



# Woodland Fish & Wildlife

## Family Forests and Wildlife: What You Need to Know

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Family forest landowners have many reasons for owning forestland; enjoying wildlife and providing wildlife habitat consistently rank as top motivators. This publication, the keystone in a series by the Woodland Fish and Wildlife Group, will give you some ideas on where to begin in deciding how to best manage your woodland for wildlife habitat.

The Woodland Fish and Wildlife Group, established in 1988, works to provide practical science-based publications that enhance family forest landowner management of fish and wildlife habitat in the Pacific Northwest. It is a cooperative effort between state and federal agencies and universities to provide information on fish and wildlife management to family forest landowners. We believe that family forest landowners can grow healthy forests and also provide essential habitat for many wildlife species. The Woodland Fish and Wildlife Group has a series of publications that help answer



*Leaving or recruiting hardwood and fruiting shrubs across the landscape provides valuable habitat for many species including this yellow warbler. Photo by: Teri Pieper*

specific wildlife questions. Please visit <http://woodlandfishandwildlife.com> for access to all the Woodland Fish and Wildlife Group publications.

Family forest landowners own millions of acres of essential forest habitats, and are key to the success of fish and wildlife habitat management in the Pacific Northwest. The number one management strategy that family forest landowners need to know is: Keep your land in forestry!

### What is Wildlife Habitat?

Wildlife habitat matches the needs and habits of a particular species. A species' habitat is an area containing a combination of the necessary resources (e.g., food, water, cover, and space) and environmental conditions (e.g., temperature, precipitation, presence or absence of predators, and competitors) that allows individual species to survive and reproduce. How much habitat is enough, and what kind is right, varies greatly among wildlife species and across seasons of the year. All wildlife need habitat and wildlife use forests as habitat in various ways depending on the species.

Because of this variability, habitat means something different to every species. It is not feasible for family forest landowners to enhance the habitat of every species of wildlife everywhere. What improves habitat for one species of wildlife may degrade them for another. Forests provide wildlife habitat for many species at all forest ages! Providing a diversity of wildlife habitats will often support the greatest number of species.

Forests consist of trees and shrubs of many age classes, states of decay, species, and structure. Legacy structures are usually woody remnants of past forests or human

### Top 10 Tools for Wildlife

- **Keep forests as forests**
- **Leave or create down logs**
- **Leave or create snags**
- **Retain legacy structures such as big old trees and stumps**
- **Leave standing live trees for future legacy structure recruitment**
- **Provide safe access to water**
- **Leave or recruit hardwood and fruiting shrubs across the landscape**
- **Leave or recruit hardwood trees across the landscape**
- **Maintain well-vegetated riparian buffers**
- **Control invasive species**

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activities and have great value as habitat features. These can include old stumps, logs, snags, or even wood piles, providing habitat for many different types of animals.

*The following sections will provide guidance on providing key components of wildlife habitat at all forest ages and types.*

### **Food**

Wildlife look for food (forage) in many different ways. Family forest landowners have many tools to enhance foraging opportunities for wildlife:

- If you harvest, leave some standing live conifers in your harvest units.
- Leave deciduous (hardwood) trees and shrubs (where practicable), particularly fruit bearing species, across all forest ages and types.
- Leave or create snags and down logs across all forest ages and types.
- Maintain riparian buffers on all waterways with a diversity of tree and shrub species.
- Consider wildlife-friendly seed mixes on your dirt roads, skid trails, and other disturbed areas. This will help wildlife and hopefully prevent those disturbed areas from becoming full of invasive species.

