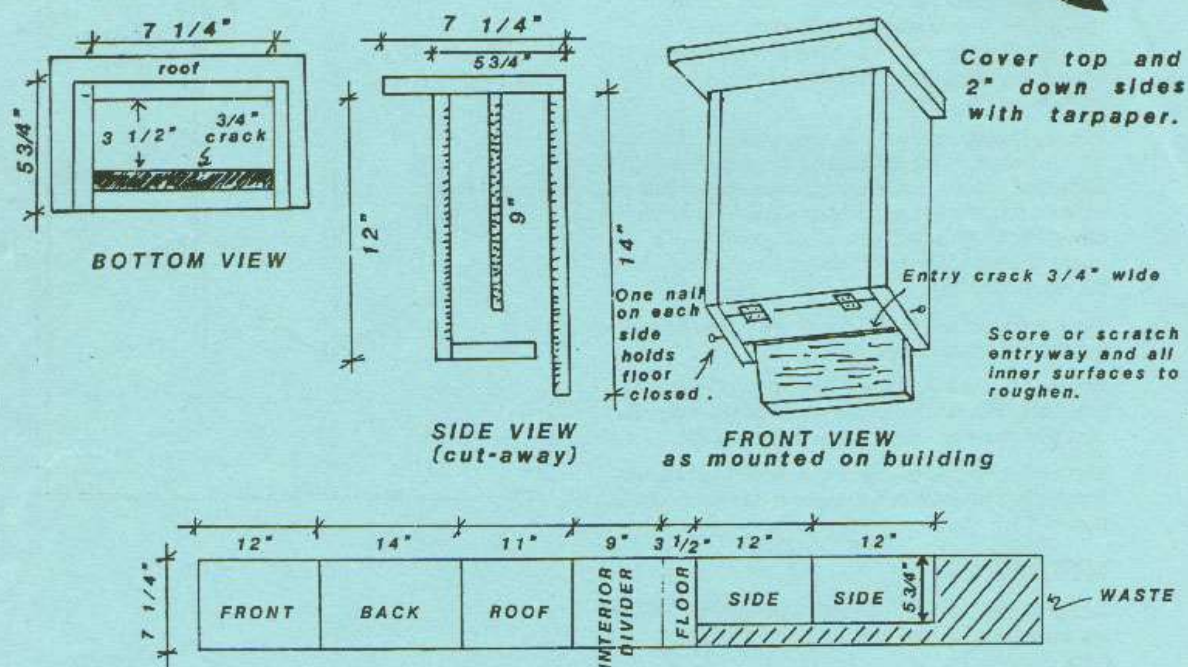


FIGURE 9.
BAT HOUSE



LUMBER: One 1"x8"x 8'0"

LOOK FOR THE LOON ON YOUR WISCONSIN TAX FORMS!
THE LOON MARKS THE LINE WHERE YOU CAN HELP WILDLIFE
BY DONATING TO THE NON GAME WILDLIFE CHECKOFF

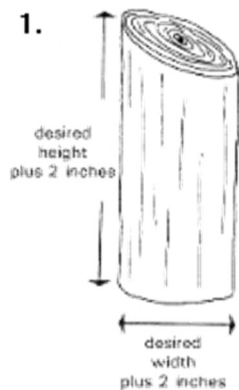
Build a specific size birdhouse for a bird species that occurs in your region and lives in the habitat in which you plan to place the house. The right size house won't attract the desired bird if it's placed in the wrong habitat.

Species	Distribution						Habitats Used	Interior Dimensions in Inches			
								Height	Width	Entrance Hole	
	No	We	Sw	Sc	Ce	Se				Size & Shape	Distance Below Roof
Bufflehead		x	x	x	x	x	A*	16"	7"	2 7/8" round	2-3"
Common Goldeneye			x	x	x	x	A*	24"	12"	4 x 5" rectangle	2-4"
Barrow's Goldeneye			x	x	x	x	A*	9-52"	6-9"	3-4" round	2-3"
Common Merganser			x	x	x	x	A*	33-40"	9-11"	5" square	2-10"
American Kestrel					x		B*	12-15"	8"	3" round	3"
Boreal Owl		x	x	x	x		C*	9-18"	6-7"	2½x4½-5" ellipse	2-3"
Saw-whet Owl				x		x	C, D*	9-18"	6-7"	2½" round	2-3"
Common Flicker					x	x	B, C, E*	16-18"	7"	2½" round	2"
Hairy Woodpecker				x	x	x	C, E*	12-15"	6"	1½" round	3"
Downy Woodpecker		x	x	x	x	x	C, E*	8-10"	4"	1¼" round	2"
Violet-green Swallow			x	x	x	x	A, B*	6"	5"	1½" round	1-4"

