

**NEW RECORDS OF ORTHOPTERA (INSECTA) FROM THE
NAGARJUNA SAGAR TIGER RESERVE FOREST, ANDHRA
PRADESH, INDIA**

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INTRODUCTION

Tandon and Shishodia (1969) have reported seventeen species of Acridoidea from Nagarjuna Sagar Dam Area. The area has been again explored after about sixteen years specially the Mahbubnagar district of Andhra Pradesh, by one of the authors (SKM) for the collection of Orthoptera. The collections were made from meadows, fallow lands, field crops and outskirts of forest and other vegetation. The present study is based on this material, containing 34 species of Tetrigoidea, Acridoidea and Grylloidea, of which 13 species are recorded here for the first time from Andhra Pradesh. We hope that there may be still some species in the area which have not been obtained. The material studied is deposited in the National Collection of the Zoological Survey of India, Calcutta. Species marked with asterisk are new records from Andhra Pradesh.

SYSTEMATIC	ACCOUNT
Order	ORTHOPTERA
Superfamily	TETRIGOIDEA
Family	TETRIGIDAE

1. **Euscelimena harpago* (Serville)

1839. *Tetrix harpago* Serville, *Ins. Orth.*, : 763.

1887. *Scelimena harpago*, Bolivar, *Anns Soc. ent. Belg.*, 31 : 216-17.

1938. *Euscelimena harpago*, Günther, *Stettin. ent. Ztg.*, 99 : 364.

Material : 1 ♂, Gundam Falls, Mahbubnagar Dist., 14. iv. 1985.

Distribution : India (Maharashtra, Karnataka, Tamilnadu, Madhya Pradesh, Bihar, Uttar Pradesh); Sri Lanka.

Remarks : This species is generally found near water or on stones lying on the banks of river or ponds. It may swim for a short distance.

2. **Criotettix latifrons* Hebard

1929. *Criotettix latifrons* Hebard, *Revue suisse Zool.*, 36 : 578.

Material : 2 ♀♀, 1 ♂, Gundam Falls, Mahbubnagar, 14. iv. 1985.

Distribution : India (Tamilnadu). It is also studied from Maharashtra.

Remarks : The specimens more or less agree well with the original characters given by Hebard (1929).

3. **Euparatettix histricus* (Stål)

1860. *Tetrix histricus* Stål, *Kong. Svens Fregatten Eugenicus Resa Omkring Jorden*, Stockholm, 3 : 347.

1887. *Paratettix histricus*, Bolivar, *Annls Soc. ent. Belg.* 31 : 279.

1937. *Euparatettix histricus*, Gunther, *Revue suisse Zool.* 44 : 133.

Material : 1 ♀, 1 ♂, Gundam Falls, Mahbubnagar Dist., 14. iv. 1985; 3 ♀♀, Mannanur, 2059 m., Mahbubnagar Dist., 11, 15, 19. iv. 1985.

Distribution : India (Tamilnadu, Orissa, West Bengal, Bihar, Assam); Sri Lanka; Java; Borneo; Sumatra; Malaya Islands; N. Caledonia; Philippines; N. Australia. It is also studied from Maharashtra and Rajasthan (in press).

Remarks : It is a very common species found in India.

Family ACRIDIDAE

4. *Acrida exaltata* (Walker)

1859. *Truxalis exaltata* Walker, *Ann. Nat. Hist.*, 4 : 222.

1914. *Acrida exaltata*, Kirby, *Fauna Brit. India, Orthopt.* (Acridiidae) : 99.

Material : 3 ♀♀, 2 ♂♂, Mannanur, 2059m, Mahbubnagar District, 11, 19. iv. 1985.

Distribution : India (Mostly throughout); Bangladesh; Pakistan; S. E. Tibet; Afghanistan; S. E. Persia; Arabia; Yemen; W. Aden Protectorate; Sri Lanka.

Remarks : This species is very common in India. It feeds mostly on grasses and other vegetations of economic importance causing damage.

5. **Leva cruciata* Bolivar

1914. *Leva cruciata* Bolivar, *Trab. Mus. nac. Cienc. nat., Madr.* (Ser. Zool.) No. 20 : 66.

Material : 2 ♀♀, Gudam Falls, Mahbubnagar District, 14.iv.1985; 10, Mannanur, 2095m, 19. iv. 1985.

