Explorations Yield Nature's Secrets

EXPLORING WITH A CAMERA. These pictures were taken by Edna McComas, a Camp Fire Girl of Smithville, Mo.

Camping presents the golden opportunity for becoming really acquainted with the wonderful out-of-doors, for opening the eyes of campers that they may discover for themselves the interesting things in the live world about them. Often, however, it is difficult to induce the proper attitude on the part of a large number of individuals thus living together. In some, the natural first interest in woodlore is still awake, while others have an unnatural or forced interest which borders on sentimentality. The summer camp should try to foster a normal growth of interest in nature which will become a part of the camper's life wherever she may be.

The Girl Scouts at Camp Bonnie Brae have discovered a game which helps to solve the problem of stimulating the inquiring attitude and promoting a natural growth of interest in this important subject. Everyone in camp, from the youngest to the oldest, including counselors, was eligible to play the game but of course no one was required to participate in it. The game consisted in accomplishing a certain number of quests and thereby advancing from one rank to a higher one. All who started to play the game were required to pledge not to give or receive help in attaining the quests. Then each person was given an orange disk to wear on the left sleeve, which signified that she was a Seeker, the first rank in the game. Each morning, at breakfast, a quest was announced such as:

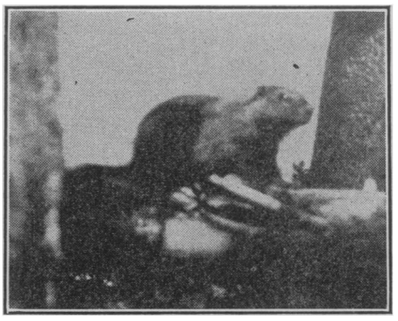
"Catch a mosquito and count his legs and wings," or "Measure the shadow cast by some object at two different times in the day. Tell the differences in direction and length."

The answer to the quest was written out briefly by each Seeker and dropped into a box reserved for that purpose. Correct answers were announced at breakfast the following morning and a few interesting remarks made about the quest. Sometimes different individuals reported their varying experiences.

When a person had completed six quests she was eligible to establish a claim. This meant discovering some plant, insect, mammal's home, bird's nest or some other object about which she had known nothing, and finding all she could about it, first through observation and then by consulting a reference book or some person who could give her the necessary information. With this done, the girl was elevated to the rank of Finder and her new badge showed the head and antennae of a firefly.

For the next rank, seven additional quests had to be attained and then the candidate received "Sealed Orders." This consisted in getting written directions of something to be done. Going over the Treasure Trail which led to various interesting natural objects about camp was one instruction. An Insect Trail which led to the abodes of plant lice, two kinds of wasps, galls, and spiders, the insect's cousin, proved a popular order. At each place a question, the answer to which depended upon observation, was asked. Some of the orders required the use of ears and noses as well as eyes. The mystery of not knowing just what to expect appealed to the girls. On fulfilling these requirements the player of the game was made a Beholder and to designate her accomplishment wore a disk showing the completed body of the firefly.

The highest rank of the Explorer's Game was completed by getting eight additional quests and going on a great adventure. When several of the explorers were ready for an adventure they were summoned to report at a certain time and place. Sometimes it was early in the morning and a trip by boat up the creek was made, where birds, flowers, trees and all sorts of wild life were abundant. This helped to round out the experiences which had gone before and provided the "thrill" which a real adventure should give. The players were now called Revealers and wore a disk showing the whole



firefly with abdomen colored a bright orange to signify light. The game now took a new turn, since as Revealers they were expected to give light to others. They now made up the quests and the sealed orders and planned the adventures for the rest —they were the makers of the game. It was with great spontaneity and enthusiasm that the Revealers responded to the requests for suggestions for quests.

The possibilities of this game are great, for included with the quests about birds and flowers were some pertaining to health habits and health observations. Many of the phases of camp craft having to do, for example, with selection of firewood and building of fires might be included.

Moreover, many of the campers, after their return home, sent for more quests which they might pursue at home, and this led to discussion and development of the idea for troop work. It was found feasible enough and so lent a new zest to nature study and troop activity the year round.

Following are some examples of the sealed orders, adventures and quests as used at camp:

Take a net to south creek, cast a net at least 3 times. Bring back in jar of water some of the things you find. Learn all you can about them.

Row to shore north of camp. Keep absolute silence. Report interesting things you observe.

Go out on Olympic Trail and listen for 10 minutes. Report all the different sounds you hear.

Go to woods away from main camp and stay until the first bird appears. Describe appearance and note carefully what it is doing.

The Insect Trail

Directions were given as follows:

Take a pencil with you on this trail.

