



A-Federal State-Country Partnership

The Jerusalem Cricket

Stenopelmatus fuscus (Haldeman)

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**Nevada Department of Agriculture
Cooperating**

Of the creatures brought into the Cooperative Extension and Nevada Department of Agriculture offices for identification, few cause more curiosity than the Jerusalem Cricket. People are frightened at first when they run across this bizarre-looking creature. They wonder if it is real, and then if it is a quirk of nature. They always ask if it is poisonous and whether or not it will bite. Finally, after learning about it, they are awe inspired and happy they ran into such a unique animal. Some want to make it a pet and ask, “What does it eat?” “What can I feed it?”

By the way, it is not poisonous nor does it bite, unless pestered and provoked. Its large, powerful jaws could pinch a finger, but most often it will just turn and try to run away and hide.

The Jerusalem Cricket is an insect of the *Stenopelmatidae* family. Its scientific name is *Stenopelmatus fuscus*. The native Americans called this cricket Woh-tzi-Neh or “Old Bald-Headed Man.” In Spanish, it is called “Nina de la Tierra” or “Child of the Earth.” Southwestern Indians once feared it, and called it “child of the desert.” It is also



called “Potato Bug” because it has been found in potato fields feeding on the roots and tubers of the crop. This is confusing as often the Potato Beetle that only feeds on above ground parts of plants is also referred to as the Potato Bug.

Although unusual, the Jerusalem Cricket is neither unique nor rare as it was once thought to be. In fact, there may be several species in the genus and research is presently being conducted to identify how many different variations exist and where each lives. These insects are commonly found west of the Rocky Mountains with most occurring along the Pacific Coast from British Columbia to Mexico. They are found throughout Nevada, although not in great numbers in any one place.

Its size, which may reach 2 inches in length, and unusual features, especially the disproportionally large, bald, shiny, “humanoid” head, make this a fearsome looking insect. The head, thorax and legs are usually amber-yellow. Occasionally the head may be rust to brown colored. Two dark, beady eyes are widely set just below long, slender antennae. Large, heavy mandibles or mouthparts effectively chew roots, tubers, vegetables, fruits, any kind of meat and other insects. The shining abdomen is ringed tan to amber-brown against a brown to black background. Its stout spiny legs are well adapted for digging in the soil, but not jumping like other cricket relatives. The female

has a smaller head and thorax, but a larger abdomen than the larger more massive male. Nonetheless, the female may eat the male after they have mated.

These crickets live most of their lives in the ground. When they move about on the ground it is usually at night or in the early morning and evening. Only rarely do they travel about during the day. Consequently, people usually only see them when they plow or till the soil and at dusk. They may be found under rocks in open grassy pastures during the winter, fall and spring. They become inactive during the fall and hide for protection. They can also be found and dug out of manure heaps and damp places.

Interestingly, they are often found along the edges of roadways, particularly sitting on or moving along a guardrail, post, curb or other structure. They appear to be sunning themselves, but most likely they accumulate at the roadside because they move out of the desert at night, run into the pavement and resist crossing the road. Jerusalem crickets burrow in soil using their large hard head and closed mandibles as a hoe to move dirt back and underneath them. They dig in moist, light soils, although they are also found in deep cracks in adobe soils. Females make their nest six to ten inches beneath rocks and boards. The chamber is at the end of the burrow and nearly at a right angle to it. The nesting chamber is lined with a paperlike material in which the whitish, oval, eighth-inch diameter eggs are laid.

Because it is nocturnal and comes out of the ground at night to roam around, owls, including the endangered spotted owl, feed on it. Probably other nighttime predators such as coyotes, foxes, and badgers eat it as well.

When kept in captivity, a Jerusalem cricket should live in an environment similar to its native habitat. A terrarium with several inches of a light, loamy or sandy soil in the bottom is recommended. It needs this for burrowing and if, per chance the cricket is female and pregnant, a place to make an egg-laying chamber. Place several large rocks or a board along with several clumps of grass in the terrarium. This provides hiding places for the cricket. And of course, sufficient water and food must be provided. The Jerusalem cricket will eat a variety of foods. Bread, grass roots, vegetables including slices of potato, and a variety of fruits may be consumed. They relish meat and small insects.

As with many spiders and insects, particularly those with an unusual or fearsome appearance, people, often in fear, want to kill them immediately. Resist the temptation in this case. They are not harmful to humans.

Only rarely have there been enough Jerusalem Crickets in one location to cause economic crop losses. On occasion, they have been a pest in commercial potato fields. They are not a problem in home gardens in Nevada and in fact, they may help reduce the numbers of other soil-borne pests. Not enough is known about them and their activity to declare them a pest or a beneficial insect.

When they are present it may be best to leave them alone. If plant damage by them is evident or suspected, physically remove and dispose of them. As described earlier, they make a good pet for a terrarium or they may be released elsewhere. Control may include baiting and trapping and as a last resort, the use of an insecticide. When the infestation is large and much damage is occurring in the garden or landscape contact the Cooperative Extension or Nevada Department of Agriculture office nearest you for control recommendations.

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