Along with Aphelinidae and Braconidae, the hymenopteran family Encyrtidae is one of the most economically important groups of beneficial insects. Species are frequently parasitoids of important pests of fruits and vegetable crops and are among the most successful parasitoids to be used in the control of mealybug, soft scale and other coccoid pests of agriculture. Some species may attack aphids and psyllids (Hemiptera) whilst others attack insects belonging to the orders Lepidoptera, Diptera and Coleoptera. A few are exclusively oophagous, attacking eggs of spiders and insects whilst some parasitize immature ticks. Encyrtidae is one of the largest families of Chalcidoidea and easiest to recognise (Hayat, 1985 and Noyes, 2004). Encyrtids also hold the distinction of being one of the most morphologically diverse groups of chalcidooids. Included species possess an incredible variety of structure of antenna, head shape and just about every other part of the body (Grissell and Schauff, 1997).

This group of parasitoid has been little recorded in the Union Territory of Puducherry. There are currently only eight species of encyrtid parasitoids previously recorded by Hayat (2006): *Adelencyrtus moderatus* (Howard), *Anagyrus discolor* Noyes and Hayat, *Cerchysiella kamathi* (Mani and Saraswat), *Diversinervus elegans* Silvestri, *Encyrtus aurantii* (Geoffroy), *Leptomastix nigrocoxalis* Compere, *Neodusmetia sangwani* (Subba Rao) and *Rhopus nigroclavatus* (Ashmead). Hence an attempt was made to study the fauna of this group in more detail from the region by conducting a survey during one week in February and March, 2011 at Pandit Jawaharlal Nehru College of Agriculture (PAJANCOA), Karaikal and Pondicherry University premises respectively of Union Territory of Puducherry (Figure 1). Collections were made using different methods including yellow pan traps and sweep netting. Parasitoids were also reared from likely hosts, such as coccoids, cercopids and membracids. The resulting parasitoids were dry mounted on rectangles and labelled according to the standard procedure suggested by Noyes (1982). Specimens were identified using keys provided by Noyes and Hayat (1994) and Hayat (2006, 2009). All material is deposited in Parasitoid Taxonomy and Biocontrol Laboratory, Department of Entomology, Faculty of Agriculture, Annamalai University (EDAU), Chidambaram, Tamil Nadu, India.

**ABSTRACT:** Thirty six genera and forty species of encyrtid parasitoids are reported as new records from Pondicherry and Karaikal districts of Union Territory of Puducherry (=Pondicherry), India.

1. *Acerophagus papayae* Noyes and Schaufl, 2003 (Introduced species)

**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 3 females, through net sweep and yellow pan trap from forest ecosystem, 03.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 2 females, through yellow pan trap from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

Distribution: Mexico (Noyes, 2012), India: Tamil Nadu (Manickavasagam and Rameshkumar 2010), Andhra Pradesh (Rameshkumar *et al.,* 2011), Puducherry (New record).
Host: *Paracoccus marginatus* (Noyes and Schauf, 2003).

2. **Adelencyrtus coxalis** Hayat, Alam and Agarwal, 1975

   **Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 6 females, through net sweep and yellow pan trap from forest ecosystem, 04.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 3 females, through yellow pan trap from weed ecosystem, 12.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

   Distribution: Reported only from India (Noyes, 2012); Andhra Pradesh (Hayat, 2006), Delhi (Manickavasagam et al., 2010), Tamil Nadu (Nalini and Manickavasagam, 2011), Puducherry (New record).

   Host: *Pinnaspis strachani* on *Murraya koenigii* (Hayat et al., 1975).

3. **Adelencyrtus mayurai** (Subba Rao, 1957)

   **Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 1 female, through yellow pan trap from forest ecosystem, 04.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

   Distribution: Mauritania (Noyes, 2012), India: Delhi, Gujarat, Karnataka, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Puducherry (New record).


4. **Aenasius advena** Compere, 1937

   **Specimens examined:** INDIA, Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 3 females, through yellow pan trap from weed ecosystem, 12.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

   Distribution: Afghanistan, Afrotropical, Argentina, Bangladesh, Bolivia, Brazil, Congo, Costa Rica, Fiji, Hawaii, Malaysia, Mexico, Pakistan, Panama, Philippines, Puerto Rico, South Africa, Thailand, Trinidad & Tobago, USA, Venezuela (Noyes, 2012), India: Andaman and Nicobar Islands, Delhi, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu, Uttaranchal, Uttar Pradesh (Hayat, 2006), Andhra Pradesh (Rameshkumar et al., 2011) Puducherry (New record).


