



## Research Article

## First report of *Callodicopus* Ogloblin (Mymaridae) from India and new records of some Chalcidoidea (Hymenoptera) from Andaman and Nicobar Islands

S. MANICKAVASAGAM\* and A. RAMESHKUMAR<sup>1</sup>

*Parasitoid Taxonomy and Biocontrol Laboratory, Department of Entomology, Faculty of Agriculture, Annamalai University, Chidambaram – 608 002, Tamil Nadu, India.*

<sup>1</sup>*Insect Biosystematics wing, National Bureau of Agriculturally Important Insects, Hebbal, Bengaluru - 560 024, Karnataka, India. Corresponding author E-mail: drmanicks2003@yahoo.co.in*

**ABSTRACT:** The mymarid genus *Callodicopus* Ogloblin and the species *Mymar pulchellum* Curtis are reported for the first time from India. New distribution records of Encyrtidae (20 species in 15 genera), Mymaridae (22 species in 13 genera), and Aphelinidae (six species in four genera) and Mymarommatidae (one species belonging to the genus *Mymaromma* Girault) are reported from Port Blair and Diglipore districts of Andaman and Nicobar Islands.

**KEY WORDS:** Hymenoptera, Chalcidoidea, Encyrtidae, Mymaridae, Aphelinidae, Mymarommatidae, *Callodicopus*, *Mymar pulchellum*, Andaman & Nicobar Islands

(Article chronicle: Received: 10-09-2012; Revised: 03-10-2012; Accepted: 14-10-2012)

### INTRODUCTION

Hayat (1998) reported seven species of aphelinid parasitoids under five genera from Andaman Islands. Similarly, in 2006, he reported 27 species representing 20 genera of encyrtid parasitoids from the same region while compiling the Indian Encyrtidae. However, no literature is available on mymarids and mymarommatids from this region. This paper deals with records of parasitoids representing Encyrtidae, Mymaridae and Aphelinidae of Chalcidoidea and Mymarommatoidea from Andaman and Nicobar Islands.

### MATERIALS AND METHODS

Extensive survey was conducted in two districts, viz., Port Blair (Jawaharlal Nehru Rajkeeya Mahavidyalaya (JNRM) college premises and Bathu Basthi) and Diglipore (Kalighat and Ramnagar) of Andaman Islands for chalcid parasitoids using Malaise traps, yellow pan traps and net sweeps during May, 2012. Collections made from Institute of Wood Science and Technology (IWST) campus, Bengaluru, Karnataka, during March, 2012 were also studied and included. The recovered parasitoids were processed using Hexamethyldisilazane (Brown, 1993) and then card / slide mounted for identification. The identified parasitoids were deposited in EDAU (Entomology Department, Annamalai

University), Parasitoid Taxonomy and Biocontrol Laboratory, Faculty of Agriculture, Chidambaram, Tamil Nadu, India.

### RESULTS AND DISCUSSION

In the surveys, the superfamilies Mymarommatoidea (one family) and Chalcidoidea (12 families) were documented. Parasitoid species composition and new distributional records of Encyrtidae, Mymaridae and Aphelinidae of Chalcidoidea and Mymarommatoidea are detailed in this paper. The mymarid genus, *Callodicopus* Ogloblin and the species, *Mymar pulchellum* Curtis are first reported from India. Further, the survey resulted in the following additional distributional record of 20 species under 15 genera of encyrtids, 22 species under 13 genera of mymarids, six species under four genera of aphelinids and the genus *Mymaromma* Girault of Mymarommatidae.

#### Superfamily Chalcidoidea

##### ENCYRTIDAE

##### 1. *Adelencyrtus coxalis* Hayat, Alam & Agarwal

**Specimen examined:** INDIA, Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, net sweep, weedy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**2. *Adelencyrtus orissanus* Hayat**

**Specimen examined:** India: Andaman & Nicobar Islands, Diglipore, Kalighat, Ramnagar, 1 female, Malaise trap, forest land, 27.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Orissa (Hayat, 2006), Andaman & Nicobar Islands (new record).

**3. *Anagyrus* nr. *almoriensis* Shafee, Alam & Agarwal**

**Specimens examined:** India: Andaman & Nicobar Islands, Diglipore, Kalighat, Ramnagar, 5 females, yellow pan trap, weedy field, 28.v.2012; Port Blair, Bathu Basthi, 2 females, yellow pan trap and net sweep, weedy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Uttarakhand (Hayat, 2006), Andaman & Nicobar Islands (new record).

