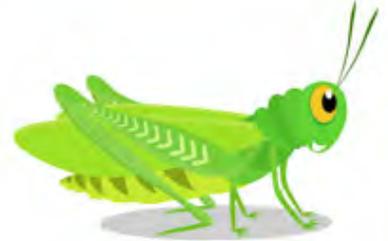


Entomology County Contest Study Guide

Challenge



Challenge Overview:

Complete as much as the packet as you can!

Prizes will be given for:

Most Complete (definitions, complete answers, detailed labeling, and drawings are colored in).

Best in Show (most detailed labels and coloring)

Rules:

Each page contains one insect with some information about that particular insect.

Define or describe the **highlighted** words found on each page. Answer each question completely – use proper sentence structure and grammar and check your spelling.

*you can write your answers on a separate piece of paper or on the back of the insect page.

Grasshopper: An ancient **herbivorous** insect group. Grasshoppers are in the order of **Orthoptera** and in the sub-order of **Caelifera** and date back 250 million years – early Triassic era. They have had a long history with humans and in many countries are a source of food.

Grasshoppers have a typical insect body: head, thorax and abdomen.

Label the drawing below.

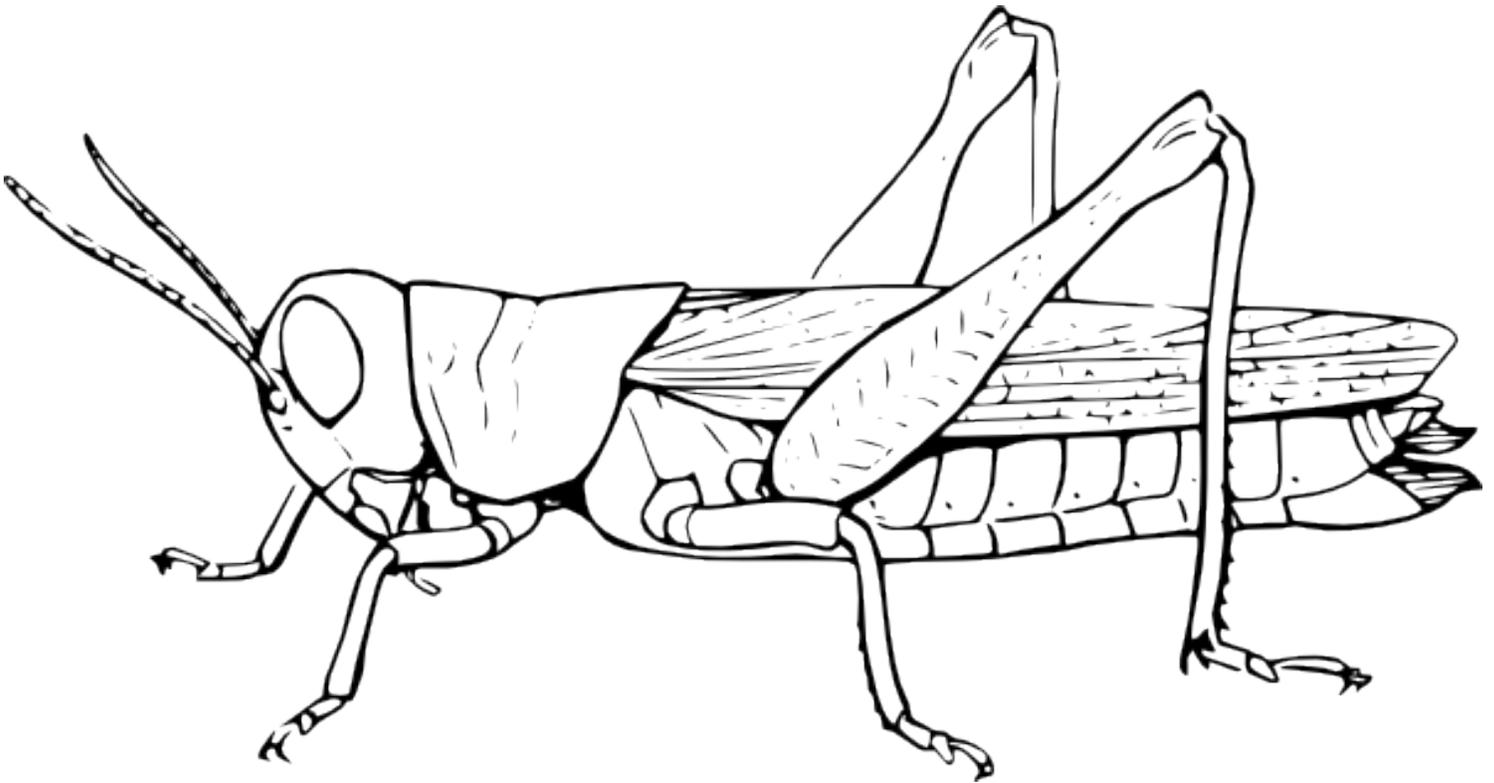
Questions:

