ZSA-18

SS 73 (1999)

Distribution and abundance of Coffee bean weevil, Araecerus fasciculatus (Degeer) (Coleoptera: Anthribidae), on Parkinsonia aculeata and Prosopis julíflora Woody weeds in Hambantota district.

W.A. Jeewa Priyakanthi De Silva

Supervisor - Dr. C.N.L. Bogahawatta, Dept. of Zoology, Univ. of Ruhuna

Parkinsonia aculeata and *Prosopis juliflora* are two major woody weeds widely distributed in Hambantota district. Control of these two woody weeds was one of the major issues of concern in agriculture in Hambantota district. The pods of these two weed hosts were found to the attacked by a pod boring insect pest. The purpose of the present research was to identify the pod boring insect pest, study its biology, taxonomy, distribution and abundance on two woody weeds, *P. aculeata* and *P. juliflora*.

Eight experimental sites were selected and hundred pods were collected from each woody plant. In each sample, pods were categorized into several groups and daily emergence of insects was recorded. Taking into consideration of the experimental design the data collected were analyzed using t-test.

Araecerus fasciculatus was found in all sixteen experimental sites but no significant variations were recorded. Significant variation between seasons was recorded in *P. aculeata* woody weeds but not on *P. juliflora* woody weed. Abundance of pod boring insects has shown a close relationship with the monthly rainfall in the Hambantota district. However there were instances, where this relationship was not prevailing. Also pest abundance change according to the type of weeds.

Both woody weeds are considered as reservoir hosts of *A. fasciculatus*. It becomes a major problem for Agriculture in the Hambantota district. However the increased infestation levels of *A. fasciculatus* on two woody weeds is encouraging for further developments in weed control programs as this borer reduces the production of viable seeds. Encouragements of the production of the borer can be used in combination with other control measures such as weedicides etc..