

INVENTORY OF INSECT MUSEUM

Compiled by Dr. S. Manickavasagam & Sankararaman.H

AN INTRODUCTION

It is a unique collection of insects representing North to South and East to West of India. Even specimens from the biodiversity hotspots are represented. The collection includes all insect orders known from India including Diplura, Protura, Araneognatha, Plecoptera, Embioptera, Phasmatodea, Megaloptera, Strepsiptera, Mecoptera, Trichoptera, along with other orders of insects numbering around 50000. The immature stages of insects like eggs, larvae, pupae are also exhibited as dry or liquid collections. Some of the other unique collections are reference collections of Cerambycidae, Coccinellidae, Syrphidae, Vespidae, Mantidae, etc. that was identified up to species level by concerned experts. Lepidopteran collections are quite amazing representing state butterflies of India declared so far, rare collection of saturniids like *Actias maenas*, *Archaeoattacus edwardsii* and *Attacus taprobanis*. Many other uncommon giant silk moths which are cultivated for silk as domestic or in wild are also exhibited. Papilionids like *Troides minos* (Southern Birdwing - Largest butterfly in India), nymphalids like *Kallima inachus* (Orange oak leaf) and few hepialids which are quite uncommon are also preserved. A good collection of Sphingidae collected from various states of South India is also displayed. Hell grammites *Nevromus intimus*, *Neoneuromus sikkimensis* endemic to North India and *Nevromus austroindicus* which is endemic to South India are also represented. Many rare and uncommon families belonging to various orders such as; Curtonotidae, Sciomyzidae (Diptera); Callirhipidae, Ptilidae (Coleoptera); Coniopterygidae, Nemepteridae, Osmylidae (Neuroptera); Bittacidae and Panorpididae (Mecoptera); Corydalidae (Megaloptera); Halictophagidae (Strepsiptera) are represented in the collection.

Parasitoid Taxonomy Section

A unique repository of Insect parasitoids numbering around 2,00,000 is available. It includes almost all insect parasitoid families especially agriculturally important ones like Ichneumonidae, Braconidae, Dryinidae, Bethyridae, Encyrtidae, Mymaridae, Aphelinidae, Chalcididae, Trichogrammatidae, Eucharitidae, Eurytomidae, Eulophidae, Pteromalidae, Agaonidae, Platygasteridae, etc. Parasitic families like Encyrtidae, Mymaridae, Aphelinidae, Chalcididae are identified upto species level and it is being used as a reference collection by researchers from other institutes including ICAR institutes and SAUs. Identification services are also being undertaken for selected parasitoid families exclusively for researchers from SAUs and ICAR institutes. Digitized version of Indian Mymaridae, Chalcididae and Aphelinidae have been hosted in the ICAR, NBAIR website that can be respectively accessed using the link

www.nbair.res.in/IndianMymaridae/index.php

www.nbair.res.in/Chalcididae/index.php

www.nbair.res.in/Aphelinidae/index.php

List of specimens available at parasitoids taxonomy and biocontrol laboratory

Sl.no	Order	Family
1	Collembola	-
2	Protura (On slide)	
3	Diplura	Japygidae
		Campodidae
4	Archaeognatha	
5	Zygentoma	
6	Ephemeroptera (Both adults and naiads)	
7	Odonata	Sub order: Anisoptera (Both adults and naiads)
		Sub order: Zygoptera (Both adults and naiads)
8	Plecoptera (Both adults and naiads)	
9	Dermaptera	
10	Embioptera (Males & Females)	
11	Orthoptera (Further details in Annexure - 1)	Sub order: Caelifera
		Acrididae
		Chorotypidae
		Eumasticidae
		Tetrigidae
		Tettigoniidae
		Gryllotalpidae
		Gryllidae
Sub order: Ensifera		
Schizodactylidae		
Tridactylidae		
12	Phasmatodea	Leaf insects
		Stick insects
13	Mantodea	(Further details in Annexure - 2)
14	Blattodea (Roaches)	American cockroach
		Field cockroach
		Dominican cockroach
		Blattidae
		Polyphagidae
	Blattodea (Termites)	Termites
		Termitidae
15	Psocodes (Free living)	Henoponidae
	Psocodes (Parasitica)	Lingnathidae
		Pediculidae
16	Thysanoptera	Thripidae
17	Hemiptera	Water striders
		Giant water bugs
		Water scorpions
		Backswimmers
		Assassin bugs & ambush bugs
		Gerridae
		Belostomatidae
		Nepidae
		Notonectidae
		Reduviidae
		Miridae

		Lace bugs	Tingidae
			Hydrometridae
		Flat bugs	Aradidae
		Strink bugs	Pentatomidae
		Shield backed bugs	Scutelleridae
		Seed bugs	Lygaeidae
		Red bugs & cotton strainers	Pyrrhocoridae
		Bordered plant bugs	Largidae
		Pirate bugs	Anthocoridae
		Leaf footed bugs	Coreidae
			Urostylididae
		Broad headed bugs	Alydidae
		Stink bugs	Tessaratomidae
		Burrower bugs	Cydnidae
			Plataspidae
			Malcidae
			Psyllidae
			Geocoridae
			Machaeroidae
		Bed bugs	Cimicidae
		Cicada	Cicadidae
		Froghoppers & spittle bugs	Cercopidae
			Aphrophoridae
		Tree hoppers	Membracidae
		Leaf hoppers	Cicadellidae
		Plant hoppers	Fulgoridae
			Eurybrachidae
			Dictyopharidae
			Flatidae
			Lophopidae
			Issidae
			Ricaniidae
		Whiteflies	Aleyrodidae
		Aphids & plantlice	Aphididae
		Mealybugs	Pseudococcidae
		Scales	Coccoidea
18	Neuroptera	Green lacewings	Chrysopidae
		Brown lacewings	Hemerobiidae
		Mantispidflies	Mantispidae
		Dusty wings	Coniopterygidae
		Thread winged antlions	Nemopteridae
		Antlions	Myrmeleontidae
			Osmylidae
		Owlfies	Ascalaphidae
19	Megaloptera	Dobsonflies	Corydalidae
20	Siphonaptera		
21	Coleoptera	Ground & tiger beetle	Carabidae
		Whirligig beetle	Gyrinidae

		Diving beetle	Dytiscidae
		Water scavenger beetle	Hydrophilidae
		Rove beetle	Staphylinidae
		Stag beetle	Lucanidae
		Metallic wood boring beetle	Buprestidae
		Click beetle	Elateridae
		Powderpost beetle	Bostrychidae
		Saw toothed beetle	Silvanidae
		Scarab beetles	Scarabaeidae
		Glow worms	Lampyridae
		Ladybird beetles	Coccinellidae (Further details in Annexure - 3)
		Darkling beetles	Tenebrionidae
		Blister beetles	Meloidae
		Leaf beetles	Chrysomelidae
			Bruchinae
			Anobiinae
		Tortoise beetles	Cassididae
		Longhorn beetles	Cerambycidae (Further details in Annexure - 4)
		True weevils	Curculionidae
		Ship timber beetles	Lymexylidae
		Giraffe neck weevils	Attelabidae
		Pleasing fungus beetles	Erotylidae
		Straight snout weevils	Brentidae
		Handsome fungus beetles	Endomychidae
		Cedar beetles	Callirhipidae
		Net-winged beetles	Lycidae
22	Strepsiptera	Twisted winged parasitoids	Halictophagidae (Both males and females)
23	Diptera	Crane flies, daddy long legs	Tipulidae
		Horse flies	Tabanidae
		Robber flies	Asilidae
		Bee flies	Bombyliidae
		Long legged flies	Dolichopodidae
		Big headed flies	Pipunculidae
		Stalked eye flies	Diopsidae
		Fruit flies	Tephritidae
		Tachina flies	Tachinidae
		Picture winged flies	Ulidiidae
		Frit flies	Chloropidae
		Soldier flies	Stratiomyidae
		Snail killing flies	Sciomyzidae
		Humpbacked flies	Curtonotidae
		Shore flies	Ephydriidae
		Beetlebacked flies	Celyphidae
		Hover flies	Syrphidae (Further details in Annexure - 5)

		Ant mimicking flies	Sepsidae
		Green bottle/ Blue bottle flies	Calliphoridae
		Dog flies	Hippoboscidae
		House flies	Muscidae
			Sarcophagidae
		Fruit flies	Drosophilidae
24	Mecoptera	Hangingflies	Bittacidae
		Scorpionflies	Panorpidae (male)
25	Siphonaptera	Fleas	
26	Trichoptera	(both adults and aquatic larvae)	
27	Lepidoptera	Woolly bears	Arctiinae
			Noctuidae
		Silkworm moths	Bombycidae
		Ghost moths	Hepialidae
		Wasp mimicking moths	Sesiidae
			Hyblaeidae
		Grass moths	Crambidae
			Nolidae
			Thyrididae
			Gelechiidae
		Owlet moths	Urebiidae
		Tussock moths	Lymantriinae
		Giant silk moths, Atlas moths, moon moths	Saturniidae (Further details in Annexure - 6)
			Lasiocampidae
		Loopers, Emeralds	Geometridae
			Uraniidae
		Brunet moths	Zygaenidae
		Cloth moths	Tineidae
		Goat moths	Cossidae
		Hawk moths, Horn worms	Sphingidae (Further details in Annexure - 7)
		Skippers	Hesperiidae
		Blues, Hair streaks	Lycaenidae(Further details in Annexure - 8)
		Slug caterpillars, Cup moths	Limacodidae
			Drepanidae
		Puss moths, Prominent moths	Notodontidae
		Monkey moths	Eupterotidae
		Swallow tail	Papilionidae (Further details in Annexure - 9)
			Nymphalidae (Further details in Annexure - 10)
			Pieridae (Further details in Annexure - 11)
28	Hymenoptera	Sawflies	SYMPHYTA - Tenthredinidae
		Cuckoo wasps	APOCRITA - Chrysididae

	Thread waisted wasps	Sphecidae
	Bees	Apidae
	Hornets, Yellow jackets	Vespidae
		Scoliidae
	Spider wasps	Pompilidae
	Ants	Formicidae
		Crabronidae
	Velvet ants	Mutillidae
		PARASITICA
	Ensign wasps	Evaniidae
		Gasteruptiidae
		Ceraphronidae
		Megaspilidae
		Proctotrupidae
		Platygastridae
		Cynipidae
		Figitidae
		Agaonidae
		Aphelinidae (Further details in Annexure - 12)
		Chalcididae (Further details in Annexure - 13)
		Encyrtidae (Further details in Annexure - 14)
		Eucharitidae (Further details in Annexure - 15)
		Eulophidae
		Eupelmidae
		Eurytomidae
		Leucospidae (Further details in Annexure - 16)
		Mymaridae (Further details in Annexure - 17)
		Ormyridae
		Perilampidae
		Pteromalidae
		Signiphoridae
		Tanaostigmatidae
		Tetracampidae
		Trichogrammatidae
		Braconidae
		Ichneumonidae
		Bethylidae
		Chrysididae
		Dryinidae (Further details in Annexure - 18)

Orthoptera

No	Taxon	Author & Year
1	<i>Acrida exaltata</i>	(Walker, 1859)
2	<i>Atractomorpha crenulata</i>	(Fabricius, 1793)
3	<i>Aularches miliaris</i>	(Linnaeus, 1758)
22	<i>Ceracris</i> sp.	
23	<i>Conocephalus maculatus</i>	(Le Guillou, 1841)
4	<i>Cyrtacanthacris tatarica</i>	(Linnaeus, 1758)
21	<i>Dittopternis venusta</i>	(Walker, 1870)
16	<i>Erianthus</i> sp.	
17	<i>Euparatettix personatus</i>	(Bolívar, 1887)
18	<i>Euscelimena harpago</i>	(Serville, 1838)
5	<i>Letana</i> sp.	
6	<i>Locusta migratoria</i> (Migratory locust)	(Linnaeus, 1758)
7	<i>Mecopoda</i> sp.	
8	<i>Neorthacris acuticeps</i>	(Bolívar, 1902)
25	<i>Oecanthus</i> sp.	
9	<i>Oxya hyla</i>	Serville, 1831
10	<i>Patanga succincta</i> (Bombay locust)	(Johannson, 1763)
11	<i>Poekilocerus pictus</i>	(Fabricius, 1775)
12	<i>Sathrophyllia femorata</i>	(Fabricius, 1787)
13	<i>Schistocerca gregaria</i> (Desert Locust)	(Forsskål, 1775)
15	<i>Schizodactylus monstrosus</i>	(Drury, 1773)
24	<i>Spathosternum prasiniferum</i>	(Walker, 1871)
19	<i>Sphingonotus</i> sp.	
14	<i>Tridactylus</i> sp.	
20	<i>Xenocatantops humilis</i>	(Serville, 1838)

