

# Interim Wildlife Guidelines for Commercial Backcountry Recreation in British Columbia

## Chapter 3

### BIRDS



Pigeon Guillemots  
Photo: Mike McGrenere



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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## General Guidelines for All Species

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Protect wildlife from human disturbance	1.1	Within tenures, place new developments within or immediately adjacent to existing developments or facilities so that human impacts are clustered	1.1.1	No human caused disturbance
		1.2	Avoid noisy, intrusive, or otherwise potentially harassing human activities during periods of the year when wildlife are under severe environmental and physiological stress, in particular during the winter survival and spring natality periods. Direct and deliberate harassment is never acceptable.	1.2.1	No human caused disturbance
		1.3	Humans should not feed or approach wildlife closer than 20 m, even habituated individuals	1.3.1	No human caused disturbance
		1.4	Control livestock and pets to minimize harassment and displacement of wildlife		Reduced killing of wildlife to protect domestic animals
		1.5	Train staff and clients to increase awareness on appropriate behaviour in wilderness settings to minimize potential for human disturbance	1.4.1	Knowledgeable staff and clients ensure minimal disturbance
2.0	Maintain wildlife habitat values	2.1	Carefully consider future and existing activities to avoid disturbing or removing important habitats. Be aware of potential implications such as alteration of animal movement patterns, displacement of animals from key habitats, and destruction of homesites and other habitat features.	2.1.1	Wildlife habitat values maintained
		2.2	Minimize the use of pesticides and herbicides and other chemicals that may contaminate the environment and impair healthy ecosystem functions	2.2.1	No ecosystem contamination
3.0	Improve mitigation guidelines	3.1	Initiate wildlife monitoring programs, under the direction of a professional biologist, and with the approval of WLAP's wildlife program, to modify guidelines to be more area and user specific	3.1.1	Guidelines modified and improved to reflect local circumstances

**RED:** Indigenous species or subspecies that have been legally designated or are being considered for legal designation as Extirpated, Endangered, or Threatened status in BC  
**BLUE:** Indigenous species or subspecies considered to be Vulnerable in BC. They are at risk, but not Extirpated, Endangered, or Threatened.

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

***GENERAL GUIDELINES FOR ALL SPECIES***

The objective of commercial recreation guidelines for all species is to maintain current distribution and abundance of wildlife resources within the project area.:

Information on seasonal habitat use, migration routes, natality areas, and timing of animal activities is important to effectively mitigate impacts of commercial recreation on wildlife populations. User initiated wildlife monitoring programs, under the direction of a professional biologist, and with the approval of WLAP's Environmental Stewardship Branch, could be used to modify guidelines to be more area and user specific

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Gulls, Waders and Fish-eating Birds: Great Blue Heron\* (*Blue*)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Maintain use of existing heronries	1.1	Avoid development of facilities within 250 m of an occupied heronry	1.1.1	Sustained heronry use
2.0	Avoid human caused disturbances	2.1	Train staff and clients in appropriate behaviour in the vicinity of Great Blue Herons and their habitats.	2.1.1	Sustained heronry use
		2.2	Limit helicopter and fixed-wing over-flight altitude to a minimum of 500m over active heronries. Prevent helicopter landings near active heronries	2.2.1	Sustained heronry use
		2.3	Prevent disturbance of nest trees and nesting habitats in both occupied and unoccupied heronries.		
		2.4	Prevent observers, particularly with dogs, from walking under active heronries		
3.0	Protect foraging sites	3.1	Document important foraging areas and avoid intensive use in these areas	3.1.1	Continued foraging
4.0	Protect the species from toxic substances	4.1	Avoid the use of pesticides, including herbicides in breeding/foraging habitats	4.1.1	No toxic effects due to pesticides

<sup>M</sup> = Strategy required for major development only

\* **Note:** Information on this species is classified as sensitive and only available on a need to know basis from the Regional Endangered Species Specialist.

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

### ***Great Blue Heron***

Key issues of concern: rookeries, winter roost sites, and foraging habitats

*Principal sources of information:*

Butler, R. W. (1997). *The Great Blue Heron: a natural history and ecology of a seashore sentinel*. Vancouver, BC: UBC Press.

Great Blue Herons are a colonial-nesting species that forages primarily in freshwater and marine environments, especially along margins and shorelines. They are year-round residents over most of the southern half of B.C. The nest structures of Great Blue Herons are protected year-round, whether they are active or not, under Section 34 of the British Columbia Wildlife Act.

Heron colonies occur in treetops in numbers that range from a few to more than 150. The location of colonies shift, but the presence of suitable trees in proximity to foraging habitat is a key requirement. A key concern for herons is the need to minimize disturbance of nesting birds.

The objective of commercial recreation guidelines for the Great Blue Heron is to maintain the current distribution and abundance of their populations in the province.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Gulls, Waders and Fish-eating Birds: Marbled Murrelet (Red)\*

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Maintain nesting habitat	1.1	Identify and map nesting areas	1.1.1	Nesting habitat identified
2.0	Protect the species	2.1	Document and report all nesting occurrences of Marbled Murrelets	2.1.1	Known nesting occurrences documented
3.0	Avoid harassment of nesting birds	3.1	Prevent facility development within 2000 m of nest areas.	3.1.1	Habitat maintained and no pests introduced to nesting colonies
		3.2	Maintain a no human or pet contact buffer zone of 500 m around nest areas from May to August	3.2.1	Breeding birds are not harassed
		3.4	Train staff and clients in appropriate behaviour in the vicinity of Marbled Murrelets and their habitats	3.4.1	Knowledgeable staff ensure no intrusions

\* Note: Information on these species is classified as sensitive and only available on a need to know basis from the Regional Endangered Species Specialist.

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**Interim Wildlife Guidelines for Commercial Recreation: Birds*****Marbled Murrelet****Principal sources of information:*

Environment Canada. 2002. *Seabirds: An indicator of marine ecosystem status for coastal British Columbia*.

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks

*For distribution and map, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-19.htm>

The British Columbia coastline supports large populations of breeding seabirds. Biologists estimate that there are more than 30,000 Marbled Murrelets nesting on out coast.

A wide variety of factors can affect seabird populations including changes in key prey species, oil spills, toxic contaminants, overfishing, gillnet bycatch, predation and climatic conditions. As Marbled Murrelets nest in tall, old-growth trees, the major risk from commercial recreation is likely to be noise disturbance through aircraft and human activity on the ground.

The objective of commercial recreation guidelines for Marbled Murrelets is to maintain the current distribution and abundance of their populations in the province.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Gulls, Waders and Fish-eating Birds: Red- and Blue-listed Marshbirds

American Bittern (BLUE), Green Heron (BLUE)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Maintain the natural populations	1.1 <sup>M</sup>	Identify critical nesting habitat and develop plans to avoid disturbance	1.1.1	Critical habitat maintained
		1.2	Document and report any known species nesting/breeding locations	1.2.1	Species nesting/breeding locations noted and reported
2.0	Maintain habitat	2.1	Prevent in-filling of marsh habitats and maintain natural cover around nesting wetlands	2.1.1	Cover maintained
		2.2	Prevent alteration of natural water regimes (dams and diversions)	2.2.1	Natural water levels maintained
		2.3	Avoid the use of pesticides/herbicides in the vicinity of nesting or foraging areas	2.3.1	No pesticides used in vicinity
3.0	Avoid harassment of nesting birds	3.1	Maintain a no motorized watercraft buffer zone of 250 m around nest areas from April to August	3.1.1	No disruption during nesting period
		3.2	Maintain a no human or pet contact buffer zone of 250 m around nest areas from April to September	3.2.1	No disruption during breeding season
		3.3	Staff and client training to ensure non-intrusive viewing	3.3.1	No disruption during breeding season

<sup>M</sup> = Strategy required for major development only

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**Interim Wildlife Guidelines for Commercial Recreation: Birds****Red- and Blue-listed Marshbirds**

American Bittern (BLUE) and Green Heron (BLUE)

*Principal source of information:*

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks. Available through Crown Publications (<http://www.crownpub.bc.ca/>), Inventory Number 600.

