

# **The KAP Property**

2024 Land Use Permit Application

Wildlife and Archaeology Protection Plan

Version 1.1

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# Introduction

This *Wildlife and Archaeology Protection Plan* is effective from the date of issuance of the Land Use Permit currently being applied for by Integral Metals Corp. (Integral) on its KAP property located approximately 315 km northwest of Fort Simpson, NWT, until the expiry of said permit. The Wildlife and Archaeology Protection Plan has been prepared for internal company use and distributed to the Sahtu Land and Water Board for approval, as part of Integral's Land Use Permit application. Copies and updates of this Plan may be obtained by contacting:

Jared Suchan Vice President of Exploration Phone: 306-531-6022 Email: jared@integralmetals.com

The purpose of Integral's Wildlife and Archaeology Protection Plan (WAPP) is to outline procedures which will mitigate and monitor any potential negative effects to wildlife at the exploration camp in the project area.

# Scope of Wildlife and Archaeology Protection Plan

Integral's WAPP is a key part in upholding the company's environmental policy and goal to minimize health and safety hazards, environmental damage, wildlife attractants, and to protect historical archaeology sites. This plan will cover wildlife and archeology protection protocols during operations in the project area for the period of the Land Use Permit for which Integral is currently applying.

# **Company Environmental Policy**

Table 1 presents regulations that will be strictly enforced. The sensitivity of the northern environment and its importance to First Nations people in terms of livelihood and cultural significance are very important to the employees of Integral. It is paramount that we set and maintain high environmental standards. Our performance is monitored by government agencies, representatives of Aboriginal organizations, nearby communities, and by our peers.

### **Table 1**Environmental regulations.

Item	Description
1	No unnecessary destruction of vegetation.
2	No harassment or feeding of wildlife. All food and garbage will be stored in a manner that will not attract wildlife. Animals conditioned to obtaining food from humans can become dangerous
	and may have to be destroyed.
3	No pollution of the campsites or work area – all garbage from the field will be returned to camp
	daily for disposal in the appropriate manner. All campsites will be kept clean. Land use

- daily for disposal in the appropriate manner. All campsites will be kept clean. Land use inspectors can inspect the campsite at any time. They have the power to suspend operations if standards are not met. Be cautious when transferring fuel from drums to fuel tanks to minimize fuel spillage. Any leaking drums or cylinders around the camp are to be reported immediately to the project manager or the camp manager. Drip trays and double-walled containment will be used wherever possible.
- Be careful with fire all fires (for the incineration of waste) will be extinguished completely.
   Various containers will be provided around camp for the disposal of cigarette butts.
- 5 Fishing licenses are required in most areas of Canada. Purchase one before you arrive in camp. Responsible fishing is encouraged – keep what you catch and eat what you catch. The local fish can be returned to the water if simple lures (e.g., flies, barbless) are used and minimal damage is done on catching.
- 6 No unauthorized firearms are allowed in an Integral camp. Hunting is not allowed by either personnel or contractors, while working out of the camp. It is not a part of the Integral activities, and most land use licenses do not permit it.

# **Project Description**

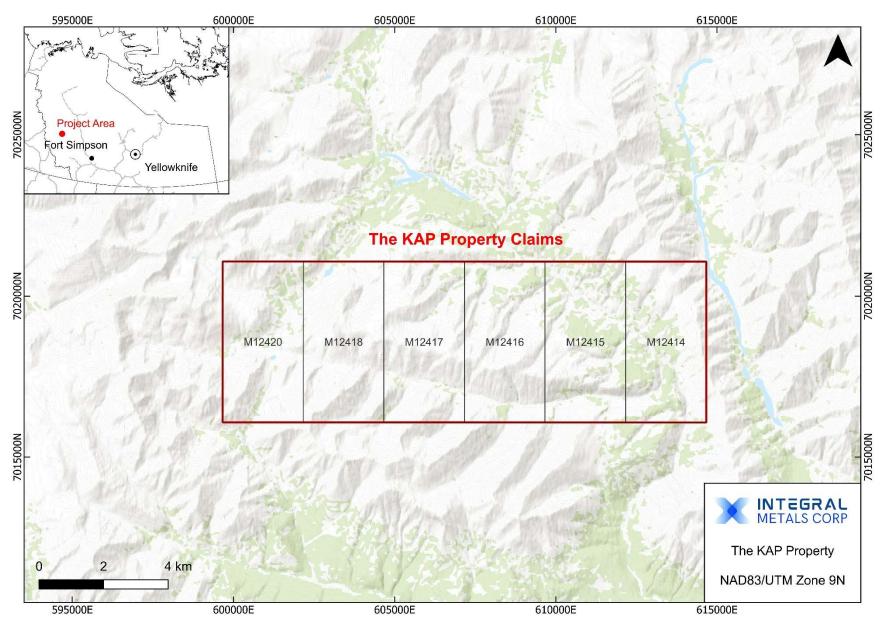
Figure 1 presents the location of the KAP Property. During the operation of the exploration program, progressive restoration of field sample and drill sites will occur on an on-going basis. Drilling may consist of up to 100 drill holes per year, with plans for the first year consisting of up to 20 drill holes to re-test the area drilled by Cominco and Firesteel Resources. Small-diameter reverse-circulation (RC) drilling is



proposed as an alternative to infill between diamond holes to reduce costs and use of water. While these lightweight rigs have many positive aspects to them, they provide minimal geological and geotechnical information and are best used in conjunction with diamond-drilling. Water for the drilling will be the nearest source (i.e., waterbody or watercourse) to the drill targets. Water sources that are within 1 km will be considered for pumping directly to the drill. The diamond-drilling is expected to use 35 m<sup>3</sup>/day to 45 m<sup>3</sup>/day per drill. The RC drilling will use virtually no water; however, 0.5 m<sup>3</sup>/day is allocated for each drill hole.

The temporary tent camp is planned be a base of operations for exploration activities, positioned exactly where the camp by Firesteel Resources was located in 1995-98. Capacity for the camp will be up to a maximum of 30 people with the average being around 15 for the majority of the exploration program. A small sump is to be dug for wastewater and will be filled in upon completion of the program. The location of this sump will be at a minimum of 100 meters from the highest water point of any local water sources to ensure no risk of contamination. Garbage will be sorted into combustible and non-combustible, and the non-combustible garbage and human waste will be flown to Norman Wells for proper disposal. Dal Lake, located approximately 20 kilometers southeast of the project, may be utilized as a staging area to minimize frequency of helicopter flights and reduce environmental impacts. If access to the property via a new trail becomes needed, Integral will conduct an Archaeological Impact Assessment to guide the establishment of the route. At the end of the program, if a renewal of the permit is not sought, all unnecessary equipment will be removed for handling elsewhere. Any potential spill sites will be inspected and cleaned up. All camp infrastructure (tents/shacks) will be completely removed and the land returned to a stable condition. All fuel storage sites and caches will be removed at the end of the project. Any contamination will be cleaned up as per the Spill Contingency Plan.

# The KAP Property – Wildlife and Archaeology Protection Plan



**Figure 1** Location of the KAP Property.

# **Site Information**

The KAP campsite is tentatively located at the following coordinates: 63°16'38.8"N 126°47'55.0"W. Capacity for the camp will be to a maximum of 30 people with the average being around 15 for the majority of the exploration program. Table 1 presents a tentative list of structures to be erected at the campsite. Up to 30 bottles (100 lbs) of propane are to be stored in camp. Between the two fuel caches, up to 150 drums (205 L) of aviation fuel, diesel, and gasoline are to be stored. All fuel is to be stored within a secondary containment. The caches will be located a minimum of 100 m from the normal high-water mark, and in such a manner that no fuel can enter any such waterbody. Regular inspections of fuel will be conducted to ensure there are no leakage or spills. Spill kits will be provided at each cache and will be restocked after each use.

Item, Purpose	Quantity	Dimensions (m)	Area (m <sup>2</sup> )
Tent, Sleeper	3	4.3 x 4.8	20.6
Tent, Kitchen	1	4.3 x 9.8	42.1
Tent, Dry	1	4.3 x 12.2	52.5
Tent, Office	1	4.3 x 4.8	20.6
Tent, Core Logging	1	4.3 x 4.8	20.6
Tent, Washroom	1	4.3 x 4.8	20.6
Shack, Generators	1	2.4 x 2.4	5.8

	Table 2	Campsite	structures.
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The camp will be constructed on level, dry, durable ground. The ground is to be gravelly, which will allow surface water to drain, preventing erosion and destruction of any sensitive areas. No clearing of trees will be necessary during camp construction. The camp would be accessible year-round by float/skiequipped aircraft, and transportation to and from the project area will be by helicopter. All sumps and pits will be constructed in locations at least 100 m from the high-water mark of any waterbody, and fuel is to be stored in a natural depression at least 100 m from the high-water mark of any waterbody.

# **Reporting Protocols**

# Wildlife

Table 3 presents the reporting protocols. The protocols are based upon the *Wildlife Management and Monitoring Plan (WMMP) Process and Content Guidelines*. Integral will immediately report wildlife



incidents (e.g., wildlife injury/mortality, use of deterrents, threats from wildlife to human safety or property) to ENR and other appropriate wildlife authorities (i.e., Environment and Climate Change Canada for migratory birds and federally managed species at risk). Wildlife sighting data will be submitted to ENR's Wildlife Management Information System (WMIS) on an annual basis. Furthermore, Integral will submit geospatial data files of their project footprint and report on annual changes and final footprint size to contribute to the understanding of disturbance on the land.

Information Type	Where to Submit	Timing/Frequency
Wildlife Incident	Regional ENR Office	Immediately
Migratory Bird Interaction or	ECCC's Canadian Wildlife	Immediately
Incident	Service	
	(cwsnorth-scfnord@ec.gc.ca)	
Wildlife Management and	ECCC's Canadian Wildlife	Immediately
Monitoring Plan Updates	Service	
	(cwsnorth-scfnord@ec.gc.ca)	
Wildlife Sightings	ENR Wildlife Management	Annually, at minimum
	Information System (WMIS)	
	(WMISTeam@gov.nt.ca)	
Migratory Bird Monitoring Data	ECCC's Canadian Wildlife	Annually, at minimum
and Annual Report	Service	
	(cwsnorth-scfnord@ec.gc.ca)	
Monitoring Data	ENR Wildlife Management	Annually, at minimum
	Information System (WMIS)	
	(WMISTeam@gov.nt.ca)	
Summary Report	• ENR Regional office	5 Years
	• ENR Wildlife Division	
	(WMMP@gov.nt.ca)	
	<ul> <li>Land and Water Board</li> </ul>	
	Registry	
	Renewable Resources Boards	
	CIMP Discovery Portal	

# **Table 3** Wildlife reporting protocols.

# Archaeology

Archaeological sites are an important resource that is protected for their historical, cultural, scientific and educational value to the general public, local communities and First Nations. They are non-renewable, very susceptible to disturbance and are finite in number. Impacts to archaeological sites must be avoided or managed by development proponents. The objectives of this document are to promote preservation of archaeological data while minimizing disruption of construction scheduling. The Prince of Wales Northern Heritage Centre (PWNHC) in Yellowknife has recommended that a desktop Archaeology Overview Assessment (AOA) be performed to help identify potential archaeological sites. This is intended to be used in conjunction with a Traditional Knowledge (TK) to ensure no sites are disturbed. Absolutely no work is to occur in areas of known archaeological sites. Great care will be taken to inform and educate drill crews in the area of archeological awareness. If anyone discovers a possible archaeological site, they are to stop all activity in the area, record the site location and report the finding immediately. The guidelines below should be followed by the Project Manager and information provided to PNWHC in Yellowknife. The handling and/or removal of artifacts from any archaeological sites is strictly prohibited. Appendix III provides examples of archaeological evident. If an archaeological site is found or suspected during the course of work, the following steps will be taken:

- 1. DO NOT disturb or collect any of the artifacts. They are to be left in place as they were found.
- 2. DO take two or more representative photos of the site with an appropriate scale marker.
- 3. DO describe the nature and extent of the site and any artifacts noted.
- 4. DO take a GPS reading of the site's location and record the datum used.
- 5. DO mark the location of the site on a 1:50,000 scale topographic base map.
- 6. DO record the date of discovery.
- 7. DO NOT share this information with unauthorized personnel.
- 8. The standard buffer zone from any find is 150 metres.

