

This fact sheet was stimulated by thinking about the crickets that live in our basement. A number of different crickets might be found in your house. The House Cricket, *Acheta domesticus*, would be a likely suspect but there are a number of other cricket species in our area, any of whom might have found their way into your house. The other choices are: Southern Wood Cricket *Gryllus fultoni*, the Fall Field Cricket, *Gryllus pennsylvanicus*, the Southeastern Field Cricket *Gryllus rubens*, the Northern Wood Cricket, *Gryllus vernalis*, or the Eastern Striped Cricket, *Miogryllus saussurei*. A great website that has photos, descriptions and even better, recordings of the chirps of the different crickets can be found at the University of Florida: <http://entnemdept.ufl.edu/walker/buzz/487a.htm>

One other option is that you might have a Camel Cricket, *Ceuthophilus* sp. These crickets are often found in damp basements and caves. The adults do not have wings and they don't chirp. They can jump long distances and are quite active. It turns out that's what we have in our basement.

## Description

Field crickets are dark brown to black crickets, 9/16 to over 1 inch long. House crickets, *Acheta domesticus* (Linnaeus), are similar to field crickets but are smaller (about 3/4 inch long) and yellowish-brown with three dark bands on the head and prothorax. They can breed indoors. Cave and camel crickets (Gryllacrididae) are dark brown, wingless and have long antennae, long well-developed hind legs for jumping. The head is bent down and the back is arched up, giving these insects a humped-backed (camel) appearance. Other physical characteristics:

- \* Front wing varies, covering half to entire abdomen
- \* Antennae about as long as distance from head to end of abdomen
- \* Wings held flat over body
- \* Hind wings folded and hidden under leathery front wings
- \* Both sexes have cerci (segmented, tail-like appendages attached to the back)

True crickets are insects of the Gryllidae, with a total of 800 species identified worldwide. Crickets have the following characteristics: they possess three-segmented tarsi (bodies) and long antennae; their tympanum (hearing organ) is located at the base of the front leg right below the elbow; and the females have long, slender ovipositors (tubes for laying eggs).

## Life Cycle

A cricket's life begins as one of about 300 eggs a female lays in the soil during late summer and fall. Some species overwinter successfully as nymphs or adults. Others overwinter as eggs and hatch in the Spring. The larvae of the field cricket hatch from eggs in 7–8 days, while those of *Acheta domesticus* develop in 11–12 days. It may molt as many as five times in its life. The life cycle of a cricket usually spans no more than three months. A year-old cricket is a rarity.

## Diet

Crickets are omnivorous, opportunistic scavengers. They feed on decaying vegetable matter and fruit, and attack weaker or dead insects or their larvae. As omnivores, they may also eat fungi,

seedling plants, leather, paper and old cloth (especially if the cloth is stained by food or perspiration).

## **Cricket Songs**

Only male crickets “sing.” A male cricket has a heavy vein with a row of teeth on the underside at the front of each wing. The top of one wing was used as a scraper against the underside of the other wing, like a fingernail drawn along the teeth of a comb. This performance occurs with both wings elevated so that the wing membranes can act as sounding boards. Crickets can also amplify their sounds by using external natural resonators. Ground-dwelling field crickets use their funnel-shaped burrow entrances as acoustic horns. The pitch of the chirps is slightly higher than the highest octave on a piano. Air temperature influences chirping rates; the warmer the night, the faster they chirp. There are special songs for courtship, fighting, and sounding an alarm.

Entomologists agree that the principal purpose of a male cricket's "song" is to attract females for mating, but it is not clear why males do it continuously throughout most of their adult lives, when actual mating doesn't take much time. Scientists have found that although each species has its own optimal mating call, the repetition rate of chirp "syllables" was the single most important characteristic. Unfortunately, a male's singing skills do not guarantee him success as other, silent, males may be waiting nearby to intercept the females he attracts. In addition, other males may be attracted by the song and rush to the singer just as females do. When another cricket confronts a singing male, the two insects determine each other's sex by touching their antennae. If it turns out that both crickets are male, the contact leads to a fight, a characteristic of crickets that has been harnessed for human sport.

## **Habitat**

Crickets live under rocks and logs in meadows, pastures and along roadsides in shallow burrows. Many are nocturnal. Field crickets live in leaf litter, under or near logs or around damp places in gardens. Crickets can also be abundant in homes, barns and gardens.

## **Predators**

Spiders, some wasps, ground beetles, birds, small rodents and lizards are cricket predators. In many areas crickets can make up a large portion of the available food. They are also eaten by humans in many parts of the world.

**Fun Fact:** Crickets are able to jump up to twenty or thirty times their body length, which is about three feet into the air.

References: Wikipedia Encyclopedia, Center for Insect Science Education Outreach The University of Arizona, Insecta Inspecta World at the University of Florida, Bugguide, hosted by Iowa State University Entomology, and Texas A & M Extension.

This fact sheet was assembled by Dennis Gregg, the Executive Director of the Obed Watershed Community Association as a service to our members and the community in promoting an appreciation for the natural and cultural heritage of the Obed River watershed. Those wanting to join this membership organization or more information may call 484-9033 or write OWCA at 185 Hood Dr., Crossville, TN 38555.