

CONTRIBUTION TO THE KNOWLEDGE OF CHALCIDIDAE OF INDIA

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INTRODUCTION

The family Chalcididae include one of the most important group of insects; most of them being natural enemies of agricultural pests, used as biological control agents. Many species are primary parasites of several insect pests of agricultural importance. Adults are usually free living, but the larvae are usually entomophagous parasites. Hyperparasitism, super parasitism and multiple parasitism are common among chalcids.

Chalcididae can be easily distinguished by its swollen hind femora. Other distinguishing features are geniculate antenna, presence of prepectus, biarticulate trochanter, fore wings with single vein, without closed cells etc. They are the largest insects among chalcidoidea, with a length ranging from 1.5 mm to 20 mm.

Major contributions to our knowledge on Indian chalcididae are provided by Masi (1916-1947), Boucek (1949-1988), Joseph, Narendran & Joy (1973), Boucek and Narendran (1981). Narendran (1989) published a complete monograph on Oriental chalcididae. This work comprises the systematic revision of Oriental fauna of Chalcididae, with dichotomous keys and descriptions (with illustrations) for identification of taxa. Narendran (1989) reported 190 species of chalcididae from 31 genera from India and 330 species from 41 genera from Oriental Region.

Present study deals with 45 species under 11 genera. Out of these, 11 species are reported for the first time from the state of Tripura and 1 species (*Epitranus crassicornis*) is new record from India. The material of study are mainly from Tripura but it also contains a few rare species from different parts of India.

Abbreviations used

BMNH : British Museum (Natural History) London, U.K.

BSRI : Biosystematic Research Institute, Ottawa, Ontario, Canada.

DEI : Institute for Pflanzenschutzforschung, Eberswalde, Germany (GDR).

DZCU : Department of Zoology, Calicut University, India.

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- ELKU : Entomological laboratory, Kyushu University, Fukuoka, Japan.
 FRI : Forest Research Institute, Dehra Dun, India.
 HDEO : Hope Department of Entomology, University Museum, Oxford, England.
 IARI : Division of Entomology, Indian Agricultural Research Institute, New Delhi, India.
 MCSG : Museo Civico di Storia Naturel, Genove, Italy.
 MNHN : Museum National de Histoire Naturelle, Paris, France.
 NM : Entomologicke oddeleni; Narodni, Museum, Praha, CSSR.
 NRS : Naturhistoriska Riksmuseet, Stockholm, Sweeden.
 QMB : Queensland Museum, Brisbane, Australia.
 USNM : United States National Museum of Natural History, Washington D.C., U.S.A.
 UZM : Universitets Zoologiska Museum, Copenhagen, Denmark.
 ZMHU : Zoologisches Museum Der Humboldt Universitat Berlin, FDR.
 ZSI : Zoological Survey of India.
 F : Female.

Genus 1. *Antrocephalus* Kirby

1883. *Antrocephalus* Kirby. Type species : *Halticella fascicornis* Walker by original designation, 54 : 63.

The known synonyms of this genus are : *Coelochalcis* Cameron 1904, *Dilla* Strand 1911, *Stomatoceroides* Girault 1913, *Metarretocera* Girault 1927, *Tainania* Masi 1929, *Sabatiella* Masi 1929, *Stomatocerella* Girault 1930, *Uxa* Girault 1930, *Dellisca* Ghesquire 1946 and *Uda* Girault 1930.

1. *Antrocephalus brevidentata* Roy and Farooqi

1984. *Antrocephalus brevidentata* Roy and Farooqi : 7. F., INDIA : Delhi (IARI)

Materials examined : 6F. INDIA : no locality and date of clection, M. S. Mani and Party; 1M. INDIA, Kerala, Kottoor, M. S. Mani and Party, 29-iv-1980.

Distribution : India, Delhi, Tamil Nadu, Kerala.

2. *Antrocephalus brevigaster* Masi

1926. *Antrocephalus brevigaster* Masi : Lectotype F., TAIWAN : Taiharin (DEI)

1982. *Antrocephalus hyalopennis* Husain and Agarwal, (synonymy by Narendran 1989)

Materials examined : 2F. INDIA : Kerala, Palode, M.S. Mani and Party, 16-iv-1980.

Distribution : India, Taiwan, Philippines, Malaya.

3. *Antrocephalus decipiens* (Masi)

1929. *Haltichella decipiens* Masi : 176, Lectotype F., PHILIPPINES (USNM).

Materials examined : 1F. INDIA : Kerala, Kottoor, M. S. Mani and Party, 3-iv-1980.

Distribution : All over Oriental Region.

