

OCCASIONAL PAPER NO. 168

# **Records of the Zoological Survey of India**

**ON HETEROPTERA (INSECTA) FROM  
THE EASTERN GHATS, INDIA**

**Vasanthi Hegde**

**Zoological Survey of India**

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**ON HETEROPTERA (INSECTA) FROM  
THE EASTERN GHATS, INDIA**

**Vasanthi Hegde**

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*Edited by the Director, Zoological Survey of India, Calcutta*

**1995**

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**Published : May, 1995**

**Price**

*Inland* : Rs. 80·00

*Foreign* : £ 5·00 \$ 8·00

**Published by**

*The Director, Zoological Survey of India, Calcutta*

**Printed by**

**A. K. Chatterjee at JNANODAYA PRESS  
55B, Kabi Sukanta Sarani, Calcutta 700 085**

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**Occasional Paper**

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**No. 168**

**1995**

**Pages 1-90**

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## INTRODUCTION

This paper reports on the Heteroptera collected by Dr. M. S. Mani and party from the Eastern Ghats, India, as part of the programme of a Research Project, with financial Grant from the Department of Environment and Forests, Government of India, New Delhi, during 1985-1988. One hundred and eighty seven species are recorded here ; of these seventy-seven were collected by the Research Project's Field Parties. The material examined is listed only in the case of species collected by the Project Survey. The other species, included here for the sake of completeness of record, are from other material in the Zoological Survey and also reported in earlier literature from the Eastern Ghats. The collection includes many interesting families like Plataspidae (10 species), Scutellaridae (8), Podopidae (1), Pentatomidae (48), Coreidae (42), Berytidae (4), Lygaeidae (28), Pyrrhocoridae (5), Tingidae (2), Phymatidae (3), Reduviidae (29) and Miridae (10). Of these 52 species, marked with (\*), are reported for the first time from the region. The localities from which the collections were made are also listed. The new locality records and some other species have been dealt within earlier two project papers (Hegde, 1986a, 1986b).

## LIST OF LOCALITIES

The following is a brief description and field notes of the Localities of the Eastern Ghats, surveyed during the monsoon and post-monsoon seasons.

### A. COASTAL HILLS (Map : 1)

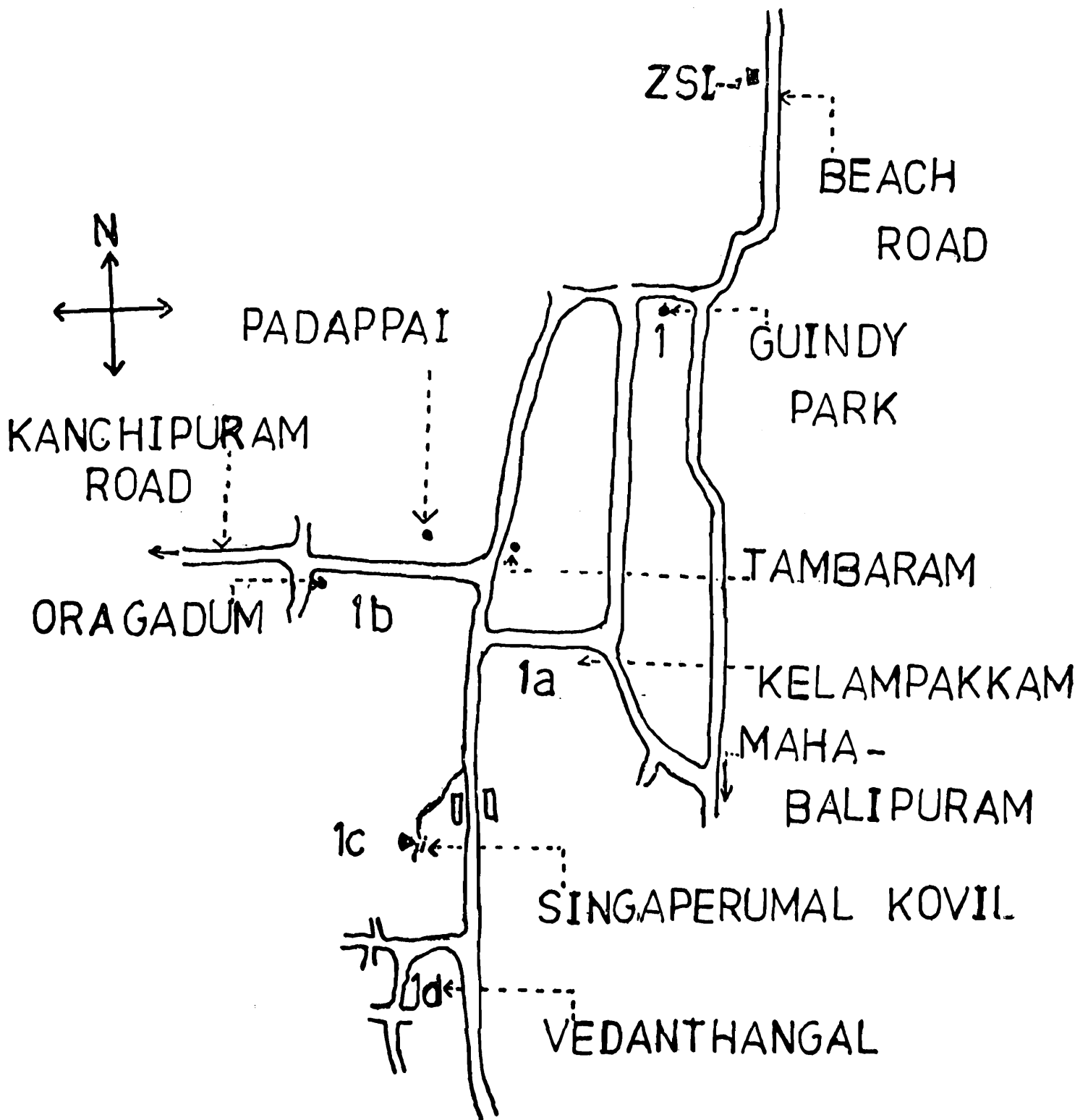
*Locality 1* : Guindy—National Park : Situated in the South Madras city. The forest is a thorny-scrub jungle type and animals like spotted deer, black buck, etc. are common. Plants such as *Randia dumatorum*, *Zizyphus oenoplia*, *Syzygium jambolanuns*, *Abutilon indicum*, *Capparis septaria*, *Cassia fistula*, *Morinda tinctoria*, *Ficus bengalensis*,

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etc. are distributed. Seasonally abundant butterflies and grasshoppers are the main collection from this area. Other insects are less common.

*Locality 1a*: Vandalur Hills. Coastal isolated low hills about 45 km south of Madras; thorn-scrub dry vegetation, open and exposed soil brown. Important plants:



MAP 1 : Sketch map showing the localities of the Coastal Hills surveyed.

*Zyziphus jujuba*, *Z. oenophlia*, *Justicia* sp., *Cassia tora*, *Croton spaciflorus*, *Iondium suffruticosum*, *Abrus precatorius*, *Acacia* sp. etc. Insects life : Butterflies and bugs are commoner than beetles, Bees like blue bottle, honey bees, bumble bees were also present.

*Locality 1b* : Oragadam Road west of Tambaram ; scrub-jungle forest, Insects are poorly collected. Plants like *Borreria hispida*, *Iondium suffruticosum*, *Prosopis juliflora*, *Acacia* sp. *Cassia fistula*, *Pongamia glabra*, *Abrus precatorius*, *Solanum indicum* etc. common. Soil brown. Butterflies Collected : HesperIIDae, Nymphalidae, Pieridae and Hycaenidae ; beetles and bees were only common.

*Locality 1c* : Singaperumal Koil. On the way to Chinglepet about 40 km from Madras. This study area is good collection locality comprising of a small hill and its surrounding plains. Soil brown. Plants : *Euphorbia antiquarum*, *Leucas aspera*, *Tridax procumbens*, *Tribulus terrestris*, *Iondium suffruticosum*, *Eucalyptus* sp. *Tectona grandis*, *Flacortia indica*, *Cassia tora*, *Carissa* sp. etc. were wild. Insects : Butterflies—Nymphalidae and Danaidae are abundants ; bugs and grasshoppers are less common.

*Locality 1d* : Vedanthangal Bird Sanctuary, North West of Chengelpet about 52 km south of Madras. Soil brown loamy. *Pongamia glabra*, *Cassia fistula*, *Cassia tora*, *Leucas aspera*, *Ficus bengalensis*, *Acacia* sp., *Zyziphus* sp. and other common plants. Good collection ground for terrestrial as well as aquatic bugs and butterflies.

## B. JAVADI HILLS (Map. 2)

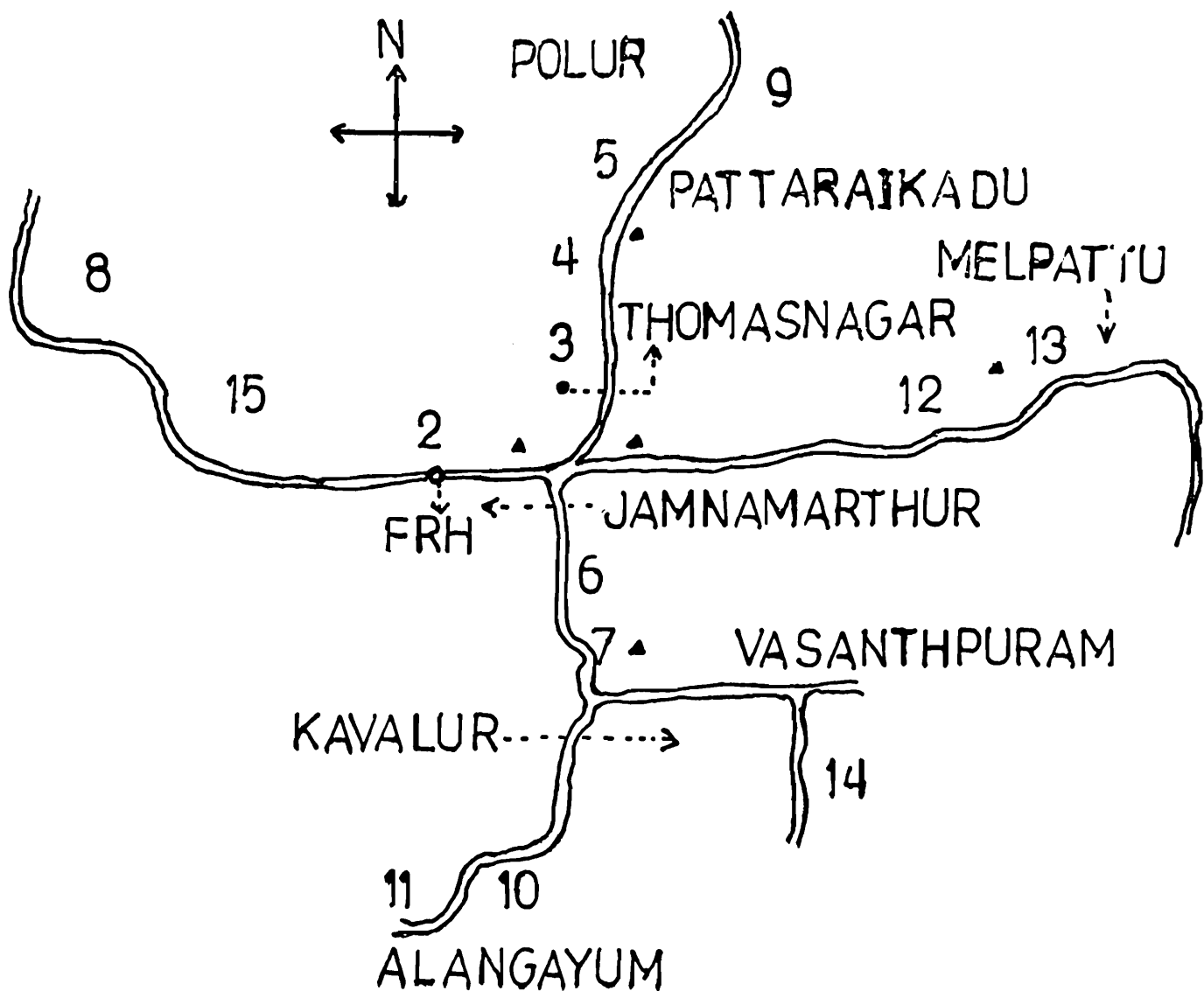
*Locality 2* : (Javadi Hill complex survey). Forest rest house compound with cleared grass turf, some *Eucalyptus*, *Mangifera indica*, *Ailanthus*, *Strychnos nuxvomica* and garden plants. Insect life : Coleoptera, Orthoptera, Hemiptera, and Neuroptera, one Lysidoptera was also in the collection. Night collections were good. Four or five praying mantis (Phasmids) collected.

*Locality 3* : 8 km northeast of Jamnamarthur on Polur road with a hill stream. Mostly mixed forest of bamboo—*lantana* and *S. nux vomica*, occasional open grassy patches with *Lantana*, *Garuga pinnata* and *Randia dumatorum*. Here insect life was poor during winter, only some *Chrysocoris* sp., Lepidoptera, Coleoptera, Orthoptera and Hymenoptera were collected with great efforts. On *Garuga pinnata* Coreidae were found.

*Locality 4* : Thorn-scrub forest with *Lantana*. *Thodalia aculeata* with trifoliate glandular leaves which are usually found, was very fertile at the fine time of our visit. Pierids

were in abundance. *Papilio polymnestor*, *P. crino*, *Graphium*, *P. helena* were sighted, but only first three species collected. Odonata, Coleoptera, Hymenoptera, Mantoidea and Orthoptera were common. Bugs were very poor.

**Locality 5 :** It is a dry thorny forest typically dominated by *Lantana* and moreover it is dry deciduous and thorny forest. *Lantana* as secondary forest with Solanaceae and Euphorbiaceae families. Grasshoppers were in plenty and nymphs of bugs were in



MAP 2 : Sketch map showing the localities of the Javadi Hills surveyed.

abundance but adults were rare. No coleoptera came into sight. Among butterflies Lycaenids were dominating, a few Hesperids were also collected. In Nymphalids, *Atella*, *Precis* were common.

**Locality 6 :** 3 km south of Jamnamarthur. Same as locality 5 dry thorny forest

and same type of vegetation. Main collection were Catopsilla and Atelia. Some Pentatomids were also collected. Only 2 Nymphalids were on wings but collected.

*Locality 7* : 12 km south of Jamnamarthur at the foot of the eastern spur of Jamnamarthur, dominated by *Ficus asperrima*, *Embllica officinalis* mixed secondary forest with *Ferronia elephantum*, Jamnamarthur is a green belt which is surrounded by hills on all sides and the plateau is cultivated in patches. The soil is black and clay. The sunlight does not penetrate to the ground [in 7 and 8 locality, Mandaparai]. Only Pierids were on wings on early hours. At noon Nymphalids were collected. Only 2 Papilio were in sight and collected. Pentatomid bugs were in abundance as their food plant Euphorbea was in good growth along the road side. Odonata and Orthoptera too were in plenty.

*Locality 8* : Forest on western slope of hill 10 km on mud road from Jamnamarthur, mixed forest of sandal, Ferronia, some *Ficus hispida* scattered *Garuga pinnata*, on the way to Mandaparai. Humid dense growth, undershrub some Lantana, Pongamia etc. Abundance of butterflies.

*Locality 9* : 15-18 km from Polur Valley of a hill stream. The forest floor is rocky with loose stones with red and black soil mixed. Small herbs of *Leucas aspera*, *Cassia tora*, *Ageratum conyzoides*, *Vernonia purpura* are abundantly found. The thorn-scrub with warm, sunny patches near stream in the valley. Butterfly collection : *Danaus similis*, *D. leopardus*, *D. hamata*, *D. limnias*.

*Locality 10* : 4 km from Vaniyambadi towards Alangayam. Forest floor dry, with red soil and laterite stones. *Calotropis*, *Leucas aspera*, *Cassia tora*, *Cocos nucifera*, Lantana, Mimosidae, Rubiaceae are the plants associated with this locality. This locality was very fertile. Apart from Pierids, Danaids, Nymphalids and Lycaenids were in abundance. Orthoptera was the dominating order. On a Calotropis plant about 25 grasshoppers were observed. Coleoptera rare, Hemiptera were out of sight. *Papilio polytes romulus* both sexes were on wings. One new Nymphalid was added to our collection. Dragonflies were also in plenty but no new variety was observed.

*Locality 11* : The forest 3 km from Alangayam towards Vaniyambadi by mud road. *Lantana* dominant, vegetation dry with *Leucas aspera*, Labiatae, Mimosidae, a thorn-scrub, dry deciduous mostly with open cultivated patches. The interesting insect collection was *Anthia sexguttata*. Coccinilids were in abundance. Grasshoppers only few, bugs were out of sight.

*Locality 12* : 8 to 10 km from Thamasnagar. Forest floor of red soil, thorn-scrub,

dry deciduous forest ; abundant sandal wood trees with *Garuga pinnata* dominated by *Lantana*, secondary forest, hilly area with large laterite stone, a stream there, but locality starts with teak plantation. Only Lepidoptera, Orthoptera and Hemiptera were in our collection. Around the stream Odonata were in abundance.

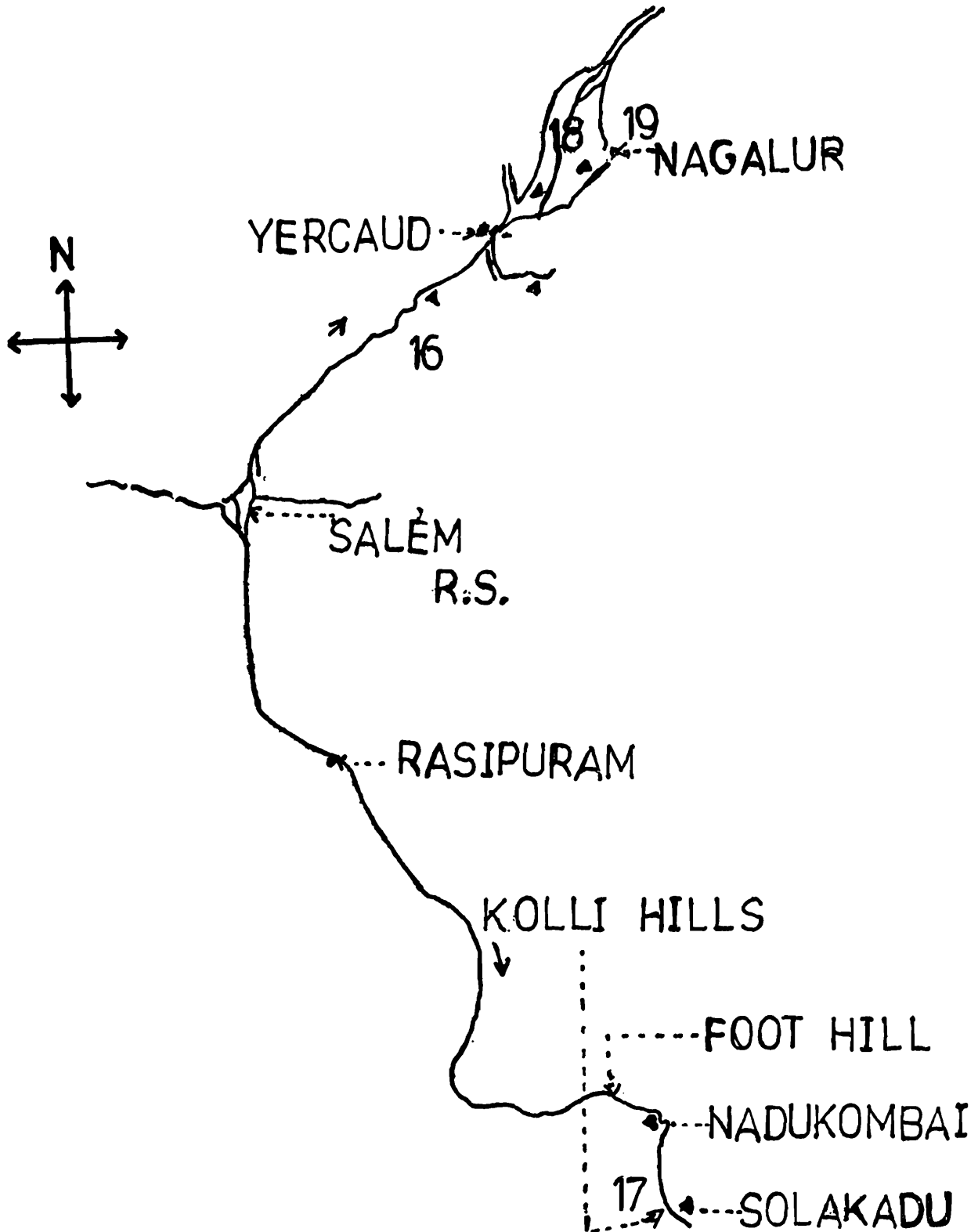
*Locality 13* : 25 km from Thomasnagar on the East towards Melpetta at an elevation of 800 m ; forest floor dry, with large stones red and brown soil mixed ; insect life was good. The Melpatta is the highest point in Javadi Hills on the southern spur ; in south direction of Thamasnagar, 800 m with a wireless communication. The mud road very narrow with large stones. The ghat road has many hairpin bends. Vegetation Thodalia, Bamboo, *Lantana*, *Leucas aspera*, *Garuga pinnata*, *Acacia*, *Pongamia glabra*. Certain families of bugs were found in good number, Pentatomids, Coreidae, Lygaeidae and Pyrrhocoridae.

*Locality 14* : 6 to 10 km from Kavalur, on the south is a Vasanthapuram, Pungulam, Mangalam. Forest floor is dry, soil reddish-brown and hard with small stones ; flora is dominated by Rutaceae, Labiatae, Rubiceae, Papilionaceae, Leguminaceae, *Citrus*, *Lantana*, *Ficus*, *Leucas aspera*, *Eucalyptus*, *Calotropis*, *Garuga pinnata*. Insect activity was good ; Lots of plants and leaves destroyed by insect bites, dominated by Lepidoptera. Bugs and beetles were in abundant, On a small herb (plant) 20-25 bug nymphs (red colour) were collected.

*Locality 15* : 2 km from Jamnamarthur on North Parvadi village mostly with paddy and ragi cultivation in patches. *Dolios* Lab lab, *Saccharum officinalis*, *Cocos nucifera* with Tamarind and Banyan trees. Malvaceae, Papilionaceae, Rubiaceae, Rutaceae and *Lantana* dominating. *Ficus*, Mimosidae (*Mimosa indica*) present. Beetles dominated in the field. Bugs, grasshoppers, crickets were present. Hymenoptera and Diptera were in plenty. Few families of Lepidoptera too were collected in the post-monsoon season. During the Pre-monsoon period mostly Hesperidae and Odonata were in our collection. Near stream nearly 10 types of dragonflies were observed and were in our collection. Grasshoppers were in abundance especially on the ragi fields. Bugs were collected while on wings especially *Agnoscelisnubila*. Cantharoidine beetles, which were in abundance during last tour were totally missing, although their food plant was there but without flowering,

**C. SHEVROY HILLS (and KOLLI HILLS) (Map : 3)**

**Locality 16 :** From 350 m to 1350 m elevation the western side of the hill up to Yercaud. Nearly 20 km stretch by road. Thorn-scrub forest below and coffee



**MAP 3 :** Sketch map showing the localities of Shevroy and Kolli Hills surveyed.

plantation at the top. Secondary forest dominated by lantana. Among insects Lepidoptera appear dominant. On a sandal wood plant and Caesalpinaceae plant assemblage of large number of *Danaus* and *Euploea* were observed. Lycaenidae and Nymphalidae were in abundance in a patch of mostly climber of cucurbitaceae. On *Hibiscus rosasinensis* flowers, *Troides helena* were collected. *Graphium* was collected from the same spot. At the forest of hill large numbers of white spotted cockroaches (*Corydia petivariana*) were collected. Cantharidine beetle, Coccinellid and a few scarabaeidae were collected.