### **Safe Access to Water**

Water is essential for wildlife species. There are many ways that family forest landowners can provide water for wildlife:



*Providing access to water sources is essential for local wildlife. Photo by: Michael Ahr*



*Wildlife need cover to hide from predators. Photo by: Ken Bevis*

- Maintain riparian buffers on all waterways; this includes conifer and hardwood trees, shrubs, and plants.
- Enhance existing ponds so they are wildlife friendly; this includes keeping ponds well-aerated, vegetated, and free of invasive species.
- Protect known water sources such as creeks and springs with buffers. This might include actions such as preventing livestock from entering the area or maybe just keeping an eye on water sources to make sure they are well vegetated.
- Consider creating artificial water opportunities (such as putting in water fountains, or installing water troughs, etc.) if no natural water sources are available.
- Leave or create brush piles by placing large woody material (6" or greater in diameter) in at least 4 layers on the bottom and then cover these layers with fine branches on top.
- Leave or create snags and down logs greater than 12 inches in diameter across all forest ages and types.
- Leave patches of dense shrubs in thinned forests (shrub patches 30 feet in diameter work well).
- Leave patches or grassy areas unmowed (or wait until late summer or early fall to mow).
- Leave clumps of leave trees in harvest units.

### **Cover**

Wildlife need cover to hide from predators, raise their young, to rest, and to protect themselves from harsh weather conditions. Wildlife look for cover in many different ways. Family forest landowners have many tools to provide cover for wildlife:

- Retain existing legacy structures, such as old "wolf" trees (wolf trees are large trees with multiple branches along the entire trunk), snags, and down logs.

### **Space**

Wildlife require space to find food and water and to raise their young. Often wildlife need to move between habitat



*Wildlife, such as this northern pygmy owl, need space to find food and raise their young. Photo by: Roy Siegel*





*Techniques for enhancing wildlife habitat include vegetation manipulation and sometimes making habitat structures such as the snags pictured here. Photo by: Ken Bevis*

types at various stages of their life. Family forest landowners often provide the link between habitat types that allows ease of movement for wildlife. The following are tools to enhance wildlife movement:

- Minimize fencing or utilize seasonal fencing that you can lay down during known periods of time wildlife travel across your property.
- Connect your forest to adjacent habitat types by planting or retaining a swath of trees and shrubs. This will create a movement corridor that is essential for many wildlife species.
- Maintain riparian buffers.

### **How do I know if I'm making a difference for wildlife on my property?**

Systematic observations and monitoring of wildlife can be a lot of fun, can help you understand your property, and help you reach your management objectives. Monitoring is simply identifying species, ecologically important areas, habitat features, and collecting baseline data to compare against future assessments. It might also include identifying potential problems (e.g., wildlife damage or invasive species).

Observations of wildlife species and habitat conditions can provide indicators of habitat change over time. There are many tools and techniques available to private landowners that will help to make informed and practical monitoring decisions. This can range from your casual observations to standardized birds counts. Our publication *Techniques and Tools for Monitoring Wildlife on Small Woodlands* will help you dig deeper.

### **What about wildlife damage on my forest?**

It's true that some wildlife species can be detrimental for landowners trying to grow forests. For example, mountain beavers can be devastating in young plantations and deer often browse young saplings. There are many resources available to landowners looking for solutions to wildlife damage. We recommend the following sites to learn more:

<http://www.aphis.usda.gov/wps/portal/aphis/ourfocus/wildlifedamage>.

<http://wdfw.wa.gov/living/>

[http://www.dfw.state.or.us/wildlife/living\\_with/](http://www.dfw.state.or.us/wildlife/living_with/)

<https://catalog.extension.oregonstate.edu/topic/gardening/wildlife>.

### **Can I create or enhance wildlife habitat?**

Techniques for enhancing wildlife habitat include vegetation manipulation and sometimes making habitat structures. Created snags, habitat piles, and nest boxes are management tools that landowners use to enhance wildlife habitat on their properties. These are great tools especially when natural features are lacking. It is important to note that some created structures require annual maintenance (e.g., nest boxes). Artificial structures should be used to augment, not replace natural habitat features. To learn more about creating artificial wildlife habitat such as nest boxes please see our publication on *Cavity Nesting Birds*.

### **Where else can I go for more information?**

There are numerous resources available to help landowners manage for wildlife on working forests. Here are some we recommend:

- Natural Resources Conservation Service
- Oregon Department of Fish and Wildlife
- Washington Department of Fish and Wildlife
- Local Watershed Councils
- U.S. Forest Service



*Habitat piles are an example of management tools that landowners use to enhance wildlife habitat on their properties. Photo by: Michael Ahr*

- APHIS
- Oregon Department of Forestry
- Washington Department of Natural Resources
- Extension offices
- Oregon Forest Resources Institute
- Local Soil and Water Conservation Districts

### How do I know which species I am likely to help on my property?

Implementing the actions outlined above will benefit wildlife species across all forest ages and types. There are several ways to find out more about which species an individual landowner may be benefiting.