4. *Antrocephalus dividens* (Walker)

1860. *Chalcis dividens* Walker : 357, F., SRI LANKA (BMNH)

1846. *Haltichella sepyra* Walker, (synonymy by Narendran 1989)

1874. *Halticella apicalis* Walker, (synonymy by Narendran 1989)

1904. *Coelochalcis carinifrons* Cameron, (synonymy by Narendran 1989)

1907. *Antrocephalus varipilosus* Cameron, (synonymy by Narendran 1989)

1911. *Antrocephalus longicornutus* Strand, (synonymy by Narendran 1989)

1974. *Sabatiella nepalensis* Mani and Dubey, (synonymy by Narendran 1989)

1984. *Antrocephalus delhiatus* Roy and Farooqui, (synonymy by Narendran 1989)

Materials examined : 21 F. INDIA : Tripura, Kailashar, 28-30-v-1978; 12F. Teliamura, 18-20-v-1978; 6F. Ambassa, 24-26-v-1978; 1F. Belonia 15-18-v-1978; 2F. Udaipur, 14-v-1978; 1F. Dharmanagar 1-vi-1978, J. K. Jonathan and party; 2F. Orissa, Narayanpur, Gopalpur, 7-x-72, Y. Chaturvedi; 1F. Maharashtra, Jog Shimogo, 9-i-1977, K. S. Pradhan; 1F. West Bengal, Jalpaigury, Jaigaon, 25-viii-1986; T. K. Pal and Party; 3F. without any data.

Distribution : All over Oriental Region.

5. *Antrocephalus fascicornis* (Walker)

1871. *Halticella fascicornis* Walker : 43, F., INDIA : Bombay (BMNH).

Materials examined : 1M. INDIA : Kerala, Kottoor, M. S. Mani and Party, 29-iv-1980, 2F. INDIA : Tripura, Ambassa, J. K. Jonathan and Party, 24-26-v-1978.

Distribution : Indian subcontinent, China, Java, Philippines, Malaya.

6. *Antrocephalus japonicus* (Masi)

1936. *Sabatiella japonica* Masi : 48, F., JAPAN (DEI)

1982. *Antrocephalus brevicorpus* Husain and Agarwal, (synonymy by Narendran 1989)

Materials examined : 1F. INDIA : Tripura, Ambassa, J. K. Jonathan and Party, 28-30-v-1978.

Distribution : India, Malaysia, Taiwan and Japan.

Remarks : This is the first report of this species from Tripura.

7. *Antrocephalus hakonensis* (Ashmead)

1904. *Stomatocerus hakonensis* Ashmead : 148, F., JAPAN (USNM).
 1917. *Stomatocerus sulcatiscutellum* Girault (synonymy by Narendran 1989)
 1933. *Tainania dispar* Masi (Synonymy by Narendran 1989)
Antrocephalus renalis Waterston (Synonymy by Narendran 1985)

Material examined : 1F. INDIA : Arunachal Pradesh, Namdhapa, S. Biswas, 27-iv-1981.

Distribution : Indian subcontinent, Taiwan & Japan.

Host : *Opisina arenosella* Walker (Oecophoridae), *Conthyla rotunda* Habu.

8. *Antrocephalus mitys* (Walker)

1860. *Halticella mitys* Walker : 81, F., MAURITIUS (BMNH)
 1926. *Antrocephalus aethiopicus* Masi (Synonymy by Boucek 1976)
 1922. *Antrocephalus humilis* Waterston (Synonymy by Narendran 1989)
 1917. *Antrocephalus mahensis* Masi (Synonymy by Boucek 1976)
 1982. *Antrocephalus vitatus* Husain & Agarwal (Synonymy by Narendran 1989)
 1860. *Chalcis pandens* Walker (Synonymy by Narendran 1989)
 1871. *Halticella divicicornis* Walker (Synonymy by Boucek 1976)
 1862. *Halticella simplex* Walker (Synonymy by Boucek 1976)
 1921. *Stomatocera bergeraci* Girault (Synonymy by Boucek 1988)
 1900. *Stomatocera sulcata* Ashmead (Synonymy by Narendran 1989)

Material examined : 1F. INDIA : Tripura, Kailashar, J. K. Jonathan and Party, 28-30-v-1978.

Distribution : Africa, Asia and Australia.

Host : *Corcyra cephalonica* (Stainton) (Pyralidae), *Lamida moncusalis* Wlk. (Pyralidae)

Remarks : This is the first report of this species from Tripura.

Genus 2. *Brachymeria* Westwood

1829. *Brachymeria* Westwood, in Stephens : 36. Type species : *Chalcis minuta* Fabricius, designated by Westwood 1839.

The known synonyms of this genus are : *Tumidicoxa* Girault (1911), *Pseudepitelia* Girault (1913), *Brachepitelia* Girault (1913), *Tumidicoxoides* Girault (1913) *Tumidicoxella* Girault (1913), *Meyeriella* Krausse (1916), *Onchochalcis* Cameron (1904), *Ceyxia* Cameron (1911) and *Holochalcis* Kieffer (1904).

1. *Brachymeria albotibialis* (Ashmead)

1904. *Chalcis albotibialis* Ashmead : 12, F., PHILIPPINES (USNM)

1982. *Brachymeria(B) rufogastris* Husain and Agarwal, (synonymy by Narendran 1989)

Material examined : 1F. INDIA : Tripura, Teliamura, J. K. Jonathan and Party, 18-20-v-1978.

Distribution : Philippines, Singapore, India (Tamil Nadu, Delhi, Kerala, Karnataka).

Host : *Erionota thrax* L. *Pelopidas mathias* F., *Pericyma crugeri* B. and *Pieris brassica* L.

Remarks : This is the first report of this species from Tripura.

2. *Brachymeria alternipes* Walker

1871. *Chalcis alternipes* Walker : 49, M., HONKONG (BMNH)

Material examined : 1F. INDIA : Arunachal Pradesh, Tippi, K. Mondal. 1-ix-2001.

