

1. A Nest of a Bald Eagle

1) Definition

A nest of a Bald Eagle (Haliaeetus leucocephalus) means the nest and its supporting structure that either (1) is currently occupied by a Bald Eagle to hold its eggs or offspring, or (2) is habitually occupied and still capable of holding eggs or offspring of a Bald Eagle (Figure 1).



Figure 1. Immature Bald Eagle at nest. (Photo: Jared Hobbs)

2) Species Description

One of British Columbia's largest raptors, adult Bald Eagles are easily identified by a distinctive white head and tail and a powerful yellow bill (Figure 2). Immature birds are mostly dark. As these birds mature, increasing amounts of mottled white appear on the head and tail. Immature Bald Eagles look similar to immature Golden Eagles; however, Golden Eagles have more defined white wing patches and a broad white band at the base of the tail, whereas the tails of juvenile Bald Eagles are mottled with white.

The Bald Eagle is Yellow-listed in British Columbia. This bird is designated as *Not at Risk* by COSEWIC.



Figure 2. Adult Bald Eagle. (Photo: Jared Hobbs)

3) What to Look For

Bald Eagles nest primarily in coniferous forests near a permanent water source, although deciduous and mixed woodlands are also used. Nests are notably large. Made of bulky sticks and branches, the nests are at least 1 m across and often conspicuously placed in the top third of a large tree. Bald Eagles tend to repair and reuse the same nest for many years. Often, more than one nest is built in a breeding territory, with alternate nests used in different years. As many as four nests may occur in one territory, although not more than one is active in a given year. Breeding eagles defend territories of 1.5–6.0 km² but will forage outside the defended zone. In areas of discontinuous habitat, nests may be widely dispersed, although this is not a function of territoriality.

The surest way to determine which bird species is using a large stick nest is to observe an adult bird at the nest site. The breeding season (typically March through August) is the best opportunity to do this. If a large stick nest is found during the non-breeding season, and cannot be attributed to a particular bird species, then assess the nest characteristics to determine whether it is a Bald Eagle nest.

Table 1 summarizes what to look for when identifying a Bald Eagle nest. Table 2 provides information to consider when conducting primary forest activities near a Bald Eagle nest. Consider substituting lower-impact, alternative activities in areas near a Bald eagle's nest during the breeding season. Table 3 suggests some alternatives to avoid rendering a nest ineffective.

Table 1. Bald Eagle nests: what to look for.

Bald Eagle Nest Description
<ul style="list-style-type: none"> • Nests are: <ul style="list-style-type: none"> ○ large, ranging in size from 1.0 to 3.5 m in diameter and from 0.5 to 2.5 m in depth; ○ made of large sticks, forming generally cup-shaped platforms with relatively flat tops; ○ typically built in large trees, up against the tree trunk or on a large, forked branch or stem crotch; ○ generally built in the upper third of the tree with an unobstructed view of the surrounding area; ○ along the Coast, usually within 100 m of shore; ○ in the Interior, usually within 100 m of shore but up to 2 km from a water body (e.g., lake or river); ○ on the Coast, usually in coniferous trees with large limbs, such as Douglas-fir, Sitka spruce, western redcedar, and western hemlock; large black cottonwood and red alder are also used; on treeless offshore islands, nests may be on the ground, usually on cliffs or steep slopes; and ○ in the Interior, most nests are found in black cottonwood, Douglas-fir, balsam poplar and trembling aspen; ponderosa pine and spruce are also used. • Evidence of use (e.g., whitewash [feces], remains of prey, raptor feathers) is often located at the base of nest trees. • Adult birds are often seen flying to and from the nest or perched nearby. • Young, small birds are often not seen from the ground but are heard begging for food from within the nest.

Table 2. Information to consider when conducting primary forest activities near a nest of a Bald Eagle.

Information to Consider
<ul style="list-style-type: none"> • If you are unsure whether an unoccupied large stick nest is that of a Bald Eagle, consult a qualified professional biologist to identify the species. • The nest is protected throughout the year under Section 34b of the <i>Wildlife Act</i>. • Unless they occur in more developed locations (e.g., urban/rural interfaces), Bald Eagles generally have low to moderate thresholds for new human disturbance, especially during the breeding season. Unaccustomed levels of noise or human activity near the nest tree can cause some pairs to abandon their nest, particularly during the early part of the nesting season (i.e., before June). Therefore: <ul style="list-style-type: none"> ○ Avoid conducting high-impact activities (see Table 3) during the breeding season (March 1–August 15) in areas near a Bald Eagle nest. ○ Establish a forested windfirm buffer to provide some visual screening around confirmed nest trees; habitat functions of this buffer include perching and roosting opportunities near the nest site and security cover. ○ Locate any new roads at a distance that will not result in disturbance to the nest site.