Describe a short-horned grasshopper. What are some examples of a short-horned grasshopper?

Name three countries where grasshoppers are a food source. How do they prepare the Grasshoppers?

What are some different colors grasshoppers can be?

What type of mouthparts do Grasshoppers have? Chewing or Sucking?



American Cockroach: The largest of species of the common cockroach. They belong to the order of **Blattodea** and they date back to the Carboniferous period. They have the typical insect body, segmented into three parts: head, thorax and abdomen.

Label the drawing below.

Questions:

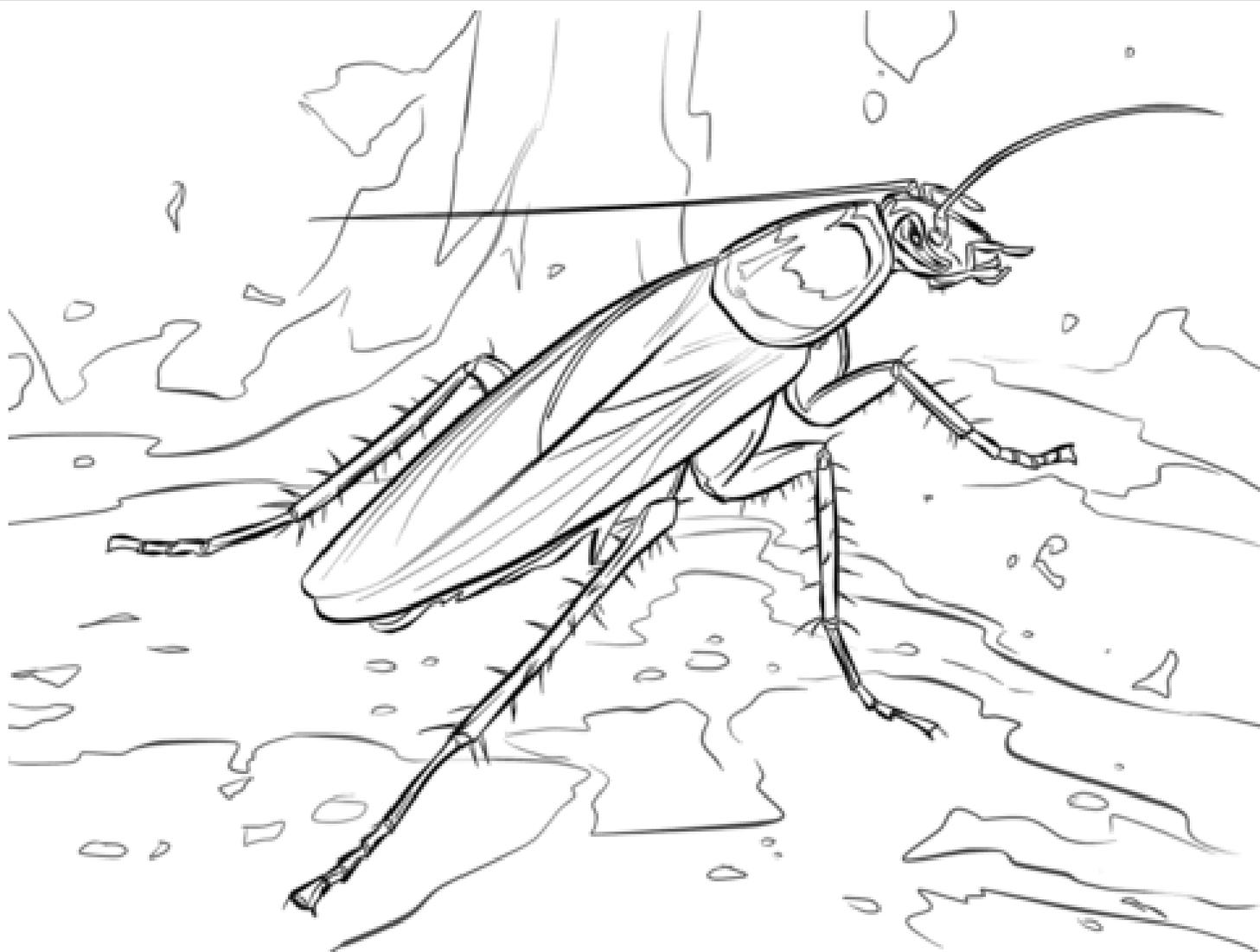
Are cockroaches endemic to the Americas? If not, where did they originate?

