

Indian red bug Probergrothius sanguinolens - a scavenger

K. Selvam *, T. Nalini¹, N. Shiva² and P. Manikandan³

¹Department of Agricultural Entomology SRS Institute of Agriculture and Technology (SRSIAT), Vedasandur, Dindigul, Tamil Nadu, India

²Department of Entomology Faculty of Agriculture, Annamalai University, Chidambaram, Tamil Nadu, India

³Department of Plant Pathology SRS Institute of Agriculture and Technology (SRSIAT), Vedasandur, Dindigul, Tamil Nadu, India

*Email: <u>selvamentomology@gmail.com</u>

Received: July 11, 2022; Revised: July 17, 2022 Accepted: July 19, 2022

When it comes to heteropterans, the Red Bug has been identified and described as a seed feeder in literature. *Probergrothius* and *Dysdercus* have both clearly seen the establishment of a stylet sheath when feeding on mature (fresh) and ripe (dry) seeds and seed pods, but not on unripe seeds. No such thing was seen while *Probergrothius* (Necrophagus) and *Angtilochus* were feeding on animal food (predacious).

According to Vas Doesburg (1968), *Probergrothius* and *Dysdercus* are primarily seed feeders, as are other pyrrhocorids. Typically, seeds are abundant in soluble nitrogen compounds, lipids, and



oils, which are always desirable and essential for adequate nutrition and egg production (Ahmed and Schaffer, 1987). *Probergrothius* use both pytophagic and necrophagic feeding strategies.

It was found that it is also capable of feeding on carcasses. An intriguing phenomenon in *Probergrothius* is the consumption of decaying organisms as an additional food source in addition to cannibalising the moulted young ones. It was observed that pyrrhocorids consumed carrion and corpses by Myres (1927), Ballard and Evans (1928), Youdeowei (1969), Stahle (1981), and Adis and Froeschner (1982).

The seed pods of sterculia tree, which is near our experimental plot (11° 23' 16.53081", 79° 43' 27.63969" and Department of Entomology, Annamalai University, Chidambaram, Tamil Nadu) was a major source of food for red bugs. **Day 1** The food preference study was the primary objective of our work with the predator *Oecophylla smaragdina* (Weaver Ant) in the research plot.

Seven different foods were used in the treatment, with fresh chicken leg one of it. When the chicken leg dried up and decayed after two days, there was a colony of red bugs over it. By the end of the fifth day, the bugs had departed from the chicken after it had completely rotted. Olfactory stimuli were crucial in this movement. When seeds were scarce, *Probergrothius* preferred to consume carrion, carcasses, and other plant parts. As a result, chemical and visual markers are used to determine food cues (Rajadurai, 1992).

Further research is needed on the physiology of the insect involved in food preferences and chemical cues that identify food sources.





<image>

Weaver ants thrive on fresh chicken skin with bone



e-Magazine for Agriculture and Allied Sciences http://www.rdagriculture.in e-ISSN: 2583-0791



Day 3

Probergrothius sanguinolens insertion of stylets and clustered over dried chicken leg Acknowledgement

I want to thank Dr. H. Sankararaman, Assistant Professor, Vanavarayar Institute

References :

- 1. Adis, J.and Froeschner, R. C. Hemiptera and remarks on the biology of *Dysdercus urbahni* Schmidt (1982). *Proceedings of the Biological Society of Washington*, 95(2), 371-376.
- Ahmad, I. and C.W. Schaefer. Food plant and feeding biology of the Pyrrhocoroidea (Hemiptera) (1987), *Phytophaga*, 1:75-92.
- 3. Ballard, E. and Evans, M. G. *Dysdercus* sidae, Montr., in Queensland (1928). *Bulletin of Entomological Research*, 18(4): 405-432.
- Myers, J. G. Ethological observations on some Pyrrhocoridae of Cuba [Hemiptera-Heteroptera] (1927), *Annual Entomolological Society of America*, 20: 279–300.
- Rajadurai.S. Bioecological studies on Omnivorous Probergrothius sanguinolens amy And ser Phytophagous Dysdercus olivaceus

of Agriculture, TNAU for the identification help.

- Fabr and Predacious Antilochus coqueberti Fabr Pyrrhocoridae : Heteroptera: Insecta, Doctorate of philosophy thesis, Department of Zoology, University of Madras.
- Stahle, P. P. Food preference in the harlequin bug *Dindymus versicolor* (Herrich-Schaffer) (Hemiptera: Pyrrhocoridae), a minor pest of fruit in south eastern Australia (1981). *Australian Journal of Ecology*, 6(4): 375-382.
- van Doesburg, P. H. A Revision of the New World Species of Dysdercus Guérin Méneville:(Heteroptera, Pyrrhocoridae) (1968). Brill Archive, 97.
- 8. Youdeowei, A. The behaviour of a cotton stainer, *Dysdercus intermedius*, distant (Heteroptera: Pyrrhocoridae) towards models and its significance for aggregation (1969). *Animal Behaviour*, 17: 232-237.