**4. *Anagyrus kamali* Moursi**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 3 females, yellow pan trap and net sweep, weedy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Delhi, Karnataka, Maharashtra, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**5. *Anagyrus shahidi* Hayat**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, net sweep, grassy field, 31.v.2012; Diglipore, Kalighat, Ramnagar, 2 females, Malaise trap, forest land, 27.v.2012; Port Blair, JNRM College premises, 2 females, net sweep, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Karnataka, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**6. *Anagyrus thailandicus* (Myartseva)**

**Specimens examined:** India: Andaman & Nicobar Islands Port Blair, Bathu Basthi, 1 female, net sweep, weedy field, 31.v.2012; Port Blair, JNRM College premises, 1 female, net sweep, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Assam, Kerala, Tamil Nadu (Hayat, 2006), Andaman & Nicobar Islands (new record).

**7. *Anomalicornia tenuicornis* Mercet**

**Specimens examined:** India: Andaman & Nicobar Islands Port Blair, Bathu Basthi, 1 female, net sweep, grassy field, 30.v.2012; Port Blair, JNRM College premises, 1 female, yellow pan trap, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Delhi, Karnataka, Kerala, Rajasthan, Tamil Nadu (Hayat, 2006), Andaman & Nicobar Islands (new record).

**8. *Aphycus sapporoensis* (Compere & Annecke)**

**Specimen examined:** India: Andaman & Nicobar Islands, Port Blair, JNRM College premises, 1 female, net sweep, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**9. *Blepyrus insularis* (Cameron)**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 2 females, net sweep, grassy field, 31.v.2012; Diglipore, Kalighat, Ramnagar, 3 females, yellow pan trap, weedy field, 27.v.2012; Port Blair, JNRM College premises, 1 female, net sweep, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution :** India: Delhi, Goa, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal (Hayat, 2006), Andaman & Nicobar Islands (new record).

**10. *Callipteroma sexguttata* Motschulsky**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 5 females, net sweep and yellow pan trap, grassy field, 31.v.2012; Diglipore, Kalighat, Ramnagar, 3 females, yellow pan trap, weedy field, 27.v.2012; Port Blair, JNRM College premises, 4 females, net sweep, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Delhi, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**11. *Coccidencyrtus shafeei* (Hayat, Alam & Agarwal)**

**Specimen examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, Malaise trap, grassy field, 31.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Kerala, Rajasthan, Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**12. *Mahencyrtus ranchiensis* (Fatima & Shafee)**

**Specimen examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, yellow pan trap, weedy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Goa, Jharkhand, Kerala, Maharashtra, Tamil Nadu, Uttarakhand, Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**13. *Metaphycus* sp.**

**Specimen examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, Malaise trap, grassy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution :** India: Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Karnataka, Kerala, Madya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**14. *Neastymachus* sp.**

**Specimen examined:** India: Andaman & Nicobar Islands Port Blair, Bathu Basthi, 1 female, yellow pan trap, grassy field, 31.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Assam, Bihar, Delhi, Karnataka, Maharashtra, Manipur, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**15. *Ooencyrtus papilionis* Ashmead**

**Specimen examined:** India: Andaman & Nicobar Islands, JNRM College premises, 1 female, net sweep, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Karnataka, Orissa (Hayat, 2006), Andaman & Nicobar Islands (new record).

**16. *Ooencyrtus utetheisae* (Risbec)**

**Specimen examined:** India: Andaman & Nicobar Islands, JNRM College premises, 1 female, net sweep, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar. **Distribution:** India: Assam, Karnataka, Kerala, Meghalaya, Tamil Nadu, Uttarakhand, Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**17. *Paraclausenia herbicola* Hayat**

**Specimen examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, Malaise trap, grassy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Assam, Himachal Pradesh, Jharkhand, Kerala, Maharashtra, Rajasthan, Tamil Nadu (Hayat, 2006), Andaman & Nicobar Islands (new record).

**18. *Protyndarichoides indicus* Singh & Agarwal**

**Specimens examined:** India: Andaman & Nicobar Islands, Diglipore, Kalighat, Ramnagar, 3 females, yellow pan trap, weedy field, 28.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Arunachal Pradesh, Assam, Uttar Pradesh (Hayat, 2006), Andaman & Nicobar Islands (new record).

**19. *Rhopus* sp.**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 2 females, net sweep and yellow pan trap, grassy field, 31.v.2012; Diglipore, Kalighat, Ramnagar, 6 females, yellow pan trap and Malaise trap, weedy field and forest land, 28 and 29.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andaman & Nicobar Islands (new record).