Distribution : India (Karnataka, Tamilnadu, Bihar, West Bengal); Sri Lanka.

Remarks : This species is differentiated from the other species of the genus by the cruciform mark of the pronotum.

6. *Aiolopus thalassinus tamulus* (Fabricius)

1798. *Gryllus tamulus* Fabricius, *Entomologia Systematica Suppl.*, : 195.

1968. *Aiolopus thalassinus tamulus*, Hollis, *Bull. Br. Mus. nat. Hist.* (Ent.), 22 No.7 : 347.

Material : 5 ♀♀, 6 ♂♂, Mannanur, 2059m, Mahbubnagar District, 11, 19. iv. 1985.

Distribution : India (Tamilnadu, Andaman Nicobar & Andaman Islands, West Bengal, Bihar, Madhya Pradesh, Rajasthan, Himachal Pradesh); Sri Lanka; Bangladesh; Pakistan; Burma; Thailand; China; Hainan; Hong Kong; Taiwan; Malaya; Singapore; Sumatra; Java; Lombok; Timor; Japan; Philippines; Borneo; Celebes; New Guinea; Papua; Australia.

It is also studied from Haryana, Punjab, Uttar Pradesh, Orissa and Karnataka States of India.

Remarks : It is a pest species and reported to damage a large number of plants such as cabbage, cotton, maize, millet, rice, sugarcane, tea, tobacco, wheat, oat, pea etc.

7. *Zygophlaeoba* sp.

Material : 1 ♂, Vot-var-la pally, Mahbubnagar District, 17. iv. 1985.

Remarks : It resembles *Zygophlaeoba bolivari* Henry, but differs from it in absence of hind wings.

8. **Gelastorrhinus semipictus* (Walker)

1870. *Opomala semipicta* Walker, *Cat. Derm. Salt. Br. Mus.*, 3 : 512.

1914. *Gelastorrhinus semipictus*, Kirby, *Fauna Brit. India, Orthopt.* (Acrididae) : 217.

Material : 1 ♂, Mannanur, 2095 m., Mahbubnagar District, 11.iv.1985; 5 ♀♀, Gudam Falls, Mahbubnagar District, 14. iv. 1985.

Distribution : India (Tamilnadu); Sri Lanka.

Remarks : This species is distinguished from the other Indian species by the fastigium which is separated from vertex by an arched sulcus; by the antennae which is thickened and flattened at base, and as long as head and pronotum; and by the tegmina which is not uniformly yellowish green.

9. **Dnopherula (Aulacobothrus) collinus* uvarov (Fig. 1, A)

1929. *Aulacobothrus collinus* Uvarov, *Revue suisse Zool.*, 36 : 543.

1985. *Dnopherula (Aulacobothrus) collinus*, Bhowmik, *Rec. zool. Surv. India, Occ. Paper* No. 78 : 21.

Material : 1 ♀, Gundam Falls, Mahbubnagar District, 14. iv. 1985.

Distribution : India (Karnataka & Tamilnadu).

Remarks : The species fully resembles the description given by Uvarov (1929).

10. **Dnopherula (Aulacobothrus) decisus* (Walker) (Fig. 1, B-C)

1871. *Stenobothrus decisus* Walker, *Cat. Derm. Salt. Br. Mus.*, 5 Suppl. : 80.

1921. *Aulacobothrus decisus*, Uvarov, *Ann. Mag. nat. Hist.*, (9) 7 : 482.

1971. *Dnopherula (Aulacobothrus) decisus*, Jago, *Proc. Acad. Sci. nat. Philad.*, 123 (8) : 24.

Material : 2 ♀♀, 1 ♂, Gundam Falls, Mahbubnagar district, 14. iv. 1985.

Distribution : India (Maharashtra, West Bengal).

Remarks : Bhowmik (1985) in his Catalogue mentioned Tamilnadu under distribution, but we could not trace its report from Tamilnadu so far. We presume that it is error.

11. **Dnopherula (Aulacobothrus) socius* Bolivar
(Fig. 1, D)

1902. *Aulacobothrus socius* Bolivar, *Annls Soc. ent. Fr.*, 70 : 599.

1971. *Dnopherula (Aulacobothrus) socius*, Jago, *Proc. Acad. Sci. nat. Philad.*, 123 (8) : 243.

