

# Progressive Stewardship of Mountain Ecosystems: Next Practices for Sustainability

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## Wildlife Focus Area

*Prepared in partnership with Steve Wilson, EcoLogic Research*

### **The Vision**

The vision for wildlife next practices is to ensure that the activities of helicat operations occur in a manner that allows wildlife species to continue to occupy their preferred habitats and to fulfill their life requisites.

### **Background Information**

The helicat industry operates in some of the most significant wildlife habitats in the world. As an extensive user of Crown land in British Columbia, the sector plays an important role in the stewardship of the province's wildlife resources. Helicat operators recognize they are expected to maintain these resources by guests, the public, First Nations, as well as staff members who are privileged to live and work in these special places.

Winter is typically a difficult season for wildlife. Forage is limited and of reduced quality, movement is more difficult, and cold weather saps an animal's energy. Chronic disturbance due to human activity has the potential to cause stress if it is viewed as a threat by the species. Animals can respond by moving out of the area, sometimes into suboptimal habitat. Their behaviour can also be disrupted, perhaps leading to lower food intake or social disruption.

As a result, it is important that helicat operators maintain a high awareness of the distribution and abundance of wildlife within their operating areas. In particular, they should be aware of species that are known or suspected to be affected by human-related activities and those that are considered at risk for any reason. Maintaining this situational awareness allows operators to avoid unnecessary wildlife encounters and to respond appropriately when encounters occur.

The industry generates a low level of use on the land base and, when properly managed, operations can successfully coexist with wildlife and their habitats. However, this requires effort to ensure that risks are minimized.

## Sustainability Standards

Specific legal requirements governing the overall activities of helicat operations in relation to wildlife and habitats are limited; however, specific requirements are often included in permits and authorizations to operate on provincial Crown land. These are addressed in the following section.

The following are legal requirements that apply throughout British Columbia:

### Wildlife Act

B.C. Ministry of Environment and Climate Change Strategy; B.C. Ministry of Forests, Lands, Natural Resource Operations and Rural Development

#### Mandatory actions:

- Section 27  
Do not herd or harass wildlife from motor vehicles or aircraft
- Section 33.1  
Do not feed or place attractants for wildlife
- Section 34  
Do not harass birds or nests

#### Resources:

Wildlife Act

[http://www.bclaws.ca/civix/document/id/complete/statreg/96488\\_01](http://www.bclaws.ca/civix/document/id/complete/statreg/96488_01)

Motor Vehicle Prohibition Regulation

[http://www.bclaws.ca/civix/document/id/complete/statreg/196\\_99](http://www.bclaws.ca/civix/document/id/complete/statreg/196_99)

### Federal Species at Risk Act (SARA)

SARA provides prohibitions to protect species that are listed as extirpated, endangered or threatened in Canada.

#### Mandatory actions:

- Section 32  
No person shall kill, harm, harass, capture or take an individual of a wildlife species that is listed as an extirpated species, an endangered species or a threatened species.
- Section 33  
No person shall damage or destroy the residence of one or more individuals of a wildlife species that is listed as an endangered species or a threatened species, or that is listed as an extirpated species if a recovery strategy has recommended the reintroduction of the species into the wild in Canada.

**Resources:**

Federal Species at Risk Act (SARA)

<http://laws.justice.gc.ca/eng/acts/S-15.3/page-4.html#h-14>

SARA Public Registry is a searchable database of all federally listed species

[http://www.sararegistry.gc.ca/sar/index/default\\_e.cfm?styp=species&lng=e&index=1&common=&scientific=&population=&taxid=0&locid=0&desid=0&schid=0&desid2=0&](http://www.sararegistry.gc.ca/sar/index/default_e.cfm?styp=species&lng=e&index=1&common=&scientific=&population=&taxid=0&locid=0&desid=0&schid=0&desid2=0&)

SARA and You Guide – Provides information on how to comply with the Act

<http://www.sararegistry.gc.ca/default.asp?lang=En&n=71BBC38E-1>

**Area Specific Regulations****Mandatory actions:**

In addition to over-arching statutory requirements, specific land use designations can be associated with requirements that affect sector operations, even if designations are enacted under legislation that does not directly govern the sector. Operators should familiarize themselves with the boundaries and relevant requirements of the following designations:

- Ungulate Winter Ranges
- Wildlife Habitat Areas
- Wildlife Management Areas
- Ecological Reserves
- Parks, Conservancies and Recreation Areas
- Motor Vehicles Closures under the Wildlife Act
- Land Act Reserves

**Resources:**

The current status of various designations on the land base can be explored interactively using British Columbia's Natural Resource Online Services mapping portal. These designations reflect the government's stated priorities for species and ecosystems. For example, Ungulate Winter Ranges are established to ensure the over-winter survival of deer, moose, elk, caribou, sheep and goats, while Wildlife Habitat Areas protect important sites used by threatened species or other species of concern.

