

ORTHOPTERA (INSECTA) FAUNA OF ANDAMAN AND NICOBAR ISLANDS

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INTRODUCTION

The Order Orthoptera includes long and short-horned grasshoppers, crickets and grouse locusts. These insects are less known from Andaman and Nicobar Islands. Though several workers like Bhowmik (1967, 1969, 1970, 1977), Ingrisch & Shishodia (1998), Kevan & Jin (1993), Shishodia & Tandon (1975, 1977) and Shishodia et al. (1993) have recorded 70 species from these islands. In the present paper superfamilies Grylloidea, Tettigonioidea and Tetridoidea are studied. The superfamily Acridoidea will be dealt separately in the second part. In this paper altogether 51 species belonging to 40 genera under 8 families are recorded from these islands, of which 24 species are recorded for the first time from Andaman & Nicobar Islands and are marked with single asterisk (*). The genera *Amusurgus* (Grylloidea), *Phaneroptera* and *Isopsera* (Tettigonioidea) are identified upto the generic level only, whereas *Parendacustes pendleburyi* (Grylloidea) and *Zulpha perlaria* (Tettigonioidea) are recorded for the first time not only from Andaman & Nicobar Islands but also from India. This study is made on the materials received from different Survey parties of Zoological Survey of India, Calcutta, as well as Andaman & Nicobar Regional Station, Zoological Survey of India, Port Blair. The identified materials are deposited in National Zoological Collection Calcutta and Port Blair.

Family : GRYLLOTALPIDAE

Genus *Gryllotalpa* Latreille 1802

1. ***Gryllotalpa africana* Beauvois**

1805. *Gryllotalpa africana* Beauvois, *Ins. Afr. Amer.*, 229.

1924. *Gryllotalpa africana* : Chopard, *Rec. Indian Mus.*, 26 : 181.

Material examined : 1♂, S. Andaman, Port Blair, Nayagon, 11.i.1991, coll. S. Kumar; 2♀, Great Nicobar, Chingan village, 26.x.1997, coll. S. K. Mandal.

Diagnosis : Anterior legs modified for digging; anterior tibia armed with 4 dactyls; female tegminal veins somewhat diverging and simply curved at basa; colouration light brown.

Distribution : India (Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Meghalaya, Orissa, Pondicherry, Punjab, Tamil

Nadu, Tripura, Uttar Pradesh and West Bengal); Africa; Tropical Asia; Australia; Bhutan; Iran; Madagascar; Malaysia; Myanmar; Singapore and Sri Lanka.

Family : GRYLLIDAE

Genus *Teleogryllus* Chopard 1961

2. *Teleogryllus occipitalis* (Serville)

1838. *Gryllus occipitalis* Serville, *Hist. nat. Ins.*, : 339.

1980. *Teleogryllus occipitalis* : Townsend, *J. nat. Hist.*, 14(2) : 154.

Material examined : 1♂, Great Nicobar, Galathea Bay, 22.i.1993, coll. K. Chandra; 1♂, S. Andaman, Chiriatapu, 3.xi.1997, coll. S. K. Mandal; 1♂, N. Andaman, Mayabunder, Ninbubera, 8.xi.1997, coll. S. K. Mandal.

Diagnosis : Head chestnut dark-brown, without any markings; pronotum dark-brown; tegmina light-brown; mirror divided by a curved vein in the middle, 4 oblique veins, apical field with 6-7 veins; diagonal vein united with the chords by 3 veins in the middle; tegmina reach upto the last abdominal segment; genitalia of *testaceus* type.

Distribution : India (Andaman Islands, Arunachal Pradesh, Assam, Bihar, Delhi, Himachal Pradesh, Karnataka, Madhya Pradesh, Manipur, Meghalaya, Orissa, Sikkim, Tamil Nadu, Uttar Pradesh and West Bengal); Bangladesh; Bhutan; Borneo; Celebes; Indonesia; Japan; Laos; Malaysia; Philippines; Sri Lanka; Taiwan; Thailand and Tibet.

Genus *Modicogryllus* Chopard, 1961

3. *Modicogryllus confirmatus* (Walker)

1859. *Acheta confirmata* Walker, *Ann. Mag. nat. Hist.*, (3)4 : 221.

1961. *Modicogryllus confirmatus* : Chopard, *Eos, Madr.*, 37 : 272.

Material examined : 1♀, S. Andaman, Wandoor Guest House (at light), 21.xii.1991, coll. K. Chandra; 1♂, 2♀, S. Andaman, Rutland, 25,26.ii.1995, coll. G. C. Rao; 1♀, N. Andaman, H. E. P. Area Kalpong 27.ii.1997, coll. K. Chandra.

Diagnosis : Head blackish with 6 longitudinal yellow lines on the occiput and a transverse yellow band between the lateral ocelli; lateral field of tegmina with widely separated veins; mirror longer than wide, divided by a curved vein, 2 oblique veins; wings caudate; ovipositor long with acute apical valves.

Distribution : India (Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal); Bangladesh; Indo-china; Iran; Malaysia; Myanmar; Nepal; Pakistan; Philippines; Sri Lanka and Thailand.

Genus *Gryllus* Linnè, 17584. *Gryllus bimaculatus* De Geer

1773. *Gryllus bimaculatus* De Geer, *Mem. Ins.*, 3 : 521.

1969. *Gryllus bimaculatus* : Chopard, *Fauna of India, Grylloid.*, 2 : 35.

Material examined : 1♂, S. Andaman, Rutland, 25.ii.1995, coll. G. C. Rao; 1♀, N. Andaman, Diglipur, 6.ii.1998, coll. Raja Ram.

Diagnosis : Body and legs almost glabrous; typically black colour with a yellow spot at base of each tegmen; frontal rostrum wide; posterior femora not longer than tibia and metatarsus together.

Distribution : India (Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Pondicherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Uttar Pradesh and West Bengal); Malaysia; Myanmar; Pakistan; Singapore; Sri Lanka; also in Africa and Mediterranean region.

Genus *Loxoblemmus* Saussure, 18775. *Loxoblemmus detectus* (Serville)

1839. *Platyblemmus detectus* Serville, *Hist. Nat. Ins. Orth.*, : 356.

1969. *Loxoblemmus detectus* : Chopard, *Fauna of India, Grylloidea* 2 : 123.

Material examined : 1♀, S. Andaman, Rutland, Ghasmala, 23.i.1982, coll. R. M. Sharma & M. K. D. Roy; 1♀, S. Andaman, Wandoor Guest House, 21.xii.1991, coll. K. Chandra.

Diagnosis : Head brown with yellow lines above; frontal rostrum not wide, feebly projecting; antennae with first segment not with process; labial palpi normal; wings caudate.

Distribution : India (Andaman Islands, Andhra Pradesh, Arunachal Pradesh, Bihar, Mizoram, Sikkim, Uttar Pradesh and West Bengal); China; Java; Johore; Kuala Lumpur; Pahang; Singapore; Sri Lanka; Sumatra and Taiwan.

Genus *Pteronemobius* J. & B. 19056. *Pteronemobius taprobanensis* (Walker)

1869. *Trigonidium taprobanensis* Walker, *Cat. Derm. Salt. Br. Mus.*, 1 : 102.