Distribution : South China and India.

Remarks : This is the first report of this species from Arunachal Pradesh.

3. *Brachymeria apicicornis* (Cameron)

1911. *Onchochalcis apicicornis* Cameron : 3, F., (BMNH)

1973. *Brachymeria apicicornis* Joseph Narendran & Joy : 174 (misspelling for *apicicornis*)

Material examined : 1F. INDIA : no locality data or date, collected by M. S. Mani and Party.

Distribution : Jawa, Borneo, India, Sulawesi.

4. *Brachymeria bengalensis* (Cameron)

1897. *Chalcis bengalensis* Cameron : 39 F., INDIA (BMNH)

1936. *Stypiura variabilis* Mani (synonymy by Narendran 1986)

1963. *Brachymeria yasumatsui* Habu (synonymy by Joseph et al. 1973)

1970. *Brachymeria scrobatae* Joseph et al., (synonymy by Joseph et al. 1973)

Material examined : 1F. INDIA : West Bengal, Datta pukur, A.N.T Joseph, 6-xii-1986, 1F. Rajasthan, Nowa, T. G. Vazirani, 10-v-1988, 1F. Rajasthan, Jodhpur, A. K. Datta, 28-vi-1961.

Distribution : All over Oriental region and Japan.

5. *Brachymeria burksi* Chottani

1966. *Brachymeria burksi* Chottani : 89, F., INDIA : West Bengal (ZSI)

Material examined : 1F. INDIA : Calcutta, Botanical Garden, 27-x-1965, K.R.R. & Party; 1F. West Bengal, Barrackpore, viii-1965, Chottani.

Distribution : India.

Host : *Aspidomorpha miliaris* Fabricius (Chrysomelidae)

6. *Brachymeria calopeplae* Joseph, Narendran & Joy

1972. *Brachymeria calopeplae* Joseph, Narendran & Joy : 554, F., INDIA : Dehra Dun (FRI)

Material examined : 1F. INDIA : West Bengal, Calcutta, Eden Gardens, 17-iv-1965, S. N. Saha.

Distribution : India (Dehra Dun, West Bengal)

Host : *Calopepla leayana*.

7. *Brachymeria euploae* (Westwood)

1837. *Chalcis euploae* Westwood : 6? F., INDIA (HDEO)

1982. *Brachymeria(B) flavotibialis* Husain & Agarwal (synonymy by Narendran 1989)

1922. *Brachymeria hearseyi* var. *xanthotenus* Waterson (synonymy by Narendran 1986)

Material examined : 1F. INDIA : West Bengal, Dhangara, A. K. Sanyal & Party, 29-xi-1983; 1F. West Bengal, Jalpaiguri, S. K. Tandon & Party, 14-x-1987; 1F. Tripura, Udaipur, J. K. Jonathan & Party, 18-20-v-1978; 1F. West Bengal, Jhargram, Rajbari, A. K. Hazra & Party, 3-x-1983; 21F. INDIA : Andamans, Burmahnala, 14-iv-1964, B. S. Lamba; 1F. NEFA, Daphabum Expedition, 3-xii-1969, J. M. Julka; 1F. South Andamans, Shoal Bay, 29-iii-1964, B. S. Lamba; 2F. Barkuda Id, Chilka Lake, Ganjam Dist. 11-16-xii-1919; 4F. Bangalore, Cameron; 2F. Darjeeling.

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

Host : Several Dipteran hosts.

Remarks : This is the first report of this species from Andamans And Tripura.

8. *Brachymeria hearseyi* (Kirby)

1883. *Chalcis hearseyi* Kirby : 76, F., INDIA : Barrackpore (BMNH)

Material examined : 1F. INDIA : Gt. Nicobar, Dogmar, Daniel and Bhowmik, 18-iv-1966.

Distribution : India.

Host : Pupa of Nymphalidae.

Remarks : This is the first report of this species from Nicobar.

9. *Brachymeria lasus* (Walker)

1841. *Chalcis lasus* Walker : 219. Lectotype F., INDIA : Calcutta (BMNH)

1904. *Onchochalcis marginata* Cameron : 267

1874. *Chalcis obscurata* Walker : 399
 1862. *Chalcis inclinator* Walker : 345
 1911. *Chalcis punctiventris* Cameron
 1862. *Chalcis nitator* Walker : 356 (synonymy by Boucek 1988)
 1913. *Chalcis papuana* Cameron : 85-86 (synonymy by Boucek 1988)
 1913. *Tumidicoxa regina* Girault : 103 (synonymy by Boucek 1988)
 1915. *Chalcis regina* var. *dentata* Girault : 318 (synonymy by Boucek 1988)
 1936. *Chalcis regina* var. *copernaci* Girault : 3 (synonymy by Boucek 1988)

Material examined : 1F. INDIA : Tripura, Kailashar, J. K. Jonathan & Party, 28-29-v-1978; 3F. Tripura Udaipur, J. K. Jonathan & Party, 14-v-1978; 1F. Uttar Pradesh, Gaziabad, Shishodia & Party, 11-vi-1989; 1F. INDIA : Darjeeling, jalpaiguri, 20-iv-1975, B. C. Nandy : 1F. Assam. Shillong, Polo ground, 20-x-1974, S. K. Gupta, 1F. NEFA, Kameng division, Bomdila, 22-iv-1966, A. N. T Joseph; 1F. Madhya Pradesh, Sehore, 19-x-1964, B. N. Modi (ex pupa of *Sylepta derogara*); 1F. West Bengal, Bankura, 9-iv-1951, N. C. Chatterje; 1F. Jammu, Gandhrashnagkishtwar, 15-vii-1965, Raj Tilak.

