

Exploring Creation With Zoology 2: Swimming Creatures of the Fifth Day

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Lesson 1

Aquatic Animals

From the streams that begin in the mountains, through the lakes and rivers that lead to the oceans, and far down into the depths of the sea, the Lord God filled up the waters with creatures great and small. With a word, the enormous whales sprang into being. At His command, billions of plankton leapt to life. In one moment, full grown sea turtles, sharks, sponges, dolphins, squids, and octopuses joined them in the sea. Strongly swimming fish headed up the streams with the creeping crayfish and the sluggardly snail. Indeed, the fifth day of the earth's existence was crammed with excitement. We will explore the wonders of this day, focusing on creatures that swim in the water, whether they are in the pond down the street or in the ocean deep. So put on your scuba gear, and let's go.



This interesting creature is a nudibranch. Like all swimming creatures, it was made by God on the fifth day of creation.



The teeth in this shark's mouth tell you how dangerous it can be.

As you study these animals, you will be amazed by how different they are from one another. Some, like the nudibranch (noo' dih bronk) pictured above, are amazingly colorful. Others, like the anglerfish lurking in the abyss (uh bis'), look a little frightening and even bizarre. Some, like the arrow squid, are absurd and brilliant. They hunt in packs and can leap into the air in an amazing display. Still others, like the dolphin and the manta ray, are majestic, intelligent creatures. Finally, creatures like the sharp-toothed sharks are menacing and frightful as they stealthily stalk the sea.

We will study many, many swimming creatures in this book, along with the fascinating things they do. Swimming animals are often called **aquatic animals**, because *aqua* is a Latin word that means "water." Even though we know many facts about aquatic animals, there are still things about them which are mysterious. So much about them is still unknown to us because they are so hard to study, for

their natural habitat spans the whole world! It's quite hard to follow, keep up with, stay near, film, photograph, and understand creatures that move about in such a vast environment. Over the years, however, scientists have been able to discover amazing things about the animals that live in the water. As you learn these facts, you will be filled with awe at the creativity of God and how many different kinds of marvelous creatures He made on the fifth day.

Have you ever wondered why God created so many different kinds of creatures that live in the water? Have you ever wondered why He created such wonderfully diverse creatures that do things we are just beginning to understand? I have, and I think I might understand the reason. I think God created all these glorious creatures because they delight Him; He enjoys them. He loves His creation, and though it is not the perfect place it was at first and continues to become even more corrupted, He still takes pleasure in the things He made. When people, who were created in the image of God, learn about these creatures, we can share in His joy and in the pleasure that God feels about the things He made.

Look at it this way: Have you ever done something that made you really proud? I have! And when I finished, I wanted to share it with the people I love the most – people who also love me. Did you feel that way when you accomplished something? You probably wanted others to share in the joy of your accomplishment. Well, that might be how God feels when we learn about His creation and all the wild and wonderful creatures He made. And do you know what else? It brings glory to God when we study His creation and give Him credit for what He has done. It's not enough just to study science; we need to also acknowledge the Creator of it all. Let's glorify God this year by delighting in our studies of the creatures of the sea and giving glory to God, who made them all.

Aqua Mobility

You might think that every animal which lives in the water can swim, but that is not the case! Some aquatic animals can only scoot or creep around, and many aquatic creatures can only float, moving wherever the water takes them. We call animals that can swim **nekton** (nek' tun), which comes from the Greek word that means "swimming." They get from one place to another by propelling, gliding, or paddling through the water. They usually have fins or flippers. Whales, seals, fishes, sea snakes, turtles, octopuses, and squids are all **nektonic** (nek tahn' ik) animals.



This orange-lined triggerfish is a nektonic animal, because it can use its fins, tail, and body to swim in the water.



Exploring Creation with Zoology 2:

Swimming Creatures of the Fifth Day

Apologia Educational Ministries, Inc. is proud to present the fourth book in its Young Explorer Series. This elementary-level science curriculum uses the Charlotte Mason methodology to give elementary school students an introduction to the incredible world of the swimming animals.

The book begins with a lesson on the general features of aquatic animals and the characteristics of their most common habitat: the ocean. It then spends two lessons discussing aquatic mammals like whales and seals. The next two lessons cover the aquatic amphibians and reptiles - the ones that are currently living as well as those that scientists think have gone extinct. Two lessons on fish follow, and then the student gets introduced to the amazing animals called crustaceans and mollusks. Then, the student starts studying the strange animals called cephalopods (like octopuses), cnidarians (like jellyfish), and echinoderms (like starfish). Finally, the student learns about some of the lesser-known animals in the ocean, like sponges and tubeworms.

As you might expect from a book that uses the Charlotte Mason approach, the student notebook is emphasized in every lesson. Students are told to make illustrations for each lesson and are given notebook assignments to reinforce what they have learned. Notebook assignments include collecting pictures of whales and identifying them as toothed or baleen whales, writing an opinion piece on whether or not people should be allowed to pet manatees, writing a story about an amphibian meeting a reptile, making Venn diagrams to compare animals, writing a speech on how to avoid shark bites, and designing the ideal fish.

The activities and projects use easy-to-find household items and truly make the lessons come alive! They include making and wearing blubber to see how well it insulates, comparing the densities of cold and hot water, seeing the effect of temperature on tadpole development and fish activity, seeing how electricity is conducted in water, and raising sea monkeys or triops. Most importantly, of course, a creationist world view is stressed throughout. Time and time again, God is glorified as the Master Creator of all that the student is studying.