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Table 3. Activity impacts near Bald Eagle nests and suggested lower-impact alternatives.

Activity	Suggested Lower-impact Alternatives
High Impact	
Blasting	<ul style="list-style-type: none"> ○ Delay until after breeding season (January 1–August 31).
Road construction	<ul style="list-style-type: none"> ○ Delay until after breeding season (January 1–August 31).
Repeated low altitude helicopter flight activity (< 300 m altitude)	<ul style="list-style-type: none"> ○ Plan recurring flight paths to a > 300 m line-of-sight distance from known nest trees during the breeding season (January 1–August 31). ○ Fly at higher altitudes (generally > 300 m) near nest sites during the breeding season.
Falling and yarding (including mechanized falling)	<ul style="list-style-type: none"> ○ Delay until after breeding season (January 1–August 31). ○ Restrict falling and yarding to a > 500 m horizontal distance from known nest trees during the breeding season. ○ Where sufficient visual screening is provided by continuous forest cover (of at least mid-forest age) or topography, restrict falling and yarding to a > 300 m horizontal distance from known nest trees during the breeding season. ○ For region-specific guidance, refer to Section 4.
Medium Impact	
Brushing and thinning	<ul style="list-style-type: none"> ○ Delay until after breeding season (January 1–August 31).
Low Impact	
Block layout, surveys, timber cruising	<ul style="list-style-type: none"> ○ Minimize loud voices or shouting; try to remain at least 50 m away from active nest sites. ○ Minimize time spent in the nest area during the most sensitive courtship, nest building, and egg-laying periods (January to mid-May).

4) Regional Information – Kootenay Boundary

In this section, we provide specific timing windows and guidance on disturbance buffers for the Kootenay Boundary Region. This information may vary from provincial guidance and may not be applicable outside of the Kootenay Boundary Region because of regional specificity.

Bald Eagles are British Columbia residents, meaning they both breed and overwinter within the province (Figure 3). During the breeding season, these birds are found in most forest types (Table 4) and are generally associated with permanent water sources. They overwinter around low-elevation, ice-free water bodies. Bald Eagle sensitivity to disturbance varies with their existing exposure to disturbance and the level of disturbance from the proposed activity. Figure 4 provides suggested minimum buffer sizes. Table 5 supplies additional guidance on protection or alternative measures that may be needed, depending on the nature of the disturbance, existing landscape and cover, or other factors.

Bald Eagles are most sensitive during the breeding season, which includes territory establishment and courtship stages. Each breeding season stage requires protection because this disturbance-sensitive raptor could abandon a site at any time during the entire breeding period. Please note

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that the following dates offer a general guide of when you might expect to see breeding season activities in the Kootenay Boundary Region; actual breeding season length will depend on the year and area.

- Courtship and nest initiation: January 1–February 1
- Eggs present: February 1–June 30
- Young present: April 1–August 31

This creates a potential *sensitive period of January 1–August 31*, which encompasses courtship (month before nesting), nesting, and fledging.¹ Based on observations of nest stage, the length of this sensitive period can be refined. The period of *least risk is September 1–December 31*.