<https://portal.nrs.gov.bc.ca/web/client/explore>

**Next Practice Guidelines**

The primary reference for wildlife best practices for helicat operations are the B.C. government's Tourism Wildlife Guidelines.<sup>1</sup> These were developed jointly with the commercial recreation sector and provide "default" guidance for operating in wildlife habitat. Although developed as policy guidance, if operators commit to them in tenure and permit documents, they become enforceable conditions.

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<sup>1</sup> <http://www.env.gov.bc.ca/wld/twg/>

The purpose of the Tourism Wildlife Guidelines is to ensure that backcountry recreation activities are conducted in a manner that does not compromise the current distribution of wildlife, the sustainability of their populations, or the integrity of their habitats. Guidelines are organized in categories of recreational activities and season.

Relevant categories for helicat operators are:

- aerial-based (covering helicopter use)
- motorized (for snowcat operators)
- non-motorized winter recreation (for skiing activities)

For operations in mountain caribou habitat an additional (but overlapping) set of operating practices apply. Helicat Canada committed its members to adhering to this guidance as part of a Memorandum of Understanding (MOU) signed with the B.C. government following the development of the *Mountain Caribou Recovery Implementation Plan*. The MOU has since expired; however, HeliCat has committed to continue to comply with its provisions until another MOU is developed.

Requirements from both of these guidance documents are summarized in the following table; however, members are encouraged to review the original sources cited for specific details.

#### **Tourism-Wildlife Guidelines – Integrity of Vegetation Communities/Damage to sensitive sites**

- Learn to identify British Columbia’s endangered species and ecosystems within the operating area.
- Operate in a manner that is consistent with government’s approved approach to recovery planning for species at risk.
- Follow recommendations of recovery planning for species at risk as they relate to habitats.
- Respect guidelines for use of designated sites such as [Wildlife Habitat Areas](#).
- Avoid landing in [sensitive sites](#).
- Obey all signs and area closures.
- Avoid known nesting/calving sites (seasonal closures might be necessary).
- Choose timing of works that minimizes impacts to adult and juvenile fish, birds, reptiles, and amphibians, as well as their eggs, and their prey.

#### **Tourism Wildlife Guidelines – Direct Disturbance of Wildlife**

- Record wildlife encounters, actions taken, and responses of animals.
- Obey all area closures.
- No intentional “flight-seeing”.
- Take immediate action to increase separation distances when animals react to aircraft.

- Use consistent flight paths, preferably in the center of valleys, or the valley side opposite key wildlife habitat. If key wildlife habitats are in the center, fly on one side of the valley rather than the centre.
- Stay at distances sufficient to prevent changes to the behaviour of animals (>1500 meters line-of-sight is the [default](#) for helicopters from mountain goats, >500 meters line-of-sight is the [default](#) for helicopters and motorized vehicles for wildlife in general, >100 meters is the [default](#) for non-motorized activities).
- Remain on established trails or in areas of high visibility where no wildlife are present.
- Yield to wildlife on trails and roads.
- Do not [harass](#) wildlife.
- Do not feed wildlife.
- Do not handle wildlife.
- Do not allow dogs to be at large and harass wildlife.
- Pack out all garbage.
- Turn off engine, remain on machine, and yield to wildlife on trails and roads.
- Focus activities in areas where wildlife are least likely to be disturbed (seasonal closures might be necessary).
- Remain still or retreat when animals are encountered and react to your presence.
- Remain at distances sufficient to avoid disturbing [Grizzly Bears](#) and [Wolverines](#) in known den sites; at least 100 meters is the [default](#) (seasonal closures might be necessary).
- Minimize activity in and near identified [ungulate winter ranges](#) (seasonal closures might be necessary).
- In deep snow areas of [ungulate winter ranges](#), where snow-plowing creates linear “traps” for moose, provide lateral escape routes at relatively frequent intervals.
- Ensure a system is in place to proactively identify high-use habitats with a high probability for encountering caribou and to show how activities shift during the operating season in response to the presence of caribou.
- Avoid activity in occupied caribou habitats (areas known to be occupied by caribou within at least the last 48 hours).
- Do not land in identified [Mountain Goat](#) winter ranges.
- Avoid occupied habitats where mountain goats/sheep have been seen in the current season and/or animals consistently occupy the area and the area is mapped as occupied.
- Minimize use in areas of high probability or potential, where there is documented past use by mountain goats or sheep.
- Avoid flying or landing near known calving/ denning/ nesting habitat; >500 meters line-of-sight is the [default](#) for large mammals and [Great Blue Heron](#) rookeries, except >1500 meters for [mountain goat](#) natal areas (seasonal closures might be necessary).