This information is to be sent to:

Territorial Archaeologist: Glen MacKay Prince of Wales Northern Heritage Centre



Department of Education, Culture and Employment Government of the Northwest Territories 4750 48th Street | P.O. Box 1320 Yellowknife, NT X1A 2L9 Canada

Ph: 867-767-9347 Ext: 71251 Email: glen\_mackay@gov.nt.ca http://www.pwhc.ca

# **Proposed Wildlife Mitigation**

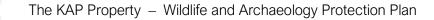
The following sections will identify potential negative effects to wildlife, and mitigation measures that will be followed to ensure that there is minimal impact to wildlife and their habitat. All Integral staff and contractors will be briefed on these procedures and given a copy of the WWHPP before field operations begin. Field crews and pilots will carry copies of Wildlife Sightings forms to record any wildlife observed in the camp and project area.

# Potential Adverse Effects

Table 4 presents the possible negative effects to wildlife due to Integral's presence in the area.

Table 4	Possible	negative	wildlife	effects.
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Item	Description
1	Physical disturbance of wildlife habitat, nests or dens by field crews. Disturbance during nesting
	can result in the nest being deserted.
2	Attraction of wildlife to camp due to improper waste management.
3	Disturbance to wildlife by low-flying aircraft/helicopter.
4	Detrimental effects to wildlife due to waste/fuel spills near water sources.
5	Defense of life kill of wildlife due to human/predator conflict.



# Mitigation and Monitoring

Table 5 presents the mitigation and monitoring techniques that will be used to avoid the negative effects to wildlife. Monitoring will be undertaken to determine the effectiveness of mitigation and will include recording the dates and locations of wildlife sightings, the behavior of the animals, and any actions taken by the company to avoid disturbance or contact. This information will be submitted to ENR at the end of the field season.

Item	Description
1	No feeding of wildlife. All food and garbage must be stored in a manner that will not attract
	wildlife. Animals conditioned to obtaining food from humans can become dangerous and may
	have to be destroyed.
2	Chasing, harassing or approaching wildlife is strictly prohibited.
3	If a den, nest or eggs are encountered, the area must not be disturbed and subsequently be
	avoided. See Table 5 for minimum setback distances.
4	Disturbance of wildlife or their habitat by either ground work or low flying aircraft is to be
	avoided. Helicopters are to be flown at a minimum of 1,000 feet above ground level, except
	where safety is a concern (low level ceiling conditions, slinging equipment, etc.). Helicopters
	must avoid landing in the presence of wildlife, except in emergency situations. Prior to any low-
	flying aerial survey or exploration work, the Sahtu regional ENR office (867-587-3500) will be
	contacted for information.
5	Any incidents between wildlife and humans must be reported immediately to Environment and
	Natural Resources (ENR) - Government of the Northwest Territories, including wildlife caused
	damage, continued presence of a carnivore within camp, or any defense of life kill.
6	All wildlife sightings should be recorded on the Wildlife Sighting Log or the NWT Bird Survey

6 All wildlife sightings should be recorded on the Wildlife Sighting Log or the NWT Bird Survey Form (see Appendix I) and submitted to ENR at the end of each field season



# Setback Distances

Table 6 presents the minimum setback distances from wildlife habitat and wildlife use areas. The primary mitigation measure to prevent disturbance to wildlife and their environment should be avoidance. If total avoidance is not possible, the minimum setback distances for each species must be adhered to during sensitive time periods.

Because breeding periods for migratory birds may vary from year to year due to climatic conditions, the time periods listed above are guidelines only and applicable legislation must be complied with at all times. If nests containing eggs or young are found, all disruptive activities should stop and a buffer zone established for a 12-month waiting period following the ECCC's Guidelines to Avoid Harm to Migratory Birds. If the nests belong to a migratory bird population, the ECCC's 'Guidelines to Avoid Harm to Migratory Birds' and the 'Fact Sheet: Nest Protection Under the Migratory Birds Regulations, 2022' will be followed, including leaving the nests for a 12-month waiting period.

Species/Group	Habitat Type	Period	Horizontal	Vertical
			Setback (m)	
Northern Mountain Woodland Caribou Redstone Herd	Calving and Early to Midsummer Range	26 May – 23 Jul	-	600
Northern Mountain Woodland Caribou Redstone Herd	Annual Range	Year Round	-	300
Black and Grizzly Bear	Dens	15 Oct – 15 May	800	300
Wolverine	Dens	15 Oct – 15 May	800	300
Wolf	Dens	1 May – 15 Sep	800	300
Dall's Sheep	Lambing Area	1 May – 15 Jun	2,000	300
Mountain Goat	Kidding Area	15 May – 30 Jun	2,000	300
Raptors	Nest Sites	1 Mar – 1 Aug	1,000	650
	Nest Sites	2 Aug – 28 Feb	500	650
Waterfowl	Nest Sites Staging Area and Concentrations Concentrations	1 Jun – 31 Aug 10 May – 20 Jun Year Round	250 250 -	650 650 altitude; 1,500 m lateral 650

Table 6 Minimum setback distances (Sahtu Land Use Plan, 2023).



# Sensitive Species and Features at Risk

Table 7 presents terrestrial species potentially at risk in the project area. There are eighteen wildlife species which may be found near the Land Use Permit Area that are considered species at risk under the Species at Risk Act (SARA) and by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). A species at risk report is included in Appendix II. Species at risk include any wildlife considered in danger of disappearing. The level of risk can vary from special concern, threatened, endangered, extirpated and extinct (NWT SAR, 2015). The killing, harming or harassing of listed species, the damage and destruction of their residences, and the destruction of critical habitat is prohibited under SARA.

The project area is removed from any known areas of ice patches, glacial refugia (17,350 years ago), hot and warm springs, karst, and may-be-at-risk plants. The mineral claims fall within the known areas of more recent glacial refugia (15,600 years ago), and the LUP boundary falls within the known area of mineral licks. No activity will occur within 500 meters of any glacial refugia identified on the project area, or 1,000 meters from any known mineral licks.

The project area is removed from all known important wildlife areas (IWA), except for the Northern Mountain Woodland Caribou, including the herd's "annual range" and the "calving and early-to-midsummer ranges". Therefore, it is a possibility that caribou will be in the camp or project area. In the event that any number of caribou are seen within 500 meters of activities, operations will be temporarily ceased until caribou have left the area.

Species	SARA Schedule 1	COSEWIC	SARC
Collared Pika	Special Concern	Special Concern	Not Assessed
Grizzly Bear	Special Concern	Special Concern	Special Concern
Northern Mountain Caribou	Special Concern	Special Concern	Special Concern
Wolverine	Special Concern	Special Concern	Not Assessed
Bank Swallow	Threatened	Threatened	Not Assessed
Barn Swallow	Special Concern	Threatened	Not Applicable
Common Nighthawk	Special Concern	Special Concern	Not Assessed
Harris's Sparrow	Special Concern	Special Concern	Not Assessed
Horned Grebe	Special Concern	Special Concern	Not Applicable
Lesser Yellowlegs	Threatened	Under Consideration	Not Assessed
Olive-sided Flycatcher	Special Concern	Special Concern	Not Assessed

 Table 7
 Summary of species at risk.

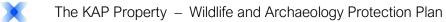


Red-Necked Phalarope	Special Concern	Special Concern	Not Assessed
Rusty Blackbird	Special Concern	Special Concern	Not Assessed
Short-eared Owl	Threatened	Special Concern	Not Assessed
Bull Trout	Special Concern	Special Concern	Not Assessed
Gypsy Cuckoo Bumble Bee	Endangered	Endangered	Not Assessed
Suckley's Cuckoo Bumble Bee	Threatened	Under Consideration	Not Assessed
Transverse Lady Beetle	Special Concern	Special Concern	Not Assessed

Notably, the Project falls within the breeding range of Bank and Barn Swallows, and may affect important habitat features for the species. The Bank Swallow (Appendix IV), listed as Threatened under SARA, is a colonial species that nests in burrows dug into near vertical faces of exposed sand or soil. They also nest in aggregate pits, construction and/or mine sites on stockpiles of quarry materials, overburden, and exposed soil banks. The Barn Swallow, listed as Threatened under SARA, nests on vertical surfaces beneath overhangs on buildings, bridges, culverts and other structures. They nest in close proximity to open habitats such as farmlands, wetlands, roads and/or large forest clearings. These species exhibit high nest site fidelity and dependence on existing sites, burrows, and structures for nesting. Any staff and contractors working on the project will be made aware of potential presence and conservation status of the Swallows. Furthermore, to prevent Bank Swallows from nesting in areas where operations will be carried out during the breeding season, any piles will be contoured to have slopes of less than 70 degrees prior to their arrival in the spring and by creating suitable nesting habitat in inactive areas with vertical faces of at least 70 degrees. Particular care will be taken in selecting erosion prevention and control measures, and implementing those measures prior to the nesting season.

# Waste Management

Table 8 presents principles from Integral's Waste Management Plan that are specific to mitigating the negative effects on wildlife. Following proper waste management procedures are critical to avoid the attraction of wildlife and to prevent human/wildlife interaction. Animals conditioned to obtaining food from humans can become dangerous and may have to be relocated or destroyed. Predators attracted to food sources may also eat eggs and young birds in the area, having negative impacts on the local bird populations. All staff will be informed of the proper waste management procedures. For further information, please refer to Integral's Waste Management Plan.



# Table 8 Possible negative wildlife effects.

Item	Description
1	No feeding of wildlife.
2	No littering.
3	All garbage from the field must be returned to camp daily for appropriate disposal.
4	Food waste must be separated from non-food waste and be placed in the appropriate sealed
	animal proof metal containers. Food waste must be double bagged in industrial grade garbage
	bags to prevent leakage and odor.
5	All recyclables will be thoroughly cleaned before disposal into metal containers.
6	All metal containers will be regularly cleaned to prevent odor.
7	All non-combustible waste will be separated into metal bins and stored in an enclosed structure
	before being back-hauled and disposed of or recycled at an approved facility in Norman Wells.