**American Bittern**

*For distribution and map, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-09.htm>

In BC, American Bitterns usually breed in wet areas with dense growths of tall emergent vegetation or tall grasses adjacent to freshwater sloughs, marshes, swamps, and shallow, protected sections of lakes between sea level and 1300 m elevation in the south and central interior and in the lower Fraser Valley. American Bitterns normally nest as solitary pairs. The typical nest is a well-concealed platform of reeds, cattails, or sedges, in stands of cattail and bulrush, over water 5–20 cm deep. Dry fields and marshes are occasionally used for nesting. They forage primarily in marshes, but also sloughs, lake edges, swamps, river banks, sewage ponds, and fields breeding. Their habitats are threatened by development in the southern part of the province. Undiscovered breeding sites likely exist further north in lowland river valleys (e.g., Skeena, Nechako, and Peace River drainages).

**Green Heron**

In British Columbia, Green Heron breeding habitat consists of small ponds, sloughs, lakes, slow-moving rivers, and marshy areas, typically sheltered by thickets of willow or alder, between sea level and 610 m elevation. Green Herons normally nest as solitary pairs, but occasionally in small colonies. The nest is a platform of sticks and twigs, placed near the end of branches between 4 m and 35 m up in a tree or tall shrub. In British Columbia, nest sites may be as much as 1 km from water.

The Green Heron is moderately threatened because its British Columbia range overlaps that of a dense and rapidly growing human population in the Georgia Depression. Although urbanization and industrialization threatens lowland wetlands in general, this species seems quite resilient and tolerant of a certain level of human disturbance. Threats to habitat are somewhat mitigated by the Green Heron's ability to breed in relatively small habitat patches and to colonize new sites readily. In addition, British Columbia birds can nest at considerable distance (up to 1 km) from permanent water sources.

The objective of commercial recreation guidelines for the Red- and Blue-listed marshbirds is to maintain the current distribution and abundance of their populations in the province.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Gulls, Waders and Fish-eating Birds: Red- and Blue-listed Shorebirds

American Avocet (RED), American Golden-Plover (BLUE), Hudsonian Godwit (RED), Long-billed Curlew (BLUE), Red-necked Phalarope (BLUE), Short-billed Dowitcher (BLUE), Upland Sandpiper (RED), Wandering Tattler (BLUE)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Maintain the natural populations	1.0 <sup>M</sup>	For major developments, identify and map nest areas	1.1.1	Habitat areas mapped
2.0	Maintain habitat	2.1	Prevent in-filling, draining and flooding of marsh and wetland habitats and maintain natural cover around nesting wetlands	2.1.1	Cover maintained
		2.2	When detrimental, minimize livestock grazing in occupied habitat	2.3	Habitat maintained
3.0	Avoid harassment of nesting birds	3.1	Prevent humans from approaching within 100 m of nesting habitats May to August	3.1.1	Successful nesting
		3.2	Train staff and clients in appropriate behaviour in the vicinity of shorebirds and their habitats.	3.2.1	No harassment
		3.3	Do not allow dogs within 250 m of nesting habitats from May to August and ensure dogs are leashed		
4.0	Protect red and blue-listed shorebirds from toxic substances	4.1	Avoid the use of pesticides, including herbicides in breeding/foraging habitats	4.1.1	No toxic effects due to pesticides

<sup>M</sup> = Strategy required for major development only

\* **Note:** Information on this species is classified as sensitive and only available on a need to know basis from the Regional Endangered Species Specialist.

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**Interim Wildlife Guidelines for Commercial Recreation: Birds****Red- and Blue-listed Shorebirds****American Avocet**

American Avocets usually nest along the shores and flats of sparsely vegetated lakes and sloughs, particularly alkaline ones such as Alki Lake, the major breeding site in British Columbia. Avocets are known to have bred at Duck Lake near Creston, Beresford Lake near Kamloops, Serpentine Fen near Surrey), Little White Lake near Clinton, and Alki Lake near Kelowna. Most of these sites are ephemeral, and were only in use for one year. Alki Lake is the exception, being both the major breeding site in British Columbia, and the only site believed to have been in regular use since at least 1987. Apparently suitable habitats are scattered throughout the south-central interior suggesting other breeding sites remain to be discovered.

Coastal habitats used in migration include mudflats, estuaries, small ponds, spits and sparsely vegetated muddy shorelines. Interior habitats used in migration include lowland marshes, shallow alkaline ponds, shores of larger lakes, and sewage lagoons.

The objective of commercial recreation guidelines for the American Avocet is to maintain the current distribution and abundance of their populations in the province. The following additional commercial recreation guidelines apply to all populations of American Avocet:

Prevent in filling, draining, or flooding of marsh and wetland habitats used by American Avocets.

**Long-billed Curlew**

*For distribution and map, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-12.htm>

The objective of commercial recreation guidelines for the Long-billed Curlew is to maintain the current distribution and abundance of their populations in the province. The following additional commercial recreation guidelines apply to all populations of Long-billed Curlew:

A. Maintain native bunchgrass vegetation and prevent prescribed

burning in designated nesting areas.

**Upland Sandpiper**

Typical habitat of the Upland Sandpiper is open grassy uplands, hayfields, pastures, prairies. In British Columbia, it is known from lush overgrown fallow fields in the Peace River lowlands and large, natural grasslands near woodland borders in the Chilcotin-Cariboo and South Okanagan.

Upland Sandpipers nest in a grass-lined depression in the ground, well hidden among grass or other low vegetation. They require undisturbed grasslands and old-fields for breeding habitat. Habitats in the Peace River lowlands are very patchy and vulnerable to agricultural activities. Habitats in the Cariboo-Chilcotin are susceptible to overgrazing and trampling by livestock and in some areas, forest encroachment into grasslands. Any potential habitats left in the Okanagan are at risk due to rapid urban and agricultural development.

The objective of commercial recreation guidelines for the Upland Sandpiper is to maintain the current distribution and abundance of their populations in the province. The following additional commercial recreation guidelines apply to all populations of Upland Sandpiper:

A. Maintain native grassland habitats and prevent prescribed burning in designated nesting areas.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Gulls, Waders and Fish-eating Birds: Sandhill Crane (Blue)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Protect known breeding wetlands	1.1	Maintain structural integrity of identified riparian areas and minimum 50 m buffer	1.1.1	Habitat maintained
		1.2 <sup>M</sup>	Identify and map nesting and foraging habitat	1.2.1	Habitat maintained
2.0	Avoid harassment	2.1	Staff and client training to ensure non-intrusive viewing	2.1.1	No intrusive behaviour or harassment
		2.2	Prevent motorized vehicles and dogs from approaching within 250 m of nesting areas	2.2.1	Nest sites not disturbed
		2.3	Prevent the use of motorized watercraft on identified lake and marsh areas during the breeding period and at major migration staging lakes/marshes	2.3.1	Nest sites not disturbed
		2.4	Maintain seasonal no-fly zones for helicopters and fixed-wing aircraft that are a minimum 2000 m horizontal and 500 m vertical distance from breeding colonies		

<sup>M</sup> = Strategy required for major development only

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**Interim Wildlife Guidelines for Commercial Recreation: Birds****Sandhill Crane***Principal source of information:*

Blood, D. A., & Backhouse, F. (1999). *Sandhill Crane* (Wildlife in British Columbia At Risk). Victoria, BC: Ministry of Environment, Lands and Parks <http://wlapwww.gov.bc.ca/wld/documents/sandhillcrane.pdf>.