1925. *Pteronemobius taprobanensis* : Chopard, *Ann. Mag. nat. Hist.* (9)15 : 507.

Material examined : 1♀, L. Andaman, Hut Bay, 15.x.1991, coll. K. Chandra; 1♀, S. Andaman, Wandoor Guest House, 21.xii.1991, coll. K. Chandra; 3♀, N. Andaman, H. E. P. A. Kalpong, 20,21.vi.1994, coll. K. Chandra; 1♀, N. Andaman, Aerial Bay Guest House, 24.vi.1994, coll. K. Chandra.

Diagnosis : Tegmina with normal venation; lateral lobes of pronotum and lateral field of tegmina blackish, contrasting with the upper part which is testaceous; posterior femora unicoloured.

Distribution : India (Andaman Islands, Arunachal Pradesh, Assam, Bihar, Delhi, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Rajasthan, Tamil Nadu, Tripura and West Bengal); Bangladesh; China; Malacca; Malaysia; Myanmar; Perak; Sri Lanka and Vietnam.

7. *Pteronemobius indicus* (Walker)

1869. *Nemobius indicus* Walker, *Cat. Derm. Salt. Br. Mus.*, 1 : 58.

1969. *Pteronemobius indicus* : Chopard, *Fauna of India, Grylloidea*, 2 : 159.

Material examined : 1♂, 1♀, S. Andaman, Mt. Harriet National Park, 15.ii.1994, coll. Kailash Chandra.

Diagnosis : Tegmina with normal venation; lateral lobes of pronotum and lateral field of tegmina of the same colour as upper part; tegmina extending to the apex of abdomen; posterior femora unicoloured; ovipositor longer (5 mm.) and straight.

Distribution : India (Andaman Islands, Arunachal Pradesh, Assam, Maharashtra, Meghalaya, Tamil Nadu and West Bengal); Malaysia; Myanmar; Pehang and Sri Lanka.

8. *Pteronemobius concolor* (Walker)

1871. *Eneoptera concolor* Walker, *Cat. Derm. Salt. Br. Mus.*, 5 Suppl. : 10.

1931. *Pteronemobius concolor* : Chopard, *Bull. Raffles Mus.*, No. 6 : 134.

Material examined : 1♂, N. Andaman, North Reef, 24.iii.1993, coll. G. C. Rao; 1♀, S. Andaman, Chiriatapu, 3.xi.1997, coll. S. K. Mandal.

Diagnosis : Tegmina with normal venation; lateral lobes of pronotum and lateral field of tegmina of the same colour as the upper part; colour of the tegmina and pronotum more or less same; tegmina and wings extending to the apex of abdomen; posterior femora unicoloured; posterior tibiae with 4 spines on each margin; ovipositor short and gently curved.

Distribution : India (Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Delhi, Goa, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal); Afghanistan; Malaysia; Myanmar; Perak; Sri Lanka and Turkistan.

Family : OECANTHIDAE

Genus *Oecanthus* Serville, 1831*

9. *Oecanthus indicus* Saussure

1878. *Oecanthus indicus* Saussure, *Mem. Soc. Phys. Hist. nat. Geneve*, 25 : 454.

1969. *Oecanthus indicus* : Chopard, *Fauna of India, Grylloidea*, 2 : 267.

Material examined : 1♀, S. Andaman, Rutland, 27.ii.1995, coll. G. C. Rao; 1♀, N. Andaman, Agriculture farm Neil island, 24.i.1998, coll. Raja Ram.

Diagnosis : First two antennal joints without black markings; size small (14mm.); anterior tibiae strongly dilated at base; posterior tibiae serrulated and armed with certain number of spines; ovipositor short (4.5 mm.).

Distribution : India (Andaman Islands, Arunachal Pradesh, Assam, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Tamil Nadu, Tripura and West Bengal); Ambon; China; Japan; Malaysia; Malaya Archipelago; Philippines; Sri Lanka and Sumba.

Family : TRIGONIDIIDAE

Genus *Trigonidium* Rambur, 1839

10. *Trigonidium cicindeloides* Rambur

1839. *Trigonidium cicindeloides* Rambur, *Fauna Andal.*, 2 : 39.

1969. *Trigonidium cicindeloides* : Chopard, *Fauna of India, Grylloidea* 2 : 304.

Material examined : 5♂, 3♀, N. Andaman, Aerial Bay, 6.xi.1997, coll. S. K. Mandal.

Diagnosis : Tegmina convex, same venation in both sexes, false veins between the principal veins; wings short; anterior tibiae unperforated.

Distribution : India (Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Goa, Himachal Pradesh, Jammu & Kashmir, Karnataka, Lakshadweep, Maharashtra, Manipur, Mizoram, Meghalaya, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal); Africa; Bhutan; Madagascar; Malaysia; Mauritius Island; Mediterranean region; Myanmar; Nepal; Sri Lanka; S. Europe to S. Asia and all over Africa.

11. **Trigonidium humbertianum* (Saussure)

1878. *Homoseoxiphus humbertianus* Saussure, *Mem. Soc. Geneva*, 25 : 468.

1925. *Trigonidium humbertianum* : Chopard, *Ann. Mag. nat. Hist.* (9) 15 : 525.

Material examined : 1♀, 1♂, N. Andaman, Aerial Bay, 6.xi.1997, coll. S. K. Mandal.

Diagnosis : This species is similar to the preceding species, except in shape of tegmina which are not so convex and are more longer, long wings and the perforated anterior tibiae.

Distribution : India (Arunachal Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal). Widely distributed in Oriental region.

Genus ***Metioche*** Stål, 187712. ***Metioche*** sp.

1877. *Metioche* Stål, *Oefv. Vet.-Akad. Forh.*, 34(1) : 46.

Material examined : 1♂, 1♀, S. Andaman, Port Blair, Sippy Ghat, 20.i.1998, coll. Raja Ram.

Diagnosis : Tegmina without or very feebly pubescence; venation similar in both sexes, transverse veinlets numerous; second segment of tarsi somewhat flattened.

Distribution : The genus is distributed in Indo-Australian region and Philippine Islands.

Genus ***Amusurgus*** Brunner, 189313. ****Amusurgus*** sp.

1893. *Amusurgus* Brunner, *Ann. Mus. nat. Geneva*, 33 : 212.

Material examined : 1♀, S. Andaman, Mt. Harriet National Park, 11.v.1995, coll. K. Chandra.

Diagnosis : Tegmina covered with fine pubescence; veins more or less anastomosed, specially in male; vertex convex; eyes vertically lengthened.

Distribution : The genus is distributed in India, N. Australia, Malaysia, Malaya Archipelago, New Guinea, Myanmar and Sri Lanka.

Genus ***Homoeoxipha*** Saussure, 187414. ***Homoeoxipha lycoides*** (Walker)

1869. *Phyllopalpus lycoides* Walker, *Cat. Derm. Salt. Br. Mus.*, 1 : 71.

1925. *Homoeoxipha lycoides* : Chopard, *Ann. Mag. nat. Hist.* (9) 15 : 532.