5. **Aenasius bambawalei** Hayat, 2009

   **Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 3 females, 2 males, through net sweep from forest ecosystem, 05.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 6 females, 3 males, through net sweep from weed ecosystem, 12.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

   Distribution: Only reported from India (Noyes, 2012); Delhi, Haryana, Maharashtra (Hayat, 2006), Tamil Nadu (Nalini and Manickavasagam, 2011), Andhra Pradesh (Rameshkumar et al., 2011), Puducherry (New record).

   Host: *Phenacoccus solenopsis* (Hayat, 2009).

6. **Anagyrus chrysos** Noyes and Hayat, 1994

   **Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 2 females, through net sweep from forest ecosystem, 04.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

   Distribution: Bangladesh, Malaysia (Noyes, 2012), India: Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Puducherry (New record).

   Host: *Rastrococcus iceryoides* and *R. mangiferae* (Noyes and Hayat, 1984); *Planococcoides robustus* (Shafee et al., 1975).

7. **Anagyrus dactylopii** (Howard, 1989)

   **Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 2 females, through net sweep from forest ecosystem, 04.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

   Distribution: Australia, Barbados, Fiji, Hawaii, Indonesia, Iran, Iraq, Japan, Oman, China, Peru, Philippines, Taiwan, Thailand (Noyes, 2012), India: Andaman and Nicobar Islands, Andhra Pradesh, Bihar, [?] Chandigarh, Delhi, Goa, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Orissa, Punjab, Tamil Nadu, Uttaranchal, Uttar Pradesh (Hayat, 2006), Puducherry (New record).

   Host: *Ferrisia virgata* on *Acacia* sp.; *Maconellicoccus hirsutus* on *Anona squamosa* and grapes; *Nipaecoccus viridis*; same host on *Citrus*, vines, *Euphorbia hirta* and *Dalbergia sissoo*; same host on *Ficus* sp.; same host on *Acacia* sp., *Ziziphus sp.*; *Casuarina, Tephostoma purpurea*; *Planococcus citri* on *Citrus medica*; *Pseudococcus sp.* on *Citrus aurantifolia*; *Rastrococcus cappariae* (see Hayat, 2006).

8. **Anagyrus kamali** Moursi, 1948

   **Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 1 female, through net sweep from forest ecosystem, 04.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

   Distribution: Antilles, Bangladesh, Belize, Caribbean, Egypt, Grenada, Hawaii, Indonesia, Jordan, Montserrat, Pakistan, China, Puerto Rico, Saint Lucia, Sri Lanka, Trinidad & Tobago, US Virgin Islands (Noyes, 2012), India: Delhi, Himachal Pradesh, Karnataka, Maharashtra, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Puducherry (New record).

   Host: *Ferrisia* sp. and *F. virgata* on avenue tree; *Maconellicoccus hirsutus, Nipaecoccus sp.* on *Acacia, Nipaecoccus sp.*; *N. viridis on Ziziphus sp.*; *Pseudococcus sp.* on *Citrus limonum*. Coccids on *Hibiscus rosa sinensis* (see Hayat, 2006).

9. **Anagyrus ranchiensis** Shamim and Shafee, 1984

   **Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 1 female, through net sweep from forest ecosystem, 04.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).


   Host: *Nipaecoccus viridis* (Shamim and Shafee 1984).

10. **Anagyrus subflaviceps** (Girault, 1915)
**Specimens examined:** INDIA, Pondicherry, Pondicherry University premises (12.02° N, 79.85° E), 3 females, through net sweep from forest ecosystem, 03.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).


Host: **Nipaecoccus viridis** (Shamim and Shafee 1984).

**15. Blepymus insularis** (Cameron, 1886) (Blackburn and Cameron, 1886)

**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 3 females, through net sweep from forest ecosystem, 03.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 2 females, through net sweep from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

**Distribution:** Afrotropical, Australia, Bahamas, Bangladesh, Colombia, Congo, Costa Rica, Cuba, Egypt, Gambia, Ghana, Guinea-Bissau, Guyana, Hawaii, Madagascar, Malaysia, Mexico, Micronesia, Nearctic, Nigeria, Papua New Guinea, China, Philippines, South Africa, Sri Lanka, Sudan, Thailand, Togo, Trinidad & Tobago, USA, West Africa (Noyes, 2012), India: Delhi, Goa, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttaranchal, Uttar Pradesh, West Bengal (Hayat, 2006), Andhra Pradesh (Rameshkumar et al., 2011), Puducherry (New record).