*Locality 18* : 4 km to east of Yercaud, eastern exposure, stretching to village Sankady, near which are extensive coffee plantation and orchards (Guava and citrus) are found. Orthoptera and Lepidoptera were dominant here. Scarabaeidae, Tenebrinidae and Diptera were also collected.

*Locality 19* : Northeast of Yercaud, coffee plantations stretching from the Botanical Survey. Orchidarium to nearly 5 km towards cross road to Vellore and Shevroy temple and on to the village Nagalur, crossing the hill with water reservoir and a stream open and exposed hill sides. Nymphalids were collected.

## KOLLI HILLS

*Locality 17* : 80 km. Southeast of Salem. Elevation 1196 m. Road climbs steeply with 70 hairpin bends. Foot of the hill with bamboo, followed by thorn-scrub forest. Actual collection was started from beyond 10th hairpin bend on the hills. On the top pine apple and paddy cultivation, where Orthoptera, *Chrotogonus brachypterus* were found in plenty. Phasmids and stick insects were collected. Nymphalids and Pierids were collected. Among them *Catopsila*, *Ixias*, *Cepora* were abundant.

In Senkadu large number of grasshoppers were observed and most of them in Nymphal stages. Collection mostly composed by Lepidoptera, Orthoptera and Odonata. Bugs were not be seen to say very very poor, but Javadi Hills complex proved to be good ground for bug collection. The collections were made in Javadi Hills in mixed forests and in open survey patches of denser forests, but Secondary and thorn-scrub forests near Kavalur proved disappointing.

## D. TIRUPATHI HILLS (Map : 4)

*Locality 20* : Western spur of the Tirumala Hills about 10 km on new road. Rocky barren slopes with dry scrub jungle. It is about 900 m above sea level. Grasshoppers, bugs and beetles (except *Mylabris pustulata*) were very scarce. Only butterflies were abundant. Bougainvillea present in abundance. Schizigium dominant species. This locality towards the western end of Thirumala, forest of many shrubs. Many species of plants belonging to a wild variety of different families. The bamboos, Lantana are present. This is thron-scrub jungle. Butterflies were plentiful. The soil is brown to red type, with large, loose stones. *Mylabris pustulata* were plentiful. Grasshoppers, bugs and beetles rarely seen. Hill is somewhat barren and rocky. This hill is the continuation of the Chandragiri Hills. The other half of the hill is rich in vegetation. Trees are plenty. *Cadaba indica*, *Sizygium* are dominant species in this locality.

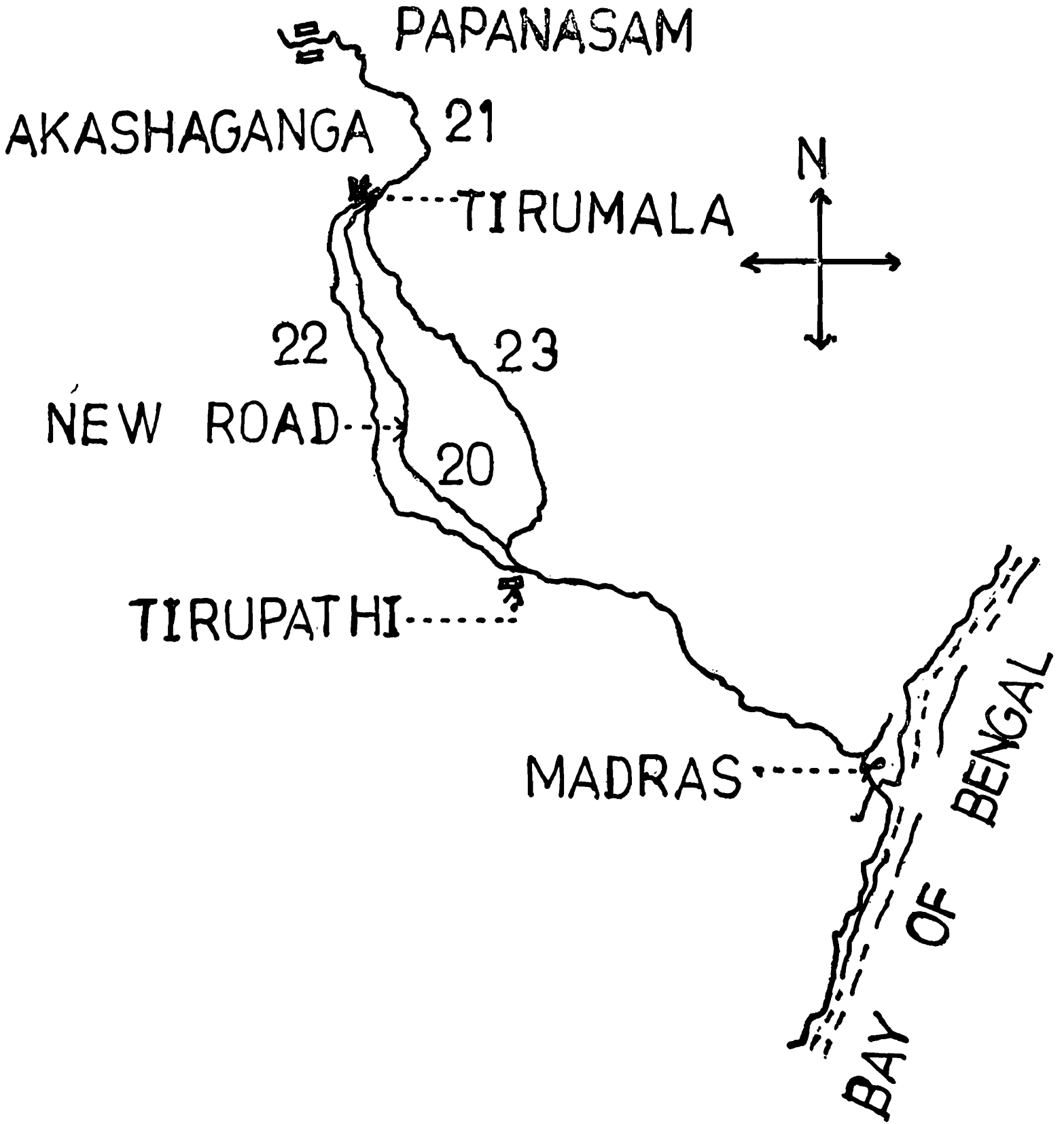
*Locality 21* : Papanasam road 3 to 4 km and 6 km towards north-east. Near Akashaganga where dry and wild grass are present. Butterflies were in plenty. Plenty to the extent it looked as if they came from long migration. Before entering the valley many grasshoppers were found and inside the valley again lot of butterflies flying over the trees.

Sandalwood trees are present in many places, wind velocity and rate of evaporation is high. There is a progressive decrease in total light intensity, in ultra violet radiation. During this sequence there is increase in amount of soil moisture, relative humidity, and the number of micro-arthropods. Lack of sunlight on the ground was noted. Number of Nymphs of Blatodoidia were seen, flying and running. Small beetles were seen. The soil was black, wet and rich in fauna. No bugs were seen.

Natural enemies were found. All the moths and butterflies were half-eaten by birds and thrown on the dam. This may be the cause that insect pollination is scarce in these hills. Bee eaters were there. *Calotes* lizards and snakes were in plenty. Many vipers were seen.

*Locality 22* : From Tirumala to Chandragiri on foot is the nearest way to climb up or down the hills. This is the western side of the Tirumala Hills shady and hours of sunlight short. In spite of the scanty sunlight butterflies collection was good. Bugs, grasshoppers and beetles were poor, could hear their noise produced by their legs, rubbing it to tegmina but were not able to locate them, since they jump

and go down the valley. Soil is brown with large stones with wild grass. The hills are very slippery. Lantana is found in many places.



MAP 4: Sketch map showing the localities of Tirppathi Hills surveyed,

*Locality 23* : 6 km while coming down the hills. The grassland forest with large stones and red soil. Many butterflies were visiting the flowers for pollen and nectar. Grasshoppers also equally in large numbers. Many Calotis were seen. Garden lizards were seen because of grasshoppers. This locality does not show much of trees, only wild grass with shrubs. Trees are very far away from the road. This is thorny-scrub forest dominated by *Capparis*.

#### E. VALLEYS AND HILLS AROUND VISAKHAPATNAM (Map : 5)

*Locality 24* : Dolphin's nose. This locality is situated south-east of Vizag town and the eastern end of Yarada Hill range (from 200 to 300 ft height). The foot hills of Dolphin's nose is surrounded by sea on the eastern and southern side. The vegetation is thorny-scrub and shrub secondary forests. Mainly plants like *Lantana camera*, *Prosopis juliflora*, *Tephrosia purpurea*, *Tribulus terrestris*, *Tridax procumbens*, *Ipomea biloba* etc. are common.

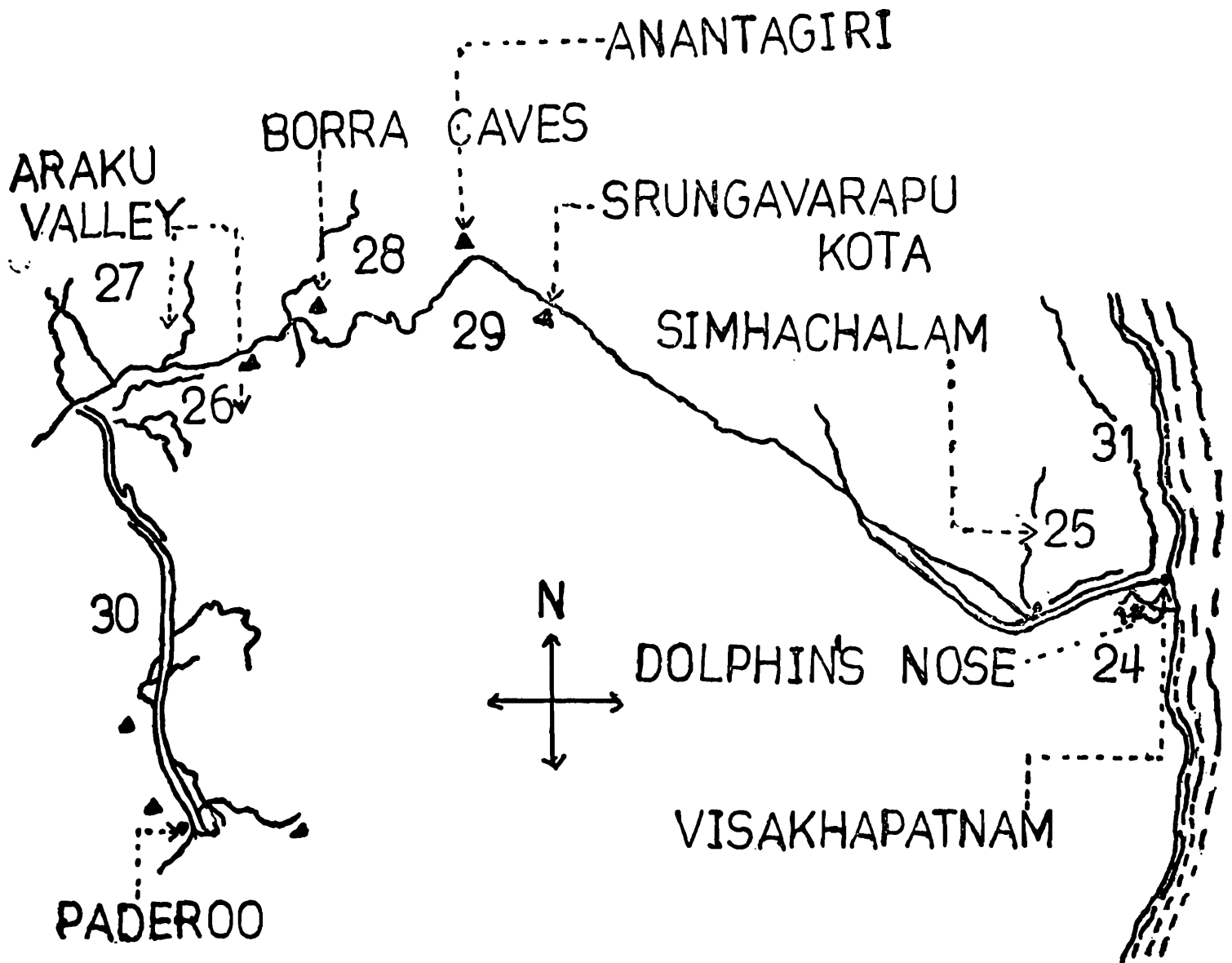
Generally insect life was poor except grasshoppers. Insects such as butterflies, bugs, leaf mantis were scarcely collected. Grasshoppers were the dominant species in this locality.

*Locality 25* : Simhachalam (1100 ft) above MSL. This is situated in the Kailas Hill range (1661 ft) about 25 km from north-west direction of Vizag town. In general vegetation is scrub jungle type, Almost cultivated *Mangifera indica*. Jackfruit and Guava trees (*Psidium guajava*), *Cassia fistula*, *Cassia auriculata* were common. Plants like *Cassia tora*, *Cassia occidentalis* are distributed widely. The forest is thick with dry red soil at lower level and at upper level, damp dry red soil. The foot hill and its surrounding plains are cultivated by palm trees intermingled with small shrubs and trees. *Nerium*, *Abutilon indicum*, *Acacia pinnata*, *Syzigium jambolanum*, *Ficus bengalensis*, *Ficus religiosa*, *Embilica officinalis*, *Tridax procumbens*, *Bidens pilosa* etc. Lepidoptera and grasshoppers were equally abundant. Hemiptera and beetles like *Mylabris pustulata* were common.

*Locality 26* : Araku Valley. This locality is situated about 130 km towards north-west direction from Vizag town. The valley region is mainly cultivated by paddy crops and horticultured varieties of trees. The study area was 2 to 3 kms around Araku Village. The soil is red, loamy and is covered with grass with mixed wild plant species of Caesalpinaceae, Legiminaceae, Rubiaceae, Rhamnaceae. Moraceae, Anonaceae, Verbranaceae, Compositae and Acantheceae. The insects like grasshoppers

and hogs were common, but grasshoppers were the dominant group in this locality. Butterflies were fairly common.

*Locality 27* : This locality is about 4 km from the Araku Valley. The study area and collection locality are comprised of water falls, foot hills of Araku and its surrounding



MAP 5 : Sketch map showing the Valleys and Hills around Visakhapatnam.

plains. Vegetation is mixed forest with thickly grown herbs, shrubs and trees, shows an evergreen and deciduous nature. Many plants grown in the locality belongs to Acanthaceae, verbanaceae, caesalpinaceae, Moraceae, urticaceae, Malvaceae, Fabaceae, Solanaceae, Euphorbiacea, Sterculiaceae, Anonaceae etc.

Among the insects butterflies were abundant. Mainly Papilionidae, Nymphalidae and Lycaenidae were common. Grasshoppers and bugs were equally common but not abundant. Soil red.

*Locality 28* : Borra caves, 30 km from Araku valley. This locality is comprised of thick evergreen forest with big trees, shrubs, lianase etc. Plants like *Lantana*, *Tectona grandis*, *Syzigium jambolanum*, *Ficus bengalensis*, *F. religiosa*, *Manilkara* sp. *Nephrolepis* sp., *Habenaria* sp., *Adina cordifolia*, *Atlantia monophylla*, *Ipomea* sp. *Solanum* sp., etc. were commonly distributed.

Insects were abundant. Butterflies, bees and beetles were dominant. Grasshoppers and bugs were less common during August. Soil red and brown. Other living organisms like snakes, calotis, squirrel, earthwarms and millipedes were common.

*Locality 29* : From Araku Valley to Srungavarapu Kota on this way roadside and inner forest. This locality is good collection place next to locality 28, mixed with evergreen and deciduous trees. The exuberantly flowering Leguminosae and other plants distributed all along the way. Insects like Lepidoptera. Coleoptera, Homoptera, Heteroptera, Orthoptera and spiders were the major groups. But grasshoppers, bugs and butterflies were collected. Plants such as *Justicia* sp. *Barlaria* sp., *Tridax procumbens*, *Bidens pilosa*, *Euphorbia* sp., *Cassia* sp. *Acacia* sp., *Tectona grandis*, *Solanum* sp., *Ficus* sp., *Cissius* sp., *Sida* and *Abutilon*, *Vernonia*, *Ageratum* sp. etc. were collected and identified. Soil red brown.

*Locality 30* : From Araku Valley to Paderoo towards South west direction. This is a little dry, stony area with scattered scrub plants, but at some-places groups of plants were thickly grown and appeared to be evergreen in nature. Plants like Compositae, Rubiaceae, Mimosaceae, Cataceae, Rhamnaceae, Metaceae were wild.

Generally insect life was poor. Grasshoppers and few buttrfies were collected. Soil red and brown.

*Locality 31* : From Vizag to Indira Gandhi National Park on the way to Srikakulam. Roadside, common plants like *Cassia tora*, *C. occidentalis*, *Leucas aspera*, *Acacia* sp., *Tridax*, *Lantana* were abundant. Butterflies were abundant. Soil brown.

## SYSTEMATIC ACCOUNT

Family : PLATASPIDAE

1. *Brachyplatys punctipes* Montand1894. *Brachyplatys punctipes* Montand, *Ann. Mus. Civ. Gen.*, 34 : 122.1902. *Brachyplatys punctipes*, *Dist.*, FBI, Rhynch., 1 : 11.

*Diagnostic notes* : Length 7-9 mm ; shining olivaceous-black ; thickly finely punctate ; head with six small ochraceous spots ; lateral margins of abdomen with ochraceous ray-like fasciae directed inwardly.

*Distribution* : Oriental and Palaearctic Regions ; India : Punjab and Tiruchirapalli (Tamilnadu) ; Burma ; and China.

2. *Coptosoma cribrarium* (Fabricius)1798. *Cimex cribrarium* Fabr., *Ent. Syst. Suppl.* 531.1902. *Coptosoma cribrarium*, *Dist.*, FBI, Rhynch., 1 : 22.

*Diagnostic notes* : 4.5-5 mm. Ochraceous or greenish-yellow ; apices of lateral lobes of head completely meeting in front of central lobe ; abdomen with long ray-like marginal spots.

*Distribution* : Oriental and Palaearctic Regions ; India : Nilgiri Hills (Tamilnadu), Bangalore, Bombay, Calcutta, Burhanpur and Naga Hills ; Burma ; China ; and Taiwan.

3. *Coptosoma feanum* Montand1894. *Coptosoma feanum* Montand, *Ann. Mus. Civ. Gen.*, 34 : 142.1902. *Coptosoma feanum*, *Dist.*, FBI, Rhynch., 1 : 33.

*Diagnostic notes* : Length 3.00 mm. Above shining black, pronotum sometimes with small spots near anterior margin ; apical half of scutellum concolourous.

*Distribution* : Indo-Malayan Region ; India : Nilgiri Hills (Tamilnadu), Sikkim and Naga Hills ; and Tenasserim (Burma).

#### 4. *Coptosoma nilgirensis* Distant

1901. *Coptosoma nilgirensis* Dist., *Ann. Mag. nat. Hist.* (7) 8 : 238.

1902. *Coptosoma nilgirensis*, Dist., FBI, Rhynch., 1 : 23.

*Diagnostic notes* : Length 5 mm. Dull opaque ochraceous ; apices of lateral lobes of head completely meeting in front of central lobe, very sparingly and irregularly punctate ; head impunctate ; abdomen with long ray-like marginal spots.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

#### 5. *Coplosoma nobile* Dohrn

1860, *Coplosoma nobile* Dohrn, *Stett. ent. Zeit.*, 21 : 400.

1902. *Coplosoma nobile*, Dist., FBI, Rhynch., 1 : 35.

*Diagnostic notes* : Length 4 mm. Head ochraceous ; pronotum castaneous, anterior and lateral areas ochraceous.

*Distribution* : Oriental Region ; India : Tiruchirapalli (Tamilnadu) ; and Sri Lanka.

#### 6. *Coptosoma noualhieri* Montand

1896. *Coptosoma noualhieri* Montand, *Ann. Soc. Ent. Belg.*, 40 : 439.

1902. *Coptosoma noualhieri*, Dist., FBI, Rhynch., 1 : 31.

*Diagnostic notes* : Length 3.00-3.50 mm. Above shining black. scutellum with spots on basal callosities inconstant.

*Distribution* : Oriental Region ; India : Palni Hills (Tamilnadu), and Barwai (Central India).

#### 7. *Coptosoma pulchellum* Montand

1894. *Coptosoma pulchellum* Montand, *Ann. Mus. civ. Gen.*, 34 : 186.

1902. *Coptosoma pulchellum*, Dist., FBI, Rhynch., 1 : 28.

1918. *Coptosoma pulchellum*, Dist., FBI, Rhynch., 7 : 111.

*Diagnostic notes* : Length 3.00-3.50 mm. Head ochraceous, base and central lobe black ; apical half of scutellum more or less ochraceous.

*Distribution* : Indo-Malayan and Palaearctic Regions ; India : Kodaikanal, Nilgiri Hills (Tamilnadu) ; and Pondicherry ; Tenasserim (Burma), Java (Indonesia) and China.

#### 8. *Coptosoma signaticolli* Montand

1896. *Coptosoma signaticolli* Montand, *Ann. Soc. Ent. Belg.*, 40 : 112.

1902. *Coptosoma signaticolli*, *Dist., FBI, Rhynch.*, 1 : 25.

1918. *Coptosoma signaticolli*, *Dist., FBI, Rhynch.*, 7 : 111.

*Diagnostic notes* : Length 2.75 mm. Ochraceous, spots at the abdominal segmental apices are linear, transverse on each segment.

*Distribution* : Oriental Region ; India : Tiruchirapalli, Kodaikanal (Tamilnadu).

#### 9. *Bozius exsiccus* Distant

1901. *Bozius exsiccus* Dist., *Ann. Mag. nat. Hist.*, (7) 8 : 239.

1902. *Bozius exsiccus*, *Dist., FBI, Rhynch.*, 1 : 37.

*Diagnostic notes* : Length 5 mm. Dull ochraceous ; coarsely, darkly punctate ; irregular markings on scutellum, the most prominent are at foveate impressions.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

#### 10. *Bozius respersus* Distant

1901. *Bozius respersus* Dist., *Ann. Mag. nat. Hist.* (7) 8 : 239.

1902. *Bozius respersus*, *Dist., FBI, Rhynch.*, 1 : 38.