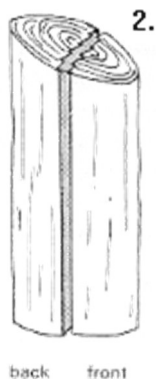
Tree Swallow		x	x	x	x	x	A, B*	6"	5"	1½" round	1-4"
Black-capped Chickadee		x	x	x	x		C, E*	8-10"	4"	1 ⅛" round	2"
Siberian Tit			x		x		C*	8-10"	4"	1 ⅛" round	2"
Boreal Chickadee		x	x	x	x		C, D*	8-10"	4"	1 ⅛" round	2"
Chestnut-backed Chickadee				x		x	C, D*	8-10"	4"	1 ⅛" round	2"
Red-breasted Nuthatch				x	x	x	x	8-10"	5"	1 ⅛" round	2"
Mountain Bluebird					x		B*	8"	5"	1¾" round	2"
Snow Bunting	x	x	x	x	x	x	F*	8"	5"	1½"-2" round	4" from the bottom of the hole to the floor
*Habitats Used: A = Near lake, river or stream in forested area; B = Open areas (forest opening, recent burned over forests, clearcuts, agricultural areas); C = Mixed hardwood-coniferous forest; D = Coniferous forest; E = Deciduous forest; F = Tundra areas											

A wide variety of birdhouse plans are available. As long as you remember the 11 important points listed above and are careful to use the correct dimensions, any birdhouse plan will work. The following plans are suitable for Alaskan birds. Use the height, width, and entrance hole measurements in the [Birdhouse Dimension Table](#) to adapt these two plans for any species of cavity-nesting bird.

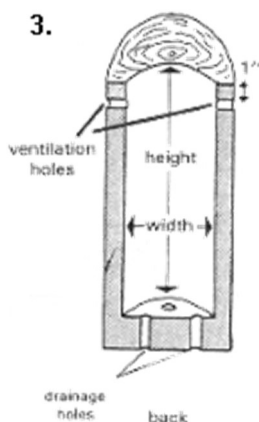
Split Log Construction



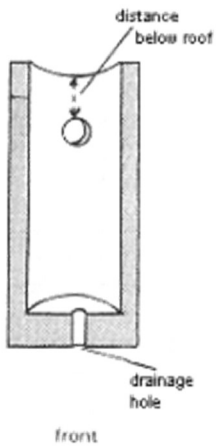
Use a section of birch, aspen, or spruce log from your firewood pile. Be sure to select a log large enough for the inside cavity dimensions required by the bird that will use the house. Cut the bottom of the log section off squarely and cut the top at a slight angle to allow a pitched roof.



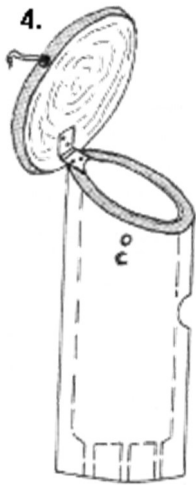
Saw the log in half vertically so that the pitched top is divided into an upper and lower section.



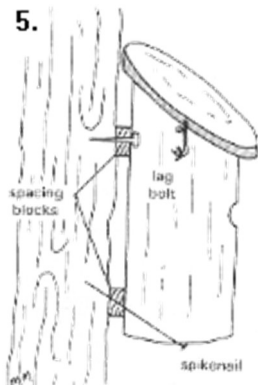
Hollow out the inside of the two halves to the required dimensions using a chisel or chainsaw. Leave the bottom of the log halves solid, but hollow out the top completely. Drill three, 1/8-inch drainage holes through the floor of the back half. Drill 1/8-inch ventilation holes through each side of the back half, 1-inch below the top.



Drill an entrance hole through the front log section. Be sure to make the hole the correct size and at the proper height above the cavity floor. Drill one, 1/8-inch drainage hole through the floor of the front half.



Rejoin the two halves using glue, wire, or latches. Try to seal the crack to reduce drafts through the cavity. Cut a roof for the house from a log section of board 2 inches larger in diameter than the joined sections. Hinge the roof to the top of the hollowed log with a brass or galvanized steel hinge, so that the roof extends over the edges at least 1 inch on all sides. Place latches on each side of the roof so that predators will not be able to pry off the roof.

