

# Living with Wildlife

## Crows

Crows and ravens belong in the Corvid family (which includes jays and magpies) and are considered to be among the most adaptable and intelligent birds. Its coal-black coloring, highly social behavior, and distinct call make the **American crow** (*Corvus brachyrhynchos*), also known as the common crow, one of the most frequently seen and heard birds. Although most bird books recognize populations along the coast and around the Puget Sound to be a distinct species called the Northwestern crow (*Corvus caurinus*), some experts classify the smaller Northwestern crow as a subspecies of the American crow.

Crows will occupy almost any woodland, farmland, orchard, or residential neighborhood, as long as sufficient shelter and enough trees suitable for nesting are available. They seem to prefer lower elevations and moist places, including creeks, streams, and lakeshores. The Northwestern crow is found almost exclusively in very close proximity to Puget Sound and coastal marine waters.

Ravens (Fig.2) appear similar to crows and are found throughout Washington, except in major urban areas where competition from crows and a lack of nesting sites are probably too great. Ravens replace crows in mountainous areas, deserts, and rimrock areas; they are thus more common than crows east of the Cascade Range.

In recent years, crow populations have expanded into urban and suburban areas. Their tameness becomes notable as they seek the plentiful food sources found on roadsides, parking lots, ferry landings, marinas, and other places where humans influence the landscape.

## Facts about Crows

### Food and Feeding Habits

- Crows are omnivorous and eat whatever is available—insects, spiders, snails, fish, snakes, eggs, nestling birds, cultivated fruits, nuts, and vegetables. They also scavenge dead animals and garbage.
- Crows are known to drop hardshelled nuts onto a street, and then wait for passing automobiles to crack them. Similarly, along the coast they drop mussels and other shellfish on rocks to crack the shells and expose the flesh.
- Outside of the breeding season, crows travel as far as 40 miles each day from evening roost sites to daytime feeding areas.
- Crows usually post “sentries,” who alert the feeding birds of danger.

### Nest Sites and Shelter

- Nests are built 15 to 60 feet above ground in tall coniferous or deciduous trees. Nests are 1½ to 2 feet in diameter, and solidly built in the crotch of a limb or near the tree trunk.