Material : 1 ♂, Gundam Falls, Mahbubnagar District, 14. iv. 1985.

Distribution : India (Tamilnadu & Maharashtra). It is also studied from Himachal Pradesh and Haryana States of India.

Remarks : Lateral carinnae of pronotum curved, and the lateral lobe of pronotum with scarf-like mark.

12. **Dnopherula (Aulacobothrus) luteipes* (Walker)
(Fig. 1, E)

1871. *Stenobothrus luteipes* Walker, *Cat. Derm. Salt. Br. Mus.*, 5 Suppl. : 82.

1921. *Aulacobothrus luteipes*, Uvarov, *Ann. Mag. nat. Hist.*, (9) 7 : 482.

1971. *Dnopherula (Aulacobothrus) luteipes*, Jago, *Proc. Acad. Sci. nat. Philad.*, 123 (8) : 243.

Material : 3 ♀♀, 1 ♂, Gundam Falls, Mahbubnagar District, 14. iv. 1985.

Distribution : India (Jammu & Kashmir, Himachal Pradesh, Maharashtra, Karnataka, Tamilnadu, Madhya Pradesh, Bihar, Orissa, West Bengal, Assam); Sri Lanka; Pakistan; Bangladesh; Nepal; Burma; China; Taiwan; Thailand.

Remarks : It is reported as a minor pest on the foliage of teak.