Distribution : World wide.

Hosts : Several Lepidopterans.

10. *Brachymeria lugubris* (Walker)

1871. *Chalcis lugubris* Walker : 49, F. HONG KONG (BMNH)
 1883. *Chalcis atrata* Kirby

Material examined : 1F. INDIA : South Andamans, Burmahnala, 14-iv-1964, B. S. Lamba.

Distribution : India, South China, Australia.

Host : *Atteva fabriciella* (Swederus) (Yponomeutidae) and Tachinid pupa.

Remarks : This is the first report of this species from Andamans.

11. *Brachymeria marmonti* (Girault)

1924. *Chalcis marmonti* Girault : 175, F., Australia (QMB)
 1946. *Chalcis wittei* Schmitz
 1973. *Brachymeria koduvalliensis* Joseph et al.

Material examined : 1F. INDIA Coimbatore, 4-ii-1928, T.K.V.; 1F. Punjab, Ludhiana, 1974, Jaswant Singh.

Distribution : Africa, South Asia and Eastern Australia.

Host : Hyperparasite of Lepidoptera through Braconidae and Ichneumonidae.

12. *Brachymeria megaspila* (Cameron)

1907. *Chalcis megaspila* Cameron : F., INDIA : Abu (BMNH)
 1910. *Chalcis koebeleri* Crawford : (synonymy by Boucek 1988)
 1927. *Chalcis poema* Girault : (synonymy by Boucek 1988)

Material examined : 1F. INDIA : Pandava falls, M.S. Mani & Party, 7-8-ix-1979).

Distribution : India, Vietnam, Java, Japan, Australia.

Host : *Delias* sp. (Noctuidae), *Eurema blanda silhetana* Wall. Pieridae), *Eurema hecabe* Linn. (Pieridae).

13. *Brachymeria minuta* (Linnaeus)

1767. *Vespa minuta* Linnaeus : 952, F.,? South Europe (?UZM)
 1790. *Chalcis pusilla* Rossi : 348
 1834. *Chalcis brevicornis* Klug
 1859. *Chalcis scrobiculata* For : 93
 1859. *Chalcis tricolor* Forster : 98
 1875. *Chalcis fumata* Thompson : 18
 1910. *Chalcis paraplesia* Crawford : 19 (synonymy by Habu 1960)
 1912. *Chalcis jezoensis* Matsumura : 166 (synonymy by Habu 1960)
 1971. *Brachymeria puttorensis* Joseph et al. : 229 (synonymy by Joseph et al. 1971)

Material examined : 1F. INDIA : Sikkim, Jcrthang, G. C. Sen and Party 5-xi-1994; 1F. West Bengal, Darjeeling, A.N.T. Joseph & Party, 3-x-1978, 1F. Karnataka, Western Ghats, P. T. Cherian & Party, 10-iii-1977, 1F. Tamil Nadu, Tirupati, M. S. Mani & Party, 25-26-i-1967; 8F. without data.

Distribution : World wide.

Host : Several Dipterans.

14. *Brachymeria podagrica* (Fabrecius)

1787. *Chalcis podagrica* Fabrecius : 48, M., INDIA, Tamil Nadu (UZM)
 1841. *Chalcis fonscolombi* Dufour : (synonymy by Boucek 1972)
 1846. *Chalcis alphius* Walker : (synonymy by Boucek 1972)
 1846. *Chalcis xerxena* Walker : (synonymy by Boucek 1972)
 1846. *Chalcis amenocles* Walker : (synonymy by Boucek 1972)
 1929. *Chalcis beccari* Masi : (synonymy by Narendran 1989)
 1868. *Brachymeria pulchripes* Holmgren : (synonymy by Boucek 1972)
 1871. *Chalcis manseuta* Walker : (synonymy by Boucek 1972)
 1883. *Chalcis callipus* Kirby : (synonymy by Boucek 1972)

1897. *Chalcis eccentrica* Cameron : (synonymy by Boucek 1972)
 1905. *Chalcis borneanus* Cameron : (synonymy by Boucek 1972)
 1936. *Chalcis garutianus* Gunther : (synonymy by Boucek 1972)
 1929. *Brachymeria becarii* Masi : (synonymy by Narendran 1989)
 1916. *Chalcis neglecta* Masi : (synonymy by Boucek 1972)
 1888. *Chalcis mikado* Cameron : (synonymy by Boucek 1972)
 1915. *Chalcis depterophaga* Girault & Dodd (synonymy by Boucek 1988)
 1913. *Tumidicoxoides kurandaensis* Girault : (synonymy by Boucek 1988)
 1915. *Tumidicoxoides paucipunctatus* Girault : (synonymy by Boucek 1988)
 1982. *Brachymeria (Matsumuraria) aligarhensis* Husain & Agarwal : (synonymy by Narendran 1989)
 1862. *Chalcis restituta* Walker (synonymy by Boucek 1992)
 1924. *Chalcis vegai* Girault (synonymy by Boucek 1988)

Material examined : 1F. INDIA : Tripura, Kailashar, J. K. Jonathan & Party, 28-30-v-1978; 1F. Tripura, Teliamura, J. K. Jonathan & Party 18-20-v-1978; 2F. Tripura, Ambassa, J. K. Jonathan & Party, 24-26-v-1978; 1F. Bakchur, M. S. Mani & Party, 7-9-1979; 1F. Tripura, Udaipur, J. K. Jonathan & Party 14-v-1978; 1F. Sikkim, Jorhang, G. C. Sen & Party, 10-vi-1994.