(*Just turn the page*)

The material on this page is furnished by the Coordinating Council on Nature Activities.

Nature Explorations

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Answer all questions marked with a number.

Go to the maple tree at the north corner of the front porch. (At the maple tree a new note was found with a question to be answered, and new directions to follow.)

This is the home of Bombus, the bumble bee. You may see some of the workers carrying pollen into the nest. They will use it to feed the young bees inside which are little grub-like creatures living in cells made of wax and pollen.

1. Do you see any of the bumble bees going in with pollen? Hit the tree with a stone and listen for a noise.

Follow along the path to Tanglewood and find the pantry of a caterpillar on a poplar tree.

Every tree has hundreds of insects that feed on all parts of the tree. Notice how this tree has been eaten.

2. What part of the leaf does this insect eat, the edge, or the flat surface?

Now go to the Tanglewood wash house and find the homes of two spinners.

The big circular web is the home of the arachnida, the spider who is not an insect, for she has too many legs.

3. How many legs has a spider?

The other spinner is one that made a woolly cocoon just to sleep in. When it wakes up it will be a moth.

Now head for the home of the web presided over by human hands (weaving house). Look in the southeast corner for the hospitable tree that has sheltered and fed many creatures.

Surely the willow's hospitality has been sadly repaid. This is shown by the tattered condition of the leaves. The queer growths on the leaves are called galls. In the center is a little cell in which a small grub spends his "eating days."

4. On which side of the leaf do you find the growths? Just on the right of the path entering the "web" (weaving house) you will find a plant crowded with a family of hungry aphids.

5. What other insects can you see on the same plant? Go to the east of the "web" and find the home of the original papermaker.

This is the home of Polistes, a wasp whose home is not enclosed by an envelope of paper.

6. How many cells are closed? Circle about the athletic field and listen to the insect orchestra which is serenading you. Look near first base for further orders.

7. Can you find a serenader? If so, what is it? Now to the stage where human creatures are often serenaded as they dine. Here you will find the home of another paper maker.

8. This is Vespa's home. How does it differ from that of Polistes'? Look behind the piano for the end of the trail. The trail ends.

9. How did you like it, and why?

Adventures

I. Row down creek and note everything of interest.

II. Stay on beach all night and watch for deer.

III. Camp on beach all night and make observations of muskrat hole.

IV. Go 20 flowers up the road. Proceed until 5 insects are found. Follow along the road until you meet 3 different stones. Advance 3 prints. Next advance 6 different trees. Walk 1 bird farther. Note one other interesting observation. Turn back after noting how far you have gone.

Additional Quests

1. Many plants have a foamy white liquid on the stem. Find what is inside (Spittle Insect).

2. Find a flower under an arrow wood shrub on the north side of the road. What is the name of the flower? What does this plant lack that most other plants have? (The plant was broomrape and was labelled.)

3. Describe or sketch at least three kinds of prints found on the beach.

4. Watch an ant for a few minutes. Report your observation briefly.

5. For a rainy day—Name as many minerals found about the house as you can find.

6. Where do flowers of pickerel weed start to bloom first?

7. Walk along the beach 150 paces and find the home of a fur-bearing mammal.

8. Find the home of the first spinner, the first cement maker, the first paper maker.

9. Find a tree or vine that has a leaf like your hand (five leaflets).

10. Find two ways in which the mountain ash differs from sumach.

11. What animal lives under a stone two paces from the well? (Toad.)

12. Find a tree stump and determine how old the tree was when cut.

DOROTHEA CLARK,
Girl Scouts.

Science News-Letter, July 16, 1927

Nature Coordination

Realizing the need for a national program that would coordinate the nature activities of national groups working with young people, the American Museum of Natural History invited these volunteer organizations to form a council to be known as the Coordinating Council on Nature Activities for the purpose of teaching the growing generation, through nature activities, the value of all wild life and natural resources and their conservation.

The various organizations represented are as follows:

American Museum of Natural History, American Natural Study Society, Boy Scouts of America, Camp Directors Association, Camp Fire Girls, Inc., Girl Scouts, Inc., Pioneer Youth of America, Playground and Recreation Association, Woodcraft League of America.

Science News-Letter, July 16, 1927

About 90 per cent. of the late model aircraft engines in the United States are equipped with a magneto ignition system.

The brook trout or speckled trout can change its color and markings rapidly when passing from one environment to another.

It has been predicted that sun spots, which have been gradually increasing in number since 1923, will reach a maximum about 1928.

Three airplanes flying in a line five miles apart and 100 miles an hour are able to map 2,000 square miles of territory in one hour.