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks. Available through Crown Publications (<http://www.crownpub.bc.ca/>), Inventory Number 600.

*For distribution and map, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-10.htm>

Because of small population estimates and the continuing threats to their nesting habitat, the Sandhill Crane has been placed on the provincial Blue List. Sandhill Cranes receive protection against shooting and harassment under the federal Migratory Birds Convention Act and the provincial Wildlife Act. Little of their known nesting habitat has been protected.

Three subspecies of Sandhill Crane occur in British Columbia – the Lesser Sandhill Crane (*Grus canadensis canadensis*), the Greater Sandhill Crane (*G. c. tabida*) and the Canadian Sandhill Crane (*G. c. rowani*). Information on the distribution and abundance of Sandhill Cranes that breed in the province is poor because they are very secretive when nesting and often choose remote habitats that are difficult to survey.

The Lesser Sandhill Crane breeds across the Northwest Territories, Yukon, Alaska and the northern reaches of the prairie provinces. Thousands migrate through British Columbia each spring and fall, travelling between their wintering grounds in the southern United States and their Arctic nesting sites. Most stay east of the Rocky Mountains, but a few travel through the Interior and along the Coast. A few cranes have been known to nest in the northeast corner of the province but their subspecific status is unknown.

The Greater Sandhill Crane is divided into four breeding populations. Members of one of these – the Central Valley population – nest in small groups in scattered locations across the southern half of B.C. Many of these areas are of great conservation concern.

Habitat loss and degradation is likely the greatest threat to Sandhill Cranes in British Columbia. Some former nesting sites on Vancouver Island and in the Fraser and Okanagan valleys have been disturbed or destroyed by drainage projects, agricultural and urban development, and logging activity. However, most of British Columbia's nesting cranes use remote areas that, to date, have not been subject to significant development or resource extraction.

Cranes face many natural hazards, including flooding of their nests and predation on eggs, chicks and the occasional adult. In addition, the growth of crane populations is very low due to their delayed sexual maturity and small clutch size. Even a small amount of additional mortality due to human activities can cause their numbers to decline.

The objective of commercial recreation guidelines for the Sandhill Crane is to maintain the current distribution and abundance of their populations in the province.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Gulls, Waders and Fish-eating Birds: Red- and Blue-listed Colonial Nesters\*

Ancient Murrelet (BLUE), Brandt's Cormorant (RED), Cassin's Auklet (BLUE), Common Murre (RED), Double-crested Cormorant (RED), Horned Puffin (RED), Pelagic Cormorant - *pelagicus* ssp.(RED), Thick-billed Murre (RED), Tufted Puffin (BLUE)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Maintain nesting habitat	1.1	Identify and map nesting areas	1.1.1	Nesting habitat identified
2.0	Protect the species	2.1	Document and report all nesting occurrences of Red-listed seabirds	2.1.1	Known nesting occurrences documented
3.0	Avoid harassment of nesting birds	3.1	Prevent facility development within 2000 m of nest areas. In some cases, there should be no facility development or human activity on certain nesting islands where the consequence of introducing pests (e.g., rats and racoons) is particularly grave	3.1.1	Habitat maintained and no pests introduced to nesting colonies
		3.2	Maintain a no human or pet contact buffer zone of 500 m around nest areas from May to August	3.2.1	Breeding birds are not harassed
		3.3	Maintain a no motorized watercraft buffer zone of 500 m around nest areas from May to August	3.3.1	Breeding birds are not harassed
		3.4	Train staff and clients in appropriate behaviour in the vicinity of colonial-nesting seabirds and their habitats	3.4.1	Knowledgeable staff ensure no intrusions

\* **Note:** Information on these species is classified as sensitive and only available on a need to know basis from the Regional Endangered Species Specialist.

## Interim Wildlife Guidelines for Commercial Recreation: **Birds**

### **Seabirds: Red-and Blue-listed colonial nesters**

Brandt's Cormorant (RED), Pelagic Cormorant - *pelagicus* ssp.(RED), Double-crested Cormorant (RED), Common Murre (RED), Thick-billed Murre (RED), Ancient Murrelet (BLUE), Cassin's Auklet (BLUE), Horned Puffin (RED), and Tufted Puffin (BLUE)

#### *Principal sources of information:*

Environment Canada. 2002. *Seabirds: An indicator of marine ecosystem status for coastal British Columbia.*

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks

#### *For distribution and map of Ancient Murrelet, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-17.htm>

#### *For distribution and map of Cassin's Auklet, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-18.htm>

#### *For distribution and map of Marbled Murrelet, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-19.htm>

The British Columbia coastline supports large populations of breeding seabirds. It is estimated that over 5.6 million breed at more than 500 locations along the coast. In the case of Ancient Murrelets, our 500,000 birds represent half of the world's population of this species, and half of that number nest on only four islands in Haida Gwaii (Queen Charlotte Islands).

A wide variety of factors can affect seabird populations including changes

in key prey species, oil spills, toxic contaminants, overfishing, gillnet bycatch, predation and climatic conditions. Human disturbance during critical nesting and fledging periods can have significant impact due to gull and crow predation when parental birds leave the nest. In Haida Gwaii the main factor influencing many seabird populations appears to be introduced predatory mammals, including raccoons, and both Norway and black rats

The objective of commercial recreation guidelines for Red- and Blue-listed seabirds is to maintain the current distribution and abundance of their populations in the province.

**Status of seabird species breeding in British Columbia** (Source: Canadian Wildlife Service)

Species	Estimated numbers	Status	Comments
Double-crested Cormorant	4,000	Red-listed	declining, breeding restricted to Strait of Georgia
Brandt's Cormorant	200	Red-listed	irregular breeder
Pelagic Cormorant	9,000	<i>pelagicus</i> subspecies Red-listed	widespread coastal breeder
Common Murre	9,000	Red-listed	scarce breeder
Thick-billed Murre	20	Red-listed	at southern limit of range
Ancient Murrelet	540,000	Blue-listed	impacted by rat and raccoon predation
Horned Puffin	60	Red-listed	at southern limit of range
Tufted Puffin	78,000	Blue-listed	severe reproductive failure at Triangle Island 1994-98
Cassin's Auklet	2,700,000	Blue-listed	Triangle Island population is declining

**RED:** Indigenous species or subspecies that have been legally designated or are being considered for legal designation as Extirpated, Endangered, or Threatened status in BC  
**BLUE:** Indigenous species or subspecies considered to be Vulnerable in BC. They are at risk, but not Extirpated, Endangered, or Threatened.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Raptors: Bald Eagle

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Avoid harassment by humans	1.1	Minimize human activities within 150 m of active nests between February and July.	1.1.1	No human caused disruption in natural behaviour
		1.2	Minimize human activities within 150 m major wintering habitat, roosting and foraging sites		
		1.3	Train staff and clients in appropriate behaviour in the vicinity of Bald Eagles and their habitats.		
2.0	Protect the habitat	2.1	Maintain all existing habitat components within 150 m of nest trees.	2.1.1	Habitat maintained
		2.2	Prevent facility development within 150 m of nest trees.		

