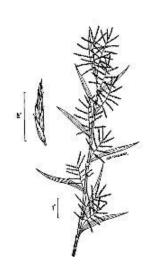
#### Local Range or Known Occurrence

MS dm2 only occurs on or near Fly Hills, Squilax Mountain, and China Valley

	Dulichium arundinaceum
Three-way sedge	







Three-way sedge

#### **Description of Ecological Community**

Rare in wet regions of the Southern Interior Mountains at elevations below 600 m. The Wm51 occurs along the protected margins of shallow lakes or sluggish streams on mucky substrates. Prefers permanently flooded conditions on degrading peat or soft muck (mix of fine mineral material and organics).

Three-way sedge is always dominant.

Local Range or k	nown Occurrence
------------------	-----------------

ICHwk1

## Appendix D

### **Birds with Protected Nests**





# **B.C.** Conservation Data Centre

FIELD OBSERVATION FORM (ANIMALS)
Complete only for Red or Blue listed species. Complete as many fields as able, particularly ones denoting exact location.

SPE	CIES:									EO: Create
SPECIES:Name of recorder/reporter:									Update	
Addı	ess:									EO #: DONE:
 Dhon	o#•			0 W						
									tions, and to relocate sites on the groun	nd. Please he as precise as pos
									a 1:50,000 topographic map or other showing	
UTM	l grid r	eferei	nce: (fr	om blue	grid o	n 1:50,0	000 NT	S map)	NTS MAPSHEET N	NO.:
									below the contour interval scale on NTS ma EASTING:	
Did y	ou use a	a GPS	unit to	deteri	mine i	his U	IM po	oint? Y	Precision of point:(+/- metre	es)
	Date				Nui	nbers	5		Comments	Observer
year	month	day		Adul	t	I	mmat	ure		
			m	f	u	m	f	u		
			1		+					
☐ sir ☐ otl Comi	nging/di her: ments: _	splayi	ing ma	ıle(s)	□ e	gg-lay —	ving o	bserved	□ nest found □ young being d □ larva/pupa found □ no of area):	
						-				
										<del></del>
Eleva	ation: _			_ metre	es fee	t (circle	one)	Slope	e %: Aspect:	
~	_	_	_							
Com	ments/l	Kema	rks: _							
				-						

Size (square meters, kilometres or hectares): (area covered by	y the population at this	location)
Landscape context: (Is the area fragmented? Generally describe the	ne surrounding area an	nd adjacent land uses including species composition
and any other biological or abiotic factors that may affect the populatio	on):	
		<del></del>
Condition: (Condition is a measure of the quality of biotic and abiotic fac	tors, <u>within the occurren</u>	nce, and how they may affect the continued existence of the
occurrence. Some factors to consider are: habitat degradation, disturbance and	presence of exotic species	)
		· · · · · · · · · · · · · · · · · · ·
Notes: (Land ownership, development plans, management activities or re-	commendations, if any o	other comments):
Known threats:		
Ownership/Jurisdiction:	_	
A private land owner <b>may request</b> that the exact location <b>not</b> be released to the p	public. The CDC will only	release the location in response to an FOI request.
Does the landowner want the exact location withheld from the public? YES	_ NO	
Was the landowner contacted about the release of the exact location? YES	NO	
LANDOWNER'S NAME:	PHONE:	E-MAIL:

Area for sketch:

Please return forms to: CDC, Ministry of Environment, Ecosystems Branch, P.O. Box 9358 Station Provincial Government, Victoria BC V8W 9M2 (fax: 250-387-2733) cdcdata@gov.bc.ca THANK YOU!



# **B.C.** Conservation Data Centre FIELD SURVEY FORM (PLANTS)

Note: Complete only for Red- or Blue-Listed species. Please fill out as many fields as you can, but precise locality and population data are especially important pieces of information.

Project name:	
New/Update Update EO #	

Species: Name of surveyo	or/Address/ phone #/Email:		
Survey Date: (M	######################################		repeat visit to this site:
Specimen Collec		e make a collection; in most cases, a	
	ions: (Please be as precise as po , but any maps are welcome)	ossible; include photocopies of 1:20,00	00 trim or 1:50,000 topographic
(North American unit can be set to ZONE LATITUDE	either NAD designation; We us	found below the contour interval scale e NAD 83 data). NORTHING LONGITUDE	-
Habitat: (Please forms/use)	include dominant plants and id	entify plant communities, a general de	scription of area including land
	atures: Elevation:		:Aspect:
	Slope Position: crest upper slope mid slope lower slope bottom		
aerial stems):		t, if feasible; if plants are spreading ver	getatively, indicate number of

