

Many Things Under a Rock: The Mysteries of Octopuses by David Scheel

Science Friday Book Club Discussion Guide

Welcome to the <u>SciFri Book Club</u>, where science meets storytelling, and curiosity is a superpower. Each month, we explore a new title—nonfiction, sci-fi, biographies, poetry and more—and dive in deep with live events, expert chats, and intense nerdiness. All you need is an open mind... and maybe a good bookmark.

The SciFri Book Club is a program created by <u>Science Friday</u>, a nonprofit media organization dedicated to making science and science news relatable and accessible to the public. The SciFri Book Club brings people together around all things science reading. Each month, we choose a book to read together, gather for events, host conversations with the author on our <u>YouTube</u> channel, <u>podcast</u>, and <u>radio show</u>, and lots more!

We're publishing this discussion guide, built on a previous book we've featured, so that you can host a SciFri Book Club locally—in your library, at your school, or in your home. It includes discussion questions for *Many Things Under a Rock: The Mysteries of Octopuses*, our SciFri Book Club pick for <u>June 2025</u>, as well as additional content like interviews with author David Scheel and book excerpts. Here are some tips to get you started:

- We offer one discussion question a week over the course of the month, for a total of four questions for each book. This gives everyone time to read the book while offering regular opportunities to share their thoughts and ask questions.
- We share our discussion questions online in our <u>book club community</u> (join us!) and then host a community meeting on Zoom at the end of each month. However, you can also host your club in whatever format makes sense for you.
- It helps to set expectations about book club behavior. We created a <u>Code of Conduct and Engagement Guidelines</u> (login required) to ensure everyone has the opportunity to connect. We suggest you create policies that make sense for your group.
- The SciFri Book Club has Captains who organize the group, direct discussion, and moderate the conversation. We suggest you have a clear host for your group, too.
- It's ok if folks don't read every book or if your club doesn't read every SciFri selection. Members are welcome to participate in whatever makes them feel most connected.
- Want to stay up to date on what books the SciFri Book Club is reading and get the chance to win free books? <u>Join our newsletter!</u>

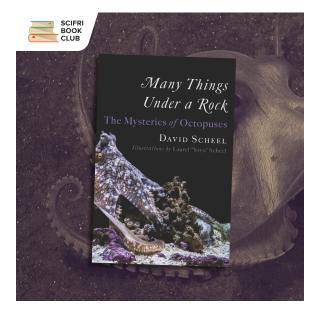
You are free to use any of these materials to foster discussion with your own book club or for educational programs. We ask that you attribute the work to Science Friday. If you would like to host a local SciFri Book Club, please <u>partner with us</u> to help spread the joy of science to your community.





About the Book

Octopuses live incredible lives in the oceans—shifting colors, outsmarting predators, and engaging with the world in ways that question our ideas about intelligence. Marine biologist David Scheel has spent decades studying these unreachable animals off the coast of Alaska and beyond. In Many Things Under a Rock, he welcomes us into their underwater world. We'll learn not just about the biology and behaviors of octopuses, like how they hunt, hide, and maybe even dream, but also the cultural and ecological links that affect their lives, such as climate change. Scheel combines scientific discovery with personal reflection to reveal the complexity of one of nature's most mysterious animals.



Many Things Under a Rock brings together a range of topics, including evolution, marine biology, anatomy, ecology, animal behavior and more—and we'll touch on these ideas throughout this guide. You can get your copy from your local bookstore or <u>on Bookshop.org</u>.

About the Author

David Scheel is a behavioral ecologist, author, and professor of marine biology at Alaska Pacific University and has researched the behavior and ecology of octopuses for over twenty-five years. He starred, with Heidi the Octopus and his daughter Laurel, in PBS's Octopus: Making Contact. He lives in Anchorage, Alaska.





Discussion Questions

Question 1: Chapters 1-7

In the opening chapters of *Many Things Under a Rock*, David Scheel introduces us to octopuses not just as scientific subjects, but as elusive, mythic creatures shaped by culture, climate, and curiosity. With limited funding and few formal studies, much of what we knew came from divers, Native knowledge holders, and stories passed between generations. *What assumptions did you bring into the book about octopuses? How has Scheel's science-cultural narrative changed your view of marine research?*

Question 2: Chapters 7-11

Octopuses are master strategists when it comes to surviving in the wild. From digging stealthy dens and changing their appearance on the fly, to bluffing predators with decoy ink clouds, octopuses display an impressive toolkit to ward off their enemies. In these chapters, we also learn how prey animals, like decorator crabs and mussels, develop their own clever defenses, and how both traditional and scientific knowledge help us make sense of these complex predator-prey relationships. What stood out to you about how octopuses choose their prey or avoid becoming prey themselves? What did you learn about cephalopod intellect and strategy?

Question 3: Chapters 12-16

In these chapters, Scheel asks us to rethink what it really means to experience and interact with the world by diving into the octopus's unusual sensory toolkit. Their eyes sense polarized light in addition to visible spectra, while chromatophores in their skin can detect and respond to changes in light independent of their eyes. Their arms, full of taste and touch sensors, work with a surprising independence from their brains. By comparing these senses to our own and those of other animals, Scheel uncovers both unexpected differences and intriguing similarities. How do octopuses' peculiar nervous system affect their behavior differently from humans? How does this challenge the human concept of mind and consciousness?

Question 4: Chapters 17-22

As we reach the final chapters of *Many Things Under a Rock*, Scheel asks us to think more deeply about the emotional and social lives of octopuses. Although they are often described as solitary or even cannibalistic, they also display behaviors that suggest recognition, memory, and intentional action. From sharing dens to throwing objects at one another, these moments challenge common ideas about emotion and awareness in non-human animals. *To what extent did Scheel's findings cause you to reconsider the emotional and social capacities of cephalopods? How was your perspective impacted?*



Livestream and Q&A with David Scheel



Octopuses have long captured our imaginations, yet much about their lives remains unknown. Marine biologist David Scheel shares his discoveries in Many Things Under a Rock, weaving together the story of one unreachable octopus with deep insights into the biology, behavior, and changing ecosystems that shape these remarkable creatures.

Watch the Recording

On Air Stories with David Scheel

Eight Arms That Send a Message

One species of octopus uses changing coloration and shifting postures to send signals to other octopuses.