

WILDLIFE IN MANAGED FORESTS:

# FOREST PRACTICES ACT REFERENCE SERIES



Managed forests provide valuable habitat for wildlife at all forest stages. Some wildlife, including sensitive, threatened and endangered species, have special protections under the Oregon Forest Practices Act (FPA) and/or the state and federal Endangered Species Acts (ESA). The *Wildlife In Managed Forests: FPA Reference Series* serves to outline these protections for a variety of bird species of interest. Read on to learn more about the birds listed at right.

See back cover  
for **Critical  
Nesting Chart.**

For each bird species, we will provide a brief background, habitat information and nesting chronology.

- **Bald eagle**
- **Band-tailed pigeon**
- **Golden eagle**
- **Great blue heron**
- **Marbled murrelet**
- **Northern goshawk**
- **Northern spotted owl**
- **Osprey**
- **Peregrine falcon**

# What does the FPA require?

Requirements for species protections vary widely under the FPA, depending upon species, needs and existing regulations. The FPA outlines several generic prescriptions for all wildlife species, such as leaving wildlife trees and down logs. On top of these prescriptions, sensitive wildlife sites receive additional species-specific protections. Sensitive wildlife sites are defined as:

- habitats of fish and wildlife species identified as threatened and endangered under the federal or state endangered species act
- sensitive bird nesting, roosting and watering sites (associated with osprey, band-tailed pigeon and great blue heron)
- biological sites that are ecologically and scientifically significant
- significant wetlands
- additional critical wildlife or aquatic habitat sites as designated by the Oregon Department of Forestry (ODF)

FPA protections to sensitive wildlife sites generally include timing restrictions (no harvest or disturbance near nest sites during critical nesting/breeding periods) and site buffers, although some additional species-specific protections are required. These protections are outlined for each species in this publication.



Great blue heron rookery. Photo: Jon Cox



Osprey nest

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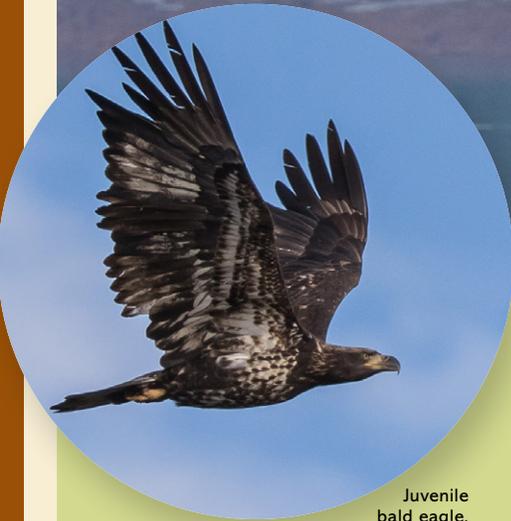
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"STEWARDSHIP IN FORESTRY"





Juvenile bald eagle.  
Photo: Jon Cox

## BALD EAGLE

Bald eagles typically nest in live-top trees, often choosing a large dominant tree, generally within 2 miles of water. Nests are often 5 to 8 feet in diameter and 2 to 3 feet deep. Bald eagles exhibit strong fidelity to nests and mates. They will often build and maintain more than one nest. During nesting season, bald eagles are usually detected near shorelines of rivers, lakes and reservoirs.

### FPA REQUIREMENTS

Protect the resource site (nest), which includes the active nest tree and alternate nest sites, as well as an area no less than 330 feet in all directions of the nest tree. The resource site should include all identified key components important to bald eagles: perching and fledging trees, replacement

nest trees and a forested area around the nest tree.

### NESTING SITE PROTECTION

Site-specific protections are required if operations are found to be within 660 feet (or within 1,000 feet for use of an aircraft) of a nest.

Generally, protections will include:

- designing operations to protect the nest tree and surrounding forested buffer from damage and windthrow;
- working with the Oregon Department of Forestry (ODF) to determine which trees are left—the protected trees are there to provide a visual screen for the bald eagle nest;
- prohibiting forest operations within 660 feet of a nest tree (or within 1,000 feet of a nest tree if using aircraft) from Jan. 1 to Aug. 31;
- submitting plans to ODF before operating near a nest site—the plan must clearly describe how the nest site will be protected.