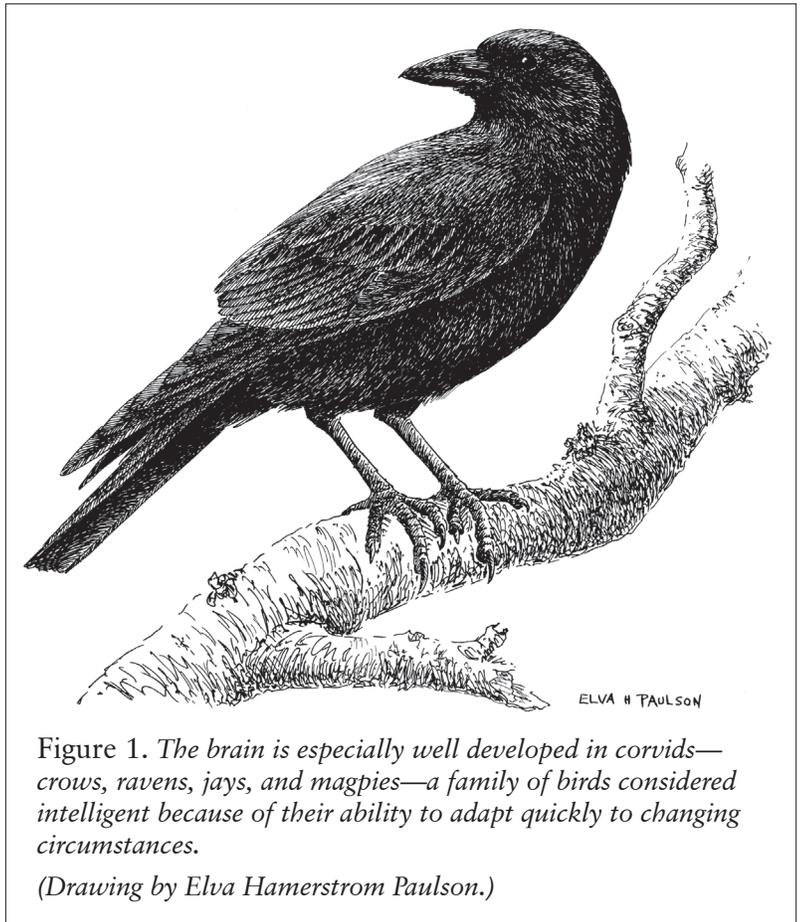


Figure 1. *The brain is especially well developed in corvids—crows, ravens, jays, and magpies—a family of birds considered intelligent because of their ability to adapt quickly to changing circumstances.*

*(Drawing by Elva Hamerstrom Paulson.)*

- In areas that lack tall trees, nests may be placed lower in hedgerows or shrubbery. In urban areas, crows may nest on window ledges or the sides of buildings.
- Nests are constructed from branches and twigs, and are lined with bark, plant fibers, mosses, hair, twine, cloth, and other soft material.
- Hawks and owls inhabit old crow nests; raccoons and tree squirrels use them as summer napping platforms.

### Reproduction and Family Structure

- Both sexes build the nest during a period of 8 to 14 days—beginning as early as mid-March and as late as mid-July—depending on latitude and elevation.
- The female incubates four to five eggs for 18 days, at times being fed by her mate or sometimes by offspring from the previous year.
- The chicks grow quickly and are out of the nest at around four weeks after hatching, although they continue being fed by the adults for about another 30 days.
- Frequently, one or more young crows remain with the parents through the next nesting season, or several nesting seasons, to help care for nestlings. This cooperative behavior during breeding includes bringing food to the nest and guarding the nestlings.
- In spring and summer, crows are usually seen in family groups of two to eight birds. During late summer, fall, and winter, crows gather from many miles to form communal night roosts.

### Mortality and Longevity

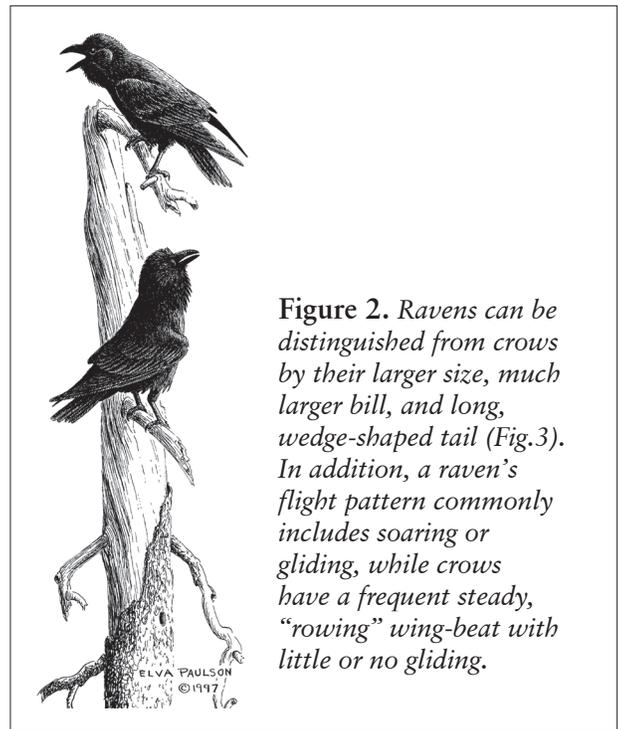
- Adult crows have few predators—eagles, hawks, owls, and human hunters—with humans being their main predator.
- The causes of death of young crows still in the nest include starvation, adverse weather, and attacks by raccoons, great horned owls, and other animals.
- Mortality in the first year is about 50 percent, but adults live six to ten years.

