

2. A Nest of an Osprey

1) Definition

A nest of an Osprey (Pandion haliaetus) means the nest and its supporting structure that either (1) is currently occupied by an Osprey to hold its eggs or offspring, or (2) is habitually occupied and still capable of holding eggs or offspring of an Osprey (Figure 5).



Figure 5. Osprey nest. (Photo: Mark Nyhof)

2) Species Description

The Osprey is a large raptor, although smaller than the Bald Eagle. It is dark brown above and generally white below, with a mostly white head and a prominent dark eye stripe (Figure 6). The sexes have a similar appearance, although males are usually all white below, whereas females have some dark streaking across the upper breast. In flight, the long, narrow wings are distinctively bent at the wrist, showing a conspicuous dark wrist patch. The common call of the Osprey is a loud, whistled *kyew kyew kyew kyew kyew*.

The Osprey is Yellow-listed in British Columbia. COSEWIC provides no designation for this bird.



Figure 6. Adult Osprey. (Photo: Chris Wilson)

3) What to Look For

Ospreys breed throughout British Columbia except on Haida Gwaii; however, most nest sites occur in the southern two-thirds of the province. Most nests are located close to permanent water, including lakes, rivers, or marine shores. Nests are large and often conspicuously placed near the top of a tree, artificial platform, or utility pole. Nests are made of sticks and branches and are at least 1 m across in size. Nests are typically used year after year by the same pair or their offspring.

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 an Osprey nest.

Table 6 summarizes what to look for when identifying an Osprey nest. Table 7 provides information to consider when conducting primary forest activities near an Osprey nest. Consider substituting lower-impact, alternative activities in areas near an Osprey's nest during the breeding season. Table 8 suggests some alternatives to avoid rendering a nest ineffective.

Table 6. Osprey nests: what to look for.

| Osprey Nest Description |
|---|
| <ul style="list-style-type: none">• Nests are:<ul style="list-style-type: none">○ 1.5–2.5 m in diameter and 0.5–1.5 m in depth;○ made of large sticks that are generally > 0.75 cm in diameter (i.e., the width of a pencil);○ typically built at the top of dead trees, snags, live trees, and on artificial structures (e.g., utility poles); and○ generally close to a permanent source of water but sometimes up to 4 km away.• Evidence of use (e.g., whitewash [feces], remains of prey, and 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 7. Information to consider when conducting primary forest activities near a nest of an Osprey.

| Information to Consider |
|---|
| <ul style="list-style-type: none">• If you are unsure whether an unoccupied large stick nest is that of an Osprey, 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), Ospreys 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 8) during the breeding season (March 1–August 15) in areas near an Osprey 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. |

Table 8. Activity impacts near Osprey nests and suggested lower-impact alternatives.

| Activity | Suggested Lower-impact Alternatives |
|---|--|
| High Impact | |
| Blasting | ○ Delay until after breeding season (April 1–September 1). |
| Road construction | ○ Delay until after breeding season (April 1–September 1). |
| Repeated low altitude helicopter flight activity (< 300 m altitude) | ○ Plan recurring flight paths to a > 300 m line-of-sight distance from known nest trees during the breeding season (April 1–September 1). ○ Fly at higher altitudes (generally > 300 m) near nest sites during the breeding season. |
| Falling and yarding (including mechanized falling) | ○ Delay until after breeding season (April 1–September 1). ○ 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 | ○ Delay until after breeding season (April 1–September 1). |

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.

The Osprey is a migratory species. It arrives in British Columbia in April and departs by October. This species is found primarily along rivers, lakes, and reservoirs (Figure 7) but occurs in a wide range of forest types (Table 9). Osprey sensitivity to disturbance varies with their existing exposure to disturbance and the level of disturbance from the proposed activity. Figure 8 provides suggested minimum buffer sizes. Table 10 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.

Ospreys 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 that the following dates offer a general guideline 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: April 1–April 31
- Eggs present: May 1–July 1
- Young present: May 31–September 1

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This creates a potential *sensitive period of April 1–September 1*, 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 15–January 15*.

