

By Pond and River

Arabella Buckley



BY POND AND RIVER

BY ARABELLA B. BUCKLEY

(Mrs Fisher)

EDITED

BY RACHEL E. NORTH

With Eight Full Page Coloured
Plates and other Illustrations



CHARLOTTE MASON BEEHIVE

MELTON MOWBRAY

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By Pond and River,

by Arabella Buckley

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This edition of 'By Pond and River' is a brand new transcription,
prepared and edited by Rachel North, for the exclusive use of Charlotte
Mason Beehive. It is based off original scans of the twentieth century publication,
which has now entered the public domain.

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Charlotte Mason Beehive
charlottesmasonbeehive.co.uk

INTRODUCTION TO THE NEW EDITION

MS. ARABELLA BUCKLEY'S *Eyes and No Eyes* Series is well-known in Charlotte Mason circles due to its wide usage by the P.N.E.U. (Parents' National Educational Union). Miss Charlotte Mason, founder of the P.N.E.U., assigned one of Ms. Buckley's delightful nature readers every term for students in Form I. Written for children the books describe the wonders of nature—such things as the wildlife; flora and fauna; birds; insects; and river creatures who live in this part of the world—in simple language, awakening the child's interest in the subject matter and guiding them towards what to look for when out and about on their walks each day.

As Ms. Buckley explains in the preface to her nature readers:

“These books are intended to interest children in country life. They are written in the simplest language, so as to be fit for each class to read aloud. But the information given in them requires explanation and illustration by the teacher. I have, in fact, tried to make each lesson the groundwork for oral teaching, in the course of which the children should be encouraged to observe, to bring in specimens, and to ask questions. Then when the chapter is read and re-read, as is the case with most school books, it will become part of the child's own knowledge.” (EDITOR'S NOTE—Miss Mason did not permit the re-reading of lesson books within the parameters of a school lesson. Children who are particularly enchanted by the subject matter may re-read at their leisure once narration is out of the way).

By Pond and River is the second volume in the original series, although by no means do the books require reading in any particular order. Containing lessons on a variety of subjects such as a frog's life, kingfishers and otters, water bugs and fish, moorhens, coots, and much more, this book provides an enjoyable introduction to natural history for the young child.

The short chapters lend well to an authentic Charlotte Mason education, with just ten minutes a week required in order to read the book over one term.

WHAT'S NEW ABOUT THIS EDITION?

1. Updated for Twenty-First Century students:-

Treating the text with great respect, we have occasionally made careful edits where deemed necessary, such as to correct factual errors, or to clarify information. Occasionally additional information and original content has been added, but despite this, the edits in this book are extremely minor and do not mar the content or intentions of this book as set out by the original author.

2. Footnotes:-

We highly recommend the picture-book companion *Natural History Pictures for a Living Education: By Pond and River* as a complement to your students' natural history studies. Designed to be used alongside the reading of this book, the versatile resource is made up entirely of pictures and photographs, as they relate directly to the topics read about in the natural history lessons for this unit.

To maximise its efficiency and to avoid any extra prep work by parents and teachers, footnotes are littered throughout *By Pond and River*, indicating when a picture is available to supplement the text.

All the pictures are numbered and they are referenced in the lesson text as follows:

Natural History Pictures: By Pond and River, p. 27, no. 34

We sincerely hope you find these additional edits and resources helpful, and that you will have a pleasant and engaging school year learning natural history with your students. If you have any questions or concerns please contact us through charlottesmasonbeehive.co.uk.

RACHEL E. NORTH,
May 2022

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LESSON I.
A FROG'S LIFE

CROAK, croak, croak, we hear the frogs¹ in the month of March. They make a great deal of noise in this month, because they are just awake from their winter's sleep, at the bottom of the pond.

The mother frogs are laying their tiny dart eggs in the water. Each egg is not bigger than a grain of sand. But it has a coat of jelly, and this jelly swells and swells in the water, till it is as large as a pea, with a little black dot in the middle. The jelly lumps all cling together. You may see them in almost any pond, driven up to the side by the wind.²

Soon the dark speck lengthens. A head grows at one end, and a tail at the other. The head has a mouth, but no eyes as yet. The tail has a fin all round it, and the tadpole wriggles about in its slimy bed.³

In about a week it wriggles out of the jelly, and hangs by its mouth to the weeds (1). Then two curious tufts grow on each side of its head. It uses these tufts to breathe, by taking air out of the water. You can see them if you dip a glass into the pond and catch a few tadpoles.

By this time the tadpole has let go of the weed and is swimming about. A sharp beak has grown on to his mouth. He uses it to tear off pieces of weed to eat. Now he grows eyes, nose holes and flat ears. His tufts shrivel up, and a cover grows over them (2), so that you cannot see them. They are now like the gills of a fish. He gulps water in at his mouth and sends it out through the cover. As it passes, the gills take the air out of it, and so the tadpole breathes.