### Viewing Crows

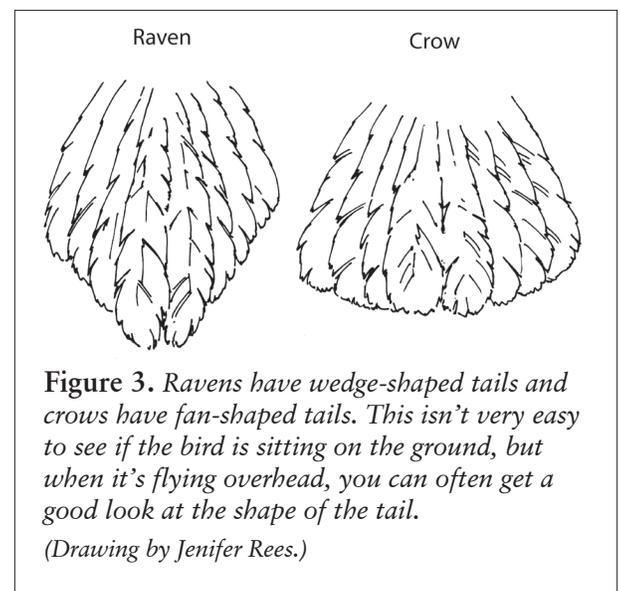
Much of the time, crows are seen in small, noisy, family bands, spending the majority of their time in fairly restricted areas. For about a month during the nest building, egg laying, and incubation periods, breeding adult crows become uncharacteristically secretive and quiet. After the eggs have hatched, the parents become noisy defenders of their nest and later the young are heard wailing at their parents for food with an insistent, nasal *cau*.

In late summer through winter, crows are seen in large, raucous flocks that roam widely. In agricultural areas hundreds of crows may gather to forage in fields, while in cities, landfills and garbage dumpsters are crow favorites.

Interesting visual displays include male and female crows bobbing their heads up and down, and accentuating this by bowing. The wings and tail may also spread slightly and the



**Figure 2.** Ravens can be distinguished from crows by their larger size, much larger bill, and long, wedge-shaped tail (Fig.3). In addition, a raven's flight pattern commonly includes soaring or gliding, while crows have a frequent steady, "rowing" wing-beat with little or no gliding.



**Figure 3.** Ravens have wedge-shaped tails and crows have fan-shaped tails. This isn't very easy to see if the bird is sitting on the ground, but when it's flying overhead, you can often get a good look at the shape of the tail.  
(Drawing by Jenifer Rees.)

body feathers may be fluffed. The bobbing display is usually performed in the presence of another crow in spring, and is possibly associated with courtship. Males may also engage in diving flight displays, chasing females.

Crows mob owls, hawks, and eagles throughout the year and are in turn mobbed by smaller birds. The loud, excited calls of crows are very characteristic and may lead you to sighting a local bird of prey.

### **Nest Sites**

Even though crows are common, their nests are not easy to locate, except after deciduous trees lose their leaves. In addition to being secretive nesters, crows may partially construct a number of preliminary or decoy nests.

Crows return to the same nest territory year after year, often a few weeks before they start building. If a small group of crows remains in a particular area day after day, this may signal that nest building is about to begin.

Many larger twigs that form the base of the nest are broken directly off trees. If you see a crow hopping slowly about in some dead branches, continue to watch and you may see it break off a branch and carry it to the nest. This is the best time to try to find nests, as the birds are less secretive than during egg-laying and incubation.

### **Roost Sites**

When the nesting period is over, the family group usually joins other groups of crows in communal night roosts. Roosts reach their highest numbers in late winter and may contain hundreds or even thousands of birds. Roost sites are generally located in groups of trees, often near water, and are used for many years if they aren't disturbed.

Communal roosting helps crows exchange information and find mates. Some birds, because of their age or familiarity with the surrounding landscape, are more efficient at finding food. Less experienced members of a roost can follow other birds to known feeding sites. Communal roosting also helps crows remain safe and warm. Crows occupying the center of the roost are less exposed to predators and weather than those on the edges or those roosting alone.

