

The Real Aliens Live Under the Sea



*(A review of Sy Montgomery's
The Soul of the Octopus)*

In the depths of the world's oceans, there lives an eight-armed creature "with venom like a snake, a beak like a parrot, and ink like an old fashioned pen." Fully grown, it can have the strength to lift thousands of pounds, and yet it is capable of sliding its slimy boneless body through a hole "the size of an orange."

This alien is an octopus. From its description, and perhaps the way it has been portrayed in movies and stories, many may think that an octopus is a frightening monster. But as a **naturalist** and animal lover, Sy Montgomery wants you to know that these animals can be truly gentle creatures capable of expressing a deep curiosity to explore the world.

In *The Soul of the Octopus*, Montgomery will pull you into the world of **octopuses**, when she introduces Athena, a red octopus who lives at the New England Aquarium. Athena, Montgomery tells the reader, has 1,600 suckers each of which she can control individually. She can pinch an individual sucker tightly so as to untie a knot, or suction to a human hand with the gentle pressure of a kiss. Athena is capable of this delicate control because it turns out that three fifths of her **neurons** are distributed through her arms instead of being concentrated in her brain.

On the subject of neurons, Athena is incredibly intelligent. She can unscrew jars and unclasp locked boxes. She can choose to figure out these puzzles, even though she is strong enough to simply crush a jar or box to get food that might be trapped inside. On top of that, Athena, like all of her octopus counterparts, is an amazing escape artist. She can lift lids of aquariums that aren't properly weighted down, undo screws, and slip through extremely small openings.

Athena is only one of several octopuses that Montgomery introduces her readers to. While Montgomery was fascinated by the science behind the octopuses' abilities, she expresses greater interest in their differing personalities. She details how Athena, was very gentle and receptive to humans. In contrast Kali, another octopus she gets to know, is

Naturalist: A scientist who studies plants and animals.

Octopuses: the plural of "octopus." The plural is *not* octopi!

Neurons: Brain and nerve cells.

Camouflage: to conceal oneself by blending in with the surroundings.

Deter: to prevent or discourage someone from doing something.

Neuroscience: the study of the brain.

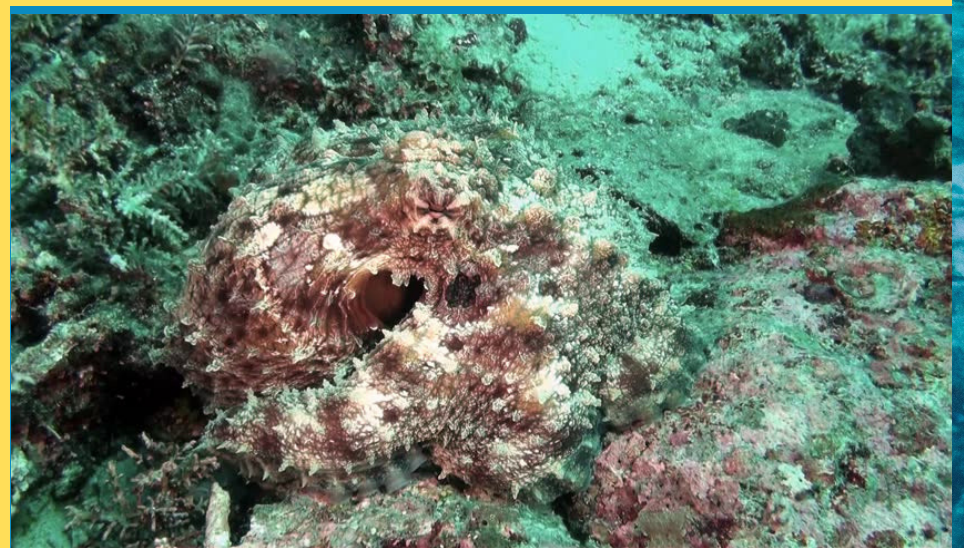
Comprehend: to understand.

playful and squirts her human caregivers to get attention. And Octavia, at least at first, is very shy and only gives attention to the humans she was familiar with. Montgomery describes how these octopuses quickly seem to befriend their human caretakers, drawing together a community at the New England Aquarium.