What is the best habitat for cockroaches?

What type of mouth do they have? Chewing or Sucking?

What are some of their food sources?

Are they dangerous to humans?



Silverfish: A small, primitive, wingless insect that belongs to the order of **Zygentoma**. Silverfish have the typical insect body of head, thorax and abdomen. Label the drawing below.

Questions:

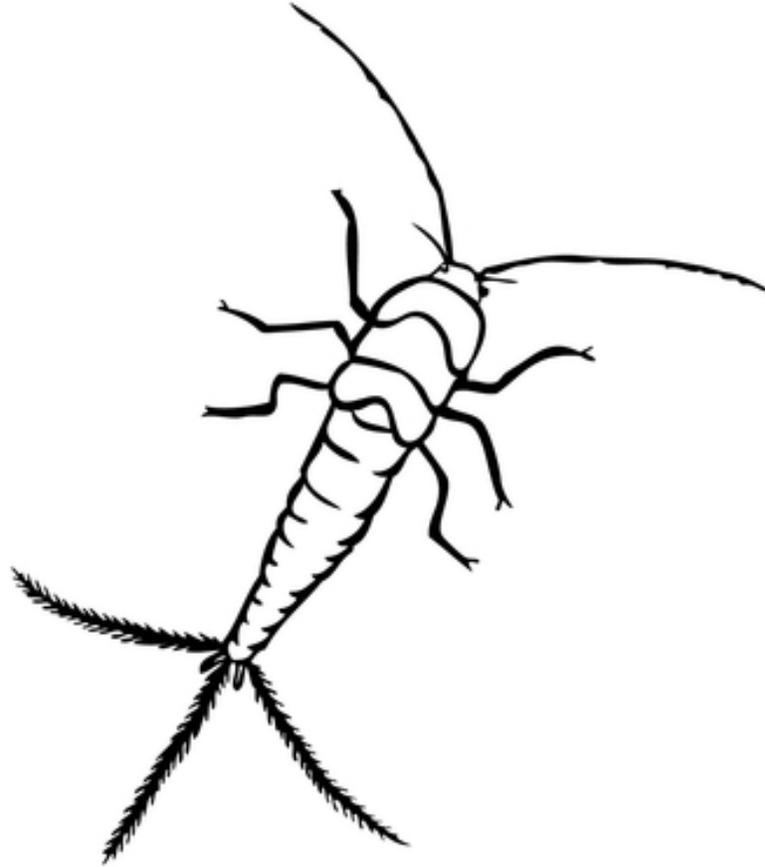
How does their scientific name inform the Silverfish's diet? What are some examples of their food?

Where can you find Silverfish?

How long do Silverfish live?

How can you get rid of a Silverfish infestation?

