

CHRISTIAN LIBERTY NATURE READER

Book One

Third Edition



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FLORENCE BASS

Nature Reader Book 1

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Author: Florence Bass

Cover and text illustrations: Jenny Mathews

Revision and editing: Wendy Kramer and Edward J. Shewan

Copyediting: Diane C. Olson

Reviewer: Shiny George

Cover design and layout: Bob Fine

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Preface

This reader is designed not only to improve a child's reading skills and comprehension, but also to increase the youngster's understanding of and delight in God's wonderful creation.

This text also seeks to expand the vocabulary skills of the reader by way of special drill in the key terms in **bold print** found throughout the book. Instructors are encouraged to make sure that each student understands the meanings of these vocabulary terms in the text. A helpful listing of definitions for the key terms is found at the end of the book under "Words You Should Know."

The Bible says that we are to do "all to the glory of God" (1 Corinthians 10:31). Reading for God's glory necessitates reading material that draws attention to Him and His truth, reflects His majesty, and meets the standards of the Holy Scriptures. What this means is that we should take any reading selection to Philippians 4:8 and ask these simple questions: "Is it true? Is it noble? Is it right? Is it pure? Is it lovely? Is it admirable? Is it excellent? Is it praiseworthy?"

As we look at the American readers of days gone by, we find that the biblical standard was followed. Such readers featured the finest British and American authors, who emphasized honoring God, living to please Him,

enjoying the wonders of His creation, and respecting one's country.

The *Christian Liberty Nature Reader* series follows the pattern of the past. Believing that the student can gain an enhanced appreciation for God by studying His creation (Psalm 19:1, Romans 1:20), this textbook seeks to present the majestic splendor of His handiwork.

It is our prayer that this series will give the reader the joy that is to be associated with “good reading,” and that the knowledge imparted will help “make wise the simple” (Psalm 19:7).

*The Staff of Christian Liberty Press
Arlington Heights, Illinois*

To the Parent

For the first eight to ten years of a child's life, the field or garden is the best classroom, the parent is the best teacher, and God's creation is the best lesson book.

With leaf and flower and tree, and with every living creature, from the blue whale of the deep to the insect the size of a speck of dust, we can learn from each the secrets of its life.

Your goal is to teach your students to see the glory of Christ in all of nature. Take *them* out into the open skies, under the lofty trees, and into the fair gardens. In all the wonderful works of creation, teach *them* to see an expression of God's love.

As John Calvin has proclaimed, "... Wherever you cast your eyes, there is no spot in the universe wherein you cannot discern at least some sparks of His glory. You cannot in one glance survey this most vast and beautiful system of the universe, in its wide expanse, without being completely overwhelmed by the boundless force of its brightness.... This skillful ordering of the universe is for us a sort of mirror in which we can contemplate God, who is otherwise invisible" (*Institutes of the Christian Religion* I. v. 1).

Unit One

Wasps

A Little Mother

Did you ever think about how much your mother does for you? She gives you good things to eat and clothes to wear. She helps to make a pleasant home for you.

God also made mothers for many of His tiny creatures. He made these mothers to care for their little ones, just as your mother cares for you.

One little mother is the **mud wasp**. She works very hard. She never seems to stop for a minute. What can she be doing? Just now, she is building a nest. Mother wasp comes with a little ball of mud. She spreads this mud with her jaws. She begins in the middle and spreads it down one side of the nest. Then she darts away.



Mud Dauber
Wasp

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She has gone for more soft mud. Soon she comes back with another piece. She begins at the top and spreads it out on the other side.

This mud wasp is building her nest. What a noise she makes as she works! Soon she will have one room done.

Mother wasp will then go in and lay a little egg. After that, she must find something for her baby to eat when it creeps out of its egg.

What do you suppose she brings? She brings little spiders! As many as eight spiders may be put in for one baby wasp to eat.

Mother wasp walls up the spiders in a room with her egg. She makes many more rooms like this. Then she flies away and never comes back. She never sees her own little ones. She has given them all the care that they need.

Review

1. Mother mud wasp builds her nest with what?
2. What do baby wasps like to eat?
3. After she walls up each egg in a room, what does mother wasp do?

