

# JERUSALEM! CRICKET? (Orthoptera: Stenopelmatidae: *Stenopelmatus*); Origins of a Common Name

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Visit almost any natural history museum in the western United States and ask the resident entomologist which insect they are most frequently requested to identify, and the answer is invariably the same: members of the orthopteran genus *Stenopelmatus* (Hogue 1993). An advanced search on Google.com for one of their more common names, “Jerusalem cricket (JC),” elicits over 700 matches. One of these (<http://homepage.mac.com/bugbob/askdrbug>), a site hosted by entomologist Robert Allen, receives as many as 10 inquiries per day specifically about JCs. Another less scholarly offering, [Potatobugs.com](http://Potatobugs.com), has apparently been created with the sole purpose of trashing “demonic” JCs, claiming that they represent the “spawn of Satan.” These insects certainly have captured the public’s interest.

Members of the genus *Stenopelmatus* are known by the common names of potato bugs, stone crickets, sand crickets (Riley 1888), skull insects, and, most frequently, Jerusalem crickets<sup>1</sup>. The first three monikers are most easily explained. Potato bugs: Stenopelmatids can be found in fields where crops are grown and, as omnivores, can occasionally cause damage to potatoes and other root vegetables (Rathvon 1877, Baker 1971). Stone crickets: Stenopelmatids are frequently found hiding under stones, rocks, logs, and other debris, especially during wet, cool periods of late fall, winter, and early spring. Sand crickets: Stenopelmatids inhabit many sandy

habitats and sand dunes in the western United States, with several species being obligate members of dune communities (Weissman, in preparation). The origin of skull insects (see Vickery and Kevan 1983: 315), the 4th common name, is open to speculation and is discussed in an accompanying paper (Stofolano and Wright, “*Sósööpa*—Jerusalem Cricket: An Important Insect in the Hopi *Kachina* Pantheon,” p. 174).

How stenopelmatids became known as Jerusalem crickets is far less obvious, because their distribution is limited to North and Central America (Fig. 1), half a world away from their namesake city in Israel. This question has intrigued me since I started my revisionary work (Weissman 2001 a, b) on this group some 25 years ago.

Unfortunately, my exhaustive review of the literature at that time provided no convincing explanations for the origin of this common name. The first species of *Stenopelmatus* was described from Mexico as *S. talpa* Burmeister (1838), and the first U.S. species as *S. fuscus* Haldeman (1852). A Jerusalem cricket, misidentified as a California mole cricket, *Gryllotalpa*, was first illustrated in the nonscientific press by Rathvon (1877) and reported to eat potatoes. Cockerell (1895) illustrated a *Stenopelmatus* from New Mexico and called it “child of the earth,” and Scudder (1899) discussed the Pacific



**Fig. 1.** Distribution (from Weissman 2001a) of the Jerusalem crickets (*Stenopelmatidae*), a family presently comprising four genera (*Stenopelmatus*, *Ammopelmatus*, *Viscainopelmatus*, and *Stenopelmatopterus*.)

Coast stenopelmatids but used no common names. Kellogg<sup>2</sup> (1905), without citing any previous references, was the first scientist to use the name Jerusalem cricket in the scientific literature, followed closely by Essig (1913). Hebard (1916), who carried out the only revisionary study of the genus, used no

<sup>1</sup>Here I use “Jerusalem cricket” to refer generically to any species of *Stenopelmatus*. The ESA Web site ([www.entsoc.org/common/search.asp](http://www.entsoc.org/common/search.asp)) directs the reader to *S. fuscus* Haldeman upon entering the common name “Jerusalem cricket.” Unfortunately, this scientific name has been applied erroneously to most of the 70+ JC species (most undescribed) from the western United States. As I show elsewhere, *S. fuscus* has a geographically limited distribution (in preparation).

