Cardiastethus exiguus Poppius 1913 & Cardiastethus affinis Poppius, 1909

Cardiastethus exiguus Poppius (= C. pygmaeus pauliani) was initially reported from nests of Ploceus philippinus in south India. C. exiguus and Cardiastethus affinis were reported as potential predators of eggs and neonates of coconut black headed caterpillar Opisina arenosella Walker in Kerala and Karnataka. C. exiguus was also recorded as a potential mortality factor of cassava mealybug Phenacoccus manihoti Matile-Ferrero in People's Republic of Congo. C. exiguus has been successfully evaluated against coconut black headed caterpillar. Both C. exiguus and C. affinis are amenable to rearing.

National Accession No.

C. exiguus: NBAIR-MP-Ant-01 C. affinis: NBAIR-MP-Ant-13

Cardiastethus exiguus Cardiastethus affinis



1. Eggs, 2. Nymph, 3. Adult

Blaptostethus pallescens Poppius, 1909

Blaptostethus pallescens Poppius was originally described as Blaptostethus piceus Fieber var. pallescens Poppius from Celebes. It has been assessed as a potential predator of pests in the maize ecosystem and grain warehouses in Egypt. B. pallescens was recorded from Tamil Nadu, Maharashtra and Karnataka. Predation by B. pallescens was recorded as a potential mortality factor of cassava mealybug Phenacoccus manihoti Matile-Ferrero in Africa. B. pallescens was evaluated against spider mites and moth pests in storage in different parts of the country under the AICRP on Biocontrol and found to be highly potential. This anthocorid is amenable to rearing. National Accession No. NBAIR-MP-Ant-04



Xylocoris (*Arrostelus*) *flavipes* (Reuter, 1875)

The predaceous warehouse pirate bug *Xylocoris* flavipes (Reuter) is a promising agent for suppression of lepidopteran pests infesting stored products. Reports from other countries indicate that *X. flavipes* can be released for suppression of moth populations and red flour beetles in small storages of peanuts and saw-toothed grain beetle populations infesting stored corn. A protocol has been developed for continuous rearing of *X. flavipes*. Evaluation trials taken up in different parts of India have indicated that it is a potential bio-control agent for targeting both *Corcyra cephalonica* (rice moth) and *Sitotroga cerealella* (Angoumois grain moth).

National Accession No. NBAIR-MP-Ant-05



Eggs



Nymph

Adult

Orius (Dimorphella) tantillus Motschulsky, 1863

Amongst anthocorid bugs, Orius spp. have received considerable attention because they have a great preference for thrips. Anthocorid predators of the genus Orius are available commercially and released against various pests in European countries. O. tantillus has been identified as a potential predator of different species of thrips and other major pests like *Helicoverpa* spp. and leafhoppers in many Asian countries. In India, there are several reports indicating that natural populations of O. tantillus are capable of maintaining thrips populations at low levels on certain vegetable, fruit and ornamental crops. It would be useful to multiply and release O. tantillus against thrips infesting polyhouse crops. O. tantillus can be successfully reared in the laboratory.

National Accession No. NBAIR-MP-Ant-06



Montandoniola indica Yamada et al., 2011

Montandoniola indica (earlier reported as Montandoniola moraguesi) was first described on the basis of specimens collected in Kerala State, where it was an efficient predator of gall forming thrips Liothrips karnyi infesting black pepper leaves. In Karnataka, M. indica was recorded from Ficus retusa infested by Ficus thrips Gynaikothrips uzeli. M. indica can be successfully reared.

National Accession No. NBAIR-MP-Ant-07

Anthocoris muraleedharani Yamada et al., 2010

Anthocoris muraleedharani was first described from Karnataka State, where it was observed to predate on striped mealybug, Ferrisia virgata (Cockerell, 1893) (Coccomorpha: Pseudococcidae) attacking purple orchid tree, Bauhinia purpurea Linnaeus. A. muraleedharani can also predate on the cotton mealybug Phenacoccus solenopsis Tinsley, 1896. This anthocorid is amenable to rearing.

National Accession No. NBAIR-MP-Ant-09

M. indica



A. muraleedharani



Potential Indian Anthocorid Predators

at the ICAR-NBAIR Live Insect Repository





Chandish R. Ballal Yamada Kazutaka Abraham Verghese



ICAR- National Bureau of Agricultural Insect Resources Post Bag No. 2491, H.A. Farm Post, Bellary Road Bengaluru 560024

Tel: 080-23511982/998; Fax: 080-23411961 Website: www.nbair.res.in; Email: directornbaii@gmail.com