

NEW RECORD OF *EUPHASIOPTERYX DEPLETA*
(DIPTERA: TACHINIDAE) FROM PARAGUAY:
ATTRACTION TO BROADCAST CALLS OF
SCAPTERISCUS ACLETUS
(ORTHOPTERA: GRYLLOTALPIDAE)

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Three species of mole crickets, *Scapteriscus vicinus* Scudder, *S. acletus* Rehn and Hebard, and *S. abbreviatus* Scudder, are known to have been accidentally introduced into the southern United States, and now are of major economic importance (Walker and Nickle 1981). These species were all probably introduced from southern South America. Because of the classic population explosion following their introduction without their complex of natural enemies, the potential for the biological control of these insects seems promising. Unfortunately, little information on their natural biological control in their native ranges is available (Costa Lima 1968).

Mangold (1978) reported that a tachinid fly *Euphasiopteryx ochracea* (Bigot) was attracted to the calling songs of the southern mole cricket, *S. acletus*. *E. ochracea* is also known to be attracted to the calling songs of *Gryllus integer* Scudder (Cade 1976). In both cases, females oriented to broadcast calls and larviposited upon the speakers. Mangold (1976) obtained development of *E. ochracea* larvae on *S. acletus*, and Wolcott (1940) reared *E. depleta* (Wied) from *Scapteriscus* spp. in Belem, Pará, Brazil.

On December 4-6, 1982, at San Lorenzo, Paraguay, we collected 12 females of *E. depleta* at a sound-synthesizing unit, simulating a calling *S. acletus* male (Walker 1982). All females were collected 1-2 hrs after dusk, and all females were observed larvipositing on the sound-synthesizing unit. The synthesized *S. acletus* call is thus sufficient to attract gravid females, as well as to trigger larviposition behavior in *E. depleta*.

Our capture of *E. depleta* extends its known geographic range. *E. depleta* has been recorded from Honduras, Perú, and Brazil (São Paulo, Rio de Janeiro and Guanabara) (Sabrosky 1953; Tavares 1965). *Euphasiopteryx ochracea* is the only species of the genus that has been previously recorded from Paraguay, and as yet no species of *Euphasiopteryx* has been recorded from either Uruguay or Argentina. These three countries are considered the likely source of mole cricket species introduced into the southeastern United States (Walker and Nickle 1981).

We thank Dr. C. W. Sabrosky for his identification of *E. depleta*.

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THE EARLIEST KNOWN DATE OF COLLECTION OF *MYNDUS CRUDUS* (HOMOPTERA: CIXIIDAE) FROM COCONUT PALMS IN JAMAICA

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Recent studies provide evidence that a cixiid planthopper *Myndus crudus* Van Duzee is a vector of lethal yellowing disease (LY) of palms (Howard et al. 1983). Johnson and Eden-Green (1978) stated that this insect had not been identified in collections from coconut palms until 1969, in spite of intense research by entomologists in Jamaica during the 1960's. Actually, the apparent association between this insect and coconut palms was known as early as 1958 when Dr. José Ramos of the University of Puerto Rico identified specimens collected from coconut in Jamaica as *Haplaxius cocois* (Fennah), subsequently synonymized with *M. crudus* (Kramer 1979).

The late Dr. Arthur Reid, Entomologist at the Jamaican Ministry of Agriculture, began a survey of insects of coconut palms about 1957 in an effort to find possible vectors of LY which at the time was thought to be caused by a virus. One of his methods was to place "sticky board" traps among foliage of coconut palms. The insects so collected were washed off the boards with xylene and brought to me at the Institute of Jamaica for sorting. In these collections were several specimens of *M. crudus*. Since some fulgorids are known to be vectors of plant viruses, we suspected these cixiids as possible LY vectors. Our collections were examined by various LY researchers in the 1960's but during that period a number of species other than *M. crudus* were under scrutiny.

In the 1970's, several discoveries concerning LY (Reviewed by Howard et al. 1983) focused attention on *M. crudus* as the prime suspect vector.

Some of the specimens of *M. crudus* sent to Dr. Ramos were collected at Round Hill, Hanover Parish (western Jamaica) on 18.IV. 1958. Five of