

A CONTRIBUTION TO THE ORTHOPTERA FAUNA (INSECTA : ORTHOPTERA) OF SUNDERBAN BIOSPHERE RESERVE, INDIA WITH TWO NEW RECORDS FROM WEST BENGAL

SWAPAN KUMAR DAS¹, UDIPTA CHAKRABORTI, SANKARSAN ROY, OLIVE BISWAS AND BULGANIN MITRA

Zoological Survey of India, Prani Vigyan Bhavan, M-Block, New Alipore,
Kolkata-700 053, West Bengal, India

Corresponding author's e-mail¹ - swapan.zsi@gmail.com.

ABSTRACT

Present communication reports 38 species of orthopteran insects under 32 genera belonging to 24 tribes of 15 subfamilies spread over 7 families under 5 Super families from Sunderban Biosphere Reserve. Among them, 17 species are reported for the first time from Sunderban biosphere Reserve (Marked with *) and two species namely *Conocephalus (Anisoptera) longipennis* (Hann, 1842) & *Letana pyrifera* Bey Bienko, 1956 from the family Tettigoniidae from West Bengal, India (Marked with #).

Among the 7 families, family Acrididae holds the highest number of species (12), followed by the family Gryllidae with 8 species. Furthermore, family Tettigoniidae (7), Trigonidiidae (4), family Pyrgomorphidae (3), Tetrigidae (3) hold the rest of the positions in the species list and family Gryllotalpidae holds the last position with only one species.

INTRODUCTION

Orthopterans are primitive insect group with unspecialized wings. The members of this insect order are popularly known as short and long-horned grasshoppers, cricket, mole-cricket, locusts etc.

Sunderban mangrove forests, situated in the state of West Bengal in India, have been considered as one of the most important wetland globally. Due to its unique and enriched ecosystem, this region holds a unique biodiversity. Almost 60 % of this mangrove forests lie in the Bangladesh and the



Map-1. Collection localities in Sunderban Biosphere Reserve (SBR)

rest are in West Bengal, India. The Indian part of Sunderban lies between the coordinates 21°30' to 22°15' N and 88°10' to 89°10' E (UNESCO). Indian Sunderban includes almost 9600 sq. km. area (4200 sq. km. of reserve forest and 5400 sq. km. of non-forest inhabited region) constitute the biosphere region which is known as Sunderban Biosphere Reserve (SBR) (Mitra *et al.*, 2016).

The taxonomic study on the order Orthoptera in Sunderbans is very poor. In series of contribution, Bhowmik (1986), Mandal and Nandi (1989), Agrawal and Ghose (1995) enriched the orthopteran fauna of this area. An enlightened work has been made on the population fluctuation of grasshopper fauna in the Sunderban region by Sharma (2012). Apart from that, Mitra *et al.* (2014) has also been incorporated two more orthopteran species of the family Gryllidae as new records from Sunderban.

While surveying the different areas of Sunderbans (2014-2016) under the insect pollinator project funded by MOEFCC, the authors were collected 38 species under 32 genera belonging 7 families of Orthoptera from Sunderban Biosphere Reserve, of them, 17 species are reported for the first time from Sunderbans and two species from the state West Bengal, India.

The Indian Checklist of Shishodia *et al.* (2010) have been followed for the classification, taxonomic and distributional details. The Website referred with Eades *et al.* (2016) has also been followed for some of the classification details.

METHODOLOGY

The study was conducted at different islands *viz.* Bali (Peyaratoli, 9 no. Gheri) Gosaba (Pakhirala, Jotirampur), Satjelia, Bakkhali (Henry's Island), Sagar Island (Panmajani, Gangasagar colony) of the Indian counterpart (Map-1). The specimens were collected either by hand or by sweeping net in daytime from the different areas of Sunderbans. In the night time, the collection was made using light of 160 watts mercury vapour lamp in front of a white cloth. The examples were studied and then photographed with the help of Stereo Zoom Binocular Microscopes, model Leica EZ4 HD. Specimens examined are deposited in the "National Zoological Collections of Zoological Survey of India, Kolkata.