The Little Children

What happens inside the mud wasp's nest? The eggs she has laid are still at first. Soon it is time for them to **hatch**. A tiny white larva, also called a **grub** (grüb'), creeps out of each egg. It looks like a little worm.



Mud
Dauber Grub

A wormlike larva creeps out of an egg? Yes! That is just what a baby wasp looks like. It eats the spiders that its mother left for it. It grows bigger very fast.

After a while, it goes to sleep in a little case. It seems to be dead, but it is not. It is only growing to be a wasp like its

mother. By and by, it wakes up—a full-grown wasp. It does not grow anymore. It bites a hole through its mud house and flies away.

Do you think the wasp knows how much its mother did for it? We cannot tell. We do know that each new mother wasp will care for its own little ones. God the Father made them to follow His plan.

Review

1. What is a baby wasp called after it hatches from its egg?
2. After a while, the white larva, or grub, goes to sleep in what?
3. After the adult wasp bites a hole in its mud house, what does it do?



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The Paper Wasp

God made the mud wasp to build her house of mud. Another wasp, the paper wasp, builds her house of paper.

Where does a wasp get paper? She does not find it. She does not buy it at the store. She makes it herself!

The paper wasp chews bits of wood off old fence rails or fallen trees. She bites the wood chips into tiny pieces to make paper.

The paper wasp may build her nest under a bridge or the edge of a building. This protects her home from wind and rain.

Each room, or cell, in the nest is closed at the top, but open at the bottom. When the wasp has finished working on her nest, she lays an egg in each cell.

Review

1. This wasp builds its house with what?
2. Building a house under a bridge protects a paper wasp's home from what?
3. What does the paper wasp place in each room, or cell, in its nest?

A Social Colony

A paper wasp is different from a mud wasp in several ways. She builds her nest of paper, instead of mud.

The paper wasp is a **social** insect. This means that she is an insect that lives and works with her family. She lives in a colony. A **colony** is a group of insects that live together. The mud wasp lives and works alone. She is a **solitary** insect, which means she lives by herself.

When a mud wasp closes her eggs up tightly, her work is finished. She has given her babies food and a home. They will grow up alone.

A paper wasp does not fly away when her eggs have been laid. She must work hard when her eggs hatch. When the babies, or grubs, creep out, their mother must feed them. She brings spiders and insects for

them to eat. She is very busy finding food for all of her children.

When the babies grow big enough, each cell is closed off tightly. The babies sleep as they change into adult wasps.

Review

1. What kind of an insect is a paper wasp, social or solitary?
2. A _____ is a group of insects that live together.
3. When paper wasp grubs hatch, what do they eat?

The Wasp Babies Grow Up

The baby paper wasps have grown up. They look just like their mother but are much smaller. They do not fly away from the nest. They stay to form a colony.

There is a lot of work to be done. Old rooms have to be cleaned up so the mother (**queen**) can lay more eggs. New rooms must be built. When the next group of eggs hatch, there will be more babies to feed. The queen paper wasp has plenty of help now. Her grown up children, called **workers**, can clean, build, and search for food. If there is danger, the wasps will also fight to protect their nest.

While the **weather** stays warm, the colony grows. When the weather turns cold, many of the wasps will die. Before the winter, a few **females** set off alone. They find cracks or holes where they can hide. While the weather is cold, they do not

even come out for food. They do not need to eat when the weather is so cold.

When the weather grows warm, these females come out. They will build new nests and become queens of their own colonies.

Review

1. Paper wasps grow up and form a _____ .
2. Paper wasps will _____ to protect their nest.
3. When the weather turns cold, some wasps will find a crack or hole to _____ .

The Digger Wasp

The **digger wasp** is another hardworking insect. She does not build her nest out of mud or paper. She lays her eggs under the ground.

How does a wasp get under the ground? She digs a hole with her front feet, like a dog! When the hole gets deep, she must carry each piece of dirt up and out, as an ant does. When she finishes her **tunnel**, she lays an egg.

The digger wasp flies away to find food for her baby. She brings back a fat caterpillar. She closes it in the hole with the egg she has laid.