# Appendix I – Wildlife Sighting Forms

# NWT-Nunavut Bird Checklist Survey Form

The NWT-Nunavut Bird Checklist Survey is part of a national effort to collect scientific data on the geographic distribution, abundance and breeding status of birds. Your data may be used for conservation decisions made in the north.



The Survey is administered by the Canadian Wildlife Service of Environment

Canada, in cooperation with Parks Canada and the Governments of the Northwest Territories and Nunavut. Please visit our website to learn more about the program:

www.pnr-rpn.ec.gc.ca/checklist

Please read and follow these steps to help us find out more about birds North of 60.

1. Fill out the personal and location information (sections **A-C**).

2. On the list (section **D**) record the number (or best estimate) of birds you observe and a breeding code for a 24 hour or shorter period in a 10x10 km or smaller area.

3. Fill out section 'F' if your observations are from above the treeline.

4. Return your completed form(s) to:

NWT-Nunavut Bird Checklist Survey Canadian Wildlife Service 4<sup>th</sup> Floor, 5109-52<sup>nd</sup> Street Yellowknife NT X1A 1T5 CANADA Fax: +867.873.8185 e-Mail: NWTChecklist@ec.gc.ca Revised Mar 2009

### A. OBSERVATION INFORMATION

Ω	he	or	ver
U	DS	er	ver

Name:

Address:

Phone No: (

e-Mail:

Names of additional observers (note all or list a number):

)\_\_\_\_\_

Or UTMs ↓

Date:	1	/	_
(day/mont	h/year)		
o <del>.</del> .		,	

Start Time: \_\_\_\_\_a.m./p.m. (circle one)

End Time: \_\_\_\_\_a.m./p.m.

Total observation time: \_\_\_\_\_(hours)

**Location Information:** Name of area, feature, or location.

Latitude:\_\_\_\_\_°\_\_\_\_'

Zone:\_\_\_\_\_

UTM Easting \_\_\_\_\_ North \_\_\_\_\_ (in metres)

### B. COMMENTS

Provide notes on unusual observations such as rarities, extra-limital sightings, odd behaviour, odd habitat associations. For rare or unusual birds, include photographs for verification. Give a detailed description of identifying features and behaviour.

### C. PLEASE ANSWER EACH QUESTION (Check ✓ one)

What Kind of Count Did You Do?		
Casual Observation		
(feeder count, individual bird note, etc)		
Point or Stationary Count		
(ensure duration is recorded on first page)		
Transect or Traveling Count		
Distance traveled during count		_km
Area Count/Search		
Area covered for count		_km <sup>2</sup>
Non-Standard (>24 hrs)		

### How Inclusive Was Your Count?

This list reports all birds seen at the site П or is limited to one or a few species at the site

### What is your birdwatching skill level?

Ability of observer (or group) to detect and identify all species present (including ID by songs/calls) was:

Fair 🛛	Good □	Excellent D
(know 50-75%)	(76-95%)	(>95%)

Weather conditions for detecting birds in the area visited: Good □ Excellent D Fair 🛛

#### What Kind of Habitat Were You in?

Circle the dominant habitat type and check all others that apply:

Forest	🗆 Taiga	Rock
Wet Tundra	Dry Tundra	Polygonal Tundra
Riverine	🗆 Lake	□ Marsh/Wetland
Estuary	Tidal Marsh	Coastal Marine
Sea Ice	□ Tidal Mud Fla	ats 🛛 Network of ponds
□ Alpine	□ Human Settle	ement
Other (Specify)		

### E. EXTRA INFORMATION

Age and Sex of Birds: Record the number of adults in the main part of the form. Use the Comments section of this form to record the number of juveniles and/or the number of males or females.

Nest Records: The Checklist database accepts nest records, using the same methods and cards as the Ontario Nest Record Scheme. Go to our

website to find the necessary materials.

### F. OBSERVATIONS AT OR BEYOND THE TREELINE

\*This supplementary information contributes to PRISM (Program for Regional and International Shorebird Monitoring) - an international initiative that documents breeding conditions for shorebirds in arctic regions.\*

Please provide an estimate of snow cover in your study

area during your observations:

%

Overall snow cover On flat ground % On slopes

Permanent snow cover\_\_\_\_ % %

Ice cover on local lakes during your observations: %

Did any major storms/snowfalls/bad weather occur? 

During your survey

During the previous 24-48 hours

#### Tips to avoid common problems:

- 1 Fill out the date field.
- 2. Give the best coordinates or location information you can.
- 3. Instead of using "lots" or "many" to describe how many birds

you counted, estimate a minimum number and make a comment that it was a minimum estimate.

Record the highest breeding status code for each 4 species if possible. If you leave the field blank, your observations will all be marked with code "X".

#### Thank you for participating!

Please note that all bird data submitted to this program is in the public domain. No personal data is released



D. SPECIES 1	#	BR	SPECIES 2	#	BR	SPECIES 3	#	BR	SPECIES 4	#	BR
Red-throated Loon			Surf Scoter			Semipalmated Plover			Ring-billed Gull		
Pacific Loon			White-winged Scoter			Killdeer			California Gull		
Common Loon			Common Goldeneye			American Avocet			Herring Gull		
Yellow-billed Loon			Barrow's Goldeneye			Greater Yellowlegs			Thayer's Gull		
Pied-billed Grebe			Bufflehead			Lesser Yellowlegs			Iceland Gull		
Horned Grebe			Hooded Merganser			Solitary Sandpiper			Glaucous Gull		
Red-necked Grebe			Common Merganser			Wandering Tattler			Great Black-backed Gull		
Eared Grebe			Red-breasted Merganser			Spotted Sandpiper			Black-legged Kittiwake		
Northern Fulmar			Ruddy Duck			Upland Sandpiper			Ross's Gull		
Greater Shearwater			Osprey			Eskimo Curlew			Sabine's Gull		
American White Pelican			Bald Eagle			Whimbrel			Ivory Gull		
Double-crested			Golden Eagle			Hudsonian Godwit			Caspian Tern		
Cormorant American Bittern			Northern Harrier			Marbled Godwit			Common Tern		
						Ruddy Turnstone			Arctic Tern		
Tundra Swan			Sharp-shinned Hawk			Red Knot			Black Tern		
Trumpeter Swan			Cooper's Hawk			Conderling			Develie		
Greater White-fronted			Northern Goshawk		1	Sanderling			Dovekie		
Goose						Semipalmated Sandpiper			Thick-billed Murre		
Snow Goose			Swainson's Hawk						Razorbill		
Ross's Goose			Red-tailed Hawk			Western Sandpiper					
Brant			Rough-legged Hawk			Least Sandpiper			Black Guillemot		
						White-rumped Sandpiper			Atlantic Puffin		
Canada Goose			Broad-winged Hawk			Baird's Sandpiper			Mourning Dove		
Cackling Goose			American Kestrel			Pectoral Sandpiper			Great Horned Owl		
Green-winged Teal			Merlin								
American Black Duck			Peregrine Falcon			Purple Sandpiper			Snowy Owl		
Mallard			Gyrfalcon			Dunlin			Northern Hawk Owl		
Northern Pintail			Spruce Grouse			Stilt Sandpiper			Barred Owl		
Blue-winged Teal			Dusky (Blue) Grouse			Buff-breasted Sandpiper			Great Gray Owl		
-						Short-billed Dowitcher			Long-eared Owl		
Northern Shoveler			Willow Ptarmigan			Long-billed Dowitcher			Short-eared Owl		
Gadwall			Rock Ptarmigan			Wilson's Snipe			Boreal Owl		
American Wigeon			White-tailed Ptarmigan								
Canvasback			Ruffed Grouse			Wilson's Phalarope			Common Nighthawk		
Redhead			Sharp-tailed Grouse			Red-necked Phalarope			Belted Kingfisher		
Ring-necked Duck			Yellow Rail			Red Phalarope			Yellow-bellied Sapsucker		
Greater Scaup			Sora			Pomarine Jaeger			Downy Woodpecker		
Lesser Scaup			American Coot			Parasitic Jaeger			Hairy Woodpecker		
Common Eider			Sandhill Crane			Long-tailed Jaeger			Am. Three-toed		
King Eider			Whooping Crane						Woodpecker Black-backed		
Harlequin Duck			Black-bellied Plover			Franklin's Gull			Woodpecker		
			American Golden			Little Gull			Northern Flicker		
Long-tailed Duck			Plover			Bonaparte's Gull			Pileated Woodpecker		
Black Scoter			Common Ringed Plover			Mew Gull			Olive-sided Flycatcher		

SPECIES -5	# BR	SPECIES -6	#	BR	SPECIES - 7	#	BR	SPECIES - 8	#	BR
Western Wood-pewee		Varied Thrush			Harris's Sparrow			Gray-crowned Rosy		
Yellow-bellied		Yellow Wagtail			name s opanow			Finch		
Flycatcher		T Chow Wagtan			White-crowned Sparrow			Pine Grosbeak		
Alder Flycatcher		American Pipit			Dark-eyed Junco			Purple Finch		
Least Flycatcher		Bohemian Waxwing			Lapland Longspur			Red Crossbill		
Hammond's Flycatcher		Cedar Waxwing			Smith's Longspur			White-winged Crossbill		
Eastern Phoebe		European Starling			Snow Bunting			Common Redpoll		
Say's Phoebe		Tennessee Warbler			Rose-breasted Grosbeak			Hoary Redpoll		
Eastern Kingbird		Orange-crowned Warbler			Red-winged Blackbird			Pine Siskin		
Northern Shrike		Yellow Warbler			Yellow-headed			Evening Grosbeak		
Blue-headed Vireo		Magnolia Warbler			Blackbird			-		
Warbling Vireo		Yellow-rumped Warbler			Rusty Blackbird			House Sparrow		
Red-eyed Vireo		Cape May Warbler			Brewer's Blackbird			SPECIES NOT ON LIST		
Philadelphia Vireo		Palm Warbler			Common Grackle					
Gray Jay		Bay-breasted Warbler			Brown-headed Cowbird					
Black-billed Magpie		Black-and-White Warbler			BRE	EDIN	IG EVI	DENCE CODES		
American Crow		Blackpoll Warbler			(В	R co	lumn	on checklist)		
Common Raven		Mourning Warbler			Observed					
Horned Lark		McGillivray's Warbler				tified	, but r	no indication of breedi	ng or	•
Tree Swallow		Connecticut Warbler			outside of breedi				U	
Violet-green Swallow		Canada Warbler			Des site to					
Bank Swallow		Wilson's Warbler			Possible	nvor	lorh	reeding calls heard, in	,	
Cliff Swallow		Ovenbird						ing the breeding seas		
Barn Swallow		Northern Waterthrush								
Black-capped Chickadee		Common Yellowthroat			<i>Probable</i> P - Pair observed	d in s	suitabl	e nesting habitat		
Gray-headed Chickadee		American Redstart						ugh territorial nesting		
Boreal Chickadee		Western Tanager						on at least two occas	sions	
Red-breasted Nuthatch		American Tree Sparrow			a week or more a <b>C</b> - Courtship bel			tween a male and a		
Winter Wren		Chipping Sparrow			female					
Marsh Wren		Clay-colored Sparrow						ite, without other evid		
American Dipper		Vesper Sparrow				/exca	avatio	n of nest hole by Wre	ns or	
Golden-crowned Kinglet		Savannah Sparrow			Woodpeckers					
Ruby-crowned Kinglet		Le Conte's Sparrow		1	Confirmed					
Northern Wheatear		Nelson's Sharp-tailed Sparrow						carrying nest material	l; do	
Mountain Bluebird		Fox Sparrow			DD - Distraction					
Townsend's Solitare		Song Sparrow			UN - Used nest of					
Gray-cheeked Thrush		Lincoln's Sparrow			FL - Recently flee	dged	l youn	ig or downy young		
Swainson's Thrush		Swamp Sparrow						ed by adult entering o	or	
Hermit Thrush		White-throated Sparrow				carry		en incubating	ung	
American Robin		Golden-crowned Sparrow			NE - Nest with eq NY - Nest with yo					



# Wildlife Sightings Log

**Animal Species:** 

Number Seen: (exact or estimated)

**Location:** (Be as specific as possible - GPS coordinates or mark on a map)

Date: (MM/DD/YYYY)

Time of Day: (AM/PM)

What was it doing when you saw it:

(E.g. "running south along the road, then into the bush on the west side" is better than "running")

# Other Comments/Interesting Markings:

(Anything interesting about the sighting - feeding, did the animal appear to have a limp, Etc?)

