FIELD CONFIRMATION OF THE PHONOTAXIS OF
EUPHASIOPTERYX DEPLETA (DIPTERA: TACHINIDAE)
TO CALLING MALES OF SCAPTERISCUS VICINUS
(ORTHOPTERA: GRYLLOTALPIDAE)

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Euphasiopteryx depleta (Wied.) was reared from an unidentified species of Scapteriscus (Orthoptera: Gryllotalpidae) by Wolcott (1940). In Brazil and Paraguay, E. depleta has been attracted to sound traps (Walker 1982) broadcasting the synthesized songs of S. vicinus Scudder, S. acetetus Rehn & Hebard, and S. imitatus Nickle & Castner (Fowler & Garcia 1986, Fowler & Kochalka 1985). As species of Scapteriscus are exotic pests in the U.S., accidentally introduced from southern South America (Nickle & Castner 1984), the attraction of the Neotropical E. depleta to synthesized broadcast calls of Scapteriscus makes it a candidate for introduction in a biological control program for species of Scapteriscus.

Although we have reared E. depleta from field-collected S. vicinus Scudder in the state of São Paulo, Brazil (Fowler & Garcia 1986), and Wolcott (1940) reared it from field-collected Scapteriscus sp. in the state of Pará, Brazil, its low incidence adds some doubt as to its potential as a biological control agent. However, E. depleta can be attracted in large numbers to broadcast synthesized songs of Scapteriscus spp. (Fowler & Garcia 1986), which suggests this phonotactically orienting parasitoid could respond numerically to mole cricket density. Although mole crickets of the genus Scapteriscus are univoltine in the state of São Paulo, with male S. vicinus calling from September through January, E. depleta can be attracted to sound traps practically all year. This suggests that species of Scapteriscus are not the only orthopteran hosts of E. depleta, or that E. depleta is not a normal parasitoid of species of Scapteriscus and that the attraction of large numbers of female E. depleta to sound traps might be a physiological quirk. This would also explain its low incidence (<1%) in field-collected mole crickets.

To test if E. depleta females are attracted to calling S. vicinus males under normal field conditions and not to the super-stimulus of a sound trap, I marked calling S. vicinus chambers during September 1986, in Rio Claro, São Paulo, Brazil. Because calling chambers of individual S. vicinus males are used for many days (Fowler 1986),...
it was possible to place a doughnut-shaped piece of plastic sheeting around the calling chamber opening before males began to call at dusk each day. Tanglefoot® was applied to the plastic sheeting, and the sheeting was collected each evening after the males had stopped their daily calling. This procedure was followed for 29 calling chambers over a 3-week period. I expected flies orienting to larvivore at the chambers of calling *S. vicinus* males to be trapped in the Tanglefoot.

Over the 16 days of monitoring (464 calling chamber days), 13 female *E. depleta* were captured on the sticky traps. These results demonstrate that *E. depleta* is normally attracted to *S. vicinus* calls, and is therefore a probable parasitoid of this cricket. Although the total number of flies trapped during this study (13) was much less than that trapped at a sound trap on a normal night, the results suggest that *E. depleta* can find reproductively active males of *S. vicinus*.

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**References Cited**


