

# **Common Insect Predators and Parasitoids**

Egg parasitoids of lepidopterous pests

**Trichogrammatidae**

*Trichogramma chilonis*

*Trichogramma brassicae*

*Trichogramma japonicum*

*Trichogramma minutum*



**Scelionidae**

*Telenomus flavipes*

*Telenomus brevis*

*Telenomus sphingis*



Lepidopterous parasitoids

**Epipyropidae (Lepidoptera)**

*Epipyropes melanoleuca*

Larval/pupal parasitoids of Lepidopterous pests

**Braconidae**

*Apanteles flavipes*

*Apanteles glomeratus*

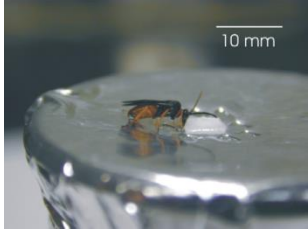
*Cotesia flavipes*

*Cotesia glomerata*

*Habrobracon hebetor*

*Apanteles plutellae*

*Microplitis croceipes*



**Ichneumonidae**

*Diadromus collaris*

*Megarhyssa* sp.



**Chalcidae**

*Brachymeria excarinata* (pupal parasitoid)



DBM pupa



- *Cirrospilus coachellae*
- (Eulophid wasps) larval parasitoid of citrus leafminers



## Braconid Wasps in Action

A braconid wasp *Aleiodes indiscretus* parasitizing gypsy moth larva



*Cotesia falvipes* on larva of *Diatraea saccharalis*



A braconid *Aphidius ervi* parasitizing aphid



*Apanteles glomeratus* larvae erupting from cabbage butterfly larva

For Pentatomid (*Nezara viridula*) bugs control

- Parasitic Tachinid flies (nymph/adult)
- Trissolcus wasps (egg parasitoid) e.g. *Trissolcus japonicus*

*Pediobius foveolatus* and *P. epilachnae* (Eulophidae)  
(larval and pupal parasitoid of Epilachnae beetles)



*Trissolcus japonicus* wasp  
Parasitizing eggs of brown stink bug





Aphelinidae in greenhouses of BG PJŠU: a) *Encarsia Formosa* , b) *Encarsia citrina* , c) *Eretmocerus eremicus* , d) *Coccophagus lycimnia* . Scale bar: 1 mm.



Representatives of Encyrtidae in greenhouses of BG PJŠU: a) *Anagyrus pseudococci* , b) *Coccidoxenoides perminutus* , c) *Encyrtis aurantii* , d) *Encyrtus infelix* , e) *Leptomastix dactylopii* , f) *Metaphycus helvolus*. Scale bar: 1 mm



*Aphidius colemani* (Braconidae)



Aphid hyperparasitoids (a, b, c, e) and parasitoids of aphidophagous Syrphidae (d, f) registered in greenhouses of BG PJŠU: a) *Alloxysta victrix* (Figitidae) b) *Phaenoglyphis villosa* (Figitidae), c) *Pachyneuron aphidis* (Pteromalidae), d) *Pachyneuron formosum* (Pteromalidae), e) *Asaphes vulgaris* (Pteromalidae), f) *Diplazon laetatorius* (Ichneumonidae) Scale bar: 1 mm



## General Predators of Insect Pests



Lacewing



Ladybird beetle



Spider



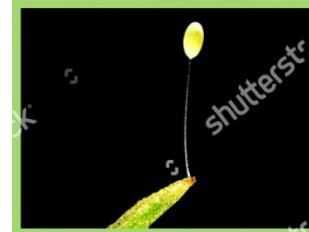
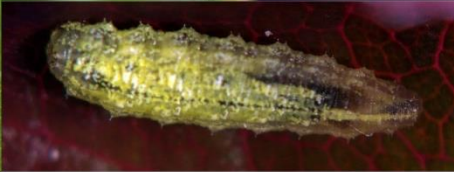
Dragonfly



Reduviid bug



Praying mantis





Selected predatory beetles (Coleoptera) in greenhouses of BG PJŠU: a) *Cryptolaemus montrouzieri* (imago), b) *C. montrouzieri* (larva), c) *Adalia bipunctata* (imago), d) *A. bipunctata* (larva), e) *Harmonia axyridis* (imago), f) *H. axyridis* (larva), g) *Clitostethus arcuatus* , h) *Holobus flavicornis* . Scale bar: 1 mm.



Selected dipteran predators in greenhouses of BG PJŠU: a) larvae of *Aphidoletes aphidimyza* , b) larva of *Feltiella acarisuga* c) *Episyrphus balteatus* (imago), d) *E. balteatus* (larva), e) *Scaeva pyrastris* , f) *Medetera* sp., g) *Medetera veles* , h) *Dolichopus signifer* . Scale bar: 1 mm.



Representatives of predatory flies from the family Muscidae, the subfamily Coenosiinae in greenhouses of BG PJŠU: a) *Coenosia atra* , b) *Coenosia attenuata* , c) *Coenosia humilis* , d) *Coenosia rufipalpis* , e) *Coenosia testacea* , f) *Coenosia tigrina* , g) *Coenosia* sp., h) *Lispocephala brachialis* . Scale bar: 1 mm.



Selected predatory bugs (Heteroptera) as natural enemies of pests in greenhouses of BG PJŠU: a) *Macrolophus caliginosus* , b) *Orius laevigatus* , c) *Myrmecoris gracilis* , d) *Dicyphus errans* . Scale bar: 1 mm.