**Resources:**

Tourism Wildlife Guidelines

<http://www.env.gov.bc.ca/wld/twg/>

**Management of Helicopter and Snowcat Skiing in Mountain Caribou Habitats**

- Be aware of mapped mountain caribou habitats in your operating area.
- Be aware of management activities related to mountain caribou being undertaken within your region.
- Be aware of the most current information available with respect to mountain caribou habitat use and recovery efforts.
- Conduct at least one two-hour module about mountain caribou in annual staff training.
- Develop and maintain an information management system to capture caribou and wildlife observations and operational decisions arising from the observations.
- Submit to government the collected wildlife data and associated management responses.
- Proactively highlight specific areas where the probability of displacing mountain caribou is relatively high and ensure that these areas are not used for skiing until appropriate reconnaissance is completed to confirm that animals are not in the vicinity.
- Sufficiently document actions to demonstrate diligence and to improve the effectiveness of procedures in meeting the objective of “no displacement”.
- Except where client or staff safety is an issue, maintain >500 meter horizontal and vertical separation from occupied habitats, and immediately increase this distance if animals show any evidence of being negatively disturbed.
- Follow recommendations of “[A Guide to Commercial Backcountry Skiing Standard Operating Practices for Ski Run Development, Helicopter Landing and Pickup Site Development, and Snow Trail Development in Mountain Caribou Habitat](#)” (expanded below).
- Choose ski lines and/or pick-ups that take groups away from detected caribou.
- Use slopes for skiing that are steeper than those preferred by caribou (>25%).
- Keep ski groups together and allow caribou to pass, if encountered, and alert other guides.
- Minimize facilities development in mountain caribou habitats.

**Resources:**

Memorandum of Understanding Regarding Management of Helicopter and Snow-cat Skiing in Mountain Caribou Habitats

<https://drive.google.com/file/d/0Byuj5BB3k7duczloX2IzajtZFE/view>

### **Ski Run Development in Mountain Caribou Habitat**

- Ski run development shall not occur within the calving period of May 15th to June 15th.
- Maximize use of existing forestry openings or natural openings to minimize cutting in treatment areas.
- Retain from cutting >90% of conifer stems >20 centimeters diameter at breast height (DBH) in treatment areas. The full range of tree species, ages and sizes must be represented following treatment, similar to pre-treatment forest stand species composition and size-class distribution.
- Individual ski run development/treatment areas shall be separated from adjacent treatment areas by an area at least three to four times the treatment area.
- Avoid forest stands with trees bearing lichen on slopes <40% when selecting treatment areas, unless there is no other practicable option.
- Any harvesting shall avoid mature stands (>80 years old) and avoid removal of trees bearing lichen, unless there is no other practicable option.
- Areas of forest stands requiring removal of large old growth veteran legacy trees or a significant number of standing dead trees to make the work site safe shall be avoided, unless there is no other practicable option.

### **Helicopter Landings and Pickup Site Development in Mountain Caribou Habitat**

- Helicopter landing and pickup site development shall not occur within the calving period of May 15th to June 15th.
- Existing forestry openings or natural openings must be used to minimize cutting when selecting helicopter landings and pickup sites.
- Where harvesting is required to develop helicopter landings and pickup sites, the amount of cutting will not result in the total opening size to exceed one hectare.
- Any harvesting shall avoid mature stands (>80 years old) and avoid removal of trees bearing lichen, unless there is no other practicable option.

