

## Barn Swallows and Cliff Swallows

Swallows are migratory songbirds that occur and breed in Washington from spring to fall. They are sparrow-sized birds with long, pointed wings and streamlined bodies developed for fast, acrobatic flight. They are seen swooping and flying over fields, orchards, lakes, and anywhere else that flying insects are abundant.

Seven members of the swallow family breed in Washington. Of these seven species, barn and cliff swallows regularly build mud nests attached to buildings, a process that sometimes brings them into conflict with humans. Because of their close association with humans, this chapter focuses on these two species.

A field guide is helpful for identification of these and other swallow species and learning about their distribution throughout Washington. Popular field guides are listed under “Additional Information.”

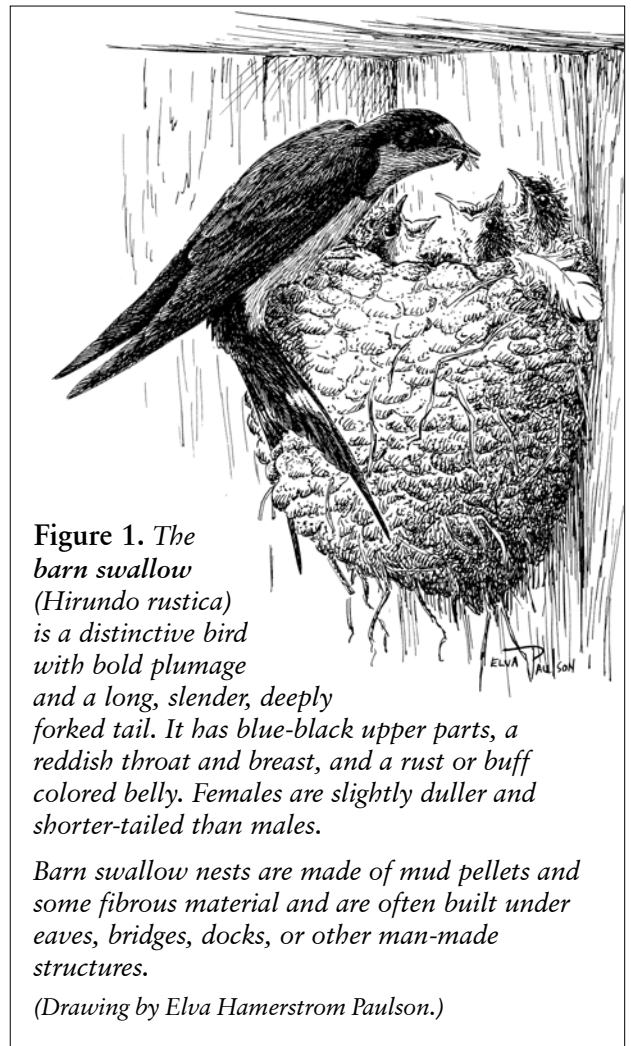
### Facts about Swallows

#### Food and Feeding Behavior

- Swallows are insectivores, catching a variety of insects in midair with their wide-gaped bills and expert flight. Barn swallows eat some berries, seeds, and dead insects from the ground, particularly during bad weather.
- Swallows will fly several miles from their nest site to forage.
- Long periods of continuous rainfall make it difficult for adult swallows to find food, occasionally causing young birds to die.
- Swallows drink mid-flight; as they fly over water they dip their bill to the surface to drink.

#### Nest and Nest Sites

- Barn and cliff swallows construct nests formed from mud pellets that they collect in their beaks.
- Barn swallow nests are cup shaped (Fig. 1); cliff swallow nests are gourd-shaped (Fig. 2). The interior of both these birds’ nests contains an inner cup lined with grass, hair, and feathers.
- Historic nesting sites of both barn and cliff swallows include cliffs, walls of canyons, and vertical banks protected from rain.
- Today, barn swallows almost always build nests on eaves, bridges, docks, or other man made structures that have a ledge that can support the nest, a vertical wall to which it can be attached, and a roof.
- Cliff swallow nests are built on vertical walls, natural or manmade, frequently with some sort of sheltering overhang. Freeways, bridges, barns, and other large buildings are regularly used.
- Barn swallows usually nest in single pairs; cliff swallows nest in colonies that may contain a dozen to over 500 nesting pairs.