**20. *Rhytidothorax* sp.**

**Specimens examined:** India: Andaman & Nicobar Islands, Diglipore, Kalighat, Ramnagar, 1 female, Malaise trap, forest land, 29.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Assam, Uttarakhand (Hayat, 2006), Tamil Nadu (Manickavasagam and Rameshkumar, 2010), Andaman & Nicobar Islands (new record).

**MYMARIDAE**

**1. *Calloedicopus* sp. (Fig. 1)**

**Diagnosis:** Mandible bidentate; female funicle 7-segmented, F2 either ring like or not; Fore wing with posterior margin straight, the wing widening gradually towards apex; Proximal and distal macrochaeta present and moderately long; Procoxae widely separated by the broad anterior apex of prosternum; Tarsi 5-segmented; Mesophragma extending into gaster; Propodeal foramen broad, almost touching metacoxal foramen; Petiole apparently absent.



**Fig. 1: *Callodicopus Ogloblin***

**Specimen examined:** India: Karnataka, Bengaluru, IWST campus, 1 female, yellow pan trap, forest land, 15.iii.2012, coll. S. Manickavasagam & A. Rameshkumar.

**Distribution:** Brazil (Ogloblin, 1955), Argentina (Yoshimoto, 1990), USA (Florida), Central and South America and Southern Africa (Huber and Lin, 1999), India (new record).

**Host:** unknown (Huber and Lin, 1999).

**Comments:** This genus was erected by Ogloblin in 1955 with *crassula* as type species along with three more species viz., *cursor* Ogloblin, *longicornis* Ogloblin and *silvestriana* Ogloblin. Annecke (1961) erected the genus *Decamymar* with *mangiclavae* as the type species which was later synonymized with *Callodicopus* by Huber and Lin (1999). The collected specimen does not match any of the five described species and efforts are on to recover more specimens to describe this.

## 2. *Anagrus (Anagrus) sp.*

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 4 females, 2 males, yellow pan trap and Malaise trap, grassy field, 30 and 31.v.2012; Diglipore, Kalighat, Ramnagar, 3 females, Malaise trap, weedy field and forest land, 29.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Himachal Pradesh, Delhi, Orissa (Subba Rao and Hayat, 1983), Kerala (Rameshkumar *et al.*, 2011a), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

## 3. *Anagrus (Paranagrus) sp.*

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 4 females, yellow pan trap and Malaise trap, grassy field, 31.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Himachal Pradesh, Delhi, Orissa (Subba Rao and Hayat, 1983), Kerala (Rameshkumar *et al.*, 2011a), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

## 4. *Alaptus sp.*

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 3 females, 2 males, yellow pan trap and Malaise trap, grassy field, 31.v.2012; Diglipore, Kalighat, Ramnagar, 5 females, Malaise trap, forest land, 29.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Delhi, West Bengal, Tamil Nadu (Subba Rao and Hayat, 1983), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

## 5. *Anaphes sp.*

**Specimens examined:** India: Andaman & Nicobar Islands, Diglipore, Kalighat, Ramnagar, 2 females, Malaise trap, forest land, 29.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Uttar Pradesh, Himachal Pradesh (Subba Rao and Hayat, 1983), Kerala (Rameshkumar *et al.*, 2011a), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

## 6. *Arescon sp.*

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, Malaise trap, grassy field, 30.v.2012; Diglipore, Kalighat, Ramnagar, 1 female, Malaise trap, forest land, 29.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: New Delhi, Bihar, Gujarat, Himachal Pradesh, Karnataka, Maharashtra (Subba Rao and Hayat, 1983), Kerala (Rameshkumar *et al.*, 2011a), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

**7. *Camptoptera* sp.**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 13 females, Malaise trap and yellow pan trap, grassy and weedy field, 30.v.2012; Diglipore, Kalighat, Ramnagar, 7 females, yellow pan trap and Malaise trap, weedy field and forest land, 28 and 29.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Uttar Pradesh, Himachal Pradesh (Subba Rao and Hayat, 1983), Kerala (Rameshkumar *et al.*, 2011a), Andaman & Nicobar Islands (new record).

**8. *Dicopomorpha* sp.**

**Specimens examined:** India: Andaman & Nicobar Islands, Diglipore, Kalighat, Ramnagar, 2 females, Malaise trap, forest land, 29.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Tamil Nadu (Manickavasagam and Rameshkumar, 2011), Andaman & Nicobar Islands (new record).