Soon two small lumps appear on each side of his body, behind the cover, just where it joins his tail. They grow larger and larger, till at last two hind legs come out. These legs grow very long and strong,

1 Natural History Pictures: By Pond and River, p. 07, no. 01

2 Natural History Pictures: By Pond and River, p. 07, no. 02

3 Natural History Pictures: By Pond and River, p. 08, no. 03

and he uses them to swim. Two front legs are growing as well, but you cannot see them, because they are under the cover. In a few days these peep out (3), but they are short and stumpy.⁴

Our tadpole has now four legs and a tail. He has four toes on the front feet, and five toes on the hind feet, with a skin between the toes. So his hind legs are web-footed, and this helps him to swim.⁵

He comes to the top of the water much more often than before, and sends a bubble of air out of his mouth. What do you think has happened? The gills under his cover have closed up, and a small airbag has grown inside him. So he comes up to breathe in the air through his mouth, instead of taking it out of the water through his gills.

Now he likes to jump on a piece of weed and sit in the shade. He does not want his tail any longer, for he can swim quite well with his legs. So his tail is slowly sucked in to feed his body.

There you have your little frog (4). If you look through the web of his foot at the sun, you will see that he has red blood now. But it is not warm blood like ours. He is always cold and clammy, because his blood moves slowly.

He has a number of teeth in the top of his mouth, and such a curious tongue. It is tied down to the front of his mouth, and the tip, which is very sticky, lies back down his throat. He does not eat weed now. He feeds on insects and slugs. He catches them by throwing out his tongue and drawing it back very quickly.

He lives chiefly on land during the summer if he is not eaten by ducks, rats, or snakes. Then he drops to the bottom of the pond to sleep in the mud all the winter.

4 Natural History Pictures: By Pond and River, p. 08, nos. 04 & 05

5 Natural History Pictures: By Pond and River, p. 09, nos. 06 & 07



A FROG AND TADPOLES

LESSON II.

THE DRAGON FLY AND HIS COMPANIONS

EVERY country boy or girl, who wants to learn about water animals, should make a pond net. You have only to get a willow twig, and bind it into a hoop with string. Then make a muslin bag and sew a small stone in the bottom of it, and sew the mouth of the bag on to the hoop. Get a stick out of the hedge and fasten to it a long piece of string. Split the string near the end, and tie it to the two sides of the hoop. Then you have a net which you can let down and fish up animals from the bottom of the pond. You had better have a wide-mouthed bottle as well in which you can put what you catch. I know a shady pond just outside a farmyard at the turn of a lane. There on a bright sunny day the insects are often very busy.

In one corner of the pond the little whirligig beetles⁶ are swimming round and round, making circles in the water. Their shining black backs look almost green in the sun. Every now and then one jumps up to catch a fly in the air, or another dives down to eat a grub. Drop your net into the water and bring it up quickly under a beetle, and put him in the bottle so that you can see him.

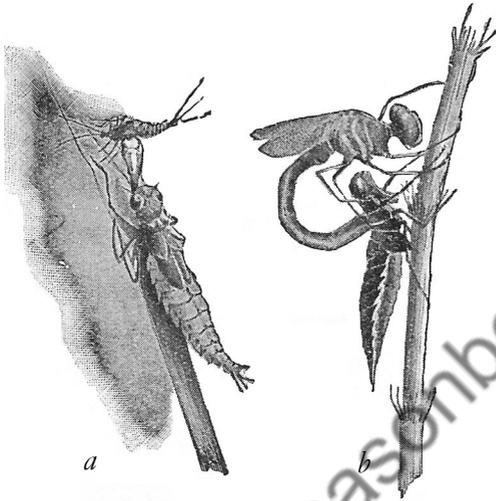
You will think that he has four eyes, for each of his two eyes is divided. One half looks up into the air, and one half looks down into the water. So as he whirls about, he can see the flies in the air and the grubs in the water.

Gnats are flitting to and fro over the pond, and there is quite a crowd of those large flies with gauze wings which we call Mayflies⁷. And now a more splendid fly, three inches long, with four big gauze wings rises out of the bulrushes and flies over the pond.

6 Natural History Pictures: By Pond and River, p. 11, nos. 09 & 10

7 Natural History Pictures: By Pond and River, p. 13, no. 12

All boys know the dragonfly. His lovely wings are covered with cross bars filled with air, and they glitter in the sunshine with red, blue, and green colours. He has a long tail and a thick body with six legs, and a round head with huge eyes.⁸



a. DRAGONFLY GRUB FEEDING. *b.* DRAGONFLY FLY CREEPING OUT OF GRUB SKIN.

Each eye has more than ten thousand tiny windows in it, so that he can see up and down, right and left, as he darts about, killing the butterflies and moths that come in his way.⁹ Then he settles down on a plant or bush by the water side, and rests till he starts off again across the pond.

If you go often in April to a pond where dragonflies are, you may perhaps see one

begin its life in the air. This is how it happens.

Under the water a large insect crawls up the stem of a plant. He has a body as big as a dragonfly and has six legs. But he has a curious dull look in his face, and where his wings should be there are only two short stumps.¹⁰

He crawls very slowly up the stem, till he comes out of the water into the air. Then a strange thing happens. The skin of his back cracks, and out creeps a real dragonfly.¹¹

8 Natural History Pictures: By Pond and River, pp. 12 & 14, nos. 11 & 13

9 Natural History Pictures: By Pond and River, p. 14, no. 14

10 Natural History Pictures: By Pond and River, p. 15, no. 15

11 Natural History Pictures: By Pond and River, p. 16, no. 16