Crows are believed to return to the same roost each night, and their behavior is often predictable. Each morning the roost breaks up into smaller flocks that disperse across the landscape to feed. In mid-afternoon, these smaller flocks start back toward the communal roost. They fly along the same flight lines each day and are joined by other flocks as they go. Often there are pre-roosting sites, where flight lines coincide and crows stop to feed before flying the final distance to the roost. Communication between groups of crows often takes place at these pre-roosting sites.

If you are near a flight line for as long as an hour, you will notice crows passing overhead, a few to several hundred at a time in the late afternoon.

### **Calls**

The normal crow call is a loud *caw* or *awk*. The male also makes a dry, rattling call, very different from the normal call. If you are very fortunate you may hear the soft, almost melodious song of the crow.

## **Preventing Conflicts**

Crows help control pest insects and “clean up” dead animals and garbage that has been scattered by other animals. Although crows prey on songbirds and their young, research suggests that they do not ordinarily have a significant impact on songbird populations. Robins, for example have evolved to have two to three clutches each year to make up for young lost to crows. However, because crows are intelligent, opportunistic, and protective of their young, and at times congregate in large numbers, they can create problems for people.

To prevent conflicts or remedy existing problems:

**Keep crows out of the trash.** Crows are often blamed for spilling garbage, trash, or grain that was actually spilled by raccoons, dogs, or other animals seeking food. To prevent other animals from making garbage available to crows, keep your garbage-can lid on tight by securing it with rope, chain, bungee cords, or weights. Better yet, buy garbage cans with clamps or other mechanisms that hold lids on. To prevent tipping, secure side handles to metal or wooden stakes driven into the ground. Or keep your cans in tight-fitting bins, a shed, or a garage. Put garbage cans out for pickup in the morning, after raccoons have returned to their resting areas.

In addition, don't leave trash bags alongside a curb, in back of a pickup truck, or in an overfilled bin. Crows are early risers and will visit unattended garbage at first light or shortly thereafter. Therefore, overflow garbage bags should not be put out before sunrise on the morning of pickup. Ask your local restaurants and food chains to keep their garbage containers closed.

**Keep crows away from crops.** Protect fruit crops with flexible bird netting, which can be purchased in a variety of lengths and widths at garden and hardware stores or over the Internet from bird-control businesses. Four-inch mesh will keep crows out, but not smaller birds such as robins and starlings. Tie the netting securely at the base of the shrub or onto the trunk of the tree to prevent crows from gaining access from below (Fig. 4). Protect germinating corn plants and other crops with netting until plants are about 8 inches tall.

Visual scare devices, such as pie tins hung in trees, Mylar scare tape, Mylar balloons, scarecrows, or flags can be used to provide temporary protection.

One recent innovation is a motion sensor combined with a sprinkler that attaches to a spray hose. When a crow comes into its adjustable, motion-detecting range, a sharp burst of water is sprayed at the bird. This device appears to be effective by combining a physical sensation with a startling stimulus.

**Keep crows out of nest boxes.** Crows are capable of pulling nestlings out of nest boxes. They are most apt to snatch an older nestling that sticks its head out of the hole to accept food from its parents, but will also poke their heads into nest box entrance holes. This is a learned behavior that can result in individual predatory birds making the rounds of boxes and causing many losses of nestlings, and teaching other individuals to do the same.

To prevent this: Never put up a shallow box; there should never be less than 6 inches from the entry hole to the bottom of the box. Also, clean out used nests annually so the nesting birds do not fill the lower part of the box. Never put up a box designed with a perch or ledge under the hole.

### Communal Night Roosts

The communal night roosts of crows create accumulations of droppings with the potential to spread disease. When and where this poses a health risk to the public (as deemed so by a Public Health representative) or cannot be tolerated, steps need to be taken to remedy the problem.

Options include making the area temporarily off limits, routinely cleaning up the soiled area underneath the roost (see "Public Health Concerns"), or dispersing the flock by making the roost site undesirable to crows.

Large-scale intervention strategies should be undertaken with the guidance of the Department of Agriculture.

