

**NEW RECORDS OF APHELINID AND PTEROMALID WASPS
(HYMENOPTERA: CHALCIDOIDEA: APHELINIDAE:
PTEROMALIDAE) FROM IRAN**

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Abstract

This work including the survey and identification of Genus *Encarsia* (Aphelinidae) and Family Pteromalidae during 1998-2004 in Iran. Forty one species of *Encarsia* and Pteromalidae recorded here at the first time in Iran, including, 9 species of Genus *Encarsia* and 32 of family Pteromalidae.

Since the early of 1980s, application of biological control methods against insect pests has had a major resurgence. Parasitoid Hymenoptera are among the most important agents for biological control and are extremely abundant in most terrestrial habitats. Despite, their importance, their biology and taxonomy remain poorly known and their identification is difficult Tuber (1993). Recently, Genus *Encarsia* of Iran surveyed, identified and described by Abd-Rabou and Ghahari,2004. In this part of the work more samples were collected, recently, 2002-2004. Family Pteromalidae (Hymenoptera: Chalcidoidea) fauna of Iran is poorly studied and until now only 25 species are known (Chojai, 1968, Davatchi & Chojai, 1969, Monajemi, 1975, Radjabi & Amir-Nazari, 1989, Mosaddegh, 1993).

Samples were collected from different locations of Iran during 1998-2003. Identification of parasitoids was made by examining their mounted adults according to (Noyes, 1982). All the identified wasps, and most of their hosts are deposited in Department of Entomology, Science & Research Campus, Islamic Azad University, Tehran-Iran.

I. Family : Aphelinidae

Family Aphelinidae here represented only by Genus *Encarsia* Forester The *Encarsia* spp. (Hymenoptera: Chalcidoidea: Aphelinidae) fauna of Iran is very diverse and at the same time unknown. Until now only 18 species are known (Modarres Awal, 1997, Ghahari & Hatami, 2000, Abd-Rabou & Ghahari ,2004). The present study, states that, 9 species are reported as the new records for Iran.

1. *Encarsia aleurochitonis* (Mercet, 1931)

Host: *Aleurochiton aceris* Modeer, Location: Golestan – Bandar Torkman, Date of collection: 2002

Species group placement: *Encarsia lahorensis*

2. *Encarsia bifasciafacies* Hayat

Host: *Siphoninus immaculatus* (Heeger), Location: Gilan – Amlash, Date of collection: September 2003

Species group placement: *Encarsia aurantii*

3. *Encarsia cibcensis* Lopez-Avila

Host: *Bemisia silvatica* Danzig, Location: Kermanshah – Kermanshah, Date of collection: June 2002

Species group placement: *Encarsia perflava*

4. *Encarsia clypealis* (Silvestri)

Host: *Lepidosaphis beckii* (Newman), Location: Golestan – Galogah, Date of collection: October 2003

Species group placement: *Encarsia opulenta*

5. *Encarsia dialeurodes* Hayat

Host: *Dialeurodes kirkaldyi* (Kotinsky), Location: Semnan – Damghan, Date of collection: August 2003

Species group placement: *Encarsia strenua*

6. *Encarsia lipaleyrodes* Krishnan & David

Host: *Lipaleyrodes euphorbia* David & Subramaniam, Location: Kerman – Jiroft, Date of collection: May 2003

Species group placement: *Encarsia lahorensis*

7. *Encarsia mohyuddini* Shafee & Rizvi

Host: *Bemisia sugojaevi* Danzig, Location: Khorasan – Mashhad, Date of collection: May 2004

Species group placement: *Encarsia dourunga*

8. *Encarsia margaritiventris* (Mercet, 1931)

Host: *Aleurotuba jelinekii* Frauenfeld, Location: Ilam – Ilam, Date of collection: Spring 2004

Species group placement: *Encarsia coryli*

9. *Encarsia tricolor* Foerster

Host: *Bemisia salicaria* Danzig, Location: Khorasan – Kashmar, Date of collection: 2003