*Diagnostic notes* : Length 6 mm. Above ochraceous, punctate, mottled with piceous ; basal impressed space of scutellum with black central fascia and black at the foveate extremities.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

*Remarks* : Only two species are recorded in this genus, both are from Nilgiri Hills, not recorded so far from any other place,

## Family : SCUTELLERIIDAE

11. *Scutellera nobiles* (Fabricius)1775. *Cimex nobiles* Fabr., *Syst. Ent.*, 2 : 697.1902. *Scutellera nobiles*, Dist., FBI, Rhynch., 1 : 51.

*Diagnostic notes* : Length 17-21 mm ; metallic bluish-green or purplish ; absence of the transverse fasciae above, the scutellum has usually a central fascia indistinct, but bears six small discal spots arranged in pairs and a lateral spot on each side near the centre.

*Distribution* : Indo-Malayan and Palaearctic Regions ; India : Nilgiri Hills, Madras (Tamilnadu), and Bangalore ; Karachi (Pakistan) ; Sri Lanka ; Tenasserim (Burma) ; and China.

12. *Chrysocoris marginellus* (Westwood)1837. *Callida marginellus* Westwood in Hope Cat., 1 : 15.1902. *Chrysocoris marginellus*, Dist., FBI, Rhynch., 1 : 59.

*Diagnostic notes* : Length 14-17 mm. Bluish-green above ; sternum and submarginal abdominal series of broad transverse spots greenish or bluish-green. The species can be easily recognised by these markings to the underside of the abdomen ; spots above are in constant in number.

*Distribution* : Oriental Region ; India : Nilgiri Hills, Madras (Tamilnadu), Bombay (Maharashtra) and Andaman Islands.

\*13. *Chrysocoris ornatus* (Dallas)1873. *Callidea ornatus* Dall, *List. Hem.*, 1 : 17, 27.1902. *Chrysocoris ornatus*, Dist., FBI, Rhynch., 1 : 59.1986. *Chrysocoris ornatus*, Hegde, *East. Ghats. Ins.*, 2 : 27.

*Material examined* : Javadi Hills, Loc. 3, 24.9.86, 2 exs.

*Diagnostic notes* : Length 13-14mm. Above purplish-red ; shining brassy-green on

anterior disc of pronotum and base of scutellum ; seven on pronotum and five on scutellum.

*Distribution* : Indo-Malayan Regions ; India : Javadi Hills (Tamilnadu) ; Assam ; and Malaya.

*Remarks* : First record from S. India from Javadi Hills of the Eastern Ghats.

**\*14. *Chrysocoris purpureus* (Westwood)**

1837. *Callidea purpureus* Westwood, in Hope Cat., 1 : 15.

1902. *Chrysocoris purpureus*, Dist., FBI, Rhynch., 1 : 58.

1986. *Chrysocoris purpureus*, Hegde, *East. Ghats Ins.*, 1 : 24.

*Material examined* : Javadi Hills, Loc. 12, 29.1.1986, 12 exs. ; Shevroy Hills, Loc. 16, 6.5.1986, 1 ex.

*Diagnostic notes* : Length 13-15 mm. Above bluish to purplish-green ; five spots on pronotum and seven on scutellum ; scutellum greatly enlarged concealing the entire abdomen.

*Distribution* : Oriental Region ; India : Javadi Hills, Shevroy Hills, Madras (Tamilnadu), Bombay (Maharashtra), Dharwar, Bangalore (Karnataka), and Secunderabad (Andhra Pradesh).

*Remarks* : Restricted to S. India.

**\*15. *Chrysocoris stockerus* (Linnaeus)**

1764. *Cimex stockerus* Linn., *Mus. Lund. Utr.*, 167.

1904. *Chrysocoris stockerus*, Dist., FBI, Rhynch., 1 : 57.

1986. *Chrysocoris stockerus*, Hegde, *East. Ghats Ins.*, 1 : 24.

*Material examined* : Recorded from following localities of Javadi Hills ; Loc. 2, 18.12.1985, 1 ex., Loc. 3, 19.12.1985, 2 exs., Loc. 7, 19.12.1985, 1 ex., Loc. 10, 28.1.1986 1 ex., Loc. 12, 29.1.1986, 8 exs. ; Shevroy Hills : Loc. 16, 6.5.1986, 2 exs.

*Diagnostic notes* : Length 14 mm. Bluish above ; scutellum completely covering the abdomen except at base.

*Distribution* : Oriental Region ; India : Javadi Hills, Shevroy Hills (Tamilnadu), Bombay, Trivandrum (Kerala), Bangalore (Karnataka); and Sri Lanka.

**Remarks :** This is an abundant and common species in Sri Lanka. Mr. E. E. Green described it as found swarming on trees of *Phyllanthus* sp. and sucking the berries.

### 16. *Chrysocoris simplex* Atkinson

1889. *Chrysocoris simplex* Atkinson, *Asiat. Soc. Bengal*, 57 : 343.

1902. *Chrysocoris simplex*, Dist., FBI, Rhynch., 1 : 59.

**Diagnostic notes :** Length 12-13 mm. Above dark indigo-blue or brassy-green ; coarsely and distinctly punctate ; a lateral series of large ray-like spots to abdomen, dark indigo-blue.

**Distribution :** Oriental Region; India : Ootacamund, Coonoor ( Nilgiri Hills; Tamilnadu ).

### 17. *Hotea nigrorufa* Walker

1867. *Hotea nigrorufa* Walker, *Cat. Het.*, 1 : 6, 57,

1902. *Hotea nigrorufa*, Dist., FBI, Rhynch., 1 : 66.

1918. *Hotea nigrorufa*, Dist., FBI, Rhynch., 7 : 116.

**Diagnostic notes :** Length 9-10 mm. Castaneous ; lateral margins of pronotum and abdomen beneath are distinctly ochraceous, central lobe acuminate produced, lateral pronotal angles produced.

**Distribution :** Oriental Region ; India : Nilgiri Hills (Tamilnadu), and Old Mysore State (Karnataka).

### Family : PODOPIDAE

### 18. *Podops longispina* (Schouteden)

1905. *Scolinophora longispina* Schout., *Ann. Soc. Ent. Belg.*, 49 : 147.

1908. *Podops longispina*, Dist., FBI, Rhynch., 4 : 424.

**Diagnostic notes :** Length 7.25-7.75 mm. Upperside of the body of pale tint, underside more deep in colour with the exception of a large marginal zone of the abdomen, lobes of head equally long, anterior pronotal angles exhibit a long spine directed

upwards, lateral spine longer than anterior and directed transversely ; scutellum at base with three small callous white spots.

*Distribution* : Oriental Region : India : Tiruchirapalli (Tamilnadu) and Mysore (Karnataka).

Family : PENTATOMIDAE

### 19. *Dalpada pelicornis* Stal

1876. *Dalpada pelicornis* Stal, *En. Hem.*, 5 : 44.

1902. *Dalpada pelicornis*, *Dist.*, FBI, Rhynch., 1 : 114.

*Diagnostic notes* : Length 10-15 mm. Stramineous, lateral pronotal angles somewhat broadly prominent, but not distinctly nodulose, with a distinct furrow inwardly.

*Distribution* : Oriental Region ; India : Nilgiri Hills.

### 20. *Dalpada tauriformis* Distant

1918. *Dalpada tauriformis* *Dist.*, FBI, Rhynch., 7 : 120.

*Diagnostic notes* : Length 16 mm. Ochraceous, distinct and prominent character of this species is the strongly produced pronotal lateral angles.

*Distribution* : Oriental Region ; India : Kodaikanal (Tamilnadu).

### 21. *Dalpada versicolor* Herr-Schaeff.

1839. *Halys versicolor* Herr-Schaeff, *Wanz, Ins.*, 5 : 76.

1902. *Dalpada versicolor*, *Dist.*, FBI, Rhynch., 1 : 114.

1918. *Dalpada versicolor*, *Dist.*, FBI, Rhynch., 7 : 119.

*Diagnostic notes* : Length 15-18 mm. Obscure ochraceous ; pronotal angles subacute ; more elongate scutellum ; non-dilated fore tibiae.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu), Nalanda (Bihar) and Sri Lanka.

Originally described from a Javan specimen.

**22. Erthesina fullo (Thunberg)**

1783. *Cimex fullo* Thunb. *Nov. Ins. Spec.*, 2 : 42.  
1902. *Erthesina fullo*, Dist., FBI, Rhynch., 1 : 117.  
1918. *Erthesina fullo*, Dist. FBI, Rhynch., 7 : 120.

*Diagnostic notes* : Length 20-25 mm. Black, head long ; basal segment of rostrum extending beyond the buccalae ; fore and hind tibiae are dilated.

*Distribution* : Oriental and Palaearctic Regions ; India : Visakapatnam (Andhra Pradesh), Assam, West Bengal, Dehradun (United Province), Sikkim, Chikaballapura (Karnataka), Trivandrum (Kerala), Andaman Islands ; China ; Japan and Tiwan.

**\*23. Halys dentatus (Fabricius)**

1775. *Cimex dentatus* Fabr., *Syst. Ent.*, 702.  
1902. *Halys dentatus*, Dist., FBI, Rhynch., 1 : 119.  
1918. *Halys dentatus*, Dist., FBI, Rhynch., 7 : 121.  
1986. *Halys dentatus*, Hegde, *East. Ghats. Ins.*, 1 : 28, 2 : 27.

*Material examined* : Javadi Hills, Loc. 2, 17.12.1985, 1 ex. ; Loc. 9, 2.2.1986, 1 ex. ; Loc. 13, 4.4.1986, 1 ex. ; Loc. 15, 29.9.1986, 1 ex.

*Diagnostic notes* : Length 21 mm (17-23 mm). Dull ochraceous, head long, tapering, central lobe longer than lateral ; apex of scutellum pale, rostrum extending up to 5th abdominal segment, non-dilated tibiae.

*Distribution* : Oriental, Ethiopian and Palaearctic Regions ; India : Javadi Hills, Nilgiri Hills, and almost all over India ; and Sri Lanka. Usually found on the *Acacia arabica* and on the *Casuarina equisetifolia*. The regions of distribution of the type specimen by Fabricius are North and West Africa, India, China and Japan.

**24. Halys nilgiriensis Distant**

1893. *Halys nilgiriensis* Dist., *Ann. Mag. nat. Hist.*, (6) : 11, 39.  
1902. *Halys nilgiriensis*, Dist., FBI, Rhynch., 1 : 120.

*Diagnostic notes* : Length 20 mm. Ochraceous ; head anterior and lateral angles of

pronotum metallic-green ; scutellum with five small ochraceous spots at base and apex ochraceous.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

*Remarks* : Differs from *Halys dentatus*, apart from colour, by the much broader head especially at the apex ; with its latter margins more strongly toothed ; pronotal lateral margins more finely crenulate ; apical third of scutellum more elongate and narrow. Only 2 species recorded so far.

### 25. *Sciocoris funebris* Distant

1918. *Sciocoris funebris* Dist., FBI, Rhyneh., 7 : 126.

*Diagnostic notes* : Length 4.5-5 mm. Fuscous-brown ; apex of head sub-conically rounded ; pronotum with two transverse black cicatrices on disk ; scutellum with a small excavate black spot in each basal angle.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

### 26. *Sciocoris indicus* Dallas

1857. *Sciocoris indicus* Dallas, List. Hem., 1 : 132.

1902. *Sciocoris indicus*, Dist., FBI, Rhynch., 1 : 126.

*Diagnostic notes* : Length 5.5-6 mm. Ochraceous ; head with two distinct short striae on disk and a similar striation at base a little before each eye ; pronotal central levigate line extending through the scutellum.

*Distribution* : Oriental Region ; India : Coonoor, Nilgiri Hills (Tamilnadu); Malabar (Kerala) and North India.

### 27. *Sciocoris lateralis* Fieber

1851. *Sciocoris lateralis* Fieb., Rhynch., 21.

1902. *Sciocoris lateralis* Dist., FBI, Rhynch. 1 : 126.

1908. *Sciocoris lateralis*, Dist., FBI, Rhynch., 4 : 436.

1918. *Sciocoris lateralis*, Dist., FBI, Rhynch., 7 : 125.

**Diagnostic notes :** Length 4.5 mm. Pale ochraceous ; differs from *Sciocoris indicus* in following characters :—the antennae are brownish-yellow, on the slightly curved margins of pronotum is a longitudinal three-cornered whitish spot, the posterior corner of which almost reaches the humeral angle.

**Distribution :** Oriental Region ; India : Coonoor (Tamilnadu), Chikkaballapura (Karnataka) ; and Sri Lanka.

**Remarks :** Sri Lankan specimen are slightly smaller than those from Indian habitats 3.5-4 mm.

### 28. *Adria parvula* (Dallas)

1851. *Pentoma parvula* Dallas, *List. Hem.*, 1 : 246.

1902. *Adria parvula*, *Dist.*, FBI, *Rhynch.*, 1 : 139.

1918. *Adria parvula*, *Dist.*, FBI, *Rhynch.*, 7 : 128.

**Diagnostic notes :** Length 7-8 mm. Ochraceous ; antennae five segmented, first segment short incrassate, fourth shorter than fifth, which is distinctly broadened ; sternum sulcate.

**Distribution :** Oriental Region ; India : Salem (Tamilnadu), Ranchi (Bihar), Khandala (Maharashtra) ; and Burma. Also reported from Senegal.

**Remarks :** Specimens collected from Salem were found "on Ragi earhead", flies by night, particularly about brilliant lights. Common at Khandala.

### \*29. *Niphe elongata* (Dallas)

1851. *Pentatoma elongata* Dall, *List. Hem.*, 1 : 246.

1867. *Niphe elongata*, *Stal, Ofy. Vet. Ak. Forts.*, 516.

1899. *Niphe elongata*, *Dist.*, *Am. Mag. nat. Hist.*, (7) 4, 432.

1902. *Aenaria elongata*, *Dist.*, FBI, *Rhynch.*, 1 : 141.

1986. *Aenaria elongata*, Hegde, *East. Ghats Ins.*, 1 : 25.

**Material examined :** Javadi Hills, Loc.4, 18.12.1985, 1 ex.

**Diagnostic notes :** Length 14 mm. Ochraceous, thickly coarsely punctate ; antennae red, fourth and fifth black, base of the fourth red ; connexivum stramineous ; femora with small dark, punctate spots.

*Distribution* : Oriental Region ; India : Javadi Hills of Eastern Ghats (Tamilnadu), North India ; Tenasserim (Burma) and Philippines.

### 30. *Ochrophara montana* Distant

1900. *Ochrophara montana* Dist., *Trans. Ent. Soc. London*, 165.

1902. *Ochrophara montana*, Dist., FBI, Rhynch., 1 : 147.

1918. *Ochrophara montana*, Dist., FBI, Rhynch., 7 : 128.

*Diagnostic notes* : Length 12-13 mm. Ochraceous, lateral lobes longer than the central, but not meeting in front. This species is structurally remarkable in having the pronotal angles either obtusely rounded or provided with a short acute forwardly-directed spine, which in some specimens is on one angle only.

*Distribution* : Oriental Region ; India : Madras (Tamilnadu), Lushai Hills (Mizoram), Naga Hills and Madhya Pradesh ; and Burma.

*Remarks* : It is a forest-pest, damaging bamboo-seed crop. The species from Madras is recorded to be found on coffee. May be from Yercaud Hills of Eastern Ghats or can be from Coorg. Those from Lushai Hills "on paddy". According to Fletcher, it occurs sporadically in enormous swarms.

### 31. *Cappaea taprobenesis* (Dallas)

1851. *Pentatoma taprobensis* Dall, *List. Hem.*, 1 : 244.

1902. *Cappaea taprobenesis*, Dist., FBI, Rhynch., 1 : 149.

*Diagnostic notes* : Length 10-10.5 mm. Black with ochraceous or testaceous markings ; head slightly longer than pronotum ; apex rounded, central lobe prominent and slightly longer than lateral lobe ; scutellum broad longer than half the abdomen, membrane short, fuliginous with brown spots ; abdomen with a short basal furrow.

*Distribution* : Oriental Region ; India : Coonoor (Tamilnadu), Malabar (Kerala), North Khasi Hills ; Sri Lanka ; Java and Sumatra.

*Remarks* : Gregarious in Sri Lanka and found on the bark of orange trees.

32. *Halyomorpha picus* (Fabricius)1794. *Cimex picus* Fabr, *Ent. Syst.*, 4 : 115.1902. *Halyomorpha ficus*, Dist., FBI, Rhynch., 1 : 152.

**Diagnostic notes :** Length 12-17 mm. Variable in colour and size, above greyish-ochraceous, ochraceous-testaceous or castaneous ; head broad at apex, lobes of equal length ; pronotum with short teeth at each anterior angle, lateral angles subprominent ; tibiae externally broadly sulcate.

**Distribution :** Oriental, Palearctic and Ethiopian Regions ; Nilgiris (Tamilnadu), Bangalore, Trivandrum (Kerala), Bombay, Calcutta, North Khasi Hills ; Sri Lanka ; Malaya ; China ; Japan.

33. *Tolumnia immaculata* Distant1900. *Tolumnia immaculata* Dist., *Trans. Ent. Soc. London*, 168.1902. *Tolumnia immaculata*, Dist., FBI, Rhynch., 1 : 155.

**Diagnostic notes :** Length 8.5—10 mm. Brassy-ferruginous ; a large central piceous spot to mesosternum and a very dark castaneous broad irregular central fascia to abdomen ; femora with two large brownish spots beneath a little before apex ; *var.* colour above ochraceous ; head anterior area of pronotum and sometimes apex of scutellum only brassy-ferruginous.

**Distribution :** Oriental Region ; India : Kotagiri (Tamilnadu) ; Sri Lanka.

\*34. *Aeschrocoris tuberculatus* (Stal)1865. *Aeschrocoris tuberculatus* Stal, *Ann. Soc. Ent. Fr.*, 169.1902. *Aeschrocoris tuberculatus*, Dist., FBI, Rhynch., 1 : 1631986. *Aeschrocoris tuberculatus*, Hegde, *East. Ghats Ins.*, 1 : 25.

**Material examined :** Javadi Hills, Loc. 6, 19.12.1985, 1 ex.

**Diagnostic notes :** Length 7.5 mm (6-7.5 mm). Pale brownish-ochraceous ; pronotal disk bituberculate ; apices of the pronotal lateral angles emarginate and furnished with a small tubercle, scutellum terminating in a concolourous tubercle,

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Sikkim, Garo Hills (Meghalaya), Naga Hills ; Burma.

### 35. *Septonia nigrorufa* Distant

1918. *Septonia nigrorufa* Dist., FBI, Rhynch., 7 : 131.

*Diagnostic notes* : Length 4 mm. Head shining brassy-black ; pronotum declivous, bronzy-brown, two large transverse black spots on each side of anterior area, and a transverse series of rounded black spots near basal margin ; three small pale spots on basal margin of scutellum, which extends up to the apex of abdomen ; *var.* Pronotum without the transverse series of basal black spots.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu),

### 36. *Hermolaus robustus* Distant

1918. *Hermolaus robustus* Dist., FBI, Rhynch., 7 : 132.

*Diagnostic notes* : Length 3.5 mm. Brownish-ochraceous ; head long, tapering, acuminate, scutellum more than half the length of abdomen ; a short robust species.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu).

### \*37. *Hermolaus typicus* Distant

1902. *Hermolaus typicus* Dist. FBI, Rhynch., 1 : 170.

*Material examined* : Vedanthangal, Loc, 1d, 27.5.1987, 2 exs.

*Diagnostic notes* : Length 5 mm ; Brownish-ochraceous, thickly punctate ; anterior area of pronotum with two transverse brownish spots ; scutellum with a minute levigate spot near each basal angle, broad, extends a little more than half the length of the abdomen, its apex broadly rounded.

*Distribution* : Oriental Region ; India : Vedanthangal, Ootacamund (Tamilnadu).

**\*38. *Carbula insocia* (Walker)**

1868. *Eysarcoris insocia* Walker, *Cat. Het.*, 3 : 556.  
1902. *Carbula insocia*, Dist., FBI, Rhynch., 1 : 173.  
1918. *Carbula insocia*, Dist., FBI, Rhynch., 7 : 133.  
1986. *Carbula insocia*, Hegde, *East. Ghats Ins.*, 1 : 26.

*Material examined* : Javadi Hills, Loc. 6, 19.12.1915, 1 ex.

*Diagnostic notes* : Length 8 mm. Brownish-ochraceous, thickly punctate, pronotal angles subprominent, rounded, scutellum distinctly apically narrowed and distinctly shorter than corium.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Chikkaballapura, Bangalore (Karnataka), Bombay (Maharashtra), and N. E. Himalaya.

**39. *Carbula rugulosa* Distant**

1902. *Carbula rugulosa* Dist., FBI, Rhynch., 1 : 171.  
1918. *Carbula rugulosa*, Dist., FBI, Rhynch., 7 : 133.

*Diagnostic notes* : Length 7-8 mm. Ochraceous ; lateral pronotal angles obtusely prominent with central longitudinal carinate line, on the anterior half with rugulose and reticulate elevated lines ; corium mesially somewhat levigately rugulose ; chief feature of this species rugulose markings to the pronotum and corium.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu), Chikkaballapura (Karnataka).

**\*40. *Paracritheus trimaculatus* (Leporte et Serville)**

1825. *Scutellera bimaculatus*, Lep. & Serv., *Enc. Meth.*, 10 : 411.  
1902. *Paracritheus trimaculatus*, Dist., FBI, Rhynch., 1 : 178.  
1986. *Paracritheus trimaculatus* Hegde, *East. Ghats Ins.*, 2 : 27.

*Material examined* : Javadi Hills, Loc. 2, 28.9.1986, 2 exs., light collection.

*Diagnostic notes* : Length 8 mm (9 mm). Ochraceous, thickly punctate ; head with six longitudinal series of punctae, two marginal, four discal : lateral angles of pronotum

obtusely prominent and black, scutellum with prominent basal creamish spots on either side and one at apex.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu) ; Burma ; Malaya Peninsula Islands of Malayan Archipelago.

This is the only species recorded so far in this genus.

**\*41. *Plautia fimbriata* (Fabricius)**

1787. *Cimex fimbriata* Fabr., *Mant. Ins.*, 2 : 295.

1902. *Plautia fimbriata*, Dist, FBI, Rhynch., 1 : 181.

1986. *Plautia fimbriata*, Hegde, *East. Ghats Ins.*, 1 : 26.

*Material examined* : Shevroy Hills, Loc. 18, 17.9.1986, 1 ex., Guindy Loc. 1, 1.7.1988, 2 exs.

*Diagnostic notes* : Length 9.9-75 mm (10-11mm) ; Olivaceous—green ; body broadly ovate ; pronotal lateral angle rounded, not prominent, corium pale greenish-purplish red, with well defined posterior discal spot ; abdomen centrally obscurely tuberculate but not spined at base.

*Distribution* : Oriental : Australasian, Palaearctic ; India : Shevroy Hills, Guindy forests, Nilgiri Hills (Tamilnadu), Sikkim, North Khasi Hills, Naga Hills, Bombay (Maharashtra), Calcutta (West Bengal) ; Tenessarim (Burma) ; Sri Lanka ; Malaya Peninsula, Islands of Malayan Archipelago ; China ; Japan ; and Madagascar.

