

## BILLS AND FEET



**SEED-EATERS:** (SPARROWS, CARDINALS, ETC.) SHORT THICK BILLS FOR CRACKING SEEDS.



**INSECT-EATERS:** SWALLOWS, FLY-CATCHERS, ETC. THAT CATCH INSECTS ON THE WING; SMALL BILLS, WIDE MOUTHS.



**OTHER INSECT EATERS:** WARBLERS, VIREOS, KINGLETS, ETC.; SLENDER, POINTED BILLS.



**WOODPECKERS** BORE INTO TREES FOR GRUBS; HAVE LONG, SHARP CHISEL-LIKE BILLS.



**NECTAR-EATING HUMMINGBIRDS** USE LONG, SLENDER, TAPERING BILLS FOR PROBING INTO FLOWERS.



**MUD-FEEDERS** LIKE DUCKS AND GEESE; BROAD, FLATTENED BILLS FOR PUSHING INTO MUD AND STRAINING OUT FOOD.



**LONG, SHARP BILLS** OF HERONS, KINGFISHERS, ETC., FOR CATCHING FISH.



**BIRDS OF PREY:** (HAWKS, EAGLES, OWLS, ETC.) SHARP, HOOKED BILLS FOR TEARING ANIMAL FOOD.



**WADING BIRDS** (HERONS, ETC.), LONG LEGS AND LONG SLENDER TOES.



**PERCHING BIRDS** (ROBINS, SPARROWS, WARBLERS, ETC.) HAVE TENDONS THAT AUTOMATICALLY LOCK THE BIRD TO ITS PERCH WHILE SLEEPING.



**SWIMMING BIRDS** (DUCKS, GEESE, SWANS, ETC.) LARGE WEBBED FEET.



**CLIMBERS** (WOODPECKERS, ETC.), SPREADING TOES, STRONG, CURVED CLAWS.



**BIRDS OF PREY** (HAWKS, OWLS, EAGLES, ETC.) POWERFUL LEGS, STRONG FEET WITH SHARP, HOOKED TALONS FOR GRASPING PREY.



**GROUND-FEEDERS** (QUAIL, CHICKENS, ETC.) SCRATCH FOR FOOD WITH THEIR THREE FORWARD-POINTING TOES. SMALL HIND TOE RAISED ABOVE THE LEVEL OF THE FRONT TOES.

### PARENT PARTICIPATION

The patrol leaders' council can involve parents in the program feature this month by:

- Asking qualified parents to help with troop meeting instruction.
- Inviting parents to come along on the exploration trek.
- Asking parents to provide transportation, if necessary, for the trek.

### PATROL LEADERS' COUNCIL

The PLC should meet in the middle of the previous month to plan troop activities for this program feature. If you don't complete all items on the following agenda, continue planning at PLC meetings after each troop meeting.

- Decide on the site for the exploration trek. Any large natural environment will do, but if you have a choice, select an area of at least 10 acres so that a Scout working on requirements 2 and 3 of the Environmental Science merit badge will have room to explore. If the area has several types of ecosystems (woods, grasslands, pond, etc.), so much the better.
- Arrange to secure permissions, if necessary.
- Decide whether the trek will be a 1-day event or a campout.
- Plan activities for the trek. Allow at least 3 hours of free time so that Scouts working on nature skills and other merit badges can make explorations. See the other ideas on these pages.
- Consider inviting an Environmental Science merit badge counselor or counselors for other nature-related badges to help with instruction at troop meetings and on the trek.
- Plan details of troop meeting activities. Review the principles of low-impact camping on these pages.
- Hold a junior leader training session on effective teaching (Scoutmaster Handbook).

### FEATURE EVENT

#### Exploration Trek

The purpose of the exploration trek is to put your "nature detectives" on the trail of the natural environment. Ask them to try to find out as much as they can about how the climate, geology, and soils in your area influence plant and animal life, and how the flora and fauna are interdependent.

This is the perfect opportunity for Scouts working on the Environmental Science merit badge to do some required field work. Their aim should be not only to identify what kind of plants and animals are in the area, but *why* they are there.

What they find will depend not only on the terrain but also on the time of year. Allow at least 3 hours for this exploration during your outing.

The following are a few of the kinds of questions your nature detectives may try to answer.

- Is the soil here sandy, clay, or a rich loam? What kinds of plants are growing? What does that tell you about the nutrient needs of trees and shrubs?
- A patch of bark on this tree looks a bit shredded, and some twigs appear to have been nipped off. What does that tell you about the animals in the area? (It may mean that deer or porcupines have been feeding; the height of the chewed areas may be a clue as to which animal. If it's an evergreen tree in northern states, it might have been a bear.)
- Check under a rotting log. What do you find? (Probably beetles and perhaps salamanders or other small animals.) What are the animals doing there? What will the log look like a year from now? Why?
- Why is this patch of ground eroding? Water runoff? Wind? Overgrazing by animals? What could be done to stop the erosion?
- You are on a sandy lake beach. Are you likely to spot squirrels, chipmunks, or woodchucks here? Why or why not? If