Determined by Dr. Swaminathan Iyer and Dr. Josip Skejo

Mantodea

*Acromantis insularis* Giglio-Tos, 1915*Amorphoscelis* sp.*Gongylus gongylodes* (Linnaeus, 1758)

No	Taxon	Author & Year
1	<i>Acromantis insularis</i>	Giglio-Tos, 1915
2	<i>Amantis</i> sp.	
3	<i>Amorphoscelis</i> sp.	
4	<i>Creobrater apicalis</i>	(Westwood, 1889)
5	<i>Didymocorypha lanceolata</i>	(Fabricius, 1789)
6	<i>Elmantis lata</i>	(Giglio-Tos, 1915)
7	<i>Euantissa pulchra</i>	(Oliveir, 1792)
8	<i>Gongylus gongylodes</i>	(Linnaeus, 1758)
9	<i>Hestiasula brunneriana</i>	Saussure, 1871
10	<i>Hierodula</i> sp.	
11	<i>Humbertiella</i> sp.	
12	<i>Mantis religiosa</i>	(Linnaeus, 1758)
13	<i>Schizocephala bicornis</i>	(Linnaeus, 1758)
14	<i>Tendera</i> sp.	

Determined by Dr. P. M. Sureshan

Annexure - 3

Coccinellidae

*Afidentula bisquadrupunctata* (Gyllenhal, 1808)*Anegleis cardoni* (Weise, 1892)*Bulaea lividula bocandei* Mulsant, 1850*Propylea dissecta* Mulsant, 1850

No	Taxon	Author & Year
1	<i>Afidentula bisquadrupunctata</i>	(Gyllenhal, 1808)
2	<i>Anegleis cardoni</i>	(Weise, 1892)
3	<i>Axinoscymnus puttardriahi</i>	(Kapur & Munshi, 1965)
4	<i>Brumoides suturalis</i>	(Fabricius, 1789)
5	<i>Bulaea lividula bocandei</i>	Mulsant, 1850
6	<i>Calvia</i> sp.	
7	<i>Cheilomenes sexmaculata</i>	(Chevrolat, 1837)
8	<i>Chilocorus</i> sp.	
9	<i>Coccinella septempunctata</i>	(Linnaeus, 1758)
10	<i>Coccinella transversalis</i>	(Fabricius, 1781)
11	<i>Coelphora bissellata</i>	(Mulsant, 1850)
12	<i>Cryptogonus kapuri</i>	(Ghorpade, 1974)
13	<i>Cryptogonus quadriguttatus</i>	(Weise, 1895)
14	<i>Cryptolaemus montrouzieri</i>	(Mulsant, 1850)
15	<i>Curinus coeruleus</i>	(Mulsant, 1850)
16	<i>Epilachna vigintioctopunctata</i>	(Fabricius, 1775)
17	<i>Harmonia dimidata</i>	(Fabricius, 1781)
18	<i>Harmonia octomaculata</i>	(Fabricius, 1781)
19	<i>Hyperaspis maindroni</i>	(Chevrolat, 1837)
20	<i>Illeis cincta</i>	(Fabricius, 1798)
21	<i>Jauveria</i> sp.	
22	<i>Megalocaria dilatata</i>	(Fabricius, 1775)
23	<i>Micraspis</i> sp.	
24	<i>Propylea dissecta</i>	(Mulsant, 1850)
25	<i>Pseudococcidimerus flaviceps</i>	(Walker, 1859)
26	<i>Rodolia amabilis</i>	Kapur, 1949
27	<i>Rodolia cardinalis</i>	(Mulsant, 1850)
28	<i>Scymnus (Pullus) coccivora</i>	(Ramakrishna ayyar, 1925)
29	<i>Serangium parcesetosum</i>	Sicard, 1929
30	<i>Synonycha grandis</i>	(Thunberg, 1781)
31	<i>Synona</i> sp.	

Determined by Dr. Poorani. J

Annexure - 4

Cerambycidae



Aristobia reticulator Fabricius, 1781



Batocera parryi Hope, 1845



Neoplocaederus ferrugineus (Linnaeus, 1758)



Xylorhiza adusta (Wiedemann, 1819)

No	Taxon	Author & Year
1	<i>Apomecyna saltator</i>	(Fabricius, 1787)
2	<i>Apomecyna</i> sp.	
3	<i>Apriona trilineata</i>	Chevrolat, 1852
4	<i>Aristobia reticulator</i>	Fabricius, 1781
5	<i>Bandar pascoei</i>	(Lansberge, 1884)
6	<i>Batocera rufomaculata</i>	(Degeer, 1775)
7	<i>Batocera parryi</i>	(Hope, 1845)
8	<i>Chlorophorus jucundus</i>	(Perroud, 1855)
9	<i>Coptops leucostictica</i>	White, 1858
10	<i>Coptops aedificator</i>	Fabricius, 1792
11	<i>Dorysthenes rostratus</i>	(Fabricius, 1793)
12	<i>Dorysthenes</i> sp.	
13	<i>Dorysthenes (Lophostenus) buquetii</i>	(Guerin-Meneville, 1844)
14	<i>Eucomatocera vittata</i>	White, 1846
15	<i>Exocentrus</i> sp.	
16	<i>Hoplocerambyx spinicornis</i>	Newman, 1842
17	<i>Hyagnis</i> sp.	
18	<i>Macrochenus isabellinus</i>	Aurivillius, 1920
19	<i>Moechotypa</i> sp.	
20	<i>Neoplocaederus ferrugineus</i>	(Linnaeus, 1758)
21	<i>Nepiodes terminalis</i>	(Gahan, 1906)
22	<i>Niphona (Niphona) fuscatrix</i>	(Fabricius, 1793)
23	<i>Nupserha madurensis</i>	Pic, 1926
24	<i>Obereopsis</i> sp.	
25	<i>Olenecamptus</i> sp.	
26	<i>Prionomma atratum</i>	(Gmelin, 1790)
27	<i>Pseudonemophas versteegi</i>	(Ritsema, 1881)
28	<i>Pterolophia inaequalis</i>	Fabricius, 1801
29	<i>Pterolophia occidentalis</i>	Schwarzer, 1931
30	<i>Sophronica apicalis</i>	Pic, 1922

31	<i>Stibara nigricornis</i>	(Fabricius, 1781)
32	<i>Stibara sp.</i>	
33	<i>Stromatium barbatum</i>	(Fabricius, 1775)
34	<i>Tetraglenes hirticornis</i>	Fabricius, 1798
35	<i>Trirachys indutus</i>	(Newman, 1842)
36	<i>Xylotrechus quadripes</i>	Chevrolat, 1863
37	<i>Xylotrechus smei</i>	(Castelnau & Gory, 1841)
38	<i>Xylorhiza adusta</i>	(Wiedemann, 1819)
39	<i>Xystrocera globosa</i>	(Olivier, 1795)
40	<i>Zotalemimon procerum</i>	Pascoe, 1859

Determined by Mr. Sangamesh Hiremath & Dr. Francesco Vitali

Annexure - 5

Syrphidae



Asarkina ayyari Ghorpade, 1994



Allobaccha sapphirina
Wiedemann, 1830



Dolichomerus crassa
(Fabricius, 1787)



Mesembrius quadrivittatus (Wiedemann,

No	Taxon	Author & Year
1	<i>Allobaccha sapphirina</i>	(Wiedemann, 1830)
2	<i>Allobaccha triangulifera</i>	(Austen, 1893)
3	<i>Asarkina ayyari</i>	(Ghorpade, 1994)
4	<i>Asarkina hema</i>	(Ghorpade, 1994)
5	<i>Asarkina incisuralis</i>	(Macquart, 1855)
6	<i>Dideopsis aegrota</i>	(Matsumura, 1917)
7	<i>Dolichomerus crassa</i>	(Fabricius, 1787)
8	<i>Episyrphus balteatus</i>	(De geer, 1776)
9	<i>Episyrphus viridaureus</i>	(Wiedemann, 1824)
10	<i>Eristalinus (Lathyrophthalmus) megacephalus</i>	(Rossi, 1794)
11	<i>Eristalinus (Lathyrophthalmus) arvorum</i>	(Fabricius, 1787)
12	<i>Eumerus rufoscutellatus</i>	(Brunetti, 1913)
13	<i>Eumerus albifrons</i>	(Walker, 1852)
14	<i>Eumerus aurifrons</i>	(Walker, 1852)
15	<i>Graptomyza brevirostris</i>	(Wiedemann, 1820)
16	<i>Ishiodon scutellaris</i>	(Fabricius, 1805)
17	<i>Melanostoma univittatum</i>	(Wiedemann, 1824)

18	<i>Merodonoides multifarioris</i>	(Walker, 1852)
19	<i>Mesembrius bengalensis</i>	(Wiedemann, 1819)
20	<i>Mesembrius quadrivittatus</i>	(Wiedemann, 1819)
21	<i>Paragus bicolor</i>	(Fabricius, 1794)
22	<i>Phytomia argyrocephala</i>	(Macquart, 1842)
23	<i>Phytomia errans</i>	(Fabricius, 1787)
24	<i>Serratoparagus auritus</i>	Stuckenberg, 1945
25	<i>Serratoparagus serratus</i>	(Fabricius, 1805)
26	<i>Serratoparagus yerburiensis</i>	(Stuckenberg, 1945)
27	<i>Sphaerophoria macrogaster</i>	(Linnaeus, 1758)
28	<i>Volucella</i> sp.	
29	<i>Xylota</i> sp.	

Determined by Dr. Kumar. D. Ghorpad & Dr. Gerard Pennards

Dept. of Entomology

Saturniidae



Attacus taprobanis Moore, 1882



Actias selene Hubner, 1807

No	Taxon	Author & Year
1	<i>Actias maenas</i>	(Doubleday, 1847)
2	<i>Actias selene</i>	(Hubner, 1807)
3	<i>Anthaerea assamensis</i>	(Helfer, 1837)
4	<i>Anthaerea frithi</i>	Moore, 1858
5	<i>Anthaerea mylitta</i>	(Drury, 1773)
6	<i>Anthaerea</i> sp.	
7	<i>Archaeoattacus edwardsii</i>	(White, 1859)
8	<i>Attacus taprobanis</i>	(Moore, 1882)
9	<i>Loepa schintlmeisteri</i>	Brechlin, 2000
10	<i>Samia cannagi</i>	(Hutton, 1860)
11	<i>Saturnia (Rinaca)</i> sp.	
12	<i>Saturnia cidos</i>	(Moore, 1865)

Determined by Dr. Peter Smetacek and Sankararaman. H



Anthaerea assamensis, *Samia cannagi*, *Anthaerea mylitta*



Loepa schintlmeisteri Brechlin, 2000

Annexure - 7

Sphingidae



Amplypterus panopus
Cramer, 1779



Clanis bilineata
(Walker, 1866)



