

IDENTIFICATION OF PEST SNAILS AND SLUGS OF VEGETABLE CROPS IN FOUR DISTRICTS OF SRI LANKA.

N.P.S. KUMBUREGAMA AND K.B. RANAWANA

Department of Zoology, Faculty of Science, University of Peradeniya

A preliminary survey was carried out in Nuwara Eliya, Kandy, Badulla and Matale districts in order to identify the different species of pest snails and slugs of vegetable crops.

Vegetable growing areas in the four districts were visited and farmers on site were asked about the occurrence of these pest snails and slugs and the damage they cause to vegetable crops. Thereafter fields were searched for these pest snails and slugs and live specimens were collected and brought into the laboratory. In the laboratory these live specimens were narcotized (by immersing in deoxygenated water containing trace amount of sodium pentobarbitone) and preserved in 80% alcohol for identification and as reference material.

In the identification of snails, shell features such as the shape, colour, different patterns and streaks (shell sculpture), shell height and width were taken into account. As slugs do not possess a characteristic external shell, features such as the presence or absence of a keel and its relative length, the position of the mantle and the pneumostome were used in their identification. Such external features were used as much as possible for the correct identification of slugs in the field. But external features alone proved insufficient in the identification of some of the species. In such instances identifications were made using the anatomy of the reproductive structures of the preserved and dissected specimens. Several specimens of snails and slugs were also sent to the of the Natural History Museum, London for conformation of identification.

During the survey four species of snails and five species of slugs belonging to two superorders, five families and six genera were identified. The four species of snails are *Achatina fulica*, *Bradybaena similaris*, *Allopeas clavulinum* and *Allopeas gracile* while the slugs are *Laevicaulis alte*, *Mariaella dussumieri*, *Deroceras reticulatum*, *Deroceras caruane* and *Deroceras laeve*. Of the snails *Allopeas clavulinum* and the slug *Deroceras laeve* are new records to Sri Lanka.

Prior to the present survey, the paucity of reference material and information was an impediment to the correct identification of the pest snails and slugs of vegetable crops. Hence it was necessary to send specimens to experts for correct identification and confirmation. Since this survey we have been able to establish a correct identification procedure for these pest species found in Sri Lanka.

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