Material examined : 1♂, N. Andaman, H. E. P. A. Kalpong, 27.ii.1997, coll. K. Chandra; 1♀, Great Nicobar, Campbell Bay, 16 miles, 27.x.1997, coll. S. K. Mandal; 3♂, 2♀, N. Andaman, Aerial Bay, 6.xi.1997, coll. S. K. Mandal.

Diagnosis : Pronotum narrowing and rounded in front; tegmina presenting false veins between principal veins; tegmina long and narrow; wings long; posterior tibiae non-serrulated, armed with 3 spines on each margin; second joint of tarsi depressed.

Distribution : India (Andaman Islands, Arunachal Pradesh, Assam, Bihar, Karnataka, Meghalaya, Tamil Nadu, Uttar Pradesh and West Bengal); Australia; Bangladesh; China; Malaysia; Myanmar; Queensland; Singapore; Sri Lanka and Taiwan.

Genus *Anaxipha* Saussure, 187415. *Anaxipha longipennis* (Serville)

1839. *Trigonidium longipenne* Serville, *Ins. Orth.*, : 351.

1924. *Anaxipha longipennis* : Chopard, *Rec. Indian Mus.*, 26 : 188.

Material examined : 1♂, Great Nicobar Biosphere Reserve, 16 kms. E.-W. Road, 14.xi.1993, coll. K. Chandra.

Diagnosis : General shape narrow, colouration of head and pronotum uniformly yellow, without rufous spots; legs without reddish spots; posterior femora without brown bands; mirror of male very narrow; wings very long.

Distribution : India (Andaman & Nicobar Islands, Assam, Karnataka, Manipur, Meghalaya, Orissa, Tamil Nadu and West Bengal); E. Africa; Tropical Asia; Madagascar; Malaysia; Mauritius; Myanmar; Philippines; Queensland; Seychelles and Sri Lanka.

Family : ENEOPTERIDAE

Genus *Euscyrtus* Guèrin, 184416. *Euscyrtus hemelytrus* (Haan)

1842. *Gryllus (Eneoptera) hemelytra* Haan, *Temminck Verhandl. Orth.*, : 231.

1931. *Euscyrtus hemelytrus* : Chopard, *Bull. Raffles Mus.*, No. 6 : 145.

Material examined : 1♀, S. Andaman, Beech Dera, Port Blair, 25.x.1997, coll. M. S. Shishodia.

Diagnosis : Body long and narrow; small in size (13.0 mm.); head short; frontal rostrum short, wide, flattened above, anterior ocellus located almost at apex; pronotum flattened above; ovipositor sinuated in the shape of 'S'

Distribution : India (Andaman & Nicobar Islands, Assam, Orissa, Uttar Pradesh and West Bengal); N. Australia; Tropical Asia; China; Japan; Java; Korea; Malaysia; Moluccas; Myanmar; Sri Lanka and Taiwan.

Genus *Madasumma* Walker, 186917. *Madasumma* sp.

1869. *Madasumma* Walker, *Cat. Derm. Salt. Brit. Mus.*, 1 : 64.

1969. *Madasumma* : Chopard, *Fauna of India, Orthopt.*, 2 Grylloidea : 341.

Material examined : 1♀, S. Andaman, Alexander Sword, 15.vi.1982, coll. R. M. Sharma.

Diagnosis : Colour brownish; disc of pronotum weakly convex; anterior tibiae with a weak basal swelling; posterior tibiae with short, subequal external apical spurs; posterior metatarsi short; second segment of tarsi depressed.

Distribution : The genus is distributed in S. Asia, including India and Philippine Islands. It has also been reported from Australia and Madagascar.

Remarks : In absence of male the specimen could not be identified upto the specific level.

Family : PHALANGOPSIDAE

Genus *Parendacustes* Chopard, 1924

18. **Parendacustes pendleburyi* Chopard

1969. *Parendacustes pendleburyi* Chopard. *Fauna of India, Orthopt., 2 Grylloidea* : 250.

Material examined 1♂, Great Nicobar Biosphere Reserve, 4-16 kms. E.-W. Road, 15.xi.1993, coll. K. Chandra.

Diagnosis : 5th joint of maxillary palpi very long, dilated at apex; tegmina almost reaching upto the apex of abdomen; mirror more or less as broad as long, anterior angle acute, divided by a curved vein behind the middle; 4 oblique veins; subgenital plate without truncate margin; hind tibiae with 3 spines on each margin.

Measurements (in mm.) Body length 11.0; Pronotum 3.0; tegmen 6.0; posterior femur 14.0; post. tibia 14.0.

Distribution : Previously recorded from Malaysia. It is recorded here for the first time from Andaman & Nicobar Islands of India.

Superfamily : TETTIGONIOIDEA

Family : TETTIGONIIDAE

Subfamily : PHANEROPTERINAE

Genus *Phaneroptera* Serville

19. **Phaneroptera* sp.

1831. *Phaneroptera* Serville, *Ann. Sci. nat.*, 22 : 158.

1956. *Phaneroptera* : Ragge, *Proc. zool. Soc. Lond.*, 127 : 211.

Material examined : 1♂, N. Andaman, Kalpong, H. E. P. Area, 20.vi.1994, coll. K. Chandra.

Diagnosis : Fastigium of vertex sulcated dorsally; fore coxae with well developed spine; fore tibiae with oval tympanum, opening on both sides; middle tibiae swollen in basal half; hind tibiae with 3 apical spines on both sides; abdominal tergite without median carina; male cerci with black point.

Distribution : The genus is distributed in Africa, Australia, Celebes, China, Europe, India, Indo-china, Malaysia, Myanmar, Solomon Islands, Sumatra, Thailand etc.

Genus *Isopsera* Brunner, 187820. **Isopsera* sp.

1878. *Isopsera* Brunner, *Mon. Phaneropt.*, : 218.

1923. *Isopsera* : Karny, *Journ. Malayan Br. R. As. Soc.*, 1 : 156.

Material examined : 1♂, S. Andaman, Mt. Harriet National Park, 11.v.1995, coll. K. Chandra.

Diagnosis : Head rounded and short; antennae longer than the body, inserted between the eyes; scrobes weakly margined; eyes small and rounded; prosternum lacks spines; hind tibiae with an apical spine on each side; wings fully developed and tegmina leaf-like.

Distribution : The genus is distributed in Asia.

Genus *Ducetia* Stål, 187421. *Ducetia japonica* (Thunberg)

1815. *Locusta japonica* Thunberg, *Mem. Acad. Sci. St.-Petersb.*, 5 : 282.

1961. *Ducetia japonica* : Ragge, *Bull. Br. Mus. nat. Hist. (Ent.)*, 10(5) : 187.

Material examined : 1♂, N. Andaman, Belapur, 6.ii.1972, coll. B. Dutta; 2♂, N. Andaman, Kalpong, H. E. P. Area, 20.vi.1996, coll. K. Chandra.

Diagnosis : Radius of tegmina with 4-6 closely parallel branches; hind wings well developed; cerci with interno-ventral ridge at apex; subgenital plate deeply bifurcate with continuous lobes.