Hippotion celerio (Linnaeus,

No	Taxon	Author & Year
1	<i>Acherontia lachesis</i>	(Fabricius, 1789)
2	<i>Acherontia styx</i>	Westwood, 1848
3	<i>Acosmeryx anceus</i>	(Stoll, 1781)
4	<i>Acosmeryx akanshi</i>	Melichar, Rezac, Manjunatha & Horecky, 2014
5	<i>Agnosia microta</i>	(Hampson, 1907)
6	<i>Ambulyx belli</i>	(Jordan, 1922)
7	<i>Ambulyx moorei</i>	(Moore, 1858)
8	<i>Ambulyx sinjaevi</i>	Brechlin, 1998
9	<i>Ambulyx substrigilis</i>	(Westwood, 1847)
10	<i>Amplypterus panopus</i>	(Cramer, 1779)
11	<i>Angonyx Krishna</i>	Eitschberger & Haxaire, 2006
12	<i>Cephonodes hylas</i>	Linnaeus 1771
13	<i>Clanis bilineata</i>	(Walker, 1866)
14	<i>Daphnis nerii</i>	Linnaeus, 1758
15	<i>Daphnis placida</i>	Walker, 1856
16	<i>Dolbina manjunatha</i>	Haxaire & Melichar, 2013
17	<i>Eupanacra busiris</i>	(Walker, 1856)
18	<i>Hippotion boerhaviae</i>	Fabricius, 1775
19	<i>Hippotion celerio</i>	Linnaeus, 1758
20	<i>Hippotion rosetta</i>	Swinhoe 1892
21	<i>Hippotion velox</i>	(Fabricius, 1793)
22	<i>Macroglossum afflictitia</i>	(Butler, 1875)
23	<i>Macroglossum assimilis</i>	Swainson, 1821
24	<i>Macroglossum belis</i>	(Linnaeus, 1758)
25	<i>Macroglossum gyrans</i>	(Walker, 1856)
26	<i>Marumba dyras</i>	(Walker, 1856)
27	<i>Marumba nympa</i>	Rothschild & Jordon, 1903
28	<i>Megacorma oblique</i>	Rothschild & Jordon, 1903
29	<i>Meganoton (Cerberonoton) rubescens</i>	(Butler, 1876)
30	<i>Neogurelca hyas</i>	Walker 1856
31	<i>Nephele hespera</i>	Fabricius 1775
32	<i>Pergesa acteus</i>	(Cramer, 1777)

33	<i>Psilogramma vates</i>	(Butler, 1875)
34	<i>Psilogramma</i> sp.	
35	<i>Rhagastis acuta</i>	(Walker, 1856)
36	<i>Sataspes infernalis</i>	Westwood, 1848
37	<i>Theretra nessus</i>	Drury, 1773
38	<i>Theretra latreilli</i>	W. S. MacLeay, 1827
39	<i>Theretra oldenlandiae</i>	Fabricius 1775
40	<i>Theretra silhetensis</i>	Walker, 1856

Determined by Dr. Ian Kitching, Dr. Jean Haxaire and Sankararaman. H

Annexure - 8

Lycaenidae



Cheritra freja Fabricius, 1793



Talicada nysus (Guerin, 1843)

No	Taxon	Author & Year
1	<i>Castalius rosimon</i>	(Fabricius, 1775)
2	<i>Cheritra freja</i>	(Fabricius, 1793)
3	<i>Chilades pandava</i>	(Hersfield, 1829)
4	<i>Curetis thetis</i>	(Drury, 1773)
5	<i>Discolampa ethion</i>	(Westwood, 1851)
6	<i>Euchrysops cnejus</i>	(Fabricius, 1798)
7	<i>Loxura atymus</i>	(Cramer, 1782)
8	<i>Tajuria cippus</i>	(Fabricius, 1798)
9	<i>Talicada nysus</i>	(Guerin, 1843)

Determined by Sankararaman. H

Papilionidae



Papilio polytes(Linnaeus,
1758)



Papilio crino
(Fabricius, 1792)



Pachliopta hector
(Linnaeus, 1758)

No	Taxon	Author & Year
1	<i>Graphium agamemnon</i>	Linnaeus, 1758
2	<i>Graphium doson</i>	Felder, 1864
3	<i>Graphium nomius</i>	Fesper, 1793
4	<i>Pachliopta aristolochiae</i>	Fabricius, 1775
5	<i>Pachliopta hector</i>	(Linnaeus, 1758)
6	<i>Papilio buddha</i>	Westwood, 1872
7	<i>Papilio clytia</i>	Linnaeus, 1758
8	<i>Papilio crino</i>	(Fabricius, 1792)
9	<i>Papilio demoleus</i>	Linnaeus, 1758
10	<i>Papilio helenus</i>	(Linnaeus, 1758)
11	<i>Papilio paris</i>	(Linnaeus, 1758)
12	<i>Papilio polymnestor</i>	(Cramer, 1775)
13	<i>Papilio polytes</i>	(Linnaeus, 1758)
14	<i>Troides minos</i>	(Cramer, 1779)

Determined by Sankararaman. H



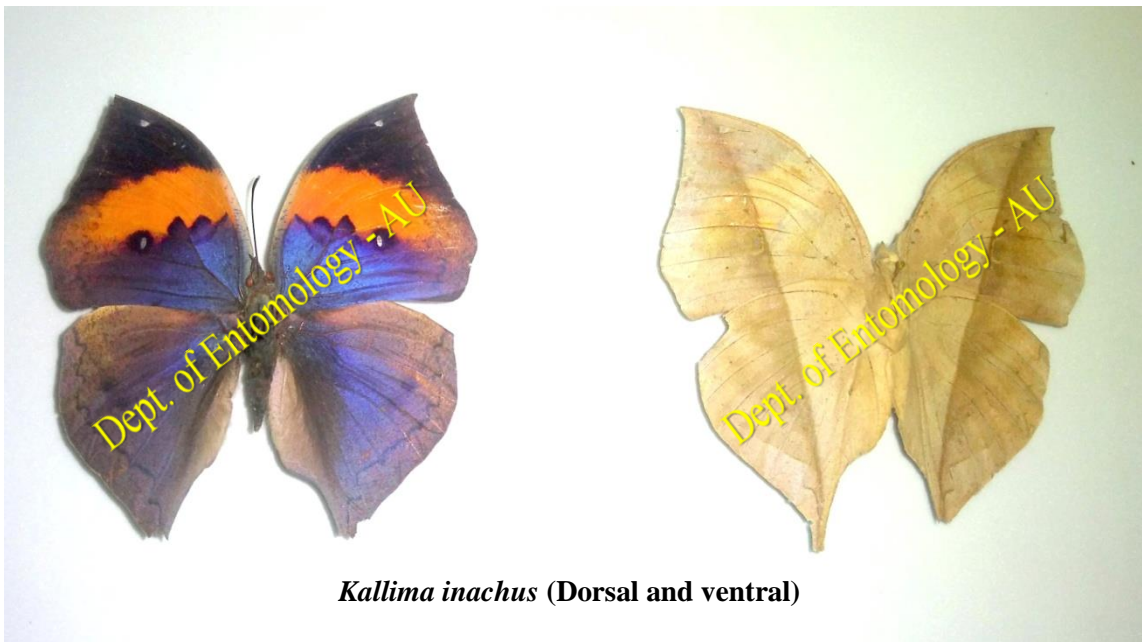
Troides minos(Cramer, 1779)(male
and female)

Nymphalidae

*Danaus chrysippus**Junonia orithya**Melanitis leda ismene*

No	Taxon	Author & Year
1	<i>Acraea terpsicore</i>	(Linnaeus, 1758)
2	<i>Ariadne merione</i>	(Cramer, 1777)
3	<i>Byblia ilithyia</i>	(Drury, 1773)
4	<i>Cirrochroa thais</i>	(Fabricius, 1787)
5	<i>Cupha erymanthis</i>	(Drury, 1773)
6	<i>Danaus chrysippus</i>	(Linnaeus, 1758)
7	<i>Danaus genutia</i>	(Cramer, 1779)
8	<i>Elymnias hypermnestra</i>	(Linnaeus, 1763)
9	<i>Junonia orithya</i>	(Linnaeus, 1758)
10	<i>Kallima inachus</i>	Doyere, 1840
11	<i>Libythea myrrha</i>	(Godart, 1819)
12	<i>Melanitis leda ismene</i>	(Linnaeus, 1758)
13	<i>Neptis mich.</i>	(Moore, 1858)

Determined by Sankararaman. H

*Kallima inachus* (Dorsal and ventral)

Pieridae



Delias eucharis (Dorsal)



Delias eucharis (Ventral)



Leptosia nina

No	Taxon	Author & Year
1	<i>Appias lycida</i>	Cramer, 1777
2	<i>Catopsilia pomona</i>	Fabricius, 1775
3	<i>Catopsilia pyranthe</i>	Linnaeus, 1758
4	<i>Cepora nerissa</i>	Fabricius, 1775
5	<i>Colias nilagiriensis</i>	C. & R. Felder, 1859
6	<i>Colitis danae</i>	Fabricius, 1775
7	<i>Colotis amata</i>	Fabricius, 1775
8	<i>Delias descombesi</i>	Boisduval, 1836
9	<i>Delias eucharis</i>	Drury, 1773
10	<i>Eurema blanda</i>	Boisduval, 1836
11	<i>Eurema hecabe</i>	Linnaeus, 1758
12	<i>Hebomoia glaucippe</i>	Linnaeus, 1758
13	<i>Leptosia nina</i>	Fabricius, 1793
14	<i>Pieris rapae</i>	Linnaeus, 1758

Determined by Sankararaman. H



Colias nilagiriensis (Male)



Colias nilagiriensis (Female)

Aphelinidae

*Coccophagus cowperi* Girault, 1917*Coccophagus gilvus* Hayat, 1971*Umairia chidambaramensis* Manickavasagam et al., 2015

No.	Taxon	Author & Year
1.	<i>Ablerus chionaspidis</i>	(Howard, 1914)
2.	<i>Ablerus inquirenda</i>	Silvestri, 1928
3.	<i>Ablerus bharathius</i>	(Subba Rao, 1984)
4.	<i>Aphelinus albipodus</i>	Hayat & Fatima, 1992
5.	<i>Aphelinus asychis</i>	Walker, 1839
6.	<i>Aphelinus gossypii</i>	Timberlake, 1924
7.	<i>Aphelinus mali</i>	(Haldeman, 1851)
8.	<i>Aphelinus varipes</i>	(Forster, 1841)
9.	<i>Aphelinus basilicus</i>	Hayat, 1998
10.	<i>Aphelinus sharpie</i>	Hayat, 1998
11.	<i>Aphelinus abdominalis</i>	(Dalman, 1820)
12.	<i>Aphytis manii</i>	Hayat, 1998
13.	<i>Aphytis linganensis</i>	Compere, 1955
14.	<i>Aphytis theae</i>	(Cameron, 1891)
15.	<i>Botryoideclava bharatiya</i>	Subba Rao, 1980
16.	<i>Botryoideclava thailandica</i>	Hayat, 1995
17.	<i>Centrodora idioceri</i>	Ferriere, 1931
18.	<i>Centrodora lineascapa</i>	Hayat, 1987
19.	<i>Centrodora oophagha</i>	(Girault, 1917)
20.	<i>Coccobius comperei</i>	(Hayat, 1971)
21.	<i>Coccobius fulvus</i>	(Compere & Annecke, 1961)

22.	<i>Coccobius mirus</i>	Hayat, 1998
23.	<i>Coccobius reticulates</i>	(Compere & Annecke, 1961)
24.	<i>Coccophagus pseudococci</i>	Compere, 1933
25.	<i>Coccophagus ceroplastae</i>	(Howard, 1895)
26.	<i>Coccophagus cowperi</i>	Girault, 1917
27.	<i>Coccophagus fumadus</i>	Hayat, 2010
28.	<i>Cocophagus longicornis</i>	Hayat, 1971
29.	<i>Coccophagus burski</i>	Hayat, 1971
30.	<i>Coccophagus gilvus</i>	Hayat, 1971
31.	<i>Coccophagus zeyae</i>	Hayat, 1998
32.	<i>Coccophagus shafeei</i>	Hayat, 1974
33.	<i>Encarsia acaudaleyrodis</i>	Hayat, 1975
34.	<i>Encarsia aurantii</i>	(Howard, 1894)
35.	<i>Encarsia brevivalvula</i>	Hayat, 1989
36.	<i>Encarsia clypealis</i>	(Silvestri, 1927)
37.	<i>Encarsia obtusiclava</i>	Hayat, 1989
38.	<i>Encarsia norani</i>	Hayat, 1989
39.	<i>Encarsia opulenta</i>	(Silvestri, 1928)
40.	<i>Encarsia guadeloupae</i>	Viggiani, 1987
41.	<i>Encarsia longifasciata</i>	Subba Rao, 1984
42.	<i>Encarsia bennetti</i>	Hayat, 1984
43.	<i>Encarsia Sophia</i>	(Girault & Dodd, 1915)
44.	<i>Encarsia trebracensis</i>	Viggiani, 1987
45.	<i>Eretmocerus runderus</i>	Mercet, 1931
46.	<i>Eretmocerus rajasthanicus</i>	Hayat, 1976
47.	<i>Eriaphytis orientalis</i>	Hayat, 1972
48.	<i>Euryischia indica</i>	Mani & Kurian, 1953
49.	<i>Eutrichosomella sp.</i>	
50.	<i>Myiocnema comperi</i>	Ashmead, 1900
51.	<i>Paraphytis transversa</i>	(Huang, 1994)
52.	<i>Promuscidea unfasciiventris</i>	Girault, 1917
53.	<i>Proaphelinoides elongatiformis</i>	Girault, 1917