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Interim Wildlife Guidelines for Commercial Recreation: **Birds****Bald Eagle**

Principle source of information:

Olliff, T., Legg, K., & Kaeding, B. (1999). *Effects of winter recreation on wildlife of the Greater Yellowstone Area: a literature review and assessment*. Yellowstone National Park, WY: Report to the Greater Yellowstone Coordinating Committee.

Bald Eagles are a highly visible species to the public. The key issues of concern relate to nest sites (that are usually located in riparian areas), night-time communal roosts in fall and winter, concentrated food sources (salmon spawning areas, ungulate winter ranges at low elevations).

Human activities have various effects on Bald Eagles. In the breeding season, temporary human activities influence nest building, egg laying and incubation. In winter, human activities can influence feeding and communal roosting at a time when Bald Eagles are food-stressed. The responses of eagles vary among individuals and among populations, but documented reactions range from avoidance and displacement, to abandonment of nests and reproductive failure due to prolonged absences of adults from young birds at the nest. The likelihood of nest site abandonment is greatest early in the breeding season, during the courtship and nest building phases; they are more likely to put up with some disturbance when they have eggs or young in the nest. Bald Eagles change their feeding activities and show shifts in spatio-temporal use patterns. High levels of human activities can increase energy demands, and can increase mortality rates. The nest structures of Bald Eagles are protected throughout the year, whether active or not, under Section 34 of the British Columbia *Wildlife Act*.

The objective of commercial recreation guidelines for the Bald Eagle is to maintain the current distribution and abundance of their populations in the province.

**General Considerations for Raptors**

Most concern for raptors focuses on the impact of human activities during the breeding and rearing season, and the loss of nest sites. Raptors are sensitive to disturbance and although some species will actively defend their nest sites, given sufficient disturbance, raptors will abandon nests.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Raptors: Red- and Blue-listed Cliff-nesting Falcons

Gyrfalcon (BLUE), Peregrine Falcon - *anatum* ssp. (RED)- *pealei* ssp. (BLUE) , Prairie Falcon (RED)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Protect aeries from human disturbance	1.1	Prevent rock climbing within 500 m of nests, and hang-gliding on or near occupied cliff nests until the offspring have fledged	1.1.1	No activity near active sites.
		1.3	Prevent helicopter or fixed-wing flyovers near occupied cliff nests until the offspring have fledged		
		1.3	Avoid development within 250 m of occupied cliff nesting area, and construction projects involving major disturbance like blasting, road and building construction 1000 m away during the breeding season.	1.2.1	No development within 250 m of cliff nests, and construction within 1000 m during breeding season
2.0		2.1	Train staff and clients in appropriate behaviour in the vicinity of falcons and their habitats	2.1.1	Active support and awareness from staff and visitors
1.0	Protect the population of this species	1.1	Document and report any known species nesting/breeding locations.	1.1.1	Existing range well known
		1.2 <sup>M</sup>	For major developments, identify and map nesting and foraging habitats	2.1.1	Breeding sites known
			Promote stewardship where deemed effective to protect active sites from human disturbance	4.4.1	Protective support groups

Species	Conservation status in B.C.	Nest site features	Remarks
Prairie Falcon	Red-listed	ledges or cavities on cliffs	Nest sites frequently re-used;
Peregrine Falcon, <i>anatum</i> ssp.	Red-listed	ledges or cavities on cliffs adjacent to fresh or marine waters	Rarely on large broken-topped tree or ledges of tall city buildings. Nest sites frequently re-used
Peregrine Falcon, <i>pealei</i> ssp.	Blue-listed	ledges or cavities on cliffs adjacent to marine waters	Nest sites frequently re-used. Occurs on Queen Charlotte and Vancouver Islands, usually near seabird colonies
Gyrfalcon	Blue-listed	Cliff ledges, usually at higher elevation in mountains	Occasionally nest in trees, breeding restricted to extreme northern portions of province

**RED:** Indigenous species or subspecies that have been legally designated or are being considered for legal designation as Extirpated, Endangered, or Threatened status in BC  
**BLUE:** Indigenous species or subspecies considered to be Vulnerable in BC. They are at risk, but not Extirpated, Endangered, or Threatened.

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**Interim Wildlife Guidelines for Commercial Recreation: Birds****Falcons: Red- and Blue-listed Cliff-nesting species**

Gyrfalcon (BLUE), Prairie Falcon (RED), Peregrine Falcon - *anatum* ssp. (RED)- *pealei* ssp. (BLUE)

*Principal source of information:*

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks..

There are three species, encompassing four subspecies, of cliff-nesting raptors that are of conservation concern. These species lay their eggs on cliffs, usually with little effort at nest building. Generally, the season for egg laying and rearing of young extends from April through to September. During this period, the birds are sensitive to disturbance whether from the air via aircraft and hang gliders, or from the ground by rock-climbers. Little information exists on the sensitivity of these raptors to these types of disturbances, though like other raptors, sensitivity and likelihood of abandonment are highest early in the breeding season. Given their conservation status, a precautionary approach is warranted.

The objective of commercial recreation guidelines for Red- and Blue-listed cliff-nesting raptors is to maintain the current distribution and abundance of their populations in the province.

**Peregrine Falcon\***

The objective of commercial recreation guidelines for the Peregrine Falcon\* is to maintain the current distribution and abundance of their populations in the province. The following additional commercial recreation guidelines apply to all populations of Peregrine Falcon:

- A. Prevent in filling or draining of wetland foraging habitats.
- B. Avoid the use of pesticides in the vicinity of nesting or foraging areas.

**Prairie Falcon**

For distribution and map, see:

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-14.htm>

The objective of commercial recreation guidelines for the Prairie Falcon\* is to maintain the current distribution and abundance of their populations in the province. The following additional commercial recreation guidelines apply to all populations of Prairie Falcon:

- A. Maintain grassland foraging habitats in late seral stage.
- B. Avoid the use of pesticide in the vicinity of nesting or foraging areas.

\* Location information on these species is classified as sensitive and is only available on a need to know basis from the Regional Endangered Species Specialist.

**General Considerations for Raptors**

Most concern for raptors focuses on the impact of human activities during the breeding and rearing season, and the loss of nest sites. Raptors are sensitive to disturbance and although some species will actively defend their nest sites, given sufficient disturbance, raptors will abandon nests, especially early in the courtship and nest preparing stages before they have invested time and energy in laying eggs and rearing young..

