

## Junior Naturalists

Edited by **Joyce Deutscher**, Saskatchewan Museum of Natural History, Regina

### ADVENTURING WITH ROCKS

by **Joyce Deutscher**, Saskatchewan Museum of Natural History

Who among you has not picked up a rock and wondered about it—especially if some of the minerals in that rock sparkle. Perhaps some of you have some rocks right now which you picked up in the yard or along the road. If you have and are just beginning to learn how to identify rocks, get them out as you read this.

All ready? Let's see what we can find out about these rocks. Pick out the larger ones first and those with freshly broken surfaces. They are easier to identify than small round rocks.

Write on separate pieces of paper the following words—igneous, sedimentary and metamorphic. You are now ready to arrange your rocks into three groups according to the way in which they were formed. Don't be afraid of making mistakes—you are just practising.

Do any of your rocks look as if they could have been mud, sand or limy substances at one time? Rocks which were at one time mud are shales and when wet should smell like mud. Sandstones are rocks made from grains of sand cemented together and rocks made from limy substances are limestones. There is a simple test for limestone—try putting a weak acid on the rock, vinegar will do, and if it fizzes you have a limestone. Limestones, sandstones and shales are all sedimentary rocks. They were formed at the bottom of bodies of water from sediments which gradually settled on the bottom and later turned to stone. Sometimes you can see layers of different colored sediments in these rocks. Sedimentary rocks are the ones in which fossils are most often found because the shells or bones of animals frequently sink to the bottom of the water.

Don't worry if none of your rocks seems to fit into this group. Perhaps none of them does. Add a piece of soft coal and some ordinary table

salt to this group. They are sedimentary in origin, too.

Now look for some granite rocks in your collection. Granites are frequently pink, white and black in color. These different colors are due to the different minerals in the rock—the pink is usually feldspar, the white quartz, and the black, mica or hornblende. If mica is in the rock it usually sparkles. Quartz, feldspar and mica are the minerals from which granite is usually made. They are in large enough pieces in the granite rock that you can see them with the naked eye. Granite takes a polish and is used as a building stone and for tombstones. It is an igneous rock—one which originated from a molten or melted state.

Another igneous rock is pumice which you can buy in a drug store and is used to rub dry skin off one's feet.

The third group of rocks are metamorphic. The minerals in them are sometimes arranged in bands or layers so the rock looks banded. These rocks were, at one time, either sedimentary or igneous and have been subjected to great heat and pressure which changed them from their original form. Look for banded rocks where the various minerals seem to be pressed into separate layers. If the layering is very fine, your rock may be a schist, a coarser layering indicates a gneiss; both are metamorphic rocks. Perhaps you are familiar with marble. It, too, is a metamorphic rock.

How did you make out? If you have identified with certainty only one rock in your collection you can be proud of yourself and even if you are not certain of any of them, at least you know more about rocks than you did when you started.

There are many more things you can do with rocks. You can, for example, arrange them in order of hardness. You can get books to help you. The Public Information Library lends books free of charge to Saskatchewan residents who do not have access to a Public Library. Their address is 1819 Cornwall Street, Regina.



## PRIZE WINNER, COMMENTS

In this issue the prize is awarded to Bohdan Pylypec of Yellow Cr ek who has done some careful observing of birds and checked his observations with available printed material.

We are pleased to have a letter about rock collecting in this issue. Are there any more rock hounds among the Junior Naturalists? And how about weather watchers? We hope to have an article dealing with weather in the next issue.

Watch for the announcement of Honor Naturalists awards in the next issue to several of our most faithful contributors.

## LETTER WRITING CONTEST

Any boy or girl may enter the letter writing contest. Entries must be first hand observations and not something copied from a book or other source. All entries must be accompanied by the name, age and address of the sender. Send entries to Blue Jay Contest, c/o Mrs. Joyce Deutcher, Saskatchewan Museum of Natural History, Regina, to arrive not later than July 15. Sketches and photographs may be sent in as well.

The prize is a year's subscription to the **Blue Jay** plus the honor of seeing our items in print!

## SCIENCE PROJECT

The following suggestions are to provide you or your group with activities relating to the study of rocks and fossils. A list of similar projects relating to Birds, Mammals, Plants, etc., can be obtained by writing to the Extension Division, Saskatchewan Museum of Natural History, Regina, and asking for a mimeographed list of science projects.

### Geology

1. Definition of rocks and minerals.
2. Origin of the three main types of rocks — igneous, sedimentary, metamorphic.
3. Collection and identification of one example of igneous rock, two of sedimentary and two of metamorphic.
4. Collection and identification of three common minerals—e.g., quartz, mica, feldspar.
5. Knowledge of some common tests for at least five different

rocks and ability to identify them by these tests.

6. Collection of rocks made up of quartz and varieties of quartz.
7. Collection of concretions or of fossilized plants and animals.