Host: **Ferrisia virgata** (Hayat, 1999), **Macnellicoccus hirsutus** (Noyes, 2000).

**16. Caenohomalopoda longiclava** Basha and Hayat, 2002

**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 5 females, 3 males, through net sweep and yellow pan trap from forest ecosystem, 04-05.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

**Distribution:** American Samoa, Australia, Fiji, Indonesia, Laos, Malaysia, Nepal, China, Thailand, Vietnam (Noyes, 2012), India: Delhi, Himachal Pradesh, Karnataka, Kerala, Tamil Nadu (Hayat, 2006), Puducherry (New record).

Host: Unknown.

**17. Cerchysiella latiscapa** (Fatma and Shafee, 1983)

**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (10.55° N, 79.52° E), 9 females, 5 males, through net sweep from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

**Distribution:** Reported only from India (Noyes, 2012): Bihar (Hayat, 2006), Delhi (Manickavasagam et al., 2010), Puducherry (New record).

Host: Unknown.

**18. Cheiloneurus exitiosus** (Perkins, 1906)

**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (10.55° N, 79.52° E), 9 females, 5 males, through net sweep and yellow pan trap from weed ecosystem, 12.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).

**Distribution:** American Samoa, Australia, Fiji, Malaysia, China, Philippines, West Samoa (Noyes, 2012), India: Andhra Pradesh, Assam, Bihar, Karnataka, Kerala, Maharashtra, Meghalaya, Mizoram, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Puducherry (New record).

Host: Unknown from India; ex dryinids on brown planthopper (BPH) in Rice (Hayat, 2006).
20. *Cheiloneurus quadricolor* (Girault, 1915)  
**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 8 females, through net sweep and yellow pan trap from forest ecosystem, 03.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 2 females, through net sweep from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).  
**Distribution:** Afghanistan, Australia, Egypt, Pakistan, Russia, Tajikistan, Turkmenistan (Noyes, 2012), India: Andaman and Nicobar Islands, Andhra Pradesh, Delhi, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh (Hayat, 2006), Puducherry (New record).  
**Host:** *Drynid species via Pyrrilla* sp. (Mani, 1939).

21. *Cheiloneurus zeyai* Anis and Hayat, 2002  
**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 3 females, through net sweep from forest ecosystem, 03.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 2 females, through net sweep from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).  
**Distribution:** Reportd only from India (Noyes, 2012): Delhi, Kerala (Hayat, 2006), Tamil Nadu (Manickavasagam and Rameshkumar, 2010), Puducherry (New record).  
**Host:** Unknown.

22. *Coagerus bouceki* Noyes and Hayat, 1984  
**Specimen examined:** INDIA, Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 1 female, through yellow pan trap from weed ecosystem, 12.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).  
**Distribution:** China, Sri Lanka (Noyes, 2012), India: Karnataka, Tamil Nadu (Hayat, 2006), Puducherry (New record).  
**Host:** Unknown.

23. *Cowperia indica* (Kerrich, 1963)  
**Specimen examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 1 female, through net sweep from forest ecosystem, 05.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).  
**Distribution:** Sri Lanka (Noyes, 2012), India: Karnataka, Uttar Pradesh (Hayat, 2006), Puducherry (New record).  
**Host:** Parasitoids of coccinellid (Coleoptera) larvae predaceous on mealy bugs (Homoptera: Pseudococcidae) (Hayat, 2006).

**Specimen examined:** INDIA, Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 1 female, through net sweep from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).  
**Distribution:** Reported only from India (Noyes, 2012): Kerala (Hayat, 2006), Puducherry (New record).  
**Host:** Unknown.

**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 3 females, through net sweep from forest ecosystem, 03.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).  
**Distribution:** Madagascar, China, Togo, Zambia (Noyes, 2012), India: Andaman and Nicobar Islands, Andhra Pradesh, Delhi, Karnataka, Kerala, Madhya Pradesh, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Puducherry (New record).  
**Host:** *Coccidohystrix insolita* (Sankaran, 1959).

**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 2 females, through net sweep from forest ecosystem, 04.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).  
**Distribution:** Reported only from India (Noyes, 2012): Andhra Pradesh, Karnataka, Tamil Nadu (Hayat, 2006), Puducherry (New record).  
**Host:** *Chorizococcus sp., Nipaecoccus sp.* (Noyes and Hayat, 1994), indetetable Coccids on *Hemigraphes* sp. (Hayat et al., 1975), indetetable Coccids (Shafee and Sankaran, 1975).

