



Girl Scouts.

Girl Scouts – North Carolina Coastal Pines
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Night Creatures



Our Own Council's Badge



GIRL SCOUTS – NORTH CAROLINA COASTAL PINES

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Thanks to Girl Scout Junior Troop #1676 for creating this badge.

NIGHT CREATURES

Complete 6 requirements

1. Flashlights are small, portable lights. Learn how to use a flashlight and what type of batteries it uses. Learn when you should and should not use it. Make sure your flashlight is suitable for your needs. For fun, try to build your own flashlight. (Plans included.) Test your flashlight and the real one to see which one works better.
2. Take a nighttime hike with an adult who can identify night sights and sounds. Pair up with other Girl Scouts and share a flashlight. Listen for as many animals as you can and try to spot them using the reflections of their eyes. Take the same hike during the day and see how the area is different than during the night.
3. Learn about owls found in North Carolina. How many different types of owls are found in North Carolina? Learn how owls hunt for their food. What factors could keep them from hunting, i.e. natural, human, or industrial? What effects do these factors have on the owls? How do these factors influence where, when, and how owls hunt? Why are these factors so important? Are there other birds of prey that are nocturnal? Visit a Raptor Center and participate in a program on owls, if possible.
4. Dissect an owl pellet and use field guides to identify what the owl had to eat. Owl pellets are the indigestible parts of the owl's dinner. There are many sources online to purchase owl pellets: i.e. www.owlbrandkits.com, www.teachersource.com, www.pellet.com, and www.pelletlab.com.
5. Learn about moths. What are the differences and similarities between moths and butterflies? What is their life cycle? How do moths behave? Who are their predators? How do they find a mate? Learn why moths appear to be drawn to a flame or light.
6. Try catching moths by using a light source. Identify the types of moths you catch by using a field guide.
7. Learn about types of bats. What bats are found in North Carolina? Why are bats helpful? Why is it important to have them around your homes?
8. Build a house for a nocturnal animal such as a bat or owl house. Mount the house outside in your yard or donate the house to a raptor center. (Plans included.)
9. What types of nocturnal animals can be found in North Carolina? Research one of them and make a presentation about its habitat, food, movements, etc.
10. Talk with someone who works with bats, owls, or other animals that are nocturnal. Learn what education is needed to work with the animal they've chosen, how they got started in their field, and why they like working in the field.

OWL BOXES

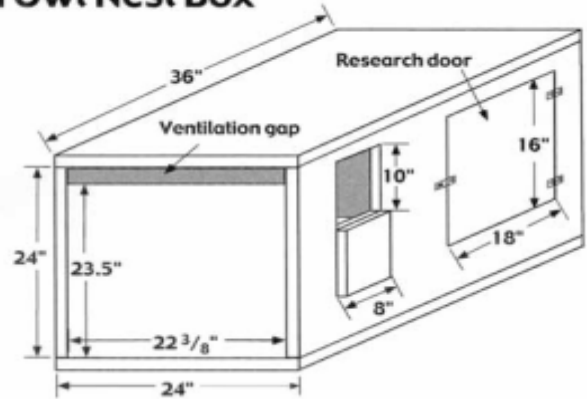
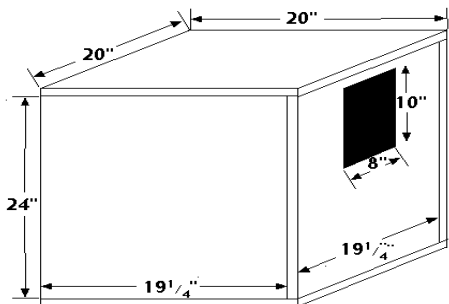
The Barn Owl box can be built from a single sheet of 3/4" exterior grade plywood, treated with a preservative. Sections are secured with 2-1/2" sheetrock screws. A hinged and latchable door (16" high x 18" wide) provides access to the box for Project Barn Owl researchers. The entrance hole should be 10" x 8" and have a door hinged at the bottom. A 2" x 2" perch extends across the box just inside the entrance hole.