54.	<i>Marietta leopardina</i>	Motschulsky, 1863
55.	<i>Umairia chidambaramensis</i>	Manickavasagam <i>et al.</i> , sp. nov. 2015
56.	<i>Encarsia trebrator</i>	Viggiani, 1987
57.	<i>Eretmocerus mundus</i>	Motschulsky, 1863
58.	<i>Eretmocerus rajasthanicus</i>	S. Manickavasagam and C. Menakadevi sp. nov. 2015

Determined by Dr. S. Manickavasagam, Dr. C. Menakadevi and M. Ayyamperumal

Annexure - 13

Chalcididae



Brachymeria bengalensis (Cameron, 1897)



Uga sinensis Kerrich, 1960



Xyphorachidia annamalaicus

No.	Taxon	Author & Year
1.	<i>Antrocephalus decipiens</i>	(Masi, 1929)
2.	<i>Antrocephalus lugubris</i>	(Masi, 1932)
3.	<i>Antrocephalus mitys</i>	(Walker, 1846)
4.	<i>Antrocephalus nasuta</i>	(Holmgren, 1859)
5.	<i>Antrocephalus nigrus</i>	(Masi, 1929)
6.	<i>Antrocephalus ryukyuensis</i>	Halv, 1966
7.	<i>Brachymeria albicrus</i>	(Klug, 1834)
8.	<i>Brachymeria albotibialis</i>	(Ashmead) 1904
9.	<i>Brachymeria alternipes</i>	(Walker, 1871)
10.	<i>Brachymeria apicicornis</i>	(Cameron, 1911)
11.	<i>Brachymeria bengalensis</i>	(Cameron, 1897)
12.	<i>Brachymeria carbonaria</i>	(Zehntner, 1906)
13.	<i>Brachymeria coxidentata</i>	(Joseph, Narendran & Joy, 1970)
14.	<i>Brachymeria criculae</i>	(Kohl, 1889)

15.	<i>Brachymeria excarinata</i>	Gahan, 1925
16.	<i>Brachymeria euploeeae</i>	(Westwood) 1837
17.	<i>Brachymeria femorata</i>	(Pancer, 1801)
18.	<i>Brachymeria hearseyi</i>	(Kirby) 1883
19.	<i>Brachymeria hime</i>	Habu 1960
20.	<i>Brachymeria jambolana</i>	Gahan, 1942
21.	<i>Brachymeria ryukyuensis</i>	Habu, 1963
22.	<i>Brachymeria lasus</i>	(Walker, 1841)
23.	<i>Brachymeria margaroniae</i>	Joseph, Narendran & Joy, 1973
24.	<i>Brachymeria megaspila</i>	(Cameron, 1907)
25.	<i>Brachymeria minuta</i>	(Linnaeus, 1767)
26.	<i>Brachymeria nephantidis</i>	Gahan 1930
27.	<i>Brachymeria nosatoi</i>	Habu 1966
28.	<i>Brachymeria phya</i>	(Walker, 1838)
29.	<i>Brachymeria podagrica</i>	(Fabricius, 1787)
30.	<i>Brachymeria porthetrialis</i>	Joseph, Narendran & Joy 1972
31.	<i>Brachymeria wiebesini</i>	Joseph, Narendran & Joy 1972
32.	<i>Dirhinus anthracis</i>	Walker, 1846
33.	<i>Dirhinus auratus</i>	Ashmead 1905
34.	<i>Dirhinus bakeri</i>	(Crawford) 1914
35.	<i>Dirhinus flaviger</i>	Boucek and Narendran 1981
36.	<i>Dirhinus deplanatus</i>	Boucek and Narendran 1981
37.	<i>Dirhinus himalayanus</i>	Westwood , 1836
38.	<i>Dirhinus madagascariensis</i>	Masi, 1947
39.	<i>Dirhinus pilifer</i>	Boucek and Narendran 1981
40.	<i>Epitranus albipennis</i>	Walker, 1874
41.	<i>Epitranus chilkaensis</i>	(Mani) 1936
42.	<i>Epitranus elongatulus</i>	(Motschulsky, 1863)
43.	<i>Epitranus erythrogaster</i>	Cameron, 1888
44.	<i>Epitranus observator</i>	Walker 1862
45.	<i>Epitranus oxytelus</i>	Boucek, 1982
46.	<i>Epitranus parvidens</i>	(Strand) 1911

47.	<i>Haltichella variicolor</i>	Masi, 1928
48.	<i>Hockeria</i>	Walker, 1834
49.	<i>Indoinvreia bouceki</i>	Roy & Farooqi, 1984
50.	<i>Indoinvreia menoni</i>	Roy & Farooqi, 1984
51.	<i>Kriechbaumerella destructor</i>	(Waterston, 1922)
52.	<i>Kriechbaumerella ornatipennis</i>	(Cameron, 1902)
53.	<i>Lasiochalcidia pilosella</i>	(Cameron, 1904)
54.	<i>Proconura emarginata</i>	(Roy & Farooqi) 1984
55.	<i>Psilochalcis carinigena</i>	(Cameron) 1907
56.	<i>Psilochalcis keralensis</i>	Narendran 1989
57.	<i>Psilochalcis soudanensis</i>	(Steffan) 1951
58.	<i>Tropimeris excavata</i>	Steffan, 1948
59.	<i>Tropimeris monodon</i>	Boucek, 1958
60.	<i>Tainaniella</i> sp.	
61.	<i>Trigonura ruficaudis</i>	Cameron, 1913
62.	<i>Uga menoni</i>	Kerrich, 1960
63.	<i>Uga sinensis</i>	Kerrich, 1960
64.	<i>Xyphorachidia annamalaicus</i>	Manickavasagam & Gowriprakash 2017

Determined by Dr. S. Manickavasagam and J. Gowri Prakash



Tropimeris monodon



Lasiochalcidia sp.

Encyrtidae



Copidosomyia abdulkalami
Manickavasagam & Chaitanya 2015



Homalotylus noyesi Chaitanya
& Manickavasagam, 2015



Eugahania viraktamathi Ayyamperumal
& Manickavasagam, 2018

No.	Taxon	Author & Year
1.	<i>Acerophagus papayae</i>	Noyes & Schauff, 2003
2.	<i>Acerophagus solidus</i>	Hayat, 1981
3.	<i>Adektitopus gordhi</i>	Noyes & Hayat, 1984
4.	<i>Adektitopus hayati</i>	Manickavasagam & Rameshkumar, 2012
5.	<i>Adektitopus longipennis</i>	(Shafee & Avasthi, 1989)
6.	<i>Adelencyrtus axilaris</i>	(Girault, 1915)
7.	<i>Adelencyrtus bimaculatus</i>	Alam, 1972
8.	<i>Adelencyrtus coxalis</i>	Hayat, Alam & Agarwal, 1975
9.	<i>Adelencyrtus moderatus</i>	(Howard, 1897)
10.	<i>Adelencyrtus quadriguttus</i>	(Girault, 1984)
11.	<i>Aenasius advena</i>	Compere, 1937
12.	<i>Aenasius arizonensis</i>	(Girault, 1915)
13.	<i>Aenasius hayati</i>	Manickavasagam & Rameshkumar, 2011
14.	<i>Aenasius indicus</i>	(Narayanan & Subba Rao, 1988)
15.	<i>Agarwalencyrtus citri</i>	(Agarwal, 1965)
16.	<i>Ageniaspis</i>	Dahlbom, 1857
17.	<i>Alamella flava</i>	Agarwal, 1966
18.	<i>Anagyrus aceris</i>	Noyes & Hayat, 1994
19.	<i>Anagyrus agraeensis</i>	Saraswat, 1975
20.	<i>Anagyrus aquilonaris</i>	(Noyes & Hayat, 1984)
21.	<i>Anagyrus chrysos</i>	Noyes & Hayat, 1994
22.	<i>Anagyrus dactylopii</i>	(Howard), 1924
23.	<i>Anagyrus discolor</i>	Noyes & Hayat, 1994
24.	<i>Anagyrus diversicornis</i>	(Howard, 2000)
25.	<i>Anagyrus floris</i>	Noyes & Hayat, 1994

26.	<i>Anagyrus gracilis</i>	(Hayat, 1994)
27.	<i>Anagyrus greeni</i>	Howard, 1896
28.	<i>Anagyrus indicus</i>	(Subba Rao, 1984)
29.	<i>Anagyrus kamali</i>	Moursi ,1948
30.	<i>Anagyrus levis</i>	Noyes & Hayat, 1994
31.	<i>Anagyrus lockei</i>	Noyes & Menezes, 2000
32.	<i>Anagyrus lutescens</i>	Noyes & Hayat, 1994
33.	<i>Anagyrus mirzai</i>	Agarwal & Alam, 1959
34.	<i>Anagyrus quadri</i>	(Hayat, Alam & Agarwal, 1984)
35.	<i>Anagyrus ranchiensis</i>	Shamim & Shafee, 1984
36.	<i>Anagyrus subflaviceps</i>	(Girault, 1984)
37.	<i>Anagyrus thailandicus</i>	(Myartseva, 1979)
38.	<i>Anagyrus tricolor</i>	(Girault, 1913)
39.	<i>Anagyrus umairi</i>	Noyes & Hayat, 1994
40.	<i>Anicetus angustus</i>	Hayat, Alam & Agarwal, 1975
41.	<i>Anicetus annulatus</i>	Timberlake, 1919
42.	<i>Anicetus ashmeadi</i>	Hayat, Alam & Agarwal, 1975
43.	<i>Anicetus ceroplastodes</i>	(Mani), 1989
44.	<i>Anicetus howardi</i>	Hayat, Alam & Agarwal, 1975
45.	<i>Anomalencyrtus longicornis</i>	Hayat & Verma, 1980
46.	<i>Anomalicornia tenuicornis</i>	Mercet, 1921
47.	<i>Aphycus</i>	Mayr, 1876
48.	<i>Apoleptomastix japonensis</i>	(Mani & Kaul, 1982)
49.	<i>Apoleptomastix bicoloricornis</i>	(Girault, 1982)
50.	<i>Apoleptomastix rufipleuris</i>	Kerrich, 1982
51.	<i>Apoleptomastix rufiscapus</i>	Kerrich, 1982
52.	<i>Blepyrus insularis</i>	(Cameron, 1922)
53.	<i>Bureshiella antennata</i>	Manickavasagam and Chaitanya, 2016
54.	<i>Caenohomolopoda longiclava</i>	Basha & Hayat, 2002
55.	<i>Caenohomolopoda tahai</i>	Fatima and Zeya
56.	<i>Caenohomolopoda shikokuensis</i>	Tachikawa
57.	<i>Callipteroma sexguttata</i>	Motschulsky, 1863
58.	<i>Callipteroma testacea</i>	Motschulsky, 1863
59.	<i>Carabunia zora</i>	Hayat, 2003
60.	<i>Cerchysiella kamathi</i>	(Mani & Saraswat), 1974
61.	<i>Cerchysiella laticapa</i>	(Shafee & Fatma), 1984
62.	<i>Cerchysius laticeps</i>	Kerrich, 1954

