

**ON A COLLECTION OF CHALCIDOIDEA (HYMENOPTERA)
FROM KASARAGOD DISTRICT (KERALA STATE)**

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INTRODUCTION

Of the parasitic hymenoptera, the Superfamily Chalcidoidea forms one of the most important groups of natural enemies of injurious insect pests, especially those belonging to Lepidoptera, Coleoptera, Homoptera and Diptera. These minute wasps play an important role in biological and integrated control of serious pests. In many cases, Chalcids suppress populations of potential pest species in the field, regulating their numbers and preventing them from reaching a level of economic importance.

The Chalcidoidea are cosmopolitan and according to the recent classification the superfamily is divided into 21 families (Boucek, 1988). The number of valid genera is most recently estimated to be about 2000 (Noyes, 1990) with approximately 70,000 world species. Their great diversity of form and colour, and their biological intricacy and specialisation combine to make them one of the most marvellously rewarding groups of the insects to study.

The Chalcidoid fauna of India is poorly known. Saunders and Westwood described several fig inhabiting chalcids from Ceylon and India during the last century. Ramakrishna Ayyar made extensive collections of Indian Chalcids, which were later described by Gahan, Rohwer, Weld, Ferriere and others. In recent years intensive studies on Indian fauna were made by Boucek, Subba Rao, Narendran, Hayat, Farooqi, Joseph, Alam Agarwal, Shafee etc.

The material on which the present paper is based is collected from the Kasaragod district by the author and others in the recent past. Information available in literature dealing with the Chalcidoid fauna of Kasaragod district (Mukerjee (1981), Mani (1989), Narendran (1989, 1994) are also included.

Order HYMENOPTERA
Superfamily CHALCIDOIDEA
Family EURYTOMIDAE

1. *Prodecatoma cheriani* Narendran, 1994

This is an uncommon species originally described from Kerala.

Material examined : 2 Females, Manjeswaram (Kasaragod), 27.ii.1988, T.C. Narendran & party.

Distribution : India (Kerala), Thaiwan.

2. *Philolema maleena* Narendran, 1994

This species is originally described from Kerala, which parasitises eggs of grasshopper on paddy.

Material examined : 26 females, Kasaragod, 27.ii.1988, 56 females, Manjeswaram (Kasaragod), 27.ii.1988, T.C. Narendran & party.

Distribution : India (Kerala, T.Nadu, Karnataka).

3. *Plutarchia malabarica* Narendran & Padmasenan, 1990.

The species is described from holotype collected from Neeleswaram (Kasaragod).

Material examined : 1 Female, Neeleswaram, 26.ii.1988, T. C. Narendran & party.

Distribution : India (Kerala)

4. *Eurytoma kasaragodensis* Mukerjee, 1981

Material examined : 1 female (Holotype), 1 female (paratype), Kasaragod, 16.iii.1975, M. S. Mani & party.

Distribution : India (Kerala)

5. *Eurytoma amaranthus* Narendran, 1994

The species is originally described from Kerala, parasitising an indetermined larva boring into *Amaranthus* sp.

Material examined : 1 female (Holotype), Manjeswaram, 27.ii.1988, T. C. Narendran, & party.

Distribution : India (Kerala)

6. *Eurytoma rajeevi* Narendran, 1994

It is an hyperparasite on Lepidoptera through *Apanteles*, *Microgaster*, and *S. nicevillei*.

Material examined : 2 females, Manjeswaram, 27.ii.1988, 4 females, Kasaragod, 27.ii.1988, T.C. Narendran & party.

Distribution : India (Kerala), U.P. (Aligarh), A.P. (Tenali) and Thailand.

7. *Eurytoma poroensis* Mukerjee, 1981

The species is described from Poro North (North Bengal). Narendran (1994) reported its host as stem gall on rice.

Material examined : 1 female, Uppala (Kasaragod), 15.x.1993, K.C. Gopi & party.

Distribution : India (Kerala), Karnataka, T. Nadu & A. P.

Family : CHALCIDIDAE

8. *Antrocephalus nasuta* (Holmgren, 1869)

This is a commonly occurring species.

Material examined : 2 females, Central plantation crops research Inst. campus (Kasaragod), 14.x.1993, K.C. Gopi & party.

Distribution : All over Oriental Region, West Iran, and Papua New Guinea.

9. *Antrocephalus phaeospilus* Waterston, 1922

It is an uncommon species. Narendran (1989) reported few specimens of it from the different parts of Kerala. From the Kasaragod district it is reported here for the first time.

Material examined : 1 Female, Uppala (Kasaragod), 15.x.1993 K.C. Gopi & party.

Distribution : India (Kerala), Taiwan.

10. *Brachymeria euploae* (Westwood, 1837)

This is a common species, parasitising various lepidoptera. This is the first report of it from Kasaragod district.

Material examined : 1 female, Maruthome (Kasaragod), 26.x.1993, K.C. Gopi & party.

Distribution : India, North Borneo, Sumatra, Java and Philippines.