Distribution : India (Andaman Islands, Arunachal Pradesh, Assam, Bihar, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Meghalaya, Sikkim, Tamil Nadu and West Bengal). Whole Asia, Indonesia, extending eastwards to Solomon Islands and Southwards to Northern Australia (Ragge, 1961).

Genus *Elimaea* Stål, 1874Subgenus *Orthelimaea* Karny, 192622. *Elimaea (Orthelimaea) securigera* Brunner

1878. *Elimaea securigera* Brunner, *Monogr. Phaneropt.*, : 93.

1990. *Elimaea (Orthelimaea) securigera* : Ingrisch, *Spixiana*, 13(2) : 157.

Material examined : 2♂, Delanipur, Port Blair, 15.ix.1981 and 26.ix.1982, coll. R. M. Sharma.

Diagnosis : Antennae without white rings; pronotum with a fine yellowish carinula; anterior femur straight, front coxae with spines; tegmina broad; radial sector with 3-4 branches; subgenital plate notched in the middle.

Distribution : India (Andaman & Nicobar Islands, Assam, Himachal Pradesh, Karnataka,

Manipur, Meghalaya, Nagaland (in press), Sikkim, Tripura and West Bengal); Australia; Indonesia; Nepal and Sri Lanka. This species is also studied from Andhra Pradesh, Kerala, Madhya Pradesh, Orissa and Rajasthan.

Genus ***Holochlora*** Stål, 1873

23. ****Holochlora nigrotympana*** Ingrisch

1990. *Holochlora nigrotympana* Ingrisch, *Senckenbergiana biol.*, **70**(1/3) : 105.

Material examined : 1♂, Great Nicobar Biosphere Reserve, 6 kms. S.-W. Road, 15.xi.1993, coll. K. Chandra.

Diagnosis : Antennae long, yellowish; eyes big, oval, laterally projected; fastigium of vertex narrow than the two antennal segments, dorsally grooved; pronotum, in profile, entirely convex, front margin straight, hind margin convex; terminal tergite concave on anterior and posterior margin.

Distribution : India (Mizoram); Bhutan and Central Thailand.

24. ***Holochlora indica*** Kirby

1906. *Holochlora indica* Kirby, *Syn. Cat. Orth.*, **2** : 430.

1993. *Holochlora indica* : Barman, Insecta : Orthoptera : Tettigoniidae. *State Fauna Series 3 : Fauna of West Bengal*, part **4** : 358.

Material examined : 1♂, S. Andaman, Haddo, Port Blair, 20.x.1997, coll. H. L. Das.

Diagnosis : Fastigium conically produced with rounded apex; anterior margin of pronotum concave, posterior margin convex; radius sector 2 arises from middle of tegmina and bifurcated at basal third; subgenital plate forms a circle at the region of bifurcation; style foot-shaped and the cercus gradually narrowed and curved at apex.

Distribution : India (Andaman Islands, Karnataka, Meghalaya, Orissa, Tamil Nadu and West Bengal); Java and Sri Lanka.

25. ***Holochlora traba*** Ingrisch & Shishodia

1998. *Holochlora traba* Ingrisch & Shishodia, *Mitt. schweiz. Ent. Ges.*, **71** : 362-363.

Material examined : 1♂, M. Andaman, Rangat, 9.i.1992, coll. A. Mishra. (Holotype)

Diagnosis : Very close to *Holochloa ensis* (De Haan), but differs from it by the lobes of 10th abdominal tergite which is curved ventrally near apex, by the subgenital plate having the narrow apical area longer and divided for a shorter distance. This species also differs from *H. geniculata* Brunner, by the cerci which are only curved at apex and have the apex unispinose. It also differs from *H. nigrospinulosa* Brunner, by the uniform colouration, posterior femora without markings, smaller size and having 6-7 spinules on ventral margins of posterior femora.

Distribution : India (Andaman Islands).

Genus *Zulpha* Walker, 1870

26. **Zulpha perlaria* (Westwood)

1848. *Phaneroptera perlaria* Westwood, *The Cabinet of Oriental Entomology* : 33.

1878. *Eurypalpa perlaria* : Brunner, *Monogr. Phaneropt.*, : 142.

1906. *Zulpha perlaria* : Kirby, *Syn. Cat. Orth.*, 2 : 408.

Material examined : 1♂, N. Andaman, Kalpong, H. E. P. Area, 27.ii.1997, coll. K. Chandra.

Diagnosis : Head small; fore tibiae with foramina on both sides; all the femora flattened, pubescent and provided spines on both margins ventrally; tegmina obliquely truncate at apex, provided with pinkish spots irregularly; hind wings longer than tegmina, smoky except at apical point towards costal area and with numerous pinkish spots with whitish centre; cerci curved before apex with small tooth at apex; subgenital plate long, apical part truncate, styli small.

Measurements (in mm.) : Body length 29.0; pronotum 6.0; tegmen 41.0; hind femur 14.0 and hind tibia 12.0.

Distribution : Borneo; Java; Prince of Wales Island and Sumatra.

Remarks : This species is recorded here for the first time not only from Andaman Islands but also from India.

Genus *Trigonocorypha* Stål, 1873

27. **Trigonocorypha crenulata* Thunberg

1815. *Locusta crenulata* Thunberg, *Mem. Acad. Sci. St.-Petersb.*, 5 : 280.

1873. *Trigonocorypha crenulata* : Stål, *Rec. Orth.*, 2 : 44.

1900. *Trigonocorypha crenulata* : Bolivar, *Annls. Soc. ent. Fr.*, 68 : 767.

Material examined : 1♀, S. Andaman, Nayagaon, Port Blair, 16.xii.1990, coll. S. Kumar; 1♀, S. Andaman, Middle Point, Port Blair, 24.xi.1992, coll. D. D. Prakasham; 1♀, S. Andaman, Middle Point, Port Blair, 13.x.1993, coll. P. Boominatham.

Diagnosis : Body colour green; fastigium of vertex triangular, medially sulcated; pronotum disc flat, lateral margin crenulated, anterior margin concave, posterior margin obtusely rounded; anterior tibiae perforated on both sides; hind wings a little longer than tegmina; ovipositor short and curved upwards.

Distribution : India (Orissa and Tamil Nadu); Java and Sri Lanka. It is also studied from Rajasthan and West Bengal.

Subfamily CONOCEPHALINAE

Genus *Conocephalus* Thunberg, 181528. **Conocephalus maculatus* (Le Guillou)

1815. *Xiphidion maculatum* Le Guillou. *Revue Zool.*, **4** : 294.

1980. *Conocephalus maculatus* : Pitkin. *Bull. Br. Mus. nat. Hist. (Ent.)*, **41(5)** : 344.

Material examined : 1♂, Little Andaman, Ramkrishanpuram, 19.i.1988, coll. A. N. T. Joseph.

Diagnosis : Prosternum bispinose; hind femora unarmed ventrally; tegmina with large dark-brown spots; stridulatory area of left fore wing small; male cerci with one internal spine.

Distribution : India (Himachal Pradesh, Mizoram, Sikkim and Tripura); Australia; Ethiopian Region; Hong Kong; Indonesia; Java; Malaysia; Melagasic Region; Nepal; New Guinea; Philippines etc. It is also studied from Arunachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Tamil Nadu and West Bengal in India.