Name of Person(s) who saw it and contact information:

**Please Return to:** 

Regional Biologist Regional Environment & Natural Resources Office Government of the Northwest Territories Appendix I

Wildlife Information

# 2014

# Bear Occurrence Procedures Manual



**Environment & Natural Resources** 



# **Bear Occurrence Procedures Manual**

Implementation of these procedures will allow ENR a greater ability to provide advice and assistance in preventing harm to humans, bear(s) or property. In addition, it will provide guidance on safely deterring bears that find themselves in areas of development, tourism camps or cabins with the aim of preventing habituation and unnecessary destruction.

Report any incidents such as sightings, encounters, injuries and/or mortalities to the ENR Regional Contacts listed below:

North Slave Region Wildlife Emergency Yellowknife Fax:	(867) 873 - 7181 (24 Hours) (867) 873 - 7184 (867) 873 - 6230
South Slave Region Wildlife Emergency Fort Smith Fax:	(867) 872 - 0400 (24 Hours) (867) 872 - 6400 (867) 872 - 4250
Inuvik Region Wildlife Emergency Inuvik Fax:	(867) 678 - 0289 (24 Hours) (867) 678 - 6650 (867) 678 - 6659
Sahtu Region Wildlife Emergency Norman Wells Fax:	(867) 587 - 2422 (24 Hours) (867) 587 - 3500 (867) 587 - 3516
Deh Cho Region Wildlife Emergency Fort Simpson Fax:	(867) 695 - 7433 (24 Hours) (867) 695 - 7450 (867) 695 - 2381

Bear Occurrence Procedures Manual 2014 Environment and Natural Resources



### **BEAR AWARENESS TRAINING**

ENR supports the NWT Mine Health and Safety Regulations (s.15.05), which requires that all field personnel involved in mineral exploration undertake bear-safety training. However, human/wildlife incident prevention is a key component to the training.

Training of personnel in preventing and responding to wildlife incidents can reduce the likelihood of injury to personnel and wildlife. Therefore, all field personnel working on the project must receive bear awareness training from a professional trainer.

The training should include:

- 1. Recognizing the causes of human/wildlife conflicts;
- 2. How to prevent and respond to bear incidents;
- 3. Proper storage, transfer and disposal of camp waste; and
- 4. Proper use and safe application of deterrents.

## **INCIDENT PREVENTION**

Refer to the *Camp Waste and Wildlife Attraction Guideline.* This resource will provide guidance on how to reduce or prevent attraction from bears to your camp, cabin or work site.

### **OCCURRENCE RESPONSE**

Small scale exploration and tourism camps should develop and implement Bear Incident Standard Operating Procedures (SOPs) that can be used in the field. The SOPs will allow all members on site to have knowledge of how to reduce or prevent any loss of life or property if there is a bear within the vicinity of your camp area or work site. SOPs may include such things as:

- a) Response team
- b) Equipment
- c) Action level
- d) Emergencies
- e) Reporting Requirement

## 1. SIGHTING - Bear in the general vicinity (>1km)

- 1. If it is within sight of your camp/cabin and it is safe to do so, use a *Wildlife Sightings Log* to record and report information regarding your observations.
- 2. Continue to monitor, if necessary.

## 2. ENCOUNTER - Bear In Camp (<1km)

- 1. If safe to do so; take a quick note of the location, direction of travel and general behaviour of the bear(s).
- 2. Sound the bear alarm.
- 3. If necessary, phone the ENR Regional contacts listed above for guidance on necessary next steps to ensure human/wildlife safety and protection of property.
- 4. If necessary, stay indoors or in your vehicle. DO NOT APPROACH THE BEAR.
- 5. Keep all doors and windows closed.

- 6. If necessary and safe to do so; continue to monitor the behaviour and movement until either the bear leaves on its own, deterrence is successful or response personnel arrive.
- 7. If possible, start deterrence procedures.
- 8. Report status of bear encounter to the ENR Regional contacts listed above when safe to do so.

### 3. Injury

1. Any injuries a bear may have obtained from direct or indirect contact with the camp or persons must be reported to the appropriate ENR Regional contact listed above.

### 4. Mortality

- 1. A bear may be destroyed if human life is in danger or destruction of property is imminent.
- 2. Mortalities must be reported to the appropriate ENR Regional contact listed above immediately. Under the NWT Wildlife Act, the responsible party is required to:
  - a) Skin the bear leaving the claws and head attached.
  - b) Preserve the hide by freezing and/or salting it and store it in a cool place. Turn in the hide, the skull, evidence of sex and any other biological samples requested when filing the report to the nearest ENR Regional office or to an ENR Renewable Resource Officer.

If or when possible, the attached **Bear Occurrence Checklist** should be completed prior to calling ENR. It is critical that as much information as possible be provided in order for ENR to provide appropriate advice and guidance.

### **DENNING BEARS**

- A. For exploration camps, if a bear is located in, at or near a den site, work in the area must halt. All employees should safely retreat from the area and report the incident to the Site Supervisor and/or Wildlife Monitor and the appropriate ENR Regional contact listed above for further advice and assistance.
- B. For cabin owners, if a bear is located in, at or near a den site, safely retreat from the area and report the incident to the appropriate ENR Regional contact listed above for further advice and assistance.
- C. Staff from ENR will be required to assess the den site and may implement measures to ensure both human safety and that the bear(s) remain undisturbed. This may include the establishment of a buffer zone of at least 300 meters around the den.
- D. Work inside the buffer zone may not be permitted until after den emergence.





Office Use Only File#: Date reported: Name:

### • Fill out or check all that apply

1. Complainant D	etai	ls:							
Name, job title and affiliation:									
Contact information:									
Location of complainant: (coordinates, lake or property name)									
Other on-site contact information: (wildlife monitors/site supervisors)									
2. Bear Occurrent	e D	etails						ſ	
Date/Time:					Location: (coordinates, lake name)	e or prope	erty		
Type of bear occurence:		sightir	ng	🗆 ei	ncounter	□ ir	njury		$\square mortality Ear tag/tattoo #$
		Other,	explain:						
Number of bears:					# of cubs				
Туре:		black			□ grizzly			□ u	nknown
Sex :		male			□ female			□ u	nknown
Age Class:		cub (<	1)	🗆 ju	venile		dult		🗆 unknown
Behaviour:		fearful	l		ot fearful		ggressiv	e	□ other
General Observations		moving	g toward si	te	□ moving a	way fro	m site		t site
Other observations: (i.e. walking, resting, eating, mortality, injury, den site, number of cubs, etc.)									
Has bear(s) been		No	If yes, ex	plain:					
involved in a previous incident:		Yes							
Did the bear obtain a		No	If yes, ex	plain:					
reward		Yes							
Any property		No	If yes, ex	plain:					
damage or loss of life:		Yes							

Bear Occurrence Procedures Manual 2014 Environment and Natural Resources



3. Detection/Deter	ren	t:						
Detection system on site:		Alarm		□ D	log	Motion d	etector	□ Other:
Deterrence on site:		Bear boa	ards		□ Auditory (Yelling/Flares/All Whistle/Cracker s	larm/Horn/Bell/		rojectile r Bullets/Firearms)
		Electric	Fence		□ Chased (Dog, vehicle)			ther:
Was deterrence used:		No	Explai	n:	I		<u> </u>	
		Yes						
Was the deterrence		No	Explai	n:				
successful:		Yes						
Present status of bear with dates:		at large			aptured	□ deterred		□ other
4. Additional Comme	ents							

Bear Occurrence Procedures Manual 2014 Environment and Natural Resources





# Camp Waste & Wildlife Attraction

# Manual

To prevent or reduce attracting wildlife and to discourage wildlife habituation Environment & Natural Resources (ENR) strongly encourages that the recommendations listed below be implemented to ensure human safety and to protect our natural environment, including wildlife at a camp or cabin. This manual is intended for small scale campsites and recreational cabins however there are components that may be applied to larger scale operations. Examples of small scale camps include:

- Exploration camps
- Tourism outfitters & commercial companies
- Residential & recreational cabin owners

## **Camp Design**

To prevent wildlife from accessing a camp/cabin and discourage habituation, a camp/cabin should be situated away from known or possible bear activity (previous camp/cabin, berry patches, dens, etc.) and designed in a manner that eliminates or reduces the potential for human and wildlife interaction.

- Clear brush to increase visibility and eliminate blind spots.
- Kitchen, latrine, food/waste storage, incinerator, composting site and garden should be at least 50 meters from sleeping area.
- Temporary cooking areas should be located down-wind from the sleeping area.
- All structures should be well spaced and the sleep tents or trailers arranged in a line rather than circular with doors facing the kitchen.
- There should be no food or cooking in the sleeping area.
- Properly install and maintain an electric fence around the camp or at minimum around incinerator, composting site and garden.
- Install skirting around infrastructure that extends approx. 1m+ underground to prevent wildlife tunnelling.
- Whenever possible, keep doors and windows closed, cover openings/crawl spaces, seal cracks, screen chimney caps and place spikes or tacky gel to prevent nesting.
- Install shutters on windows and use bear boards when camp not in operation.
- Consider installing noise deterrent (i.e. Critter Gitter" motion sensor) when camp is not in operation.

## **Food Storage**

Amount of food at each camp/cabin will vary but food should be stored in a manner that will eliminate any food rewards if wildlife was to gain access to the camp/cabin.

- Store all food in the kitchen or in a central location that is at least 50 meters away from the sleeping area.
- Cooking and eating area(s) should be thoroughly cleaned after every meal (including BBQs).

- If the camp is to become vacant for more than a week, food should be stored in sealed animal proof container.
- Do not feed wildlife including bird feeders that may also attract wildlife to the camp area.