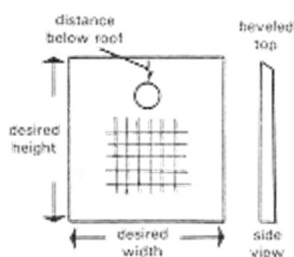


Attach your split log birdhouse to a post or tree using a lag bolt and spike nail. Spacing blocks will allow you to open the lid easily.

Dimension-Board Construction:

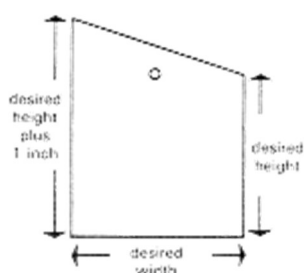
(Saw $\frac{3}{4}$ -inch boards to the appropriate sizes and shapes)

Front (Cut 1)

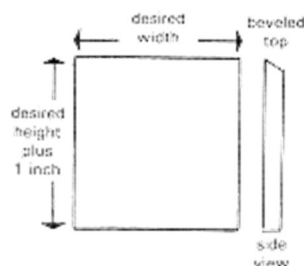


Cut the proper size entrance hole at the correct distance below the top. Roughen the board below the entrance, or attach $\frac{1}{4}$ -inch mesh screen so that young birds will be able to climb out. Be sure to bevel the top so the roof will fit properly.

Sides (Cut 2)

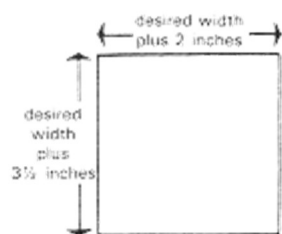


Cut the top edge of the side boards at an angle so the roof can be pitched. Drill $\frac{1}{8}$ -inch ventilation holes on each side about 1 inch from the top edge.



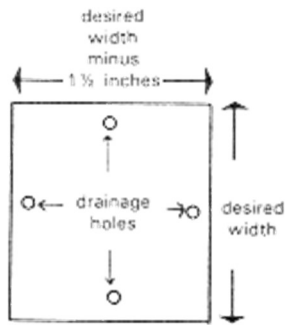
Back (Cut 1)

The backboard must be 1 inch taller than the front to allow a sloped roof. Be sure to bevel the top of the board so the roof will fit properly.



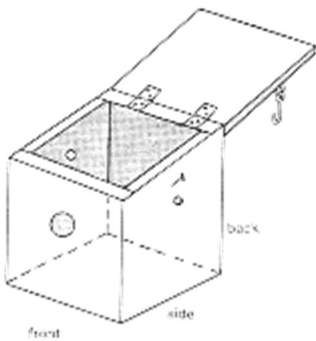
Roof (Cut 1)

Cut the roof large enough to overlap all four sides by 1 inch.

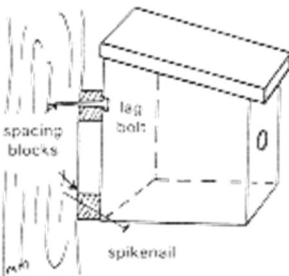


Bottom (Cut 1)

If you use $\frac{3}{4}$ -inch boards, the bottom must be $1\frac{1}{2}$ inches smaller than the width of the box. Larger or smaller boards will alter the size slightly. When the box is constructed, the bottom should be surrounded by the other boards to prevent water from seeping in. Drill $\frac{1}{8}$ -inch drainage holes about 1 inch from the edge on each side.



Nail the box together so that the bottom board is enclosed by the four sides. Hinge the roof on one side so that it extends beyond the edges of the four sides of the nest box. Place a latch on the roof so predators won't be able to pry the box open.



Attach the nest box to a post, tree, or house using a lag bolt and spike nail. The spacing blocks will allow you to open the box easily.

Birdhouses should be placed in fall or winter, if possible. Swallows may use nest boxes set out during late May or early June, but owls, chickadees, and woodpeckers begin looking for nest sites during February, March and April. Always face the birdhouse so the entrance is protected from prevailing winds.



Kestrel nest boxes should be placed at the edge of a forest area or on a post in an open area 12-20 feet above the ground.