Distribution : World wide.

Host : Sarcophagidae, Calliphoridae, Synanthropic Diptera, secondarily parasitic on Lepidoptera through Diptera.

15. *Brachymeria ryukyuensis* Habu

1963. *Brachymeria (Matsumuraria) ryukyuensis* Habu : 115, F., JAPAN : Ryukyu Is. (ELKU)

Material examined : 3F. INDIA : Tripura, Ambassa, J. K. Jonathan & Party, 24-26-v-1978.

Distribution : Japan, Philippines, India (Andaman & Nicobar Is.)

Remarks : This is the first report of this species from Tripura.

Genus 3. *Dirhinus* Dalman

1818. *Dirhinus Dalman* : 75-76, P1.2. Type species : *Dirhinus excavatus* Dalman by monotypy.

The known synonyms of this genus are *Eniaca* Kirby (1883), *Dirhinoidea* Girault (1912), *Parenia* Crawford (1914), *Eniacella* Girault (1914), *Eniacomorpha* Girault (1915), *Dirhinoides* Masi (1947).

1. *Dirhinus anthracia* Walker

1846. *Dirhinus anthracia* Walker : 7, 85, M., PHILIPPINES (BMNH)
 1981. *Dirhinus aligarhensis* Husain & Agarwal : 183, F., INDIA : Aligarh (ZDAMU) (synonymy by Narendran 1989)
 1981. *Dirhinus ignobilicornis* Husain & Agarwal : 187, F. INDIA : Aligarh (ZDAMU) (synonymy by Narendran 1989)

1957. ?*Dirhinus sinon* Fernando W. : 214 syntypes, 2M. Eastern Province, Puanui (?lost)
 1913. *Eniacella ruficornis* Girault (synonymy by Boucek & Narendran 1981)
 1915. *Eniacella bicornutipes* Girault (synonymy by Boucek & Narendran 1981)
 1919. *Dirhinus sacrophagae* Froggat (synonymy by Boucek & Narendran 1981)
 1933. *Dirhinus frequens* Masi (synonymy by Boucek & Narendran 1981)
 1972. *Dirhinus intermedius* Mani & Dubey (synonymy by Boucek & Narendran 1981)
 1974. *Dirhinus georgei* Mani & Dubey (synonymy by Boucek & Narendran 1981)
Dirhinus excavatus Auctorum Nec. Dalman as misidentification (synonymy by Boucek & Narendran 1981)

Materials examined : 7F. INDIA : Tripura, Kailashar, J. K. Jonathan & Party, 28-30-v-1978; 2F, Tripura Teliamura, J. K. Jonathan & Party, 18-20-v-1978; 2F. Harsa, M. S. Mani & Party, 9.x.1979; 1F. Pandava falls, M. S. Mani & Party, 7-8-ix-1979; 1F. no locality name, M. S. Mani & Party; 1F. Bakchur, M. S. Mani & Party, 7-ix-1979.

Distribution : Oriental Region, Australian Region, Mediterranean Region & Africa.

Host : *Calliphora villosa* (Calliphoridae), *Dacus cucurbitae* Coq (Tephritidae), *Dacus ferrugineus* F., *Sarcophaga aurifrons* Mac. (Sarcophagidae), *Brachartona catoxantha* Hampson (Zygaenidae), *Plecoptera reflexa* G. (Noctuidae), *Pyrausta machaeralis* W. (Pyralidae).

2. *Dirhinus auratus* Ashmead

1905. *Dirhinus auratus* Ashmead : 402, Lectotype F. PHILIPPINES : Manila (USNM)
 1981. *Dirhinus circinus* Husain and Agarwal : 182, F. INDIA : Aligarh (ZDAMU) (synonymy by Narendran 1989).
 1974. *Dirhinus pambaeus* Mani & Dubey (synonymy by Boucek & Narendran 1981)

Material examined : 1F. INDIA : Mopping Survey, Jhargram Rajbari, A. K. Hazra & Party, 3-x-1983; 3F. Vindhya Survey, Harsa, 9-10-ix-1979, M. S. Mani & Party.

Distribution : India, Sri Lanka, Thailand, Laos, Vietnam, Taiwan, Philippines, and Pakistan.

Host : *Dacus* sp.

3. *Dirhinus bakeri* (Crawford)

1914. *Pareniaca bakeri* Crawford : 459, F., PHILIPPINES : Manila (USNM)
 1927. *Pareniaca tricophthalma* Masi

Material examined : 3F. INDIA : Harsa, M. S. Mani & Party, 9-10-ix-1979; 1F. Pandava falls, M. S. Mani & Party, 7-8-ix-1979; 1F. Panna Satna Rd. 9-10-1979, M. S. Mani & Party; 2F. Tripura, Kailashar, J. K. Jonathan & Party, 28-30-v. 1978.