<sup>2</sup>I examined the Vernon L. Kellogg special collection (SC515) archival files at Stanford University for clues. These files consist of two notebooks (and a few miscellaneous letters) describing “lots” of arthropods given to Stanford University. According to the “Note of information” in Book 1, the Department of Entomology at Stanford was organized in 1891–1892 with John H. Comstock as professor. Kellogg arrived at Stanford in July 1894 and had charge of collections. Hand-written lot 2 entry on page 1 lists specimens collected September 1892 from Ft. Grant, AZ, and notes “1 Jerusalem cricket (*Stenopelmatus talpa*).” I assume this entry was written by Kellogg sometime in 1894 after his arrival, as lot numbers are sequential and interspersed with chronological field notes. Kellogg (Anon. 1939) was born in Emporia, KS, in 1867, received his A.B. and M.S. degrees from University of Kansas, where he subsequently was an assistant professor from 1890 to 1894. He did graduate work at Cornell University, 1891–1892 and visited the University of Leipzig, 1893–1894. Kellogg’s 1892 book on Common Injurious Insects of Kansas does not list any *Stenopelmatus*, although they do occur in the south-central part of that state. It thus appears that Kellogg may not have had any direct exposure to Jerusalem crickets until coming west to Stanford in 1894.



**Fig. 2.** Side-by-side comparison of a Jerusalem cricket with a Jerusalem cross. For clarity, I have chosen an undescribed California species from the San Francisco Bay Area that has well-developed “long spines above the [rear leg] tarsi.”

common names. Baker (1971) conjectured as follows: “When the [Jerusalem] cricket is in normal resting position, with all six legs spread, it resembles a Jerusalem Cross, an angled cross with short bars across the ends, these short bars represented in the cricket by the long spines above the tarsi.” A side by side comparison (Fig. 2) of these two objects leaves me unimpressed with Baker’s theory.

When the literature revealed no strong leads, I wrote to three (all now deceased) long-time orthopterists to solicit their views: Keith Kevan, Jacques Helfer, and Theodore Hubbell. I’ve excerpted the responses of Kevan and Helfer here (Hubbell did not offer his opinion). Kevan wrote (personal communication, 1983): “I have always assumed that [the Jerusalem cricket] got its name by association with its root-feeding habits, attacking, among other things, ‘Jerusalem artichokes,’ which are indigenous to North America....In the same way, they used to be called ‘potato bugs’ by California growers. ‘Jerusalem’ of course, has nothing to do with the holy city, but is a corruption of ‘girasole’ (Italian for ‘turning to the sun’), [a characteristic displayed by Jerusalem artichokes].” Unfortunately, the relevance of this conjecture is unclear as JCs do not naturally occur within the distribution range of Jerusalem artichokes.

Helfer wrote (personal communication, 1983):

Years ago I asked some [all now deceased] old-timers [E. C.] van Dyke, [L. M.?] Smith, [E. O.] Essig) about the “popular” name “Jerusalem cricket” and received no satisfactory answer. Of course it’s a folk name, and there are others: Jerusalem artichoke, Jerusalem corn, Jerusalem oak,...[a total of 14 combinations listed in Webster’s Unabridged Dictionary (Gove 1968)]. It’s a folk name that originated (doubtless) in the region where our stenopelmatines occur, i.e. Mexico and Spanish United States. The Spanish folk name was (is?) *niña de la tierra*,

which translates as “child of the earth” or “child of the desert.” Jerusalem, historically the chief city of Palestine, is intimately tied in with the life and death of the desert mystic, Jesus Christ. J.C. was a “child of the desert,” in a manner of speaking. The face of the Jerusalem cricket, with its widely spaced eyes has more of a “human” look than most other insects....Exactly what degree of symbolism one attaches to such things as the resemblance of a cricket’s face to a human face, and to what degree

allusions to J.C. enter into the equation varies from person to person. Whether Father Junipero Serra ever picked up one of these creatures and explained the symbolism, in a way that would be understood by the simple Indians or whomever he was with, is not recorded....We who try to think scientifically may amuse ourselves, as I did, in response to your question, but it’s just speculation....Guesswork.

A recent, novel, and much more plausible explanation for the name comes from Richard L. Doutt (personal communication, 2002), who believes that entomologists have wrongly searched their literature “...when the answer to the puzzle was in the jargon of young boys of the 19th century. The epithet ‘Jerusalem’ was commonly used as a swear word by any young lad who was suddenly startled or surprised by a natural phenomenon.”

The *American Thesaurus of Slang* (Berrey and van den Bark 1953, p. 213) lists “Jerusalem!” and “crickets!” as expletives. The *Oxford English Dictionary* (Simpson and Weiner 1991) reports that “Jerusalem!” is used as an exclamation, usually of surprise. Doutt envisions a rural boy in the western United States turning “over a rock and in surprise, shouting ‘Jerusalem! What a cricket.’” Sounds good to me.

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