**9. *Gonatocerus bouceki* Zeya**

**Specimen examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, yellow pan trap, grassy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Bihar, Uttar Pradesh (Zeya and Hayat, 1995), Kerala (Rameshkumar *et al.*, 2011a), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

**10. *Gonatocerus narayani* (Subba Rao & Kaur)**

**Specimen examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, yellow pan trap, grassy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Bihar, Himachal Pradesh, Kerala, Tamil Nadu, Uttar Pradesh (Zeya and Hayat, 1995), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

**11. *Gonatocerus pahalgamensis* (Narayanan)**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 4 females, net sweep and yellow pan trap, grassy field, 30 and 31.v.2012; Diglipore, Kalighat, Ramnagar, 3 females, yellow pan trap, weedy field, 28.v.2012; Port Blair, JNRM College premises, 2 females, yellow pan trap, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Assam, Bihar, Jammu & Kashmir, Kerala, Maharashtra, Orissa, Tamil Nadu (Zeya and Hayat, 1995), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

**12. *Gonatocerus tamilanus* Mani & Saraswat**

**Specimen examined:** India: Andaman & Nicobar Islands, Diglipore, Kalighat, Ramnagar, 1 female, yellow pan trap, weedy field, 29.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Kerala, Tamil Nadu, Uttar Pradesh (Zeya and Hayat, 1995), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

**13. *Gonatocerus tarae* (Narayanan & Subba Rao)**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 6 females, net sweep and yellow pan trap, grassy field, 30 and 31.v.2012; Diglipore, Kalighat, Ramnagar, 5 females, yellow pan trap, weedy field, 28.v.2012; Port Blair, JNRM College premises, 1 female, net sweep, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Assam, Andhra Pradesh, Bihar, Jammu & Kashmir, Kerala, Karnataka, Maharashtra, Meghalaya, Tamil Nadu, Uttar Pradesh (Zeya and Hayat, 1995), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

**14. *Himopolynema indicum* Hayat & Basha**

**Specimens examined:** India: Andaman & Nicobar Islands, Diglipore, Kalighat, Ramnagar, 1 female, yellow pan trap, weedy field, 28.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Assam (Hayat *et al.*, 2003), Andaman & Nicobar Islands (new record).

**15. *Mymar pulchellum* Curtis**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 7 females, yellow pan trap, grassy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** Russia, Japan, Belgium, Denmark, France, England, Canada, USA, Europe (Triapitsyn and Berezovskiy, 2001), India (new record, Andaman & Nicobar Islands).

**16. *Mymar schwanni* Girault**

**Specimen examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, Malaise trap,

weedy field, 31.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Uttar Pradesh (Subba Rao and Hayat, 1983), Tamil Nadu (Manickavasagam and Rameshkumar, 2011), Kerala (Rameshkumar *et al.*, 2011a), Andaman & Nicobar Islands (new record).

**17. *Mymar taprobanicum* Ward**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, 4 males, yellow pan trap, grassy field, 31.v.2012; Diglipore, Kalighat, Ramnagar, 2 males, yellow pan trap, weedy field, 28.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Delhi, Tamil Nadu, Rajasthan (Hayat, 1977), Kerala (Rameshkumar *et al.*, 2011a), Pudhucherry (Rameshkumar *et al.*, 2011b), Andaman & Nicobar Islands (new record).

**18. *Narayanella thornypoda* (Narayanan & Subba Rao)**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 2 females, Malaise trap, grassy field, 30.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Tamil Nadu, Andhra Pradesh, Kerala (Rameshkumar *et al.*, 2011a, b & c), Andaman & Nicobar Islands (new record).

**19. *Palaeoneura bagicha* (Narayanan, Subba Rao and Kaur)**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 1 female, Malaise trap, weedy field, 31.v.2012; Port Blair, JNRM College premises, 1 female, yellow pan trap, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Delhi (Huber, 2003), Kerala (Rameshkumar *et al.*, 2011a), Andaman & Nicobar Islands (new record).

**20. *Palaeoneura indopeninsularis* (Mani and Saraswat)**

**Specimen examined:** India: Andaman & Nicobar Islands, Port Blair, JNRM College premises, 1 female, yellow pan trap, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Uttar Pradesh, Tamil Nadu (Huber, 2003), Kerala (Rameshkumar *et al.*, 2011a), Andaman & Nicobar Islands (new record).

