

Name: _____

Many Things Under a Rock Young Readers Edition

Discussion Questions

About the Book

In *Many Things Under a Rock*, marine biologist David Scheel shares what it's like to search for one of the ocean's most mysterious animals, the octopus! His journey began in Alaska, where people usually focus on fish like salmon and herring, but Scheel wanted to know more about these strange cephalopods. So, he set out to learn from Alaska Native elders, fishermen, and divers about how to spot octopus dens under rocks.

Sometimes it was tricky, because octopuses are masters at hiding! Scheel and his team used scuba gear to catch, study, and then release the animals carefully, even though they could be large and strong. He also discovered how myths and stories about giant sea monsters, or "devilfish," combined with real science to shape people's beliefs.

Through his adventures, Scheel realized that studying octopuses is not impossible, just challenging. By combining science with traditional knowledge, he discovered new ways to understand these amazing animals.

What are three things you KNOW about octopuses?

- 1.
- 2.
- 3.

What are three things you WANT TO KNOW about octopuses?

- 1.
- 2.
- 3.

Name: _____

About the Author

David Scheel is a scientist, a behavioral ecologist, who studies how animals behave. He teaches marine biology at Alaska Pacific University. He has been studying octopuses for more than 25 years. David appeared in a PBS show called "Octopus: Making Contact" with his daughter, Laurel, and an octopus named Heidi.

David learned about biology, which is the study of living things. He trained in famous places like Yellowstone National Park and parks in Africa. He even lived with lions and wild dogs in Africa for two years! In 1993, he started studying sea animals instead of land animals. He has worked with fisheries, marine birds and mammals, and marine invertebrates in Prince William Sound and the north Gulf of Alaska.

David studies how predators (animals that hunt) and their prey (animals that are hunted) coexist. He also studies where different animals like to live. Since 1995, David has been studying giant Pacific octopuses. These octopuses live in the ocean near Alaska. He studies them by diving underwater with special gear.

David has worked with Alaska Native people to learn about their knowledge of octopuses. Their families have been watching these animals for hundreds of years. David and his students even discovered a new type of octopus!

David is a trained rescue diver and takes underwater photos of sea life. He lives in Anchorage, Alaska.

If you could ask David a question, what would it be?

Behavioral ecologists study how animals act in their natural environments. They investigate how those behaviors change over time and how animals adapt to their ecosystem. **If you were a behavioral ecologist, what animal would you like to study and why?**

Name: _____

Discussion Questions: Chapters 1-7

At the start of the book, scientist David Scheel shows you that octopuses are not just animals in the ocean. They are mysterious, almost magical, creatures from traditional stories. Before scientists studied octopuses closely, much of what was known about them came from divers, Alaska Native storytellers, and traditions passed down through families.

How did you feel about octopuses before reading this book?

How did the first chapters change the way you think about octopuses?

Name: _____

Discussion Questions: Chapters 7-11

Octopuses are survival experts! They can hide in secret dens, change their skin to blend in, and even shoot ink to trick predators. Other animals in the ocean have their own clever tricks, too, like decorator crabs covering themselves in shells and seaweed for camouflage.

In your opinion, what was the most impressive or surprising method described in the book that octopuses use to defend themselves or capture prey?

What is something that these chapters taught you about octopuses' intelligence?

Name: _____

Discussion Questions: Chapters 12-16

Octopuses sense the world very differently from humans. They can see special kinds of light that people can't see. Plus, their skin can "see" light, too. Each arm can taste, touch, and even make decisions on its own! It's almost like having eight mini-brains working together.

What unusual octopus sense do you wish you had? Why?

Why might having senses so different from those of mammals make an octopus's behavior unlike that of humans?

Did anything you read about octopus senses make you think differently about what it means to have a mind?

Name: _____

Discussion Questions: Chapters 17-22

At the end of the book, Scheel shows that octopuses aren't always as solitary as people think. They can remember things, throw objects at each other, and even share space sometimes. These behaviors may make you wonder if they feel emotions, just in their own unique octopus way.

How did these stories change the way you think about octopuses having feelings, memories, or friends?

Now that you have read this book, what new ideas did you take away about how octopuses live and connect with the world?

What is one new thing you LEARNED about octopuses?