27. *Leptomastix tsukumiensis* Tachikawa, 1963  
**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 3 females, through net sweep from forest ecosystem, 03-04.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 2 females, through net sweep from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).  
**Distribution:** Benin, Cameroon, Gambia, Ivory Coast, Japan, Kenya, Laos, Nigeria, China, Philippines, Somalia, South Africa, Uganda, Zambia, Zimbabwe (Noyes, 2012), India: Andhra Pradesh, Bihar, Delhi, Jharkhand, Karnataka, Kerala, Orissa, Tamil Nadu, Uttar Pradesh, West Bengal (Hayat, 2006), Puducherry (New record).  
**Host:** Indet. Mealy bug on *Citrus* sp. (Shafee, 1971), coccid on *Ficus* (Noyes and Hayat, 1994).

**Specimens examined:** INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 2 females, 1 male, through net sweep from forest ecosystem, 03.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 1 male, through net sweep from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Rameshkumar).  
**Distribution:** Reported only from India (Noyes, 2012): Assam, Bihar, Delhi, Jharkhand, Karnataka, Kerala, Maharashtra, Orissa, Rajasthan, Uttar Pradesh (Hayat, 1975).
Specimens examined: INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 4 females, through net sweep from forest ecosystem, 03.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 3 females, through net sweep from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Ramachakumar).

Distribution: Reported only from India (Noyes, 2012): Andhra Pradesh, Assam, Himachal Pradesh, Jharkhand, Kerala, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh (Hayat, 2006), Delhi (coll. Manickavasagam et al., 2010), Puducherry (New record).

Host: Rastrococcus sp. (Shafee and Avasthi, 1983).

35. Prochiloneurus aegyptiacus (Mercet, 1929)

Specimens examined: INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 2 females, through net sweep from forest ecosystem, 03.iii.2011 (coll. S. Manickavasagam and A. Ramachakumar).


Host: [with] Nipaecoccus viridis (Shafee et al., 1975), indetectable coccid on Hemigraphe sp., and Tamarindus indica (Hayat, 1981).

36. Prochiloneurus albifuniculus (Hayat, Alam and Agarwal, 1975)

Specimens examined: INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 1 female, through net sweep from forest ecosystem, 03.iii.2011 (coll. S. Manickavasagam and A. Ramachakumar).

Distribution: Reported only from India (Noyes, 2012): Assam, Himachal Pradesh, Rajasthan, Uttar Pradesh (Hayat, 2006), Puducherry (New record).


37. Proleurocerus fulgoridis Ferriere, 1935

Specimens examined: INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 3 females, through net sweep from forest ecosystem, 03.iii.2011; Puducherry, Karaikal, PAJANCOA premises (10.55° N, 79.52° E), 1 female, through net sweep from weed ecosystem, 11.ii.2011 (coll. S. Manickavasagam and A. Ramachakumar).

Distribution: Reported only from India (Noyes, 2012): Andhra Pradesh, Kerala, Karnataka, Maharashtra, Tamil Nadu (Hayat, 2006), Puducherry (New record).

Host: Eggs of Eurybrachys tomentosa (Ferriere, 1935), eggs of cut worms on mulberry (Hayat and Kazmi, 1996).

38. Proleurocerus litoralis Hayat and Kazmi, 1996

Specimens examined: INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 2 females, through net sweep from forest ecosystem, 03.iii.2011 (coll. S. Manickavasagam and A. Ramachakumar).

Distribution: Reported only from India (Noyes, 2012):
Kerala (Hayat, 2006), Puducherry (New record).
Host: Unknown.

39. Psyllaephagus africanus Prinsloo, 1985
Distribution: Afrotropical, South Africa (Noyes, 2012), India: Delhi, Uttar Pradesh (Hayat, 2006), Puducherry (New record).
Host: Unknown.

40. Saucercyrtus insularum Hayat and Singh, 2002
Specimen examined: INDIA, Puducherry, Pondicherry University premises (12.02° N, 79.85° E), 1 female, through net sweep from forest ecosystem, 03.iii.2011 (coll. S. Manickavasagam and A. Rameshkumar).
Distribution: Reported only from India (Noyes, 2012): Andaman and Nicobar Islands (Hayat, 2006), Tamil Nadu (Manickavasagam and Rameshkumar 2010), Puducherry (New record).
Host: Unknown.

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