Montgomery observes, that the octopuses in the aquarium do not truly give her a glimpse of the octopuses' world, however. To remedy this, Montgomery decides to introduce readers to a greater number of octopuses and to do that, she would have to go to the ocean! This wasn't such an easy step though. Montgomery details how first, she had to learn how to scuba dive. Scuba diving can be dangerous and difficult on the body. Montgomery spends quite a bit of time talking about the challenges she faced just in preparing to visit octopuses in the wild. Then she faced another challenge—octopuses are experts at **camouflage**! They are able to change both the color and texture of their skin and choose to do so depending on their environment or goal. On top of that, an octopus is capable of changing its appearance up to 177 times in an hour!

Montgomery wasn't **deterred**. She went diving with a group of experts and helped a scientist study octopus psychology. Using a detailed checklist, they examined behaviors that could reflect whether an octopus was bold or shy. For example, when the divers encountered an octopus, sometimes it would sprint away or camouflage out of sight. On other occasions though, an octopus would display interest in exploring the humans who discovered it. Montgomery describes multiple occasions where a wild octopus would notice humans and then in appear to study its visitors. The octopus then seemed to give the humans a "tour" of their surroundings, swimming slow enough so that the humans could follow it and changing its skin color and texture so that it remained easy to see.

The Soul of the Octopus is perfect for readers looking for a window into the world of **neuroscience**. It isn't only about the wonderful capabilities of the octopus. It is a story that inspires questions about intelligence that we cannot begin to **comprehend**. It inspires questions about how an organism may have a completely different way of experiencing the world. But most importantly, Montgomery shows her readers how we as humans can establish powerful and emotional relationships with an organism that seems completely alien to ourselves.



Can you find the hidden octopus? Answer key on page 3.

The Soul of the Octopus
by Sy Montgomery
Recommended for ages
12+



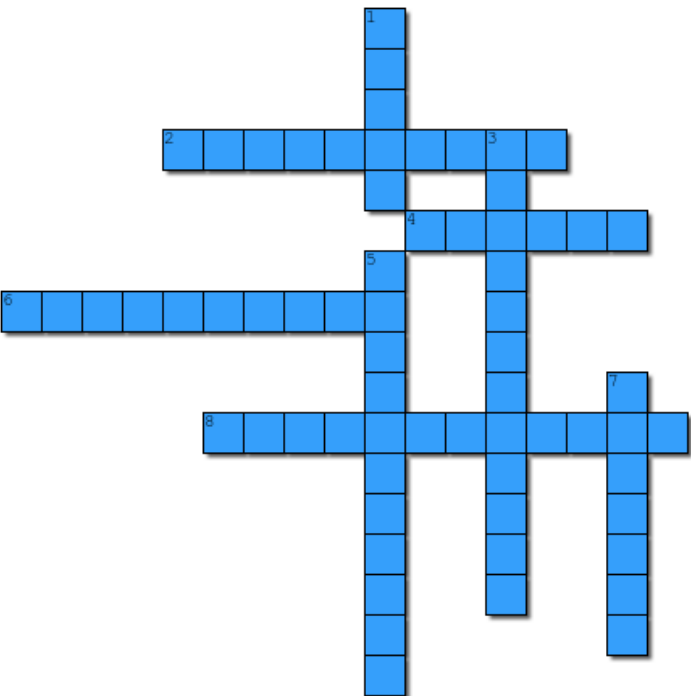
Are you as good
at puzzles as an
Octopus?

Connect the dots!



An Octopuzzle

Complete the crossword below



Created using the Crossword Maker on TheTeachersCorner.net

Across

- 2. A scientist who studies animals or plants
- 4. A brain cell
- 6. The ability to change color and shape
- 8. The study of the brain.

Down

- 1. A great body of water
- 3. Sy Montgomery went _____
when she wanted to see octopuses in the wild.
- 5. An octopus can have a shy or bold
_____.
- 7. An eight armed sea creature



Answer key from page 2.