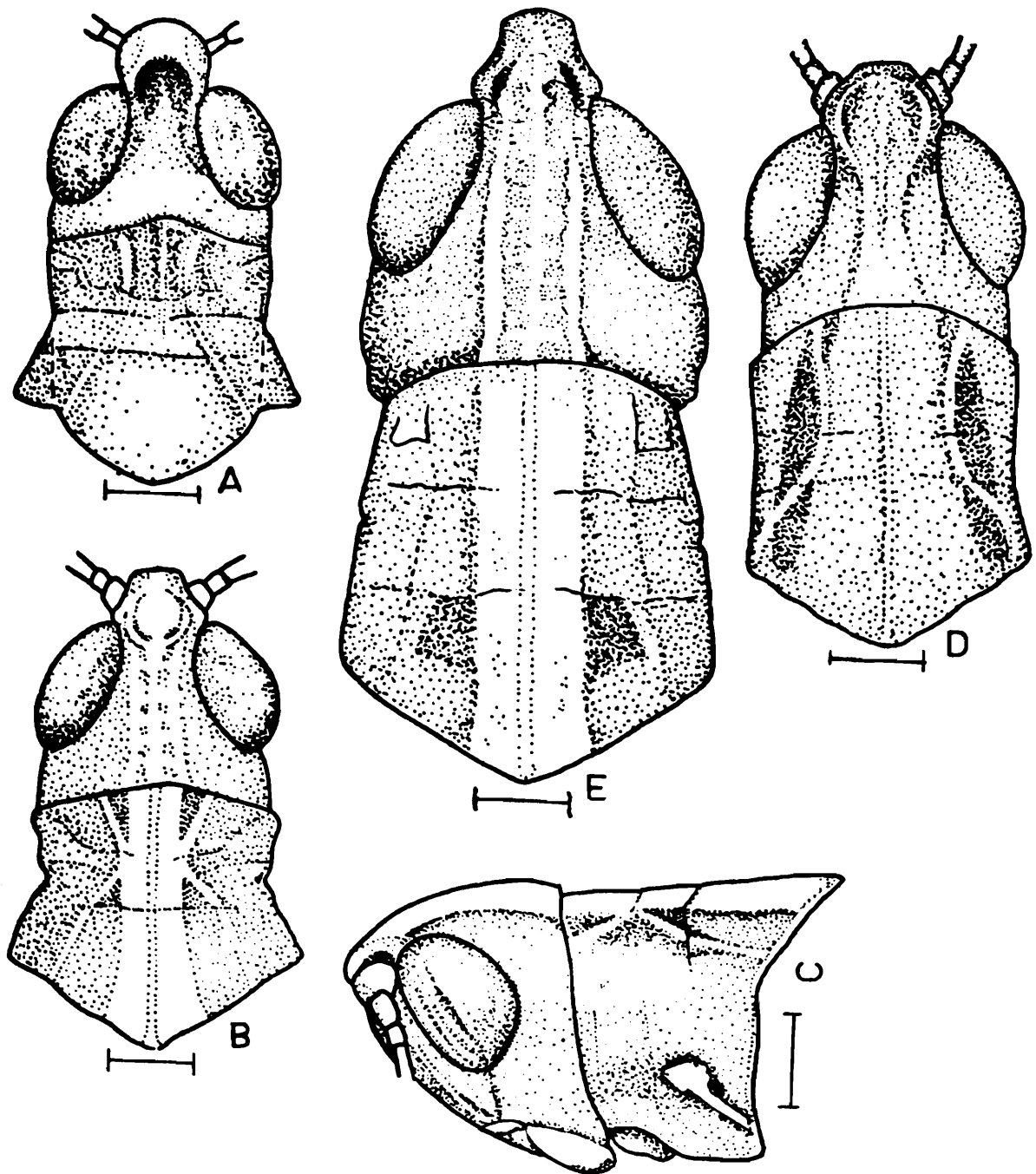
13. *Acrotylus humbertianus* Saussure

1884. *Acrotylus humbertianus* Saussure, *Mem. Soc. Phys. Hist. nat. Geneva*, 28(9) : 189.

1914. *Acrotylus humbertianus*, Kirby, *Fauna Brit. India. Orthopt. (Acridiidae)* : 153.

Material : 2 ♀♀, 1 ♂, Mannanur, 2059, Mahbubnagar District, 11, 19.iv.1985; 1 ♀, Gundam Falls, Mahbubnagar District, 14. iv. 1985.

Distribution : India (Andhra Pradesh, Tamilnadu, Madhya Pradesh, Bihar, Rajasthan, Maharashtra and Goa); Sri Lanka; Nepal; Bangladesh; Pakistan and Afghanistan. It is also studied from Haryana, Uttar Pradesh, Delhi and West Bengal States of India.



Text - fig.1

Scale - 1 mm.

Fig. 1. (A) *Aulacobothrus collinus* Uvarov - dorsal view of head and pronotum (male); (B) *A. decisus* (Walker) - dorsal view of head and pronotum (male); (C) *A. decisus* (Walker) - lateral view of head and pronotum (male); (D) *A. socius* Bolivar - dorsal view of head and pronotum (female); (E) *A. luteipes* (Walker) - dorsal view of head and pronotum (female).

Remarks : It is terricolous species and found in sandy places where grass is available. It is a pest and damage various plants like rice, millet, coffee, wheat, sorghum, maize etc.

14. *Trilophidia annulata* (Thunberg)

1815. *Gryllus annulatus* Thunberg, *Mem. Acad. Sci. St. - Petersb.*, 5 : 234.

1873. *Trilophidia annulata*, Stål, *Recens. Orth.*, 1 : 132.

1914. *Trilophidia annulata*, Kirby, *Fauna Brit. India, Orthopt.* (Acridiidae) : 149.

Material : 3 ♀♀, Mannanur, 2059m, Mahbubnagar District, 11, 19. iv. 1985; 3 ♀♀, 1 ♂, Gundam Falls, Mahbubnagar District, 14. iv. 1985.

Distribution : India (almost throughout); Bangladesh; Nepal; Pakistan; Afghanistan; Sri Lanka; Burma; Malaya; Thailand; Japan; Singapore; Philippines; Vietnam; China; Korea; Hainan; Hong Kong; Taiwan; Sumatra; Borneo; Java; Sarawak; etc.

Remarks : It is geophilous and occurs in places overgrown with grass associated with crops of economic importance. It is reported as a major pest of pastures throughout the year.

15. *Oedaleus abruptus* (Thunberg)

1815. *Gryllus abruptus* Thunberg, *Mem. Acad. Sci. St. - Petersb.*, 5 : 233.

1884. *Oedaleus abruptus*, Saussure, *Mem. Soc. Phys. Hist. nat. Geneve*, : 110, 117.

1914. *Oedaleus abruptus*, Kirby, *Fauna Brit. India, Orthopt.* (Acridiidae) : 144.

Material : 2 ♂♂, Gundam Falls, 14. iv. 1985.

Distribution : India (Jammu & Kashmir, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, Tamilnadu, Karnataka, Goa); Nepal; Bangladesh; Pakistan; Sri Lanka; Burma; Thailand; China; Hawaiian Is. (introduced). It is also studied from Haryana, Punjab, West Bengal and Kerala States of India.