### **Domestic Waste**

Inadequate storage, lack of onsite treatment and/or improper disposal of domestic waste (food & food contaminated waste) are the most common activities that contribute to the release of odours which may result in human/wildlife conflicts.

- Purchase bulk products to reduce amount of domestic waste produced.
- Implement a camp waste segregation system (recyclables, combustible, non- combustible and hazardous wastes) appropriate to the volume of waste produced.
- Domestic waste should not be stored in plywood boxes or in sheds as odours tend to
  permeate the wood and linger. Waste should be stored in a central area in a sealed animal
  proof container until final disposal.
- The sealed animal proof containers should be cleaned daily with bleach.
- Non-combustibles such as metal, glass and plastic should be cleaned with bleach and stored in a manner not to attract wildlife until transported back to an approved facility.
- Burying domestic waste is ineffective; the preferred method of disposal is backhauling domestic waste to an approved facility such as an approved landfill or bottle depot in a timely manner.

### **Burning/Incineration**

An acceptable method of camp waste disposal but it should be considered only as an alternative to other methods. There are additional hazards associated with this method that may still result in wildlife attraction, forest fires and air contamination.

- Designate a person or trained staff member to be responsible for the daily duties involved with burning/incineration.
- For cabins and small scale exploration camps (~20 people or less), burning in a "modified burn barrel" is strongly recommended for a more timely disposal for cabin/camp waste.
  - To ensure a high temperature and complete burn, ENR suggests that there be approx.1/3 wet with 2/3 dry waste per bag;
  - Burn a maximum of two bags per day; and
  - Install a fine screen on the chimney for reducing sparks.
- Larger scale exploration camps require a commercially-designed forced air, fuel-fired incinerator capable of meeting the Canada-Wide Standards (CWS) for Dioxins and Furans.

2

(CCME 2001), CWS for Mercury Emissions (CCME 2000) and the NWT Ambient Air Quality Guidelines.

Camp waste suitable for open burning is untreated wood, paper and

cardboard. A permit to burn will be required if burning during the closed season (May 1 - Sept 30).

- Ensure that the fire is being monitored and is completely out before leaving it unattended.
- Residual waste such as ash needs to be collected, stored in a sealed animal proof container and transported back to an approved facility site for disposal.

### Grey Water (dishes, showers, laundry, etc.)

- Bleach should be added to dish water and/or a grease trap installed.
- Disposed of in a natural depression/sump/pit a minimum of 30 meters from the high water mark.
- Disposal site should be covered and treated with lime or crystal lye daily.

### Black Water (Sewage)

- Honey bags are stored in a manner that is inaccessible to wildlife and transferred to an approved facility for disposal in a timely fashion.
- Ensure that pits have sufficient depth and treated with lime or crystal lye daily.

### **Animal/Fish Parts**

- As per the Government of Canada Northwest Territories Fishery Regulations fish entrails are not permitted to be disposed of on ice nor in the water.
- Clean away from camp and dispose of entrails a minimum of 3km away from camp area and on an island, if possible.
- Any surface used for cutting or cleaning should be cleaned immediately with bleach.
- Do not leave smoking/drying fish or meat unattended and at least 50m away from the sleeping area. Hanging meat should also be at least 50m from the sleeping area.

### **Other Attractants**

- Both the cooking (kitchen, fire pits, BBQs) and eating area(s) should be thoroughly cleaned after every meal.
- Do not leave bloody hunting clothes or items that smell like fish near the sleeping area.
- Pet food should be stored indoors in a sealed animal proof container and pets should be fed indoors, if possible.
- Any oils, gas or grease should be stored in a manner that is inaccessible to wildlife.

### Reporting Wildlife Occurrences (sightings, encounters, injuries, mortalities)

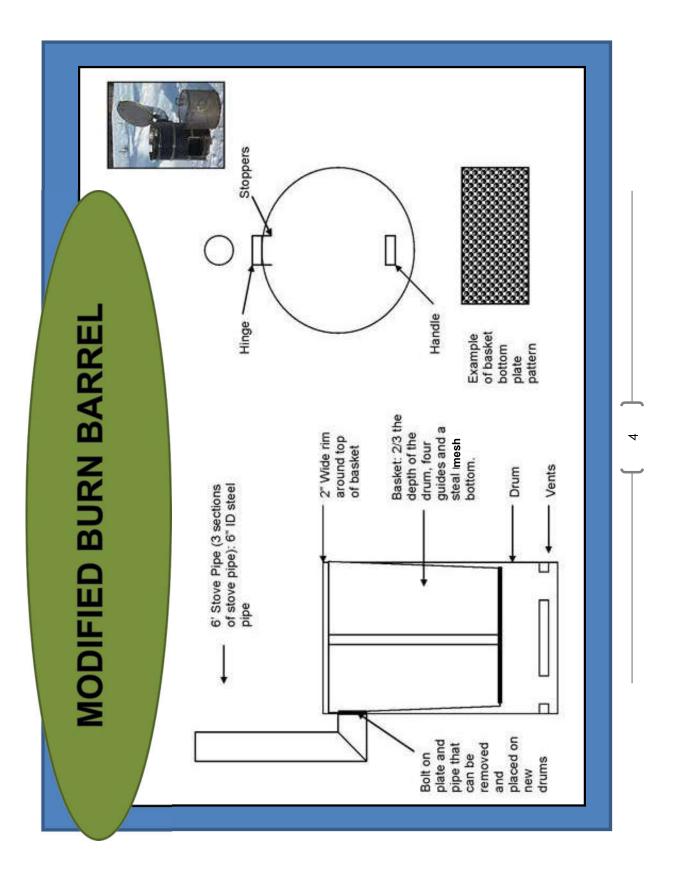
- Occurences should be reported at your earliest opportunity.
- Timely reporting allows ENR to provide advice and assistance in deterring nuisance wildlife before they become habituated and must be destroyed.

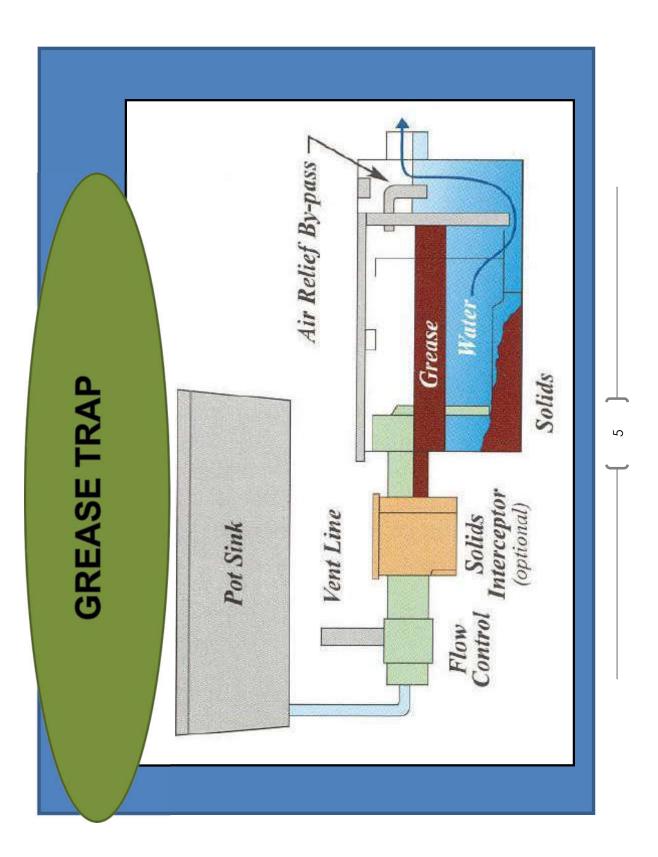
3

Any defence of life and property kills must be reported immediately.

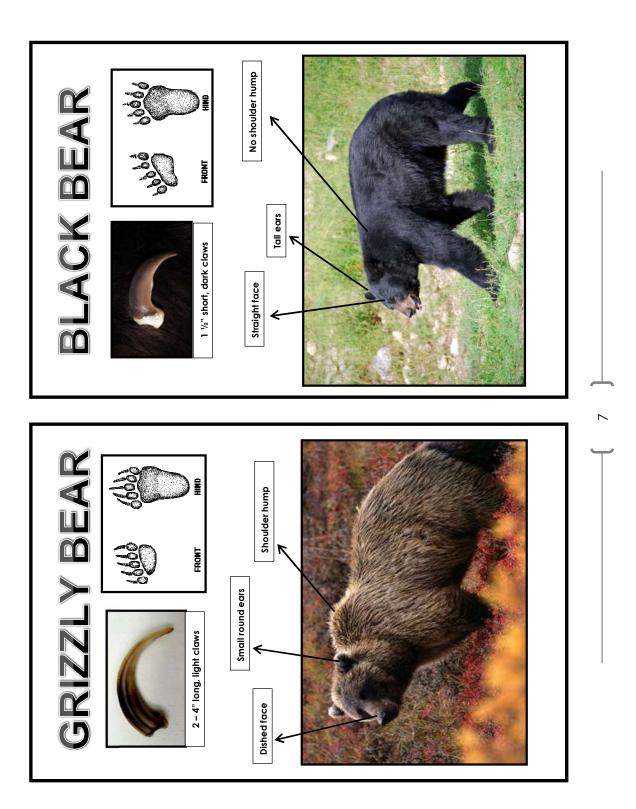
If you have additional questions, a report to file, or an emergency, please contact your Regional ENR office.

- 24hr Wildlife Emergency number at (867) XXX XXXX
- Regional ENR Office at (867) XXX XXXX (8:30am 5:00p









# Please:

- obey Transport Canada regulations and do not fly below 1,000 feet;
- find out where outfitter camps are located and avoid them during hunting season;
- avoid barren-ground caribou calving grounds during calving season;
- do not take-off or land in a calving area during calving season;
- do not chase or harass wildlife by flying too close; and
- respect our wildlife keep to a safe altitude.

Remember, flying close enough to an animal so that it runs away is too close!



If geological survey or mineral exploration work is planned at any time, but especially during outfitting or calving seasons, please contact the regional office of Environment and Natural Resources for information before flying.

# Mackenzie Mountains and Mackenzie Valley:

Sahtu Region(867) 587-3500	57) 587-3500
Dehcho Region(867) 695-7450	57) 695-7450
South Slave Region(867) 872-6400	57) 872-6400

# Tundra:



Visit the Wildlife Division web site of Environment and Natural Resources at http://wildlife.enr.gov.nt.ca.



June 2007



A variety of wildlife, quality guides and outfitters, spectacular scenery and solitude that only a location away from human habitation can offer... The Northwest Territories is a popular destination for big game hunters and eco-tourists alike. But their experience can be ruined by low-flying aircraft that disturb wildlife. Increased exploration and development throughout the NWT also means increased air traffic. Pilot encounters with wildlife are becoming more frequent. If you are a fixed wing or rotary pilot, please respect our wildlife and keep to an elevation that does not disturb them.

# Wildlife are Protected Under NWT Law

Section 38 of the NWT *Wildlife Act* protects wildlife by making it illegal to disturb or harass wildlife. Flying close enough to an animal that it runs away is flying too close!