Boxes can be mounted on barns, trees in open fields, or free standing on either two treated 16' 4 x 4s, or a single 16' 4 x 6, sunk 30" in the ground. Barn Owls need to hunt in open country, so boxes should be placed at the edges of fields or on barns with lots of open space around them.

Barn Owl Nest Box

Barred Owl Nest Box Plan

Use 3/4" exterior grade plywood, stain the pieces with deck preservative before assembly with 2 1/2" galvanized deck screws.



Because Barred Owls only have 1-3 young, as a rule, they don't need as big a box as the Barn Owls, which can have as many as 7 or 8 young in a brood! The boxes can be made from 3/4" exterior grade plywood, or 1/2" plywood. The smaller and lighter boxes will be more maneuverable and permit them to be put higher up in trees, which the Barred Owls probably prefer.

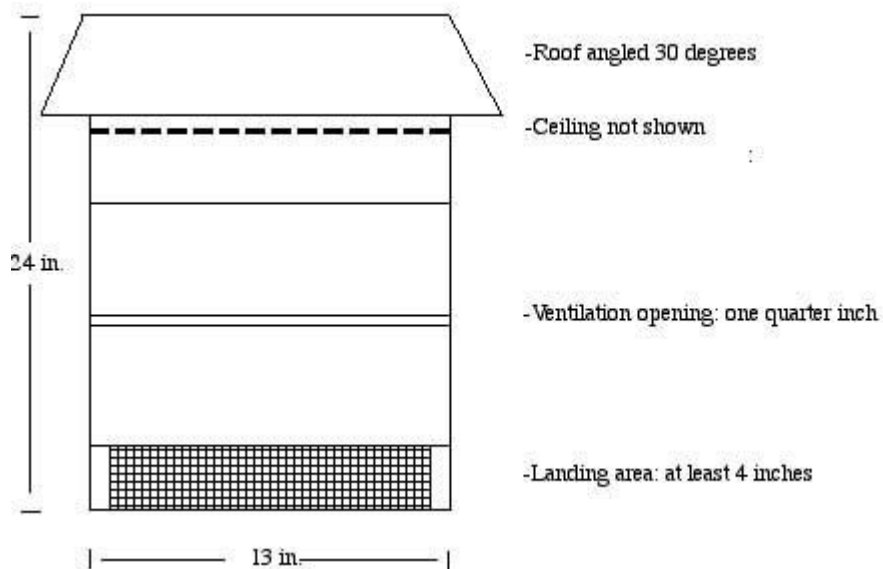
NOTES:

For the Barn Owl boxes, be careful when cutting the plywood that the lengthwise cut is exactly in the middle – the two pieces don't need to be exactly 24", but should be the same width.

- For either kind of box, when your pieces are cut, they should be treated with a preservative before assembly, especially the newly sawn edges.
- When assembling the pieces, it helps to nail them together with 1-1/2" nails before securing them with the sheetrock screws.
- Once the box is nailed together, predrill holes for the sheetrock screws with a 1/8" bit. Space screws about 5" apart. (If you're using an electric drill as a screwdriver, the sheetrock screws can be screwed in without predrilling.)
- Make sure no screws penetrate the inside of the box. The sharp points could injure the young owls.
- The two door holes can be cut with a circular saw after the box is assembled. Because the saw cuts at an angle, if you stop cutting when the circular saw blade cuts just meet on the outside of the box, the doors will still be connected to the surrounding wood. The hinges can now be applied, after which the cuts at the four corners can be finished with a keyhole or saber saw.
- Once the box is assembled, it should get another full coat of preservative – inside and out. A heavy-duty deck stain is ideal.
- Drill a dozen 1/2" drainage holes in the floor of the box.
- For Barn Owl boxes, use a hasp or throw bolt on both doors that can be securely fastened.

Barred Owls prefer forested habitat, particularly near streams or wetlands, although they seem to be doing well in forested suburban situations. Their boxes should be about 20' or higher up on a tree.

BAT HOUSES



Material List:

- Cedar or exterior plywood
- Galvanized screws or nails
- 1/8-inch plastic mesh
- Exterior caulk
- Black latex paint
- Exterior staples for mesh

Bat houses should be made of exterior plywood or cedar (rough on the inside).