63.	<i>Cerchysius longicarpus</i>	Fatima & Shafee, 1994
64.	<i>Charitopus panchgania</i>	(Mani & Saraswat), 1979
65.	<i>Charitopus montibus</i>	Chaitanya & Manickavasagam, 2016
66.	<i>Cheiloneuromyia javensis</i>	Girault, 1916
67.	<i>Cheiloneurus bangalorensis</i>	(Subba Rao, 1972)
68.	<i>Cheiloneurus basiri</i>	Hayat, Alam & Agarwal, 1975
69.	<i>Cheiloneurus coimbatorensis</i>	Anis & Hayat, 2002
70.	<i>Cheiloneurus diversicolor</i>	Hayat, Alam & Agarwal, 1975
71.	<i>Cheiloneurus excitiosus</i>	(Perkins), 2005
72.	<i>Cheiloneurus gonatopodis</i>	Perkins, 1906
73.	<i>Cheiloneurus longicornis</i>	Hayat, Alam & Agarwal, 1975
74.	<i>Cheiloneurus parvus</i>	(Hayat), 2005
75.	<i>Cheiloneurus pistaciae</i>	Manickavasagam & Mehrnejad, NHM, London.
76.	<i>Cheiloneurus quadricolor</i>	(Girault), 1981
77.	<i>Cheiloneurus udaghamundus</i>	Anis & Hayat, 2002
78.	<i>Cheiloneurus zeyai</i>	Anis & Hayat, 2002
79.	<i>Clasdiscodes orientalis</i>	Singh & Agarwal, 1993
80.	<i>Coagerus bouceki</i>	Noyes & Hayat, 1984
81.	<i>Coccidencyrtus</i>	Ashmead, 1900
82.	<i>Coccidoctonus terebratus</i>	(Hayat, Alam & Agarwal) 1975
83.	<i>Comperiella bifasciata</i>	Howard, 1906
84.	<i>Comperiella lemniscata</i>	Compere & Annecke, 1961
85.	<i>Copidosoma clavatum</i>	Myartseva, 1982
86.	<i>Copidosoma floridanum</i>	(Ashmead, 1900)
87.	<i>Copidosoma lucidum</i>	Kazmi & Hayat, 1998
88.	<i>Copidosomyia abdukalami</i>	Manickavasagam & Chaitanya sp. nov. 2015
89.	<i>Cryptanusia ajmerensis</i>	(Fatma & Shafee, 1988)
90.	<i>Diaphorencyrtus aligarhensis</i>	(Shafee, Alam & Agarwal), 1981
91.	<i>Encyrtus aurantii</i>	(Geoffroy), 1994
92.	<i>Encyrtus noyesi</i>	Singh, 1997
93.	<i>Eotopus elongare</i>	Chaitanya & Manickavasagam, 2016
94.	<i>Ethoris dahmsi</i>	Noyes & Hayat
95.	<i>Eugahania chetnae</i>	Ayyamperumal & Manickavasagam, 2018

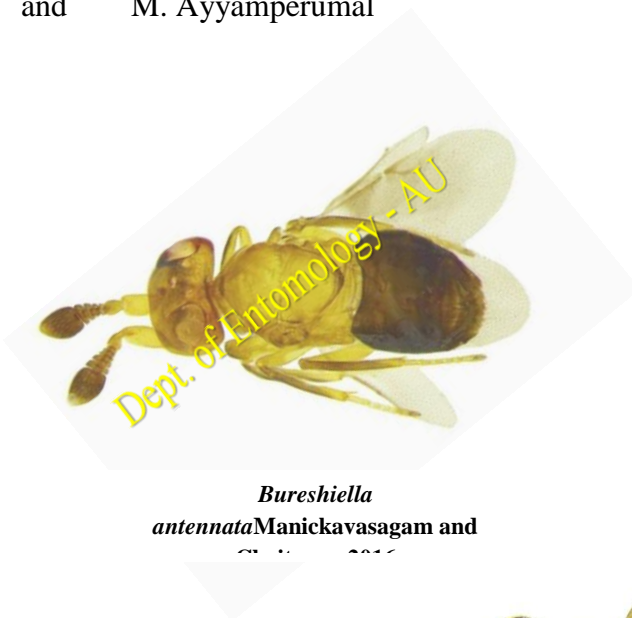
96.	<i>Eugahania viraktamathi</i>	Ayyamperumal & Manickavasagam, 2018
97.	<i>Eugahania flaviscapus</i>	Singh & Agarwal
98.	<i>Gentakola trifasciata</i>	(Saraswat) in Saraswat & Mukerjee, 1975
99.	<i>Globulencyrtus pentafuniculatus</i>	Manickavasagam & Chaitanya sp. nov. 2015
100.	<i>Globulencyrtus politus</i>	(Hoffer, 1957)
101.	<i>Gyransoidea flava</i>	Shafee, Alam & Agarwal, 1975
102.	<i>Gyransoidea indica</i>	Shafee, Alam & Agarwal, 1975
103.	<i>Hemileucoceras longicornis</i>	Hayat, 2003
104.	<i>Hesperencyrtus gordhi</i>	(Fatma & Shafee, 1989)
105.	<i>Homalopoda cristata</i>	Howard
106.	<i>Homalotylus albiclavatus</i>	(Agarwal, 1975)
107.	<i>Homalotylus biharensis</i>	Chaitanya & Manickavasagam, 2015
108.	<i>Homalotylus eyetelweinii</i>	(Ratzeburg), 1969
109.	<i>Homalotylus flaminius</i>	(Delman, 1820)
110.	<i>Homalotylus indicus</i>	(Agarwal, 1966)
111.	<i>Homalotylus insularis</i>	Chaitanya & Manickavasagam, 2015
112.	<i>Homalotylus montanus</i>	Chaitanya & Manickavasagam, 2015
113.	<i>Homalotylus noyesi</i>	Chaitanya & Manickavasagam, 2015
114.	<i>Homalotylus varicolorus</i>	Chaitanya & Manickavasagam, 2015
115.	<i>Indaphycus planus</i>	Hayat, 1981
116.	<i>Lakshaphagus drulai</i>	(Shafee, Alam & Agarwal), 1981
117.	<i>Lakshaphagus fusiscapus</i>	(Agarwal, 1981)
118.	<i>Lamennaisia indica</i>	(Agarwal, 2003)
119.	<i>Leptomastix minyas</i>	Noyes & Hayat, 1994
120.	<i>Leptomastix dactylopii</i>	Howard, 1885
121.	<i>Leptomastix ephyra</i>	Noyes & Hayat, 1994
122.	<i>Leptomastix longicornis</i>	Khan & Shafee, 1975
123.	<i>Leptomastix nigrocincta</i>	Risbec, 1959
124.	<i>Leptomastix nigrocoxalis</i>	Compere, 1928
125.	<i>Leptomastix salemensis</i>	Hayat, Alam & Agarwal, 1975
126.	<i>Leptomastix sylvae</i>	Noyes & Hayat, 1994
127.	<i>Leptomastix tetrica</i>	Noyes & Hayat, 1994
128.	<i>Leptomastix tsukumiensis</i>	Tachikawa, 1963
129.	<i>Mahencyrtus assamensis</i>	Singh & Agarwal, 1993

130.	<i>Manicneumus indicus</i>	(Mani & Saraswat, 1981)
131.	<i>Manmohanencyrtus hayati</i>	Singh, 1995
132.	<i>Mayridia caerulea</i>	(Hayat & Verma, 1978)
133.	<i>Mayridia dunensis</i>	Hayat, 2003
134.	<i>Mayridia procera</i>	(Mercet), 1921
135.	<i>Meniscocephalus optabilis</i>	Hayat, 2003
136.	<i>Metaphaenodiscus aligarhensis</i>	Hayat, 1981
137.	<i>Metaphycus</i> sp.	
138.	<i>Microterys asoris</i>	Hayat & Singh, 2000
139.	<i>Microterys nietneri</i>	(Motschulsky, 1972)
140.	<i>Monstranusia antennata</i>	(Narayanan), 1979
141.	<i>Neastymachus angustifrons</i>	(Shafee, Alam & Agarwal, 1984)
142.	<i>Neastymachus burksi</i>	(Shafee, Alam & Agarwal, 1984)
143.	<i>Neastymachus cerococci</i>	(Shafee, Alam & Agarwal, 1984)
144.	<i>Neocharitopus orientalis</i>	(Agarwal, 1975)
145.	<i>Neocladia narendrani</i>	Hayat, 2003
146.	<i>Neocladia noyesi</i>	Manickavasagam & Rameshkumar, 2012
147.	<i>Neodusmetia sangwari</i>	(Subba Rao), 1964
148.	<i>Neoplatycerus tachikawai</i>	Subba Rao, 1965
149.	<i>Ooencyrtus aethes</i>	Hayat, 2006
150.	<i>Ooencyrtus</i>	Ashmead 1900
151.	<i>Ooencyrtus j. vipes</i>	(Timberlake), 1920
152.	<i>Ooencyrtus guamensis</i>	Fullaway, 1946
153.	<i>Ooencyrtus segestes</i>	Trjapitzin, 1965
154.	<i>Ooencyrtus shakespearei</i>	(Girault, 1923)
155.	<i>Ooencyrtus utetheisae</i>	(Risbec, 1987)
156.	<i>Ooencyrtus utpradianus</i>	Hayat, 2008
157.	<i>Parablatticida citri</i>	(Mercet, 1989)
158.	<i>Paraclausenia herbicola</i>	Hayat, 1980
159.	<i>Parechthrodryinus excelsus</i>	Hayat, 2003
160.	<i>Paratetracnemoidea malenotti</i>	(Mercet, 1918)
161.	<i>Pentelicus depunctatus</i>	Manickavasagam & Chaitanya, 2015

162.	<i>Pentelicus funiculatus</i>	Manickavasagam & Chaitanya, 2015
163.	<i>Pentelicus punctatus</i>	Manickavasagam & Chaitanya sp. nov. 2015
164.	<i>Plagiomerus bangaloriensis</i>	Shafee, Alam & Agarwal, 1975
165.	<i>Praleurocerus viridis</i>	(Agarwal, 1974)
166.	<i>Prionomastix biharensis</i>	Chaitanya & Manickavasagam 2015
167.	<i>Prionomastix tamilnadensis</i>	Chaitanya & Manickavasagam 2015
168.	<i>Prochiloneurus aegyptiacus</i>	(Mercet, 1968)
169.	<i>Prochiloneurus agarwali</i>	Hayat, 1981
170.	<i>Prochiloneurus albifuniculus</i>	(Hayat, Alam & Agarwal, 1981)
171.	<i>Prochiloneurus comperei</i>	Viggiani, 1970
172.	<i>Prochiloneurus javanicus</i>	(Ferriere, 1984)
173.	<i>Prochiloneurus pulchellus</i>	Silvestri, 1915
174.	<i>Prochiloneurus testaceus</i>	(Agarwal, 1975)
175.	<i>Proleuroceroides pyrillae</i>	(Crawford, 1916)
176.	<i>Proleurocerus fulgoridis</i>	Ferriere, 1996
177.	<i>Proleurocerus litoralis</i>	Hayat & Kazmi, 1996
178.	<i>Proleurocerus montanus</i>	Chaitanya & Manickavasagam, 2016
179.	<i>Pseudectroma annamalaicus</i>	Chaitanya & Manickavasagam, 2016
180.	<i>Pseudleptomastix mexicana</i>	Noyes & Schauff, 2003
181.	<i>Psyllaephagus minor</i>	Prinsloo, 1985
182.	<i>Psyllaphycus diaphorinae</i>	Hayat 1972
183.	<i>Rhopus tamiensis</i>	Manickavasagam & Rameshkumar, 2012
184.	<i>Rhytidothorax callistus</i>	Hayat, Singh & Basha, 2002
185.	<i>Rhytidothorax nigrum</i>	Singh & Agarwal, 1993
186.	<i>Rhytidothorax</i> sp.nov.	
187.	<i>Ruandieroma sankarani</i>	Noyes & Hayat, 1984
188.	<i>Sakencyrtus mirus</i>	Hayat, 1981
189.	<i>Saucencyrtus insulanus</i>	Hayat & Singh, 2002
190.	<i>Syrphophagus aeruginosus</i>	(Dalman, 1953)
191.	<i>Syrphophagus hofferi</i>	(Hayat, 1984)
192.	<i>Tassonia amaura</i>	Hayat, 2003
193.	<i>Tassonia calunica</i>	Hayat, 2003