**21. *Polynema brevicarinae* Annecke & Doult**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, JNRM College premises, 1 female, 1 male, sweep, weedy field, 25.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Bihar, Delhi, Karnataka, Kerala, Maharashtra, Orissa, Pudhucherry, Tamil Nadu, Uttar Pradesh (Anis and Hayat, 1999), Andaman & Nicobar Islands (new record).

**22. *Polynema mendeli* Girault**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 11 females, 2 males, yellow pan trap, net sweep and Malaise trap, weedy and grassy field, 30 and 31.v.2012; Diglipore, Kalighat, Ramnagar, 1 female, yellow pan trap, weedy field, 28.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Assam, Bihar, Kerala, Pudhucherry, West Bengal (Anis and Hayat, 1999), Tamil Nadu (Manickavasagam and Rameshkumar, 2011), Andaman & Nicobar Islands (new record).

**23. *Stethynium empoascae* Subba Rao**

**Specimen examined:** India: Andaman & Nicobar Islands, Diglipore, Kalighat, Ramnagar, 1 female, yellow pan trap, weedy field, 28.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Delhi (Subba Rao and Hayat, 1983), Andaman & Nicobar Islands (new record).

**APHELINIDAE**

**1. *Ablerus williamsi* (Annecke & Insley)**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 2 females, Malaise trap, weedy field, 30.v.2012; coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Assam, Orissa (Hayat and Khan, 2010), Andaman & Nicobar Islands (new record).

**2. *Coccobius mirus* Hayat**

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 2 females, yellow pan trap, weedy field, 30.v.2012; Diglipore, Kalighat, Ramnagar, 4 females, Malaise trap and yellow pan trap, forest land, 27.v.2012; coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Assam, Kerala, Orissa, West Bengal (Hayat & Khan, 2010), Andaman & Nicobar Islands (new record).

### 3. *Coccophagus cowperi* Girault

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 2 females, yellow pan trap, weedy field, 30.v.2012; Diglipore, Kalighat, Ramnagar, 2 females, Malaise trap and yellow pan trap, forest land, 27.v.2012; coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Andhra Pradesh, Goa, Kerala, Karnataka, Maharashtra, Pudhucherry, Tamil Nadu (Hayat, 1998), Andaman & Nicobar Islands (new record).

### 4. *Encarsia azimi* Hayat

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 3 females, yellow pan trap and malaise trap, weedy field, 30.v.2012; Diglipore, Kalighat, Ramnagar, 2 females, Malaise trap, forest land, 27.v.2012; coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Karnataka, Tamil Nadu, Uttar Pradesh (Hayat, 1998), Andaman & Nicobar Islands (new record).

### 5. *Encarsia hitam* Hayat

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 2 females, yellow pan trap, weedy field, 30.v.2012; Diglipore, Kalighat, Ramnagar, 1 female, Malaise trap and yellow pan trap, forest land, 27.v.2012; coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Assam, Meghalaya, Uttar Pradesh, Uttarakhand (Hayat, 2011), Andaman & Nicobar Islands (new record).

### 6. *Encarsia tinctoriae* Krishnan & David

**Specimens examined:** India: Andaman & Nicobar Islands, Port Blair, Bathu Basthi, 2 females, Malaise trap, weedy field, 30.v.2012; coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Tamil Nadu (Hayat, 1998), Andaman & Nicobar Islands (new record).

## Superfamily Mymarommatoidea

### 1. *Mymaromma* sp.

**Specimen examined:** India: Andaman & Nicobar Islands Port Blair, Bathu Basthi, 1 female, Malaise trap, weedy field, 31.v.2012, coll. S. Manickavasagam and A. Rameshkumar.

**Distribution:** India: Tamil Nadu (Manickavasagam, 2011), Andaman & Nicobar Islands (new record).

## ACKNOWLEDGEMENT

The two senior authors are thankful to the University authorities for permitting them to visit Andaman Islands and for the facilities provided to carry out this research work. Thanks are due to Dr. John Huber of Ottawa, Canada and Dr. Md. Hayat of Aligarh Muslim University for confirming the identity of some parasitoids.