Key to Suborder of order ORTHOPTERA

- Antennae with well over 30 segments.....Ensifer
- Antennae with less than 30 segments
Caelifera

Key to families of suborder ENSIFERA

1. Anterior legs short, strongly fossorial with tibiae expanded and digitate for digging.....
Gryllotalpidae, Blanchard, 1845
- Anterior legs normal, tibiae simple 2
2. All tarsi 3-segmented, even if basal segment appears to be subdivided 3
- At least middle tarsi, and usually all tarsi, 4-segmented, Head blunt; fore tibiae with one or more spines on dorsal surface.....
.....TETTIGONIIDAE, Krauss, 1902
3. Second segment of tarsi compressed, minute. Posterior tibiae armed with spines on the superior margins, denticles between the spines GRYLLIDAE, Laicharding, 1781
- Second segment of tarsi depressed, Posterior tibiae non-serrulated, armed with three spines on each margin; very small delicate insects
.....TRIGONIDIIDAE, Saussure, 1874

Key to families of suborder CAELIFERA

1. Pronotum extended backwards over abdomen..... TETRIGIDAE, Serville, 1838
- Pronotum not extended backwards over abdomen..... 2
2. Foveolae of the vertex contiguous, superior and forming the extremity of the fastigium. Stridulatory mechanism absent.....
...Pyrgomorphidae, Brunner von Wattenwyl, 1874
- Foveolae lateral or inferior, never forming the tip of the fastigium, stridulation mechanism present.....ACRIDIDAE, Macleay, 1821

SYSTEMATIC ACCOUNT

Order ORTHOPTERA

I. Suborder CAELIFERA

I. Superfamily ACRIDOIDEA Macleay, 1821.

I. Family ACRIDIDAE Macleay, 1821.

Subfamily ACRIDINAE Macleay, 1821.

Tribe **Acridini** MacLeay, 1821

1. *Acrida exaltata* (Walker, 1859)

1859. *Truxalis exaltata* Walker, *Ann. Mag. nat. Hist.*, 4(3): 222.

1969. *Acrida exaltata* : Tandon & Shishodia, *Oriental Ins.*, 3(3): 267.

Material examined: 1 ex, Paschimpara : Sagar Island, Sunderban, West Bengal, 20.v. 2015, coll. B. Mitra and party; 1 exs, Pakhirala: Gosaba Island, Sunderban, West Bengal, 10.ix.2014, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Afghanistan, Bangladesh, Iran, Pakistan, Saudi Arabia, South East Tibet, Sri Lanka, Yemen and West Aden.

Remarks: This species was reported from Sunderban by Mandal and Nandi (1989).

Tribe **Phlaeobini**, Brunner von Wattenwyl, 1893

2. *Phlaeoba infumata* Brunner von Wattenwyl, 1893

1893. *Phlaeoba infumata* Brunner von Wattenwyl, *Ann. Mus. Genova*, 33(2): 124

Distribution: India : Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Haryana, Himachal Pradesh, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. *Elsewhere*: Bangladesh, East Nepal, Hainan Islands, Myanmar, South & North Malacca, South China, Tennasserim and Yunnan.

Remarks: This species was reported from Sunderban by Hazra *et al.* (1993).

Subfamily EYPREPOCNEMIDINAE
Brunner von Wattenwyl, 1893

Tribe **Eyprepocnemidini** Brunner von Wattenwyl, 1893

3. *Eyprepocnemis alacris alacris*
(Serville, 1839)

1839. *Acridium alacre* Serville, *Ins. Orth.*: 682.

1969. *Eyprepocnemis alacris alacris*: Tandon & Shishodia, *Oriental Ins.*, 3(3): 266.