Area and units covered by population: (Please also indicate direction for length & width and referer relates to any UTM's provided, ie the centrum):		
Confidence Extent:Full extent of population known _	Full extent not known	_Uncertain full extent known
Phenology:       (Indicate the number observed in each categorian leaf         in leaf       in bud       in flower       immature for the number observed in each categorian leaf properties.         dormant       seedlings		
Area for sketch:		
Rank Considerations: Condition: An integrated measure of the quality of biotic habitat the population occupies, and how they reflect on habitat the population and health	and abiotic factors, structu ow well this species is doin	res and processes <u>within the</u> g at this site.
<ul> <li>2) ecological processes</li> <li>3) species composition and biological structure</li> <li>4) habitat degradation, presence of exotic species and dist</li> <li>5) physical/chemical factors that affect the element's abili</li> </ul>		
Landscape context: Factors, structures and processes at we Please consider:	ork <u>over the landscape surr</u>	ounding the population.
<ol> <li>the degree of fragmentation and connectivity of suitable</li> <li>species composition</li> </ol>	habitat for this species	
<ul><li>3) biological structure</li><li>4) ecological processes</li></ul>		
5) abiotic factors		
Notes: (Land ownership, development plans, management ac	ctivities, if any, or other com	ments):
private land owner <b>may request</b> that the exact location <b>not</b> be released to		A ease the location in response to an
FOI request. Does the landowner want the exact location withheld from the Was the landowner contacted about the release of the exact location? YE		
LANDOWNER'S NAME:	PHONE:	E-MAIL:

**Please return to:** CDC, Ministry of Environment, Ecosystems Branch, P.O. Box 9358 Station Provincial Government, Victoria BC V8W 9M2 (fax: 250-387-2733) cdcdata@gov.bc.ca THANK YOU!

CONSERVATION EVALUATION FORM				
PROJECT IDENTIFICATION			DATE:	
PROJECT ID:			PLOT#:	
POLY#:	SEI CLASS:SUBC	LAS	s:	
ECOLOGICAL COMM	IUNITY			
CONSERVATION INF	ORMATION			
OWNER/JURISDICTION	:			
DISTURBANCE:		KN	IOWN THREATS:	
ADJACENT LAND USE:		ОТ	HER FACTORS:	
ALIEN SPP.:				
SUCCESS. STATUS:			T. SIZE COMM:	(ha)
FRAGMENTATION OF E				
☐ < 5% FRAGMENTED		MEN	ITED □ > 25% FR	RAGMENTED
EVALUATION SUMM	1			_
LANDSCAPE CONTEXT:			OOD  FAIR  PO	
ECOLOGICAL INTEGRITY	Y: EXCELLENT GOOD FAIR POOR G			
CONDITION: EXCELLENT ☐ GOOD ☐ FAIR ☐ POOR ☐				
NOTES(AT-RISK SPECI	ES, WILDLIFE OBSV.	., AC	CURACY INFO, ETC	)
OBSERVER	NAME:			
ADDRESS:				
EMAIL: PHONE/FAX:				
SUBMIT DATA				
CDC, Ministry of Environment, Ecosystems Branch, P.O. Box 9358 Station Provincial Government, Victoria BC V8W 9M2 (fax: 250-387-2733) THANK YOU!  Include: FS882 or GIF or VENUS file  air photos with				
polygon marked ☐ map product(s) ☐ ground photos ☐				

#### **COMPLETING THE CONSERVATION EVALUATION FORM**

This form is intended for ecologists familiar with the RISC<sup>1</sup> Standards For Describing Terrestrial Ecosystems In The Field (DTEIF<sup>2</sup>). Submit a ground inspection (GIF) or ecosystem field (FS882) form with copies of air photos and/or maps. This information is necessary to identify and assess the conservation status of at-risk ecological communities.

#### PROJECT IDENTIFICATION:

Enter the date and GIF or FS882 plot number. If this form is completed as part of an inventory project provide the project name, related polygon number and sensitive ecosystem category, if applicable.

#### **ECOLOGICAL COMMUNITY**

Enter the name of the ecological community as on the CDC tracking list

#### **CONSERVATION INFORMATION**

**OWNER/JURISDICTION:** Enter the land owner or land management justidiction (i.e. Provincial park, TFL #, regional government)

ADJACENT LAND USE: Provide details of land use adjacent to the community (i.e. housing, logging, recreation, etc)

**DISTURBANCE**: Enter DTEIF site disturbance codes and comments.

**KNOWN THREATS**: Record any known threats to the ecological community such as fire suppression, invasiveness of alien species, etc.

OTHER FACTORS: Record any other information known about the site

ALIEN SPP.: Note the type and abundance of alien species associated with the ecological community or in the vicinity.

SUCCESS. STATUS: Enter DTEIF succesional status codes

EST.SIZE COMM: Enter the estimated size of the community in hectares.

**FRAGMENTATION:** Indicate the degree of fragmentation within the community

#### **EVALUATION SUMMARY:**

Complete this section only if familiar with these terms as defined by CDC. Refer to CDC website - element occurrence ranking factors

#### NOTES

Record any other information or comments.

#### OBSERVER

Enter your name and contact information. A CDC ecologist may contact you if additional information or clarity is required.

- 1. Resource Information Standards Committee
- Field Manual For Describing Terrestrial Ecosystems, Land Management Handbook 25. 1998. Prov. Of BC., Victoria, BC.