

## 6 . SUMMARY

Certain aspects of the morphology and ecology of the most common species of *Gryllotalpa* in Egypt were studied in the present investigation and the results showed the following :

- 1- Different species of mole-cricket could be easily identified by means of the fore-wings. These differ in measurements and in the position and number of teeth of the sound production organ on Cu<sub>2</sub> vein. The fore wings were also proven to be the simplest means for sorting out the sexes within each mole-cricket species and sub-species.
- 2- *Gryllotalpa gryllotalpa* (L.) adults were attracted to light traps in large numbers during the period extending from March to September or October. The highest monthly catches occurred during August and September at all five regions of this study (Giza, Sharkia, Gharbia, Dakahlia and Beheira) where trapping was conducted for 3 years, (1985, 86 and 87).

The insects activity was affected in varying degrees by the prevailing environmental factors of the day maximum, night minimum temperature, soil temperature (at 10 and 20 cm deep), the day mean relative humidity and rainfall. Analysis of variance has shown that 85.4 % - 97.2 % of the variability in trap catches, hence the activity of mole crickets, could be accounted for by the tested factors.

- 3- The "new" type of pitfall-traps (devolped in this investigation) was superior to the Willcocks type ( used by Willcocks, 1925) in sampling mole-cricketts.
- 4- Pitfall traps caught more mole-cricket individuals and species than light traps. Species of mole-cricketts sampled at Giza for a whole year (1987) using pitfall traps were *G. gryllotalpa*, *G. gryllotalpa ssp. cophta*, *G. africana* and *G. Africana ssp. cophta*.
- 5- Winter crops are less infested by mole-cricketts than autumn, spring and summer crops. The level of infestation within a certain crop differs according to the kind of crop growing before it in the rotation system.