The Oregon Conservation Strategy is a tool in Oregon that provides information on at-risk species and habitat, identifies key issues affecting them, and recommends actions. The online tools for the Oregon Conservation Strategy will help you understand which Ecoregion your forest is located in, what habitats may be present, what wildlife depend on those habitats, and finally specific tools to manage for those species.

For example: the acorn woodpecker lives in oak woodlands in the Willamette Valley Ecoregion. The Oregon Conservation Strategy (OCS) suggests working with



*Using the Oregon Conservation Strategy can help identify tools for helping at risk species such as this acorn woodpecker. Photo by: USFWS*

family forest landowners to maintain and restore oak woodlands with open understories, especially large patches and maintain snags and older trees with dead limbs.

**Information on the OCS may be found here:** <http://www.dfw.state.or.us/conservationstrategy/>.

In Washington, the Priority Habitats and Species (PHS) program provides compre-

hensive information on fish and wildlife habitat resources in Washington. Landowners in Washington can access the PHS program to determine what habitats may be present on their property, what wildlife depend on those habitats, and specific tools to manage for those species.

For example: The pileated woodpecker is found in mature forest habitats, and acts as a keystone species there. General recommendations for this species include retaining large snags and managing for mature forests where large snags will exist.

**Information on the PHS may be found here:** [http://wdfw.wa.gov/conservation/phs/mgmt\\_recommendations/](http://wdfw.wa.gov/conservation/phs/mgmt_recommendations/).

### How do I get started?

Family forest landowners regularly observe wildlife on their property. Improved land management for wildlife can benefit from systematic recording of these wildlife observations, and using this information to hone specific wildlife habitat management actions will help to meet your objectives.

*The worksheet on the next two pages is designed to help you determine what wildlife occur on your land, those wildlife species you may be able to support, help you establish wildlife habitat management goals, and identify next steps for habitat management on your property.*