What is their mouthpart? Chewing or Sucking?



Flea: They belong to the order of **Siphonaptera**.

Label the drawing below.

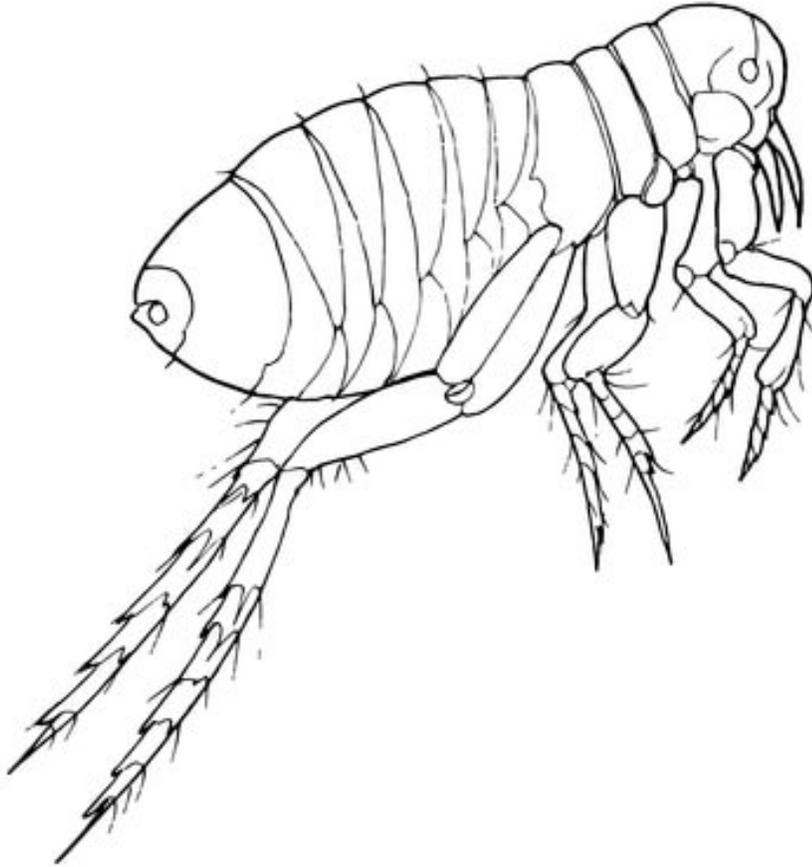
Questions:

How many species belong to the order of Siphonaptera?

What are the major characteristics of this order?

What are the mouthparts of an adult Flea? Flea Larvae? Chewing or Sucking

What is the main food source of an adult Flea?



Centipede: Are in the class **Chilpoda** and in the subphylum **Myriapoda**; this is an arthropod group and includes millipedes. Their name comes from the Latin prefix *centi-* meaning hundred.

Questions:

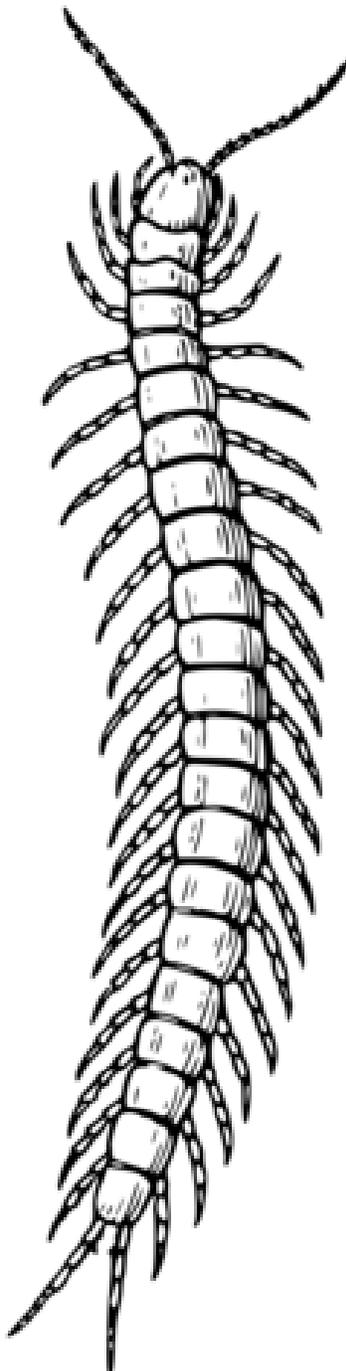
How many legs do Centipedes have?