Distribution: India: Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Manipur, Maharashtra,

Meghalaya, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Afghanistan, Bangladesh, Iran, Iraq, Pakistan and Sri Lanka.

Remarks: This species was reported from Sunderban by Mandal and Nandi (1989).

Subfamily GOMPHOCERINAE Fieber, 1853

Tribe **Dociostaurini** Mishchenko, 1974 (Eades *et al.*, 2016)

4. *Leva indica* (Bolivar, 1902)

1902. *Gymnobothrus indicus* Bolivar, *Ann. Soc. ent. Fr., Paris*, 70: 596.

1921a. *Leva indica*: Uvarov, *Ann. Mag. nat. Hist. London*, 7(9): 485.

Distribution: India: Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Karnataka, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu, Tripura and West Bengal. *Elsewhere*: Sri Lanka.

Remarks: This species was reported from Sunderban by Mandal and Nandi (1989).

Subfamily OEDIPODINAE Walker, F. 1871

Tribe **Epacromiini** Brunner von Wattenwyl, 1893

5. *Aiolopus thalassinus tamulus*
(Fabricius, 1798)

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

1968. *Aiolopus thalassinus tumulus*: Hollis, *Bull. Br. Mus. nat. Hist., (Ent.)*, 22(7): 347.

Material examined: 2exs, Bali Island: Sunderban, West Bengal, 26.v.2014, coll. B. Mitra and party; 2 exs, Bali Island: Sunderban, West Bengal, 28.v.2014, coll. B. Mitra and party; 1 ex, Gangasagar colony: Sagar Island, Sunderban, West Bengal, 19.vii.2014, coll. B. Mitra and party; 1 ex, Henry's Island: Bokkhali, Sunderban, West Bengal, 17.vi.2015, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Bihar, Chhattisgarh, Delhi, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Australia, Bangladesh, Borneo, Brunei, Celebes, China, Hainan, Hong Kong, Indonesia, Japan, Java, Lombok, Malaysia, Myanmar, New Guinea, Pakistan, Papua, Philippines, Singapore, Sri Lanka, Sumatra, Taiwan, Thailand and Timor.

Remarks: This species was reported from Sunderban by Mandal and Nandi (1989).

Tribe **Locustini** Kirby, 1825

6. ***Oedaleus abruptus*** (Thunberg, 1815)*

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



Fig. 1. *Oedaleus abruptus* (Thunberg, 1815)

1910. *Oedaleus abruptus*: Kirby, *Syn. Cat. Orth.*,: 226.

Material examined: 2exs, Bali Island: Sunderban, West Bengal, 26.v. 2014, coll. B. Mitra and party.

Distribution: India: Andhra Pradesh, Arunachal Pradesh, Bihar, Chhattisgarh, Delhi, Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Pondicherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere:* Afghanistan, Bangladesh, China, Indo-China, Myanmar, Nepal, Pakistan, Sri Lanka, Taiwan, Thailand and Vietnam.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

Tribe **Trilophidiini** Shumakov, 1963

7. ***Trilophidia annulata*** (Thunberg, 1815)

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

1884. *Trilophidia annulata ceylonica*: Saussure, *Mem. Soc. Phys. Hist. nat. Geneve*, **28**(9): 158.

Material examined: 1 ex, Panmajani: Sagar Island, Sunderban, West Bengal, 20.v.2015, coll. B. Mitra and party; 1 ex, Peyaratoli: Bali Island, Sunderban, West Bengal, 10.vi.2015, coll. B. Mitra and party.

Distribution: India: Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa,

Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere:* Afghanistan, Bangladesh, Borneo, China, Hong Kong, Japan, Java, Korea, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Sarawak, Singapore, Sri Lanka, Sumatra, Taiwan, Thailand and Vietnam.

Remarks: This species was reported from Sunderbans by Mandal and Nandi (1989).