Remarks : Size small; pronotum pointed at posterior margin; tegmina brown, with three pale bands before the middle; wings pale greenish towards the base, with a brownish central fascia. It is a very common species found in India. It damages a large number of plants such as maize, rice, sorghum, tomato, sugarcane, gram, groundnut, sandal, pinus etc.

16. *Morphacris fasciata* (Thunberg)

1815. *Gryllus fasciatus* Thunberg, *Mem. Acad. Sci. St. Petersb.*, 5 : 230.

1910. *Morphacris citrina*, Kirby, *Syn. Cat. Orth.*, 3 : 219.

1921. *Morphacris fasciata*, Uvarov, *Ann. Mag. nat. Hist.*, (9) 7 : 488.

Material : 1 ♂, Mannanur, 2059m, 19. iv. 1985.

Distribution : Whole of Africa and S.W. & S. Asia; Spain; Madagascar. In India it is distributed in Goa, Maharashtra, Madhya Pradesh, Tamilnadu, Andhra Pradesh, Kerala and Bihar.

Remarks : Wings yellow at the base, separated by a dark brown band from the outer hyaline area. It is an occasional minor pest and found to damage leaves of maize, millet, sorghum, tobacco, cotton, vegetables etc. Commonly found in open grassy places of forest.

17. *Dittopternis venusta* (Walker)

1870. *Oedipoda venusta* Walker, *Cat. Derm. Salt. Br. Mus.*, 4 : 740.

1888. *Dittopternis venusta*, Saussure, *Mem. Soc. Phys. Hist. nat. Geneve*, 30(1) : 40.

1914. *Dittopternis venusta*, Kirby, *Fauna Brit. India. Orthopt.* (Acridiidae) : 140.

Material : 2 ♂♂, Mannanur, 2059m, 11, 19. iv.1985; 1m., Gundam Falls, 14. iv. 1985.

Distribution : India (Tamilnadu, Madhya Pradesh, West Bengal, Andhra Pradesh); Sri Lanka. It is also studied from Karnataka State of India.

Remarks : Head and pronotum much granular; lateral lobes of pronotum rectangular behind; hind wings yellow at base with a blackish band beyond; hind femora with black transverse band; hind tibiae black at base, followed by light yellow band, then blue at apex; internal calcaria of posterior tibiae nearly equal in length.

18. *Teratodes* sp.

Material : 1 ♀ (nymph), Mannanur, 2059m. 19. iv. 1985.

Distribution : India (Uttar Pradesh, Madhya Pradesh, Maharashtra, Tamilnadu, Andhra Pradesh, West Bengal); Pakistan; Sri Lanka.

Remarks : Usually found on trees or large woody shrubs in forest areas. It is reported an occasional pest of forest plants specially teak, sandal, vines etc., and recently found feeding on potato, sugarcane plants.

19. *Spathosternum prasiniferum prasiniferum* (Walker)

1871. *Heteracris* (?) *prasinifera* Walker, *Cat. Derm. Salt. Brit. Mus.*, 5 : 69, 82.

1914. *Spathosternum prasiniferum*, Kirby, *Fauna Brit. India, Orth.* (Acridiidae) : 208.

1936. *Spathosternum prasiniferum prasiniferum*, Tinkham, *Lingnan Sci. Journ.*, 15 : 51.

Material : 4 ♀♀, 4 ♂♂, Mannanur, 2059, 11 & 19. iv. 1985.

Distribution : India (distributed throughout India); Bangladesh; Pakistan; Sri Lanka; Nepal; Burma; Thailand; China; Vietnam; Indo-China; Hainan; W. Malaysia.

Remarks : Very common Indian species found along the bunds of cultivated fields, road side, pastures etc. and is a major pest of various plants such as barley, millet, maize, rice, sorghum, sugarcane, wheat etc.

20. **Oxya hyla hyla* Serville

1831. *Oxya hyla* Serville, *Annls Sci. nat. (Zool.)*, 22 : 287.

1971. *Oxya hyla hyla*, Hollis, *Bull. Br. Mus. nat. Hist. (Ent.)*, 26(7) : 282.

Material : 2 ♀♀, 2 ♂♂, Mannanur, 2059m, 11. iv. 1985.