**Figure 1.** *The barn swallow (Hirundo rustica) is a distinctive bird with bold plumage and a long, slender, deeply forked tail. It has blue-black upper parts, a reddish throat and breast, and a rust or buff colored belly. Females are slightly duller and shorter-tailed than males.*

*Barn swallow nests are made of mud pellets and some fibrous material and are often built under eaves, bridges, docks, or other man-made structures.*

*(Drawing by Elva Hamerstrom Paulson.)*

- Barn and cliff swallow nests are prone to external parasite infestations. Colonies may not be reoccupied because of heavy infestations, and if parasite populations become too great, both species will prematurely desert their nests, abandoning their young

### Reproduction

- Time from start of nest building to departure of young is 44 to 58 days.
- Nest building is done by both sexes and begins around April.
- Both parents take turns incubating three to five eggs, which hatch after 12 to 17 days.
- Brood parasitism is common among cliff swallows. Females will lay eggs in other females' nests and will also carry eggs in their beaks from their own nests to the nests of others.
- Both sexes care for the young, which begin to fly at 20 to 25 days of age.
- After learning to fly, the young remain in the nest, or near it, to be fed by parents and to roost at night. They leave the nest after a few days and will remain in the area for several weeks.
- Barn and cliff swallows can raise two clutches per year. Re-nesting will occur if nests or eggs are destroyed. For example, nests may fall because they were built too rapidly, or may crumble because of prolonged wet or humid weather.

### Mortality and Longevity

- Young swallows may fall out of their nests or die from nest infestations of blowfly and other parasitic insects and mites.
- Other deaths of young occur from severe hot or cold temperatures, fallen nests, and predators, including crows, ravens, magpies, starlings, house sparrows, domestic cats, rats, and tree squirrels.
- Although they are still common in Washington, Breeding Bird Census data indicate that barn swallows have decreased significantly here since 1980.

### Viewing Swallows

The flowing flight of swallows can be enjoyed from dawn to dusk. Barn swallows are agile flyers that come to within inches of the ground to catch flying insects.

Cliff swallows glide, soar, and circle more than barn swallows do, and are often seen higher in the sky. When not in flight, swallows can be seen perched on utility wires, TV antennas, and on dead branches in large trees. Young swallows can be observed sticking their heads out of the nest, begging for food when a parent arrives.

### Mud Sources

Barn and cliff swallows travel up to a half-mile to gather mud from the edges of ponds, puddles, and ditches. Gathering mud and constructing nests are social activities for cliff swallows; even unmated swallows may build a nest that goes unused.

To find one of their mud sources, look for swallows landing on the ground—they rarely do this at times other than when nest building. The birds will remain on the ground for a minute or so and then fly off to a nest site.



**Figure 2.** *The cliff swallow (Petrochelidon pyrrhonota) looks somewhat like the barn swallow, but has relatively broad, round wings and a short, squared-off tail. The back, wings, and crown of the adult are a deep blue, and its belly is light colored.*

*Cliff swallow nests are made of mud pellets and some fibrous material. The larger cliff swallow nest may contain 1,000 pellets or more, each representing one trip to and from the nest.*

*(Drawing by Elva Hamerstrom Paulson.)*

The collection site will be marked with numerous small holes made by the birds as they poke their beaks into the mud several times to get a good load. You may also see swallows flying with feathers or grass—materials used in the final stages of nest building.

### **Calls and Songs**

The barn swallow's song is a series of twitters and gurgles. They emit a soft *wit wit* call when feeding with other swallows, and when approaching their nests. A louder version of this call is given when there is possible danger near the nest, such as at your approach.

The cliff swallow's call is a low, soft, husky *verr* or *churr*, sounding like the squeaking of a door with rusty hinges. The song is a series of thin, strained, drawn-out rattling sounds that is shorter and simpler than the song of the barn swallow.

## **The Marvel of Migration**

Each autumn, almost half the bird species that breed in Washington migrate south to tropical Central and South America. This migration is one of the wonders of the natural world.

These birds, called "neotropical migrants," spend six or more months in southern locations before returning north in spring to mate and rear young. Most vireos and warblers winter in western Mexico and northern Central America, as do tanagers, black-headed grosbeaks, orioles, swifts, and violet-green swallows. Barn and cliff swallows winter in Central and South America.

The famous swallows of Capistrano are cliff swallows, and, contrary to legend, they return to Capistrano in late February, considerably earlier than the fabled March 19.