Subfamily OXYINAE Brunner von Wattenwyl, 1893

Tribe **Oxyini** Brunner von Wattenwyl, 1893

8. ***Gesonula punctifrons*** (Stal, 1861)

1861. *Acridium (Oxya) punctifrons* Stal, *Kong I. Svensk. Fregat Eugen. Res. Omkring Jorden*, **3**: 336.

1975. *Gesonula punctifrons*: Hollis, *Bull. Br. Mus. nat. Hist. (Ent.)*, **31**: 209.

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal. *Elsewhere:* Bangladesh, Borneo, China, Hainan, Japan, Java, Kalimantan, Malacca, Myanmar, North Vietnam, Philippines, Sri Lanka, Taiwan, Thailand and Tongking.

Remarks: This species was reported from Sunderbans by Mandal and Nandi (1989).

9. ***Oxya fuscovittata*** (Marschall, 1836)

1836. *Gryllus fuscovittatus* Marschall, *Ann. Wien. Mus. Vienna*, **1**(2): 211.

1971. *Oxya fuscovittata*: Hollis, *Bull. Br. Mus. nat. Hist. (Ent.)*, **26**(7): 322.

Material examined: 2 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party; 1 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 11.xii.2014, coll. B. Mitra and party; 1 ex, Devnibas: Bokkhali, Sunderban, West Bengal, 17.xi.2015, coll. B. Mitra and party.

Distribution: India: Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur,

Meghalaya, Nagaland, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Afghanistan, Bangladesh, Nepal, Pakistan.

Remarks: This species was reported from Sunderbans by Mandal and Nandi (1989).

10. *Oxya hyla hyla* Serville, 1831

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

1971. *Oxya hyla hyla*: Hollis, *Bull. Br. Mus. nat. Hist. (Ent.)*, **26**(7): 294.

Material examined: 2 exs ♂, Notun gheri: Sagar Island, Sunderban, West Bengal, 17.vii.2014, coll. B. Mitra and party; 1 ex, 9 No. Gheri: Bali Island, Sunderban, West Bengal, 14.iii.2015, coll. B. Mitra and party; 1 ex, Henry's Island: Bokkhali, Sunderban, West Bengal, 16.vi.2015, coll. B. Mitra and party; 10 exs, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party; 1 ex, Pakhirala: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party; 1 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.xi.2015, coll. B. Mitra and party;

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Afghanistan, Mrica, Angola, Bangladesh, Benin, Cameroun, Chad, Central African Republic, Cote d' Ivoire, Iran, Fernandopo, Gabon, Gambia, Ghana, Giunea, Iran, Kenya, Liberia, Madagascar, Maldiv Island, Mali, Malawi, Nepal, Niger, Nigeria, Pakistan, Sao Thome, Senegal, Sierra Leone, Sudan, Sri Lanka, Tanzania, Uganda, Zaire and Zambia.

Remarks: This species was reported from Sunderbans by Mandal and Nandi (1989).

11. *Oxya nitidula* (Walker, 1870)

1870. *Acridium nitidulum*, Walker, *Cat. Derm. Salt. Brit. Mus.*, **4**: 631.

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

Distribution: India: Andhra Pradesh, Bihar, Chhattisgarh, Goa, Kamataka, Kerala, Madhya

Pradesh, Manipur, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura and West Bengal. *Elsewhere*: Sri Lanka.

Remarks: This species was reported from Sunderbans by Mandal and Nandi (1989).

12. *Oxya velox* (Fabricius, 1787)*

1787. *Gryllus velox* Fabricius, *Mantissa Insectorum stens eorum species nuper detectas adjectis characteribus genericis, differentiis specificis, emendationibus, observationibus*, **2**(1): 239.

2010. *Oxya velox*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 112.



Fig. 2. *Oxya velox* (Fabricius, 1787)

Material examined: 1 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party.