Distribution : India (Arunachal Pradesh, West Bengal, Bihar, Orissa, Tamilnadu, Goa, Uttar Pradesh, Rajasthan, Himachal Pradesh); Pakistan; Afghanistan; Persia; Bangladesh; Nepal; Sri Lanka; Africa; Madagascar. It is also studied from Haryana, Punjab, Assam, Tripura, Manipur, Maghalaya, Karnataka.

Remarks : Very common species of *Oxya* Serville, which generally prefer rice fields and low-lying grasslands but rarely recorded from forest. It is reported as a pest of rice, barley, canna, citrus, cotton, maize, millet, sugarcane, wheat, sweet potato, etc.

21. *Oxya nitidula* (Walker)

1870. *Acridium nitidulum* Walker, *Cat. Derm. Salt Br. Mus.*, 4 : 64.

1971. *Oxya nitidula*, Hollis, *Bull. Br. Mus. nat. Hist. (Ent.)*, 26 (7) : 315.

Material : 10 ♀♀, 13 ♂♂, Mannanur, 2059m, 11, 13 & 19. iv. 1985.

Distribution : India (West Bengal, Andhra Pradesh, Tamilnadu, Karnataka, Kerala, Goa, Rajasthan); Sri Lanka.

Remarks : It is generally found in Southern India, but sometimes also recorded from West Bengal in east and Goa and Rajasthan in West. This species occurs along with *Oxya hyla hyla* Serville in paddy fields.

22. * *Coptacra punctaria* (Walker)

1870. *Acridium punctarium* Walker, *Cat. Derm. Salt Br. Mus.*, 4 : 630.

1914. *Bibractoides punctoria*, Kirby, *Fauna Brit. India, Orthop. (Acridiidae)* : 236.

1929. *Coptacra punctaria*, Uvarov, *Revue suisse Zool.*, 36 : 561.

Material : 2 ♂♂, Vet-vor-la pally, 17. i. 1985.

Distribution : India (S. India - Tamilnadu).

Remarks : It is differentiated from the other known Indian species of the genus by the rugosities and black granules of the pronotum and sometimes the head also furnished with fine punctuation; front considerably produced between the antennae; antennae filiform; tegmina shorter than the abdomen.

23. * *Eucoptacra saturata* Walker,

1870. *Acridium saturatum* Walker, *Cat. Derm. Salt Br. Mus.*, 4 : 628.

1921. *Eucoptacra saturata*, Uvarov, *Ann. Mag. nat. Hist.*, (9) 7 : 503.

Material : 1 ♂, Vet-vor-la pally, 17. iv. 1985.

Distribution : India (Assam, Orissa, Madhya Pradesh and Uttar Pradesh).

Remarks : It differs from the other known Indian species of the genus by the moderate size of the body; in absence of black spot on the superior - externa area of hind femur near the middle part; sub-genital plate of female at the hind margin not broadly

rounded or triangularly expanded; cercus extended upto the apex of supra-anal plate; hind tibiae reddish beyond the middle.

24. *Tristria pulvinata* (Uvarov)

1921. *Tapinophyma pulvinata* Uvarov, *Ann. Mag. nat. Hist.*, (9) 7 : 497.

1929. *Tristria pulvinata*, Uvarov, *Revue suisse Zool.*, 36 : 559.

Material : 11 ♀♀, 3 ♂♂, Vet-vor-la pally, 17. iv. 1985.

Distribution : India (Delhi, Bihar, West Bengal, Tamilnadu, Kerala and Maharashtra); Sri Lanka.

Remarks : Sub-genital plate of male is almost linear, compressed, knife-like; anterior half of ventral margin of lateral lobe of pronotum in female strongly upcurved.

25. *Tyloptropidius varicornis* (Walker)

1870. *Heteracris varicornis* Walker, *Cat. Derm. Salt. Br. Mus.*, 4 : 667.

1914. *Tyloptropidius varicornis*, Kirby, *Fauna. Brit. India, Orthop. (Acridiidae)* : 265.

Material : 3 ♀♀, 1 ♂, Gundam Falls, 14. iv. 1985.

Distribution : India (Himachal Pradesh, Rajasthan, Maharashtra, Goa, West Bengal); Nepal; Sri Lanka; Burma; Thailand; China.