How many species of Centipedes are there?

Where do/can Centipedes live?

What type of mouth do Centipedes have? Chewing or Sucking?

What is the largest Centipede ever recorded? Where was it located?



Dragonfly: Belong to the order **Odonata**. Dragonflies are **predators** and have two life stages. Ancestral fossils date back 325 million years ago.

Label the Dragonfly below. What colors can a Dragonfly be?

Questions:

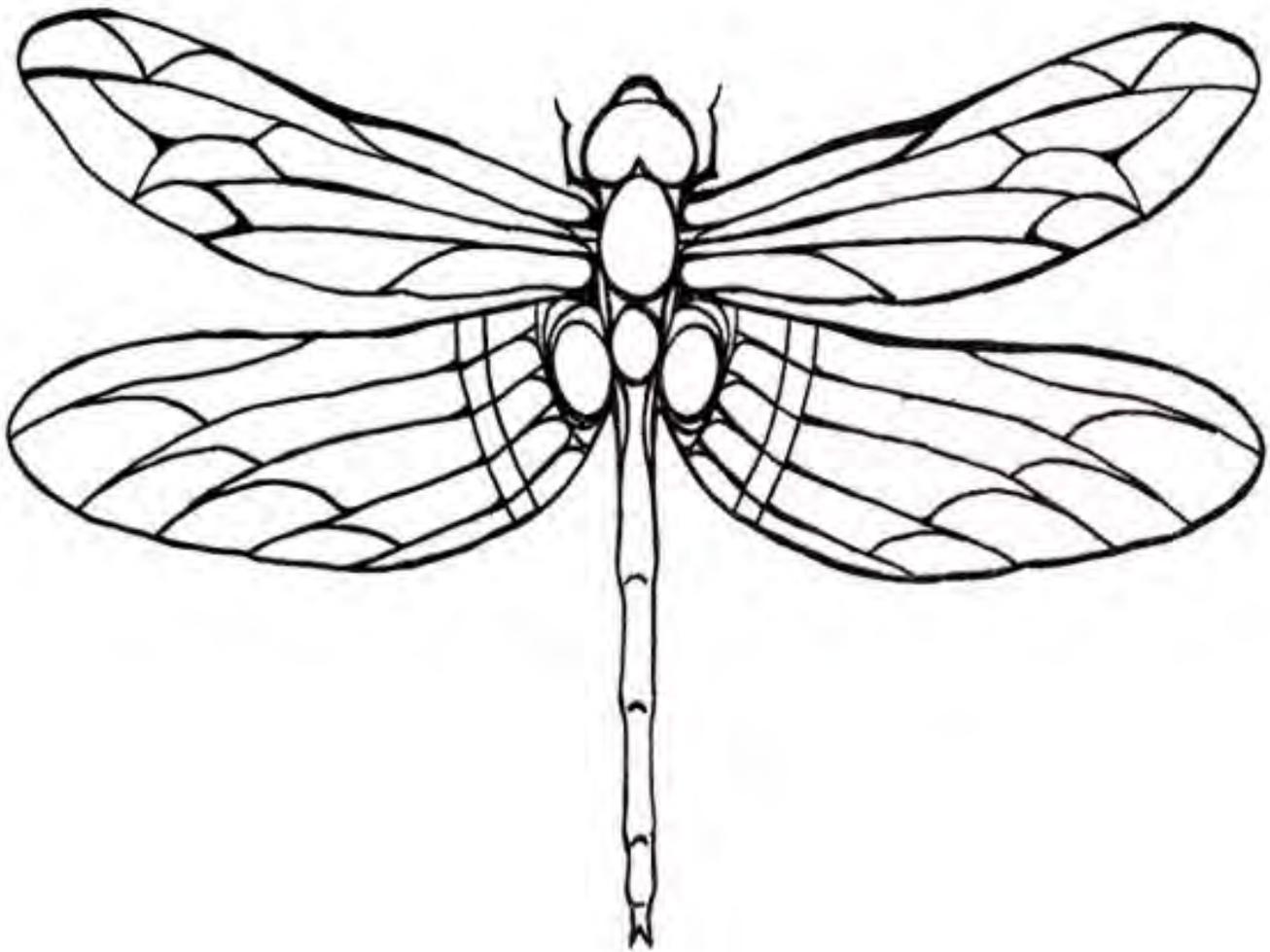
What are the two life stages of a Dragonfly? What are the habitats for each stage?