**\*42. *Antestia cruciata* (Fabricius)**

1775. *Cimex cruciata* Fabr., *Syst. Ent.*, 714.

1902. *Antestia cruciata*, Dist., FBI, Rhynch., 1 : 185.

1918. *Antestia cruciata*, Dist., FBI, Rhynch., 7 : 136.

1986. *Antestia cruciata*, Hegde, *East. Ghats Ins.*, 1 : 27.

*Material examined* : Javadi Hills, Loc. 15, 1.2.1986.

*Diagnostic notes* : Length 8 mm (7-9 mm). Orangish-yellow ; varies to pale greenish head with two central lines and a spot before each eye ; pronotum with ten black spots ; scutellum with four black spots ; corium with three discal black spots and a costal black streak.

**Distribution :** Indo-Malayan Region ; India : Javadi Hills, Nilgiri Hills (Tamilnadu), Bombay, Calcutta, Sikkim ; Sri Lanka ; Tenessarim (Burma) and Islands of Malayan Archipelago.

**Remarks :** Well known coffee pest. Feeds on the berries of the coffee plant.

#### 43. *Agnoscelis campbelli* Distant

1918. *Agnoscelis campbelli* Dist., FBI, Rhynch., 7 : 137.

**Diagnostic notes :** Length 9-10 mm. Blackish, strongly punctate ; head distinctly rounded at apex ; anterior pronotal area with five testaceous spots ; scutellum with a central longitudinal and anterior lateral dark, ochraceous fasciae, apex moderately foveate ; abdomen unarmed at base.

**Distribution :** Oriental Region ; India : Kodaikanal (Tamilnadu).

#### \*44. *Agonoscelis nubila* (Fabricius)

1775. *Cimex nubila* Fabr., *Syst. Ent.*, 712.

1902. *Agonoscelis nubila*, Dist., FBI, Rhynch., 1 : 189.

1986. *Agonoscelis nubila*, Hegde, *East. Ghats Ins.*, 1 : 27.

**Material examined :** Javadi Hills, Loc. 10, 28.1.1986, 1 ex., Loc. 15, 1.2.1986, 22 exs. Shevroy Hills, Loc. 16, 7.8.1986, 1 ex.

**Diagnostic notes :** Length 10 mm (10-11 mm). Ochraceous, punctate, sparsely pilose : scutellum extending beyond the middle of abdomen, basal lateral margin to corium, cunexiovum orange-yellow ; abdomen unarmed at base.

**Distribution :** Oriental : Palaearctic, Ethiopian and Australasian Regions ; India : Javadi Hills, most parts of India including Nilgiri Hills (Tamilnadu) ; Sri Lanka ; Burma ; Tenessarim (Burma) ; Malaya Peninsula ; Islands of Malayan Archipelago ; China and Japan.

**Remarks :** Material collected from Loc. 15, Javadi Hills : only one example was found to be typical *A. nubila*, 20 examples allied close to *A. femoralis* Walker in colour characters but differing in being smaller in size and in second and third antennal segments subequal, whereas in *A. femoralis* third segment is as distinctly longer than second. Length

of *A. femoralis* 12 mm. If these specimens represent the transitional forms then the validity of Walker's species of *A. femoralis* becomes questionable.

#### \*45. *Fernelius indicus* Distant

1900. *Fernelius indicus* Dist., *Trans. Ent. Soc.*, 173.

1902. *Fernelius indicus*, Dist., FBI, Rhynch., 1 : 198.

1986. *Fernelius indicus*, Hegde, *East. Ghats Ins.*, 1 : 28 ; 2 : 28.

*Material examined* : Javadi Hills, Loc.4, 18.12.1985, 1 ex. ; Loc. 15, 1.2.1986, 1 ex. ; Shevroy Hills, Loc. 16, 7.8.1986, 1 ex.

*Diagnostic notes* : Length 18 mm ; yellowish-brown, pubescent, lateral lobes a little longer than central lobe ; pronotum sulcate transversely ; abdomen unarmed at base.

*Distribution* : Oriental Region ; India : Javadi Hills, Shevroy Hills (Tamilnadu), Sikkim; Burma. First record from South India.

#### 46. *Rhyncocoris plagiatus* (Walker)

1867. *Cuspicona plagiatus* Walk., *Cat. Het.*, 2 : 379.

1902. *Rhyncocoris plagiatus*, Dist., FBI, Rhynch., 1 : 213.

*Diagnostic notes* : Length 14-18 mm. Greenish-ochraceous ; pronotal lateral angles strongly produced ; apical area from about apex of scutellum purplish-black ; connexivum with the segmental angles black ; rostrum reaching third abdominal segment.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu); Sri Lanka.

#### 47. *Vitellus orientalis* Distant

1900. *Vitellus orientalis* Dist., *Trans. Ent. Soc. London*, 172.

1902. *Vitellus orientalis*, Dist., FBI, Rhynch., 1 : 214.

*Diagnostic notes* : Length 14-15 mm. Green or ochraceous ; abdomen above indigo-blue ; pronotal lateral angles produced into prominent robust acute spines, their apices slightly recurved ; basal lateral margin of corium sanguineous ; apical angles of the sixth abdominal segment strongly spinously produced ; greater length of mesosternal process.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

**\*48. *Nezara viridula* (Linnaeus)**

1758. *Cimex viridula* Linn., *Syst. Nat. ed.*, 10 : 444.  
1902. *Nezara viridula*, Dist., FBI, Rhynch., 1 : 220.  
1986. *Nezara viridula*, Hegde, *East. Ghats Ins.*, 1 : 28.

*Material examined* : Javadi Hills, Loc. 2, 19.12.1986, 1 ex. ; Loc. 13, 30.1.1986, 3 exs. ; Loc. 15, 15.1.1986, 1 ex.

*Diagnostic notes* : Length 13-16 mm. Green or greenish-ochraceous ; head thickly punctate ; lobes equal ; abdomen punctate and tuberculously spinous at base, not furrowed.

*Distribution* : Oriental, Palearctic, Nearctic, Ethiopian, Neotropical, Australasian Regions. Almost universally distributed.

**\*49. *Acrosternum graminea* (Fabricius)**

1787. *Cimex graminea* Fabr. *Mant. Ins.*, 2 : 295.  
1902. *Nezara graminea*, Dist., FBI, Rhynch., 1 : 221.  
1956. *Acrosternum graminea*, Leston, *Ann. Mag. Nat. Hist.*, (12) 8 : 698-704.  
1986. *Acrosternum graminea*, Hegde, *East. Ghats Ins.*, 2 : 28.

*Material examined* : Javadi Hills, Loc. 2, 28.9.1986, 8 exs. Vedanthangal, Loc.1d, 22.12.1986, 10 exs.

*Diagnostic notes* : Length 7-9 mm. Green in colour ; lateral margins of pronotum rounded and size of the insects much smaller, otherwise very much allied to *Nezara*.

*Distribution* : Oriental Region ; India : Javadi Hills, Vedanthangal, Nilgiri Hills (Tamilnadu), Bombay, Calcutta, Allahabad (United Province) and Sri Lanka,

**\*50. *Glaucias dorsalis* (Dohrn)**

1860. *Raphigaster dorsalis* Dohrn, *Stett. ent. Zeit.*, 21 : 401.  
1902. *Zangis dorsalis*, Dist., FBI, Rhynch., 1 : 222.  
1098. *Glaucia dorsalis*, Kirkaldy, *Entomologist*, 124.  
1908. *Glaucia dorsalis*, Dist., FBI, Rhynch., 4 : 444.  
1986. *Glaucia dorsalis*, Hegde, *East. Ghats Ins.*, 2 : 28.

*Material examined* : Javadi Hills, Loc. 5, 25.9.1986, 1 ex.

*Diagnostic notes* : Length 14 mm. (12-14 mm). Green, bright and shining unlike *Nezara* ; head very sparsely punctate ; centre towards the apical region of the scutellum is a longitudinal marking ; abdomen subrugose, not punctate.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu) ; and Sri Lanka.

### \*51. *Peizodorus rubrofasciatus* (Fabricius)

1787. *Cimex rubrofasciatus* abr, *Mant. Ins.*, 2 : 293.

1902. *Peizodorus rubrofasciatus*, *Dist., FBI, Rhynch.*, 1 : 224.

1918. *Peizodorus rubrofasciatus*, *Dist., FBI, Rhynch.*, 7 : 140.

*Material examined* : Vedanthangal, Loc. 1d, 22.12.1987, 1 ex. ; Singaperumal Kovil ; Loc. 1c, (near Chingelpet), 29.12.1987, 2 exs.

*Diagnostic notes* : Length 8 mm (8-10 mm). Pale luteous tinged with greenish, thickly punctate ; pronotum with a transverse pale fascia between the pronotal angles ; basal abdominal spine acute and moderately long ; fore tibiae not dilated.

*Distribution* : Indo-Malayan, Palaearctic, Australasian Regions ; India : Vedanthangal, Singaperumal Kovil (Tamilnadu), Borghat (Maharashtra), Assam, Calcutta ; Sri Lanka ; Upper Burma ; Malayan Peninsula and Archipelago and Australia.

### 52. *Menida histrio* (Fabricius)

1787. *Cimex histrio*, *Fabr., Mant., Ins.*, 2 : 296.

1902. *Menida histrio*, *Dist., FBI, Rhynch.*, 1 : 228.

1918. *Menida histrio*, *Dist., FBI, Rhynch.*, 7 : 142.

*Material examined* : Vedanthangal, Loc. 1d, 27.4.1987, 7 exs.

*Diagnostic notes* : Length 6 mm (6.5-8 mm). Ochraceous, head with the margin and four longitudinal lines blackly punctate ; scutellum lower down and corium reddish-ochraceous, basal abdominal spine reaching the middle coxae.

*Distribution* : Oriental and Palaearctic ; India : Vedanthangal (Tamilnadu), Calcutta, Bangalore ; Burma ; Sri Lanka ; China and Taiwan.

53. *Menida pundaluoyae* Distant

1908. *Menida pundaluoyae* Dist., FBI, Rhynch., 4 : 444.

1918. *Menida pundaluoyae*, Dist., FBI, Rhynch., 7 : 141.

*Diagnostic notes* : Length 6 mm ; head divided into five longitudinal pale ochraceous areas by four black punctate longitudinal series; basal abdominal spine reaching middle coxae.

*Distribution* : Oriental Region ; India : Kodaikanal Hills, Tiruchirapalli (Tamilnadu), West Bengal and Sri Lanka.

Subfamily : ASOPINAE

\*54. *Canthecona furcellata* (Wolff)

1801. *Cimex furcellata* Wolff, *Icon. Cim.*, 5 : 182.

1902. *Canthecona furcellata*, Dist., FBI, Rhynch., 1 : 248.

*Material examined* : Singaperumal Kovil, Loc. 1c, 29.12.1987, 2 exs. Vedanthangal, Loc. 1d, 22.12.1987, 1 ex.

*Diagnostic notes* : Length 15-16 mm. Ochraceous, lateral pronotal margin anteriorly finely dentate ; pronotal angles with their apices bifid, the anterior spine longer, fore femora with a prominent spine before apex ; fore tibiae moderately dilated ; abdomen with short, central basal spine.

*Distribution* : Oriental Region ; India : Singaperumal Kovil (Tamilnadu), Bombay, Calcutta ; Sri Lanka and Burma.

\*55. *Canthecona parva* Distant

1902. *Canthecona parva* Dist., FBI, Rhynch., 1 : 250.

1986. *Canthecona parva*, Hegde, *East. Ghats Ins.*, 1 : 25.

*Material examined* : Javadi Hills, Loc. 3, 17.12.1985.

*Diagnostic notes* : Length 11 mm. Ochraceous—black, elongate spot near inner margin of eyes ; pronotum with distinct central levigate line, lateral angles longly spinously produced, anterior spine longer ; fore tibiae moderately dilated.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), earlier record from Bengal, Mysore (Karnataka).

*Remarks* : First record from the Javadi Hills. The small size of this species and its long lateral angles serve to distinguish this species.

Schouteden has proposed *Cantheconidea* for the Eastern species included in *Canthecona* (1907, *Wysm, Gen. Ins.*, 52 : 44).

#### \*56. *Andrallus spinidens* (Fabricius)

1787. *Cimex spinidens* Fabr., *Mant. Ins.*, 2 : 285.  
 1902. *Audinetia spinidens*, Dist., FBI, Rhynch., 1 : 253.  
 1906. *Andrallus spinidens*, Bergroth, *Ann. Soc. Ent. Bdg.*, 59 : 370.  
 1908. *Andrallus spinidens*, Dist., FBI, Rhynch., 4 : 453.  
 1986. *Audinetia spinidens*, Hegde, *East. Ghats Ins.*, 2 : 29.

*Material examined* : Javadi Hills, Loc. 15, 29.9.1986, 2 exs.

*Diagnostic notes* : Length 12.5 mm (13-16 mm). Brownish—ochraceous ; head long with a blackish punctate fascia on each side of the central lobe ; pronotal lateral angles produced ; straight subacute spines notched behind before apex ; fore femora unarmed ; fore tibiae with a spine.

*Distribution* : Ethiopian, Indo-Malayan, Australasian, Neotropical ; India : Javadi Hills (Tamilnadu), Assam, Ranchi (Bihar), Bangalore ; Malaya Archipelago ; Fiji ; Tahiti ; E. Africa ; Abyssinia and Mexico.

#### 57. *Pseudanasida fallax* Schouteden

1907. *Pseudanasida fallax* Schout., *Ann. Soc. Ent. Belq.*, 51 : 38.  
 1908. *Pseudanasida fallax*, Dist., FBI, Rhynch., 4 : 455.

*Diagnostic notes* : Length 18mm. Entirely black, uniformly bronzy, more or less brilliant, head, pronotum, scutellum and connexivum reticulately punctate; head with a small median flavous spot at base close to the anterior margin of the pronotum ; corium longer than scutellum ; connexivum exposed ; dorsal side of the abdomen brilliant bluish-green ; fore femora with an obtuse spine before the apex ; tibiae with a distinct furrow.

*Distribution* : Oriental Region ; Tiruchirapalli (Tamilnadu).

**Remarks :** So far recorded only from Tiruchirapalli (E. Ghats) Distant also not seen the species and has reproduced Schouteden's description and figure.

Subfamily. TESSARATOMINAE

**\*58. *Tessaratoma javanica* (Thunberg)**

1783. *Cimex javanica* Thunb., *Nov. Ins. Spec.*, 2 : 45.

1902. *Tessaratoma javanica*, Dist., FBI, Rhynch., 1 : 259.

1986. *Tessaratoma javanica*, Hegde, *East. Ghats Ins.*, 1 : 27.

**Material examined :** Kolli Hills, Loc. 17, 8.5.1986, 2 exs.

**Diagnostic notes :** Length 27 mm (25-31 mm). Brownish-ochraceous or ochraceous ; head small, rounded at apex ; pronotum produced posteriorly over the base of scutellum ; veins of the membrane forming cells at base ; body beneath with white powdery substance ; femora with apical spine ; anal appendage truncate at its apex.

**Distribution :** Indo-Malayan Region ; Kolli Hills (Tamilnadu), Malabar (Kerala), Secunderabad (Andhra Pradesh), Bombay, Assam, Sikkim ; Sri Lanka ; Tennesserim (Burma), Malaya Peninsula and Malaya Archipelago.

**59. *Tessaratoma papillosa* (Drury)**

1770. *Cimex papillosa* Drury III. *Nat. Hist.*, 1 : 96.

1902. *Tessaratoma papillosa*, Dist., FBI, Rhynch., 1 : 259.

**Diagnostic notes :** Length 25-28 mm. Allied to *T. javanicus* in general coloration but it is narrower and more elongate, antennae altogether black, and in the male the anal appendage is sinuate at the apex, the apical angles acute.

**Distribution :** Oriental and Palaeartic Regions ; India : Nilgiri Hills (Tamilnadu), Calcutta and China.

**Remarks :** This species is the dominant form of the genus in China.

### 60. *Empysurus depressus* Martin

1902. *Empysurus depressus* Martin, *Bull. Mus. Paris*, 316.

1908. *Empysurus depressus*, *Dist., FBI, Rhynch.*, 4: 460.

*Diagnostic notes* : Length 25-26 mm. Dull ochraceous with a slight olivaceous tint ; lateral lobes broad and long meeting in front of the central lobe, which is short and triangular ; scutellum large ; prominent basal abdominal spine which enters the posterior cleft of a sternal process placed between the middle and hind coxae.

*Distribution* : Oriental Region ; India : Kodaikanal Hills, Tiruchirapalli (Eastern Ghats, Tamilnadu),

Subfamily : DENIDORINAE

### 61. *Cyclopelta siccifolia* (Westwood)

1837. *Aspongopus siccifolia* Westwood, in Hope Cat., 1 : 26.

1902. *Cyclopelta siccifolia*, *Dist., FBI, Rhynch.*, 1 : 280.

*Diagnostic notes* : Length 11-16 mm. Black or subcupreous-black ; antennae 4 segment, scutellum short, sometimes with a minute sanguineous spot at base ; membrane large, veins reticulate.

*Distribution* : Oriental Region ; Visakhapatnam (Andhra Pradesh), Borghat, Poona (Maharashtra), Bengal, Khasi Hills, Sikkim ; Sri Lanka and Burma.

*Remarks* : A species varying considerably in size ; it is reported that these insects infest *Erythrina* and other Leguminosae.

### \*62. *Coridus janus* (Fabricius)

1775. *Cimex janus* Fabr., *Syst. Ent.*, 713-724.

1807. *Coridus janus*, Illiger, *Faung. Etrusca* (2) 2 : 361.

1902. *Aspongopus janus*, *Dist. FBI, Rhynch.*, 1 : 281.

1987. *Cordias janus*, Dural, *Orient. Ins.*, 21 : 216.

*Material examined* : Mangudi (Tanjore) 9.12.1987, 3 exs.

*Diagnostic notes* : Length 18 mm (16-20 mm). Ochraceous or sanguineous ; head,

antennae black ; lateral lobes longer than central transverse black impression on the anterior pronotal region which does not extend to the margins ; scutellum half the length from base black, rest orangish-black ; corium also orangish-black ; femora thick, spined ; tibiae with spinules.

*Distribution* : Oriental Region ; India : Mangudi, Madras (Tamilnadu), Trivandrum (Kerala), Bangalore, Bombay, Hardwar (United Province), Khasi Hills (Megalaya) Calcutta ; Sri Lanka and Burma.

#### Subfamily : ACANTHOSOMATINAE

#### \*63. *Microdeuterus megacephalus* (Herrich—Schaffer)

1848. *Acanthosoma megacephalus* Herr.-Sch., *Ins.*, 8, 5.  
 1902. *Microdeuterus megacephalus*, Dist., FBI, Rhynch., 1 : 314.  
 1986. *Microdeuterus megacephalus*, Hegde, *East. Ghats Ins.*, 2 : 29.

*Material examined* : Javadi Hills, Loc. 6, 26.9.1986, 1 ex.

*Diagnostic notes* : Length 10 mm (12 mm). Ochraceous, Punctate with dark brown spots : lobes of equal size ; anterior region of scutellum creamish with brown spots, posterior dark brown with a longitudinal creamish line, apical area black ; connexivum distinctly angulated at apices of incisures ; prominent longitudinal central ridge on the ventral side of the abdomen.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Bombay, Calcutta, Sikkim and Burma.

*Remarks* : Specimens collected from Javadi Hills slightly smaller in size compared to that recorded previously.

#### 64. *Sastragala hamptoni* Distant

1900. *Sastragala hamptoni* Dist., *Ann. Mag. Nat. Hist.* (7) 6 : 229.  
 1902. *Sastragala hamptoni*, Dist., FBI, Rhynch., 1 : 320.

*Diagnostic notes* : Length 13 mm. Olivaceous ; pronotal angles acute, directed outwardly ; scutellum without pale ochraceous spot ; anal appendages provided with two long red forceps.

**Distribution :** Oriental Region ; India : Nilgiri Hills (Tamilnadu).

### 65. *Sastragala heterospila* (Walker)

1867. *Acanthosoma heterospila* Walker, *Cat. Het.*, 2 : 394.

1902. *Sastragala heterospila*, *Dist.*, *Rhynch.*, 1 : 318.

**Diagnostic notes :** Length 11.11-11.5 mm. Ochraceous ; pronotal lateral angles and a well defined fascia between them black ; scutellum with a large ochraceous spot.

**Distribution :** Oriental Region ; India : Nilgiri Hills (Tamilnadu), Bunkoli in Jaunsar, 9000 ft (Punjab).

### 66. *Sastragala modesta* Distant

1918. *Sastragala modesta* *Dist.*, *FBI*, *Rhynch.*, 7 : 148.

**Diagnostic notes :** Length 7-9 mm. Ochraceous ; pronotal spines short, subacute, thin apices slightly recurved ; scutellum with large roundish pale ochraceous smooth spot.

**Distribution :** Oriental Region ; India : Nilgiri Hills, Kodaikanal Hills (S. India, E. Ghats, Tamilnadu).

**Remarks :** Small species in which the scutellum is marked with a large ochraceous spot and distinguished structurally by the small expanse between the pronotal angles.

### 67. *Elasmucha lewisi* Distant

1900. *Elasmostethus lewisi* *Dist.*, *Ann. Mag. Nat. Hist.*, (7) 6 : 232.

1902. *Elasmostethus lewisi*, *Dist.*, *FBI*, *Rhynch.*, 1 : 328.

1918. *Elasmucha lewisi*, *Dist.*, *FBI*, *Rhynch.* 7 : 149.

**Diagnostic notes :** Length 8 mm. Ochraceous ; pronotal lateral angles prominent but not spinously produced ; corium with the whole marginal area very finely and concolourously punctate ; mesosternal ridge produced backwards between middle coxae.

**Distribution :** Oriental Region ; India : Nilgiri Hills (Tamilnadu) and Sri Lanka.

68. *Elasmucha nilgirensis* Distant

1900. *Elasmostethus nilgirensis* Dist., *Ann. Mag. Nat. Hist.* (7) : 6 : 231.

1902. *Elasmostethus nilgirensis*, Dist., FBI, Rhynch., 1 : 327.

1918. *Elasmucha nilgirensis*, Dist., FBI, Rhynch., 7 : 149.

*Diagnostic notes* : Length 9 mm. Ochraceous ; scutellum, claval, basal areas of corium and its apical marginal areas castaneous or reddish-ochraceous ; abdomen above reddish, apical area black ; beneath two small subapical abdominal spots black ; apex of abdomen reddish.

*Distribution* : Oriental Region ; India : Nilgiri Hills ( E. Ghats, Tamilnadu).

Family : COREIDAE

Subfamily : COREINAE

\*69. *Petillia patulicollis* (Walker)

1871. *Trematocoris patulicollis* Walk., *Cat. Het.*, 4 : 37.

1902. *Petillia patulicollis*, Dist., FBI, Rhynch., 1 : 350.

*Material examined* : Visakhapatnam, Araku Waterfalls, Loc. 27, 12.8.1987, 1 ex.

