

NATURAL HISTORY FOR THE LITTLE ONES.

ADAPTED FROM JULIA MCNAIR WRIGHT.

MR. WORM AND HIS FAMILY.

I saw a boy make a hole in the ground, and dig out a worm.

"What can you tell me about worms?" said I.

"Worms are long, soft things, alike at both ends. If you cut one in two, each end goes off, and makes a whole new worm. They have no heads and no feet and no feelings, and are no good but for fish-bait."

That boy thought he knew all about the worm.

Let us take a careful look at our humble friend. He is a long, round, soft, dark, slimy thing. His body is made of from one hundred to two hundred rings. Each ring has on it tiny hooks, too small for you to see. By these hooks the worm moves along, and digs his way in the ground. Mr. Worm can hold so fast to his den or hole, that you have hard work to pull him out. Have you seen Mr. Robin brace his feet and tug with all his might, when he pulls out a worm? The worm is holding fast by his hooks.

His mouth has two lips. The upper lip is larger than the under. He has no teeth. He is dark-coloured because his body is full of the earth which he swallows. If you keep him out of the earth for a while, his skin will get pale and clear. He dies very soon if he is shut up in a close box. Mr. Worm has no teeth with which to grind his food. He has inside his body small bits of stone. These are as small as grains of sand. They are instead of teeth to grind his food. When you study birds you will find that, like Mr. Worm, they have no teeth. They, too, carry little millstones inside their bodies. The soft body of the worm will stretch like India-rubber. It will hold a great deal of food. One end has the head, the stomach, the parts that serve for a brain, and a heart. Look at the worm when he lifts his head, and you will see his mouth. The tail end has very strong hooks with which to hold fast to his cell. This tail end is also his trowel, or mould, a tool with which this poor, ugly worm helps to build the world.

The chief food of the worm is dead leaves and stems of plants.

The worm also likes meat, and will suck the bodies of dead worms. They have no teeth. They pinch off what they eat. They like onions and cabbage best of all food. They like water, and must live in damp places. If you wish to find worms to study, you must seek for them in early morning or late in the evening.

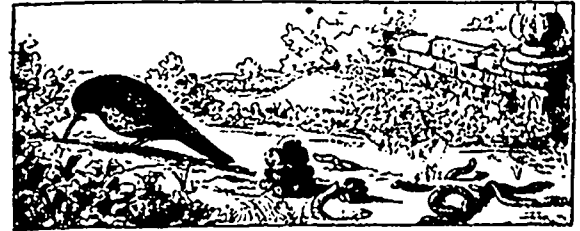
They hurry to the surface to enjoy the falling rain. When there is a long, dry time, the worms go down deeper and deeper into the earth. You cannot find them when you dig for them.

This is very strange, that humble and dirty worms can be a help to man! Let us see.

The worms live under ground. They make long, winding halls, like streets. These little tunnels help to keep the earth loose, so that the fine roots of the plants can grow well in it. They also serve to help the air move more easily through the soil. All this is of great use, and people say—"Many worms, rich land." When they make their halls and houses, they fill their long bodies with the earth. Some say it is their food. Mr. Darwin says—"Oh, no! they fill their bodies with earth just to get it out of their way." They turn themselves into baskets to carry the dirt out from their houses. They work, work, work all the time, taking out earth, and carrying it to the top of the ground. Each piece

is the shape of a small worm. There are so many worms busy all the time, that each year they bring up tons of earth. This shows you the power that is in small, weak things. The worms make the earth fine and loose, by pinching it off with their mouths. Then they bring this rich soil from below, and lay it on top, and so on and on. It is only some twenty years since this work of worms was known. At first people said—"Oh, no, no! It cannot be that little, soft worms could cover a great field, some inches deep, with new earth." But it was shown to be quite true. Fields once stony and hard have become rich and fine. Things grow now where once scarcely anything would grow. All this is done by the busy worm. That is why I said that he helps to build the world.

Baby worms are just like the parent worms, only smaller, and have not so many rings. As they grow, they get more rings. In some kinds of soil the worms are born in a little hard skin bag. This keeps them from harm, until they get strong. Mr. Worm's home is like a row of long halls. These halls are lined with a kind of glue from the worm's body. This glue makes the walls firm; then they will not fall in. The halls are not very deep under ground. When winter comes, the worms plug up the doors of their houses. This is done



by dragging into it a plant stem that will fit and fill it. The worms carry into their homes leaves and stalks to eat. They bring out, and throw away, things which they do not like. Worms show much sense in the way in which they carry things in and out of their holes. If a stem will not go in, they turn it over, and try it in some other way. Worms usually come out of their holes at night or in wet weather. If they go far from their house, they cannot find their way back. Then they make a new hole. Each worm lives alone. Often in the evening or early morning, or during rain, you will see worms near their houses. The birds know all these ways of the worms. Watch a robin or a bluebird. He searches for his food at sunrise, or after sunset, or while it rains. Now his keen eyes see the worm at his door! In goes his sharp bill! He pulls like a good fellow! He is hungry. He wants his breakfast. The worm holds fast by his hooks. The bird braces his feet and his tail, and tugs hard. Out comes the worm to feed Mr. Bird. He does not break off even one little bit of his soft body. No boy could get him out in that way.

Little young worms know how to dig houses, make worm casts, carry out the soil, find food, and plug up the door of their houses. They know at once all that old worms do.

There is much more to be found out about worms, which I hope you will be glad to learn for yourselves.

At our special request, one of our first scientists has undertaken the supervision of this charming Department. A Question Box has been opened, and the Editor has much pleasure in asking the co-operation of parents through this means. Address letters—"Natural History Question Box," YOUNG CANADIAN, Box 1590, Montreal.