What is the wingspan of the ancestral fossils?

What do Dragonflies represent in Japan? In what country are they used as food?

What are their food sources? Are they different in the different life stages?

What are their mouthparts? Chewing or Sucking?



Ant: Belong to the family **Formicidae** and are **eusocial insects**. Ants date back to the **Late Cretaceous** period. Ants contribute 15-20% of the total **terrestrial** animal **biomass** on earth.

Label the Ant below.

Questions:

Where can you find ants?

Ants can carry an incredible load. Do you know how many times their body weight they can carry?

How many different species of ant are there in the world?

What do ants eat? Do all ants eat the same thing?

What are their mouthparts? Chewing or Sucking?



Mantid: Belong to the order of **Mantodea** and to **Mantidae** family.

Label the picture below.

Questions:

What is the common name of this insect?

How many species are found in North America? Name them?

What are the closest relatives to the **Mantis**es?

What colors are Mantises? Are they different between male and female?

What is their mouthparts? Chewing or Sucking?



Mosquito: Are in the family **Culicidae**. The oldest known mosquito dates back 79 million years. There are over 3,500 species of mosquitos in the world; they are found on every continent with the exception of Antarctica.

Label the drawing below

Questions:

Draw the life cycle of the Mosquito.

Why Mosquitos the deadliest animal on earth?

Where was the oldest known mosquito found?

Name five diseases that Mosquitos carry and transmit to humans?

What is their mouthparts? Chewing or sucking?



Walking Stick: Belong to the order **Phasmatodea**. There are over 3,000 different species of Walking stick, living in almost every habitat on earth. Walking Sticks are **herbivores**.

Label the Drawing below.

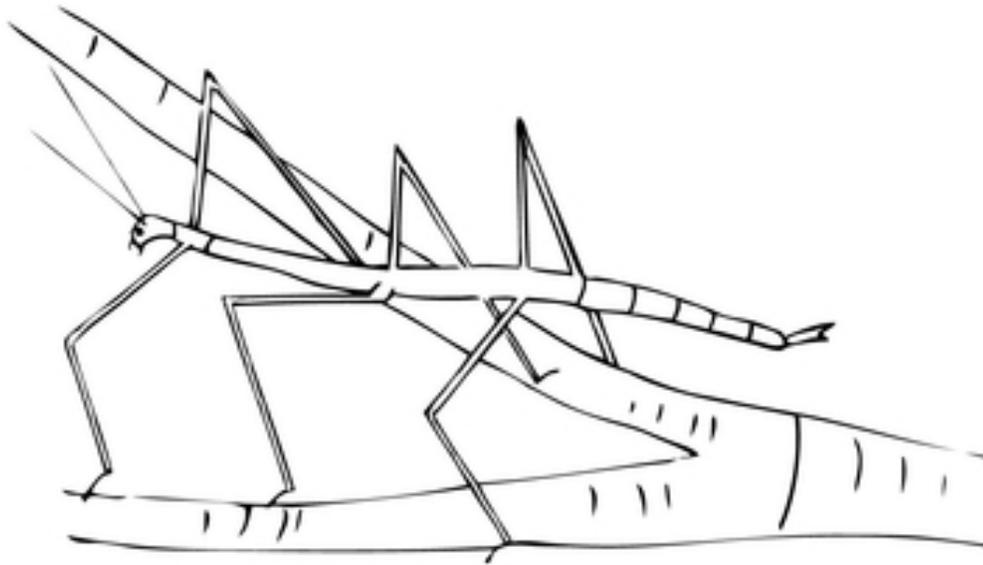
Questions:

How do Walking Sticks survive in such a variety of habitats and climates?