## PILEATED WOODPECKER AT YELLOW CREEK

by **Bohdan Pylypec**, age 13, Yellow Creek

You can't say that my Christmas holidays were unexciting as far as bird watching is concerned, since I observed the largest North American woodpecker, the beautiful, black, red and white Pileated Woodpecker. The first time I ever saw this bird was on December 21. It landed near the base of a tree in our yard as I ran to the house to call out my mother and my sister, Irene. My mother saw it on the base of another tree but Irene came too late as the bird flittered away, calling noisily. According to Houston and Street, **The Birds of the Saskatchewan River**, it seems that this bird prefers more densely wooded districts but rarely south of these districts in the scattered timber regions where I live.

Then on December 23, I heard the familiar call of the woodpecker a distance off. I went after the bird and observed it pecking for a short while at the base of some trees. After a while it called as it flew away.

On January 1, I made the best observations of this bird as it landed high on one grub-infested tree and then another in our yard and pecked there for about 45 minutes. On the first tree it cleared the bark about four by two inches by a branch and made two holes about three inches deep. Often, it would cock its head sideways to pull out a grub, showing the red top of its head perfectly. It would hang on the tree with its sharply curved claws and use its tail as a prop. It seemed to peck at the tree slower than a Downy Woodpecker but its big bill chipped out fairly large pieces which were thrown over its head or to a side. When the bird finished the tree, the snow beneath was quite littered with pieces of wood and bark. Then the bird proceeded to the other tree, pecked there for a short while and flew off resembling a crow, and calling as it went.



On January 2, I heard the bird's familiar call again, a distance away.

On January 3, the bird visited our yard again and pecked at another tree for about 20 minutes. It pecked by a branch and repeated its steps as on January 1. It again littered the snow with some pieces of wood and bark, some about one and half inch long, one inch wide, and one-quarter inch thick. The bird was very brave and didn't get bothered by me.

## ROCK COLLECTING IS A GREAT HOBBY

by **David Mounteney**, age 10,  
Indian Head

The members of our family are called Rock Hounds. We have a cute little name for the kids. It is Pebble Pups.

As I said in my title, rocks are our great hobby. So far I have been to many places rock hunting I had never been before. Some of them are Terry, Montana, and Glendive, Montana. I've also been in the Dakotas. We went to Souris twice this year. The place I enjoyed most was Terry, Montana.

In 1961 we went to Terry, Montana. As we reached the Missouri River we ran into the badlands. We stopped and climbed some hills and found some petrified wood. As we went on we stopped more often to look for rocks. When we reached Terry along the Yellowstone, it was mid-afternoon. We stopped just out of town at a rock shop and looked at some of the rock. We hunted the rest of that day and the next. Then home-ward we started. We stopped at every advantage spot. We had mostly petrified wood but it was a good hunt.

Now that we have rocks, I can take a slab of rock and grind it to shape on the electric grinder. Once the shape has no bumps or anything else such as pits, I will polish it. There are two ways of polishing rocks.

In tumbling, Dad puts a grit in. When the grit is finished, he puts in two more grits. Then he puts the tumbler on two revolving rods. When finished the rocks are very shiny.

Then there is another way. I put a rock on a velvet polisher. I hold it there for ten to fifteen minutes till it is polished.

## THE POOR DEER

by **Doreen Wilson**, age 13, Broadview

During the Christmas holidays last winter my parents and I were going out to our farm which is two miles from town and as we were driving along we saw something on the road ahead so we stopped to see what it was.

It was a little deer that looked half frozen to me and it had a little bell around its neck, so we picked it up and took it in the barn. Then mother and I warmed up some milk for it. After about fifteen minutes it started to run around and play with us. When we had to go back to town we left it in the barn. As soon as we got home Mom phoned the police and he said to phone the Conservation Officer at Moosomin. He said that we could keep it for a few days until it got its strength back but once it was strong enough to take the bell off and let it go. Mom and I nursed it the rest of the week and then we let it go. It stayed around the sheaf stack for a few days, then it went and we haven't seen it since.

## MARSH VISIT

by **Erica Hoffman**, age 8, Regina

I saw a muskrat at the marsh. It was very interesting. It was moving very slowly. The muskrat has a brown head and a black tail. It was in the water swimming slowly in the weeds.

We saw the Canada Geese very clearly. We also saw some gulls in the sky.

We saw a wild licorice plant.

## CORRECTION

### ANIMAL AND BIRD CARDS

The Brooke Bond card sets Nos. 2, 3, 4 and 5 are now available from the **Blue Jay** Bookshop. The card sets each contain 48 cards and cost 50c each. The albums each cost 25c (not 50c as stated in our March **Blue Jay**) and contain considerable excellent information. The new album, No. 6, on tropical birds may also be obtained from the Bookshop, Box 1121, Regina.





**Pileated  
Woodpecker  
or  
Logcock**

**Bohdan Pylypec**