In addition, Transport Canada regulations stipulate that aircraft may not fly lower than 1,000 feet above ground. Please keep your aircraft at a safe elevation so animals are not disturbed.



# In the Mackenzie Mountains

Big game hunters pay sizable fees for the chance to take home a trophy animal from the Mackenzie Mountains. Much of the hunting in this area is done on foot or on horseback and it is a time consuming process. Sound is amplified by the mountains and low flyovers can frighten an animal into flight, causing hours, or even days, of stalking to be wasted.

Wildlife that are affected by low level flyovers in the Mackenzie Mountains include Dall's sheep, mountain goat, mountain caribou and moose. During the mid-July to end of September hunting season, please be cautious and avoid outfitter



# In the Mackenzie Valley

Boreal caribou are a threatened species found throughout the Mackenzie Mountains. Unlike barren-ground caribou, during the May calving period, boreal caribou go into hiding to have their calves. Low flying is especially harmful, stressing the female, which can cause separation from calves and lead to calf death. If electromagnetic surveys are going to be conducted in April or May, please contact the regional ENR office for information.

# On the Tundra During Hunting Season

Hunters also pay large fees for a hunting experience on the tundra. In late summer and



caribou sport hunting camps. Aircraft must remain at least 1,000 feet above ground. During the mid-August to end of October hunting season, please be cautious and avoid outfitter areas.

# **During Calving Season**

Caribou are a valuable resource to the people of the Northwest Territories. From the end of May to the end of June, female barren-ground caribou come together at herd-specific locations on the tundra to give birth to their calves. Low flyovers, take-offs and landings in these areas are especially harmful as they can stress the cows, which can cause separation from calves and increased calf mortality.

Avoid barren-ground calving grounds from mid-May to early July. This is especially important during times of low barren-ground caribou numbers. Please contact the regional office of Environment and Natural Resources in your area.

# **Other Wildlife**

Grizzly bears, pelicans, whooping cranes, polar bears, muskoxen, black bears, eagles and other wildlife are also disturbed by low flying aircraft. Please respect our wildlife and keep to a safe altitude.



#### Appendix II – Species at Risk Report



#### **Species at Risk Report: Collared Pika**



#### **Species Information**

12A	

Photo Credit: John Nagy

es: Collared Pika	
Mammal	
Ochotona collaris	
Range	

#### Table 1. Status of the species under federal and territorial species at risk legislation

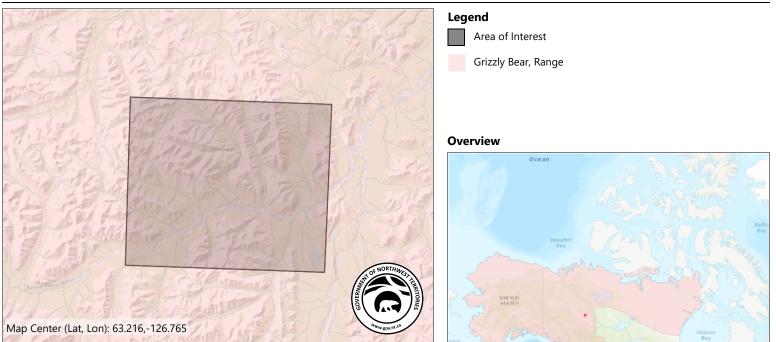
	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not assessed	No status

Additional Information	
Date range information was last reviewed:	2013-12-01
Date status information was last reviewed:	2017-04-06
Lead agency:	NWT Environment and Climate Change (ECC)
Authoritative website:	www.nwtspeciesatrisk.ca
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/collared-pika
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_collaredpika.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/34

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### Species at Risk Report: Grizzly Bear



#### **Species Information**



Photo Credit: Gordon Court

Species:	Grizzly Bear
Category:	Mammal
Scientific name:	Ursus arctos
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

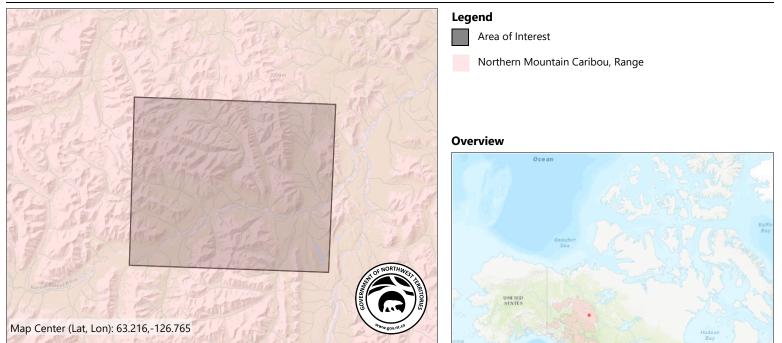
	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Special Concern	No status

2012-04-01
2021-02-24
NWT Environment and Climate Change (ECC)
www.nwtspeciesatrisk.ca
http://www.nwtspeciesatrisk.ca/species/grizzly-bear
http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_grizzlybear.jpg
https://www.nwtspeciesatrisk.ca/en/range-map-information
http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/37

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### Species at Risk Report: Northern Mountain Caribou



#### **Species Information**



Photo Credit: GNWT/ A. Veitch, ECC

Northern Mountain Caribou
Mammal
Rangifer tarandus caribou
Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

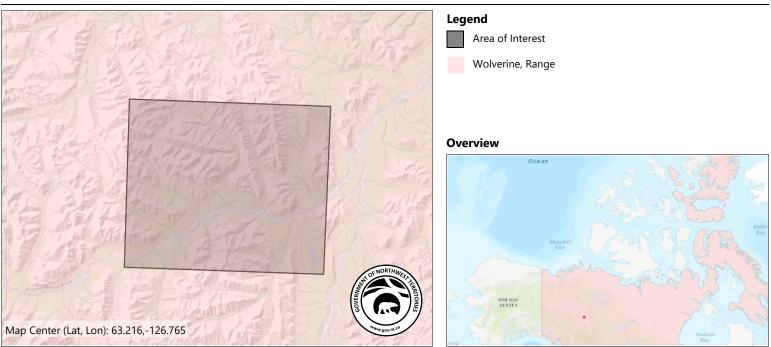
	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Special Concern	Special Concern

Additional Information	
Date range information was last reviewed:	2021-02-16
Date status information was last reviewed:	2021-09-29
Lead agency:	NWT Environment and Climate Change (ECC)
Authoritative website:	www.nwtspeciesatrisk.ca
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/northern-mountain-caribou
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_northernmtncaribou.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/40

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change

#### NWT Species and Habitat Viewer

#### **Species at Risk Report: Wolverine**



#### **Species Information**

and a	A	
		-

Photo Credit: GNWT/ R. Gau, ECC

Species:	Wolverine
Category:	Mammal
Scientific name:	Gulo gulo
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

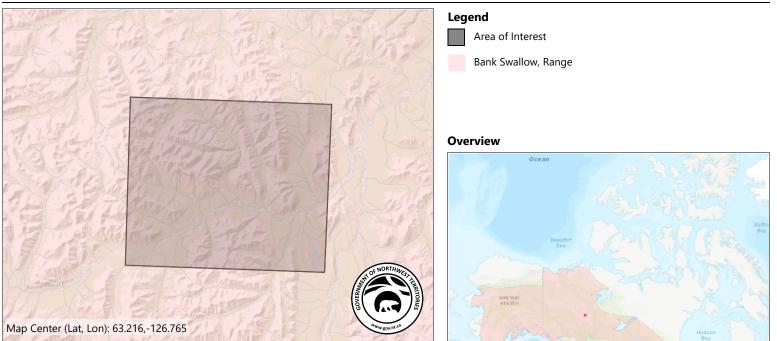
	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not At Risk	No status

Additional Information	
Date range information was last reviewed:	2014-06-01
Date status information was last reviewed:	2021-02-24
Lead agency:	NWT Environment and Climate Change (ECC)
Authoritative website:	www.nwtspeciesatrisk.ca
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/wolverine
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_wolverine.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/44

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change For more information, contact the Wildlife Biologist (Species at Risk): SARA@gov.nt.ca, (867) 767-9237 ext. 53214



#### **Species at Risk Report: Bank Swallow**



#### **Species Information**



Photo Credit: Kevin Kardynal

Species:	Bank Swallow
Category:	Bird
Scientific name:	Riparia riparia
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

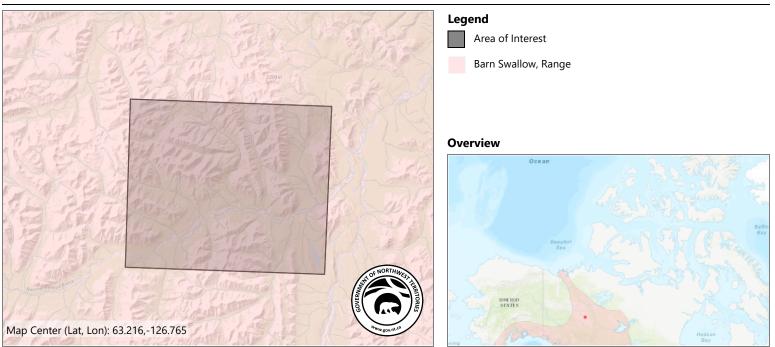
	Assessment	Legal List
Canada	Threatened	Threatened
NWT	Not applicable	Not applicable

Additional Information	
Date range information was last reviewed:	2022-10-24
Date status information was last reviewed:	2019-12-20
Lead agency:	Canadian Wildlife Service (CWS)
Authoritative website:	www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/bank-swallow
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_bankswallow.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information-migratory-birds
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/47

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change

#### NWT Species and Habitat Viewer

#### **Species at Risk Report: Barn Swallow**



#### **Species Information**

Photo Credit: Gordon Court

Species:Barn SwallowCategory:BirdScientific name:Hirundo rusticaRange type:Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

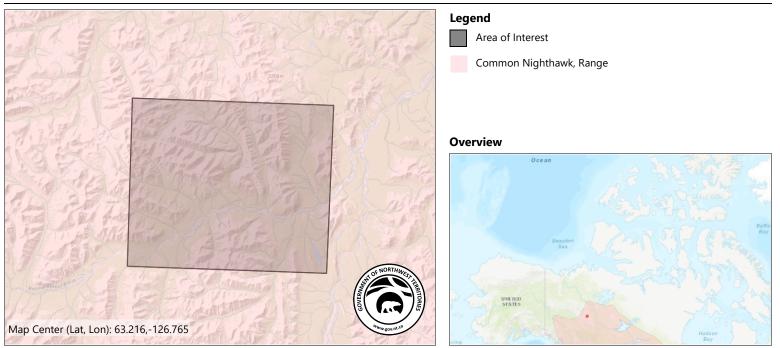
	Assessment	Legal List
Canada	Special Concern	Threatened
NWT	Not applicable	Not applicable

2016-01-01
2021-05-17
Canadian Wildlife Service (CWS)
www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html
http://www.nwtspeciesatrisk.ca/species/barn-swallow
http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_barnswallow.jpg
https://www.nwtspeciesatrisk.ca/en/range-map-information-migratory-birds
http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/48

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change For more information, contact the Wildlife Biologist (Species at Risk): SARA@gov.nt.ca, (867) 767-9237 ext. 53214



