

# A SLIPPER SNAIL TALE

Informative resource for educators, parents and students



## About the story

**Characters** - veliger larvae.

**Summary** - Veliger larvae are released and remain adrift until they are surprised by scientists in the middle of their life cycle.

**Premise** - The ocean has great biodiversity. This includes the diversity of species within microorganisms.

**Inspiration** - The oceans have more than half of all life on earth and although a lot has been learned, there are still great unknowns waiting to be discovered.

## About the site

Bocas del Toro is a magnificent natural region that includes mangroves, seagrasses, and coral reefs. The Smithsonian Tropical Research Institute has established a research and education station, providing scientists and students with access to an extraordinary diversity of marine and terrestrial biota. Biodiversity refers to the variety of life on planet Earth or, in the context of research, the number and variety of organisms in a specific habitat or ecosystem. The great diversity of marine and terrestrial ecosystems makes Bocas an ideal area to develop studies of natural environments.

## About the characters

Encounter between metamorphosis and research- In history, veliger larvae are released into the ocean where they encounter microscopic biodiversity, the mystery of metamorphosis, and with scientists working to learn about the larvae of different species and subspecies. His discoveries throughout the book increase the knowledge of both the reader and the characters.

## About the scientist



Dr. Rachel Collin, who has been called "the limpet detective," has two great jobs. As a scientist, she studies marine invertebrates such as the slipper snail and is also the director of the Bocas del Toro Research Laboratory. His biggest question is: Can organisms lose body structure through evolution, and can they regain that structure or not? The research is essential, as it reveals answers about marine invertebrates, their extinction rate, their susceptibility, the destruction of their habitat, and the invasion of species.

## About the organism

- Slipper snails are Crepidula.
- The snails of the slipper snails are easy to identify because the plate that covers the cavity of the snail looks like a slipper.
- The common slipper snail is distributed along the coasts of Canada to the Caribbean.
- Slipper snails are filter-fed and spend their entire lives in the same place. Slippers are an essential part of the coastal marine ecosystem, but they can cause problems due to overpopulation.
- They are efficient at feeding and reproducing so they are abundant in many places and have few predators.
- In some species of slipper snails, the larvae attach to other slipper snails on rocks, where they grow, change, and create a mound of snail-like towers or columns.
- Veliger larva is the larval stage of some mollusks, such as slippers snails, before they settle on a substrate where they begin the metamorphosis process to become a snail.
- Some marine invertebrate larvae can live for more than a year in the water column.
- Some larvae feed on algae that are almost as large as they are.
- Some larvae are so large that they can be seen. The pluteus larva of the Diadema sea urchin can reach an arm length of 1 cm. But most larvae are small, 1mm or less.
- Some larvae can be cloned. One or two species of starfish larvae can divide in half and the two halves regenerate the missing part again.
- Most larvae capture tiny algae with the cilia that they use to swim. They move these algae particles along the ciliary band to the larva's mouth as if it were a conveyor belt.
- Some larvae eat other larvae.