*Diagnostic notes* : Length 25-31 mm. Pale brownish or brownish-ochraceous ; lateral angles of pronotum broadly, convexly produced, margins serrated, each terminating in small spine ; hind femora strongly incrassated, tuberculous above, spinous beneath ; hind tibiae dilated on inner margin, irregularly dentate, broadest near base, strongly spined before apex,

*Distribution* : Oriental Region ; India : Araku waterfalls, (Andhra Pradesh), Sikkim, Naga Hills. First record from the Eastern Ghats, S. India.

70. *Dalader planiventris* (Westwood)

1842. *Acanonicus planiventris* Westw., in Hope *Cat.* 2 : 8.

1902. *Dalader Planiventris*, Dist., FBI, Rhynch., 1 : 352.

*Diagnostic notes* : Length 23-28 mm. Brownis-ochraceous ; the produced pronotal

angles are horizontally and somewhat lunately produced, their apices obtusely rounded and moderately dentate before the anterior angles; third antennal segment less broadly dilated than in *D. racuticosta* (foliaceously dilated on each side).

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu), Bombay, Sikkim, Assam ; Sri Lanka ; Burma ; Malaya Peninsula and Sumatra.

### 71. *Brachytes bicolor* Westwood

1842. *Brachytes bicolor* Westw., in Hope Cat., 2 : 8.

1902. *Brachytes bicolor*, Dist., FBI, Rhynch., 1 : 354.

*Material examined* : Singaperumal Kovil, Loc. 1c, 29.12.1987; 3 exs., Araku water falls (Vizag), Loc. 27, 12.8.1987, 1 ex.

*Diagnostic notes* : Length 20-25 mm. Reddish-ochraceous; cleft between the apices of the lateral lobes; lateral angles of pronotum rounded, two black transverse spots fused on anterior area of pronotum; lateral margins of the abdomen broadly dilated.

*Distribution* : Oriental Region ; India : Singaperumal Kovil (Tamilnadu), Araku (Andhra Pradesh), Assam ; Sri Lanka.

### 72. *Homoeocerus albiventris* Dallas

1852. *Homoeocerus albiventris* Dall, List. Hem., 2 : 444.

1902. *Homoeocerus albiventris*, Dist., FBI, Rhynch., 1 : 362.

*Material examined* : Loc. 28, Borra caves, 13.8.1917, 1 ex.

*Diagnostic notes* : Length 16-17 mm. Ochraceous, finely and darkly punctate, between the pronotal lateral angles punctate spots, a little darker or reddish; apex of the scutellum pale luteous, third rostral segment shorter than the fourth.

*Distribution* : Oriental Region ; India : Borra caves (Andhra Pradesh), Nilgiri Hills (Tamilnadu), Bombay.

*Remarks* : A specimen from the Eastern Ghats (Visakhapatnam, Loc. 28, Bora caves, 12.8.1987) may be a transitional form between *H. albiventris* Dall and *H. limbalipennis* (Stal); it has some characters of the former and in certain respects resembles the latter. It may also perhaps be a new species.

**\*73. Homoeocerus cordiger (Stal)**

1859. *Tliponius cordiger* Stal, *Of. Vet.-Ak. Forth.*, 465.  
 1902. *Homoeocerus cordiger*, Dist., FBI, Rhynch., 1 : 356.  
 1986. *Homoeocerus cordiger*, Hegde, *East. Ghats Ins.*, 1 : 30, 2 : 29.

*Material examined* : Javadi Hills, Loc. 2, 24.9.1986, 1 ex., light collection, Loc. 3, 17.12.1986, 1 ex.

*Diagnostic notes* : Length 14-15 mm. Brownish-ochraceous ; prominent central longitudinal ridge on pronotum and scutellum, a transverse ridge posteriorly on pronotum ; third and fourth rostral segments are equal ; tibiae sulcate.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Tranquebar (Kerala).

**\*74. Homoeocerus fasciolatus Stal.**

1873. *Homoeocerus fasciolatus* Stal, *En. Hem.*, 3 : 60.  
 1902. *Homoeocerus fasciolatus* Dist., FBI, Rhynch., 1 : 361.  
 1986. *Homaeocerus fasciolatus*, Hegde, *East. Ghats Ins.*, 2 : 31.

*Material examined* : Javadi Hills, Loc. 2, 28.9.1986, 1 ex. ; Loc. 15, 29.9.1986. 1 ex.

*Diagnostic notes* : Length 16-17 mm (13-17 mm). Brownish-ochraceous ; lateral angles of pronotum obtusely angulately prominent, their apices slightly curved upwards ; third segment of rostrum shorter than the fourth.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Sikkim and Burma,

**\*75. Homoeocerus graminis (Fabricius)**

1803. *Lygaeus graminis* Fabr., *Syst. Rhynch.*, 55 : 216.  
 1902. *Homoeocerus graminis*, Dist., FBI, Rhynch., 1 : 363.  
 1986. *Homoeocerus graminis*, Hegde, *East. Ghats Ins.*, 1 : 30.

*Material examined* : Javadi Hills, Loc. 2, 2.9.1986, 1 ex.

*Diagnostic notes* : Length 16 mm (17-20mm). Greenish ochraceous ; pronotal lateral angles subprominent ; third and fourth segments of rostrum subequal,

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Khasi Hills ; Tenasserim (Burma).

#### 76. *Homoeocerus indus* Distant

1918. *Homoeocerus indus* Dist., FBI, Rhynch., 7 : 156.

*Diagnostic notes* : Length 14 mm. Ochraceous ; corium beyond middle more or less rosaceous, the lateral margin narrowing beyond middle stramineous, a pale stramineous central longitudinal line transversing pronotum and scutellum ; lateral pronotal angles rounded, non-prominent.

*Distribution* : Oriental Region ; India : Kodaikanal (Tamilnadu).

#### \*77. *Homoeocerus inornatus* Stal

1873. *Homoeocerus inornatus* Stal, *En. Hem.*, 3 : 58.

1902. *Homoeocerus inornatus*, Dist., FBI, Rhynch., 1 : 355.

1986. *Homoeocerus inornatus*, Hegde, *East. Ghats Ins.*, 1 : 29.

*Material examined* : Javadi Hills, Loc. 3, 17.2.1985 (4 exs.) ; Loc. 3, 30.1.1986 (1 ex.) ; Loc. 5, 18.12.1985 (2 exs.) ; Loc. 8, 20.12.1985 (14 exs.), Loc. 13, 30.1.1986 (2 exs.).

*Diagnostic notes* : Length 12-17 mm. Ochraceous ; pronotal lateral angles moderately and subacutely produced ; third segment of rostrum longer than fourth. In male third and fourth segments of antennae almost equal, whereas in female the fourth segment distinctly shorter than the third.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Pondicherry, Sikkim ; and Burma.

#### \*78. *Homoeocerus lacertosus* Distant

1889. *Homoeocerus lacertosus* Dist., *Ent. month. Mag.*, 25 : 230.

1902. *Homoeocerus lacertosus.*, Dist., FBI, Rhynch., 358.

1986. *Homoeocerus lacertosus*, Hegde, *East. Ghats Ins.*, 2 : 30.

*Material examined* : Javadi Hills, Loc. 2, 2 exs., 28.6.1986, Light collection.

*Diagnostic notes* : Length 19 mm. Greenish-ochraceous, punctate with reddish specks ; corium with a small whitish levigate spot a little before the apical margin ; third fourth rostral segments subequal.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Shahabad, Saharanpur (United Province).

*Remarks* : The specimen in our collection is smaller in size (19 mm) than mentioned by Distant (21 mm).

#### 79. *Homoeocerus macula* Dallas

1852. *Homoeocerus macula*, Dall., *List. Hem.*, 2 : 445.

1902. *Homoeocerus macula*, Dist. FBI, Rhynch., 1 : 364.

*Diagnostic notes* : Length 16-17 mm. Brownish-ochraceous ; second antennal segment longest, others almost subequal ; pronotum with a faint central levigate line, lateral angles rounded, not prominent.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu) ; Tenasserim (Burma).

#### 80. *Homoeocerus montanus* Distant

1901. *Homoeocerus montanus* Dist., *Ann. Mag. nat. Hist.*, (7) : 7. 11.

1902. *Homoeocerus montanus*, Dist., FBI, Rhynch., 1 : 366.

*Diagnostic notes* : Length 14-17 mm. Ochraceous, apical segment of antennae, excluding extreme base, roseate ; apical area of corium more or less infuscated ; first and fourth antennal segments incrassate ; third rostral segment shorter than fourth.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu), Kanara (Karnataka).

#### 81. *Homoeocerus nigradorsum* Horvath

1889. *Homoeocerus nigradorsum* Horv., *Termesz. Fuzetek.* 34.

1902. *Homoeocerus nigradorsum*, Dist. FBI, Rhynch., 1 : 366.

1986. *Homoeocerus nigradorsum*, Hegde, *East. Ghats Ins.*, 2 : 31.

**Material examined :** Shevroy Hills, Loc. 16, 15.9.1986, 1 ex. Simhachalam (Vizag); Loc. 25, 12.1.1988, 1 ex.

**Diagnostic notes :** Length 14 mm (13-14 mm). Reddish-ochraceous; head with central infuscated sulcation; antennae short and stout, fourth segment shortest; third rostral segment slightly shorter than fourth.

**Distribution :** Oriental Region; India: Nilgiri Hills, Shevroy Hills (Tamilnadu), Simhachalam (Andhra Pradesh) and Himalaya.

## 82. *Homoeocerus prominulus* (Dallas)

1852. *Ceratopachys prominulus* Dall., *List. Hem.*, 2 : 501.

1902. *Homoeocerus prominulus*, *Dist.*, FBI, Rhynch., 1 : 357.

**Material examined :** Vedanthangal, Loc. 1d, 21.12.1987, 2 exs.

**Diagnostic notes :** Length 15 mm (15-17mm). Ochraceous; pronotum deflected anteriorly, lateral angles subprominent, presence of transverse facia between them; connexivum ochraceous, spotted with castaneous; a large ochraceous spot at inner angle of corium.

**Distribution :** Oriental Region; India: Vedanthangal (Tamilnadu), Bombay, N. Bengal and Sri Lanka.

**Remarks :** Closely to *H. Signatus*, but antennae shorter and more robust, pale spot on corium much broader posteriorly than in *signatus*.

## \*83. *Homoeocerus rosaceus* Distant

1902. *Homoeocerus rosaceus* Dist., FBI, Rhynch., 1 : 357.

1986. *Homoeocerus rosaceus*, Hegde, *East. Ghats Ins.*, 1 : 30.

**Material examined :** Javadi Hill, Loc. 15, 1.2.1985, 12 exs.

**Diagnostic notes :** Length 9 mm (12 mm). Ochraceous; third rostral segment longer than the fourth; corium rosaceous.

**Distribution :** Oriental Region; India: Javadi Hills (Tamilnadu); Karachi (Pakistan).

*Remarks* : Allied to *H. variabilis* but much smaller and the colour of the corium being rosaceous and not castaneous.

**\*84. Homoeocerus signatus Walker**

1871. *Homoeocerus signatus*, Walker. *Cat. Het.*, 4 : 97.

1902. *Homoeocerus signatus*, Dist., FBI, Rhynch., 1 : 356.

1986. *Homoeoceras signatus*, Hegde, *East. Ghats Ins.*, 1 : 29.

*Material examined* : Javadi Hills, Loc. 3, 17.12.1985 ; 1 ex. ; Loc. 25, Simhachalam, 10.8.1987, 1 ex. ; Vedathangal, Loc. 1d, 21.12.1987, 5 exs.

*Diagnostic notes* : Length 19-21 mm. Ochraceous ; a broad basal fascia on pronotum between the lateral angles ; a large luteous transverse macular spot at the inner angle of corium ; third rostral segment longer than the fourth.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Bombay, Sikkim ; Sri Lanka.

*Remarks* : Insects belonging to this species are nocturnal, attracted to bright light.

**\*85. Homoeocerus striicornis Scott**

1874. *Homoeocerus striicornis* Scott, *Ann. Mag. nat. Hist.*, (4) 14 : 362.

1902. *Homoeocerus striicornis*, Dist., FBI, Rhynch., 1 : 360.

1986. *Homoeocerus striicornis*, Hegde, *East. Ghats Ins.*, 2 : 30.

*Material examined* : Javadi Hills, Loc. 2, 24.9.1986, 1 ex.

*Diagnostic notes* : Length 17-20 mm. Greenish-ochraceous ; first and second antennal segment exteriorly with a longitudinal black line ; lateral angles of pronotum distinctly angularly prominent ; third rostral segment considerably shorter than fourth.

*Distribution* : Oriental and Palaearctic Regions ; India : Javadi Hills (Tamilnadu), Borghat (Maharashtra), previously recorded from Assam ; Sri Lanka and Japan.

**\*86. Homoeocerus subjectus Walker**

1871. *Homoeocerus sbjectus* Walker, *Cat. Het.*, 4, 97, 20.  
 1902. *Homoeorus subjectus*, *Dist.*, FBI, Rhynch., 1 : 361.  
 1986. *Homoeocerus subjectus*, Hegde, *East. Ghats Ins.*, 2 : 30.

*Material examined* : Javadi Hills, Loc. 2, 28.9.1986 ; Loc. 15, 29.9.1986, 2 exs.

*Diagnostic notes* : Length 17 mm (17-18 mm). Pale ochraceous ; a pale fascia on pronotum between the lateral angles, lateral angles acutely subprominent ; somewhat rounded whitish spot at inner angle of corium, third rostral segment slightly shorter than fourth.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu) ; previously reported from Assam.

*Remarks* : In the specimens from Assam, the third rostral segment is described as shorter than the first and second, fourth wanting in all the specimens, but in the specimens from the Javadi Hills, fourth segment is present and it is slightly longer than the third which is the shortest.

**87. Notobitus meleagris (Fabricius)**

1787. *Cimex meleagris* Fabr., *Mant.*, 2 : 297, 179,  
 1902. *Notobitus meleagris*, *Dist.*, FBI, Rhynch., 1 : 371.

*Diagnostic notes* : Length 22-25 mm. Blackish-olivaceous ; fore femora closely spined beneath, hind femora in male extending considerably beyond the apex of abdomen, with a long spine beyond middle of inner surface followed by some smaller spines, hind tibiae in male with their inner margins strongly serrate.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu) ; China and Islands of Malayan Archipelago.

*Variation* : Bases of third and fourth segments of antennae luteous, in the type only the fourth segment luteous.

*Distribution* : Oriental Region ; India : Khasi Hills (Meghalaya) ; Burma.

**88. *Cloresmus nepalensis* (Westwood)**

1842. *Nematopus nepalensis* Westw., in Hope Cat., 2 : 14.

1902. *Cloresmus nepalensis*, Dist., FBI, Rhynch., 1 : 373.

*Diagnostic notes* : Length 14-17 mm. Shining olivaceous ; corium and membrane purplish-brown ; hind femora in the male moderately incrassated with a strong spine at about middle of under surface.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu), Sikkim, Khasi Hills (Megalaya) ; Tenasserim (Burma).

**\*89 *Leptoglossus membranaceus* (Fabricius)**

1781. *Cimex membranaceus* Fabri, Spec., 2 : 79, 35.

1902. *Leptoglossus membranaceus*, Dist., FBI, Rhynch., 1 : 382.

*Material examined* : Upper Bhavani, 26.4.1988, 1 ex.

*Diagnostic notes* : Length 21 mm (19-22 mm). Slight reddish-ochraceous ; membrane extending beyond the tip of abdomen, for the rest agreeing with the description by Distant, except for slight difference in colour. The specimen in our collection is reddish-ochraceous, whereas Distant describes as dark-ochraceous.

*Distribution* : Oriental Ethiopian and Australasian Regions ; India : Upper Bhavani (Tamilnadu), Khasi Hills (Megalaya), Andaman Nicobar Islands ; Sri Lanka ; Burma ; Malaya Archipelago ; Australia and South Africa.

**\*90. *Acanthocoris scrabrator* (Fabricius)**

1803. *Coreus scrabrator* Fabr., Syst. Rhynch., 19 : 195.

1902. *Acanthocoris scrabrator*, Dist., FBI, Rhynch., 1 : 385.

1986. *Acanthocoris scrabrator*, Hegde, East. Ghats Ins., 2 : 31.

*Material examined* : Javadi Hills, Loc. 3, 24.9.1986, 2 exs.

*Diagnostic notes* : Length 13mm (13-14.5mm). Very dark brown, thickly scabrid ; connexivum with ochraceous transverse bands at incisures ; femora incrassate.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Sikkim, Assam ; Burma ; Malaysia and Malayan Archipelago.

### 91. *Plinactus basalis* (Westwood)

1842. *Coreus basalis* Westw., in Hope Cat., 2 : 24.  
1902. *Plinactus basalis*, Dist., FBI, Rhynch., 1 : 391.

*Diagnostic notes* : Length 14-17 mm. Ochraceous ; pronotum punctate with a central lavigate longitudinal line, scutellum and corium thickly punctate.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu), Bangalore ; Burma and Sri Lanka.

### \*92. *Cletus punctiger* (Dalles)

1852. *Gonocerus punctiger* Dall., List. Hem., 2 : 494.  
1902. *Cletus punctiger*, Dist., FBI, Rhynch., 1 : 393.  
1986. *Cletus punctiger*, Hegde, East. Ghats Ins., 1 : 31

*Material examined* : Javadi Hills, Loc. 3, 17.12.1985, 1 ex.

*Diagnostic notes* : Length 14 mm (10-14mm). Brownish-ochraceous ; pronotal lateral angles acutely produced and black ; corium with the lateral margin and a small spot in the inner apical angle whitish.

*Distribution* : Oriental and Palaearctic Regions ; India : Javadi Hills (Tamilnadu), Calcutta ; Murree (Pakistan) and China.

### \*93. *Cletus stali* (Westwood)

1842. *Coreus bipunctatus* Westw. in Hope Cat., 2 : 23.  
1918. *Cletus stali*, Dist., FBI, Rhynch., 7 : 158.  
1986. *Cletus bipunctatus*, Hegde, East. Ghats Ins., 2 : 32.

*Material examined* : Javadi Hills, Loc. 2, 26.9.1986, 2 ex.

*Diagnostic notes* : Length 10 mm (9-10mm). Pale reddish ochraceous ; pronotal lateral angles acute, pointing upwards ; corium with a luteous rounded spot towards the middle of inner margin.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Bombay, Calcutta, Bangalore ; Sri Lanka and Burma.

*Remarks* : Tip of the pronotal lateral spine is black, not fuscous as reported by Distant ; in other characters it resembles the type.

**\*94. *Cletus trigonus* (Thunberg)**

1783. *Cimex trigonus* Thunb., *Nov. Ins. Sp.*, 2 : 37.

1902. *Cletus trigonus*, Dist., FBI, Rhynch., 1 : 394.

1986. *Cletus trigonus*, Hegde, *East. Ghats Ins.*, 2 : 32.

*Material examined* : Javadi Hills, Loc. 14, 28.9.1986, 1 ex.

*Diagnostic notes* : Length 9.5 mm (8-9.5 mm). Ochraceous ; lateral angles of pronotum acutely produced, posterior area of pronotum, scutellum and corium brownish.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Bengal ; Sri Lanka ; N. Borneo and Philippines.

*Remarks* : Specimens collected from Javadi Hills are larger than described by Distant.

**\*95. *Cletomorpha hastata* (Fabricius)**

1787. *Cimex hastata* Fabr., *Mant.*, 2 : 287.

1902. *Cletomorpha hastata*, Dist., FBI, Rhynch., 1 : 396.

1986. *Cletomorpha hastata*, Hegde, *East. Ghats Ins.*, 2 : 33.

*Material examined* : Javadi Hills, Loc. 14, 31.1.1986 ; 1 ex., 28.8.1986, 1 ex., Vedathangal, Loc. 1d, 15.12.1987, 2 exs.

*Diagnostic notes* : Length 8 mm. Ochraceous ; apical antennal segment short and cylindrically thickened ; basal segment incrassate ; pronotum with lateral margin and the produced angles strongly spinous ; abdominal segmental angles exteriorly acutely produced.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Bombay, Calcutta ; Karachi.

## Subfamily : PSEUDOPHLOEINAE

**\*96. *Clavigralla gibbosa* Spinola**1837. *Clavigralla gibbosa* Spin., Ess., 202.1902. *Clavigralla gibbosa*, Dist., FBI, Rhynch., 1 : 401.1986. *Clavigralla gibbosa*, Hegde, East. Ghats Ins., 1 : 31.*Material examined* : Javadi Hills, Loc. 3, 17.12.1986, 3 exs.*Diagnostic notes* : Length 17 mm (8-10 mm). Ochraceous ; scutellum elevated and convex, thickly pilose ; femora moderately clavate towards apices.*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Bombay, Bangalore, Chikkaballapura (Karnataka) ; Tennasserim (Burma) and China:*Remarks* : Specimen from Javadi Hills much larger than the one described by Distant (1902) ; he records it as 8-10 mm whereas the specimen before me measures 17 mm. This is the only difference from the typical form.**\*97. *Clavigralla horrens* Dohrn.**1860. *Clavigralla horrens* Dohrn., Stett. ent. Zeit., 21 : 403.1902. *Clavigralla horrens*, Dist., FBI, Rhynch., 1 : 402.1986. *Clavigralla horrens*, Hegde, East. Ghats Ins., 1 : 32.*Material examined* : Javadi Hills, Loc. 10, 28.1.1986, 1 ex.*Diagnostic notes* : Length 7 mm. Brownish-ochraceous ; pronotum with 2 central longitudinal ridges ; scutellum moderately pilose ; connexivum ochraceous with castaneous spots ; tibiae rounded ; hind femora incrassate with long spines beneath near apex.*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Bombay, Assam ; Sri Lanka and Burma.**98. *Clavigralla scutellaris* (Westwood)**1842. *Coreus scutellaris* Westw. in Hope Cat., 2 : 24.1902. *Clavigralla scutellaris*, Dist., FBI, Rhynch., 1 : 402.1986. *Clavigralla scutellaris*, Hegde, East. Ghats Ins., 1 : 32.

*Material examined* : Javadi Hills, Loc. 3, 17.12.1985, 2 exs.

*Diagnostic notes* : Length 17-18 mm (9-10 mm). Brownish-ochraceous ; pronotum with central longitudinal ridge and four central small, dark, conical tubercle, lateral angles spinously produced, not black.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu) ; Burma.

*Remarks* : In all characters the specimen from Javadi Hills agrees with the description by Distant 1902, except that the spinously produced lateral angles of pronotum are not black and the size is 17 mm as compared to 9-10 mm recorded by Distant. It should be noted here that except *C. horrens*, both *C. gibbosa* and *C. scutellaris* from Javadi Hills, are almost twice larger than recorded by Distant 1902.

**\*99. *Stenocephalus lateralis* Signet.**

1879. *Stenocephalus lateralis* Sign., *Bull. Soc. Ent. Fr.* 58.

1902. *Stenocephalus lateralis*, Dist., FBI, Rhynch., 1 : 406.