Boreal Owls prefer mixed spruce-hardwood forests, while Saw-whet Owls prefer to nest near the edge of spruce or deciduous forest groves.

Woodpecker nest boxes should be placed 6-20 feet above the ground, though Hairy Woodpeckers prefer nest sites 12 feet or more above the ground. Common Flickers nest in open areas and open park-like areas, while Hairy and Downy Woodpeckers prefer open deciduous forests.

Chickadee nest boxes should be placed on trees in wooded areas. Boreal and Chestnut-backed Chickadees prefer coniferous forests, while Black-capped Chickadees prefer deciduous woods. Chickadees nest 6-15 feet above the ground. Sawdust or woodchips may be placed in the bottom of chickadee nest boxes. Chickadees prefer split-log nest boxes.

Nuthatch nest boxes should be placed 6-20 feet above the ground on a tree in mixed coniferous-hardwood forest. Nuthatches prefer split-log nest boxes.

Bluebird nest boxes should be placed in open areas like field edges on poles or fence posts 5-10 feet above the ground. This bird is found in only a limited area of east central Alaska and cannot be attracted in other areas.

Swallow nest boxes should be placed in open areas including cities, field edges, open forests, lawns or gardens. Place the boxes 10-20 feet above the ground on posts, trees or beneath house eaves.

Snow Bunting nest boxes can be placed almost anywhere in tundra habitats. Snow Buntings will nest in boxes on the ground, on posts, or on a house in alpine, wet or moist tundra areas. However, nest boxes on the ground may allow easy access to predators.

Unwanted Tenants



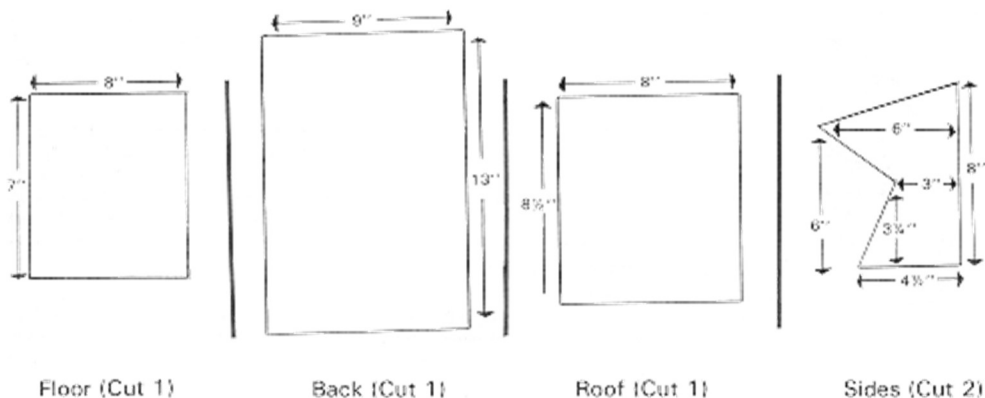
Don't let your birdhouses become homes for Starlings or House Sparrows! These birds were introduced into the contiguous United States from Europe during the mid-1800s and early 1900s. Both species spread throughout North America and have become serious agricultural and urban pests. In addition, both species compete with native North American birds for cavity-nest sites and thus may harm native bird populations. For example, nest site competition by Starlings and House Sparrows has been blamed, in part, for the population declines of the Eastern Bluebird, a cavity-nesting bird.

Although both species have been found in Alaska, only Starlings have become established, as yet. Starling nests have been recorded in central and southeastern Alaska, and the species is regularly observed in southcoastal and western Alaska.

Starlings and House Sparrows will use nest boxes with entrance holes larger than 1½ inches in diameter. Keep a careful watch on your waterfowl, owl, woodpecker, and bluebird nest boxes to be sure that Starlings and House Sparrows do not invade them. (Please report any observation of Starlings or House Sparrows to Alaska Wildlife Observations, c/o University of Alaska Museum, 907 Yukon Drive, Fairbanks, AK 99701).

Nesting Ledges

American Robins, Say's Phoebe, and Barn and Cliff Swallows will not use nest boxes, but they will nest on platforms that are open on three sides. Platform nest ledges should be 6-7 inches wide, 6-7 inches long, and at least 8 inches high.





Nest ledges can be easily fastened under the eaves of houses, buildings, bridges or on trees. They may be placed near a window where the behavior of birds using them can be easily observed. Place the nest ledge 8–16 feet above the ground.

Winter Roost Boxes

