

Bullfrog Films presents:

# BANANA, BANANA, BANANA SLUGS



Study Guide  
by  
Alice B. Harper

Animals  
Language Arts  
Environmental  
Education

## **Banana, Banana, Banana Slugs**

8 minutes

A film by Daniel Zatz

Distributed by Bullfrog Films, Oley, PA 19547

This film introduces children to an animal usually overlooked in nature studies: the slug, the shell-less snail, the slimy yucky animal we don't want to touch or see. But this is no ordinary garden slug. This is the giant banana slug. It is a vital link in the chain of life in spectacular forests of Western North America. It can be found in California, Oregon, Washington, Canada and Alaska.

We see children walking among giant Redwood trees holding golden banana slugs and sharing their feelings as they learn about this unusual wild animal. The film shows the children's first reactions when they touch the slimy body, and then as they learn more we see them beginning to admire the gentle slugs. The film will make children laugh and will show them a unique lifeform, while dramatically demonstrating how knowledge and understanding can change attitudes.

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# STUDY GUIDE

by

## ALICE B. HARPER

Alice Harper, a writer and naturalist, has been living among and researching banana slugs for the past 22 years. She is the author of *The Banana Slug*, a small book full of information and amazing color photographs of this animal's evolution, life cycle and place in nature. The book is available through Bay Leaves Press, 7000 Soquel Drive, Aptos, CA 95003.

### INTRODUCTION

The sometimes ten inch long banana slug is native to Western North America. California's majestic Redwood forests and Washington's Olympic rain forest are among the coastal areas where banana slugs thrive. In some places they are a bright golden-yellow color as they are in the Santa Cruz mountains of California where the film was made. In other areas they are greenish-brown, or almost black, and quite often they have spots. This genus *Ariolimax* has three species, *columbianus*, *dolichophallus*, *californicus* and two sub-species. They range from Southern California northward in western Oregon, Washington, Canada, and Alaska.

Slugs are a type of invertebrate animal known as mollusks, along with snails, oysters, mussels and squids. They are believed to have evolved from snails and originally came from the sea. There are many different types of slugs living on land and many others still living in water.

The children in the film are holding and looking closely at the banana slugs. They are able to see two sets of tentacles on the head. Banana slug eyes are the black dots on the tips of the longer tentacles. Functioning like a periscope that can be instantly retracted, these eyestems can stretch up and move in all directions, enabling slugs to peer over obstacles. The shorter pair of tentacles are for feeling and smelling. Their mouth is between these lower tentacles. In their mouths they have a tongue-like organ called a radula, covered with hundreds of tiny teeth. On the right side of the body is the breathing hole.

Slugs and snails are able to move without legs by means of waves moving within the muscular foot covering the lower part of the body. They can climb plants and trees, move upside down, and squeeze into small holes in search of food and shelter.

Banana slugs are the forest clean-up crew. They should not be confused with non-native slugs and snails that have become such destructive garden and agriculture pests. Banana slugs eat all sorts of growing and decaying things on the forest floor. Wild mushrooms are a favorite food. Their grazing hastens decomposition of matter, while dispersing seeds and spores. They also leave behind a nitrogen-rich fertilizer to give forest plants a boost in growth.

The thing people seem to dislike most about slugs is the slime covering their bodies. But slime is absolutely essential for this soft and harmless animal that can not bite, sting, scratch, or quickly run away. They must have slime for their defense, for their movement, and for water retention. Predators have been seen trying to rid their mouths and paws of slime while the slug escapes. Slime is also believed to taste bad for some animals and in addition makes the slug slippery and difficult to hold on to. Banana slugs are eaten by snakes, salamanders, some birds, beetles, moles, foxes, and raccoons, so they need all the help they can get. Slugs also lay down a roadway of slime to slide upon, keeping their soft bodies from being injured by rocks or sharp twigs. A glistening slime trail is left behind instead

of footprints. Because the slug no longer has a shell to retreat into when it is hot, it must produce abundant slime to seal in body moisture.

The banana slug has gained popularity in some places. In 1988 California's State Senate approved a bill making the banana slug the official State Mollusk. The University of California at Santa Cruz made this slimy native their school mascot. At their sports events you can hear the crowd chanting, "Go Slugs!" or "Slime them!" In other areas there are annual banana slug races and town festivals called Slug Fests.

The revulsion and fear we have of some animals (like slugs) can be erased through curiosity and education. In this film we see the children changing from an "Oh Yuck!" reaction to a desire to take a banana slug home with them. Knowledge is the key to appreciation of nature's many designs and to realizing the connection of all living things in a natural setting.

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NOTE: The answer to a child's question, "Can I lick them?" is "No." There are many tiny parasitic insects living on slugs that would be unwise to ingest.

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# DISCUSSION GUIDE

## **ANIMALS: Discussion Questions**

- 1) How many animals can you name that are able to move without legs? How would you move if you had to stay on your stomach? How are slugs able to move?
- 2) Have you ever picked up a snail? List the ways a shell would help a snail? Can you think of anything a slug can do that a snail with a shell on its back cannot do?
- 3) Where are banana slug's eyes? How many tentacles do slugs have? Are all the tentacles the same size? What is the hole on the right side of the slug's body for?
- 4) Since slugs don't have clothes, fur, feathers, scales, or shells, how do they protect their soft bodies? Is slime a bad thing for slugs to have?

## **LANGUAGE ARTS: Discussion Questions**

- 1) Why do you suppose these slugs are called banana slugs? What other things besides banana slugs are a bright yellow color? What kind of feelings do you get from the color yellow? Is it a happy or sad color?
- 2) Think of words that describe a banana slug. Would you like to be called any of those words? Why do we think some animals are nice and others not so nice?
- 3) How do you think the girl who offered to pick up a slug for the boy felt about banana slugs? Why do you think she wanted to take a banana slug home with her?
- 4) As more and more of our forests are chopped down to make lumber, what will happen to wild animals like banana slugs? Do you think there are some places where no one should be allowed to cut down trees?

## **ENVIRONMENTAL EDUCATION: Discussion Questions**

- 1) In what way is a forest more than just trees? How many forest animals can you name? In what ways are trees, flowers, insects and animals connected?
- 2) Why would an animal bite you, sting you, or put sticky slime on you? How do you think a slug could get by without ever killing or hurting any other animal?
- 3) All animals and plants need to live in special places to be healthy. How can a turtle live happily in a boiling hot desert? Could a fish and an elephant trade places? Why is a damp forest a perfect place for a slug?
- 4) Can you think of any reasons why it might be better to leave a wild animal where it lives instead of bringing it home to be your pet? How do you think the teacher answered the girl in the film when she asked if she could bring the banana slug home?
- 5) Why do you think the children in the film at first thought that banana slugs were yucky, but at the end of the film seemed to like them much better? Can you think of a time when you were afraid of or did not like something but later changed your mind after you learned more about it?

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