Remarks : Lateral carinae of pronotum pale and curving towards behind; hind margin of pronotum roundly angulate; prosternal tubercle truncate, compressed and slightly bituberculate at apex; tegmina with a row of triangular whitish spots; hind femora thickened at base and slender towards the apex; hind tibiae light blue towards apex; tarsi also light blue; supra-anal plate of male elongate-triangular; cerci straight, a little compressed and acuminate. It is reported as a minor crop pest.

26. *Xenocatantops karnyi* Kirby

1910. *Catantops karnyi*, *Syn. Cat. Orthopt.*, 3 : 483.

1982. *Xenocatantops karnyi*, Jago, *Trans. Ame. ent. Soc.*, 108 no. 1 : 454.

Material : 2 ♀♀, Mannanur, 2059 m, 19. iv. 1985.

Distribution : India (Orissa, Andhra pradesh, Tamilnadu, Uttar Pradesh and Himachal Pradesh); Nepal.

Remarks : Inner side of hind femur orange-red, with brown or black markings; male cercus bifurcated at apex, subequal in length and bluntly pointed at their apex.

27. *Catantops pinguis innotabilis* (Walker)

1870. *Acridium innotabile* Walker, *Cat. Derm. Salt. Brit. Mus.*, 4 : 629.

1925. *Catantops innotabilis*, Uvarov, *In Mission Guy babault dans les Provinces centrales de l' Inde et dans l' region occidentale de l' Himalaya*, 1914 *Insectes*, : 30.

1953. *Catantops pinguis innotabilis*, Dirsh and Uvarov, *Tijdschr. Ent.*, 96(3) : 233.

Material : 1 ♂, Gundam Falls, 14. iv. 1985.

Distribution : India (Orissa, Andhra Pradesh, Tamilnadu, Goa, Lacadive Islands, Sikkim, West Bengal, Bihar, Madhya Pradesh, Uttar Pradesh, Rajasthan, Himachal Pradesh, Jammu & Kashmir); Sri Lanka; It is also studied from Haryana, Punjab, Assam, Tripura, Maharashtra, Karnataka States of India.

Remarks : Generally found at the outskirts of forest. It is a minor pest and reported to cause damage to cotton, millet, rice, tea, teak, pinus sp. etc.

28. *Cyrtacanthacris tatarica* (Linnaeus)

1758. *Gryllus Locusta tataricus* Linnaeus, *Systema naturae per Regna Tria naturae*. (10 ed.) : 432.

1923. *Cyrtacanthacris tatarica*, Uvarov, *Bull. ent. Res.*, 14 : 39.

Material : 1 ♂, Mannanur, 2059 m., 15. iv. 1985.

Distribution : India (Widely distributed); Pakistan; Nepal; Bangladesh; Burma; Sri Lanka; Thailand; Indonesia; Africa; Red Sea; Madagascar; Seychelle and Comore Islands : Saudi Arabia; Sokotra.

Remarks It is found feeding on wild and cultivated plants. It is a savannah species and reported to cause damage to various species of grass, coffee, cotton, ficus sp., millet, maize, sugarcane, sunflower, teak, tobacco, vegetables etc.

29. *Epistaurus sinetyi* Bolivar

1902. *Epistaurus sinetyi* Bolivar, *Annals Soc. ent. Fr.*, 70 : 623.

1914. *Epistaurus sinetyi*, Kirby, *Fauna Brit. India, Orthopt.* (Acridiidae) : 242.

Material : 1 ♀, Mannanur, 2059 m., 11. iv. 1985; 1 fem., Gundam, Falls, 14. iv. 1985.

Distribution : India (Tamilnadu, West Bengal). It is also studied from Orissa State in India.

Remarks : It is smaller in size; abdomen red or pale-red, spotted on the back; hind femur obliquely trifasciate with brown; cerci short, compressed, incurved towards the apex; subgenital plate obtuse, a little produced.

Family PYRGOMORPHIDAE

30. *Atractomorpha crenulata* (Fabricius)

1793. *Truxalis crenulatus* Fabricius, *Ent. Sys.*, 2 : 28.

1861. *Atractomorpha crenulata*, Saussure, *Annls Soc. ent. Fr.*, (4) 1 : 475.

1914. *Atractomorpha crenulata*, Kirby, *Fauna Brit. India, Orthopt.* (Acridiidae) : 181.