Species-group placement: *Encarsia tricolor*-group

II. Family: Pteromalidae

The Pteromalidae (Hymenoptera: Chalcidoidea) fauna of Iran is poorly studied and until now only 25 species are known (Chojai, 1968, Davatchi & Chojai, 1969, Monajemi, 1975, Radjabi & Amir-Nazari, 1989, Mosaddegh, 1993.). The present research, conducted surveys on different species insects during 1998-2003 in different regions of Iran, and rearing of them in optimum conditions, 31 parasitoid species and

one hyperparasitoid species of Pteromalidae were collected and identified. All the identified species are newly recorded for Iran. Among the mentioned above specimens, except the three genera including, *Dibrachoides*, *Dibrachys*, and *Rhaphitellus*, other genera are newly recorded for Iran.

10. *Agrilocida ferrieri* Steffan: Host: *Sphenoptera* sp. (Buprestidae) from poplar, Location: Gilan – Rasht, Date: fall 2003, Collector: Gholamian, E.

11. *Calocleonymus pulcher* Masi: Host: *Trachys minuta* (L.) (Buprestidae) on the apple tree, Location: West Azarbayjan-Maco, Date: Unknown, Collector: Unknown.

12. *Cerocephala cornigera* Westwood: Host: *Scolytus amygdali* (L.) (Scolytidae) on the almond tree, Location: Isfahan-Najaf-Abad, Date: Spring 2000, Collector: Ghorb-Ali, R.

13. *Coruna clavata* Walker: Hyperparasitoid of *Brevicoryne brassicae* (Aphididae), Host: *Diartella rapae* Mintosh. (Aphidiidae), Location: Mazandaran-Chalus, Date: Summer 2000, Collector: The second author.

14. *Cratomus megagephalus* (Fabricius): Host: *Sphex lividocinctus* Costa (Sphecidae) in the stem of oak, Location: Mazandaran-Savadkooh, Date: fall 1998, Collector: The second author.

15. *Dibrachoides dynastes* (Foerster): Host: Unknown, Location: Mazandaran-Amol, Date: Spring 2001, Collector: Sakenin, H.

16. *Dibrachys* subg. *Allodibrachys affinis* Masi: Host: *Cydia pomonella* L. (Olethreutidae) on the apple tree, Location: Isfahan-Samirom, Date: Fall 1999, Collector: Ghorb-Ali, R.

17. *Dipara petiolata* Walker: Host: *Anthonomus gemmicola* Minacian (Curculionidae), Location: Mazandaran-Neka, Date: Fall 2001, Collector: Karimian, Z.

18. *Gastracanthus pulcherrimus* Westwood: Host: *Sphenoptera* sp. (Buprestidae), Location: West Azarbayjan-Ourmieh, Date: Fall 2000, Collector: Unknown.

19. *Goidanichium atrum* Boucek: Host: *Pseudococcus adonidum* L. (Pseudococcidae) on the begonia, Location: Gilan-Lahijan, Date: Spring 1998, Collector: Unknown.

20. *Hyperimerus pusillus* (Walker): Host: *Psylla pyricola* (Forst.) (Psyllidae) on the pear tree, Location: Tehran-Karaj, Date: Summer 2002, Collector: Karimi, J.

21. *Macromesus amphiretus* Walker: Host: *Scolytus orientalis* Egg. (Scolytidae) on the elm, Location: Markazxi-Arak, Date: Summer 2000, Collector: Vafayii, R.

22. *Mesopeltita truncatipennis* (Waterston): Host: *Saissetia olea* (Bern.) (Coccidae), Location: Gilan-Roodsar, Date: Spring 1999, Collector: Gholamian, E.

23. *Mesopolobus* subg. *Mesopolobus subfumatus* (Ratzeburg): Host: Unknown, Location: Semnan-Damghan, Date: Summer 2001, Collector: Sakenin, H.

24. *Metacolus unifasciatus* Foerster: Host: *Scolytus fasciatus* Reitt. (Scolytidae) on the elm, Location: Mazandaran-Savadkooh, Date: Fall 1998, Collector: The second author.