The main reason for this seasonal migration is the lack of insects to eat during winter in the north. Avoiding cold temperatures is actually a less important reason for leaving.

Barn and cliff swallows begin their return to northern climes in late winter and early spring. Depending on weather conditions, they are first spotted in southern Oregon in late March or early April. They start appearing in British Columbia two to three weeks later.

Swallows migrate during the day, catching flying insects along the way. They will normally not move into areas unless flying insects are available for food, which occurs after a few days of relatively warm weather—60°F or more.

Swallows are usually the first to begin the southern migration in mid August to early September. They gather in large groups (sometimes as many as 2,000 birds) on telephone wires and other perches before departing.

## **Preventing Conflicts**

Many people enjoy swallows nesting on or around their homes. Colonies of cliff swallows on school grounds can provide excellent opportunities for study. The anticipation of the swallows' arrival in the spring is exciting, watching parents feeding their young is a wonderful sight, and swallows consume thousands of flying insects that are considered pests.

It has been speculated that one reason swallows choose to nest on door stoops, light fixtures, and porch fronts is because the close proximity to humans keeps crows and other predators away. The birds will even risk cat predation and human vandalism and nest close to the ground if the location is in a place frequented by humans.

The barn swallow's close association with humans in Europe goes back over 2,000 years. Thus, when you thwart a barn or cliff swallow's nesting effort, you may be denying the birds their only chance at successful reproduction.

To prevent conflicts or remedy problems:

**Manage swallow droppings:** Conflicts with swallows occur when these birds nest close to humans, primarily because of the droppings and other debris they deposit.

When swallows first hatch, the parents eat their droppings, which keeps the nest clean and insect free. After a few days, the adults carry the droppings (which are encased in a fecal sac made from clean mucous membrane) away from the nest to prevent detection by predators. After about the twelfth day, the young back up to the edge of the nest and defecate out over the rim.

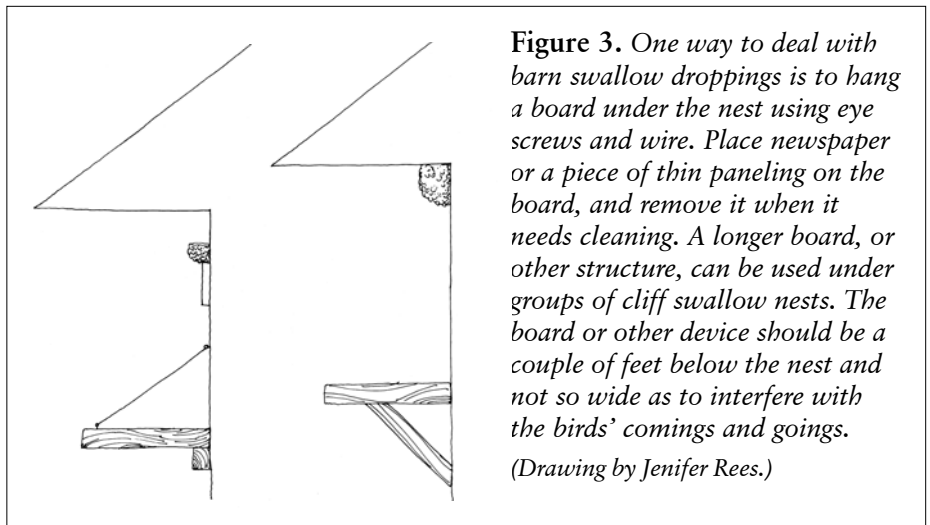
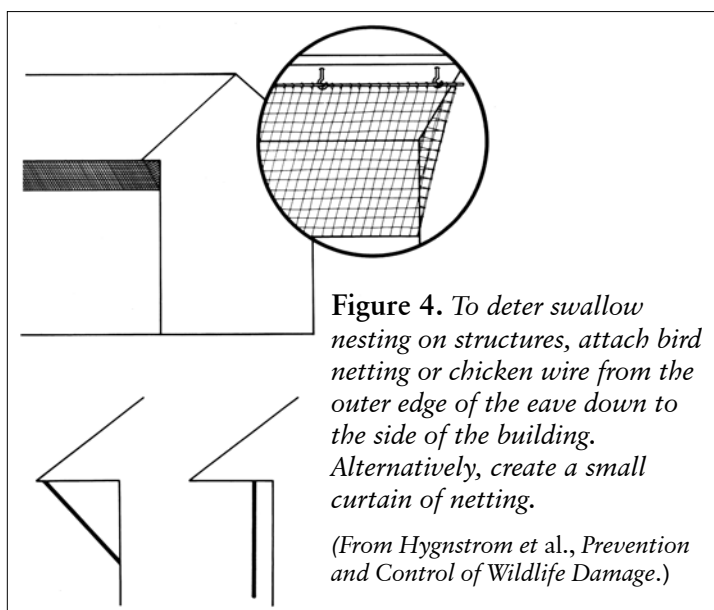
Placing newspaper or some similar material where droppings accumulate can solve the problem. As necessary, the paper and droppings can be added to a compost pile, dug into the ground (droppings make wonderful fertilizer), or placed in the garbage. Similarly, a blanket or sheet can be used to cover a car or structure, and moved when needed.