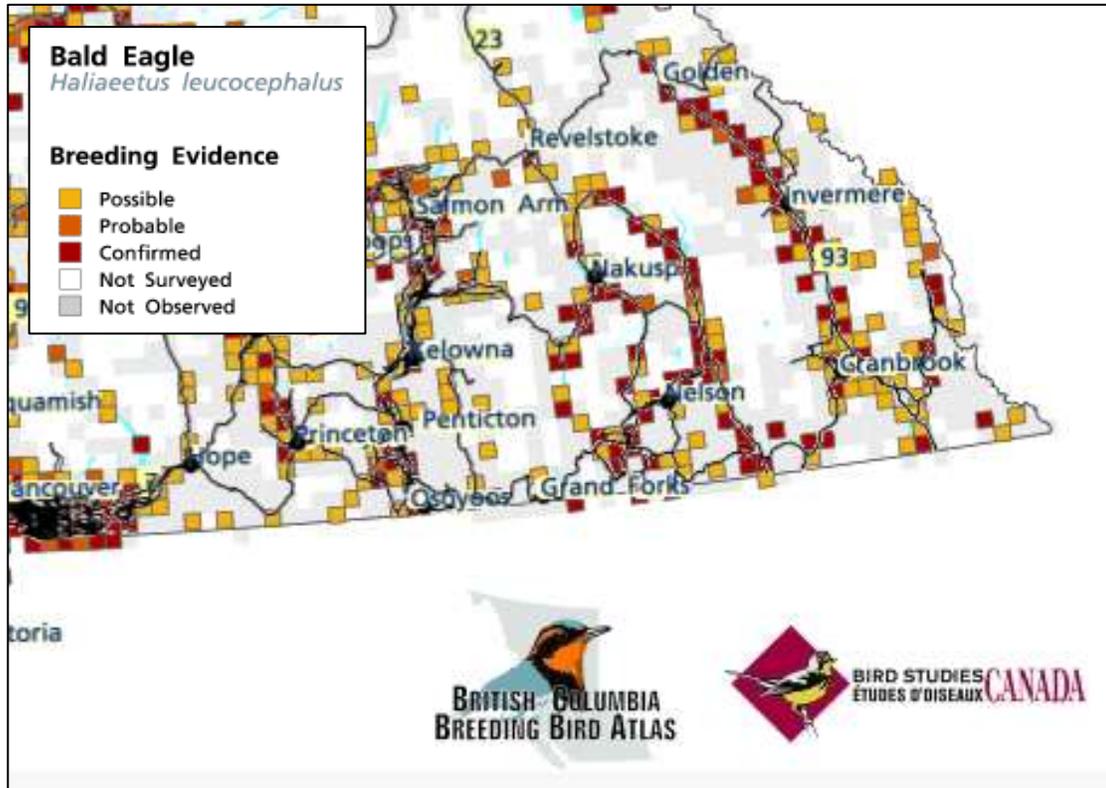


Figure 3. Distribution of Bald Eagles in the Kootenay Boundary Region.²

¹ Modified from Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia.

² Atlas of the Breeding Birds of British Columbia (2015).

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Table 4. Habitat and biogeoclimatic associations of Bald Eagles in the Kootenay Boundary Region.^{2,3}

Habitat	Biogeoclimatic Zone ⁴
Interior Douglas-fir	IDF
Interior Cedar-Hemlock	ICH
Montane Spruce	MS
Engelmann Spruce-Subalpine Fir	ESSF
Ponderosa Pine	PP

		Existing Exposure to Disturbance			
NEST SITE BUFFER		NIL Isolated site, little or no prior access	LOW Undeveloped area with occasional human use	MODERATE Near secondary logging road or minor recreation site	HIGH Near primary road, major recreation site, or human development
Disturbance Level of Proposed Activity	LOW Activities on foot. Small group, visual screening present. Livestock attractants. Examples: layout, cruising, salt licks.	100–200 m	1.5 × tree length	1.5 × tree length	1.5 × tree length
	MODERATE Light mechanized activities. Larger group/duration, no visual screening. Examples: spacing, planting, fence construction.	200–500 m	100–200 m	100–200 m	1.5 × tree length
	HIGH Mechanized activities. Examples: road construction, falling and yarding, landing sites.	200–500 m	200–500 m	200–500 m	100–200 m
	VERY HIGH Blasting, helicopter logging.	1000 m+	1000 m+	1000 m+	1000 m+

Figure 4. Recommended disturbance buffers around a Bald Eagle’s nest, depending on existing disturbance and disturbance level of the proposed activity.⁵

³ Adapted from BC Species and Ecosystems Explorer – BC Species Summary.

⁴ A Field Guide for Site Identification and Interpretation for the Nelson Forest Region (1992).

⁵ Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia.

Table 5. Additional guidance on disturbance buffers for a Bald Eagle’s nest.⁶

A Nest of a Bald Eagle – Guidance on Buffers
<ul style="list-style-type: none">• Increase buffer, or delay activities, if a nest is active and the bird constantly flushes away when using minimum buffers.• Consider the sight lines between the activity and the nest; in more open forests or terrain, a larger buffer may be required for these visually acute species.• During breeding season, consider adding a “quiet” buffer of an extra 100 m to the no disturbance buffer in which no unusual or sudden loud activities will occur (e.g., blasting, tree felling, chain saws, trucking, etc.).

5) Additional Information

A Field Guide for Site Identification and Interpretation for the Nelson Forest Region, Land Management Handbook No. 20:

<https://www.for.gov.bc.ca/hfd/pubs/docs/lmh/lmh20.htm>

Atlas of the Breeding Birds of British Columbia – Bald Eagle Species Account:

<http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=BAEA&lang=en>

BC Species and Ecosystems Explorer – Species Summary for Bald Eagle:

<http://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=18209>

Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia:

<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/natural-resource-standards-and-guidance/best-management-practices/develop-with-care>

Guidelines for Raptor Conservation during Urban and Rural Development Land Development in British Columbia:

<https://www2.gov.bc.ca/assets/download/E3DEB5DA9E2A4FFA8F24F8E10FDD4C47>

Status of the Bald Eagle in British Columbia:

<http://www.env.gov.bc.ca/wld/documents/statusrpts/wr62.pdf>

U.S. Fish and Wildlife Service National Bald Eagle Management Guidelines:

<http://www.fws.gov/southdakotafieldoffice/NationalBaldEagleManagementGuidelines.pdf>

⁶ Guidelines for Raptor Conservation during Urban and Rural Development Land Development in British Columbia (2013).