#### **Species at Risk Report: Common Nighthawk**



#### **Species Information**

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	-		R
	1		141
and the second	202	2	1

Photo Credit: Jason Duxbury

Common Nighthawk
Bird
Chordeiles minor
Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not applicable	Not applicable

2016-01-01
2023-03-07
Canadian Wildlife Service (CWS)
www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html
http://www.nwtspeciesatrisk.ca/species/common-nighthawk
http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_commonnighthawk.jpg
https://www.nwtspeciesatrisk.ca/en/range-map-information-migratory-birds
http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/51

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### Species at Risk Report: Harris's Sparrow



#### **Species Information**

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Photo Credit: GNWT/J. McKay, ECC

Species:	Harris's Sparrow
Category:	Bird
Scientific name:	Zonotrichia querula
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

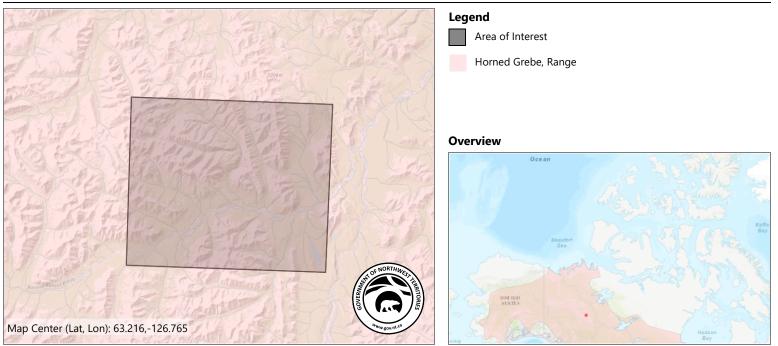
	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not applicable	Not applicable

2017-04-01
2023-03-07
Canadian Wildlife Service (CWS)
www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html
http://www.nwtspeciesatrisk.ca/species/harriss-sparrow
http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_harrissparrow.jpg
https://www.nwtspeciesatrisk.ca/en/range-map-information-migratory-birds
http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/119

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### **Species at Risk Report: Horned Grebe**



#### **Species Information**

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		A	thony Levesque

Photo Credit: Anthony Levesque

Species: Horned Gr	
Category:	Bird
Scientific name:	Podiceps auritus
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

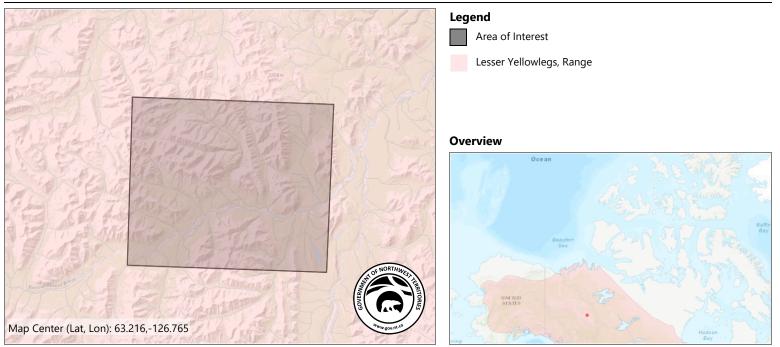
	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not applicable	Not applicable

Additional Information	
Date range information was last reviewed:	2016-01-01
Date status information was last reviewed:	2023-12-15
Lead agency:	Canadian Wildlife Service (CWS)
Authoritative website:	www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/horned-grebe
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_hornedgrebe.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information-migratory-birds
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/53

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change For more information, contact the Wildlife Biologist (Species at Risk): SARA@gov.nt.ca, (867) 767-9237 ext. 53214



#### **Species at Risk Report: Lesser Yellowlegs**



#### **Species Information**

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Photo Credit: Cameron Eckert

Species:	Lesser Yellowlegs
Category:	Bird
Scientific name:	Tringa flavipes
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

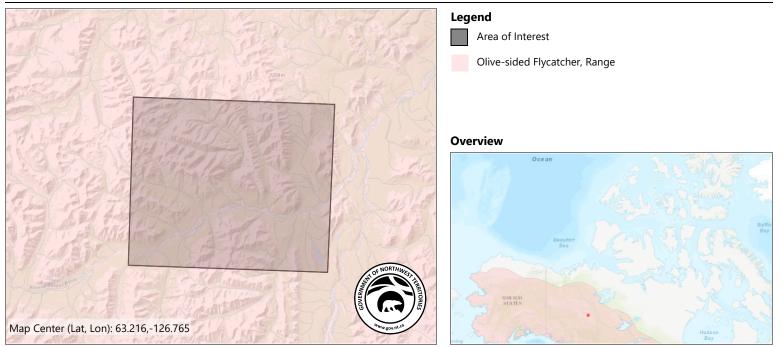
	Assessment	Legal List
Canada	Threatened	Under Consideration
NWT	Not applicable	Not applicable

2021-01-13
2021-01-13
Canadian Wildlife Service (CWS)
www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html
http://www.nwtspeciesatrisk.ca/species/lesser-yellowlegs
http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_lesseryellowlegs.jpg
https://www.nwtspeciesatrisk.ca/en/range-map-information-migratory-birds
http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/180

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### Species at Risk Report: Olive-sided Flycatcher



#### **Species Information**



Photo Credit: Tim Zurowski

Species:	Olive-sided Flycatcher
Category:	Bird
Scientific name:	Contopus cooperi
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

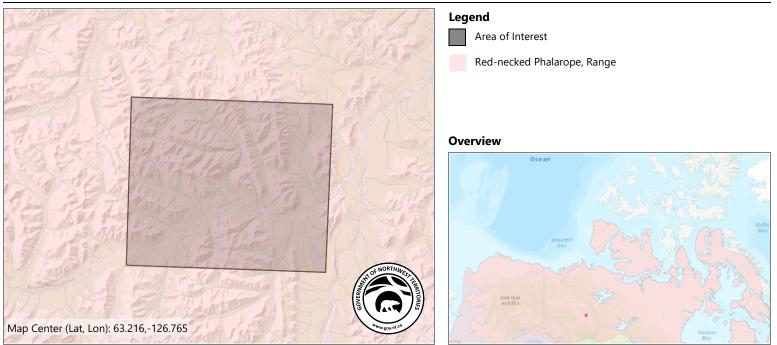
	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not applicable	Not applicable

Additional Information	
Date range information was last reviewed:	2012-01-01
Date status information was last reviewed:	2023-03-07
Lead agency:	Canadian Wildlife Service (CWS)
Authoritative website:	www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/olive-sided-flycatcher
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_olivesidedflycatcher.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information-migratory-birds
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/56

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change For more information, contact the Wildlife Biologist (Species at Risk): SARA@gov.nt.ca, (867) 767-9237 ext. 53214



#### Species at Risk Report: Red-necked Phalarope



#### **Species Information**



Photo Credit: Alvan Buckley

Species:	Red-necked Phalarope
Category:	Bird
Scientific name:	Phalaropus lobatus
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not applicable	Not applicable

Additional Information	
Date range information was last reviewed:	2014-11-01
Date status information was last reviewed:	2019-12-20
Lead agency:	Canadian Wildlife Service (CWS)
Authoritative website:	www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/red-necked-phalarope
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_redneckedphalarope.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information-migratory-birds
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/59

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### **Species at Risk Report: Rusty Blackbird**



#### **Species Information**



Photo Credit: Samuel Denault

Species:	Rusty Blackbird
Category:	Bird
Scientific name:	Euphagus carolinus
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

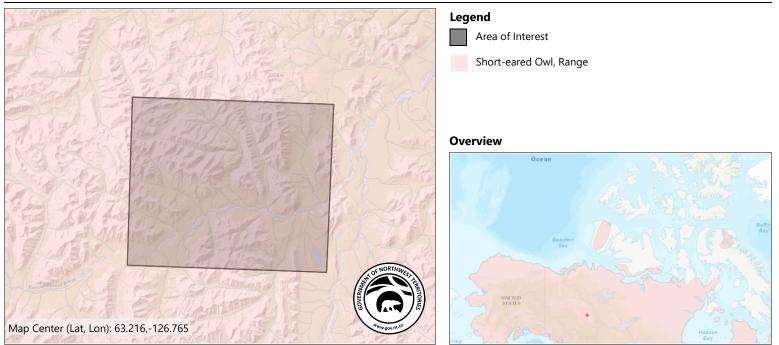
	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not assessed	No status

Additional Information	
Date range information was last reviewed:	2016-01-01
Date status information was last reviewed:	2017-04-30
Lead agency:	NWT Environment and Climate Change (ECC)
Authoritative website:	www.nwtspeciesatrisk.ca
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/rusty-blackbird
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_rustyblackbird.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/60

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### Species at Risk Report: Short-eared Owl



#### **Species Information**

12
Contractory
Kilky

Photo Credit: Doug Dance

Short-eared Owl
Bird
Asio flammeus
Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

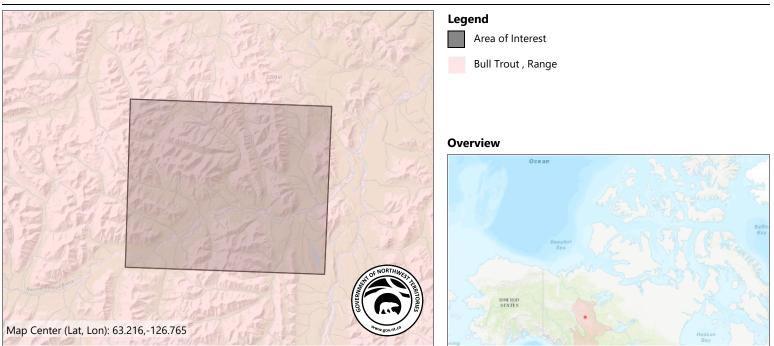
	Assessment	Legal List
Canada	Threatened	Special Concern
NWT	Not assessed	No status

Additional Information	
Date range information was last reviewed:	2019-12-20
Date status information was last reviewed:	2021-05-17
Lead agency:	NWT Environment and Climate Change (ECC)
Authoritative website:	www.nwtspeciesatrisk.ca
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/short-eared-owl
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_shortearedowl.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/61

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change

#### NWT Species and Habitat Viewer

#### **Species at Risk Report: Bull Trout**



#### **Species Information**

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	2530	A Second

Photo Credit: DFO/ Jeremy Stewart

Species:	Bull Trout
Category:	Fish
Scientific name:	Salvelinus confluentus
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

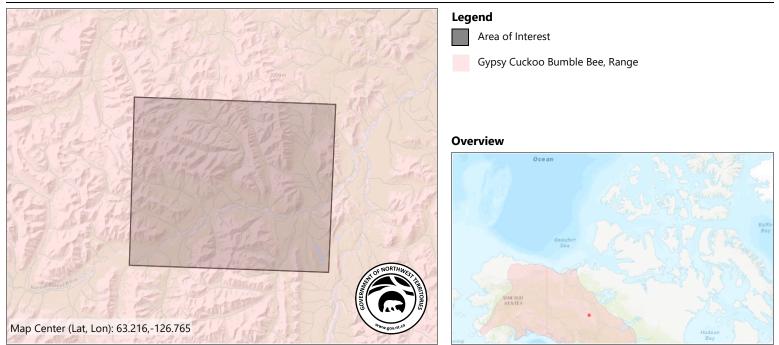
	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not applicable	Not applicable