25. *Metastenus concinnus* Walker: Host: *Cryptolaemus montrouzieri* Muls. (Coccinellidae), Location: Golestan-Gorgan, Date: Summer 2001, Collector: Karimian, Z.
26. *Moranila californica* (Howard): Host: *Pulvinaria vitis* L. (Coccidae), Location: Mazandaran-Ramsar, Date: Spring 1999, Collector: Gholamian, E.
27. *Nikolskayana mirabilis* Boucek: Host: *Xyleborus saxeseni* (Ratz.) (Scolytidae) on the cherry tree, Location: West Azarbayjan-Ourmieh, Date: Summer 1999, Collector: Unknown.
28. *Notanisus oulmesiensis* (Delucchi): Host: *Sphenoptera* sp. (Buprestidae), Location: Kermanshah-Ravansar, Date: Summer 2001, Collector: Mahmoody, F.
29. *Oodera formosa* (Girault): Host: *Capnodis* sp. (Buprestidae) on the apricot, Location: Mazandaran-Ghaemshahr, Date: Summer 2000, Collector: The second author.
30. *Ormocerus vernalis* Walker: Host: *Neuroterus tricolor* Hart. (Cinipidae), Location: Kermanshah-Kermanshah, Date: Summer 1999, Collector: Unknown.
31. *Pachycrepoideus vindemmiae* (Rondani): Host: *Drosophila melanogaster* (Meig.) (Drosophilidae) from fig fruit, Location: Mazandaran-Ghaemshahr, Date: Summer 1998, Collector: Author.
32. *Paracarotomus cephalotes* Ashmead: Host: *Syrphus pyrastris* (L.) (Syrphidae) on the sunflower field, Location: Mazandaran-Behshahr, Date: Summer 1999, Collector: The second author.
33. *Platicrizotes europeus* Boucek: Host: *Acletoxenus formosus* Loew (Drosophilidae) on the cotton field, Location: Golestan-Gorgan, Date: Spring 2001, Collector: Karimian, Z.
34. *Rhaphitellus ladenbergi* (Ratzeburg): Host: *Ruguloscolytus multistriatus* (Marsh.) (Scolytidae) on the Faxinus, Location: Isfahan-Isfahan, Date: Summer 2000, Collector: The second author.
35. *Schizonotus seiboldi* (Ratzeburg): Host: *Chrysomela coeruleans* Scrib (Chrysomelidae), Location: Mazandaran-Babol, Date: Summer 2000, Collector: The second author.
36. *Spathopus hofferi* Boucek: Host: Unknown, Location: Mazandaran-Sari, Date: Spring 1999, Collector: The second author.
37. *Tectogaster aberlenci* Delvare: Host: *Hylemyia cilicrura* (Rond.) (Anthomyidae), Location: Mazandaran-Ramsar, Date: Summer 2001, Collector: The second author.
38. *Theocalax elegans* (Westwood): Host: *Sitophilus oryzae* (L.) (Curculionidae), Location: Mazandaran-Ghaemshahr, Date: Fall 2001, Collector: The second author.
39. *Theocalax formiciformis* Westwood: Host: *Anobium punctatum* De G. (Anobiidae), Location: Golestan-Gonbad, Date: Summer 2002, Collector: Karimian, Z.
40. *Thynodytes cyzicus* (Walker): Host: *Liriomyza conesta* Beck. (Agromyzidae) on the celery, Location: Isfahan-Isfahan, Date: Summer 1999, Collector: The second author.
41. *Toxeuma fuscicorne* Walker: Host: *Agromyza schneri* Girault (Agromyzidae), Location: Yazd-Abargho, Date: Fall 1999, Collector: Mohammadi, A.

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تسجيلات جديدة من أفيليند و بتروماليد من إيران

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تضمن هذا العمل حصر وتعريف لجنس أنكارسيا و فصيلة بتروماليد خلال الفترة من ١٩٩٨-٢٠٠٤ فى إيران. ٤١ نوعا من جنس أنكارسيا و فصيلة بتروماليد تم تسجيلهم لأول مرة فى إيران تتضمن ٩ أنواع من جنس أنكارسيا و ٢٣ من فصيلة بتروماليد.