194.	<i>Tassonia gloriae</i>	Girault, 1921
195.	<i>Tetracnemus narendrani</i>	Hayat & Kazmi, 1999
196.	<i>Thomsonisca pakistanensis</i>	(Ahmead, 1979)
197.	<i>Trechnites aligarhensis</i>	Hayat, Alam & Agarwal, 1975
198.	<i>Trechnites assamensis</i>	Ayyamperumal & Manickavasagam, 2018
199.	<i>Trechnites keralensis</i>	Ayyamperumal & Manickavasagam, 2018
200.	<i>Trechnites montanus</i>	Ayyamperumal & Manickavasagam, 2018
201.	<i>Trechnites albipodus</i>	Kazmi & Hayat
202.	<i>Trechnites hairah</i>	Hayat, 2013
203.	<i>Tyndarichus nitidulus</i>	Hayat, 2003
204.	<i>Xenostryxis brevicauda</i>	Hayat, 2003
205.	<i>Yasumatia orientalis</i>	Trjapitzin, 1977
206.	<i>Zomus lambinus</i>	(Walker, 1979)
207.	<i>Zaplatycerus jorhatensis</i>	(Singh, 2006)
208.	<i>Zozorus</i> sp.	First report of the genus from India

Determined by Dr. S. Manickavasagam, Dr. A. Ramesh Kumar, Dr. T. Krishna Chaitanya and M. Ayyamperumal



Bureshiella antennata Manickavasagam and
Singh, 2016



Cryptanusia ajmerensis
(Fatma & Shafee, 1988)



Manmohanencyrtus hayati
Singh, 1995

Eucharitidae

*Schizaspidia andamanensis*

♂Mani, 1942

*Psilocharis heraty* ♀Manickavasagam

& Ayyamperumal, 2017

No	Taxon	Author & Year
1	<i>Ancylotropus</i> sp.	Cameron, 1909
2	<i>Chalcura aginetus</i>	(Walker, 1846)
3	<i>Chalcura deprivata</i>	(Walker, 1860)
4	<i>Cherianella narayani</i>	(Narendran, 1994)
5	<i>Gollumiella longipetiolata</i>	(Hedqvist, 1978)
6	<i>Neolosbanus palgravei</i>	(Girault, 1922)
7	<i>Orasema</i> sp.	Cameron, 1884
8	<i>Psilocharis heraty</i>	Manickavasagam & Ayyamperumal, 2017
9	<i>Schizaspidia andamanensis</i>	(Mani, 1942)
10	<i>Schizaspidia convergens</i>	(Walker, 1860)
11	<i>Stilbula ashokai</i>	Narendran, 1996
12	<i>Stilbula taniorensis</i>	(Mani&Dubey, 1974)

Determined by Dr. S. Manickavasagam and M. Ayyamperumal

*Cherianella narayani*

♀(Narendran, 1994)

*Gollumiella longipetiolata* ♀(Hedqvist, 1978)*Neolosbanus palgravei*

♀(Girault 1922)

Leucospidae



Leucospis guzeratensis
Westwood, 1839



Leucospis histrio
Maindron, 1878



Leucospis pediculata
Guerin-meneville, 1844

No	Taxon	Author & Year
1	<i>Leucospis guzeratensis</i>	Westwood, 1839
2	<i>Leucospis histrio</i>	Maindron, 1878
3	<i>Leucospis pediculata</i>	Guerin-meneville, 1844
4	<i>Leucospis petiolata</i>	Fabricius, 1787
5	<i>Leucospis pyriformis</i>	(Weld, 1922)

Determined by Dr. S. Manickavasagam and Sankararaman. H



Leucospis petiolata
Fabricius, 1787



Leucospis pyriformis
(Weld, 1922)

Mymaridae



Acropolynema
pseudotachikawai Manickavasagam &



Dorya noyesi Manickavasagam &
Palanivel 2015



Eubroncuscutatus
Manickavasagam & Palanivel 2015

No.	Taxon	Author & Year
1.	<i>Acropolynema bimaculatum</i>	Subba Rao, 1989
2.	<i>Acropolynema campylurum</i>	Xu & Lin, 2002
3.	<i>Acropolynema indochinense</i>	(Soyka, 1956)
4.	<i>Acropolynema malabaricum</i>	Subba Rao, 1989
5.	<i>Acropolynema orientale</i>	(Narayanan, Subba Rao & Kaur, 1960)
6.	<i>Acropolynema orchidea</i>	Triapitsyn & Berezovskiy, 2007
7.	<i>Acropolynema problema</i>	Triapitsyn & Berezovskiy, 2007
8.	<i>Acropolynema pseudotachikawai</i>	Manickavasagam & Palanivel in Manickavasagam <i>etal.</i> , 2017
9.	<i>Acropolynema pteron</i>	Manickavasagam & Palanivel in Manickavasagam <i>etal.</i> , 2017
10.	<i>Acropolynema tachikawai</i>	Taguchi, 1971
11.	<i>Alaptus ramakrishnai</i>	Mani, 1942
12.	<i>Allanagrus orientalis</i>	Manickavasagam & Palanivel, 2017
13.	<i>Allanagrus montanus</i>	Manickavasagam & Palanivel, 2017
14.	<i>Anagridea himalayana</i>	(Mani and Saraswat, 1973)
15.	<i>Anagrus</i> (<i>Anagrus</i>) <i>nilaparvatae</i>	Pang & Wang, 1985
16.	<i>Anagrus</i> (<i>Anagrus</i>) <i>empoascae</i>	Dozier, 1932
17.	<i>Anagrus</i> (<i>Paranagrus</i>) <i>optabilis</i>	(Perkins, 1905)
18.	<i>Anagrus</i> (<i>Paranagrus</i>) <i>perforator</i>	(Perkins, 1905)

19.	<i>Anaphes pallipes</i>	(Ashmead, 1887)
20.	<i>Anaphes pullicrurus</i>	(Girault, 1910)
21.	<i>Anaphes quinquearticulatus</i>	Huber & Triapitsyn, 2017
22.	<i>Arescon enocki</i>	(Subba Rao and Kaur, 1959)
23.	<i>Arescon mudigerensis</i>	Subba Rao, 1989
24.	<i>Callodicopus narendrani</i>	Manickavasagam & Palanivel, 2016
25.	<i>Camptoptera ambrae</i>	Viggiani, 1978
26.	<i>Camptoptera brevifuniculata</i>	Subba Rao, 1989
27.	<i>Camptoptera dravida</i>	Subba Rao, 1989
28.	<i>Camptoptera kannada</i>	Subba Rao, 1989
29.	<i>Camptoptera matcheta</i>	Subba Rao, 1989
30.	<i>Camptoptera muiri</i>	(Perkins, 1912)
31.	<i>Cleruchus indicus</i>	Manickavasagam & Palanivel, 2018
32.	<i>Cleruchus orientalis</i>	Manickavasagam & Palanivel, 2018
33.	<i>Cleruchus funiculatus</i>	Manickavasagam & Palanivel, 2018
34.	<i>Cosmocomoidea atra</i>	(Foerster, 1841)
35.	<i>Cosmocomoidea garyi</i>	(Manickavasagam & Rameshkumar, 2013)
36.	<i>Cosmocomoidea sunthilagaraji</i>	(Manickavasagam & Rameshkumar, 2013)
37.	<i>Cosmocomoidea hayati</i>	(Zeya & Khan, 2012)
38.	<i>Cosmocomoidea heratyi</i>	(Manickavasagam & Rameshkumar, 2013)
39.	<i>Cosmocomoidea kashipurensis</i>	(Zeya & Khan, 2012)
40.	<i>Cosmocomoidea kodaiana</i>	(Mani & Saraswat, 1973)
41.	<i>Cosmocomoidea monticola</i>	Zeya in Zeya & Hayat, 1995
42.	<i>Cosmocomoidea sahaddevani</i>	(Subba Rao and Kaur, 1959)
43.	<i>Cosmocomoidea trialbifuniculatus</i>	(Subba rao, 1989)
44.	<i>Cosmocomoidea udakamanda</i>	(Mani & Saraswat, 1973)
45.	<i>Cosmocomoidea montanus</i>	Manickavasagam & Athithya
46.	<i>Dicopomorpha funiculata</i>	Rameshkumar & Manickavasagam 2015
47.	<i>Dicopomorpha indica</i>	(Subba Rao, 1989)
48.	<i>Dicopomorpha longiscapa</i>	Rameshkumar & Manickavasagam 2015
49.	<i>Dicopomorpha minuta</i>	Rameshkumar & Manickavasagam 2015
50.	<i>Dicopomorpha albithorax</i>	Rameshkumar & Manickavasagam 2015

51.	<i>Dicopus longipes</i>	(Subba Rao, 1984)
52.	<i>Dicopus noyesi</i>	Manickavasagam 2011
53.	<i>Dorya noyesi</i>	Manickavasagam & Palanivel 2015
54.	<i>Eofoersteria secunda</i>	Viggiani, 1978
55.	<i>Eofoersteriamontana</i>	Manickavasagam&Palanivel2015
56.	<i>Erythmelus (E) flavovarius</i>	(Walker, 1846)
57.	<i>Erythmelus (E) dichromocnemus</i>	Novicky, 1953
58.	<i>Erythmelus (E) helopeltidis</i>	Gahan, 1949
59.	<i>Erythmelus (E) nuinu</i>	Triapitsyn, 2003
60.	<i>Erythmelus (P) panis</i>	Ernst, 1909)
61.	<i>Erythmelus (P) teleonemiae</i>	Subba Rao, 1984
62.	<i>Eubroncusscutatus</i>	Manickavasagam&Palanivel2015
63.	<i>Eubroncus vertexus</i>	Jin & Li, 2014
64.	<i>Gonatocerus aegyptiacus</i>	Soyka, 1950
65.	<i>Gonatocerus huberi</i>	Zeya in Zeya & Hayat, 1995
66.	<i>Gonatocerus longicornis</i>	Nees, 1834
67.	<i>Gonatocerus mandyanus</i>	Zeya & Usman in Zeya <i>etal.</i> , 2014
68.	<i>Gonatocerus meghalajensis</i>	Zeya, 2011
69.	<i>Gonatocerus shanmii</i>	Subba Rao & Hayat, 1986
70.	<i>Gonatocerus utkalensis</i>	Subba Rao, 1989
71.	<i>Himopolynema longiclavatum</i>	Hayat and Anis, 1999
72.	<i>Himopolynema indicum</i>	Hayat and Basha, in Hayat <i>etal.</i> , 2003
73.	<i>Kikiki hubei</i>	Huber in Huber & Beardsley, 2000
74.	<i>Litus sutil</i>	Triapitsyn & Berezovski, 2004
75.	<i>Litus ovipseus</i>	Haliday, 1833
76.	<i>Litus huberi</i>	Rehmat & Anis in Rehmat <i>etal.</i> , 2009
77.	<i>Lymaenon aureus</i>	(Girault, 1911)
78.	<i>Lymaenon bakrotus</i>	(Mani & Saraswat), 1973
79.	<i>Lymaenon bashai</i>	(Zeya) in Zeya & Hayat, 1995
80.	<i>Lymaenon berijamus</i>	(Mani & Saraswat), 1973
81.	<i>Lymaenon bicoloriventris</i>	(Zeya) in Zeya & Hayat, 1995
82.	<i>Lymaenon bouceki</i>	(Zeya) in Zeya & Hayat, 1995