Additional Information	
Date range information was last reviewed:	2014-04-01
Date status information was last reviewed:	2019-12-20
Lead agency:	Department of Fisheries and Oceans (DFO)
Authoritative website:	www.aquaticspeciesatrisk.gc.ca
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/bull-trout
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_bulltrout.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information-aquatic-species
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/65

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### Species at Risk Report: Gypsy Cuckoo Bumble Bee



#### **Species Information**



Photo Credit: Sheila Colla

Species:	Gypsy Cuckoo Bumble Bee
Category:	Insect
Scientific name:	Bombus bohemicus
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

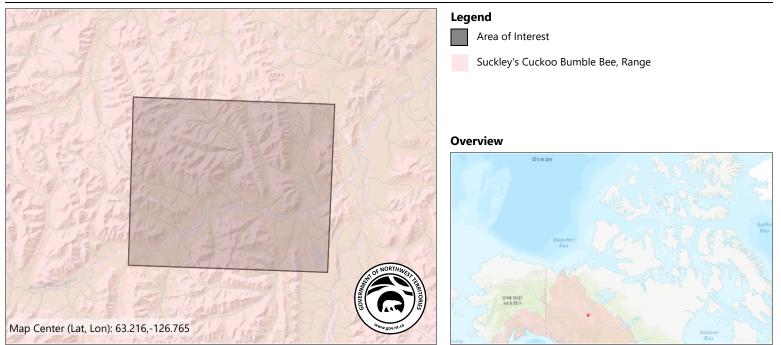
	Assessment	Legal List
Canada	Endangered	Endangered
NWT	Data deficient	No status

Additional Information	
Date range information was last reviewed:	2019-12-20
Date status information was last reviewed:	2019-12-20
Lead agency:	NWT Environment and Climate Change (ECC)
Authoritative website:	www.nwtspeciesatrisk.ca
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/gypsy-cuckoo-bumble-bee
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_gypsycuckoobumblebee.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/74

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### Species at Risk Report: Suckley's Cuckoo Bumble Bee



#### **Species Information**

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-	100	A

Photo Credit: Cory Sheffield

Species:	Suckley's Cuckoo Bumble Bee
Category:	Insect
Scientific name:	Bombus suckleyi
Range type:	Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

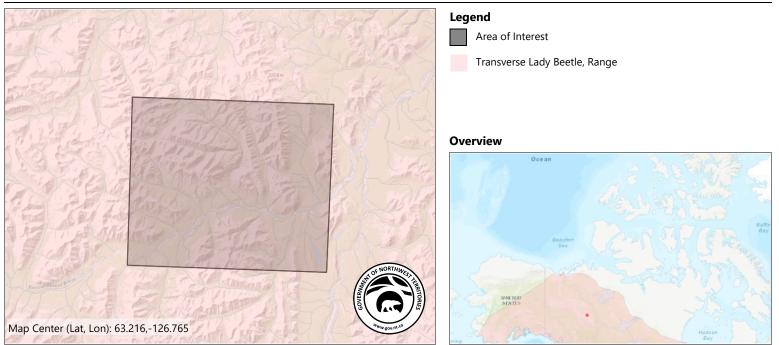
	Assessment	Legal List
Canada	Threatened	Under Consideration
NWT	Not assessed	No status

Additional Information	
Date range information was last reviewed:	2019-12-20
Date status information was last reviewed:	2019-12-20
Lead agency:	NWT Environment and Climate Change (ECC)
Authoritative website:	www.nwtspeciesatrisk.ca
NWT species information page:	https://www.nwtspeciesatrisk.ca/species/suckleys-cuckoo-bumble-bee
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_suckleyscuckoobumblebee.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/176

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### Species at Risk Report: Transverse Lady Beetle



#### **Species Information**



Photo Credit: Henri Goulet

Species:Transverse Lady BeetleCategory:InsectScientific name:Coccinella transversoguttataRange type:Range

#### Table 1. Status of the species under federal and territorial species at risk legislation

	Assessment	Legal List
Canada	Special Concern	Special Concern
NWT	Not assessed	No status

Additional Information	
Date range information was last reviewed:	2017-11-01
Date status information was last reviewed:	2021-09-29
Lead agency:	NWT Environment and Climate Change (ECC)
Authoritative website:	www.nwtspeciesatrisk.ca
NWT species information page:	http://www.nwtspeciesatrisk.ca/species/transverse-lady-beetle
NWT range map:	http://www.nwtspeciesatrisk.ca/sites/species/files/speciesmap_transverseladybeetle.jpg
Contact for range map and shapefiles:	https://www.nwtspeciesatrisk.ca/en/range-map-information
Metadata:	http://www.apps.geomatics.gov.nt.ca/arcgis/rest/services/GNWT_Operational/SHV_SAR/MapServer/126

The Species at Risk Report generates a list of species at risk that are expected to occur in a user-defined Area of Interest, based on range maps. Species range maps are approximate and are not intended for legal use. Government of the Northwest Territories Environment and Climate Change



#### Appendix III – Examples of Archaeological Evidence

#### Artifact or Artifact Scatter:

Portable object(s) manufactured or modified by human beings. These items may include chipped or ground stone objects or implements made from bone and antler (Photographs 1 to 8). Look for: obviously formed stone objects or pieces of stone that have been chipped and/or ground in a non-natural way. Bone and antler artifacts will exhibit obvious modification (*i.e.*, cutting, shaping, incision, etc.).



Photo 1: Chipped Stone Flakes



Photo 2: Projectile Points

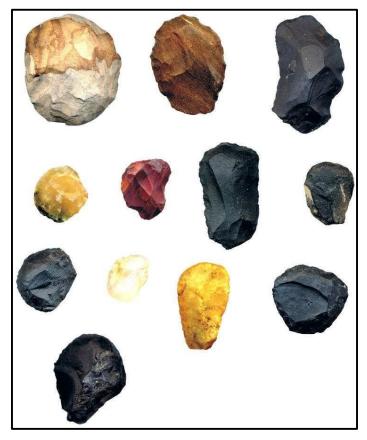


Photo 3: Formed Scrapers



Photo 4: Pecked Stone Hand Mauls (Hammers)

.



Photo 5: Pecked Stone Bowl Fragments



Photo 6: Pecked Stone Anchor



Photo 7: Ground Stone Knives

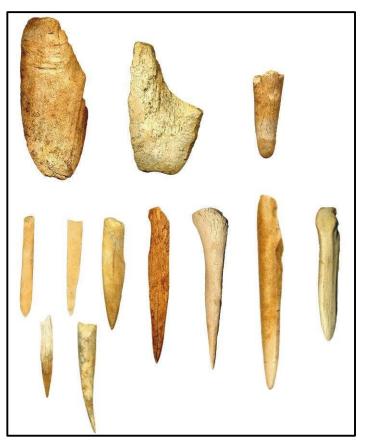


Photo 8: Bone and Antler Artifacts

#### Fire Cracked Rock (FCR):

Heat fractured stone that result from rapid or alternate heating and cooling as in stone boiling or in campfires. FCR is typically associated with resource processing and/or food preparation. Look for: concentrations of fractured pebbles with signs of being burnt in a fire often associated with ash and charcoal (Photo 9).



Photo 9: Fire Cracked Rock

#### Cache Pits:

Cache pits which were used to store dried foods for periods of time (Photo 10) and are characterized by small rectangular depressions generally not more than 3 by 2 meters wide by 2 meters deep found in well drained areas.

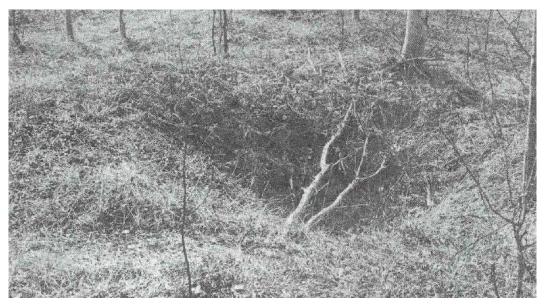


Photo 10: Cache Pit



#### Appendix IV – Bank Swallows



# BANK SWALLOW (Riparia riparia)

# in sandpits and quarries



# Canada

## Did you know?

#### The Bank Swallow is a declining migratory bird species that has lost 98% of its Canadian population over the last 40 years.

This insectivorous bird is particularly drawn to sandpits, quarries, stock piles of sand and soil, and sandy banks along water bodies and roads. Bank Swallows generally dig their burrows in near-vertical banks (slopes of at least 70 degrees) that are more than 2 metres high. Bank Swallows typically use their nesting sites from mid-April to late August. This is the sensitive period during which the risk of harming the birds is especially high. The absence of the birds in August is a good indicator that the breeding season is over.



The best way to minimize the possibility of contravening the *Migratory Birds Convention Act, 1994* and its regulations is to fully understand the impact that your activities could have on migratory birds and their nests and eggs and to take reasonable precautions and appropriate avoidance measures. In fact, under the Act and its regulations, it is an offence for anyone to kill, hunt, capture, injure or harass a migratory bird or to damage, destroy, remove or disturb its nest or eggs without a permit.

The sand and gravel industry can play a major role in the conservation of Bank Swallows by adopting operating practices that do not harm the species.

### www.ec.gc.ca/paom-itmb

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Photos: Bank Swallow © Photos.com

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## What you can do

## **Before the breeding season** (generally before mid-April)

- Prevent Bank Swallows from nesting in areas where operations will be carried out during the breeding season by contouring your piles to have a slope of less than 70 degrees and by creating suitable nesting habitat in inactive areas with vertical faces of at least 70 degrees.
- Install scaring devices to deter Bank Swallows from establishing colonies in active areas.

#### During the breeding season

#### (generally from mid-April to late August)

- Avoid intense activity near the colony. You can prevent disturbance by marking off a protective buffer zone around the colony and notifying all employees of its existence.
- Generally speaking, there is a particularly high risk of disturbing nesting when noisy activities or vibrations occur within 50 metres of the bird colony. This protective radius is only a rough guideline and must be adjusted after an assessment of the risk factors. In some cases, where operating activities are intense, a larger protective radius may be needed to minimize the risk of disturbance.
- Spend a few minutes flattening vertical faces in active areas at the end
  of the day to prevent Bank Swallows from digging burrows in them
  overnight or on weekends.
- Stop excavation work if Bank Swallows colonize a bank in an active area. Activities cannot resume until the birds leave at the end of the breeding period.
- Do not use scaring devices once the colony is established as they may interfere with ongoing Bank Swallow breeding activities.

### After the breeding season (generally after late August)

If a nesting site needs to be excavated after the birds leave, compensate by providing an alternate site that can support nesting in the following year. To be suitable for nesting, the bank must have a slope of at least 70 degrees.

**Notify** your employees of the restrictions and techniques that can be implemented to prevent detrimental effects on the species.

Thank you for participating in the conservation of Bank Swallows.