### **Snow Trail Development in Mountain Caribou Habitat**

- Snow trail development shall not occur within the calving period of May 15th to June 15th.
- Snow trail development must not occur in areas closed to snowmobile use under the Wildlife Act using Motor Vehicle Prohibition Regulations Schedule 7 - Section 7.1.
- Existing forestry openings or natural openings must be used to minimize cutting when developing snow trails.
- The volume of timber to be removed must not exceed 50 m<sup>3</sup> per three kilometers of individual trail when developing a snow trail. An individual snow trail is defined as a contiguous snow trail route used by a snow-cat machine for the purpose of transporting skiers to skiable terrain.

- Any harvesting shall avoid mature stands (>80 years old) and avoid removal of trees bearing lichen, unless there is no other practicable option.
- Actions shall be taken on snow trails to restrict summer access. This will be site-specific and could include, but is not limited to, the use of large, impassable boulders, root balls, and felled trees.

**Resources:**

A Guide to Commercial Backcountry Skiing Standard Operating Practices for Ski Run Development, Helicopter Landing and Pickup Site Development, and Snow Trail Development in Mountain Caribou Habitat

<https://www.for.gov.bc.ca/ftp/dco/external/!publish/Mechanized%20Ski%20Documents/Caribou%20Habitat-A%20Guide%20o%20Commercial%20Backcountry%20Skiing%20Standard%20Operating%20Practices...pdf>

**Area-specific Next Practices**

Although desired behaviour requirements vary depending on where tenures are situated in relation to wildlife resources, there are four central elements that all helicat operations should be following:

**Awareness:**

Awareness is about knowing what species of interest and habitats are within a tenure, and how they are managed through land base designations and other mechanisms. It is important to recognize that not all important sites used by wildlife are mapped and managed by government. This can occur because:

- Sites might not be well known
- Sites might be known but not yet prioritized for protection
- It might not be practicable to protect the site, given current legal and policy mechanisms

Regardless of legal or policy status, being aware of important sites and accommodating them in operational management is an important aspect of shared stewardship. Of particular importance are small features such as den sites, mineral licks and stick nests. Locating these types of features requires extensive local knowledge and Helicat members are often the most knowledgeable users in an area.

**Monitoring:**

Monitoring refers to the recording of wildlife sightings and the circumstances of interactions with operations. Keeping accurate records demonstrates due diligence and contributes to the continuous improvement of operational practices focused on reducing impacts on wildlife.



To build an understanding of how species use operating areas, members should implement monitoring programs that employ a consistent and detailed reporting format. At a minimum, these reports should include:

- date
- species and number
- location (using UTM coordinates)
- type of habitat
- an appropriate level of comment on the observed animal behaviour
- decisions and actions taken in response to the sighting

**Improvement:**

Monitoring results should be used to adjust practices, either in the short term (altering a day's skiing program) or long term (revising runs or standard approaches). This leads to a cycle of continuous improvement in operations that demonstrates the sector's commitment to coexisting with wildlife.

**Training:**

Staff training institutionalizes and reinforces knowledge and procedures to improve consistency in operations and to reduce errors. In conjunction with government and/or consulting biologists, the members' guides, pilots, snowcat operators and all other relevant staff should be trained annually on:

- The distribution and ecology of key wildlife species within the operating area
- Company procedures and management principles designed to avoid the disturbance of wildlife
- Success or failure of previous years' efforts to avoid disturbances, as well as any amendments to procedures made as a result
- The results of any newly available research or inventories

## **Conclusion**

Helicat operators ski in and around important wildlife habitat and, as a result, share responsibility for the sound stewardship of wildlife resources. This is accomplished through developing an awareness of wildlife and wildlife habitat within operating areas, monitoring wildlife use and subsequent operational responses, being committed to continuous improvements to reduce impacts, and by ensuring adequate staff training. The goal of this management approach is to ensure helicat operations can coexist with wildlife, allowing wildlife to continue to occupy their preferred habitats and to fulfil their life requisites.

## Resources

### B.C. Ministry of Environment and Climate Change Strategy

Plants, animals and ecosystem information and management

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems>

Information on species and ecosystems at risk

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/species-ecosystems-at-risk>

### B.C. Conservation Data Centre Species and Ecosystem Explorer

B.C. Conservation Data Centre Species and Ecosystem Explorer for detailed information on specific species

<http://a100.gov.bc.ca/pub/eswp/>

### Data BC

GIS source files for designations, etc.

<https://data.gov.bc.ca>

### Province of British Columbia

Caribou in British Columbia

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-conservation/caribou>