Another solution is to install a board under the nest(s) to catch the droppings and debris (Fig. 3). Because of its close proximity to the nest, the board should be cleaned as needed to prevent infestations of insects and mites that may live in the accumulated debris. Before attaching the board, observe the swallows comings and goings to prevent installing something that could interfere with the birds accessing their nest.

**Create a barrier:** If for some reason swallows nesting on a building or other structure cannot be tolerated, a barrier can be installed. (Again, because barn swallow populations have been on a decline for the past 20 years and cliff swallows have specific nesting requirements that are as yet unknown, preventing these species from nesting should be done only in extreme cases.)

Barriers include any physical structure placed between the swallow and the structure. A permit is not required for this method if it is done before the birds arrive, during nest building when there are no eggs or young in the nest, or after the birds have left for the winter. If swallows have eggs or young in the nest, exclusion may not be used without a permit (see “Legal Status”).

To prevent barn swallows from nesting on door jambs, window jambs, and other sites on the side of a building, cover the area with bird-netting or 1-inch mesh chicken wire. Drape the material from the outer edge of an eave down to the side of the building (Fig. 4). Remove wrinkles and folds that could trap or entangle swallows or other birds.



Bird netting and chicken wire are available from nurseries, hardware stores, and farm supply centers. Some pest-control companies sell a heavy-duty netting material with a larger mesh than common black netting used to protect fruit from birds. The netting is not as likely to create problems for songbirds, which sometimes get caught in the smaller mesh netting. To find the product, search the Internet for “bird control supplies” or look in your phone book under “Pest Control.”

Attach the barrier using staples, brass cup-hooks, adhesive backed hook-and-loop Velcro, trash-bag ties, or other fasteners. To avoid unsightly rust stains, use

only rust-resistant fasteners. The barrier may also be first stapled to or wrapped once or twice around wood laths, which are then attached to the structure. This technique can also be modified to keep swallows from entering a breezeway, or similar sites, to nest.

Another technique is to hang a curtain of bird netting or chicken wire from the eave (Fig. 4). The curtain should be 3 to 4 inches from the wall and extend down from the eave 18 inches or more. A well done application under the eaves is nearly invisible from 50 feet because it is in a shaded area and gets obscured by the shadows.

A solution for small areas is to install aluminum foil, aluminum flashing, or heavy plastic over the spot where swallow nests are unwanted. The smooth surface will prevent swallows from adhering mud to the wall.

Painting the area with a glossy latex paint may also be effective. It may be possible to offer barn swallows an optional nesting site by constructing a nest platform (Fig. 5).

**Note:** Hawk, owl, and snake models, noisemakers, revolving lights, red-and-silver flash tape, and hanging pie tins are unlikely to deter swallows.

