

Manuscript Number: 2282 NAAS Rating: 4.47

## Extent of Natural Parasitisation of Cocoons of Cotesia marginiventris (CRESSON), A Larval Parasitoid on Helicoverpa armigera (Hübner)

## G. Anitha and J. Vijay

All India Coordinated Research Project on Biological Control, ARI, Rajendranagar, Hyderabad-500 030, India Email: anitha.gorthi@yahoo.com

Abstract: Pod borer, Helicoverpa armigera is a major pest on pigeonpea in Telangana State and Cotesia marginiventris (Cresson), a braconid is its key natural enemy. However, the efficacy of C.marginiventris as a natural enemy can be disrupted by hyperparasitsm. Weekly observations on population of the pest and the parasitoid were recorded from their first appearance in the second fortnight October to early December. Cocoons of C.marginiventris were collected in late October each year coinciding with peak population of the pest (H.armigera) and maximum parasitisation by the braconid wasp. Results revealed that C.marginiventris, a dominant primary parasitoid on H.armigera caused 30.33% mortality of the pest. But its cocoons were hyperparasitised by three Hymenopterans viz., Eurytoma braconidis, Mesochorus sp. and Tetrastichus cotesiae to an extent 12.07%. Among these, the most dominating genus, Mesochorus caused 33.33-100% parasitisation followed by T.cotesiae (50.00%) and E.braconidis (0-33.33%) of the cocoons. This is a first report of the hyperparasitoids of C.marginiventris on H.armigera in pigeonpea ecosystem in Rajendranagar, Hyderabad.

Key Words: Cotesia, Hyperparasitoids, Pigeonpea