The inside should have grooves at least every one quarter inch or have polyethylene plastic mesh attached all the way up the front and back.

The house should be at least 24 inches tall, 13 inches wide, and about 3 inches deep.

It can be made with multiple chambers, although this design just has one. The opening at the bottom of the house should be about three-fourths to 1 inch. Any larger would allow predators to enter.

OBC recommends using 2-inch width sides, then adding a 1-inch strip of wood attached to the lower front panel to create this small opening.

Caulking the house will keep the bats warm and dry, and putting the bat house together with galvanized screws will help prolong the life of the house. Adding a ceiling at the top of the house just below the roof, and leaving a one fourth inch space about 6 inches from the bottom opening, will create much-needed temperature variation.

Your house needs to be placed at least 15 feet up, the higher the better, and should face a south to southeasterly direction with at least 6 hours of sunlight daily. If your house is not getting at least 6 hours of sunlight you may want to paint it using a nontoxic black paint (never paint the inside of the house).

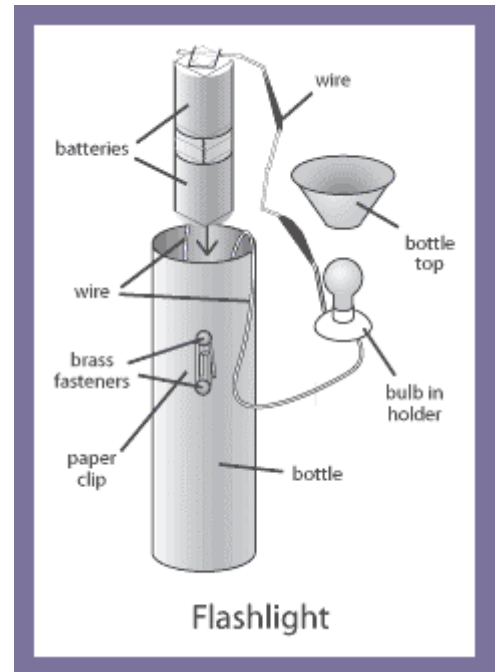
Houses can be mounted on poles, garages, barns, human houses, or trees, making sure there are no obstacles to prevent the bats from entering the bat house. Trees usually take longer to become occupied because bats find the houses by sight and if the leaves of the tree are covering the bat house, it is harder to find.

MAKING A FLASHLIGHT

With a flashlight, described as a small portable light, you will be able to venture outside for a walk — moonlight or no moonlight.

Supplies:

- 2 batteries with 1.5 volts each
- 2 brass paper fasteners
- sharp pencil
- screwdriver
- aluminum foil
- plastic tape
- a light bulb in a bulb holder
- 3 pieces of wire with bare ends
- paper clip
- cotton
- empty dishwashing liquid bottle or empty toilet paper roll.
- scissors



Cut the top off the empty dishwashing liquid bottle. Tape foil, shiny side up, to the inside of the bottle top. Use the pencil to make two small holes in the side of the bottle near the bottom. One hole should be about an inch below the other. Firmly attach two pieces of wire to the bulb holder. Tape the top of one battery to the bottom of the other to make one long battery. Tape the third piece of wire to the bottom of the battery. Tape one of the wires from the bulb-holder to the exposed terminal on the battery. Put the long battery in the bottle, carefully threading the wire from the bottom battery through the lower hole. Stuff cotton in the space between the batteries and the walls of the bottle to keep the batteries in place. Thread the wire from the bulb-holder through the top hole in the bottle. Attach paper fasteners to the two wires poking through the holes and push in the fasteners. Put the bulb-holder on top of the battery and tape the center of the bottle top over the bulb. In other words, put the bottle top on back-to-front so that the aluminum foil is visible. Bend the paper clip and fit one end under the lower paper fastener to make a switch. (When the switch is turned, current flows from the battery along the wires to the bulb.) Press the other end of the paper clip against the top fastener and see the flashlight light.

For additional information on similar topics, please check out a Linking Girls to the Land kit at the Girl Scouts – North Carolina Coastal Pines Council Service Center!

