

Crickets and Other Orthopterans

Biological Classification Series

Grade Levels:

Grades 5-10

Subject Areas:

Science

Life Sciences

Biology

Synopsis:

Live-action film footage reveals the characteristics of crickets and other Orthopterans. In comparison to mantises, Orthopterans are seen as omnivores with voracious appetites. The purpose of ovipositors, the developmental patterns of offspring and Orthopterans' jumping abilities are highlighted. Distinguishing features of locusts and grasshoppers are also noted.

Learning Objectives: Students will:

Explain the differences between Orthoptera and other insects.

Explain the meaning of the term, "omnivore" with reference to crickets, grasshoppers and locusts.

Explain the purpose of the ovipositer and the reasons why crickets chirp.

Understand that there are about 17,000 different species of Orthoptera in the world.

Vocabulary:

stridulate, domestic cricket, ovipositor, molts, offspring, antennae, omnivores, field cricket, forest cricket, Orthoptera, voracious, empuses, praying mantis, mole cricket, stick insect, migratory locusts, pilgrim locusts, proliferate, swarm

Pre-Viewing Discussion:

How can you tell if you have a cricket in the house? What does the word, "domesticated" mean? Are crickets domesticated?

What do crickets eat? What do grasshoppers eat?

What is the difference between grasshoppers and locusts?

How are crickets similar to other insects? How are they different from other insects?

Post-Viewing Discussion:

Why do crickets chirp? Who does the chirping?

What instrument allows the female cricket to deposit her eggs in a safe place? How does this body part function?

How do cricket offspring develop?

Since crickets are omnivores, what might they eat?

What is the distinguishing feature of the Orthoptera order of insects? What makes an insect, an insect?

How can an observer tell that that a mantis is not an Orthoptera?

Further Activities:

Find out which of the five major classification groups crickets and other orthopterans are in (i.e. Kingdom, Phylum, Class, Order, Family). Chart the relationships of animals in the largest to the smallest taxonomic groups around them. What characteristics make this group similar to and different from the other groups to which they are related? Then, pick one species from the program and determine its genus and species name, writing them in the proper scientific terminology. Find out why the genus and species name is written the way it is.

Discover how locusts devastated prairie farmlands during The Great Depression. Why were these voracious insects able to do such damage? How were they able to multiply so rapidly?

Investigate myths and folklore associated with crickets. Are characteristics of these myths related to the characteristics of crickets and other Orthopterans?

Discover how the jaws of Orthopterans are particularly adapted to chewing. Give several examples from the species studied in this program.

Related New Dimension Media Titles:

Animal Babies Born Wild series

Habitats series

Biological Movement series