### ROOST SITE PROTECTION

Though ODF has removed roost sites from the FPA rules, bald

eagle roost sites are still federally protected under the Bald and Golden Eagle Protection Act. It is illegal to have “take” of bald eagles under this law. According to the U.S. Fish and Wildlife Service bald eagle management guidelines, the following are suggestions for avoiding disturbance to eagle roost sites:

- Minimize potentially disruptive activities in the eagles’ direct flight path between roost sites and important foraging areas.
- Protect and preserve potential roost sites by retaining mature trees, particularly within 1/2 mile of water.
- Use pesticides, herbicides, fertilizers and other chemicals only in accordance with federal and state laws.

### REVIEW PROCESS

To verify that a nest is abandoned, surveys are required. The FPA requires two two-hour surveys during the nesting season, for a period of five years. Surveys can be performed by the landowner, a wildlife biologist, an operator or another individual.

Osprey and bald eagle. Photo: Jon Cox



## GOLDEN EAGLE

Golden eagles are found in many habitats, including open ponderosa pine and mixed conifer/deciduous forests. Nests can be found on cliffs or in trees. Nests are massive (sometimes greater than 10 feet in diameter) and are used year after year. Golden eagles are known to consume a wide variety of prey, including ground squirrels, marmots and other birds. They will also eat domestic sheep, lambs and carrion, and will take prey away from other raptors.

### FPA REQUIREMENTS

Protect the resource site (active nest tree and any identified key components). An active nest tree is one that has been used by golden eagles in the recent past. Key components include forested areas

around the nest tree that offer perching, fledging and replacement trees.

### MOST LIKELY TO DISTURB A NESTING GOLDEN EAGLE

- human activity nearby (such as hiking and rock climbing)
- road construction
- timber harvest

### NESTING SITE PROTECTION

Your local ODF office has the responsibility for maintaining inventories of resource sites. ODF will notify you if there is a known golden eagle near your planned operation when you submit your written Notification of Operation form.

A conflict may exist if an operation has the potential to modify or destroy the resource site, cause nest abandonment or failure, or reduce productivity of the resource site. Conflicts are solved

by working with ODF and may include measures such as:

- conducting a site inspection with ODF and applicable wildlife agencies
- implementing timing restrictions for forest operations (outside the nesting season of Jan. 1 to Sept. 30)



Photo:  
Jon Cox



## BAND-TAILED PIGEON

Band-tailed pigeons nest primarily in Douglas-fir trees within closed-canopy conifer or mixed conifer forests. Nests are loosely constructed twig platforms and are located from 6 feet to 120 feet off the ground. Band-tailed pigeons need closed-canopy forests for nest sites, open-canopy forests for foraging, and mineral sites as well. Mineral sites such

as springs, estuaries, wastewater sites or livestock salting areas are used more frequently if they have an abundance of nearby perching locations; use is also dependent upon the salt content of the site. These birds are known to travel long distances away from mineral and nest sites for food (more than 30 miles).

### FPA REQUIREMENTS

Protect the resource site (mineral watering places) and any identified key components. Key components include buffer trees around the spring to protect the hydrology of the spring, as well as staging trees for band-tailed pigeons to perch on before they drop to the ground to drink.

### RESOURCE SITE PROTECTION

ODF will notify you if there is a protected band-tailed pigeon resource site near your planned operation when you submit

your Notification of Operation form. A conflict may exist if an operation has the potential to modify or destroy the resource site, or cause abandonment of the site. Conflicts are solved by working with ODF and may include measures such as:

- conducting a site inspection with ODF and applicable wildlife agencies
- implementing timing restrictions for forest operations (outside the use season of June to September)
- developing a management plan for the resource site
- revising forest operations to avoid the resource site
- retaining buffers around mineral springs
- retaining trees for perching and staging areas
- retaining fruiting shrubs and trees for foraging opportunities



Photo: Jon Cox

## GREAT BLUE HERON

These large birds will eat nearly any small animal within striking distance, including fish, amphibians, reptiles, small mammals, insects and even other birds. Great blue herons mostly feed in wetlands, ponds, streams and pastures.

Great blue herons are colonial nesters, which means they nest within a group of nests, called a rookery. Rookeries are often near water. They typically nest in live trees, but have also been found to nest on the ground, in bushes and on human-made structures. During nesting season, males arrive at the nest colony first and court passing females. Rookeries can be as small as a single nest or upwards of 500 individual nests. Nests are constructed mainly by the female with materials brought by the male, and are used year after year.

### FPA REQUIREMENTS

Protect the resource site (active nest tree or group of nests and any identified key components). An active nest tree is one that has been used by great blue herons within the last three nesting seasons. Key components include forested areas around the nest trees that have perching, fledging and replacement trees.