Distribution : India, Sri Lanka, Malaysia, Philippines & Japan.

Hosts : *Sargus metallinus* (F.) (Stratiomyiidae), *Musca domestica*, (Muscidae), *Ptychomyia remota* Ald. (Tachinidae) and *Dacus incisus*.

Remarks : This is the first report of this species from Harsa, Pandava falls, Panna Satna & Tripura.

4. *Dirhinus himalayanus* Westwood

1836. *Dirhinus himalayanus* Westwood : 840, F., INDIA : Uttar Pradesh
 1981. *Dirhinus lakhimpuriensis* Husin & Agarwal (synonymy by Narendran 1989)
 1906. *Dirhinus crythroceras* Cameron (synonymy by Boucek & Narendran 1981)
 1923. *Dirhinus luzonensis* Rohwer (synonymy by Boucek & Narendran 1981)
 1923. *Dirhinus luciliae* Rohwer (synonymy by Boucek & Narendran 1981)
 1927. *Dirhinus pachycerus* Masi (synonymy by Boucek & Narendran 1981)
 1952. *Dirhinus vlasovi* Nikol'skaya (synonymy by Boucek & Narendran 1981)
 1972. *Dirhinoides mathuri* Mani & Dubey (synonymy by Boucek & Narendran 1981)

Materials examined : 2F. INDIA : Calcutta, Presidency College, 15-viii-1974, B. D. Gupta; 1F. Calcutta, Bansdroni, 12-iii-2001, Sheela, S.

Distribution : India, Saudi Arabia, Iraq, Turkmenia, Pakistan, Malaysia, China, Philippines, Japan, Cocos Is., Sumatra & Hawaii.

Hosts : *Chrysomya megacephala* (Fab) (Calliphoridae), *Hypantria cunea* Drury (Lep.), *Lucilia* sp. (Calliphoridae), *Musca domestica* Linn (Muscidae).

5. *Dirhinus madagascariensis* (Masi)

1947. *Parenia madagascariensis* Masi : 74, Lectotype F., MADAGASCAR (MNHN)
 1974. *Parenia coromandelica* Mani and Dubey

Material examined : 1F. INDIA : West Bengal, Taki, Haripur, 24 Parganas District. 10-ix-1965, H. K. B. and Party.

Distribution : India, Thailand, Africa, Japan, Senegal.

Host : *Sylepta derogatga* (Fab.) (Pyralidae)

Remarks : This is the first report of this species from West Bengal.

Genus 4. *Epitranus* Walker

1834. *Epitranus* Walker : 21, 26. Types species : *Epitranus fulviscens* Walker by monotypy.

The known synonyms of this genus are : *Chalcitella* Westwood 1835, *Anacryptus* Kirby 1883, *Arretocera* Kirby 1883, *Neoanacryptus* Girault 1913, *Chalcitelloides* Girault 1914, *Paranacryptus* Girault 1915 and *Pararretoceroides* Mani 1938.

1. *Epitranus crassicornis* Boucek

1982. *Epitranus crassicornis* Boucek : 608, F., LAOS (BMNH)

Materials examined : 1F. INDIA : Tripura, Kailashar, J. K. Jonathan & Party, 28-30-v-1978.

Distribution : Laos, Malaysia & Vietnam.

Remarks : This is the first report of this species from India.

2. *Epitranus erythrogaster* Cameron

1888. *Epitranus erythrogaster* Cameron : 119, Lectotype, F., JAPAN : Nagasaki (BMNH)
 1982. *Epitranus acuminatus* Husain & Agarwal (synonymy by Narendran 1989)
 1910. *Anacryptus sculpturatus* Crawford (synonymy by Boucek 1982)
 1933. *Anacryptus kankanensis* Masi (synonymy by Boucek 1982)
 1936. *Arretoceroides ceylonensis* Mani (synonymy by Boucek 1982)
 1953. *Anacryptus raoi* Mani & Kurian (synonymy by Boucek 1982)
 1957. *Chalcitelloides devadatta* W. Fernando (synonymy by Boucek 1982)
 1957. *Chalcitelloides ajatasattu* Fernando (synonymy by Boucek 1982)
 1958. *Chalcitella cinca* W. Fernando (synonymy by Boucek 1982)
 1959. *Pararretoceroides austini* Fernando (synonymy by Boucek 1982)
 1973. *Arretocera ambadevia* Mani & Dubey (synonymy by Boucek 1982)
 1973. *Arretocera nilamburensis* (!) Mani & Dubey (synonymy by Boucek 1982)
 1973. *Arretocera pallava* Mani & Dubey (synonymy by Boucek 1982)
 1973. *Arretocera tanjorensis* Mani & Dubey (synonymy by Boucek 1982)
 1974. *Chalcitella nilamburensis* Mani & Dubey (synonymy by Boucek 1982)
 1974. *Arretocera malabarensis* Mani & Dubey (synonymy by Boucek 1982)

Materials examined : 6F. INDIA : Western Ghats, Kidu, M. S. Mani & Party, 23-iii-1975; 1F. West Bengal, Ballarpur forest, S. B. Roy & Party, 29-i-1986.

Distribution : All over Oriental Region & Japan.