In general, what is the size range of Walking Sticks? What is the largest Walking Stick ever recorded?

As stated above Walking Sticks are herbivores; what are their mouthparts? Chewing or Sucking?

Describe the reproduction process of the Walking Stick. Define **Parthenogenic**.



Earwig: Make up the **Dermaptera** order. This order includes 2,000 species and one of the smallest orders of insect. Again Earwigs are found on every continent except for Antarctica. Earwigs are **nocturnal** and hide in dark places during the day.

Label the Drawing below.

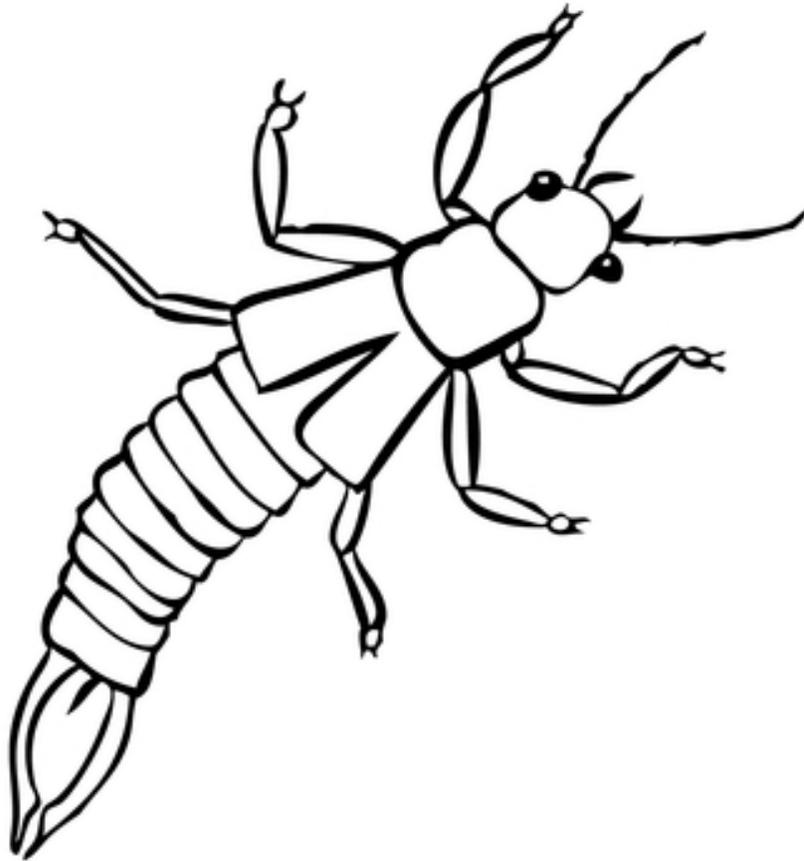
Questions:

What do Earwigs eat?

What is a molt? How many times do Earwigs molt before becoming adults?

How long do female earwigs stay with their offspring?

What type of mouthparts do Earwigs have? Chewing or Sucking?



Swallowtail: They belong to the family **Papilionidae**; this family includes over 550 species.

Label the Drawing below.

Questions:

Where do the majority of Swallowtail butterflies live?

Describe the life cycle of a Butterfly?

Define Metamorphosis.

What type of mouthparts do butterflies have? Chewing or Sucking.

Do they have this type of mouthpart their whole lives or does it change?



Camel Cricket: These crickets are from the order **Orthoptera** and the family of **Rhaphidophoridae**. There are more than 1100 species described in this family.

Label the Drawing below.