Distribution: India: Andhra Pradesh, Arunachal Pradesh, Bihar, Assam, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Manipur, Maharashtra, Meghalaya, Nagaland, Orissa, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Bangladesh, China, Myanmar, Pakistan, Singapore, Sri Lanka and Thailand.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

Subfamily SPATHOSTERNINAE Rehn, 1957

Tribe **Spathosternini** Rehn, 1957

13. *Spathosternum prasiniferum prasiniferum* (Walker, 1871)

1871. *Heteracris prasiniferum* Walker, *Cat. Derm. Salt. Brit. Mus.*, **5**: 65.

2010. *Spathosternum prasiniferum prasiniferum*: Shishodia et al., *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 114.

Material examined: 1 ex, Bali Island: Sunderban, West Bengal, 30.v.2014, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Bangladesh, Hainan, Myanmar, Nepal, Pakistan, South & East China, Sri Lanka, Thailand, Vietnam and West Malaysia.

Remarks: This species was reported from Sunderbans by Mandal and Nandi (1989).

II. Superfamily PYRGOMORPHOIDEA

Brunner von Wattenwyl, 1874

II. Family PYRGOMORPHIDAE

Brunner von Wattenwyl, 1874

Subfamily PYRGOMORPHINAE Brunner von Wattenwyl, 1874

Tribe **Atractomorphini** Bolivar, 1905: 196.

14. *Atractomorpha crenulata* (Fabricius, 1793)

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

2010. *Atractomorpha crenulata* Fabricius: Shishodia et al., *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 129.

Material examined: 1 ex, Bali Island: Sunderban, West Bengal, 26.v.2014, coll. B. Mitra and party; 1 ex, Gangasagar Crematorium: Sagar Island, Sunderban, West Bengal, 17.vii.2014, coll. B. Mitra and party; 1 ex, Henry's Island: Bokkhali, Sunderban, West Bengal, 16.vi.2015, coll. B. Mitra and party; 1 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Lakshadweep Island, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Rajasthan,

Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Bangladesh, Cambodia, Laos, Maldive Island, Malaya, Myanmar, Nepal, Pakistan, Sri Lanka, Sumatra, South Vietnam and Thailand.

Remarks: This species was reported from Sunderbans by Mandal and Nandi (1989).

Tribe **Chrotogonini** Bolivar, 1904

15. *Chrotogonus (Chrotogonus) trachypterus trachypterus* (Blanchard, 1836)

1836. *Ommexecha trachypterus* Blanchard, *Ann. Soc. ent. France*, **5**: 618.

2010. *Chrotogonus (Chrotogonus) trachypterus trachypterus*: Shishodia et al., *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 134.

Distribution: India: Andhra Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Aghanistan, Bangladesh, Iran, Nepal and Pakistan.

Remarks: This species was reported from Sunderbans by Mandal and Nandi (1989).

III. Superfamily TETRIGOIDEA Serville, 1838

III. Family TETRIGIDAE Serville, 1838

Subfamily TETRIGINAE Serville, 1838

Tribe **Tetrigini** Rambur, 1838

16. *Euparatettix histricus* (Stal., 1861)*

1861. *Tetrix histricus* Stal, *Kongliga svenska fregatten Eugenie's Resa Omkring Jorden under belag af CA. Virgin aren*, **2**(1): 347.

2010. *Euparatettix histricus* : Shishodia et al., *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 178.



Fig. 3. *Euparatettix histricus* (Stal., 1861)

Material examined: 1 ex, Pakhirala: Gosaba Island, Sunderban, West Bengal, 16.xii.2014, coll. B. Mitra and party; 1 ex, Bali Island, Sunderban, West Bengal, 11.iii.2015, coll. B. Mitra and party; 1 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Himachal Pradesh, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Rajasthan, Tamil Nadu, Tripura and West Bengal. **Elsewhere:** Australia, Borneo, Caledonia, Celebes, East Africa, East Afghanistan, Holland, Indonesia, Iran, Java, Malaysia, Myanmar, Nepal, New Ireland, Pakistan, Philippines, Queensland, Saudi Arabia, Solomon Islands, South China, Sumatra, Sri Lanka and Taiwan.