Host : *Corcyra cephalonica* (Stainton) (Pyralidae), *Chilo simplex* But.

3. *Epitranus observator* Walker

1862. *Epitranus observator* Walker : 349-350, Lectotype F., UGANDA : Sierra Leon (BMNH)
 1936. *Anacryptus bayoni* Masi (synonymy by Boucek 1982)
 1942. *Anacryptus megacerus* Schmitz (synonymy by Boucek 1982)
 1953. *Anacryptus muzafferu* Mani & Kurian (synonymy by Boucek 1982)
 1953. *Anacryptus shaffii* Mani & Kurian (synonymy by Boucek 1982)
 1960. *Pararretoceroides coomaswamyi* W. Fernando (synonymy by Boucek 1982)

Materials examined : 1F. INDIA : Tripura, Kailashar, J. K. Jonathan & Party, 28-30-v-1978; 1F. Tripura Teliamura, J. K. Jonathan & Party, 18-20-v-1978; 1F. Sikkim, Jorhang, G. C. Sen & Party, 6-ix-1994.

Distribution : Africa, Sri Lanka, Thailand, Malaysia.

Remarks : This is the first report of this species from Tripura and Sikkim.

Genus 5. *Hockeria* Walker

1834. *Hockeria* Walker : 21, 34. Type species : "*Chalcis bispinosa*" Fabricius sensu Kirby (= *Hockeria bifasciata* Walker) designated by Kirby 1883.

1960. *Nipponohockeria* Habu (synonymy by Narendran 1989)

The known synonyms of this genus are : *Stomatoceras* Kirby (1883), *Temnata* Cameron (1897), *Centrochalcis* Cameron (1905), *Hypochochalcis* Girault (1915), *Orthochochalcis* Silvestri (1943), *Afrochalcis* Schmitz (1946), *Hockerella* Girault (1930) and *Afrhockeria* Steffan (1955).

1. *Hockeria anupama* Narendran

1989. *Hockeria anupama* Narendran : 96, F., INDIA : Kerala (DZCU)

Materials examined : 1F. INDIA : Kerala, Palode, M. S. Mani & Party, 1-iv-1980.

Distribution : India (Kerala).

Remarks : Narendran (1989) described this species based on a single specimen obtained from Malampuzha. This is the second time this species is being reported.

2. *Hockeria argentigera* Holmgren

1869. *Hockeria argentigera* Holmgren (misspelling for *Hockeria*) : 436, F., Lectotype, JAVA, (NRS)

Materials examined : 1F. INDIA : North Bengal, Cooch Behar, M. Prasad & Party, 28-iii-1984.

Distribution : India, Java, Singapore, Sarawak.

Remarks : This is the first report of this species from Bengal.

3. *Hockeria fronta* Narendran

1989. *Hockeria fronta* Narendran : 104, F., M., INDIA : Kerala (DZCU)

Materials examined : 1F. INDIA : Kerala, Palode, M. S. Mani & Party, 25-iii-1980.

Distribution : India.

4. *Hockeria guptai* Narendran

1989. *Hockeria guptai* Narendran : 108, F., M., INDIA : Tamil Nadu (DZCU)

Materials examined : 3F. INDIA : Tripura, Ambassa, J. K. Jonathan & Party, 24-26-v-1978; 2F. Kailashar, J. K. Jonathan, 28-30-v-1978; 1F. West Bengal, Bankura, Sonamukhi. M. Dutta & Party, 30-x-1985.

Distribution : India, Nepal, Malaya.

5. *Hockeria tristis* (Strand)

1911. *Antrocephalus tristis* Strand : 8, Lectotype, F., SRI LANKA (ZMHU)
 1897. *Temnata maculipennis* Cameron : 42 (synonymy by Narendran 1989)
 1973. *Trichoxenia zigonensis* Mani & Dubey : 35, (synonymy by Narendran 1989)
 1974. *Hockeria nilgiriensis* Mani & Dubey : 11, (synonymy by Narendran 1989)

Materials examined : 1F. INDIA : Tripura, Kailashar, J. K. Jonathan & Party, 28-30-v-1978.

Distribution : All over Indian subcontinent.

Host : *Pyrausta machaeralis* (Walker) (Pyralidae).

Genus 6. *Kreichbaumerella* Dalla Torre

1894. *Coelops* Kreichbaumer : 316-317, Type species : *Coelops palpebrator* Kreichbaumer by monotypy.
 Pre occupied by *Coelops* Blyth 1849
 1897. *Kreichbaumerella* Dalla Torre : 84 Replacement name for *Coelops* Kreichbaumer.

1. *Kreichbaumerella javensis* Narendran

1989. *Kreichbaumerella javensis* Narendran : 73, F., NEPAL : Kathmandu (BSRI)

Materials examined : INDIA : Tripura, Kailashar, J. K. Jonathan & Party, 28-30-v-1978.

Distribution : India, Nepal.

Remarks : This is the first report of this species from Tripura and second report from elsewhere India.

2. *Kreichbaumerella kraussi* Narendran

1989. *Kreichbaumerella kraussi* Narendran : 78, F., CAMBODIA : Siem Resp. (USNM)

Materials examined : INDIA : Vindhya Survey, Panna Satna, M. S. Mani & Party, 9-10-ix-1979.

Distribution : India, Cambodia, Philippines.