*Material examined* : Vedanthangal, Loc. 1d 20.12.1987, 2 exs., Singaperumal, Kovil, Loc. 1c, 29.12.1987, 3 exs.

*Diagnostic notes* : Length 9.5 mm (10-12 mm). Pale fuscous ; head long ; antennae strongly pilose ; lateral lobes distinctly projecting at apex and longer than the central lobe ; apical margin of corium straight.

*Distribution* : Oriental Region ; India : Vedanthangal, Singaperumal Kovil (Tamilnadu), Bombay ; Sri Lanka.

*Remarks* : According to Distant, this is principally Palearctic and Ethiopian in distribution and only one species *S. lateralis* is represented in India.

Subfamily : ALYDINAE

**100. *Dulichius inflatus* (Kirby)**

1891. *Formicoris inflatus* Kirby, *J. Linn. Soc. Zool.*, 24 : 122.

1902. *Dulichius inflatus*, Dist., FBI, Rhynch., 1 : 408.

*Diagnostic notes* : Length 8-11 mm. Dull black, coriaceous ; head longer

than pronotum, above convex; tegmina abbreviated; abdomen sub-globose, slightly iridescent.

*Distribution* : Oriental Region; India : Nilgiri Hills (Tamilnadu), Poona (Maharashtra), Calcutta; Sri Lanka.

**\*101. *Leptocoris acuta* (Thunberg)**

1783. *Cimax acuta* Thunb., *Nov. Ins. Sp.*, 2 : 34.

1902. *Leptocoris acuta*, Dist., FBI, Rhynch., 1 : 410.

1986. *Leptocoris acuta*, Hegde, *East. Ghats Ins.*, 1 : 33, 2 : 33.

*Material examined* : Javadi Hills, Loc. 8, 20.12.1985; 1 ex., Loc. 5, 25.9.1986, 1 ex.; Guindy, Loc. 1, 25.2.1985, 1 ex.

*Diagnostic notes* : Length 16-17 mm (13-15mm). Brownish-olivaceous; lateral lobes produced in front of central lobe; a small distinct tubercle near each lateral pronotal angle; distinct carinate line on pronotum; apical rostral segment longest; mesoternum broadly sulcate.

*Distribution* : Oriental and Palearctic Regions; India : Javadi Hills (Tamilnadu), Bengal; Malayan Archipelago; China.

*Remarks* : When young this insect is reported to be destructive to rice plants, sucking out the juice of the stems. Found all over the East on the rice plant.

**\*102. *Leptocoris varicornis* (Fabricius)**

1803. *Gerris varicornis* Fabr., *Syst. Rhynch.*, 260.

1902. *Leptocoris varicornis*, Dist., FBI, Rhynch., 1 : 409.

1986. *Leptocoris varicornis*, Hegde, *East. Ghats Ins.*, 1 : 32.

*Material examined* : Javadi Hills, Loc. 3, 17.11.1985, 1 ex., Loc. 14, 31.1.1986, 1 ex.; Vedathangal, Loc. 1d, 27.4.1987, 2 exs.

*Diagnostic notes* : Length 14-15mm (15-17 mm). Ochraceous; lateral lobes projecting in front of central lobe; first and fourth antennal segments longest and subequal; sternum coarsely punctate.

**Distribution :** Oriental Region : Found all over India ; Sri Lanka ; Burma ; Malaya Peninsula ; Malayan Archipelago and China.

**Remarks :** Living normally among grass and thick vegetation and multiplying largely only in rice fields, this is considered as one of the few seriously injurious Heteroptera.

**\*103. Riptortus fuscus (Fabricius)**

1798. *Lygaeus fuscus* Fabr., *Ent. Syst. Suppl.*, 539.

1902. *Riptortus fuscus*, Dist., FBI, Rhynch., 1 : 414.

1986. *Riptortus fuscus*, Hegde, *Ghats Ins.*, 2 : 33.

**Material examined :** Javadi Hills, Loc. 2, 26.9.1986, 1 ex. ; Loc. 15, 29.9.1986, 1 ex.

**Diagnostic notes :** Length 16 mm (13-17 mm). Ochraceous, pilose ; fourth antennal segment unusually long ; pronotal basal margin bisinuate ; hind femora black speckled, incrassate and spined beneath ; tibiae with apical spine moderately compressed ; differs from *R. pedestris* by partial or total absence of pale laevigate sternal spots.

**Distribution :** Oriental Region ; India : Javadi Hills (Tamilnadu), Bengal, Bombay, Bangalore ; Sri Lanka ; Burma ; Malayan Archipelago.

**\*104. Riptortus linearis (Fabricius)**

1772. *Lygaeus linearis* Fabr., *Syst. Ent.*, 710.

1902. *Riptortus linearis*, Dist., FBI, Rhynch., 1 : 415.

1986. *Riptortus linearis*, Hegde, *East. Ghats Ins.*, 1 : 33.

**Material examined :** Javadi Hills, Loc. 15, 1.2.1986, 2 exs. ; Simhachalam, Loc. 25, 10.8.1987, 2 exs.

**Diagnostic notes :** Length 14 mm (14-16 mm). Dark brownish ; first, second and third antennal segments, lateral angular pronotal spine, disc of sternum and abdomen black ; sublateral laevigate pale ochraceous fascia on either side of sternum ; hind femora spinose.

**Distribution :** Oriental Region ; India : Javadi Hills (Tamilnadu), Bangalore, Sikkim, Darjeeling (United province) ; Sri Lanka ; Burma ; Malayan Archipelago.

**\*105 Riptortus pedestris (Fabricius)**

1775. *Gerris pedestris* Fabr., *Syst. Ent.*, 727.

1902. *Riptortus pedestris*, Dist., FBI, Rhynch., 1 : 414.

1986. *Riptortus pedestris*, Hegde, *East. Ghats Ins.*, 1 : 33.

**Material examined :** Javadi Hills, Loc. 8, 20.12.1985, 2 exs.

**Diagnostic notes :** Length 15-16 mm (15-18). Brownish-ochraceous ; lateral pronotal spine black ; posterior pronotal margin dark castaneous ; prominent pale laevigate ochraceous spots placed near coxae ; hind femora thickly mottled reddish-brown with spines ventrally ; tibiae with apical spine.

**Distribution :** Oriental Region ; India : Javadi Hills (Tamilnadu), Bombay, Bangalore ; Sri Lanka ; Burma ; Malaya Peninsula.

**Subfamily : CORIZINAE**

**106. Corizus macropictus Distant**

1918. *Corizus macropictus* Dist., FBI, Rhynch., 7 : 169.

**Diagnostic notes :** Length 5.5-6 mm. Ochraceous ; fourth antennal segment longest and subincrassate ; pronotum with a broken submarginal anterior black line and four large black spots at basal margin ; scutellum ochraceous ; areole at anterior apical area of corium quadrangular ; membrane transparent, hyaline exceeding abdominal apex ; having only the dorsal surface of the fourth abdominal segment at base and apex more or less medially sinuate.

**Distribution :** Oriental Region ; India : Nilgiri Hills (Tamilnadu), Chikkaballapura (Karnataka).

107. *Corizus rubricundus* Signoret

1859. *Corizus rubricundus* Sign., *Ann. Soc. Ent. Fr.*, 86.  
1902. *Corizus rubricundus*, Dist., FBI, Rhynch., 1 : 417.  
1918. *Corizus rubricundus*, Dist., FBI, Rhynch., 7 : 168.

*Diagnostic notes* : Length 6-6.5 mm. Reddish-ochraceous ; area of ocelli black ; posterior margin of pronotum ochraceous ; scutellum black, its apex reddish or ochraceous ; lateral margins of body, disc of body beneath and legs longly hirsute.

*Distribution* : Oriental Region ; India : Yercaud, Nilgiri Hills (Tamilnadu), Chikkaballapura, Nandidurg (Karnataka) ; Sri Lanka.

*Remarks* : The species of this genus commonly found in Sri Lanka, though described by Distant as distributed universally.

108. *Serinetha abdominalis* (Fabricius)

1803. *Lygaeus abdominalis* Fabr., *Syst. Rhynch.*, 226.  
1902. *Serinetha abdominalis*, Dist. FBI, Rhynch., 1 : 419.  
1918. *Serinetha abdominalis*, Dist., FBI, Rhynch., 7 : 172.

*Diagnostic notes* : Length 16-20 mm. Sanguineous ; a very distinct nodule behind the eyes ; pronotum with a distinct anterior collar, its anterior lateral margins distinctly angulately emarginate ; hemelytra broad and longer than the abdomen, hind tibiae longer than femora ; lateral margins of pronotum hirsute ; legs pilose.

*Distribution* : Ethiopian and Oriental Regions ; India : Kodaikanal (Tamilnadu), Bombay, Calcutta, Assam ; Sri Lanka.

*Remarks* : The specimen from kodaikanal is recorded by Distant as a variation of *S. abdominalis*, which according to him resembles *S. taprobanensis* Dall. in colour but differs in the abdomen beneath being totally pale ochraceous.

109. *Serinetha dallasi* Dohrn.

1860. *Serinetha dallasi* Dohrn., *Stett. ent. Zeit.*, 21 : 402.  
1902. *Serinetha dallasi*, Dist., FBI, Rhynch., 1 : 420.

*Material examined* : Vizag (Borra caves), Loc. 28, 12.8.1987, 1 ex.

*Diagnostic notes* : Length 12-15 mm. Reddish-brown ; head red, margins fuscous, pilose, antennae piceous ; pronotum with a distinct anterior collar and with a median carinate line ; membrane and rostrum black.

*Distribution* : Oriental Region ; India : Borra caves (Eastern Ghats, Andhra Pradesh) ; Sri Lanka.

**\*110 *Serinetha rufomarginata* (Fabricius)**

1794. *Lygaeus rufomarginata* Fabr., *Ent. Syst.*, 4 : 150.

1902. *Serinetha rufomarginata*, Dist., FBI, Rhynch., 1 : 419.

1986. *Serinetha rufomarginata*, Hegde, *East. Ghats Ins.*, 1 : 34.

*Material examined* : Coastal Hills of Vandalur, Loc. 1a, 24.11.1985, 1 ex.

*Diagnostic notes* : Length 16 mm (18-21 mm). Pale sanguineous ; head with a very distinct incision in front and between the ocelli ; a very distinct nodule behind eyes ; pronotum with a distinct anterior collar, membrane with numerous prominent longitudinal veins.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Calcutta ; North Borneo ; Philippines.

**Family : BERYTIDAE**

This family is readily distinguished from Coridae by the long and slender legs with the nodulously clavate apices of femora.

***SPECIES INCERTAE SEDIS***

**111. *Paleologus* sp.**

1902. *Paleologus feanus*, Dist., FBI, Rhynch., 1 : 422.

*Material examined* : Thirupati Hills, Loc. 21, 27.7.1987, 2 ex.

*Diagnostic notes* : Length 20 mm. Pale ochraceous, body long, narrow ; head

deflected anteriorly with 2 spines at apex and longer spine above them starting from between the antennal basis ; pronotum longer than head, subquadrate, a long more upwardly directed spine near basal centre of the posterior lobe ; hemelytra extending a little beyond the middle of abdomen ; antennae with basal segment longest, with its apex incrassate, second shorter than third, fourth very short, rostrum with the first segment reaching eyes ; hind femora not reaching the apex of abdomen ; hind tibiae longer than hind femora ; apices of femora moderately clavate.

*Distribution* : Thirupati Hills of the Eastern Ghats (Andhra Pradesh).

*Remarks* : *Paleologus feanus* Dist. is the only species recorded so far in this genus. The specimen from the Eastern Ghats is allied to *P. feanus* in some characters but differs principally in size being (20 mm) twice that of *fearnus*, in the absence of strong spine at lateral basal angles of anterior lobe and backwardly directed spine of scutellum.

### 112. *Megalomerium pertenerum* Breddin

1907. *Megalomerium pertenerum* Bredd., *Deutsch. Ent. Zeitschr.*, 37.

1918. *Megalomerium pertenerum*, Dist., *FBI, Rhynch.*, 7 : 176.

*Diagnostic notes* : Length Male 5 mm ; Female 7 mm. Pale ochraceous ; head long ; anterior collar of pronotum a little darker ochraceous ; a central longitudinal carination to pronotum ; hemelytra almost reaching abdominal apex ; apical areas of femora and tarsi a little darker.

*Distribution* : Oriental Region ; India : Kodaikanal, Nilgiri Hills (Tamilnadu), Chikkaballapura (Karnataka), Simla (Himachal Pradesh) ; Sri Lanka.

### 113. *Capys gracilis* Distant

1911. *Capys gracilis* Dist., *Entomologist*, 213.

1918. *Capys gracilis*, Dist., *FBI, Rhynch.*, 7 : 177.

*Diagnostic notes* : Length 6.5-7 mm. Ochraceous ; body slender, very elongate, spiniform process head between antennae slightly short and somewhat robust ; membrane greyish-brown with scattered blackish markings, connexivum ochraceous with elongate black spots ; antennae very long, first and third subequal and long ;

pronotum longer than broad; membrane reaching the apex of abdomen; abdomen beneath black.

Female : Abdomen beneath testaceous; membrane not reaching apex of abdomen.

*Distribution* : Oriental Region; India : Tiruchirapalli (Tamilnadu).

#### 114. *Hubertiella cardamomi* Kirkaldy

1902. *Hubertiella cardamomi* Kirk., *J. Bombay nat. Soc.*, 14 : 303.

1902. *Hubertiella cardamomi*, *Dist.*, FBI, Rhynch., 1 : 424.

1918. *Hubertiella cardamomi*, *Dist.*, FBI, Rhynch., 7 : 178.

*Diagnostic notes* : Length 6 mm. Head and anterior lobe of pronotum brown with yellowish hairs, two large dark spots on anterior and posterior lobes, antennae and legs thickly granulated with black; hemelytra hyaline; abdomen above and beneath reddish-brown, covered thickly with very short pale hairs.

*Distribution* : Oriental Region; India (Tamilnadu), Chikkaballapura (Karnataka); Sri Lanka.

*Remarks* : This species was first recorded by Distant 1902 as confined only to the cardamom plant (*Elettaria cardamomum*) on the under surface of leaves. Later in 1918, a species noted by him in 1911 (*Entomologist*, 64, 269), taken from *Strobilanthus*, was confirmed by him as a varietal form of *H. cardamomi*. Both specimens were collected by Mr. E. E. Green.

Family : LYGAEIDAE

Subfamily : LYGAEINAE

#### \*115. *Lygaeus hospes* Fabricius

1794. *Lygaeus hospes* Fabr., *Ent. Syst.*, 4 : 150.

1904. *Lygaeus hospes*, *Dist.*, FBI, Rhynch., 2 : 6.

1986. *Lygaeus hospes*, Hegde, *East. Ghats Ins.*, 1 : 34; 2 : 34.

*Material examined* : Javadi Hills, Loc. 13, 30.1.1986, 4 exs., Loc. 5, 25.9.1986, 2 exs.; Loc. 10, 27.9.1986, 1 ex.; Shevroy Hills, Loc. 16, 3.10.1987, 2 exs.

**Diagnostic notes :** Length 10 mm (10-13 mm). Pale sanguineous ; posterior pronotal margin straight, scutellum more or less distinctly carinate from the middle to apex ; the clavus posteriorly subampliated ; femora unarmed.

**Distribution :** India : Javadi Hills, Nilgiri Hills (Tamilnadu), Bombay, Bangalore ; Sind (Pakistan) ; Sri Lanka ; Burma ; China ; Malayan Archipelago ; Australia ; New Caledonia.

**Remarks :** Universally distributed species.

**\*116. *Lygaeus militaris* (Fabricius)**

1775. *Cimex militaris* Fabr., *Syst. Ent.*, 717.

1904. *Lygaeus militaris*, Dist., FBI, Rhynch., 2 : 6.

1986. *Lygaeus militaris*, Hegde, *East. Ghats Ins.*, 1 : 34.

**Material examined :** Javadi Hills, Loc. 13 and Loc. 15, 30.12.1986, 1 ex. and 2 exs., respectively.

**Diagnostic notes :** Length 13-14 mm (13-19 mm). Sanguineous ; membrane brownish-ochraceous ; lateral and apical area whitish ; first antennal segment shortest and second longest ; pronotal posterior margin straight, femora distinctly spined beneath.

**Distribution :** Oriental, Australasian, Ethiopian and Palaearctic Regions ; India : Javadi Hills (Tamilnadu), Punjab, Hardwar (United Provinces), Bombay, Bangalore, Mysore (Karnataka) ; Burma ; Malaya Archipelago ; Australia. Supposed to be a common Palaearctic species and abundant in South Africa.

**\*117. *Lygaeus* sp.**

1986. *Lygaeus* sp., Hegde, *East. Ghats Ins.*, 1 : 35.

**Material examined :** Shevroy Hills, Loc. 16, 6.5.1986.

**Diagnostic notes :** Length 12 mm. Pale sanguineous ; generally resembles *Lygaeus militaris* (Fabr.) in many respects, but the femora not armed, metapleura straight. Species incertae sedis.

**\*118. Graptostethus argentatus (Fabricius)**

1803. *Lygaeus argentatus* Fabr., *Syst. Rhynch.*, 5: 228.  
 1904. *Graptostethus argentatus*, Dist., FBI, *Rhynch.*, 2: 9.  
 1986. *Graptostethus argentatus*, Hegde, *East. Ghats Ins.*, 1: 35.

*Material examined* : Javadi Hills, Loc. 3, 17.12.1985, 1 ex. Tirupathi, Loc. 22, 29.7.1987, 1 ex.

*Diagnostic notes* : Length 8 mm (7-7.5mm). Reddish-sanguineous ; membrane black, apical area whitish ; rostrum extends up to posterior coxae ; femora unarmed.

*Distribution* : Oriental Region ; India : Reported earlier from Nilgiri Hills (Tamilnanu), Bombay, Bengal ; Sri Lanka and Burma. First record from Javadi Hills.

*Remarks* : In the specimen from Tirupathi, the rostrum extends a little beyond posterior coxae.

**\*119. Graptostethus servus (Fabricius)**

1787. *Cimex servus* Fabr., *Mant.*, 2: 300.  
 1904. *Graptostethus servus*, Dist., FBI, *Rhynch.*, 2: 8.  
 1986. *Graptostethus servus*, Hegde, *East. Ghats. Ins.*, 1: 35.

*Material examined* : Javadi Hills, Loc. 10, 28.11.1986, 7 exs.

*Diagnostic notes* : Length 8 mm (8-9 mm). Pale obscure sanguineous ; basal spot and apical margin to membrane greyish ; apical margin of the corium often pale ochraceous ; femora unarmed.

*Distribution* : India : Javadi Hills (Tamilnadu), universally distributed.

**120. Graptostethus quadrisignatus Distant**

1879. *Graptostethus quadrisignatus* Dist., *Ann. Mag. nat. Hist.*, (5) 3, 130.  
 1904. *Graptostethus quadrisignatus*, Dist., FBI, *Rhynch.*, 2: 10.

*Diagnostic notes* : Length 10-11 mm. Red, two black spots on each lateral area of prosternum, one on meso- and one on metasternum ; apical margin of membrane

greyish-white; variations in this species with disc of corium and central area of abdomen beneath piceous also recorded by Distant (1904).

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu), North Khasi Hills (Meghalaya).

**\*121. *Caenocoris marginatus* (Thunberg)**

1822. *Alydus marginatus* Thunb., *Hem. Rostr. Cap.*, 3 : 3.

1904. *Caenocoris marginatus*, Dist., FBI, Rhynch., 2 : 16.

1986. *Caenocoris marginatus*, Hegde, *East. Ghats Ins.*, 2 : 34.

*Material examined* : Javadi Hills, Loc. 5, 25.9.1986, 2 exs., Loc. 15, 29.9.1986, Loc. 12, 1.10.1916, 3 exs.

*Diagnostic notes* : Length 12 mm (10.5-14 mm). Greyish pilose ; first antennal segment sanguineous ; rest black ; pronotal angle subprominent, a longitudinal ridge in the centre ; membrane dark brown ; body beneath sanguineous ; legs black ; coxae sanguineous ; femora unarmed.

*Distribution* : Oriental and Palaearctic Regions ; India : Javadi Hills (Tamilnadu), Kangra Valley (Himachal Pradesh) ; Sri Lanka ; Tenassarim (Burma) and China.

**122. *Nysius melanicus* Campbell**

1909. *Nysius melanicus*, Dist., *Ann. Mag. nat. Hist.*, (8) 3 : 322.

1910. *Nysius melanicus*, Dist., FBI, Rhynch., 5 : 14.

1918. *Nysius melanicus*, Dist., FBI, Rhynch., 7 : 182.

*Diagnostic notes* : Length 4 mm. Head, pronotum and scutellum thickly piceously or blackly punctate ; scutellum with a longitudinal ridge commencing at about one-third from base, where it is distinctly tuberculous ; coxae and legs brownish-ochraceous, except femora with apices only brownish-ochraceous ; membrane considerably passing the abdominal apex.

*Distribution* : Oriental Region ; India : Kodaikanal Hills (Tamilnadu), Kumaon (Bhim Tal) (United Province), Simla Hills (Himachal Pradesh).

## Subfamily : BLISSINAE

123. *Macropes abbreviatus* Distant

1918. *Macropes abbreviatus* Dist., FBI, Rhynch., 7 : 187.

*Diagnostic notes* : Length 5.5 mm. Black ; abdomen above and beneath piceous-brown ; corium piceous ; rostrum and legs pale sanguineous ; the apical antennal segment claviform and longer than other segments ; corium and membrane very short scarcely extending beyond base of first abdominal segment ; fore femora denticulate and spined ; tibia terminated by a dentate dilatation.

*Distribution* : Oriental Region ; India : Kodaikanal (Tamilnadu).

124. *Macropes consimilis* Distant

1918. *Macropes consimilis* Dist., FBI, Rhynch., 7 : 187.

*Diagnostic notes* : Length 7 mm. Black, corium and membrane pale ochraceous ; membrane not quite reaching the abdominal apex ; fore femora strongly incrassate and strongly spined beneath.

*Distribution* : Oriental Region ; India : Kodaikanal (Tamilnadu).

125. *Macropes consobrinus* Distant

1918. *Macropes consobrinus* Dist., FBI, Rhynch., 7 : 186.

*Diagnostic notes* : Length 5 mm. Black, corium pale ochraceous ; membrane subhyaline, membrane not reaching the abdominal apex ; fore femora not much robust.

*Distribution* : Oriental Region ; India : Kodaikanal (Tamilnadu).

126. *Macropes dilutus* Distant

1901. <sup>4</sup> *Macropes dilutus* Dist., *Ann. Mag. nat. Hist.*, (7) 8 : 467.

1904. <sup>5</sup> *Macropes dilutus*. Dist., FBI, Rhynch., 2 : 25.

1910. *Macropes dilutus*, Dist., FBI, Rhynch., 5 : 17.

1918. *Macropes dilutus*, Dist., FBI, Rhynch., 7 : 186.

**Diagnostic notes :** Length 5.7-7 mm. Dark castaneous ; apex of membrane reaching slightly beyond the fourth and not fifth abdominal segment ; corium pale creamy-white.