### NESTING SITE PROTECTION

Maintain site integrity and avoid disturbance during the critical nesting season (Feb. 15 to July 31). Forest operations are not allowed within a quarter mile of the active nest trees from Feb. 15 to July 31.

Maintain a 300-foot buffer of trees around the active nest tree. The buffer should include a forested area that provides a visual screen for the nest site.

## MARBLED MURRELET

Marbled murrelets spend most of their time at sea, but breed in older coniferous forests up to 50 miles inland. Breeding sites are characterized by large trees, multiple canopy layers and moderate to high canopy closure. Marbled murrelets do not build their own nests and instead utilize old raptor nests or other horizontal nest platforms (such as those created by large moss-covered limbs, mistletoe brooms, limb deformities or tree damage).

### FPA REQUIREMENTS

A plan is required if forest operations are planned near a known marbled murrelet location.

### NESTING SITE PROTECTION

Recommended protection measures include:

- maintaining site integrity
- avoiding disturbance during the nesting season
- submitting plans to ODF before operating within or near a resource site

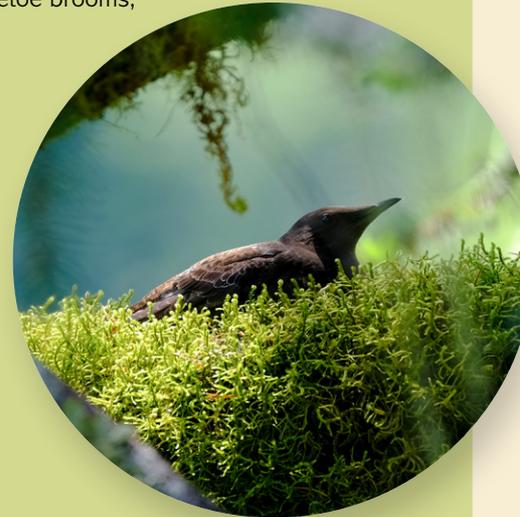


Photo: Brett Lovelace, Oregon State University

## NORTHERN GOSHAWK

Northern goshawks inhabit mature forests with open understories, and can be found in the Cascade, Blue and Klamath-Siskiyou mountains in Oregon. Northern goshawks are also found in the Oregon Coast Range, but rarely. Northern goshawks are more commonly found east of the Cascades. Nests are generally located in the largest trees of a stand, and are generally located in the lower third of the canopy. Nest trees are often located near forest gaps or edges. Northern goshawks utilize alternate nests in different years.

### NESTING SITE PROTECTION

Generally, protections for nest sites include:

- maintaining site integrity—this can include a buffer around the nest as well as minimizing canopy openings at a larger stand or landscape scale;
- avoiding disturbance during the breeding season (March 1 - Aug. 31)



Photo: Norbert Kenntner

## OSPREY

Ospreys nest near water, in large prominent snags or trees with broken tops. They will also nest on artificial platforms, including power line poles. Nest trees are generally large snags, up to 60 inches in diameter and 100 to 150 feet in height. Nest trees are generally taller than the surrounding forest, and must be able to support a large nest (4 to 6 feet in diameter and 1 to 2 feet deep). Ospreys prefer nest sites with easy access to open water areas.

### FPA REQUIREMENTS

Protect the resource site, including the active nest tree, the area within 600 feet of the nest tree, and any other key components.

- Active nest trees are those that have been used by ospreys within the last five nesting seasons.

- Key components are perching, fledging and replacement trees (trees that could become nesting trees).
- Seasonal restrictions apply.

### RESOURCE SITE PROTECTION

Prohibit forest operations within 600 feet of the nest site from March 1 to Sept. 15. Recommended protection measures include:

- Retain the active nest tree.
- Retain no fewer than eight additional trees as key components (perching, fledging and replacement trees).

Perching trees should:

- provide maximum visibility of the surrounding terrain
- contain structure that allows the osprey easy access
- be within 600 feet of the active nest

Examples of perching trees include tall snags and trees with broken or dead



Photo:  
Jon Cox

tops, forks or high lateral branches.

Replacement trees should:

- provide maximum visibility of the surrounding terrain
- be large enough to support an osprey nest
- protect the resource site from windthrow

## PEREGRINE FALCON

Peregrine falcons nest on small ledges of cliff faces, or on human-made structures resembling cliffs, such as bridges or skyscrapers. Nest sites are typically near large bodies of water, as one of their main prey items are water-dwelling birds. Peregrines don't construct nests, but instead scrape a small depression in sand, gravel or other substrates found at the nest site.