11. *Brachymeria excarinata* Gahan, 1925

This is a common species attacking several lepidoptera and coleoptera and often parasitic on Braconidae (*Apanteles* sp. including *plutellae*)

Material examined : 1 female, CPCRI campus (Kasaragod), 14.x.1993, K.C. Gopi & party.

Distribution : Oriental Region, Egypt, Japan and China.

12. *Kriechbaumerella titusi* Narendran, 1989

It is an uncommon species described from Kerala. This forms the first report of it from the Kasaragod district.

Material examined : 1 female, Uppala, 15.x.1993, K.C. Gopi & party.

Distribution : India (Kerala), Pondicherry (Karaikkal) and Java.

13. *Hockeria atra* Masi, 1929

It is an uncommon species. Husain & Agarwal (1982) reported its host as *Spilosoma* sp. (Arctiidae).

Material examined : 1 female, Uppala, 15.x.1993, K.C. Gopi & party.

Distribution : India, Philippines, Java.

14. *Hockeria tristis* (Strand), 1911

This is a common species parasitising *Pyrausta machaeralis* (Walker) (Pyralidae)

Material examined : 1 female, CPCRI campus (Kasaragod), 14.x.1993, K.C. Gopi & party.

Distribution : All over Indian sub-continent.

Family : TORYMIDAE

15. *Chrysochalcissa indica* Narendran, 1994 (Fig. 4 & 5)

Narendran (1994) reported the genus for the first time from the Indian sub-continent by describing the species *indica* from Coimbatore (T. Nadu). This is the first report of it from Kerala...

Material examined : 1 female, Maruthome (Kasaragod), 26.x.1993, K. C. Gopi & party.

Distribution : Africa and Indo-Australian region.

Family : PTEROMALIDAE

16. *Propicroscytus mirificus* (Girault), 1915b

This is a very common species, parasitising gall midges in rice and stems of some other grasses.

Material examined : 2 females, Kasaragod, 27.ii.1988, P.M. Sureshan.

Distribution : India, Sri Lanka, Australia, S. China and E. Malaysia.

17. *Netomocera nigra* Sureshan & Narendran, 1990 (Fig. 1-3)

This species is described from Kerala and this forms the first record of it from Kasaragod district and the subsequent record after the description.

Material examined : 1 male, Muliyar R.F. (Kasaragod), 14.x.1993, K.C.Gopi & party.

Distribution : India (Kerala)

18. *Metastenus concinnus* Walker, 1834

This species is mainly known from Europe as a parasite of coccidiphagous coccinellids. Boucek *et al.* (1979) reported it from Kerala, Kottayam.

Material examined : 1 female, Uppala, 15.x.1993, K.C.Gopi & party.

Distribution : India (Kerala), Europe.

19. *Chlorocytus xanthopus* (Cameron), 1906

This is an uncommon species. Boucek *et al.* (1979) recognised this species from its single extant type specimen in British Museum as a member of *Chlorocytus* Graham