29. *Conocephalus longipennis* (De Haan)

1842. *Locusta (Xiphidium) longipennis* De Haan, In : Temminck, *C. J. Verh. Natuurl. Gesch. Ned. Overs. Bezitt.*, **2** : 189.

1980. *Conocephalus longipennis* : Pitkin. *Bull. Br. Mus. nat. Hist. (Ent.)*, **41(5)** : 349.

Material examined : 1♂, M. Andaman, Rangat, 1.ii.1972, coll. Mukherjee & Dutta.

Diagnosis : Fastigium of vertex very narrow; prosternum bispinose; fore wings unicolorous; cross veins of costal and precostal areas of tegmina regular; subgenital plate of male with median notch at apex; male cerci with one internal spine with a globular apex.

Distribution : India (Andaman & Nicobar). Widely distributed in the Oriental and Austro-Oriental Region.

Genus *Euconocephalus* Karny, 190730. *Euconocephalus pallidus* (Redtenbacher)

1891. *Conocephalus pallidus* Redtenbacher, *Verh. zool.-bot. Ges. Wien.*, **41** : 414.

1922. *Euconocephalus pallidus* : Hebard, *Proc. Acad. nat. Sci. Philad.*, **74** : 239.

Material examined : 2♂, S. Andaman, Delanipur, Port Blair, 17.ii. and 2.xii.1981, coll. R. M. Sharma and V. Arumugam respectively.

Diagnosis : Body colour green; vertex obtusely produced in front; pronotum obtusely rounded at posterior margin; radius sector 2 arises from middle of tegmina; male subgenital plate with 2 style-like projections; style bifurcated at apex.

Distribution : India (Andaman Islands, Himachal Pradesh, Meghalaya, Uttar Pradesh and West Bengal); Bangladesh; Borneo; Java; Myanmar; Penang (Malaysia); Philippines; Singapore; Sri Lanka and Tonkin. It is also studied from Kerala and Tamil Nadu.

31. *Euconocephalus incertus* (Walker)

1869. *Conocephalus incertus* Walker, Cat. Derm. Salt. Brit. Mus., 2 : 320.

1912. *Euconocephalus incertus* : Karny, Genera Ins., 2(139) : 35.

Material examined : 1♂, N. Andaman, Agriculture farm, Neil Island, 24.i.1998, coll. Raja Ram.

Diagnosis : Colour brown to light green; tegmina with faint narrow black line on anterior margin; male genitalia more or less as in *E. pallidus* (Redtb.).

Distribution India (Andaman & Nicobar Islands, Meghalaya, Orissa, Pondicherry and West Bengal); Java and Sri Lanka. It is also studied from Kerala and Tamil Nadu.

Genus *Hexacentrus* Serville, 1831

32. **Hexacentrus unicolor* Serville

1831. *Hexacentrus unicolor* Serville, Ann. Sci. Nat., 22 : 146.

1912. *Hexacentrus unicolor* : Karny, Genera Ins., 2(131) : 16.

Material examined : 1♂, Great Nicobar, Campbell Bay, Kópenhat, 24.x.1997, coll. S. K. Mandal.

Diagnosis : Hind femora with ventral margin armed with 4-5 spines and middle tibiae with 6 pairs of spines; vertex similar to *E. annulicornis* (Stål); tegmina, near the middle, strongly spread.

Distribution : India (Manipur, Mizoram and Nagaland - all in press); Borneo; Celebes; Cochin-china; China; Japan; Java; Moluccas; Myanmar; Philippines; Singapore; Sumatra and Taiwan.

Genus *Phisis* Stål, 1874

33. *Phisis pectinata* (Guérin)

1830. *Listroscelis pectinata* Guérin, Voy. Coquille Zool., II, Part II : 153.

1922. *Phisis pectinata* : Hebard, Proc. Acad. nat. Sci. Philad., 74 : 266.

Material examined : 1♂, S. Andaman, Shola Bay, 28.v.1982, coll. R. M. Sharma; 1♂, S. Andaman, Port Blair, Ferrargunj Guest House, 31.v.1982, coll. R. M. Sharma & B. Mitra; 1♂, Great Nicobar, South Bay, 18.vii.1984, coll. B. Mitra.

Diagnosis : Anterior coxae with a short spine; anterior femora armed ventrally with 4 internal and 5 external spines; anterior tibiae armed with 6-7 pairs of long, curved spines ventrally and a pair of small distal spines; middle femora armed with 3 external spines ventrally and internal

margin with two short proximal spines and a series of serrulations; middle tibiae armed ventrally with 6-7 pairs of spines and with a mesodorsal spine; hind femora ventrally armed with 11-12 external and 2 internal short spines; subgenital plate narrow.

Distribution India (Andaman Islands); Borneo; Moluccas; New Guinea; Samoa Island and Sri Lanka.

Subfamily : MECÓPODINAE

Genus *Mecopoda* Serville, 1831

34. *Mecopoda elongata* (Linnaeus)

1758. *Gryllus (Tettigonia) elongatus* Linnaeus, *Syst. Nat.* (10th ed.) : 429.

1906. *Mecopoda elongata* : Kirby, *Syn. Cat. Orthopt.*, 2 : 364.

Material examined : 1♀, S. Andaman, Middle Point, Port Blair, 24.ix.1982, coll. V. Arumugam; 1♂, Great Nicobar Biosphere Reserve, 25 kms. on E.-W. Road, 27.iii.1985, coll. M. K. D. Roy; 1♂, N. Andaman, Mayabunder, 15.viii.1991, coll. K. Chandra; 1♂, S. Andaman, Nayagaon, Port Blair, 14.x.1992, coll. S. Kumar; 1♂, Great Nicobar Biosphere Reserve, 27 kms. E.-W. Road, 16.xi.1993, coll. K. Chandra.

Diagnosis : Size very large; colour brown to dry leaf-colour; antennae strongly margined; prosternum with a pair of long spines; pronotum wide at posterior margin; lateral lobes dark-brown at least on upper margin; tegmina with 4-6 white spots in the middle; wings fully developed; male subgenital plate bifurcated, apex pointed.

Distribution : India (Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Himachal Pradesh, Karnataka, Maharashtra, Meghalaya, Orissa, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal); Australia; China; Indonesia (Aru Island, Buru Island, Celebes, Moluccas Island); Japan; Malacca; Malaya Islands; New Guinea; Philippines; Sunda Islands; Taiwan and Tonkin.

Subfamily : MECONEMATINAE

Genus *Xiphidiopsis* Redtenbacher, 1891

35. *Xiphidiopsis straminula* (Walker)

1871. *Locusta straminula* Walker, *Cat. Derm. Salt. Brit. Mus.*, 5 suppl. : 36.

1966. *Xiphidiopsis straminula* : Beier, *Orthopt. Catalog.*, part 9 : 267.

Material examined : 1♀, S. Andaman, Mt. Harriet National Park, 16.xii.1994, coll. K. Chandra.

Diagnosis : Lateral lobes of pronotum distinctly longer than deep, without a humeral sinus; thoracic foramen fully exposed; anterior tibiae with long, movable spines.