### RESOURCE SITE PROTECTION

The primary issue forest operations have on nesting falcons is disturbance. They are not typically affected by loss of timber, as their nests are often in areas already without significant tree cover. Peregrine falcons can be protected by avoiding activities that cause visual and auditory disturbances within a quarter mile of a nest site



during the breeding season (March 1 to Aug. 15). Activities that are most likely to disturb peregrine falcons are those activities occurring during the breeding season which produce loud noises or significant visual disturbances, such as blasting, timber falling, road construction or low-flying aircraft.

## What about federal and state ESAs?

Compliance with the FPA does not necessarily comply with federal and state ESAs. It is illegal to have unauthorized take of a federally listed species.



Photo: Jon Cox

## NORTHERN SPOTTED OWL

Northern spotted owls inhabit mature forest stands with large trees forming a multi-layered, multi-species canopy. They require dense canopy closure (less than 60%) and forests with large standing and fallen dead trees, and many trees with deformities (such as cavities and broken tops).

Northern spotted owls prey primarily upon small mammals, including wood rats and flying squirrels. They will also prey upon insects, other birds and juveniles of larger mammals. They are “perch and pounce” hunters, and require adequate space beneath the forest canopy to fly and capture prey.

### FPA REQUIREMENTS

- Protect the resource site, which consists of a 70-acre “core area” surrounding an NSO nest site or activity center of a pair of owls.
- The shape of the 70-acre core area may depend upon the characteristics of the forest: It must encompass the activity center or nest tree and consist of forest stands that come closest to the habitat desired by northern spotted owls.
- Seasonal restrictions on forest operations depending on the location of the resource and planned activities.

### RESOURCE SITE PROTECTION

- Maintain suitable habitat for northern spotted owls within the core area. Forest practices that do not maintain the suitability of the core area are prohibited. Generally, timber harvests within the core area are not allowed.
- Submit a Notification of Operation to ODF when working within 1/2 mile of a northern spotted owl resource site.
- Submit a written plan for review if ODF finds that the proposed operation will be in conflict with a northern spotted owl resource site.



Photo:  
Eliana Pool

- Restrict operations within a quarter mile of a nest site between March 1 and Sept. 30. This may be waived if it can be shown that there are no northern spotted owls present or they are not nesting.

### DECERTIFICATION

- Maintain protections to northern spotted owl resource sites until there is reliable evidence that the site is no longer occupied by spotted owls.
- Five years of protocol surveys are required to demonstrate the site is no longer occupied by spotted owls.
- Protections are required within the core area until the site is reclassified by the ODF.

### MAINTAINING SUITABLE HABITAT

Suitable northern spotted owl habitat means habitat that provides nesting, roosting and foraging opportunities. Important habitat elements may include high canopy closure, a multi-layered, multi-species canopy with large overstory trees, and the presence of broken-topped trees or other nesting platforms (e.g., mistletoe clumps), as well as snags and logs. The appearance and structure of these forests will vary across the range of the spotted owl, particularly in dry eastside forests. Maintaining or managing for these types of habitat conditions, both within core areas and within the larger home range area (up to 1.5 miles from a nest site) is likely to benefit spotted owls.

## References

The following resources were used to develop this reference series:

Azerrad, J. M. 2012. Management Recommendations for *Washington's Priority Species: Great Blue Heron*. Washington Department of Fish and Wildlife, Olympia, Washington.

Cornell Lab of Ornithology: <https://www.birds.cornell.edu/home/>.

Hunter, Matthew G., Marshall, David. B., and Contreras, Alan L. 2006. *Birds of Oregon: A General Reference*. Oregon State University Press, Corvallis, Oregon.

Oregon Forest Practices Act. <http://www.oregon.gov/odf/Pages/lawsrules.aspx>

Oregon Forest Resource Institute. Know Your Forests website: <http://www.KnowYourForest.org>.

U.S. Fish & Wildlife Service. Bald Eagles. Accessed at <http://www.fws.gov/pacific/eagle/>.