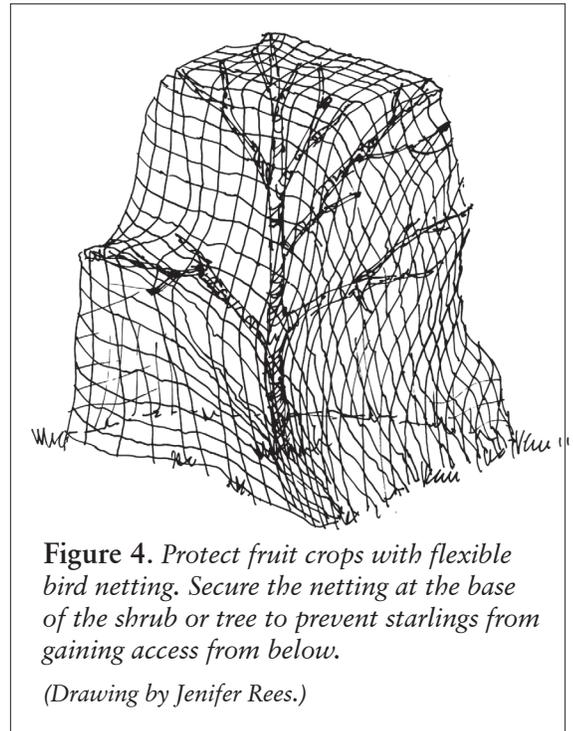
Methods to disperse crows from a night roost include:

### Harassment Techniques

Harassment techniques include visual and audio stimuli and an assortment of other approaches to make crows uncomfortable enough to move elsewhere. If possible, act quickly when large numbers of roosting crows are detected. The birds will be more willing to abandon a roost site they have not been using long. **Note:** Most harassment techniques are effective only for a short time and the public may not like them because they cause crows to move elsewhere—such as a neighborhood park or someone's backyard containing large trees.

**Visual scare devices** include Mylar tape, eye-spot balloons, scarecrows, and laser devices. Visual harassment devices can provide effective short-term control, especially when they are used in combination with auditory devices.

**Audio scare devices** include hazing with pyrotechnics such as cracker shells, blanks, propane cannons, and recorded crow distress and warning calls.



The main drawback with recorded calls is that crows ultimately learn they are not real and get used (habituate) to them. Because distress calls are given when a crow is being held by a predator, and alarm calls are given when there is a predator in the neighborhood, crows probably expect to see a predator whenever they hear one of these calls. If they do not, they may realize that something is not right and habituate more rapidly to the distress and alarm calls. For this reason, it is wise to pair the broadcast of these calls with a predator model, such as a “scarecrow.”

When using any auditory scare device, change the area from which it is emitted, daily if possible. When using pyrotechnics, try to elevate them above the roost site.