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Raptors: Red-Listed Tree-nesting Hawks

Broad-winged Hawk, Ferruginous Hawk\*, Northern Goshawk-*laingi* subspecies\*, Swainson's Hawk\*

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Protect the populations of these species	1.1	Document and report any known nesting/breeding locations of Broad-winged Hawk, Swainson's Hawk, Ferruginous Hawk and Northern Goshawk- <i>laingi</i> ssp	1.1.1	Known nesting/breeding locations of these species including locations are recorded
2.0	Maintain high quality habitat near nests	2.1	Prevent facility development within 150 m of nest trees of Broad-winged Hawk, Swainson's Hawk, and Ferruginous Hawk	2.1.1	Successful nesting
		2.2	Maintain all existing habitat components within 150 m of nest trees of Broad-winged Hawk, Swainson's Hawk, and Ferruginous Hawk	2.2.1	Habitat maintained
3.0	No harassment by humans	3.1	Train staff and clients in appropriate behaviour in the vicinity of tree-nesting hawks and their habitats.	3.1.1	No abandonment of nests
		3.2	Minimize human activities within 150 m of active nests between February and July.	3.2.1	Successful nesting

Species	Status in B.C.	Nest features	Remarks
Northern Goshawk, <i>laingi</i> ssp.	Red-listed	Stick nest in tall tree; usually in conifers	Often has several alternate nests in territory. Restricted to coastal forests
Broad-winged Hawk	Red-listed	Stick nest in either conifer or deciduous trees	Largely restricted to NE corner of BC
Swainson's Hawk	Red-listed	Stick nest	Nest often re-used. Restricted to interior grassland habitat
Ferruginous Hawk	Red-listed	Stick nest	Nests re-used; also nests in bushes, cliffs and on ground. Restricted to interior grassland habitats

**Note:** Information on this species is classified as sensitive and only available on a need to know basis from the Regional Endangered Species Specialist.

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**Interim Wildlife Guidelines for Commercial Recreation: Birds****Raptors: Red-Listed Tree-nesting hawks**

Broad-winged Hawk\*, Swainson's Hawk\*, and Ferruginous Hawk\*,  
Northern Goshawk-*laingi* ssp\*

*Principal source of information:*

Fraser, D. F., et al. (1999). *Rare birds of British Columbia*. Victoria, BC:  
Wildlife Branch, British Columbia Ministry of Environment, Lands and  
Parks.

Iverson, G. C., et al. (1996). *Conservation assessment for the Northern  
Goshawk in southeast Alaska*. Portland, OR: USDA Forest Service.

All these species lay their eggs in relatively large, visible stick nests in trees. Generally, the season for egg laying and rearing of young extends from April through August. Any activities that destroy current and future nest trees and nesting habitat could have adverse impacts on their populations.

**Northern Goshawk**

*For distribution and map, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-15.htm>

Northern Goshawks are forest predators, usually associated with mature and old growth forests. Because of their dependence on older forests, they have been the subject of intensive research and conservation concern. They feed on forest-dwelling birds and mammals, ranging in size from Varied Thrush and Red Squirrels, to grouse and hares. The key issues are disturbance

during the nesting and rearing season, and habitat management and conservation of nest sites and post-fledging areas.

Northern Goshawks nest in large trees, and actively defend these sites. Nesting birds are sensitive to human disturbance, and will attack and call loudly when people approach too closely. Research results indicate that disturbance can cause Goshawks to abandon nests, especially if it occurs early in the breeding season.

The following additional commercial recreation guidelines apply to all populations of Northern Goshawk:

- A. Maintain old growth forest, wildlife trees, and coarse woody debris within the 12 ha nest area for Northern Goshawks
- B. Prevent facility development within a 12 ha nest area centred on known nest trees of Northern Goshawks

The objective of commercial recreation guidelines for the Broad-winged Hawk\*, Swainson's Hawk, Ferruginous Hawk\*, and Northern Goshawk-*laingi* ssp\* is to maintain the current distribution and abundance of their populations, and to minimize or prevent nest failures.

**Ferruginous hawk**

*For distribution and map, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-13.htm>

\* Location information on these species is classified as sensitive and is only available on a need to know basis from the Regional Endangered Species Specialist.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Raptors: Red- and Blue-listed Tree-nesting Owls

Flammulated Owl (BLUE), Northern Pygmy-Owl- *swarthy* ssp. (BLUE), Northern Saw-whet Owl- *brooksi* ssp. (BLUE), Spotted Owl (RED), Western Screech-Owl - *macfarlanei* ssp. (RED)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Protect the populations of these species	1.1	Document and report any known nesting/breeding locations of these species	1.1.1	Known nesting/breeding locations documented
		1.2	For major developments, identify and map nesting habitats	1.2.1	Habitat maintained
2.0	Protect the existing populations	2.1	Avoid the use of pesticides near known nesting sites	2.1.1	No pesticide use in known nesting areas
		2.2	Train staff and clients in appropriate behaviour in the vicinity of owls and their habitats	2.2.1	Active support and awareness from staff and visitors
4.0	Maintain wildlife trees	4.1	Prevent the cutting of wildlife trees or standing dead snags except as necessary for safety (topping should be considered as a safety option).	4.1.1	Ample supply of wildlife trees

Species	Conservation status	Nest site features
Spotted Owl	Red-listed	Tree cavity or abandoned hawk's nest
Western Screech-Owl - <i>macfarlanei</i> ssp.	Red-listed	Natural cavity or deserted woodpecker hole
Northern Pygmy-Owl - <i>swarthy</i> ssp.	Blue-listed	Natural cavity or deserted woodpecker hole
Flammulated Owl	Blue-listed	Natural cavity or deserted woodpecker hole

**RED:** Indigenous species or subspecies that have been legally designated or are being considered for legal designation as Extirpated, Endangered, or Threatened status in BC  
**BLUE:** Indigenous species or subspecies considered to be Vulnerable in BC. They are at risk, but not Extirpated, Endangered, or Threatened.

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

### **Raptors: Red- and Blue-listed Tree-nesting Owls**

Flammulated Owl (BLUE), Spotted Owl (RED), Western Screech-Owl - *macfarlanei* ssp. (RED), Northern Pygmy-Owl, *swarthi* ssp. (BLUE), and Northern Saw-whet Owl, *brooksi* ssp. (BLUE)

*Principal source of information:*

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks. Available through Crown Publications (<http://www.crownpub.bc.ca/>), Inventory Number 600.

#### **Flammulated Owl**

In British Columbia, Flammulated Owls inhabit mature and old-growth montane forests, primarily within the Interior Douglas-fir biogeoclimatic zone. Forests over 100 years old seem to be preferred.

The objective of commercial recreation guidelines for the Flammulated Owl is to maintain their current distribution and abundance within the province. The following additional commercial recreation guidelines apply to all populations of Flammulated Owl:

A. Minimize disturbance of mature and old growth forest habitats where Flammulated Owl occurs.

#### **Western Screech-owl (*macfarlanei* subspecies)**

In British Columbia, the *macfarlanei* subspecies of the Western Screech-Owl is found year-round in deciduous riparian forests and open ponderosa pine and water birch woodland habitats, in the southern Okanagan Valley south of Kelowna.

The objective of commercial recreation guidelines for the Western Screech-owl – *macfarlanei* subspecies is to maintain their current distribution and abundance within the province. The following additional commercial recreation guidelines apply to all populations of Western Screech-owl - *macfarlanei* subspecies:

Prevent development in or alteration of riparian deciduous forest where they are known to occur.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Raptors: Red and Blue-listed Ground-nesting Owls

Short-eared Owl (BLUE), Burrowing Owl (RED)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Protect the grass and marsh habitat	1.1	Prevent development of facilities in high-quality grassland and meadow habitat within the breeding range of Short-eared Owls and Burrowing Owls.	1.1.1	Habitat well used by this species
		1.2	Do not allow grazing or haying near nest sites during critical periods including winter	1.2.1	No loss in habitat effectiveness
		1.3	Prevent OHV, mountain bikes, or domestic animals on grasslands and meadows used for nesting.	1,3,1	
2.0	Protect the species from toxic substances	2.1	Avoid the use of pesticides near known nesting sites	2.1.1	No pesticide use in known nesting areas
3.0	Avoid harassment	3.1	Staff training to ensure non-intrusive viewing	3.1.1	No intrusive behaviour
		3.2	Do not allow dogs within 250m of nesting area	3.2.1	Nest sites not disturbed
4.0	Identify use areas	4.1 <sup>M</sup>	Identify and map nesting habitats	4.1.1	Nest sites known

<sup>M</sup> = Strategy required for major development only

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

### ***Short-eared Owl and Burrowing Owl***

Key issues of concern: Loss and fragmentation of foraging, nesting and wintering habitat, human disturbance of nesting areas.