Questions:

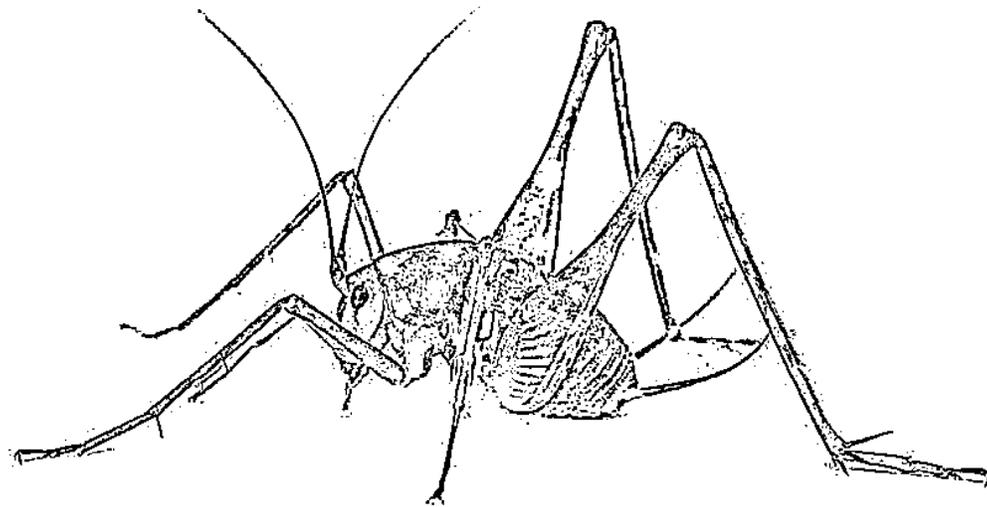
Where do Camel Crickets get their name?

What are 3 other names Camel Crickets are known as?

How are these crickets different from “true crickets”?

What do Camel Crickets eat?

What type of mouthparts do they have? Chewing or Sucking?



Jerusalem Cricket: Belong to the **genus Stenopelmatus**, this is a large group of flightless insects.

Label the Drawing below.

Questions:

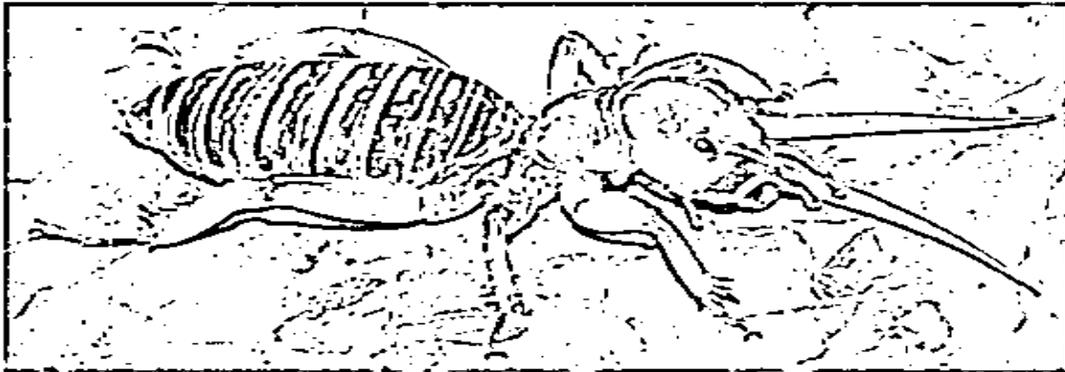
What is another name Jerusalem Crickets are known as?

Are Jerusalem Crickets “true crickets”?

In what regions are Jerusalem Crickets native?

What do Jerusalem Crickets eat?

What type of mouthparts do Jerusalem Crickets have? Chewing or Sucking?



Aphid: Found in the order **Hemiptera**. Aphids are found worldwide, most common in **temperate zones**.

Label the Drawing below.

Questions:

Name three natural **predators** of the Aphid.

What colors can Aphids be?

What do Aphids eat?

What type of mouthparts do Aphids have? Chewing or Sucking?





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If you are an individual with a disability and need an auxiliary aid or service please contact Brittany Johnson by emailing brittmjo@nmsu.edu.

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