83.	<i>Lymaenon brevifuniculatus</i>	(Subba Rao), 1970
84.	<i>Lymaenon breviterebratus</i>	(Subba Rao), 1989
85.	<i>Lymaenon coimbatorensis</i>	(Zeya, Manickavasagam & Rameshkumar), 2012
86.	<i>Lymaenon delhiensis</i>	Narayanan & Subba Rao, 1961
87.	<i>Lymaenon devitatakus</i>	(Mani & Saraswat), 1973
88.	<i>Lymaenon malanadensis</i>	(Subba Rao), 1989
89.	<i>Lymaenon manaliensis</i>	(Zeya & Anwar), 2013
90.	<i>Lymaenon munnarus</i>	(Mani & Saraswat), 1973
91.	<i>Lymaenon narayani</i>	Subba Rao & Kaur, 1959
92.	<i>Lymaenon tamilanus</i>	(Mani & Saraswat), 1973
93.	<i>Lymaenon triapitsyni</i>	(Zeya, Manickavasagam & Rameshkumar, 2012)
94.	<i>Lymaenon venustus</i>	(Zeya) in Zeya & Hayat, 1995
95.	<i>Mymar roopum</i>	Hayat and Khan, in Hayat <i>et al.</i> , 2008
96.	<i>Mymar dobo</i>	Amer & Zeya, 2016
97.	<i>Mymar taprobanicum</i>	Ward, 1875
98.	<i>Mymar pulchellum</i>	Curtis, 1832
99.	<i>Narayanella pilipes</i>	(Subba Rao, 1976)
100.	<i>Narayanella thomaspoda</i>	(Narayanan and Subba Rao, 1961)
101.	<i>Omyomymar huberi</i>	Manickavasagam & Gowriprakash 2016
102.	<i>Omyomymar noyesi</i>	Manickavasagam & Gowriprakash, 2016
103.	<i>Ooctonus himalayus</i>	Subba Rao, 1989
104.	<i>Ooctonus nigrotestaceus</i>	Subba Rao, 1989
105.	<i>Palaeoneura bagicha</i>	(Narayanan, Subba Rao and Kaur, 1960)
106.	<i>Palaeoneura indopeninsularis</i>	(Mani and Saraswat, 1973)
107.	<i>Palaeoneura unimaculatum</i>	Hayat and Anis, in Hayat and Anis, 1999
108.	<i>Polynema (Dorypolynema) mendeli</i>	Girault, 1913
109.	<i>Polynema (Polynema) brevicarinae</i>	Anneck and Douth, 1961
110.	<i>Ptilomymar dianensis</i>	Jin & Li, 2014
111.	<i>Ptilomymar dictyon</i>	Hayat and Anis, 1999
112.	<i>Ptilomymar heptafuniculata</i>	Manickavasagam & Palanivel 2015

113.	<i>Ptilomyzomys longipennis</i>	Manickavasagam & Palanivel 2015
114.	<i>Ptilomyzomys terebratus</i>	Manickavasagam & Palanivel, 2015
115.	<i>Schizophragma indica</i>	Rehmat & Anis, 2015
116.	<i>Stephanodes reduvioli</i>	(Perkins, 1905)
117.	<i>Stephanocampta andamanensis</i>	Manickavasagam & Palanivel 2015
118.	<i>Stephanocampta huberi</i>	Manickavasagam & Palanivel 2015
119.	<i>Stephanocampta indica</i>	Anwar & Zeya, 2014
120.	<i>Stethynium empoascaae</i>	Subba Rao, 1966
121.	<i>Stethynium triclavatum</i>	Enock, 1909
122.	<i>Zeyanus sulcifrons</i>	(Zeya) in Zeya & Hayat, 1995
123.	<i>Zeyanus bialbifuniculatus</i>	(Subba Rao, 1989
124.	<i>Zeyanus devikulamus</i>	(Mani & Saraswat, 1973)
125.	<i>Zeyanus fulvipodus</i>	(Subba Rao, 1989)
126.	<i>Zeyanus jaintiacus</i>	Zeya & Hayat, 1995
127.	<i>Zeyanus longiterebratus</i>	(Subba Rao), 1989
128.	<i>Zeyanus rileyi</i>	(Zeya, 1995)
129.	<i>Zeyanus sergueii</i>	(Manickavasagam & Rameshkumar), 2013
130.	<i>Zeyanus unicoloratus</i>	(Subba Rao), 1989

Determined by Dr. S. Manickavasagam, Dr. A. Ramesh Kumar, Dr. S. Palanivel, Athithya and Sankararaman. H



Callodicopus narendrani
Manickavasagam & Palanivel, 2016



Cosmocomoidea
gunathilagaraji (Manickavasagam & Rameshkumar, 2013)

Annexure - 10

Dryinidae



Dryinus indicus Keiffer, 1914



Gonatopus bengalensis
Olmi, 1984



Neodryinus pseudodiffusus
Olmi, 1984

No	Taxon	Author & Year
1.	<i>Anteon</i>	Olmi, 1991
2.	<i>Dryinus indicus</i>	Keiffer, 1914
3.	<i>Dryinus pyrillae</i>	Keiffer, 1911
4.	<i>Dryinus pyrillivorus</i>	Olmi, 1986
5.	<i>Neodryinus pseudodiffusus</i>	Olmi, 1984
6.	<i>Neodryinus beaver</i>	(Olmi, 1998)
7.	<i>Echthrodolphax fairchildii</i>	Perkins, 1903
8.	<i>Gonatopus nigricans</i>	Perkins, 1905
9.	<i>Gonatopus bengalensis</i>	Olmi, 1984
10.	<i>Neodryinus beaver</i>	Olmi, 1998
11.	<i>Pseudodryinus</i> sp.	

Determined by Dr. Olmi, Dr. S. Manickavasagam and M. Avin Kumar



Dryinus pyrillae Keiffer, 1911



Dryinus pyrillivorus

Major research outcome

New parasitoid species described
Mymaridae & Mymarommatidae

Sl no	Genus / species	Reg no	Authors	Family
1.	<i>Dicopus noyesi</i> (1)		Manickavasagam 2011	Mymaridae
2.	<i>Cosmocomoidea garyi</i> (3)		(Manickavasagam & Rameshkumar), 2013	Mymaridae
3.	<i>Cosmocomoidea gunathilagaraji</i> (4)		(Manickavasagam & Rameshkumar), 2013	Mymaridae
4.	<i>Zeyanus sergueii</i> (5)		(Manickavasagam & Rameshkumar), 2013	Mymaridae
5.	<i>Cosmocomoidea heratyi</i> (6)		(Manickavasagam & Rameshkumar), 2013	Mymaridae
6.	<i>Lymaenon coimbatorensis</i> (7)		(Zeya & Manickavasagam), 2012	Mymaridae
7.	<i>Lymaenon triapitsyni</i>	(8)	(Zeya & Manickavasagam), 2012	Mymaridae
8.	<i>Ptilomymar heptafuniculata</i> (9)		Manickavasagam & Palanivel, 2014	Mymaridae
9.	<i>Eubroncus scutatus</i> (10)		Manickavasagam & Palanivel, 2015	Mymaridae
10.	<i>Stephanocampta andamanensis</i> (11)		Manickavasagam & Palanivel, 2015	Mymaridae
11.	<i>Stephanocampta huberi</i> (12)		Manickavasagam & Palanivel, 2015	Mymaridae
12.	<i>Ptilomymar terebratus</i> (14)		Manickavasagam & Palanivel, 2015	Mymaridae
13.	<i>Dorya noyesi</i> (15)		Manickavasagam & Palanivel, 2015	Mymaridae
14.	<i>Callodicopus narendrani</i>	(16)	Manickavasagam & Palanivel, 2016	Mymaridae
15.	<i>Dicopomorpha albithorax</i> (17)		Rameshkumar & Manickavasagam, 2015	Mymaridae
16.	<i>Dicopomorpha funiculate</i> (18)		Rameshkumar & Manickavasagam, 2015	Mymaridae
17.	<i>Dicopomorpha minuta</i> (19)		Rameshkumar & Manickavasagam, 2015	Mymaridae
18.	<i>Dicopomorpha longiscapa</i> (20)		Rameshkumar & Manickavasagam, 2015	Mymaridae
19.	<i>Omyomymar clavolineatus</i>	(21)	Manickavasagam & Gowri, 2016	Mymaridae
20.	<i>Omyomymar huberi</i>	(22)	Manickavasagam & Gowri, 2016	Mymaridae
21.	<i>Omyomymar noyesi</i>	(23)	Manickavasagam & Gowri, 2016	Mymaridae
22.	<i>M. heptafuniculatus</i>	(21)	Manickavasagam & Ayyamperumal	Mymarommatidae
23.	<i>M. longipterus</i>	(22)	Manickavasagam & Ayyamperumal	Mymarommatidae
24.	<i>Mymaromma manipurensis</i>	(23)	Manickavasagam & Ayyamperumal	Mymarommatidae
25.	<i>M. shillongense</i>	(24)	Manickavasagam & Ayyamperumal	Mymarommatidae
26.	<i>Acmopolynema pteron</i>	(24)	Manickavasagam & Palanivel, 2017	Mymaridae
27.	<i>Acmopolynema pseudotachikawai</i> (25)		Manickavasagam & Palanivel, 2017	Mymaridae
28.	<i>Allanagrus orientalis</i>		Manickavasagam & Palanivel, 2017	Mymaridae
29.	<i>Allanagrus montanus</i>		Manickavasagam & Palanivel, 2017	Mymaridae
30.	<i>Cleruchus indicus</i>		Manickavasagam & Palanivel, 2017	Mymaridae

31.	<i>Cleruchus orientalis</i>	Manickavasagam & Palanivel, 2017	Mymaridae
32.	<i>Cleruchus funiculatus</i>	Manickavasagam & Palanivel, 2017	Mymaridae
33.	<i>Cosmocomoidea montanus</i>	Manickavasagam & Athithya, 2018	Mymaridae

New Species described from Encyrtidae

Sl no	Genus / species	Reg no	Authors	Family
1.	<i>Cheiloneurus pistaciae</i> with NHM		Manickavasagam & Mehrnejad 2008	Encyrtidae
2.	<i>Aenasius hayati</i> 1		Manickavasagam & Rameshkumar, 2012	Encyrtidae
3.	<i>Neocladia noyesi</i>	2	Manickavasagam & Rameshkumar, 2012	Encyrtidae
4.	<i>Adektitopus hayati</i>	4	Manickavasagam & Rameshkumar, 2013	Encyrtidae
5.	<i>Rhopus tamilanus</i>	5	Manickavasagam & Rameshkumar, 2013	Encyrtidae
6.	<i>Pentelicus funiculatus</i>	001	Manickavasagam & Chaitanya, 2015	Encyrtidae
7.	<i>Pentelicus punctatus</i>	002	Manickavasagam & Chaitanya, 2015	Encyrtidae
8.	<i>Pentelicus depunctatus</i>	003	Manickavasagam & Chaitanya, 2015	Encyrtidae
9.	<i>Globulencyrtus pentafuniculatus</i>	004	Manickavasagam & Chaitanya, 2015	Encyrtidae
10.	<i>Copidosomyia abdukalami</i>	005	Chaitanya & Manickavasagam, 2016	Encyrtidae
11.	<i>Homalotylus biharensis</i>	006	Chaitanya & Manickavasagam, 2016	Encyrtidae
12.	<i>Homalotylus insularis</i>	007	Chaitanya & Manickavasagam, 2016	Encyrtidae
13.	<i>Homalotylus montanus</i>	008	Chaitanya & Manickavasagam, 2016	Encyrtidae
14.	<i>Homalotylus varicoloris</i>	009	Chaitanya & Manickavasagam, 2016	Encyrtidae
15.	<i>Homalotylus noyesi</i>	010	Chaitanya & Manickavasagam, 2016	Encyrtidae
16.	<i>Prionomastix tamilnadensis</i>	011	Chaitanya & Manickavasagam, 2016	Encyrtidae
17.	<i>Prionomastix biharensis</i>	012	Manickavasagam & Chaitanya, 2016	Encyrtidae
18.	<i>Pseudeciron aannamalaicus</i>	013	Chaitanya & Manickavasagam, 2016	Encyrtidae
19.	<i>Pseudeciron antennata</i>	014	Manickavasagam & Chaitanya, 2016	Encyrtidae
20.	<i>Proleurocerus montanus</i>	015	Manickavasagam & Chaitanya, 2016	Encyrtidae
21.	<i>Charitopus montibus</i>	016	Chaitanya & Manickavasagam, 2016	Encyrtidae
22.	<i>Eotopus elongare</i>	017	Chaitanya & Manickavasagam, 2016	Encyrtidae
23.	<i>Trechnites montanus</i>	018	Manickavasagam & Ayyamperumal	Encyrtidae
24.	<i>Trechnites keralensis</i>	019	Manickavasagam & Ayyamperumal	Encyrtidae