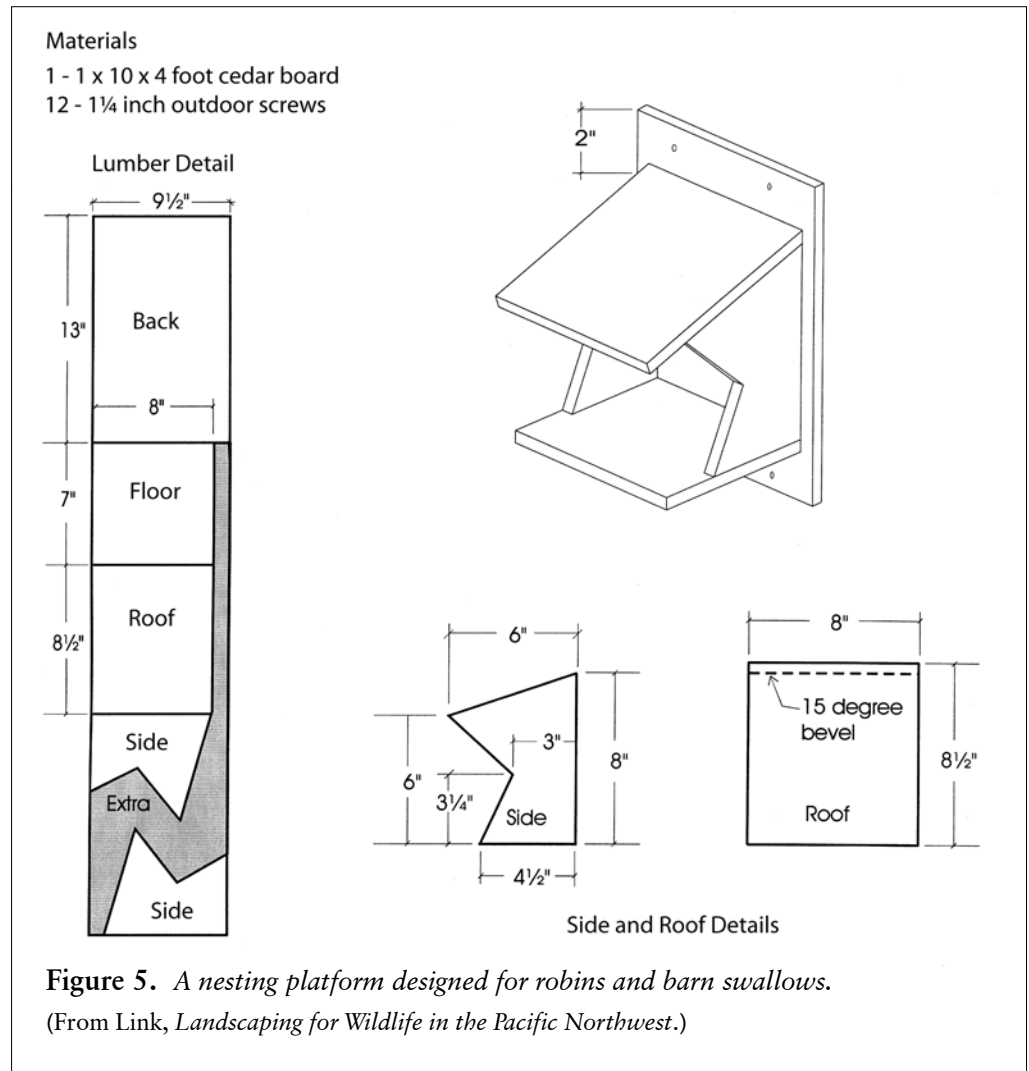
**Nest removal:** At the first sign of nest building, remove the nest. **Note:** All swallows are protected under the law. You cannot disturb them once they lay their eggs in the nest (see "Legal Status").

Usually nests can be washed down with a water hose or knocked down with a pole. Because swallows are persistent at rebuilding nests, you will need to continually remove the nest mud for several days until the birds stop. Swallows are strongly attracted to old nests or to the remnants of deteriorated nests, so all traces of mud should be removed.

For information on what to do if young swallows fall from a nest, see the handout, "Baby Birds out of the Nest."

## Public Health Concerns

Swallows are not a significant source of any infectious disease that can be transmitted to humans or domestic animals.



## Legal Status

Swallows are federally protected. Any permit to lethally control these species would need to be issued from the U.S. Fish and Wildlife Service, and would only be issued in very extreme cases. Some examples are concerns for aircraft safety from a nesting colony at an airport or potential food contamination from a colony over a loading area at a food-processing center.

In most cases a permit for lethal control will not be issued for swallows nesting on a residence or other buildings and causing aesthetic damage.

A permit is not required to remove swallow nests under construction that do not contain an adult, any new eggs or young, or nests abandoned after the breeding season. If an adult swallow is occupying a half-built nest, or a fully built nest without eggs, then the law protects it.

## 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

eNature.com: a searchable nature database:  
[www.enature.com](http://www.enature.com)

[www.birdweb.org/birdweb/](http://www.birdweb.org/birdweb/)

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

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

Seattle Audubon's Birds of Washington State:

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

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