

Prairie Mole Cricket

Gryllotalpa major

Identification

The prairie mole cricket is the largest species of cricket in North American, measuring over 2 in/5 cm. These robust crickets are reddish brown to tan. They have modified claw-like forelimbs allowing the cricket to tunnel through the soil. Females can fly while males cannot.



Photo credit: Harvey Payne/courtesy of The Nature Conservancy

Observation Tips

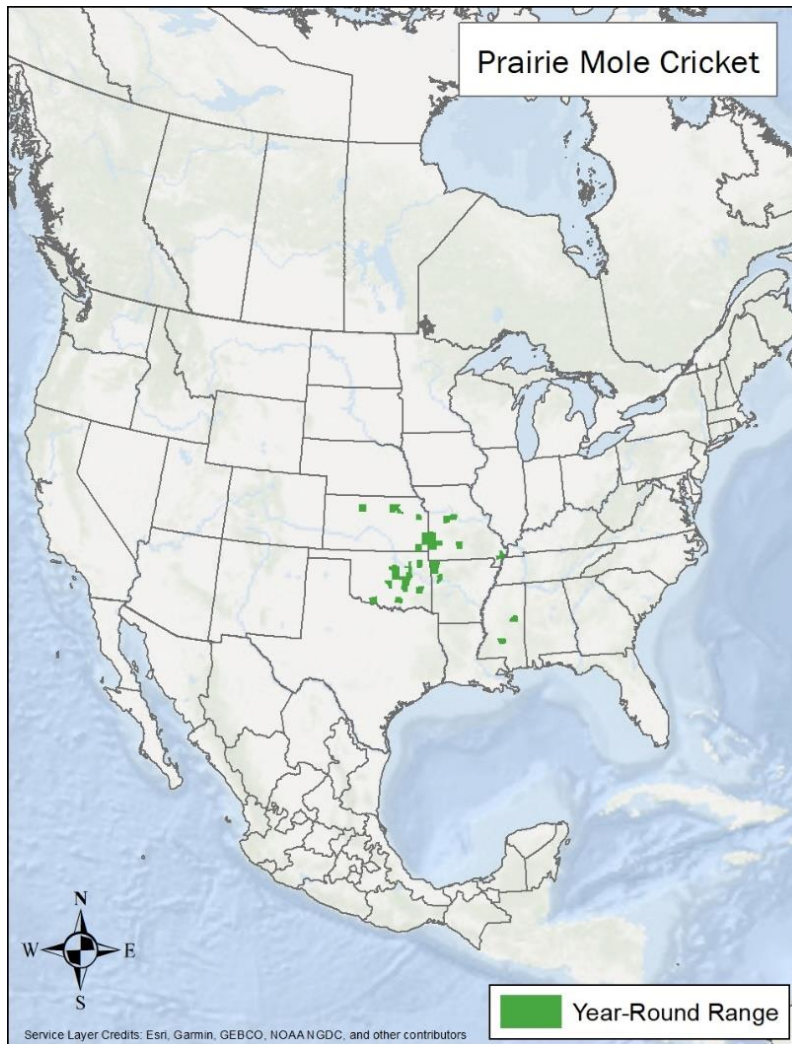
The prairie mole cricket is found in Kansas, Missouri, Oklahoma and Arkansas. They spend most of their lives underground and are only identified during the brief spring mating season, March to May.

Interesting Fact

Male prairie mole crickets form aggregations or leks which are easy to locate from the loud call of the males. During the spring mating season, males call to flying females attracting them for mating from specialized acoustic burrows that are shaped like a bicycle horn and greatly amplify the sound of their calls. After construction, the males perform test chirps then modify the shape of the acoustic chamber opening as needed. The male rubs its wings together after positioning itself with its head toward the back of the chamber, starting around sunset and ending at darkness. Calls have been heard more than $\frac{1}{4}$ mi/402 m away by humans. To listen to the prairie mole cricket song and see a video, see [here](#).

Ideal Habitat

Prairie mole crickets live in high quality, mostly unmodified tallgrass and mixed-grass prairie. They prefer prairie that has recently been burned. Some common plant species within occupied prairie mole cricket habitat include big bluestem, and Indian grass. Soil moisture ranges from mesic to dry-mesic and has high silt content (usually silt, silt loam, or silty clay loam), adequate for acoustic burrow construction. Males construct burrows at the soil surface when the soil is moist. Very little is known about the prairie mole cricket. More males have been found in areas lightly grazed than those heavily grazed, suggesting that grazing may lead to compaction and inhibit the construction of acoustic burrows.



Range map from Orthopterists Society, *Singing Insects of North America* and University of Florida. Note: Map includes the historic range.

Management Activities that Benefit Species – Best Management Practices (BMPs)

Maintain intact tallgrass prairie and manage for moderate grazing pressure. Participate in the [Lost Cricket Project](#) and find new populations of the prairie mole cricket during March - May. Your information will help create a distribution map of prairie mole crickets in Oklahoma. Maintain high quality tallgrass prairie, by burning every 2-7 years.

Management Activities to Avoid

Avoid conversion of unmodified prairie to pasture, cropland, and developed areas.

Other Species that Benefit from Similar Habitat Management

Management for prairie mole crickets benefits other tallgrass species, including Mead's milkweed and Great Plains prairie fringed orchid.

Other Resources

NatureServe. 2021. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. [Prairie mole cricket](#)

Oklahoma Department of Wildlife Conservation. [Lost Cricket Project.](#)

Orthopterists Society. *Singing Insects of North America* [Prairie mole cricket](#)

The Nature Conservancy. 2019. Stories from Oklahoma. [Prairie mole crickets: Nature's master noise cancelers](#)