*Principal sources of information:*

Blood, D. A., & Low, D. (1998). *Burrowing Owl* (Wildlife in British Columbia At Risk). Victoria, BC: Ministry of Environment, Lands and Parks <http://wlapwww.gov.bc.ca/wld/documents/burrow1.pdf>

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks. Available through Crown Publications (<http://www.crownpub.bc.ca/>), Inventory Number 600.

Short-eared Owls and Burrowing Owls nest in open treeless areas such as grasslands, rangelands, dry marshes, farmlands, brushy fields and forest clearings.

Information needs include documentation of nest sites, identification and mapping of nesting and foraging habitat, and assessments of potential impacts on nest sites or breeding success.

Winter habitats for Short-eared Owls are concentrated in the lower Fraser River valley in coastal grasslands and old-field habitats, while Burrowing Owls are migratory and do not remain in British Columbia in the winter.

The objective of commercial recreation guidelines for the Short-eared Owl and Burrowing Owl are to maintain their current distribution and abundance within the province

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Songbirds: Red- and Blue-listed species

Bay-breasted Warbler (RED), Black-throated Green Warbler (BLUE), Bobolink (BLUE), Brewer's Sparrow *-breweri* ssp. (RED), Canada Warbler (BLUE), Canyon Wren (BLUE), Cape May Warbler (RED), Connecticut Warbler (RED), Grasshopper Sparrow (RED), Gray Flycatcher (BLUE), Lark Sparrow (RED), Nelson's Sharp-tailed Sparrow (RED), Philadelphia Vireo (BLUE), Pine Grosbeak *-carlottae* ssp. (BLUE), Purple Martin (RED), Sage Thrasher (RED), Smith's Longspur (BLUE), Steller's Jay *-carlottae* ssp. (BLUE), Vesper Sparrow *-affinis* ssp. (RED), Yellow-breasted Chat (RED)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Protect the population of these species	1.1 <sup>M</sup>	Document and report any known nesting/breeding locations of this species	1.1.1	Existing range well known
		1.2 <sup>M</sup>	Do not allow dogs within 250 m of nesting area for ground-nesting species	2.2.1	No disruption of natural behaviour caused by dogs
2.0	Breeding range well documented	2.2 <sup>M</sup>	Identify and map breeding sites, nesting and foraging habitats	2.1.1	Breeding sites known
3.0	Maintain critical habitat	3.1	Prevent development or clearing in critical nesting and foraging habitat	3.1.1	Critical habitat maintained
4.0		4.1	Avoid the use of pesticides/herbicides in known nesting sites	4.1.1	No pesticide use in known nesting areas
5.0		5.1	When detrimental, minimize livestock grazing in occupied habitat	5.1.1	Habitat maintained
	Avoid harassment particularly during courtship and nesting	5.2	Staff and client training to ensure non-intrusive viewing	5.1.2	No disruption of natural behaviour caused by human presence

<sup>M</sup> = Strategy required for major development only

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**Interim Wildlife Guidelines for Commercial Recreation: Birds****Songbirds: Red- and Blue-listed species**

The objective of commercial recreation guidelines for Red- and Blue-listed songbirds is to maintain their current distribution and abundance within the province.:

*Principal sources of information:*

Camp, R. J., & Knight, R. L. (1998). Rock climbing and cliff bird communities at Joshua Tree National Park, California. *Wildlife Society Bulletin*, 26, 892-898.

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks.

**Canyon Wren**

Key issues of concern: nesting sites on cliffs

Few specific studies have examined impacts on Canyon Wren. In Joshua Tree National Park, California, a study examined bird communities in relation to three levels of rock climbing: unclimbed cliffs, moderate-use cliffs and popular cliffs. Although the sample size was small, Canyon Wrens were only observed at unclimbed sites: only three other of the 33 species had a similar distribution. The authors recommended that programs be implemented to monitor the use of cliffs by climbers and to evaluate spatial and temporal changes in number of birds, including changes in the number of invasive species.

The objective of commercial recreation guidelines for the Canyon Wren is to maintain their current distribution and abundance within the province by minimizing nest failures and optimizing over-winter survival. The following additional commercial recreation guidelines apply to all populations of Canyon Wren:

- A.. Prevent facility development 100 m of nesting habitats.
- B. Prevent removal of talus rock on or near nesting and foraging habitats.
- C. Prevent rock climbing on or near occupied nesting and foraging

habitats from May through July.

- D. Avoid rock climbing on or near over-wintering habitats from November through February.

**Bobolink**

Key issues of concern: nesting and foraging habitats

*For distribution and map, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-22.htm>

The Bobolink is a migratory, Blue-listed species. It nests in hayfields and moist meadows, and can therefore be affected by the timing of hay cropping during incubation. Fraser et al. (1999) suggest that mowing be delayed until after birds leave in August and that the use of pesticides on breeding grounds be avoided.

The objective of commercial recreation guidelines for the Bobolink is to maintain their current distribution and abundance within the province by minimizing nest failures. The following additional commercial recreation guidelines apply to all populations of Bobolink:

- A. Avoid grazing or mowing of nesting and foraging habitats prior to August.

*For distribution and map of Brewer's Sparrow, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-23.htm>

*For distribution and map of Grasshopper Sparrow, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-24.htm>

*For distribution and map of Sage Thrasher, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-25.htm> and <http://wlapwww.gov.bc.ca/wld/documents/sagethrasher.pdf>

*For distribution and map of Yellow-breasted Chat, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-26.htm>

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Songbirds: White-throated Swift (Blue)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Maintain critical habitat	1.1	No development in close vicinity to occupied cliff nesting areas	1.1.1	Nesting sites not abandoned
2.0	Protect from harassment	2.1	No rock climbing in close proximity (10 m or less) to occupied cliff nesting areas	1.2.1	No harassment by humans
3.0	Protect the population of this species	3.1	Document and report any known nesting/breeding locations of this species	3.1.1	Nesting/breeding locations noted

<sup>M</sup> = Strategy required for major development only

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

### ***White-throated Swift***

*Principal sources of information:*

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks.

White-throated Swifts are cliff-dwelling and nesting birds, hawking insects in the air around their breeding areas. Nests are made from feathers, frass and other plant materials and glued, using the bird's saliva, into cracks, crevices and small ledges.

Rock climbing or hang-gliding are activities that have the potential to disturb birds during breeding periods. As well, there is evidence that blasting activity close to or on the nest cliff may cause birds to abandon their nesting sites.