When the egg hatches, the baby wasp looks like a worm. It will eat the caterpillar that its mother has left for food. The baby is safe in the hole. It has plenty to eat until it changes into an adult wasp.

The digger wasp is a solitary insect, like the mud wasp. It grows up alone. Later, it works and lives alone. God made the wasps to live this way. His plan is perfect for them.

Review

1. After a digger wasp digs a tunnel for her nest, she lays an _____ .
2. After a baby digger wasp hatches, it eats the _____ its mother left for it.
3. What kind of insect is the digger wasp, social or solitary?

The Ichneumon Wasp

The **ichneumon** (ɪk•nū•mən) **wasp** has a long, hard name. It means “tracker.” She is a wonderful **tracker**. The female wasp tracks down larvae of other insects to feed to her own larvae. No hunter or dog could find his food better.

Larvae are the wormlike babies of insects. She lays her eggs in or on them. She has a sharp drill. Sometimes, she uses it to reach larvae inside a tree and lays her eggs on them. When the ichneumon wasp’s larvae hatch, they use the larvae their mother laid them on for food.

The ichneumon wasp is a good friend. Many of the larvae that her babies eat are harmful pests. When



the ichneumon wasp's babies destroy larvae, they save many of our plants and trees from damage.

Review

1. What does the ichneumon wasp's name mean?
2. The ichneumon wasp lays her eggs in or on the _____ of other insects.
3. The baby ichneumon saves many of our plants and _____ from damage.



Ichneumon Wasp

The Oak Gall



What is this? It grew in an oak tree, but it is not an acorn. It is the baby gall wasp's little, round house called a gall. It is the perfect place for him to grow; it gives him food and a place to live. It has no doors or windows. How can anything get in there? Nothing can get in very easily, but something will come out.

The creature in the house is a baby gall wasp. First, his mother drilled a hole in a branch of the oak tree. Then she placed an egg in the hole. After the egg hatched into a larva, the larva put something very special into its hole. It was a chemical that caused a gall to grow.

The oak gall can also be useful to people. We cannot eat it or live in it, but we can make something useful from it. The

chemical in the gall was used to make oak gall ink. The Sinai Bible—the oldest known Bible today—was written more than 1,600 years ago with this ink. How wonderful it is to think that the home of an insect could be used like that! The great Creator God has made this small creature to act in such a way for the good of man.

Review

1. The baby gall wasp's little, round house is called a _____ .
2. A mother gall wasp drills a hole in a branch of an oak tree and places an _____ in the hole.
3. The chemical in the oak gall was used many years ago to make _____ .

The Gall Wasp Hatches

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White Oak Gall
Wasp Emerging
from its "House"

The baby gall wasp, or larva, hatches from his egg. He is still inside the gall. He will begin at once to eat his house. It seems strange, but it is just what he needs for food. How easy for him to eat!

The larva does not have to come out of his house to find food. He eats and eats. Finally, he has eaten enough. He goes to

sleep. While he is asleep, this larva turns into an adult gall wasp like his mother. He is ready to go out into the world.

The gall does not have a door. This does not matter to the adult gall wasp. He knows what to do. He cuts his way through the wall of his house and flies away. He is done with his house now.

Review

1. What does the larva of a gall wasp eat?
2. After the baby gall wasp has eaten enough, he goes to _____ .
3. The adult gall wasp cuts through the wall of his house and _____away.

Words You Should Know

A

airy—in the air; light as air

antelope—deerlike animals that are very fast runners, chew their food more than once, and have horns that are empty inside

antennae—sticklike parts that grow out of an insect's head; help the insect smell and are often called *feelers*

aphids—small insects that suck sweet juice from plants and produce honeydew

Arachnida—family name for spiders; has a body with two segments—the front segment (the cephalothorax) bears the eyes, mouthparts, and four pairs of legs, but no antennae; the back segment (the abdomen) bears the lungs and spinnerets, which produce silk

B

bagworm—a moth whose larvae build bag-like cases around themselves, which they carry with them; females are wingless and never leave their bag

beebread—honey or pollen used as food by bees