Distribution : India (Andaman & Nicobar Islands, Karnataka, Maharashtra - Bombay, Tamil Nadu and West Bengal); Java and Sri Lanka.

Genus *Alloteratura* Hebard, 192236. *Alloteratura andamanensis* Kevan

1993. *Alloteratura andamanensis* Kevan, *Trop. Zool.*, 6 : 266.

Material examined : Holotype ♂, Little Andaman, Ramkrishnapur, 20.i.1988, coll. M. S. Shishodia.

Diagnosis : Head short; fastigium triangular, without median longitudinal sulcus; eyes large widely separated; maxillary palpi with terminal segment widened distally; pronotal disc about twice as long as wide; thoracic foramen fully exposed; tegmina slightly extend beyond the apex of hind femora; hind wings extended slightly beyond the apex of tegmina; last abdominal tergum truncated posteriorly; cerci somewhat expanded basally, flattened distally and bent inwards; subgenital plate rectangular, with raised lateral margin and bearing a pair of distal styli.

Distribution : This species is known from Little Andaman only.

Subfamily : PSEUDOPHYLLINAE

Genus *Phylloimus* Stål, 187337. **Phylloimus detersus* (Walker)

1869. *Pseudophyllus detersus* Walker, *Cat. Derm. Salt. Brit. Mus.*, 2 : 406.

1962. *Phylloimus detersus* : Beier, *Das Tierreich*, 73 : 91.

Material examined : 1♀, N. Andaman, Mayabunder, 3.ii.1998, coll. Raja Ram.

Diagnosis : Olive green in colour; antennae yellowish; tegminal venation irregular, usually with a black spot between median and ulnar veins of tegmina; pronotum with scattered granules, hind margin rounded; ventral margin of lateral lobes bluntly angular; tegmina nearly parallel side, apex broadly rounded, RS arise behind the middle; wings a little shorter than tegmina; hind femora apically and hind tibiae basally light pink; subgenital plate short, triangular, emarginate at apex.

Distribution : Hinter-Indian; Indonesia (Celebes, Moluccas); South China; Java and Philippines.

Suborder : CAELIFERA

Super fam. : TETRIGOIDEA

Family : TETRIGIDAE

Genus *Thoradonta* Hancock, 190838. **Thoradonta apiculata* Hancock

1915. *Thoradonta apiculata* Hancock, *Rec. Indian Mus.*, 11 : 81.

Material examined : 1♂, 3♀, N. Andaman, Kalpong, H. E. P. Area, 19,20.vi.1994, coll. K. Chandra.

Diagnosis Vertex wider than an eye, slightly narrower in front; paired ocelli placed below the middle of eyes; antennae inserted on the inferior margin of eyes; pronotum extended beyond the apex of hind femora; dorsum rugose, granulose, a little depressed on either side in front and behind the shoulders; posterior angles of lateral lobes of pronotum produced into a small spine with a wide base, margin not sinuated in front, spine directed posteriorly; wings extended upto the apex of pronotum.

Distribution : India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Orissa, Tamil Nadu and West Bengal); China and Myanmar.

39. **Thoradonta nodulosa* (Stål)

1860. *Tetrix nodulosa* Stål, *Eugenies Resa Orth.* : 346.

1915. *Thoradonta nodulosa* : Hancock, *Rec. Indian Mus.*, 11 : 82.

Material examined : 3♂, Great Nicobar, Galathea Bay, 23.iii.1966, coll. Daniel & Bhowmik; 1♂, 1♀, Great Nicobar, Galathea Bay, 5.iv.1966, coll. Daniel & Bhowmik; 1♂, S. Andaman, Ferrargunj, 17.i.1972, coll. K. S. Pradhan.

Diagnosis : Vertex more or less equal to an eye; pronotum a little extended beyond the apices of hind femora; dorsum rugose, depressed in front and behind the shoulders; the upper lobe of posterior angles of lateral lobes of pronotum produced into a sharp spine which is directed posteriorly, lower lobe obliquely produced with pointed apex; posterior femora stouter, with a series of nodules on the upper and lower marginal areas.

Distribution : India (Arunachal Pradesh, Assam, Bihar, Himachal Pradesh, Manipur, Meghalaya, Sikkim, Tamil Nadu, Tripura and West Bengal); China; Hainan; Java; Malaysia; Myanmar; Singapore; Sri Lanka and Sumatra.

Genus *Eucriotettix* Hebard, 1929.

40. **Eucriotettix grandis* (Hancock)

1912. *Criotettix grandis* Hancock, *Mem. Dep. Agric. India, Ent. Ser.*, 4 : 134.

1929. *Eucriotettix grandis* : Hebard, *Revue suisse Zool.*, 36 : 573.

Material examined 1♂, S. Andaman, Shadipur, Port Blair, 30.vii.1992. coll. K. Chandra.

Diagnosis : Size large; vertex narrower than an eye; frontal costa distinctly bifurcate behind the paired ocelli; paired ocelli placed between the eyes; antennae located on the inferior margin of eyes; pronotum extended beyond the apices of posterior femora; dorsum granulose; posterior angles of lateral lobes of pronotum laminated, anterior margin with triangular sharp spine, directed subobliquely or posteriorly, posterior margin subtruncate; wings extended upto the apex of pronotum.

Distribution : India (Arunachal Pradesh, Assam, Meghalaya, Sikkim and West Bengal); China and Myanmar. It is also being recorded from Mizoram and Tripura (in press).

41. ***Eucrotettix maculatus** (Kirby)

1914. *Criotettix maculatus* Kirby, *Faun. Brit. India. Orth.*, : 32.
 1929. *Eucrotettix maculatus* : Hebard, *Revue Suisse Zool.*, **36** : 573, 575.

Material examined : 2♂, Little Andaman, Hubay, Water fall, 10.iii.1991, coll. S. Kumar.

Diagnosis : Vertex narrower than an eye; lateral lobe of pronotum produced into a sharp spine; spine slender at base and curved forwards; pronotum and wings extended beyond the apex of hind femora.

Distribution : India (Karnataka, Tamil Nadu) and Myanmar.

42. ***Eucrotettix spinilobus** (Hancock)

1904. *Criotettix spinilobus* Hancock, *Spolia zeylan.*, **2** : 108.
 1929. *Eucrotettix spinilobus* : Hebard, *Revue suisse Zool.*, **36** : 573, 575.

Material examined : 16♂, 10♀, Great Nicobar, Casuarina Bay, 5,6.iv.1966, coll. Daniel & Bhowmik; 2♂, N. Andaman, North Reef, 26.iii.1993, coll. G. C. Rao.

Diagnosis : Vertex subequal in width to one of the eyes; posterior angles of lateral lobes of pronotum of each side with strong, sharp spine which is curved forward and thick at base.

Distribution : India (Karnataka, Kerala and Tamil Nadu); Penang and Sri Lanka.

Genus **Loxilobus** Hancock, 190443. ***Loxilobus brunneri** Günther

1938. *Loxilobus brunneri* Günther, *Stettin. ent. Ztg.*, **99** : 214.