## REFERENCES

- Anis SB, Hayat M. 1999. The Indian species of *Polynema* with notes on *Stephanodes reduvioli* (Hymenoptera: Mymaridae). *Oriental Insects* **33**: 315–331.
- Annecke DP. 1961. The genus *Mymar* Curtis (Hymenoptera, Mymaridae). *South African J Agril Sci.* **4**: 543–552.
- Brown BV. 1993. A further chemical alternative to critical point drying for preparing small (or large) flies. *Fly Times* **7**: 10.
- Hayat M. 1977. *Mymar taprobanicum* Ward, a new record for Rajasthan, India (Hym.: Chalcidoidea, Mymaridae). *Newsl Zool Sur India* **3**(5): 283.
- Hayat M. 1998. Aphelinidae of India (Hymenoptera: Chalcidoidea): A taxonomic revision. *Mem Entomol Intl.* **13**: 1–416.
- Hayat M. 2006. *Indian Encyrtidae* (Hymenoptera: Chalcidoidea). Published by M. Hayat, Department of Zoology, Aligarh Muslim University, India. viii+496pp.
- Hayat M. 2011. Additions to the Indian Aphelinidae (Hymenoptera: Chalcidoidea): III. The genus *Encarsia* Foerster. *Colemania* **45**(2-3): 202–274.
- Hayat M, Basha MC, Singh S. 2003. Descriptions of three new species of *Himopolynema* from India (Hymenoptera: Chalcidoidea: Mymaridae). *Shashpa* **10**(1): 1–6.
- Hayat M, Khan FR. 2010. Additions to the Aphelinidae of India (Hymenoptera : Chalcidoidea): 1. On species of *Ablerus* Howard, *Coccobius* Ratzeburg, *Coccophagus* Westwood, *Pteroptrix* Westwood and *Idiococcobius* Hayat gen.nov. *Colemania* **21**: 1–31.
- Huber JT. 2003. Review of *Chaetomymar* Ogloblin with description of a new species in the Hawaiian Islands (Hymenoptera: Mymaridae). *J Hym Res.* **12**: 77–101.
- Huber JT, Lin NQ. 1999. World review of the *Camptoptera* group of genera (Hymenoptera : Mymaridae). *Proc Entomol Soc Ontario* **130**: 26–27.

- Manickavasagam S. 2011. First report of Mymaromatoidea from India. *J Biol Cont.* **25**(3): 246.
- Manickavasagam S, Rameshkumar A. 2010. New Records of genera and species of Encyrtidae (Hymenoptera: Chalcidoidea) from Tamil Nadu, India. *Madras Agric J.* **97**(10-12): 402–407.
- Manickavasagam S, Rameshkumar A. 2011. First report of three genera of fairyflies (Hymenoptera: Mymaridae) from India with description of a new species of *Dicopus* and some other records. *Zootaxa* **3094**: 63–68.
- Ogloblin AA. 1955. Los nuevos representantes de la fam. Mymaridae (Hym.) de la Republica Argentina. *Bollettino del Laboratorio di Zoologia generale e agrarian "Filippo Silvestri"* **33**: 377–397.
- Rameshkumar A, Manickavasagam S, Jebanesan A. 2011a. Diversity and new distributional records of fairyflies (Hymenoptera: Chalcidoidea: Mymaridae) from the state of Kerala, India. *Plant Archive* **11**(2): 769–774.
- Rameshkumar A, Manickavasagam S, Jebanesan A. 2011b. New distributional records of fairyflies (Hymenoptera: Chalcidoidea: Mymaridae) from Pudhucherry, India. *Madras Agric J.* **98**(7-9): 279–281.
- Rameshkumar A, Manickavasagam S, Jebanesan A, Rahman SJ. 2011c. Records of some Mymaridae and Encyrtidae (Hymenoptera: Chalcidoidea) from Andhra Pradesh, India. *J Res ANGRAU*. (In press).
- Subba Rao BR, Hayat M. 1983. Key to the genera of Oriental Mymaridae, with a preliminary catalog (Hymenoptera: Chalcidoidea). *Cont Amer Entomol Inst.* **20**: 125–150.
- Triapitsyn SV, Berezovskiy VV. 2001. Review of the Mymaridae (Hymenoptera: Chalcidoidea) of Primorskii krai: genus *Mymar* Curtis. *Far Eastern Entomologist* **100**: 1–20.
- Yoshimoto CM. 1990. *A review of the genera of New World Mymaridae (Hymenoptera: Chalcidoidea)*. Flora and Fauna Handbook No. 7. Sandhill Crane Press, Gainesville. 166 pp.
- Zeya SB, Hayat M. 1995. A revision of the Indian species of *Gonatocerus* Nees (Hymenoptera: Chalcidoidea: Mymaridae). *Oriental Insects* **29**: 47-160.