Remarks : This is the first report of this species from Vindhya and second report from elsewhere India, formerly being the paratypes reported from Kerala.

3. *Kreichbaumerella pulvinatus* (Masi)

1932. *Kreichbaumerella pulvinatus* Masi : 232, Lectotype, F., FORMOSA : Kankau (MCSG)

Materials examined : 1F. INDIA : Ghasiabad, Dhaulana, Shishodia & Party, 11-vi-1989; 1F. Tripura, Teliamura, J. K. Jonathan & Party, 18-20-v-1978; 2F. Tripura, Kailashar, J. K. Jonathan & Party, 28-30-v-1978.

Distribution : India, Malaya, Java, Philippines, Sri Lanka, Nepal, Singapore, Cochin China, Hainan Island.

Remarks : This is the first report of this species from Tripura and Ghasiabad.

Genus 7. *Neochalcis* Kirby

1883. *Neochalcis* Kirby : 54, 63. Type species : *Halticella osmicida* Saunders by original designation.

The known synonyms of this genus are : *Orthochalcis* Kieffer 1904 and *Eugastrochalcis Masi* 1929.

1. *Neochalcis breviceps* (Masi)

1929. *Eugastrochalcis breviceps* Masi : 182, Lectotype F., PHILIPPINES : Basiland Is. (USNM).

1929. *Hockeria maetai* Habu (synonymy by Narendran 1989)

1964. *Eugastrochalcis secundus* Mani & Dubey (synonymy by Narendran 1989)

Materials examined : 1F. INDIA : Harsa, M. S. Mani & Party, 9-10-ix-1979.

Distribution : Oriental Region, Japan.

Genus 8. *Psilochalcis* Kieffer

1904. *Psilochalcis* Kieffer : 250, Type species : *Psilochalcis longigena* Kieffer

1951. *Hyperchalcidia* Steffan : 67 (synonymy by Narendran 1989)

1. *Psilochalcis carinigena* (Cameron)

1907. *Coelochalcis carinigena* Cameron : 579, Lectotype M., INDIA : Gujarat (BMNH)

1985. *Invreia opisinae* Narendran (synonymy by Narendran 1989)

Materials examined : 1F. INDIA : Karnataka, Appangala, M. S. Mani & Party, 19-24-v, 3-vi-1978; 1F. Vindhya Survey, M. S. Mani & Party, 9-10-ix-1979; 1F. West Bengal, Sagar Islands Survey, Mandir Tala, R. C. Basu & Party, 16-vi-1977; 1F. Tripura, Udaipur, J. K. Jonathan & Party, 14-v-1978.

Distribution : All over Indian subcontinent.

Host : *Opisina arenosella* Walker (Oecophoridae).

2. *Psilochalcis keralensis* Narendran

1989. *Psilochalcis keralensis* Narendran : 183, F., INDIA : Kerala (DZCU)

Materials examined : 2F. INDIA : Tripura, Kailashar, J. K. Jonathan & Party, 28-30-v-1978.

Distribution : India.

Remarks : This is the first report of this species from Tripura and the second report from India.

Genus 9. *Steninvreia* Boucek

1988. *Steninvreia* Boucek : 58. Type species : *Xenarretocera tricarinata* Girault, by original designation.

1. *Steninvreia noyesi* Narendran

1989. *Steninvreia noyesi* Narendran : 165, F., INDIA : Kerala (DZCU)

Materials examined : 1F. INDIA : Andamans, Port Blair (Hadda), 30-iv-1970, B. K. Tikader.

Distribution : India (Kerala, Andamans).

Remarks : Narendran (1989) erected this species based on a single female from Kerala. After that this is the first time this specimen is being reported.

Genus 10. *Tropimeris* Steffan

1948. *Tropimeris* Steffan : 118, Type species : *Tropimeris excavata* Steffan by original designation.

1. *Tropimeris monodon* Boucek

1958. *Tropimeris monodon* Boucek : 481, F., INDIA : Bombay (NM)

Materials examined : 36F. & 1M. INDIA : Kerala, Palode, M. S. Mani & Party, 25-iii-16-iv-1980; 14F. Kerala, Kottur, M. S. Mani & Party, 27-iii-29-iv-1980; 1F. Kerala, Neyyar Dam, M. S. Mani & Party 20-iii-1980; 13F. Kerala, Aryankavu, M. S. Mani & Party, 18-iv-1980; 1F. Anchal, M. S. Mani & Party, 16-iv-1980.

Distribution : South and South East Asia.

Host : *Exealtis atomosa* Walshm. (Lep. Pterophoridae).

Genus 11. *Uga* Girault

1933. *Uga* Girault : 4, Type species : *Stomatoceras colliscutellum* Girault by original designation.

1982. *Neotainania* Husain & Agarwal.

1. *Uga menoni* Kerrich

1960. *Uga menoni* Kerrich : 115, F., INDIA : Orissa (BMNH)

1982. *Neotainania brevicorpis* Husain & Agarwal

Materials examined : 11F. INDIA : Bihar, Patna, A. P., Kanpur, 1964.

Distribution : India, Taiwan.

Host : *Epilachna* sp. (Coccinellidae).

Remarks : This is the first report of this species from Harsa. Previous reports from India include, Kerala, Karnataka and Tamil Nadu.

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