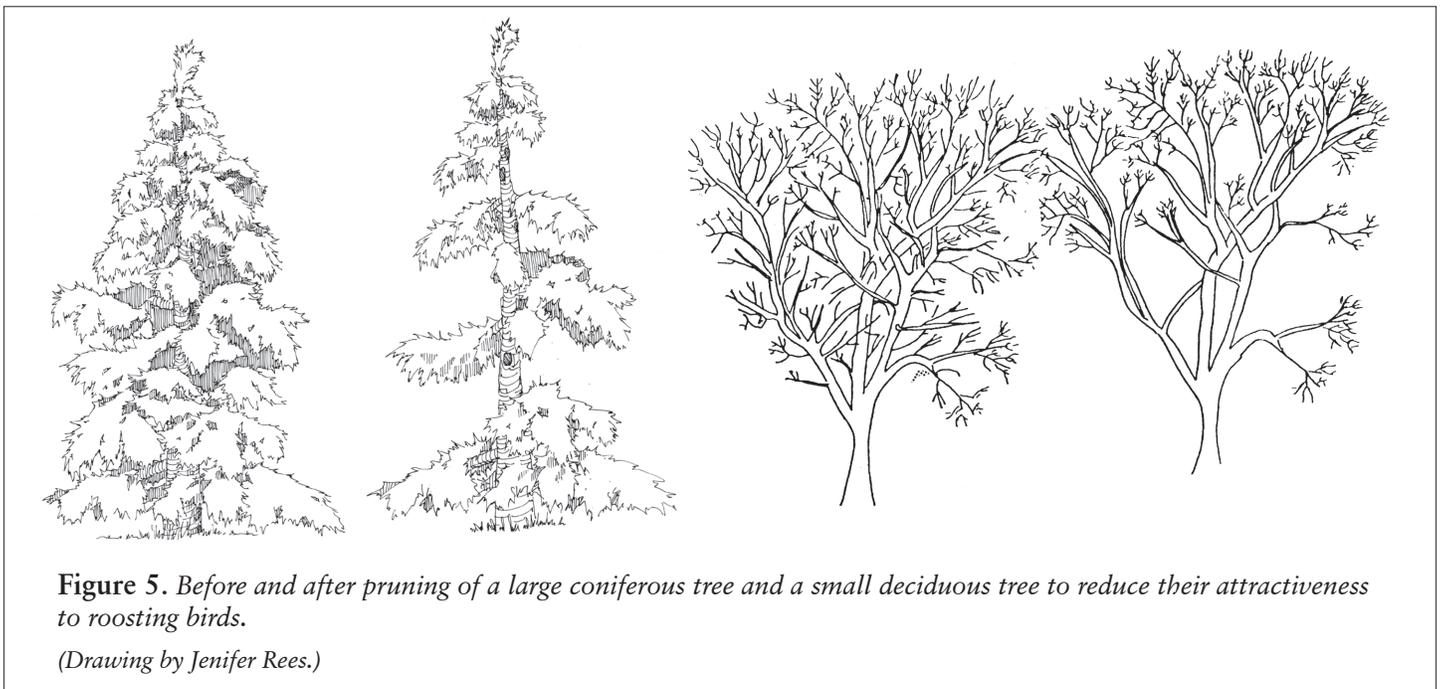
Crows scare most easily when they are flying. They are most difficult to scare when perched in the protection of their roost. Therefore, audio devices should begin to be used when the first birds come in to roost, usually an hour and a half before dark. The same group of crows may circle around and come toward the roost many times, so scaring efforts need to continue until it gets dark.

Scaring should stop with darkness or the crows will become accustomed to the sounds. If using recorded alarm calls, play them only 10 to 15 seconds per minute when the birds are coming in. When most of the birds are perched, play the call continuously until dark. If possible, early morning scaring should be used in conjunction with evening scaring, and should begin as soon as the first bird movement is detected in the roost, often just before daylight.

Success may not be achieved for several nights and will entail continuous efforts every evening and every morning. Because the crows may attempt to establish temporary roosts in other unsuitable locations, scaring efforts may be needed elsewhere until the birds move to an acceptable area. If crows are disturbed in their new roost site they will move back to the old one. Be prepared to resume efforts if they return.

### **Modify the Night Roost**

Modifying the structure of the crows’ night roost can discourage the birds from using it. This includes thinning up to 50 percent of the branches of roost trees, or removing trees from dense groves to reduce the availability of perch sites and to open the trees to the weather. A tree service company can remove tree limbs (Fig. 5).



### **Other Techniques**

Other techniques to disperse crows include using 4-inch mesh bird netting to create a barrier between the roost and the crows; spraying crows with water from a high pressure hose (some cities have used a fire hose); installing a 360 degree sprinkler up in the roost tree; and lighting up the interior of the roost with bright fluorescent lights.

## Lethal Control

Shooting is not an effective way to manage crow populations overall. The number of birds that can be killed by shooting is small relative to the size of the flock. However, shooting may be helpful where only a few birds are present, and in supplementing or reinforcing other dispersal techniques. First check the local ordinances regarding discharging firearms. For additional information regarding shooting crows, see “Legal Status.”