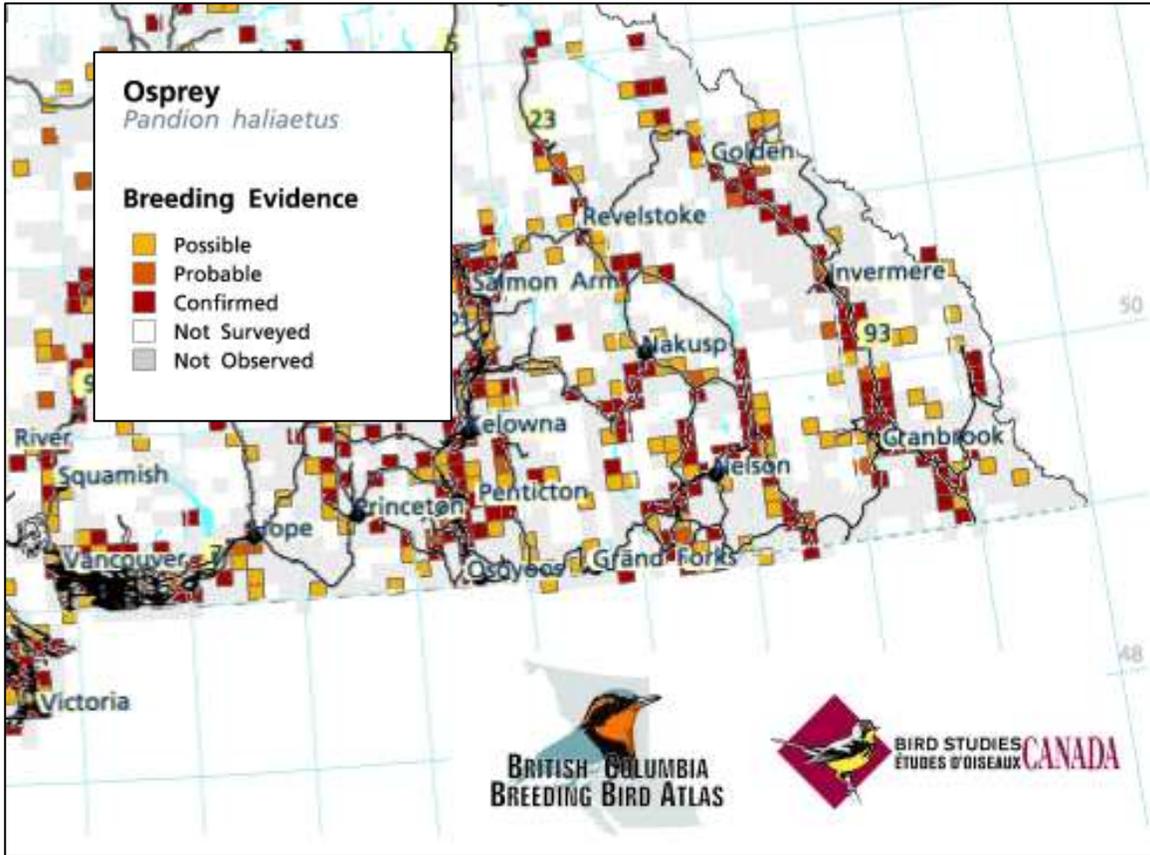


Figure 7. Distribution of Ospreys in the Kootenay Boundary Region.²

Table 9. Habitat and biogeoclimatic associations of Osprey in the Kootenay Boundary Region.^{2,3}

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

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).

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).

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| | | 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 8. Recommended disturbance buffers around an Osprey’s nest, depending on existing disturbance and the disturbance level of the proposed activity.⁵

Table 10. Additional guidance on disturbance buffers for an Osprey’s nest.⁶

| A Nest of an Osprey – Guidance on Buffers |
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| <ul style="list-style-type: none"> • Increase buffer, or delay activities, if the 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 Modified from Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia.

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

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 – Osprey Species Account:

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

BC Species and Ecosystems Explorer – Species Summary for Osprey:

<http://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=19401>

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>