



Safe Nest Boxes for Owls in the West

Owls—predatory birds of the night—play a critical role in ecosystems and our economy. Efficient hunters, they can control agricultural pests. Numerous owl species nest in cavities (holes) in trees, barns, and on cliffs. Humans have caused changes in the habitats owls depend upon, such as coniferous and oak woodlands. When owls are unable to find adequate nest sites, they are unable to reproduce—a vital phase of their life cycle.

We can play a valuable role in conserving and even recovering owl populations by providing safe alternatives to natural cavities—owl nest boxes—for three cavity nesting owls in the West: Western Screech Owl, Barn Owl, and Northern Saw-whet Owl. Protecting and enhancing habitats in our communities is a critical part of the conservation equation. Learn more at www.prbo.org/birdinfo

The secret lives of cavity-nesting owls

On the northwest coast, the **Western Screech Owl** inhabits humid coniferous forests along the edges of clearings, rivers, and lakes. Further inland they occupy a lowland deciduous forests, especially riparian (streamside) woodlands.

Common throughout most parts of the world, the **Barn Owl's** western range extends from British Columbia into Mexico. Barn Owl populations are declining due to a number of threats including loss of habitat, nesting sites, and prey, and collisions with cars and trucks along roads.



Northern Saw-whet Owl are found throughout the West, occur mainly in forests where woodpeckers excavate cavities that they use for nest sites; but they also inhabit coniferous and deciduous forests, often with thickets of second-growth or shrubs. Their breeding habitat is usually swampy or wet.

Northern Pygmy Owl are found from Alberta to Mexico along the eastern slopes of the Rockies to the Pacific Coast. They inhabit open coniferous and mixed forests from valley floors to the mountain tree line. For roosting they prefer quiet, shady, alder thickets and during the breeding season they inhabit open forests with snags (dead trees). They are not known to occupy nest boxes; rather, they use natural nest cavities created by woodpeckers.

Important nesting & nest box information for cavity nesting owls

	Western Screech-Owl	Barn Owl	Northern Saw-whet Owl
Entrance hole diameter	3"	6"	2"
Entrance hole height	12" above floor	Near floor	14" above floor
Floor dimensions	8"x8"	10"x8"	7"x7"
Distance from floor to ceiling	15"	16"	16"
Mounting height for box	10' or higher	12' or higher	10' or higher
Number of eggs laid	2-5	5-7	5-6
Color & size of eggs	White; 1.4"	White; 1.7"	White; 1.2"
Egg Incubation Period (days)*	21-30	30-34	27-28
Chick-rearing Period (days)*	28	52-56	27-34

*Owls have a long breeding cycle (nest building, egg laying, incubation, and chick-rearing) that lasts 2-3 months.

Managing Your Nest Box

Keep track of nesting or roosting activity in your box(es) year-round. Be mindful that owls are very sensitive to disturbances during the breeding season, so limit disturbances to adults or chicks. Practice adaptive management of your nest box(es) by using your monitoring data to make wise choices (i.e., if predation occurs frequently at a box or if owls do not use a box after 2 years, move it). Be part of the bigger picture and join a local and/or national owl nest box monitoring program.

Nest Box Construction Considerations

Wood—new or old, rough or planed, softwood or hardwood—is the best material to use in nest box construction. A thickness of about 0.75 inches is ideal. Thicker timber can be used, but always adjust the sizes to give the same internal dimensions. Manufactured board (plywood or chipboard) is not suitable for outdoor use, although they are perfectly acceptable for a nest box placed under cover, such as a Barn Owl box placed in an old building.

After the box is constructed, the outside only should be treated with a wood preservative (creosote, “Cuprinol,” “Sadolin,” etc.) to prolong its life and help repel water. If using planed timber, clear polyurethane may be used instead. All boxes should be treated in this way annually, and allowed to dry thoroughly before being erected.

It is acceptable to attach the box directly to a tree trunk or branch using nails, or to tie the box to the tree using wire or rope. Note: if using wire, remember to protect the tree by using a piece of rubber or the like to prevent the wire from cutting into the tree.

Check Out These Helpful Links

Building Owl Nest Boxes

<http://www.naparcd.org/habitatforhooters.htm>
<http://www.defenders.org/wildlife/new/owls/owlbox.html>

Placement of Nest Boxes

<http://www.theraptortrust.org/the-birds/nest-boxes>
<http://www.nsis.org/bird/bird-nestbox.html>

Purchasing Owl Nest Boxes

<http://www.backyardbird.com/otcavnes.html>
<http://owlnestboxes.com>

Additional Information

<http://birds.cornell.edu/birdhouse>
<http://www.owlpages.com/owlboxes.html>
<http://www.dfg.ca.gov/whdab/html/lifehistbirds.html>
<http://www.naparcd.org/habitatforhooters.htm>

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Tips for a Successful Nest Box

- Nest boxes should be located in an area accessible for the desired species and inaccessible for likely predators. Give birds two seasons to find the nest box.
- When selecting or building a nest box, make sure it can be opened for cleaning and has adequate ventilation at the bottom and the top.
- Do not stain, paint, or ‘finish’ the box.
- Under the terms of the Wildlife and Country-side Act 1981, unhatched eggs found in a nest box can only legally be removed from October to January inclusive, and they must be destroyed! It is illegal to keep them.
- Leave nest boxes up all winter as it will be useful as a roosting site for birds in bad weather.
- Prune dense foliage away from entrance to ensure clear flight-path to the box.
- A piece of roofing felt fixed to the roof will prolong the life of a nest box and make it more waterproof.
- Annual cleaning is best carried out in October or November. Any necessary repairs should be done in late fall or winter. Maintenance is easier if the box is wired and can thus be taken down for cleaning. Be aware of wasps that take over the box.
- Nest boxes are more likely to be used if they are in place well before the nesting season begins. January or February is a good time to set out new boxes and make sure old boxes are clean and ready for re-occupation.
- After the end of each breeding season, all nest boxes should be taken down and the old nesting materials removed, the box should be scalded with boiling water or rinsed with a 10% chlorine bleach solution to kill all parasites. (Don’t use insecticides or flea powders).