The objective of commercial recreation guidelines for the White-throated Swift is to maintain the current distribution and abundance of their populations in the province.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Upland game birds: Sharp-tailed Grouse\* – *columbianus* ssp. (Blue)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Protect the bunchgrass and riparian habitat	1.1	Avoid facility development within 1 km of leks <sup>1</sup> , nesting areas & critical winter habitats	1.1.1	Habitat well used by this species
		1.2	Prevent habitat alteration of leks, nesting areas and critical winter habitats No alterations or development on critical areas	1.2.1	No loss in habitat effectiveness
		1.3	Minimize livestock use of Sharp-tailed Grouse habitats (leks, nesting, and wintering areas) where potential exists for loss of adequate vegetative cover and disturbance to breeding birds.		
2.0	Avoid harassment	2.1	Train staff and clients in appropriate behaviour in the vicinity of Grouse especially near leks		
		2.2	Keep dogs 250 m from leks, nesting area and critical winter habitats	2.2.1	Nest sites not disturbed
3.0	Protect the species from toxic substances	3.1	Avoid the use of pesticides, including herbicides, near leks and known nesting sites	3.1.1	No toxic effects due to pesticides
4.0	Maintain the natural population	4.1 <sup>M</sup>	Identify and map leks, nesting areas and critical winter habitats	4.1.1	Natural populations identified and mapped

<sup>M</sup> = Strategy required for major development only

\*Note: Information on this species is classified as sensitive and only available on a need to know basis from the Regional Endangered Species Specialist.

<sup>1</sup> Leks are areas where males congregate and display to attract females. Breeding occurs at the lek, but the females then move to other habitats to nest and raise their young.

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## **SHARP-TAILED GROUSE**

Key issues of concern: lekking grounds, nesting habitat, critical winter habitat

Primary sources of information:

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks. Available through Crown Publications (<http://www.crownpub.bc.ca/>) for \$30.00, Inventory Number 600.

Ritcey, R. (1995). *Status of the Sharp-tailed Grouse (columbianus subspecies) in British Columbia* (Wildlife Working Report WR-70). Victoria, BC.: BC Ministry of Environment, Lands and Parks.

Baydeck, R. K., & Hein, D. A. (1987). Tolerance of Sharp-tailed Grouse to lek disturbance. *Wildlife Society Bulletin*, 15, 535-539.

Most grouse species in BC are widespread and abundant and there is little concern for the impact of backcountry recreational activities. However, the Sharp-tailed Grouse are at risk and precautions need to be taken to minimise their disturbance

Sharp-tailed Grouse are a Blue-listed species with relatively low populations and restricted distributions. Of particular concern is the need to minimize habitat damage and prevent disturbance of the lek sites where males perform courtship displays and breed with females. Females avoid disturbed leks, and in Idaho, over-enthusiastic photographers have caused grouse to abandon leks. In addition, protection also needs to be afforded to their nesting and winter foraging habitats.

The objective of commercial recreation guidelines for the Sharp-tailed Grouse is to maintain its current distribution and abundance within the province

\* Location information on this species is classified as sensitive and is only available on a need to know basis from the Regional Endangered Species Specialist.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Upland game birds: White-tailed Ptarmigan- *saxatalis* spp. (Blue)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Maintain critical habitat	1.1	Identify and map breeding sites and critical winter habitats	1.1.1	Natural populations, breeding and critical winter habitat identified
		1.2	Prevent habitat alteration of nesting areas and critical winter habitats	1.2.1	Breeding and critical winter habitat maintained
2.0	Avoid harassment	2.1	Train staff and clients in appropriate behaviour in the vicinity of Ptarmigan and their habitats		
		2.2	Avoid facility development within 1 km of major nesting areas & critical winter habitats		
		2.3	Keep dogs 250 m from nesting area and critical winter habitats	2.2.1	Nest sites not disturbed
3.0	Protect the species from toxic substances	3.1	Avoid the use of pesticides (including herbicides) near known nesting sites	3.1.1	No toxic effects due to pesticides

<sup>M</sup> = Strategy required for major development only

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

### ***White-tailed Ptarmigan***

Key issues of concern: nesting habitat, critical winter habitat

Primary sources of information:

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks. Available through Crown Publications (<http://www.crownpub.bc.ca/>), Inventory Number 600.

White-tailed Ptarmigan-*saxatalis* subspecies is a Blue-listed species with relatively low populations that only occur in mountainous areas of Vancouver Island.

The objective of commercial recreation guidelines for the White-tailed Ptarmigan-*saxatalis* is to maintain its current distribution and abundance within the province.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Waterfowl: American White Pelican (Red)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Maintain the natural population	1.1	Document and report any known species nesting/breeding locations	1.1.1	Water levels maintained
		1.2 <sup>M</sup>	Identify and map loafing and foraging habitats	1.2.1	No disturbance of nesting birds
2.0	Stable water levels	2.1	Prevent alteration of natural water regimes (dams and diversions) associated with breeding, loafing and foraging habitats.	2.1.1	Feeding habitat maintained
3.0	Maintain high quality feeding habitat	3.1	Prevent facility development within 500 m of loafing and foraging habitats conflict.	3.1.1	continued foraging
4.0	No disturbance when nesting at Sturm Lake, or loafing and foraging areas elsewhere	4.1	The Wildlife Act directs that there will be no human activity on or around Sturm Lake between March 1 and August 31. Maintain seasonal no-fly zones for helicopters and fixed-wing aircraft that are a 600 m vertical distance from the breeding colony at Sturm Lake.	4.1.1	Successful nesting, birds remain in area
		4.2	Avoid approaching within 250 m of loafing and foraging pelicans outside of Sturm Lake		
		4.3	Prevent dogs from approaching within 250 m of loafing and foraging habitats see above		
		4.4	Avoid aircraft landings and takeoffs on or near loafing and foraging habitats see above		
		4.5	Train staff and clients in appropriate behaviour in the vicinity of American white pelicans and their habitats while they are breeding, foraging or loafing.		

<sup>M</sup> = Strategy required for major development only

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## ***American White Pelican***

*Principal source of information:*

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks. Available through Crown Publications (<http://www.crownpub.bc.ca/>), Inventory Number 600.

*For distribution and maps, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-07.htm>

Although they have been observed at over 50 lakes on the Fraser Plateau during the breeding season, American White Pelicans in British Columbia nest in only one location, at Stum Lake, 70 km northwest of Williams Lake. The other lakes are used only for loafing and foraging and less than half of these are regularly used by significant numbers of pelicans. The single breeding population is Red-listed and designated as Endangered in British Columbia. Although the nesting area is protected in a Provincial Park, foraging sites are not currently protected. The Wildlife Act directs that there will be no human activity on or around Stum Lake between March 1 and August 31

The objective of commercial recreation guidelines for the American White Pelican is to maintain its current distribution and abundance in the province.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Waterfowl: Harlequin Duck

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Avoid loss of critical habitats	1.1	Identify and map potential nesting and foraging habitats	1.1.1	Critical habitats mapped
		1.2	Prevent facility development on critical riverine and riparian habitats	1.2.1	Number of facilities developed in key habitats
2.0	Avoid nesting and fledgling period disturbance	2.1	Avoid activities on critical habitats during nesting and fledgling period (May to September)	2.1.1	Number of disturbing events per day or week during key periods
		2.2	Train staff and clients in appropriate behaviour in the vicinity of Harlequin Ducks and their habitats.		
3.0	Maintain water quality	3.1	No ground disturbance in riparian zones along nesting river sections	3.1.1	No siltation increase. Integrity of riparian zone maintained.