## Public Health Concerns

Although health risks from birds are often exaggerated, large populations of roosting crows may present risks of disease to people nearby. The most serious health risks are from disease organisms growing in accumulations of droppings, feathers, and debris under a roost. This is most likely to occur if roosts have been active for years.

Precautions need to be taken when working around large concentrations of crow droppings. Call your local Public Health office for information.

At the time of writing, West Nile virus, a virus carried by mosquitoes, has killed thousands of crows in the Northeast, Southeast, and Midwest portions of the United States. Call your local Public Health office updated information. Always wear gloves when handling dead or live birds.

## Legal Status

The crow is classified as a predatory bird (WAC 232-12-004). It is unlawful to hunt for or take predatory birds without a hunting license except as allowed under RCW 77.36.030. Therefore, a hunting license and an open season are required to hunt crows.

However, It is lawful to take crows when found committing or about to commit depredations upon ornamental or shade trees, agricultural crops, livestock, or wildlife, or when concentrated in such numbers and manner as to constitute a health hazard or other nuisance provided that none of the birds, or their plumage, be offered for sale (WAC 232-12-005).

Crows are protected under the federal Migratory Bird Treaty Act (MBTA). The above hunting and depredation take guidance regarding crows in Washington State is in adherence with federal MBTA regulations of crows, per the Code of Federal Regulations (Title 50, Section 21.43; and Title 50, Section 20.1331).

The Code of Federal Regulations (CFR) is located at <http://www.ecfr.gov>

## Dive-Bombing Crows

Most aggressive behavior from birds is motivated by defense of their territory or young, or their search for handouts. Hummingbirds have been noted to buzz people wearing red, perhaps thinking that they were a group of nectar-rich flowers. Pigeons and swallows may appear to be attacking humans when actually they are returning to their nests in the eaves of buildings.

In the spring and summer crows and other birds establish territories, build nests, and rear young. During this period, adult birds may engage in belligerent behavior, such as attacking creatures many times their size. In this case, the birds are simply trying to protect their homes, their mates, or their young.

When possible, stay away from nesting areas with aggressive birds until the young are flying (three to four weeks after eggs hatch) and the parents are no longer so protective. Do not attempt to “rescue” chicks found outside nests when adult birds are calling loudly nearby. If you must walk past a nest, wave your arms slowly overhead to keep the birds at a distance. Other protective actions include wearing a hat or helmet, or carrying an umbrella.

## Additional Information

### Books

Ehrlich, Paul R., et al. *The Birder's Handbook: A Field Guide to the Natural History of North American Birds*. New York: Simon & Schuster, 1988.

Nehls, Harry B. *Familiar Birds of the Northwest: Covering Birds Commonly found in Oregon, Washington, Idaho, Northern California, and Western Canada*. Portland, OR: Audubon Society of Portland, 1989.

Morse, Robert W., et al. *Birds of the Puget Sound Region*, R.W. Morse Company, 2003.

Peterson, Roger Tory. *A Field Guide to Western Birds*. Boston: Houghton Mifflin, 1990.

Washington, DC: National Geographic Society, 2002.

Udvardy, Miklos D. F. *Audubon Society Field Guide to North American Birds—Western Region*. New York: Alfred A. Knopf, 1977. Internet Resources

### Internet Sites

Centers for Disease Control and Prevention: [www.cdc.gov/](http://www.cdc.gov/)

Prevention and Control of Wildlife Damage: [wildlifedamage.unl.edu/handbook/handbook/](http://wildlifedamage.unl.edu/handbook/handbook/)

Seattle Audubon's Birds of Washington State: [www.birdweb.org/birdweb/](http://www.birdweb.org/birdweb/)

Washington Department of Health: [www.doh.wa.gov/](http://www.doh.wa.gov/)

Washington Department of Fish and Wildlife: <http://wdfw.wa.gov/>

Wildlife Control Supplies: [www.wildlifecontrolsupplies.com/](http://www.wildlifecontrolsupplies.com/)

Adapted from "Living with Wildlife in the Pacific Northwest" (see <http://wdfw.wa.gov/wlm/living.htm>)

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