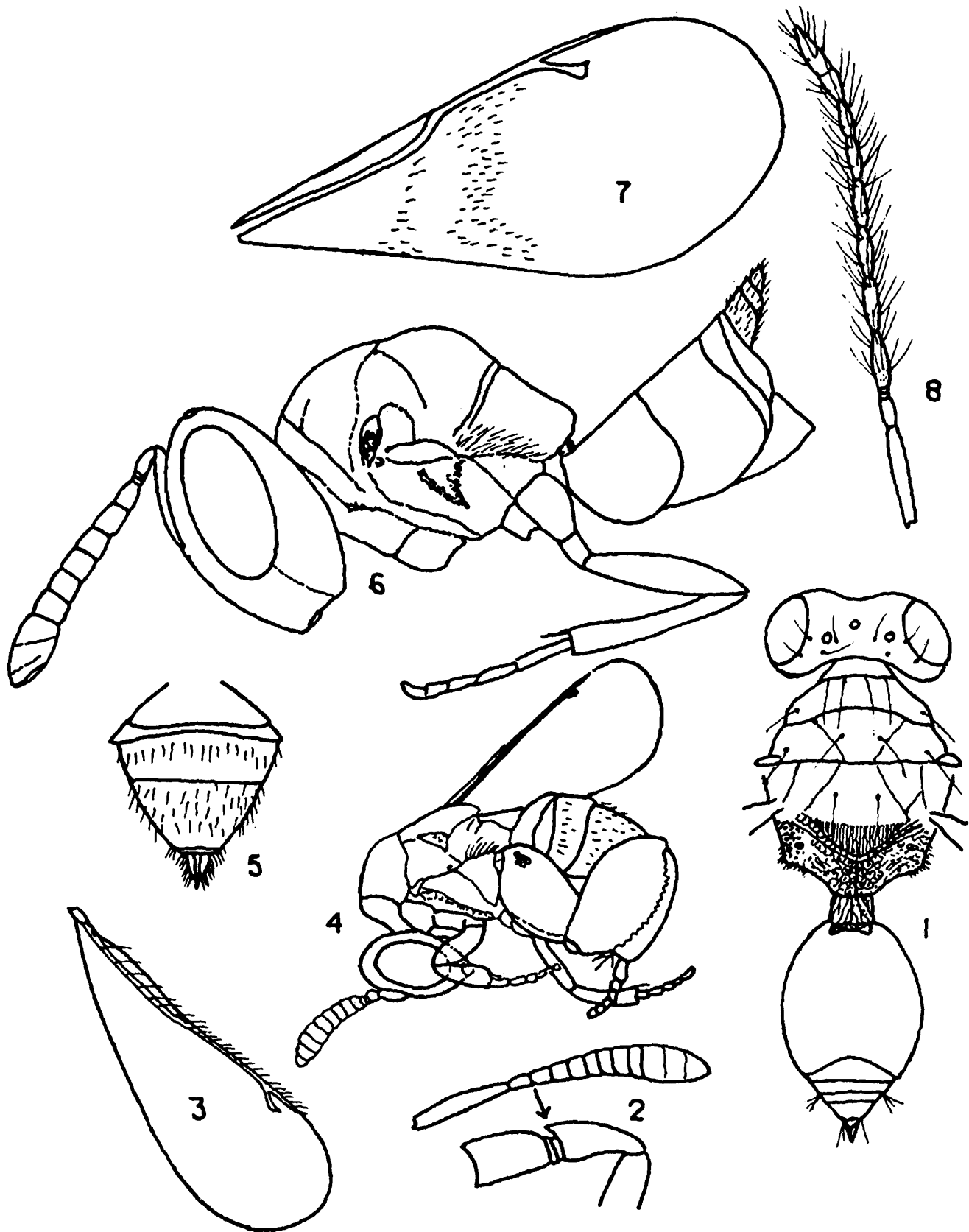


Fig. 1-3 : *Netomocera nigra* Sureshan & Narendran : female. 1, body in dorsal view, 2, antenna, 3, forewing.
Fig. 4-5 : *Chrysochalcissa indica* Narendran : female : 4, body in profile, 5, gaster in dorsal view.
Fig. 6-8 : *Psilocera vinayaki* Sureshan & Narendran : female 6, body in profile, 7, forewing, 8, male antenna.

Material examined : 1 female, Neeleswaram (Kasaragod), 26.ii.1988, 1 male, Periya (Kasaragod), 24.ii.1988, P.M. Sureshan.

Distribution : India (Kerala, Delhi), Pakistan.

20. *Dinarmus acutus* (Thomson), 1878

This is a European species which was recorded earlier from India under its *Synonym* *Bruchobius mayri* (masi) by Mani (1939). It is a parasite of Bruchids.

Material examined : 2 females, 1 male. Periya (Kasaragod), 25.ii.1988. P.M. Sureshan.

Distribution : India (Kerala), Europe, N. America.

21. *Dinarmus maculatus* (Masi), 1924

This is an uncommon species.

Material examined : 1 female, 1 male, Neeleswaram, 26.ii.1988, P.M. Sureshan.

Distribution : India (Kerala, W. Bengal), Burma.

22. *Notoglyptus scutellaris* (Dodd & Girault) 1915 a

Farooqi and Subba Rao (1986) recorded the species as *N. virescens* Masi from India. This is an uncommon species. This is the first record of this species from Kerala.

Material examined : 4 females, Manjeswaram, 27.ii.1988., P.M.Sureshan.

Distribution : India (Delhi, Kerala, U.P.), Italy, Japan and South Africa.

23. *Sphigigaster stepicola* Boucek, 1965

Until the report of this species from Indian subregion by Boucek et al (1979) it was only known from the Mediterranean subregion.

Material examined : 3 females, Kasaragod, 1 female, Manjeswaram, 27.ii.1988, P.M.Sureshan.

Distribution : India, Australia, Czechoslovakia and Algeria

24. *Psilocera vinayaki* Sureshan & Narendran, 1994 (Fig. 6-8)

The original description of this species is based on the female collected from Kasaragod. It closely resembles the Pakistan species *P. ghanii* Subba Rao, but differs distinctly as mentioned in the description.

Material examined : 1 female, (Holotype), Kasaragod, 27.ii.1988, P. M. Sureshan.

Distribution : India (Kerala).

SUMMARY

This paper deals with 24 species under 17 genera and 4 families of Chalcidoidea (Hymenoptera) from the Kasaragod district of Kerala (India). Of these, 18 species are reported for the first time from the district. The species *Chrysochalcissa indica* Narendran (Torymidae) is reported for the

first time from Kerala after its original description from Coimbatore (T.Nadu). The genera *Chlorocytus*, *Dinarmus*, *Notoglyptus*, *Psilocera* and *Sphigigaster* (Pteromalidae) are reported for the first time from Kerala.

ACKNOWLEDGEMENTS

The Author is grateful to the Director, Zoological Survey of India, Calcutta and the Officer-in-charge, Zoological Survey of India, Western Ghats Field Research Station, Calicut for providing facilities and encouragement. He is also grateful to Dr. T.C. Narendran, Professor, University of Calicut, Kerala for the helps he has rendered to confirm the identity of certain species.

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