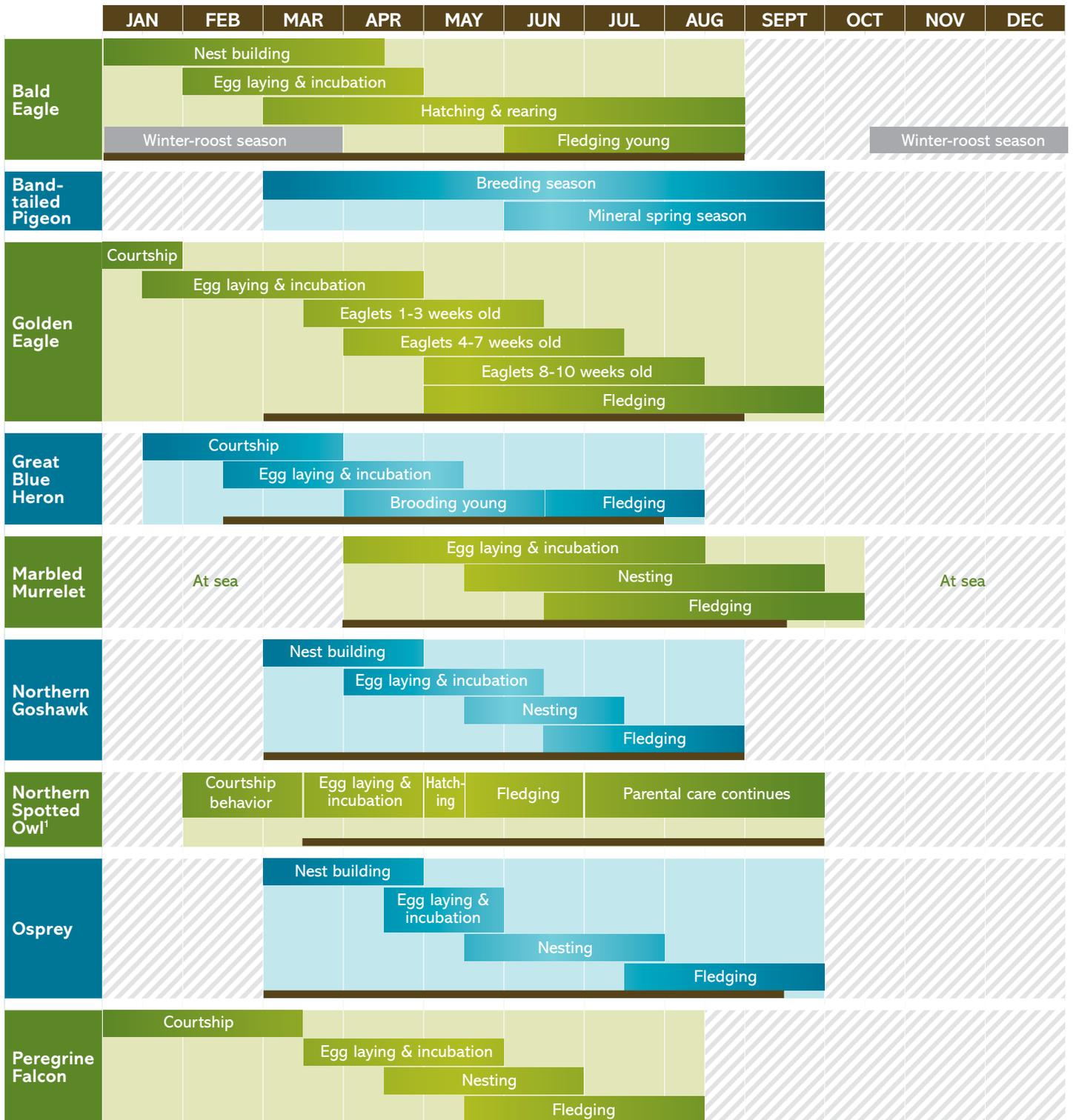
U.S. Fish & Wildlife Service. Marbled Murrelet. Accessed at <https://www.fws.gov/species/marbled-murrelet-brachyramphus-marmoratus>.

U.S. Fish & Wildlife Service. 2004. Marbled murrelet 5-year review. <https://www.fws.gov/node/66075>.

U.S. Fish & Wildlife Service. Northern spotted owl information sheet. Accessed at <https://ecos.fws.gov/ecp/species/1123>.

# Understanding critical nesting periods

The nesting chronology for these species is generalized, and the timing of nesting and fledging may vary by latitude and elevation. In general, lower-elevation sites experience earlier chronologies than higher elevations for northern spotted owls. Egg laying at high elevation may not be completed until late May, with fledging extending into August for peregrine falcons.



 Non-breeding season  
 FPA critical nesting period