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## ***Harlequin Duck***

Primary sources of information:

Campbell, R. W., Dawe, N. K., McTaggart-Cowan, I., Cooper, J. M., Kaiser, G. W., McNall, M. C. E., & Smith, G. E. J. (1997). *The Birds of British Columbia* (Vol. 1). Vancouver, BC: UBC Press.

Clarkson, P. (1992). *A preliminary investigation into the status and distribution of Harlequin Duck in Jasper National Park* (Unpublished technical report). Jasper, AB: Natural Resource Conservation, Jasper National Park.

Joslin, G., & Youmans, H. (1999). *Effects of recreation on Rocky Mountain Wildlife: A review for Montana*. Committee on Effects of Recreation on Wildlife. Montana Chapter of The Wildlife Society  
<http://www.montanatws.org/PDF%20Files/3bird1.pdf>

Harlequin Ducks winter in marine areas of coastal British Columbia, and breed adjacent to rivers and streams in the interior, often at elevations above 1000 m. Harlequin Ducks and their broods can be significantly disturbed and displaced by water craft and rafts, seasonal curtailment of these activities may be required. For instance, river rafting in Jasper National Park was substantially reduced to protect the species during the nesting and fledging period.

The objective of commercial recreation guidelines for the Harlequin Duck is to maintain the current distribution and abundance of their populations in the province.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Waterfowl: Western Grebe (RED)

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Maintain the natural populations	1.1 <sup>M</sup>	Identify critical nesting habitat and develop plans to avoid disturbance	1.1.1	Critical habitat maintained
		1.2	Document and report any known species nesting/breeding locations	1.2.1	Species nesting/breeding locations noted and reported
		1.3	Avoid operating motorized watercraft in the midst of wintering aggregations	1.3.1	No harassment of birds
2.0	Maintain habitat	2.1	Prevent in-filling, draining or flooding of marsh habitats used by Western Grebes and maintain natural cover around nesting wetlands	2.1.1	Cover maintained
		2.2	Prevent alteration of natural water regimes (dams and diversions)	2.2.1	Natural water levels maintained
		2.3	Avoid the use of pesticides/herbicides in the vicinity of nesting or foraging areas	2.3.1	No pesticides used in vicinity
3.0	Avoid harassment of nesting birds	3.1	Prevent use of motorized watercraft on identified lake areas (minimum buffer zone of 250 m) during the breeding period, as nests are easily swamped.	3.1.1	No disruption during nesting period
		3.2	Maintain a no human or pet contact buffer zone of 250 m around nest areas from April to September	3.2.1	No disruption during breeding season
		3.3	Staff and client training to ensure non-intrusive viewing	3.3.1	No disruption during breeding season

<sup>M</sup> = Strategy required for major development only

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## Interim Wildlife Guidelines for Commercial Recreation: **Birds**

### **Western Grebe**

Key issues of concern: nesting colonies and season, winter aggregations

*Principal source of information:*

Burger, A.E. 1997. *Status of the Western Grebes in British Columbia*. BC Ministry of Environment, Lands and Parks, Victoria, BC. Wildlife Working Report WR-87. 40pp.

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks. Available through Crown Publications (<http://www.crownpub.bc.ca/>), Inventory Number 600.

For distribution and maps, see:

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-08.htm>

Western Grebes are colonial nesting waterbirds that breed on large freshwater marshes and lakes. Breeding only occurs regularly at three colonies in BC, with the total breeding population restricted to about 200 pairs. As breeding is continuous through the season, breeding colonies are active from late April through late August. Breeding habitat is characterized by extensive emergent vegetation and stable water levels from nest building through incubation.

Grebes are vulnerable to human disturbance and habitat alterations. The wash of power-boats can flood and/or tip over their nests causing the eggs to fall out. Disturbance by people in boats, canoes, or by swimmers, may cause grebes to vacate nests, leaving their eggs and young exposed to the weather and to predation. In B.C., human disturbance has caused the loss of at least three nesting areas. Coastal wintering aggregations of Western Grebes can reach 10,000 or more individuals, making them vulnerable to events such as oil and chemical spills.

The objective of commercial recreation guidelines for the Western Grebe is to maintain the current distribution and abundance of their populations in the province.

Interim Wildlife Guidelines for Commercial Recreation: **Birds**

## Woodpeckers: Red- and Blue-listed species

Hairy Woodpecker - *picoideus* ssp (BLUE), Lewis's Woodpecker (BLUE), White-headed Woodpecker (RED), Williamson's Sapsucker - *nataliae* ssp.(RED), Williamson's Sapsucker - *thyroideus* ssp. (BLUE).

Last modified: March 2002

MANAGEMENT OBJECTIVE		IMPACT MITIGATION GUIDELINES		SUCCESS INDICATOR	
1.0	Identify species distribution	1.1	Document and report any known species nesting/breeding locations.	1.1.1	Suitable habitat maintained
2.0	Maintain the natural population	2.1 <sup>M</sup>	Identify and map breeding sites and habitats.	2.1.1	No disruption of natural behaviour caused by human presence
3.0	Maintain suitable habitat	3.1	Minimize disruption of mature and old growth forest habitat.	3.1.1	Quality habitat maintained
		3.2	Prevent the cutting of wildlife trees or standing dead snags except as necessary for safety (topping should be considered as a safety option).		
4.0	Avoid harassment	4.1	Staff training to ensure non-intrusive viewing		
		4.2	Maintain a 100 m buffer around occupied nests		

<sup>M</sup> = Strategy required for major development only

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**Interim Wildlife Guidelines for Commercial Recreation: Birds****Woodpeckers: Red- and Blue-listed species**

Williamson's Sapsucker - *nataliae* ssp.(RED), Williamson's Sapsucker - *thyroideus* ssp. (BLUE), White-headed Woodpecker (RED), Lewis's Woodpecker (BLUE), and Hairy Woodpecker - *picoideus* ssp (BLUE).

*Principal sources of information:*

Blood, D. A. (1997). *White-headed woodpecker* (Wildlife in British Columbia At Risk). Victoria, BC: Ministry of Environment, Lands and Parks.  
<http://wlapwww.gov.bc.ca/wld/pdocuments/woodpecker.pdf>

Fraser, D. F., Harper, W. L., Cannings, S. G., Cooper, L. R., & Cooper, J. M. (1999). *Rare birds of British Columbia*. Victoria, BC: Wildlife Branch and Resources Inventory Branch, British Columbia Ministry of Environment, Lands and Parks. Available through Crown Publications (<http://www.crownpub.bc.ca/>), Inventory Number 600.

The objective of commercial recreation guidelines for Red- and Blue-listed woodpeckers is to maintain their current distribution and abundance within the province.

**White-headed Woodpecker**

*For distribution and map, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-21.htm>

Unlike other woodpeckers which feed primarily on wood-boring insects, the food source of the White-headed Woodpecker is largely the seeds of ponderosa pine trees. This dependence on such a specific food supply restricts the White-headed Woodpecker to the distribution of this tree species, which themselves are confined to the southern interior of the province at low elevations, and have been under extensive alterations from human activities for the past 80 years. They nest in standing dead and large mature living trees. The protection of snags and mature ponderosa pine is critical to the maintenance of this species of woodpecker. It is almost certain there are fewer than 100 birds living in the province.

**Lewis's Woodpecker**

*For distribution and map, see:*

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/other/species/species-20.htm>

This woodpecker can nest semi-colonially – in such cases, buffers should be around the colony area.

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Interim Wildlife Guidelines for Commercial Recreation: **Birds**