**Distribution :** Oriental Region ; India : Kodaikanal Hills (Tamilnadu), North India ; Sri Lanka and Burma.

**Remarks :** Distant refers to the specimen described by Breddin (1910) as *M. nesiota*, collected from Sri Lanka, as only a variation of *M. dilutus* which is black, membrane extending to the sixth abdominal segment and milky-white markings on it.

Subfamily : GEOCORINAE

127. *Geocoris annulicornis* Signoret

1880. *Geocoris annulicornis* Sign., *Ann. Mus. Civ. Stor. nat. Genova*, 15 : 539.

1904. *Geocoris splendidus*, Dist., FBI, Rhynch., 2 : 30.

1907. *Geocoris annulicornis*, Montand., *Bull. Soc.*, 16 : 85.

1910. *Geocoris annulicornis*, Dist., FBI, Rhynch., 5 : 25.

**Diagnostic notes :** Length 3.5-4 mm. Head luteous, broad with eyes broader than anterior margin of pronotum ; pronotum, scutellum black, lateral margins of corium moderately straight, not convex.

**Distribution :** Oriental and Australasian Regions ; India : Tiruchirapalli (Tamilnadu) ; Burma. Stated to extend as far as New Guinea.

**Remarks :** Montandon compared the types of the above species and is satisfied as to their identity, though the species is of a variable character. The name *G. splendidus* Distant has been suppressed and *G. annulicornis* Sign. substituted later by Distant himself (1910).

128. *Geocoris dubreuilii* Montand

1909. *Geocoris dubreuilii* Montand., *Ann. Soc. Ent. Belg.*, 128.

1910. *Geocoris dubreuilii*, Dist., FBI, Rhynch., 5 : 24.

1918. *Geocoris dubreuilii*, Dist., FBI, Rhynch., 7 : 180.

*Diagnostic notes* : Length 3.3-3.6 mm. Head ochraceous ; scutellum black ; corium entirely yellow ; membrane passing the abdominal apex paler ; head beneath, rostrum, legs yellow ; femora slightly annulated with brownish near apices.

*Distribution* : Oriental Region ; India : Kodaikanal Hills, Palani Hills, Nilgiri Hills (Tamilnadu).

129. *Geocoris hirsutus* Montand

1907. *Geocoris hirsutus* Montand., *Bull. Soc. Sci. Bucarest*, 15 : 124.

1910. *Geocoris hirsutus*, Dist., FBI, Rhynch., 5 : 27.

*Diagnostic notes* : Length 4mm ; Head ochraceous, strongly hirsute and punctate ; ocelli prominent, a central longitudinal ochraceous fascia on apical half of scutellum ; corium with a large blackish spot near inner angle ; antennae hirsute except for first segment ; legs strongly hirsute.

*Distribution* : Oriental Region ; India : Tiruchirapalli (Tamilnadu).

130. *Geocoris flaviceps* (Burmeister)

1834. *Ophthalmicus flaviceps* Burm., *Nova. Acta & C.* 16 : 301.

1918. *Geocoris flaviceps*, Dist., Dist., Rhynch., 7 : 188.

*Diagnostic notes* : Length 4-5 mm. Shining bluish-black ; pronotum, scutellum and clavus thickly punctate ; membrane passing abdominal apex, hyaline.

*Distribution* : Oriental Region ; India : Kodaikanal Hills (Tamilnadu) ; Malaya Archipelago ; Philippines.

131. *Geocoris tricolor* (Fabricius)

1798. *Cimex tricolor* Fabr., *Ent. Syst. Suppl.*, 176, 536.

1904. *Geocoris tricolor*, Dist., FBI, Rhynch., 2 : 29.

1918. *Geocoris tricolor*, Dist., FBI, Rhynch., 7 : 189.

*Diagnostic notes* : Length 3.5-4 mm. Head luteous ; coarsely punctate, head and disc of corium impunctate ; pronotum, scutellum black ; corium ochraceous ; lateral margin moderately straight, not convex.

*Distribution* : Oriental Region ; India : Kodaikanal Hills (Tamilnadu), Borghat (Maharashtra), Bangalore, Calcutta ; Sri Lanka and Burma.

132. *Geocoroides polytretus* Distant

1918. *Geocoroides polytretus* Dist., FBI, Rhynch., 7 : 190.

*Diagnostic notes* : Length 4 mm. Black, shining, very strongly and coarsely punctate ; body elongate ; tegmina not reaching the abdominal apex ; membrae practically absent.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

## Subfamily : COLOBATHRISTINAE

\*133. *Artemidorus pressus* Distant

1903. *Artemidorus pressus* Dist., *Ann. Mag. nat. Hist.*, (7) 11 : 74.

1904. *Artemidorus pressus*, Dist., FBI, Rhynch., 2 : 34.

*Material examined* : Coastal Hills : Vandalur (Madras), Loc. 1a, 28.12.1987, 1 ex.

*Diagnostic notes* : Length 6.5 mm (5.5 mm). Reddish-ochraceous, thickly punctate, finely pilose, body elongate : abdomen concavely narrowed near middle, a transverse distinct constriction divides pronotum into an anterior and posterior lobe, which are not of the same colour ; fore and middle femora stout and hind with their apices incrassate.

*Distribution* : Oriental Region ; India : Coastal Hills of Vandalur (Tamilnadu), Calcutta ; Sri Lanka and Burma.

*Remarks* : The specimen before me differs slightly in colour ; it is reddish-ochraceous whereas Distant describes it as pale ochraceous ; the apical half of hind femora is not black, but reddish ochraceous ; the specimen is also larger in size.

Subfamily : APHANINAE

134. *Pamera geniculata* (Motschulsky)

1863. *Placiomerus geniculata* Motsch., *Bull. Soc. Nat. Mosc.*, 8.

1904. *Pamera geniculata*, Dist., FBI, Rhynch., 2 : 54.

1918. *Pamera geniculata*, Dist., FBI, Rhynch., 7 : 191.

*Diagnostic notes* : Length 3 mm. Head, anterior lobe of pronotum, scutellum and sternum piceous ; greyish pubescent, a small impunctate greyish spot near apex of claval suture ; femora subapically darkly annulate, bases of tibiae piceous.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu) ; Sri Lanka and Burma.

135. *Eucosmetus nigrinitens* Distant

1918. *Eucosmetus nigrinitens* Dist., FBI, Rhynch., 7 : 191.

*Diagnostic notes* : Length 5 mm. Head, pronotum, scutellum black ; head shorter than anterior lobe of pronotum, anterior lobe of pronotum moderately globose and twice as long as posterior lobe ; fore femora strongly incrassate and distinctly spined beneath ; broad subapical annulation on middle tibiae and still broader apical annulation on hind tibiae.

*Distribution* : Oriental Region ; India : Kodaikanal (Tamilnadu),

136. *Appolonius picturatus* Distant

1918. *Appolonius picturatus* Dist., FBI, Rhynch., 7 : 191,

*Diagnostic notes* : Length 4-5 mm. Head and anterior pronotal lobe black, posterior pronotal lobe pale castaneous, traversed by 3 pale ochraceous longitudinal fasciae; head acuminate; central lobe prominently produced, whole upper surface thickly, finely punctate, scutellum rugose; prominent white spot near each inner angle of corium.

*Distribution* : Oriental Region; India: Nilgiri Hills (Tamilnadu), Kodaikanal (Tamilnadu), Chikkaballapura (Karnataka).

### 137. *Locutius atratus* Distant

1918. *Locutius atratus* Dist., FBI, Rhynch., 7 : 192.

*Diagnostic notes* : Length 3 mm. Shining black above, head short and broad, anteriorly acuminate; anterior pronotal lobe longest and somewhat convexly elevated, posterior coarsely punctate; membrane rudimentary and not reaching abdominal apex.

*Distribution* : Oriental Region; India: Nilgiri Hills (Tamilnadu), Chikkaballapura (Karnataka).

### 138. *Fabulinus gemmatus* Distant

1918. *Fabulinus gemmatus* Dist., FBI, Rhynch., 7 : 196.

*Diagnostic notes* : Length 3.5-4 mm. Head, pronotum, scutellum and body beneath black; corium dull ochraceous, somewhat large; pronotum thickly finely punctate and not transversely constricted; scutellum finely punctate behind the cruciformly carinate; antennae finely pilose; tibiae finely spinulose, specific marking on the corium.

*Distribution* : Oriental Region; India: Nilgiri Hills (Tamilnadu).

### 139. *Cligenes sexnotatus* (Bergroth)

1908. *Microcoris sexnotatus* Bergr., *Deutsch. ent. Zeitschr.*, 590.

1910. *Cligenes sexnotatus*, Dist., FBI, Rhynch., 5 : 62.

*Diagnostic notes* : Length male 2-2.3 mm ; female 2.4-2.8 mm. Shining black ; glabrous except abdomen beneath, above densely punctate ; apex of scutellum, clavus and corium whitish ; scutellum slightly longer than broad.

*Distribution* : Oriental Region ; India : Tiruchirapalli, Kodaikanal, Nilgiri Hills, (E. Ghats, Tamilnadu).

#### 140. *Aphanus discoquattatus* Distant

1918. *Aphanus discoquattatus* Dist., FBI, Rhynch., 7 : 199.

*Diagnostic notes* : Length 8-9 mm. Black ; pronotum transversely impressed behind middle ; membrane more or less reaching the abdominal apex ; the lateral margins obliquely laminate and impunctate ; scutellum moderately depressed near base and transversely wrinkled on apical area ; middle and hind tibiae with long bristles.

*Distribution* : Oriental Regions ; India : black ; Kodaikanal, Yercaud (Tamilnadu), Nandidurg (Karnataka).

#### 141. *Aphanus lateralis* Distant

1918. *Aphanus lateralis* Dist., FBI, Rhynch., 7 : 198.

*Diagnostic notes* : Length 9.5 mm. scutellum moderately ridged at base ; membrane not quite reaching abdominal apex ; fore femora incrassate with a prominent spine near apex.

*Distribution* : Oriental Region ; India : Kodaikanal (Tamilnadu).

#### 142. *Usilanus burmanicus* Distant

1909. *Usilanus*, Dist., *Ann. Mag. nat. Hist.*, (8) : 3 : 341.

1910. *Usilanus burmanicus* Dist., FBI, Rhynch., 5 : 83.

*Material examined* : Mangudi (Tanjore), 14.2.1988, 1 ex.

*Diagnostic notes* : Length 8 mm (10 mm). Body above dark brown towards black, punctate, central lobe distinctly produced and projecting in front ; corium with the subcostal vein distinctly curved ; fore femora incrassate and irregularly spined beneath,

middle and hind moderately slender ; tibiae spinulose ; first segment of the hind tarsi about 3 times as long as the remaining segments together.

*Distribution* : Oriental Region ; India : Mangudi (Tamilnadu) ; Burma.

*Remarks* : First record from India. This specimen is smaller than the Burmese specimen length of which recorded as 10 mm.

Family : PYRRHOCORIDAE

Subfamily : LARGINAE

143. *Rhodoclia convictionis* Distant

1909. *Rhodoclia convictionis* Dist., *Entomologist*, 59.

1910. *Rhodoclia convictionis*, Dist., FBI, Rhynch., 5 : 93.

*Diagnostic notes* : Length male 6-8 mm ; female 5.5-6 mm. Piceous brown ; head broad and convex, a little more anteriorly produced in male than in female ; antennae longer than body, fourth longest, moderately thickened and curved ; pronotum short, armed with long horizontal slender spine on each side ; hemelytra rudimentary ; abdomen short and broad, peduncular at base ; legs long, tibiae distinctly longer than femora ; legs and antennae thinly spinously hirsute ; head also margined with pale long hairs.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

Subfamily : PYRRHOCORINAE

\*144. *Antilochus coqueberti* (Fabricius)

1803. *Lygaeus coqueberti* Fabr., *Syst. Rhynch.*, 222.

1904. *Antilochus coqueberti*, Dist., FBI, Rhynch., 2 : 101.

1986. *Antilochus coqueberti*, Hegde, *East. Ghats Ins.*, 1 : 36.

*Material examined* : Javadi Hills, Loc. 13, 30.1.1986, 2 exs.

*Diagnostic notes* : Length 14 mm (14-16 mm). Sanguineous ; head transversely

constricted beneath near base ; eyes prominent, sessile ; lateral margins and pronotum moderately laminated, not distinctly reflexed ; first antennal segment and femora sanguineous ; fore femora shortly spined beneath near apex.

*Distribution* : Ethiopian, Oriental and Australasian Regions ; Kashmir, Javadi Hills (Tamilnadu), Secunderabad (Andhra Pradesh), Calcutta, Assam and Andaman Islands ; Burma ; Sri Lanka.

*Remarks* : *A. amorusus* which Breddin described according to Distant (1910), is only a variety of this species.

#### 145. *Dindymus ceneus* Distant

1902. *Dindymus ceneus* Dist., *Ann. Mag. nat. Hist.*, (7) 9 : 40.

1904. *Dindymus ceneus*, Dist., FBI, Rhynch., 2 : 114.

*Diagnostic notes* : Length 11 mm. Head, pronotum, scutellum, sternum black ; antennae, lateral (broadly) and posterior (narrowly) margins of pronotum, corium, abdomen lateral margins of sternum and legs pale sanguineous ; sternum without pale posterior segmental margins ; posterior pronotal lobe and corium thickly punctate ; fore femora robust and spined beneath.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Ootacamund, Tamilnadu).

#### 146. *Scantius volucris* Gerst.

1873. *Scantius volucris* Gerst., *Vid. Decken's Reise*, 3 : 413.

1904. *Scantius volucris*, Dist., FBI, Rhynch., 2 : 117.

*Diagnostic notes* : Length 7 mm. Piceous ; lateral margins and central linear spots on basal and apical margins of pronotum, apex of scutellum, basal lateral margins of corium, anterior margin of prosternum and lateral margins of sternum and abdomen sanguineous ; pronotum distinctly transversely constricted near middle, membrane absent ; corium reaching the anterior margin of penultimate abdominal segment.

*Distribution* : Oriental and Ethiopian Regions ; India : Coonoor (Tamilnadu) ; British East Africa—Angola.

147. *Dysdercus cingulatus* (Fabricius)

1775. *Cimex cingulatus* Fabr., *Syst. Ent.*, 719.  
1904. *Dysdercus cingulatus*, Dist., FBI, Rhynch., 2 : 118.  
1986. *Dysdercus cingulatus*, Hegde, *East. Ghats Ins.*, 1 : 36.

*Material examined* : Javadi Hills, Loc. 3, 17.12.1985, 8 exs. ; Loc. 4, 18.12.1985, 8 exs., Loc. 5, 25.9.1986, 3 exs. ; Loc. 6, 19.12.1985, 3 exs., Loc. 10, 28.1.1986, 1 ex. ; Loc. 12, 29.1.1986, 4 exs. ; Loc. 13, 30.1.1986, 3 exs. ; Loc. 14, 31.1.1986, 4 exs ; Loc. 15, 1.2.1986, 1 ex. ; Vedanthangal, Loc. 1d, 20.12.1987, 7 exs.

*Diagnostic notes* : Length 12-15 mm. (9-16 mm). Ochraceous. head sanguineous ; pronotal collar creamish, lateral margin sanguineous ; antennae, anterior transverse impression to pronotum, scutellum except apical region, a round spot near apical angle of corium and legs black ; hemelytra complete, apical angle of corium elongately acute ; fore femora spined beneath near apex.

*Distribution* : Oriental, Ethiopian, Australasian, E. Palaearctic, Nearctic and Neotropical Regions ; India : Javadi Hills, Vedanthangal (Tamilnadu), Bangalore, N. E. India, Nicobar Islands ; Karachi (Pakistan) ; Sri Lanka ; Tenessarim, Burma ; Malaya Peninsula and Malayan Archipelago ; Queensland (Australia).

*Remarks* : Notorious for the damage to cotton.

Family : TINGIDIDAE

148. *Monanthia nilgiriensis* Distant

1903. *Monanthia nilgiriensis* Dist., *Anu. Soc. Ent. Belg.*, 47 : 51.  
1904. *Monanthia nilgiriensis*, Dist., FBI, Rhynch., 2 : 144.

*Diagnostic notes* : Length-body 4 mm, to apex of elytra 5mm. Pale hyaline ; subcostal area of hemelytra forming a distinct angle behind discoidal area.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu),

### 149. *Mokanna princeps* Distant

1910. *Mokanna princeps* Dist., FBI, Rhynch., 5 : 112.

*Diagnostic notes* : Length 4 mm including elytra. Ochraceous ; pronotal hood covering the head ; apex of head beneath the pronotal hood with 2 distinct porrect spines ; lateral margins of pronotum laminately produced ; elytra twice as long as abdomen, arched and dilated from near base ; the areolets at the margins of costal and sutural elytra, more distinctly transverse and slightly smaller in size.

*Distribution* : Oriental Region ; India : Tiruchirapalli (Tamilnadu).

### Family : PHYMATIDAE

### 150. *Amblythyreus intermedius* Handlirsch

1897. *Amblythyreus intermedius* Handl., *Ann. Hofmus. Wien*, 12 : 210.

1904. *Amblythyreus intermedius*, Dist., FBI, Rhynch., 2 : 148.

*Diagnostic notes* : Length 10-12 mm. Ochraceous ; body not spinose ; ante-ocular portion of head shorter than postocular ; abdomen widely dilated, acutely not obtusely, angulate at its extreme dilations where its width is considerably greater than its length ; scutellum short, broad, apex convexly rounded ; a broad piceous transverse fascia at connexivum.

*Distribution* : Oriental Region ; India : Tiruchirapalli, Kodaikanal, Palan Hills (Tamilnadu), Bengal.

### 151. *Carcinocoris castetsi* (Handlirsch)

1897. *Carcinocoris castetsi* Handl., *Verh. Zool.-bot. Ges. Wien*, 47 : 26.

1904. *Carcinocoris castetsi*, Dist. FBI, Rhynch., 2 : 152.

*Diagnostic notes* : Length 7-8 mm. Body spinose, including head, pronotum, antenna and eyes ; scutellum, with lateral margins nearly straight, moderately narrowed at apex ; abdomen strongly dilated, its angulate and sinuate margins spined.

*Distribution* : Oriental Region ; India : Tiruchirapalli, Palani Hills (Tamilnadu),

**152. *Carcinocoris hampsoni* Distant**

1902. *Carcinocoris hampsoni* Dist., *Ann. Mag. nat. Hist.*, (7) 9 : 357.  
1904. *Carcinocoris hampsoni*, Dist., FBI, Rhych., 2 : 151.

**Diagnostic notes** : Length 8.5 mm. Ochraceous ; scutellum almost reaching apex of abdomen, not narrowed at apex, its lateral margins longly spinous, but much less so on basal area ; abdomen dilated, its margin angulate.

**Distribution** : Oriental Region ; India : Ootacamund (Tamilnadu).

Family : REDUVIIDAE

Subfamily : SAICINAE

**153. *Polytoxus formidabilis* Distant**

1910. *Polytoxus formidabilis* Dist., FBI, Rhynch., 5 : 182.

**Diagnostic notes** : Length 13 mm. Pale stramineous ; ocelli absent ; basal segment of antennae as long as posterior tibiae ; posterior lobe of pronotum with a long spine, shorter than anterior lobe ; scutellum with a long erect slightly backwardly directed spine, about as long as pronotal spines ; fore tibiae strongly curved ; fore femora with a series of strong spine beneath.

**Distribution** ; Oriental Region ; India : Kodaikanal, Palani Hills (Tamilnadu ).

Subfamily : STENOPODINAE

**154. *Oncocephalus impudicus* Reuter**

1883. *Oncocephalus impudicus* Reut., *Act. Soc. Sc. Fenn.*, 12 : 715.  
1904. *Oncocephalus impudicus*, Dist., FBI, Rhynch., 2 : 229.  
1986. *Oncocephalus impudicus*, Hegde, *East. Ghats Ins.*, 2 : 35.

**Material examined** : Javadi Hills, Loc. 2, 28.9.1986, 1 ex.

*Diagnostic notes* : Length 13 mm. Ochraceous ; ocelli present ; ante-ocular portion of head almost twice as long as postocular portion ; anterior and posterior lateral angles of pronotum prominently subspinous ; apical spine of scutellum long, acute (laterally produced) ; first and second rostral segments subequal ; fore femora incrassate and spined beneath.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Calcutta ; Burma ; Java, Sumatra, Borneo and Philippine Islands.

### 155. *Canthesancus helluo* Stal

1863. *Canthesancus helluo* Stal, *Ann. Soc. Ent. Fr.*, 44.

1904. *Canthesancus helluo*, *Dist., FBI, Rhynch.*, 2 : 235.

*Diagnostic notes* : Length 25-28 mm. First segment of antennae a little longer than pronotum and scutellum together, tibiae with bases and apices fuscous ; fore and middle tibiae with two or more distinct medial annulations and hind tibiae with a single sub-basal annulation, fuscous.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu) ; Sri Lanka ; Borneo.

*Remarks* : Distant mentions that in specimens from Nilgiri Hills, the bases of tibiae not fuscous.

### 156. *Thodelmus falleni* Stal

1859. *Thodelmus falleni* Stal., *Ofv. Vet.-Ak. Forh.*, 378.

1904. *Thodelmus falleni*, *Dist., FBI, Rhynch.*, 2 : 236.

*Diagnostic notes* : Length 21.5 mm-24m. Cinnamon-brown ; head a little longer than pronotum, with a distinct spine on each side at apex ; antennae pilose, first segment as long as head ; pronotum finely granulate ; hemelytra finely mottled with ochraceous ; legs longly pilose.

*Distribution* : Oriental, Ethiopian and Australasian Regions ; India : Nilgiri Hills (Tamilnadu), Bombay ; Sri Lanka ; Burma.

Subfamily : ACANTHASPIDINÆ

157. *Reduvius esau* Distant

1904. *Reduvius esau* Dist., FBI, Rhynch., 2 : 252.

*Diagnostic notes* : Length 12 mm. Ochraceous, longly pilose : ante-ocular portion of head tumidly elevated and sulcate, antennae pilose, second segment nearly 3 times longer than first ; first rostral segment a little shorter than second ; anterior pronotal lobe shorter than posterior, both lobes sulcate ; fore femora unarmed.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu).

\*158. *Acanthaspis quinquespinosa* (Fabricius)

1781. *Reduvius quinquespinosa* Fabr., *Spec. Ins.*, 2 : 382.

1904. *Acanthaspis quinquespinosa*, Dist., FBI, Rhynch., 2 : 257.

1986. *Acanthaspis quinquespinosa*, Hegde, *East. Ghats Ins.*, 2 : 35.

*Material examined* : Javadi Hills, Loc. 2, 24.9.1986, 1 ex.

*Diagnostic notes* : Length 17.5 mm. (15.5-19 mm). black, pilose ; first antennal segment subequal to head, second and third very long ; pronotal anterior lobe strongly sculptured, posterior rugose with 4 spines, two lateral and two discal ; scutellar spine long, obliquely ascending ; transverse discal spot to corium and spots to connexivum above and beneath ; first and second rostral segment almost equal.

*Distribution* : Oriental Region ; India : Javadi Hills, (Tamilnadu), Ranchi (Bihar), Borghat, Assam ; Sri Lanka ; Burma.

