

# Prairie Mole Cricket Ecology

**The Lost Cricket Project is recruiting citizen scientists in Oklahoma to help find new populations of the rare prairie mole cricket during the months of March through May.**

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The prairie mole cricket is found in tallgrass and mixed prairie habitat. The tallgrass prairie and mixed grass ecosystems historically expanded across 12 states. Currently tallgrass prairie is considered an endangered ecosystem since it has experienced an 85 – 98 percent reduction in area over the past few hundred years. This decline can be attributed to conversion of prairie to pastures, agriculture land, and developed areas. Tallgrass prairie depends on both fire and large grazers like bison to help shape the biodiversity of plants and animals that are found there.



Ryan West Photography

Very little is known about the ecology of the prairie mole cricket, but they likely contribute to prairie ecosystem health by aerating soils and increasing plant diversity. The prairie mole cricket has modified forelimbs that allow the cricket to effortlessly tunnel through the soil. Males construct underground chambers that have a shape similar to a bicycle horn.

The male crickets perform test chirps during the day, much like a musician performing a mic test before a concert. They then modify the shape of the acoustic chamber opening to maximize sound efficiency. They prefer areas that have been recently burned, contain high silt content, and require that soils be adequately moist to allow them to construct and design the perfect burrow. The cricket positions its rear towards the burrow chamber opening and rubs its wings together to produce sound. This mating call is used to attract flying females and can only be heard during the months of March to May.

As a participant of the Lost Cricket Project, you can contribute to science by helping detect new populations of this mysterious Oklahoma native insect by listening for their calls. This approach is called acoustic biomonitoring. In the next video you will learn more how to identify the prairie mole cricket call.

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