Material examined : 1♂, 4♀, Great Nicobar Biosphere Reserve 16 kms. E.-W. Road, 13.xi.1993, coll. K. Chandra.

Diagnosis : Inter ocular distance a little narrower or equal than an eye; eyes raised above the vertex; frontal costa raised between antennae; antennae inserted below the lower margin of eyes; pronotum transverse at anterior margin, hind process reaching or not beyond the apex of hind femora; dorsum granulose and rugulose; middle carina interrupted; lateral lobes of pronotum laminate and notched in the middle; prozonal carinae well-marked; 1st and 3rd tarsal segments more or less equal.

Distribution : India (Tripura); China and Myanmar.

Genus **Hyboella** Hancock, 191544. ***Hyboella dilatata** (De Haan)

1842. *Acridium Tetrix dilatum* De Haan, *Temminck, Verhandel. Orth.* : 167, 169.

1915. *Hyboella dilatata* : Hancock, *Rec. Indian. Mus.*, **11** : 107.

Material examined : 3♀, Great Nicobar, Campbell Bay, 5.10.iii.1966, coll. Daniel & Bhowmik.

Diagnosis : Stature stout; vertex slightly wider than an eye; triangular fossulae present on either side of each eye; median carinula distinct on the middle of the vertex and runs upto the frontal costa in front, obliterated behind the middle; frontal costa narrow between the lateral ocelli, wide at anterior ocellus region; antennae located at the lower margin of eyes; pronotum angulate in front, extended upto the apex of hind knees; dorsum granulose; median carina raised in front and between the shoulders, low behind, apex slightly notched in the middle; angles of lateral lobes of pronotum expanded and quadrate at apex.

Measurements (in mm.) : Body length 13.5; pronotum 11.0; hind femur 8.0; hind tibia width 3.0.

Distribution : India (Arunachal Pradesh, Assam); China; Java; Key Islands; Malaysia; Myanmar; Sumatra; Thailand and Tibet.

Genus *Euparatettix* Hancock, 1904

45. **Euparatettix variabilis* (Bolivar)

1887. *Paratettix personatus* Bolivar, *Annls. Soc. ent. Belg.*, **31** : 276.

1992. *Euparatettix variabilis*; Blackith, *Cat. S. E. Tetrigidae*, : 66.

Material examined : 1♀, S. Andaman, Aberdeen, Port Blair, 30.viii.1928, coll. R. B. S. Sewell; 1♂, S. Andaman, Denni Point, 3.ix.1928, coll. R. B. S. Sewell.

Diagnosis : Head a little exserted above the level of pronotum; vertex subequal than an eye, a little narrowed forwards; frontal costa bifurcate behind the paired ocelli; narrowly sulcate; paired ocelli placed between the middle of eyes; antennae filiform, located on the lower margin of eyes; eyes raised above the level of vertex and pronotum; pronotum truncate in front, subulate posteriorly and extended beyond the apex of hind femora; dorsum granulose; median carina indistinctly sinuate on hind process of pronotum; lateral carinae very finely serrulate on hind process of pronotum; wings extended beyond the apex of pronotum; hind tibiae dense black with white annulations just behind the kness.

Distribution : India (Throughout); Bangladesh; Bhutan; Borneo; Java; Myanmar; New Britain; New Guinea; Pakistan; Papua; Philippines; Solomon Islands; Sri Lanka; Sumatra and Taiwan.

Genus *Pseudoparatettix* Günther, 1937

46. **Pseudoparatettix histrionicus* (Stål)

1861. *Tetrix histrionicus* Stål, *Freq. Eugenies Resa. Orth.*, : 347.

1992. *Pseudoparatettix histrionicus* : Blackith, *Cat. S. E. Asian Tetrigidae* : 149.

Material examined 1♀, S. Andaman, Port Blair, 15.ii.-15.iii.1915, coll. S. W. Kemp; 1♂,

Aberdeen, 30.viii.1928, coll. R. B. S. Sewell; 1♀, Aberdeen, 3.ii.1930, coll. R. B. S. Sewell; 1♂, Nancowry, Katchal Island, 12.ii.1993, coll. D. V. Rao; 1♀, Great Nicobar Biosphere Reserve, 16 kms. E.-W. Road, 12.xi.1993, coll. K. Chandra; 5♂, 3♀, S. Andaman, Mount Harriet, 16.xii.1994, coll. K. Chandra.

Diagnosis : Size large and body robust; head a little raised above the pronotum; pronotum moderately dilated between shoulders, extended beyond the apex of hind femora; median carina of pronotum arcuate forward, often little undulate before shoulders, low on shoulders and straight behind; hind tibiae unicoloured or obscurely marked; wings extended beyond the pronotal apex.

Distribution : India (Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Tamil Nadu, Tripura and West Bengal); E. Afghanistan; E. Africa; Australia; Borneo; Caledonia; Celebes; S. China; Holland; Indonesia; Iran; Malaysia; New Ireland; Pakistan; Philippines; Queensland; Saudi Arabia; Solomon Islands; Sri Lanka; Sumatra and Taiwan.

Genus *Paratettix* Bolivar, 1887

47. **Paratettix tricarinatus* Bolivar

1887. *Paratettix tricarinatus* Bolivar, Annls. Soc. ent. Belg., 31 : 282.

1987. *Paratettix tricarinatus* : Shishodia, Tetrigidae : Orthoptera : Insecta : State Fauna Series 1 : Fauna of Orissa, Part 1 : 95.

Material examined : 1♂, 1♀, S. Andaman, Port Blair, 15.ii.-15.iii.1915, coll. S. W. Kemp; 1♂, Aberdeen, 30.vii.1928, coll. R. B. S. Sewell; 1♂, Denni Point, 3.ix.1928, coll. R. B. S. Sewell; 1♀, Great Nicobar, 19 kms. E.-W. Road, 25.i.1993, coll. K. Chandra.

Diagnosis : Head not exserted; vertex narrower than an eye; front margin of vertex truncate, middle carinula distinct and reach upto the end of fossulae; pronotum extended beyond the apices of posterior femora and the hind wings surpass the pronotal apex; apex of tegmina not narrowed.

Distribution : India (Meghalaya, Orissa, Tripura and West Bengal); Celebes; Malaysia; Mindanao; Papua; Philippines; Sumatra and Taiwan.

Genus *Coptotettix* Bolivar, 1887

48. **Coptotettix conspersus* Hancock

1915. *Coptotettix conspersus* Hancock, Rec. Indian Mus., 11 : 119.

Material examined : 1♀, N. Andaman, Mayabunder, 10.v.1971, coll. B. K. Tikadar; 1♀, N. Andaman, 2 kms. south from Tugapur, Mayabunder, 12.v.1971, coll. B. K. Tikadar; 1♂, 1♀, S. Andaman, Chiriatapu Guest House, 22.x.1972. coll. P. T. Cherian; 1♂, 1♀, S. Andaman, Shadipur, Port Blair, 30.vii and 13.x.1992 coll. K. Chandra; 1♂, 1♀, Yatriniwas, Port Blair, 2.ix.1993, coll. K. Chandra; 2♂, 2♀, N. Andaman, Kalighat Guest House compound, 17.vi.1994, coll. K. Chandra; 2♂, 9♀, N. Andaman, Kalpong H. E. P. Area, 19,20,21.vi.1994, coll. K. Chandra; 2♂, 3♀, N. Andaman, Aerial Bay Guest House, 24,26.vi.1994, coll. K. Chandra; 1♂, S. Andaman, Wandoor, 2.xi.1997, coll. S. K. Mandal.