159. *Acanthaspis apicata* Distant

1903. *Acanthaspis apicata* Dist., *Ann. Mag. nat. Hist.*, (7) 11 : 354.

1904. *Acanthaspis apicata*, Dist., FBI, Rhynch., 2 : 266.

*Diagnostic notes* : Length 17 mm. Piceous ; anterior pronotal lobe sculptured ; posterior granulate, with a narrow central longitudinal impression, posterior disc unarmed ;

scutellar spine long, very slightly ascending, femora black, their apices and the tibiae pale.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu), Sangli (Maharashtra), Kashmir.

**\*160. *Acanthaspis concinnula* Stal**

1863. *Acanthaspis concinnula*, Stal., *Ann. Soc. Ent., Fr.*, 51.

1904. *Acanthaspis concinnula*, Dist., *FBI. Rhynch.*, 2 : 267.

1989. *Acanthaspis concinnula*, Hegde, *Shadpada*, 1 : (in press).

*Material examined* : Javadi Hills, Loc. 2, 17.12.1985, 2 exs.

*Diagnostic notes* : Length 9 mm (9-10 mm). Longly pilose ; head dark brown ; pronotum unspotted ; posterior and anterior lobes differently coloured, posterior pronotal lobe discally unarmed, its lateral angles with short, sharp spine ; scutellum dark with subreflexed apical spine ; fore femora moderately incrassate.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Deccan ; Burma.

Subfamily : ECTRICHODIINAE

**161. *Ectrychotes bharathi* Murugan & Livingst.**

1989. *Ectrychotes bharathi* Murugan & Livingst., *Shadpada*, 1 : (in press).

This species is reported from the Kolli Hills (Tamilnadu).

**162. *Physorhyncus pedestris* Distant**

1904. *Physorhyncus pedestris* Dist., *FBI, Rhynch.*, 2 : 320.

*Diagnostic notes* : Length 22 mm. Brilliant shining violaceous-black ; anterior pronotal lobes longer than posterior ; lobes about equally broad and both traversed by a central longitudinal linear incision ; fore femora strongly incrassate with a strong tubercle beneath near base ; hemelytra rudimentary or practically absent in both sexes.

**Distribution :** Oriental Region ; India : Ootacamund (Tamilnadu).

**\*163. *Physorhyncus javadiensis* Hegde**

1989. *Physorhyncus javadiensis* Hegde, *Hexapoda*, 1 : 55.

**Material examined :** Javadi Hills, Loc. 10, 28.1.1986, 4 exs.

**Diagnostic notes :** Length 13 mm. Dark brown tomentose ; antennae six segment ; first antennal segment incrassate, shorter than second ; ante-ocular region slightly shorter than postocular ; first and second rostral segments incrassate, first shorter than second ; anterior pronotal lobe narrower and longer than posterior with a prominent tubercle on each lateral angles anteriorly and sculptured posterior pronotal lobe with lateral spine ; scutellum with broad apex and bispinose ; femora unarmed ; fore and middle femora incrassate ; fore and middle tibiae with apical spongy furrow ; hemelytra absent.

**Distribution :** Oriental Region ; India : Javadi Hills (Tamilnadu).

**164. *Physorhyncus nigroviolaceus* Reuter**

1881. *Physorhyncus nigroviolaceus* Reut., *Act. Soc. Fenn.*, 12 : 302.

1904. *Physorhyncus nigroviolaceus*, *Dist., FBI, Rhynch.*, 2 : 320.

**Diagnostic notes :** Length male 23 mm ; . 23-29 mm. Brilliant shining violaceous-black ; first and second segments of antennae subequal in length ; hemelytra very rudimentary in male, practically absent in female.

**Distribution :** Oriental Region ; India : Nilgiri Hills (Tamilnadu), Bangalore.

**165. *Physorhynchus rubromaculatus* Distant**

1904. *Physorhynchus rubromaculatus* *Dist., FBI, Rhynch.*, 2 : 322.

**Diagnostic notes :** Length female 28 mm. Head, antennae, rostrum, legs and sternum black ; abdomen violaceous-black ; two central spots on each abdominal segment, of which the basal are smallest and the apical largest, last segment reddish testaceous ; second antennal segment slightly longer than the first ; anterior pronotal lobe longer than

posterior, but almost equal in breadth ; hemelytra practically absent, ventral segments not medially impressed.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

### 166. *Eriximachus globosus* Distant

1904. *Eriximachus globosus* Dist., FBI, Rhynch., 2 : 324.

*Diagnostic notes* : Length female 22-26 mm. Piceous black ; first and second antennal segments subequal ; anterior pronotal lobe globose, longitudinally centrally impressed, much longer than posterior lobe ; abdomen tumid above, globose beneath ; hemelytra practically absent.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu), Calcutta.

*Variation* : Central area of fore and middle tibiae pale castaneous.

### Subfamily : HARPACTORINAE

### \*167. *Lophocephala guerini* Laporte

1832. *Lophocephala guerini* Lap., *Ess. Hem.*, 12.

1904. *Lophocephala guerini*, Dist., FBI, Rhynch., 2 : 331.

1986. *Lophocephala guerini*, Hegde, *East. Ghats Ins.*, 2 : 36.

*Material examined* : Javadi Hills, Loc. 2, 29.9.1986, 1 ex.

*Diagnostic notes* : Length 15.5 mm (16-17 mm). Sanguineous ; pilose, scutellum, clavus and membrane and body underneath black ; corium and legs sanguineous ; pronotal anterior region smaller than posterior, not as broad as posterior with a central carinate ridge ; rostrum sanguineous and extends up to mesosternum.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Bengal ; Sri Lanka.

*Remarks* : First record from South India.

**\*168. *Harpactor marginatus* (Fabricius)**

1794. *Reduvius marginatus* Fabr., *Ent. Syst.*, 4 : 196.

1904. *Harpactor marginatus*, Dist., FBI, Rhynch., 2 : 332.

1986. *Harpactor marginatus*, Hegde, *East. Ghats Ins.*, 2 : 36.

*Material examined* : Javadi Hills, Loc. 15, 29.9.1986, 3 exs.

*Diagnostic notes* : Length 17 mm (19.5-20 mm). Dark sanguineous, pilose ; scutellum, membrane and body beneath black ; head elongate, divided into two distinct regions by a transverse impression ; ante-ocular longer than postocular ; antennae 4 segmented, second segment the shortest ; first sanguineous, rest black ; fore legs subraptorial, hemelytera complete.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu), Vishakapatnam, (Andhra Pradesh) ; Sri Lanka.

**\*169. *Harpactor nilgiriensis* Distant**

1903. *Harpactor nilgiriensis* Dist., *Ann. Mag. nat. Hist.*, (7) 11 : 75.

1904. *Harpactor nilgiriensis*, Dist., FBI, Rhynch., 2 : 336.

*Material examined* : Javadi Hills, Loc. 15, 29.1.1986, 1 ex.

*Diagnostic notes* : Length 8 mm (8.5 mm). Head and anterior pronotal lobe globose, black ; pronotal lobes not concolourous, posterior lobe luteous ; head strongly constricted behind eyes, about half way from eyes to base it is moderately tumid and then narrowed with a cylindrical collar ; scutellum at apex ending in a small tubercle, which is lighter in colour ; rostrum 3 segmented ; first and second segments subequal, third very short, extends up to the fore coxae ; annulations to fore and middle femora, membrane extends beyond the abdominal apex.

*Distribution* : Oriental Region ; India : Javadi Hills, Nilgiri Hills (Tamilnadu).

**170. *Harpactor pygamaeus* Distant**

1903. *Harpactor pygamaeus* Dist., *Ann. Mag. nat. Hist.*, (7) 11 : 75.

1904. *Harpactor pygamaeus.*, Dist., FBI, Rhynch., 2 : 336.

*Diagnostic notes* : Length 7 mm. Head, anterior pronotal lobe, pro-meso and metasternum, coxae and legs black ; posterior pronotal lobe, annulation to femora, connexivum and abdomen pale sanguineous ; scutellum piceous, centrally reddish-brown ; first rostral segment reaching eyes, a little longer than ante-ocular portion of head, which is a little shorter than postocular portion.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

### \*171. *Harpactor shevroyensis* Hegde

1989. *Harpactor shevroyensis* Hegde, *Hexapoda*, 1 : 56.

*Material examined* : Shevroy Hills, Loc. 16, 7.8.1986, 2 exs.

*Diagnostic notes* : Length 20 mm. Body sanguineous ; pilose, head, pronotum, major portion of corium, legs and prosternum sanguineous, antennae except for base of the first segment, scutellum, membrane, interior margins to corium, clavus, meso- and metasternum, ventral abdomen black ; ante- and postocular regions subequal ; first antennal segment much longer than head but shorter than fore femora ; first rostral segment not extending to eye level ; anterior pronotal lobe sculptured, posterior one and corium rugosely granulate and unicolourous (sanguineous) ; membrane large, just reaching the apex of the abdomen ; legs unarmed ; fore femora iucrassate, middle slightly and hind normal.

*Distribution* : Oriental Region ; India : Shevroy Hill (Tamilnadu).

*Remarks* : New species.

### 172. *Sphedanolestes stigmatellus* Distant

1903. *Sphedanolestes stigmatellus* Dist., *Ann. Mag. nat. Hist.*, (7) 11 : 209.

1904. *Sphedanolestes stigmatellus*, Dist., *FBI, Rhynch.*, 2 : 341.

*Diagnostic notes* : Length 8 mm. Black ; anterior area of posterior pronotal lobe, lateral area of corium, posterior margin of prosternum, anterior coxae and disc of abdomen beneath sanguineous ; head as long as pronotum ; second rostral segment longer than first, sulcation to anterior pronotal lobe profound, posterior lobe obscurely sulcate.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu),

**\*173. *Sphedanolestes signatus* Distant**

1903. *Sphedanolestes signatus* Dist., *Ann. Mag. nat. Hist.*, (7) 11 : 209.

1904. *Sphedanolestes signatus* Dist., FBI, Rhynch., 2 : 341.

*Material examined* : Javadi Hills, Loc. 12, 29.1.86, 2 exs.

*Diagnostic notes* : Length to apex of membrane 8 mm. Black ; pronotum bicoloured, anterior pronotal lobe and head black, ante-ocular region shorter than postocular ; anterior pronotal lobe globulose with a central longitudinal deep sulcation ; legs, antennae, posterior pronotal lobe and corium brassy brown ; second rostrally segment much longer than first ; annulations to femora ; membrane extending beyond the tip of the abdomen.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu).

**174. *Sphedanolestes variabilis* Distant**

1904. *Sphedanolestes variabilis* Dist., FBI, Rhynch., 2 : 342.

*Diagnostic notes* : Length 7-8 mm. Luteous ; pronotum bicolorous ; markings variable ; both lobes of pronotum sulcately impressed ; basal, central and broad apical annulation to femora ; first antennal segment a little shorter than fore femora which have their bases and apices infuscated.

*Variation* : a. Posterior lobe of pronotum more or less infuscated ; legs wholly black.

*Variation* : b. Resembling variation (a) but with the pronotum black, a small central luteous spot on posterior lobe.

*Distribution* : Oriental Region ; India : Ootacamund and Kotagiri (Tamilnadu).

**175. *Sphedanolestes fraterculus* Bergroth**

1908. *Sphedanolestes fraterculus* Bergr., *Deutsch. ent. Zeitschr.*, 591.

1910. *Sphedanolestes fraterculus*, Dist., FBI, Rhynch., 5 : 204.

*Diagnostic notes* : Length 8.5-9.5 mm. Black, lateral and posterior margins of

posterior pronotal lobe, prosternal posterior margin, central disc of mesosternum and abdomen beneath, reddish-ochraceous or stramineous; head distinctly a little shorter than pronotum; postocular larger than ante-ocular; second abdominal segment half the length of first; anterior pronotal lobe profoundly centrally impressed, posterior, longitudinally but more narrowly impressed; anterior angles distinctly shortly obliquely tuberculate; posterior angles roundly truncate; membrane passing tip of the abdomen; discoidal cell much broader than long; specimen from the Palani Hills has a black sublateral fascia on the abdomen beneath replaced by a series of spots.

*Distribution* : Oriental Region; India : Tiruchirapalli, Palani Hills, Kodaikanal (Tamilnadu), Kumaon-Bhim Tal, 1370 m. (United Province).

#### 176. *Sphedanolestes minusculus* Bergroth

1908. *Sphedanolestes minusculus* Bergr., *Deutsch. ent. Zeitschr.*, 592.

1910. *Sphedanolestes minusculus*, *Dist., FBI, Rhynch.*, 2 : 205.

*Diagnostic notes* : Length 7 mm. Black; scutellum with the apex stramineous; corium subrugulose, membrane shining fuscous, passing the abdominal apex; discoidal cell almost as long as broad, legs black, femora finely nodulose.

*Distribution* : Oriental Region; India : Tiruchirapalli (Tamilnadu), Pusa (Bihar).

#### 177. *Sycanus albofasciatus* Bergroth

1908. *Sycanus albofasciatus* Bergr., *Deutsch. ent. Zeitschr.*, 590.

1910. *Sycanus albofasciatus*, *Dist., FBI, Rhynch.*, 5 : 208.

*Diagnostic notes* : Length male 18 mm; female 24 mm. Black, elongate; a transverse fascia behind middle of corium and connexivum above and beneath; female very pale stramineous; male reddish ochraceous; anterior pronotal lobe with two oblique bands on each side which are densely pilose, a short obtuse tubercle at each anterior angle; posterior lobe rugulose; scutellum with an erect conical tubercle; hemelytra passing the abdominal apex; abdomen laterally moderately dilated and sinuate.

*Distribution* : Oriental Region; India : Palani Hills, Kodaikanal, Tiruchirapalli (Tamilnadu),

178. *Macrocanthopsis hampsoni* Distant

1909. *Macrocanthopsis hampsoni* Dist., *Ann. Soc. Ent. Belg.*, 53 : 371.

1910. *Macrocanthopsis hampsoni*, Dist., FBI, Rhynch., 2 : 209,

*Diagnostic notes* : Length 12 mm. Head, pronotum, scutellum pale ochraceous ; hemelytra black, a long obliquely erect black spine behind the base of each antennae which is black ; first rostral segment shorter than second ; anterior lobe of pronotum not prominently tuberculate on each side ; fore femora moderately incrassate and nodulose, apices of middle and hind femora nodulose.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

179. *Alcmena straminipes* Distant

1910. *Alcmena straminipes* Dist., FBI, Rhynch., 2 : 370,

*Diagnostic notes* : Length 15 mm. Stramineous ; head with two large spots behind eyes, a lateral fascia on each side of anterior pronotal lobe, and the lateral spines of posterior lobe dark fuscous or black, a long acute spine on each side behind base of each antenna ; first rostral segment much longer than second ; anterior lobe unarmed ; posterior with 2 discal tuberculous spines and two lateral spines ; scutellum with a slender oblique suberect apical spine ; middle and hind femora with their apices subnodulose.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu).

180. *Irantha consobrina* Distant

1904. *Irantha consobrina* Dist., FBI, Rhynch., 2 : 386.

*Diagnostic notes* : Length 10 mm. Pale Ochraceous ; allied to *I. armipes* (Dist. 1904), spines on head and anterior lobe of pronotum very much longer ; first rostral segment longer than second ; postocular area of head much longer than ante-ocular ; fore femora spined , lateral abdominal margins at fourth and fifth more angularly produced.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

### 181. *Henricohahnia gallus* Distant

1904. *Henricohahnia gallus* Dist., FBI, Rhynch., 2 : 389.

*Diagnostic notes* : Length 9.5 mm. Fuscous or brownish-ochraceous ; body above finely pilose ; head with the central lobe spinously produced ; lateral margins of head and pronotum, the antennae and legs longly pilose, lateral pronotal angles subprominent not spinous ; femora coarsely granulate and spinulose and with the fore tibiae spined beneath.

*Distribution* : Oriental Region ; India : Nilgiri Hills, Kotagiri (Tamilnadu).

Family : MIRIDAE

Subfamily : MIRINAE

### 182. *Megaloceraea dohertyi* Distant

1904. *Megaloceraea dohertyi* Dist., FBI, Rhynch., 2 : 425.

1910. *Megaloceraea dohertyi*, Dist., FBI, Rhynch., 5 : 234.

*Diagnostic notes* : Length 4 mm. Pale ochraceous ; hemelytra stramineous ; antennae purplish-red, basal segment of antennae a little incrassate, not hirsute, basal margin of pronotum concavely sinuate, exposing base of mesosternum.

*Distribution* : Oriental Region ; India : Balighat (Orissa, Eastern Ghats), Calcutta, Darjeeling (United Province) ; Trincomalee (Sri Lanka) and Tenasserim (Burma).

### 183. *Megacoelum antennatum* (Kirby)

1894. *Capsus antennatum* Kirby J. Linn. Soc. London (Zool.), 24 : 107.

1904. *Megacoelum antennatum*, Dist., FBI, Rhynch., 2 : 428.

*Diagnostic notes* : Length 7-8 mm. Head and pronotum pale testaceous ; pronotum usually shaded with purplish-brown ; antennae ochraceous, apices of the segments and a central annulation to the second segment fuscous black ; scutellum and corium purplish-brown, apex of scutellum and lateral margins of corium pale ochraceous ;

cuneus purplish, its apex ochraceous ; head transverse, about as long as broad ; tibiae longly setose ; first segment of tarsi shorter than second and third segment.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu) ; Pundaluoya (Sri Lanka).

#### 184. *Megacoelum humpsoni* Distant

1904. *Megacoelum humpsoni* Dist., FBI, Rhynch., 2 : 429.

*Diagnostic notes* : Length 6 mm. Obscure sanguineous ; pronotum, scutellum, lateral margins of corium, tibiae and tarsi pale luteous ; membrane dark fuliginous with a pale basal spot ; apex of head, lateral areas of sternum and apex of abdomen fuscous.

*Distribution* : Oriental Region ; India : Nilgiri Hills (Tamilnadu).

#### 185. *Zanessa sanguinolenta* Distant

1904. *Zanessa sanguinolenta* Dist., FBI, Rhynch., 2 : 432.

*Diagnostic notes* : Length 5.5 mm. Ochraceous ; first segment of antennae, eyes, lateral areas of pronotum, inner area of clavus ; lateral areas of corium, cuneus and membranal veins sanguineous ; head distinctly longitudinally impressed or sulcate ; pronotum and scutellum impunctate.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu).

Subfamily : CAPSINAE

#### 186. *Lygus sordidus* Distant

1904. *Lygus sordidus* Dist., FBI, Rhynch., 2 : 455.

*Diagnostic notes* : Length 5.5 mm. Dully yellowish-white ; pronotum unicolorous, first segment of antennae about as long as head, second about 3 times as long as first ; pronotum obscurely punctate ; hemelytra finely pubescent.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu) ; Sri Lanka.

### 187. *Lygus albescens* Distant

1904. *Lygus albescens* Dist., FBI, Rhynch., 2 : 455.

*Diagnostic notes* : Length 6 mm. Uniformly dull creamy-white ; pronotum somewhat distinctly punctate ; first antennal segment scarcely longer than head, second rather more than 2 times the length of the first ; pronotum with an anterior transverse impression, above finely pubescent.

*Distribution* : Oriental Region ; India : Ootacamund (Tamilnadu).

### 188. *Zaratus repandus* Distant

1909. *Zaratus repandus* Dist., *Entomologist*, 59.

1910. *Zaratus repandus*, Dist., FBI, Rhynch., 5 : 264.

*Diagnostic notes* : Length 4 mm. Head, pronotum and scutellum pale cinnamon-brown ; scutellum small, subtriangular, clavus long, almost reaching the base of cuneus ; corium with the lateral margins strongly, concavely sinuate, broadly widened at the cuneal area ; abdomen broad, globose, constricted at base.

*Distribution* : Oriental Region ; India : Barwood Estate—Nilgiri Hills (Tamilnadu).

### 189. *Nicostratus princeps* Distant

1909. *Nicostratus princeps* Dist., *Entomologist*, 60.

1910. *Nicostratus princeps*, Dist., FBI, Rhynch., 5 : 268.

*Diagnostic notes* : Length 5 mm. Brownish-ochraceous ; head globose, pronotum anteriorly spined ; scutellum produced into a strong upright sub-acute spine ; membrane considerably passing the abdominal tip.

*Distribution* : Oriental Region ; India : Barwood Estate—Nilgiri Hills (Tamilnadu).

190. *Armachanus nilgiriensis* Distant

1909. *Armachanus nilgiriensis* Dist. *Entomologist*, 60.

1910. *Armachanus nilgiriensis*, Dist., FBI, Rhynch., 5 : 281.

*Diagnostic notes* : Length 6 mm. Pale brownish-ochraceous, allied to *A. monoceros* (Dist. 1904), but the posterior pronotal area shorter, the anterior area longer, narrower, and moderately narrowed at base, showing more divisional character and contrast of two areas ; the head is more elongate and has a median longitudinal darker line.

*Distribution* : Oriental Region ; India : Barwood Estate—Nilgiri Hills (Tamilnadu).

191. *Berta lankana* (Kirby)

1891. *Capsus lankana* Kirby, *J. Linn. Soc. London* (Zool.), 24 : 107.

1904. *Berta lankana* Dist., FBI, Rhynch., 2 : 481.

1986. *Berta lankana*, Hegde, *East. Ghats Ins.*, 1 : 37.

*Material examined* : Javadi Hills, Loc. 3, 17.12.1985, 1 ex.

*Diagnostic notes* : Length 5.5 mm (4 mm). Head, pronotum and scutellum shiny black ; pronotum not constricted, posterior margin of which is slightly sinuate ; corium including cuneus passing abdominal tip ; white transverse fasciae, a little beyond base of corium and at base of cuneus ; scutellum finely transversely striate.

*Distribution* : Oriental Region ; India : Javadi Hills (Tamilnadu) ; Nitagala, Pundaluoya (Sri Lanka ).

*Remarks* : Examined specimen is not a fully mature adult.

SUMMARY

This paper reports on 191 species of Heteroptera from the Eastern Ghats belonging to the following families : Plataspidae, Scutellaridae, Podopidae, Pentatomidae, Coreidae, Berytidae, Lygaeidae, Pyrrhocoridae, Tingidae, Phymatidae, Reduviidae, and

Miridae. The material was collected by M.S. Mani and party, during 1985-1988, as a part of a project on the Eastern Ghats Survey, with the financial assistance from the Department of Environment and Forests, Govt. of India. Of the 191 species listed here 52 species have been recorded for the first time during this project on the Eastern Ghats. Notes on diagnostic characters and distribution are given under each species and the localities from where collections were made have been briefly described separately.

#### ACKNOWLEDGEMENTS

I take this opportunity of thanking Dr. M. S. Mani for placing this interesting material at my disposal. My thanks are also due to Dr. T. C. Khatri, Mr. C. Shrinivasan and Mr. M. V. Balasubramanian for helpful information about the collections. I also thank Miss N. Bhooma, Technical Assistant, for help in preparing this paper for press. My cordial thanks are also due to the authorities of the Zoological Survey of India, Madras for facilities and numerous courtesies.

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