25.	<i>Trechnites assamensis</i>	020	Manickavasagam & Ayyamperumal	Encyrtidae
26.	<i>Eugahania viraktamathi</i>	025	Manickavasagam & Ayyamperumal	Encyrtidae
27.	<i>Eugahania chetnae</i>	026	Manickavasagam & Ayyamperumal	Encyrtidae

New species described from other Families

Sl no	Genus / species	Reg no	Authors	Family
1	<i>Dvivarnus punctatus</i> gen. et. sp. nov with ZSI		Rajmohana, Veenakumari & Manickavasagam, 2011	Platygastridae
2	<i>Proaphelinoides chidambaramensis</i>		Manickavasagam & Menakadevi, 2012	Aphelinidae
3	<i>Eutrichosomella keralaensis</i>		Manickavasagam & Menakadevi, 2012	Aphelinidae
4	<i>Umairia chidambaramensis</i>		Manickavasagam & Ayyamperumal, 2016	Aphelinidae
5	<i>Psilocharis heratyi</i>		Manickavasagam & Ayyamperumal, 2016	Eucharitidae
6	<i>Xyphorachidia annamalaicus</i>		Manickavasagam & Gowriprakash, 2017	Chalcididae

Genera first reported from India

Sl no	Genus	Family
1.	<i>Dicopus</i> Enock	Mymaridae
2.	<i>Calloedicopus</i> Ogloblin	Mymaridae
3.	<i>Dicopomorpha</i> Ogloblin	Mymaridae
4.	<i>Omyomymar</i> Schauff	Mymaridae
5.	<i>Cleruchus</i> Enock	Mymaridae
6.	<i>Kikiki</i> Huber	Mymaridae
7.	<i>Dorya</i> Noyes & Valentine	Mymaridae
8.	<i>Allanagrus</i> Noyes & Valentine	Mymaridae
9	<i>Bureshiella</i> Hoffer	Encyrtidae
10	<i>Zozoros</i> Noyes & Hayat	Encyrtidae
11	<i>Mymaromma</i> Girault	Mymarommatidae

Mymarid species first reported from India

S.no	Species
1.	<i>Acmopolynema campylurum</i>

2.	<i>A.orchidea</i>
3.	<i>A.tachikawai</i>
4.	<i>Anaphes quinquearticulatus</i>
5.	<i>Anaphes pallipes</i>
6.	<i>Anaphes pullicrurus</i>
7.	<i>Camptoptera muiri</i>
8.	<i>Erythmelus (E.) lygivorus</i>
9.	<i>Erythmelus (E.) nuinu</i>
10.	<i>Ptilomyar dianensis</i>

- **First report of polyembryony from India.** A polyembryonic parasitoid *Copidosoma floridanum* Ashmead (Encyrtidae: chalcidoidea) was reported with 1893 adult parasitoids from a single larva of *Helicoverpa armigera* (Hubner).
- *Nipponaetes haeussleri*, an Ichneumonid has been recorded as an egg parasitoid of sugarcane top shoot borer egg mass. **First record of an Ichneumonid, parasitizing eggs of Lepidoptera.** Paper presented at the X European workshop on Insect parasitoids at Italy, Sep. 2007.
- *Cheiloneurus pistaciae* sp. nov. Manickavasagam & Mehrnejad **First record of a facultative hyperparasitoid** from the family Encyrtidae from Iran.

Dept. of Entomology, AU

Display in the insect museum



Mantodea



Schizocephala bicornis



Gongylus gongylodes

Poisonous bright colored cicada



Sulphogaeana sulphurea

Some rare neuropterans



Ascalaphidae grubs



Coniopterygidae



Nemopteridae

Hellgrammites - Corydalidae



Nevromus austroindicus



Neoneuromus sikkimensis

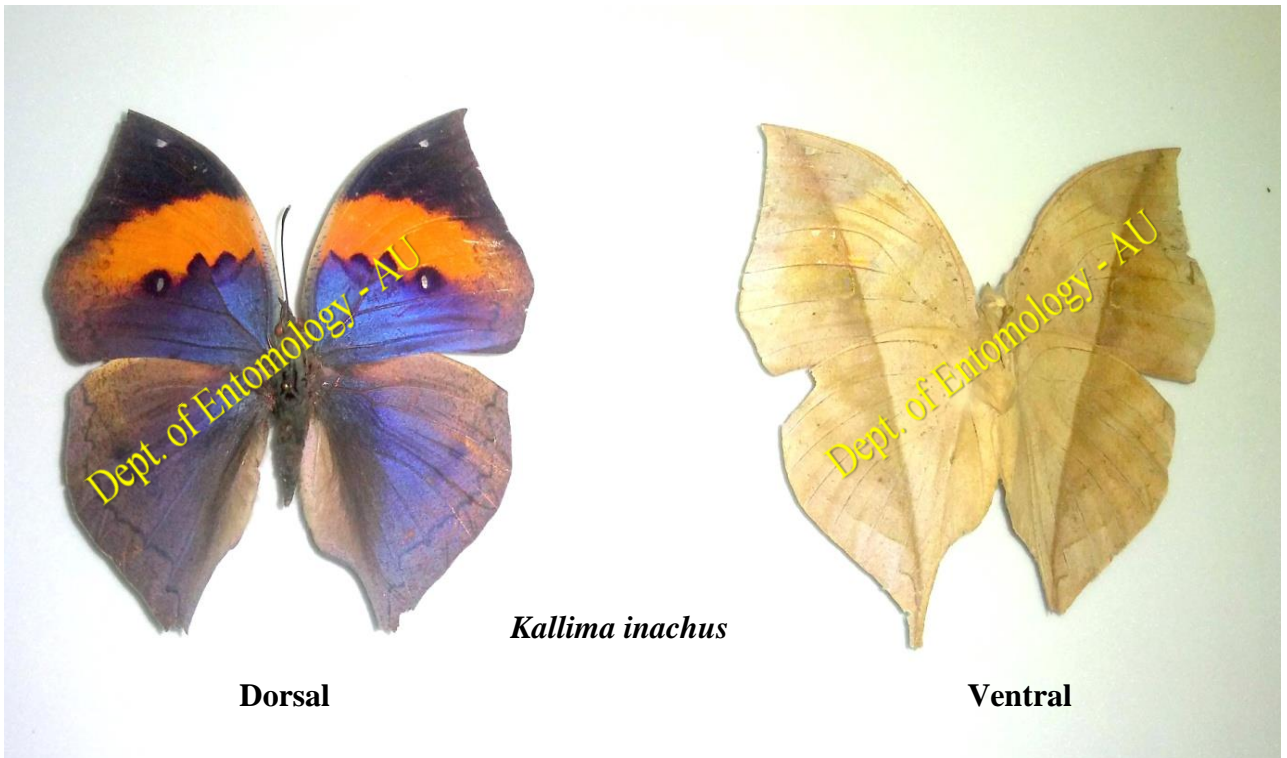
Strepsiptera - Halticophagidae



Mecoptera - Panorpidae



King of camouflage – Orange oakleaf



Saturniidae – Atlas, Moon other wild silk moths



Archaeoattacus edwardsii



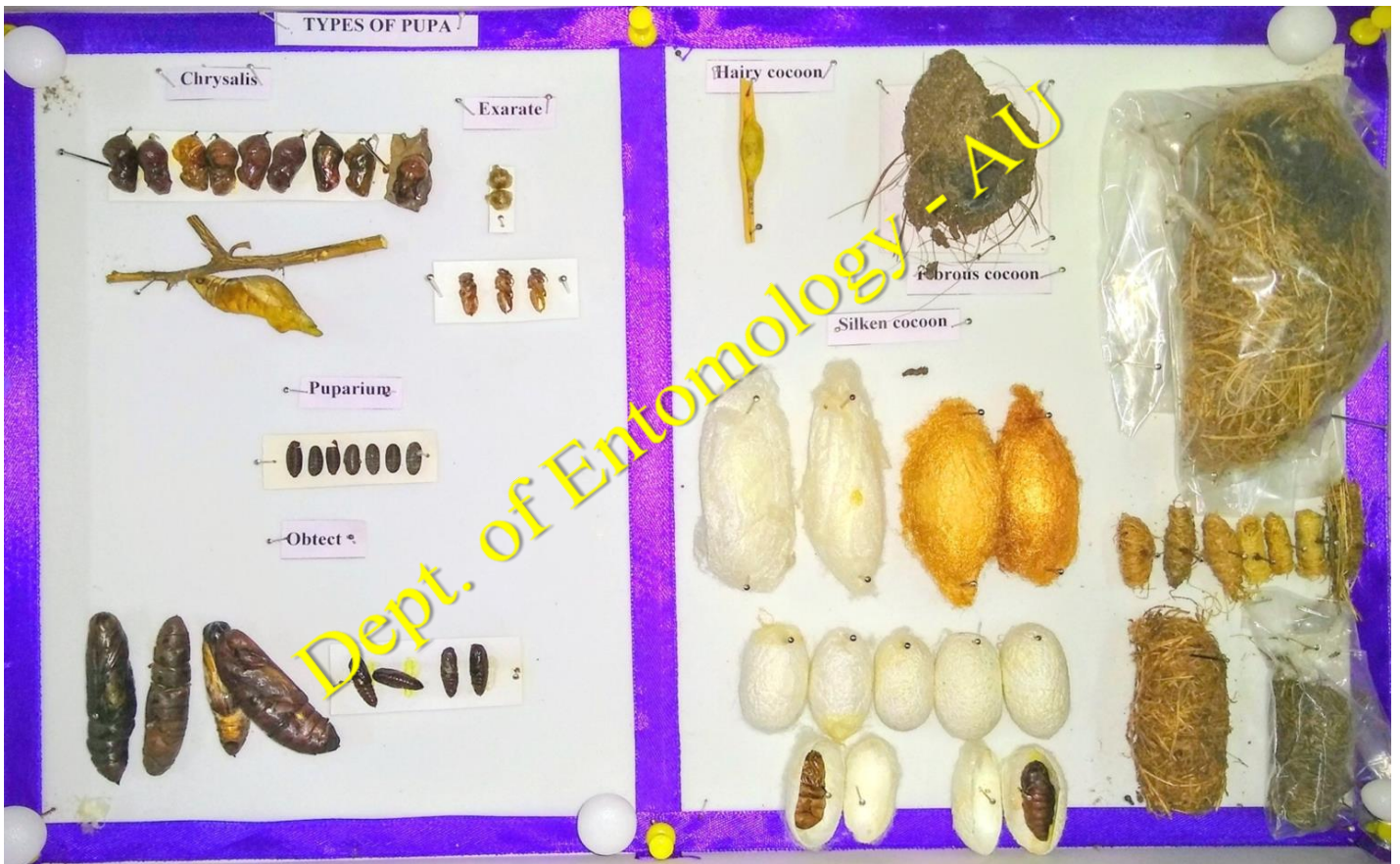
Types of eggs



Types of larva



Types of Pupa



Sexual dimorphism in insects



Prosopocoilus giraffa



Odontolabis cuvera



Lamprigera sp.



Elymnias caudata – Tailed Palmfly

State butterflies of India

Tamil Nadu



Tamil Yeoman – *Cirrochroa thais*

Maharashtra



Blue Mormon – *Papilio polymnestor*

Karnataka



Southern birdwing – *Troides minos*

Uttarakhand



Common Peacock – *Papilio bianor*

Kerala



Malabar banded peacock – *Papilio buddha*