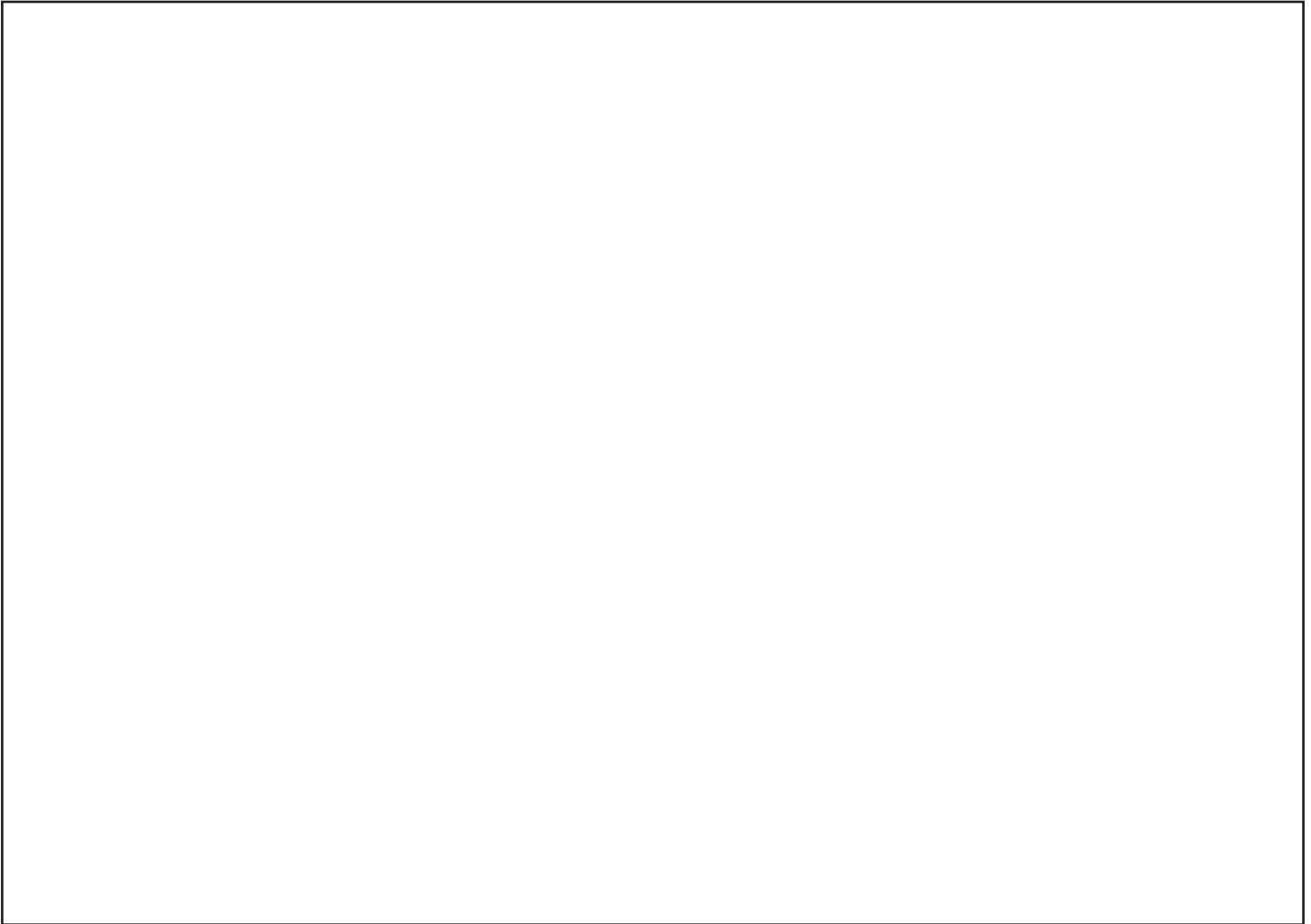


*Providing a variety of habitats across the landscape will benefit many species. The cedar waxwing pictured here will benefit from fruit-bearing trees and shrubs. Photo by: Mark Penninger*



# Wildlife Evaluation Worksheet

1. Sketch a map of your property and include the different habitat (or stand) types (for example, wetlands or pond, forested areas, houses, fences, grasslands)



2. Are there any habitat types on your property that are priority habitats in Oregon or Washington?  
(See Keystone publication for information on priority habitat types through the Oregon Conservation Strategy and Washington Priority Habitats and Species program referenced above).

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3. For each habitat type identified above, list the features of that habitat type that are important for wildlife that are present (down logs, snags, shrubs, hardwood trees, legacy structures, water sources, etc.).

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4. List any wildlife species that have been observed on your land. If you don't know the species, just describe them. Where were they? How many? What were they doing? What time of day/year did you see them?

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5. List any wildlife goals (enhancement and/or creation) you have for your property and actions you might take to accomplish these goals in the next 5 years.

<b>Goal</b>	<b>Action</b>
Example: increase songbird nesting and feeding habitat	Example: increase hardwood shrubs (increase space and plant desired shrub)
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6. List any wildlife that are causing damage to your property or interfering with other goals and objectives for the property. What actions can you take to address this conflict?

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7. List any tools and techniques you plan to use to monitor success of your wildlife habitat goals.

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8. List any sources you are considering contacting for further technical or financial assistance.

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## Additional Information Sources:

Oregon Department of Fish and Wildlife Living with Wildlife: [http://www.dfw.state.or.us/wildlife/living\\_with/](http://www.dfw.state.or.us/wildlife/living_with/)

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## About The Woodland Fish and Wildlife Group

The Woodland Fish and Wildlife Group is a consortium of public agencies, universities, and private organizations which collaborates to produce educational publications about fish and wildlife species and habitat management for use by small woodland owners in the Pacific Northwest.

Publications are available and can be viewed and downloaded, free of charge, at the organization's website:

[www.woodlandfishandwildlife.com](http://www.woodlandfishandwildlife.com)

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*Spike Elk. Photo by: Ken Bevis*

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