Material : 17 ♀♀, 6 ♂♂, Mannanur, 2059 m., 11, 13, 19. iv. 1985; 5 ♀♀, 2 ♂♂, Gundam Falls, 14. iv. 1985.

Distribution : India (Widely distributed throughout India); Nepal; Pakistan;

Bangladesh; Sri Lanka; Burma; Thailand; Malaya; N. W. Sumatra.

Remarks : This species is available throughout the year. Both adults and hoppers are serious pest of young plants especially tobacco and maize but may also damage other crop and vegetable plants.

31. *Chrotogonus (Chrotogonus) oxypterus* (Blanchard)

1836. *O mmexecha oxypterus* Blanchard, *Annls Soc. ent. Fr.*, 5 : 622.

1914. *Chrotogonus oxypterus*, Kirby, *Fauna Brit. India, Orthop.* (Acridiidae) : 166.

1959. *Chrotogonus (Chrotogonus) oxypterus*, Keven, *Publicões cult. Co. Diam. Angola*, no. 43 : 48.

Material : 1 ♀, 2 ♂♂, Mannanur, 2059m, 15 & 19. iv. 1985.

Distribution : India (Goa, Maharashtra, Madhya Pradesh, Uttar Pradesh Bihar, Orissa, West Bengal, Andhra Pradesh, Kerala, Tamilnadu, Karnataka); Bangladesh; Sri Lanka.

Remarks : Commonly known as surface grasshopper because it lacks the climbing habits. It is a regular minor pest and feeds almost all green vegetation.

Family GRYLLIDAE

32. *Gryllus bimaculatus* De Geer

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

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

Material : 1 ♀, Mannanur, 2059m, 19. iv. 1985.

Distribution : India (Jammu & Kashmir, Himachal Pradesh, Punjab, Uttar Pradesh, Madhya Pradesh, Bihar, Rajasthan, Maharashtra, Goa, Karnataka, Tamilnadu, Andhra Pradesh, West Bengal, Andaman Islands, Arunachal Pradesh, Sikkim, Meghalaya); Pakistan; Sri Lanka; Burma; Malaya; Singapore; Africa; Mediterranean region.

It is also studied from Haryana and Assam States of India.

Remarks : Body colour entirely black, the legs rufous; tegmina with characteristic yellow spots at the base.

33. *Gryllodes sigillatus* (Walker)

1869. *Gryllus sigillatus* Walker, *Cat. Derm. Salt. Brit. Mus.*, 1 : 46.

1877. *Gryllodes sigillatus*, Saussure, *Mem. Soc. Phys. Hist. nat. Geneva*, 25 : 210.

1969. *Gryllodes sigillatus*, Chopard, *Fauna of India, Orthopt. 2 Grylloidea* : 85.

Material : 1 ♂, Mannanur, 11. iv. 1985.

Distribution : India (Jammu & Kashmir, Punjab, Rajasthan, Uttar Pradesh, Madhya Pradesh, Bihar, West Bengal, Assam, Orissa, Andhra Pradesh, Karnataka, Kerala, Tamilnadu, Andaman Islands); Pakistan; Sri Lanka; Malaya and Malacca. It is also studied from Haryana State of India.

Remarks : Tegmina of male hardly extend upto the middle of abdomen, and it is

truncated at apex. Wings absent.

34. * *Paranemobius pictus* (Saussure)

1877 *Pseudonemobius pictus* Saussure, *Mem. Soc. Phys. Hist. nat. Geneva*, 25 : 67.

1969. *Paranemobius pictus*, Chopard, *Fauna of India, Orthopt. 2 Grylloidea* : 174.

Material : 1 ♂, Gundam Falls, 14. iv. 1985.

Distribution : India (Jammu & Kashmir, Maharashtra, Madhya Pradesh, Bihar, Karnataka, Kerala, Tamilnadu); Sri Lanka.

Remarks : General colouration strongly variegated with blackish and yellowish; tegmina extended upto the anterior margin of 2nd abdominal tergite; veins of dorsal field straight; subgenital plate notched at apex.

SUMMARY

Thirty-four species of Orthoptera from Nagarjuna Sagar, Tiger Reserve Forest (Andhra Pradesh) belonging to 30 genera and 6 families are dealt with in this paper. Out of these, 13 species are recorded for the first time from the area. Distributional records of all the species are given.

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