Diagnosis Head not exserted above the surface of pronotum; vertex more narrowed towards front; pronotum extended beyond the hind femoral apices, finely granulose with scattered wrinkles on hind process of pronotum; lateral lobes of pronotum narrow, roundly truncate; ovipositor robust.

Distribution : India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Orissa, Tripura, Uttar Pradesh and West Bengal) and Sri Lanka.

Genus ***Hedotettix*** Bolivar, 1887

49. ****Hedotettix attenuatus*** Hancock

1904. *Hedotettix attenuatus* Hancock, *Spolia zeylan.*, 2 : 108, 149.

Material examined : 1♂, Great Nicobar, Casuarina Bay, 21.iii.1966, coll. Daniel & Bhowmik; 4♂, Great Nicobar, Galathea Bay, 23.iii.1966, coll. Daniel & Bhowmik; 1♂, 1♀, Car Nicobar, Arong, 27.xii.1972, coll. K. S. Pradhan; 1♀, Great Nicobar Biosphere reserve, 19 kms. E.-W. Road, 25.i.1993, coll. K. Chandra.

Diagnosis : Body slender; heat not exserted above the surface of pronotum; vertex narrower than an eye; frontal costa bifurcated behind the paired ocelli, not suddenly divergent between antennae; frontal sulcus gently wide rather narrow; pronotum subtruncate anteriorly, extended upto or beyond the apex of hind femora, apex narrowly rounded; dorsum smooth; hind wings extended upto or beyond the apex of pronotum.

Distribution : India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Orissa, Sikkim, Tripura and West Bengal) and Sri Lanka.

Remarks : Both macro and microforms are studied.

50. ***Hedotettix gracilis*** (De Haan)

1842. *Acridium (Tetrix) gracilie* De Haan, *Temminck, Verhandel., Orth.*, : 167.

1887. *Hedotettix gracilis* : Bolivar, *Annls. Soc. ent. Belg.*, 31 : 284.

Material examined : 1♀, Great Nicobar, Campbell Bay, 3.iii.1966, coll. Daniel & Bhowmik; 5♂, 2♀, Great Nicobar, Galathea Bay, 21.iii.1966, coll. Daniel & Bhowmik; 2♀, Great Nicobar, Shivadukt Bay, 15.iv.1966, coll. Daniel & Bhowmik; 1♂, Great Nicobar, Phulabaur, 17.iv.1966, coll. Daniel & Bhowmik; 1♀, M. Andaman, Rangat, 1.ii.1972, coll. B. K. Dutta; 1♂, S. Andaman, Marina Hill, Port Blair, 15.xii.1972, coll. K. S. Pradhan; 1♀, S. Andaman, Humfreygunj, 17.xii.1972, coll. K. S. Pradhan; 1♂, Car Nicobar, Arong, 27.xii.1972, coll. K. S. Pradhan; 1♀, Little Andaman, Netajinagar, 17.i.1988, coll. A. N. T. Joseph; 1♀, L. Andaman, 3 kms. away from Hut Bay, 22.i.1988, coll. A. N. T. Joseph; 1♂, 1♀, L. Andaman, Ramkrishnapuram, 29.i.1988, coll. A. N. T. Joseph; 2♀, S. Andaman, Rutland, 3,4.ii.1988, coll. A. N. T. Joseph; 1♂, Great Nicobar, Campbell Bay, 20.i.1993, coll. K. Chandra; 2♂, 1♀, Great Nicobar, Galathea National Park, 22.i.1993, coll. K. Chandra; 1♀, Nancowry, Katchal Island, 13.ii.1993, coll. D. V. Rao; 4♂, 4♀, Great Nicobar Biosphere Reserve, 41 kms. E.-N. Road, 18.xi.1993, coll. K. Chandra; 1♂, N. Andaman, Aerial Bay, Guest House campus, 24.vi.1994, coll. K. Chandra.

Diagnosis : Vertex very little or not at all raised above the surface of pronotum; antennae inserted below the middle of eyes; frontal costa widely sulcated, the rami widened between the antennae; pronotum angulate anteriorly, extended upto or beyond the apex of hind femora; wings upto or a little surpass pronotal apex.

Distribution : India (Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Sikkim, Tripura and West Bengal); Bangladesh; Celebes; China; Java; Myanmar; Pakistan; Sri Lanka; Sumatra; Taiwan; Thailand and Vietnam.

Remarks : This species is found in both micro and macroforms.

Genus *Ergatettix* Kirby, 1914

51. **Ergatettix dorsiferus* (Walker)

1871. *Tettix dorsifera* Walker, Cat. Derm. Salt. Brit. Mus., 5 : 825.

1992. *Ergatettix dorsiferus* : Blackith, Cat. S. E. Asian Tetrigidae : 52.

Material examined : 1♂, S. Andaman, Port Blair, 15.ii.-15.iii.1915. coll. S. W. Kemp; 2♂, 2♀, S. Andaman, Port Blair, 18.iii.1969, coll. T. D. Soota; 1♂, Car Nicobar, Arong, 27.xii.1972, coll. K. S. Pradhan; 1♀, Nancowry, Ketchal Island, 12.ii.1993, coll. D. V. Rao; 1♂, 1♀, Great Nicobar Biosphere Reserve, 10 kms. E.-W. Road (at light), 10,11.xi.1993, coll. K. Chandra; 3♂, 2♀, Great Nicobar Biosphere Reserve, 12,13,14,15,16.xi.1993, coll. K. Chandra.

Diagnosis : Head distinctly exserted above the surface of pronotum; vertex much narrower than an eye; frontal costa arcuate between antennae; paired ocelli located between the lower-third of eyes; antennae inserted below the eyes; pronotum truncate anteriorly, extended beyond the apex of hind femora; median carina indistinctly undulate; lateral carinae without dilated lobes on hind process of pronotum; middle femora less flattened, margins a little lobate; hind femora with less protuberant tubercles on external surface.

Distribution : India (Arunachal Pradesh, Assam, Bihar, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal); Afghanistan; Bangladesh; Central Asia; S. China; Greater Sunda Island; Indonesia (Sumba); Iran; Java; Myanmar; Nepal; Sri Lanka; Sumatra and Taiwan.

SUMMARY

Altogether 51 species of Orthoptera belonging to 40 genera under 8 families are recorded from Andaman & Nicobar Islands. These include 18 species (15 genera, 6 families) of Grylloidea, 19 species (15 genera, 1 family) of Tettigonioidea and 14 species (10 genera, 1 family) of Tetridoidea from these Islands. Five species (3 species of Grylloidea and 2 species of Tettigonioidea) are identified upto generic level only and two species (1 species of Grylloidea and 1 species of Tettigonioidea) are recorded for the first time not only from A. & N. Islands but also from India.

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