Remarks: This is first report of this species from Sunderban Biosphere Reserve.

17. *Hedotettix gracilis* (de Hann, 1842)*

1842. *Acridium gracile* Haan, *Gesch. Ned. Overszee. Bezitt*, 2: 169.

2007. *Hedotettix gracilis*: Chandra *et al.*, *Zoos' Print Journal*, 22(5): 2687

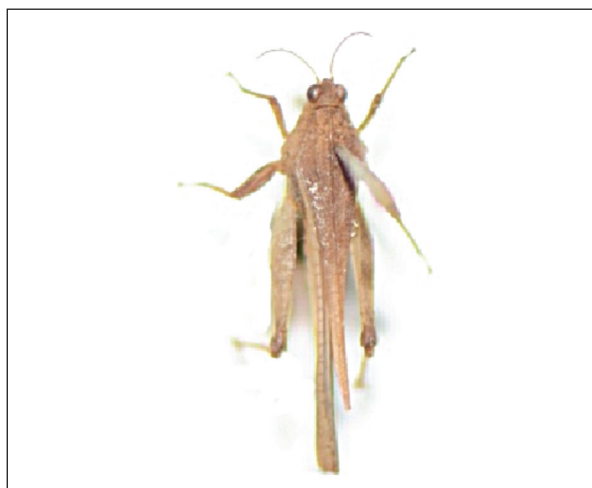


Fig. 4. *Hedotettix gracilis* (de Hann, 1842)

Material examined: 4 exs., Pakhirala: Gosaba Island, Sunderban, West Bengal, 8.x.2015, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Chhattisgarh, Himachal Pradesh, Kamataka, Kerala, Madhya

Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Rajasthan, Sikkim, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. **Elsewhere:** Bangladesh, Celebes, China, Java, Myanmar, Pakistan, Sri Lanka, Sulawesi, Sumatra, Taiwan, Thailand and Vietnam.

Remarks: This is first report of this species from Sunderban Biosphere Reserve.

18. *Hedotettix grossus* Hancock, 1915*

1915. *Hedotettix grossus* Hancock, *Rec. Indian Mus.*, 11: 124.

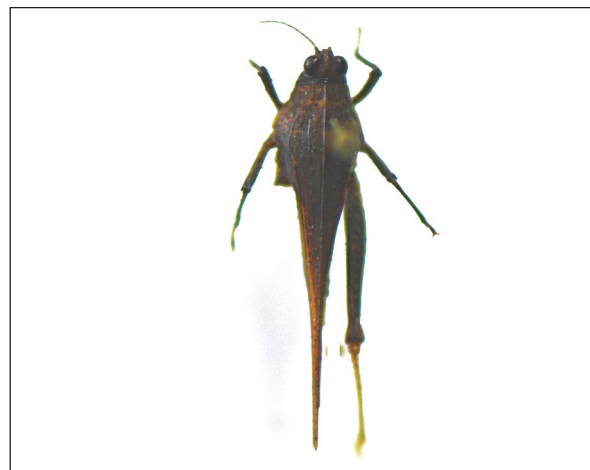


Fig. 5. *Hedotettix grossus* Hancock, 1915

Material examined: 1 ex, Pakhirala: Gosaba Island, Sunderban, West Bengal, 8.x.2014, coll. B. Mitra and party.

Distribution: India: Arunachal Pradesh, Assam, Manipur, Meghalaya, Tripura and West Bengal.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

II. Suborder ENSIFERA

IV. Superfamily GRYLLOIDEA

Laicharding, 1781

IV. Family GRYLLIDAE Laicharding, 1781

Subfamily GRYLLINAE Laicharding, 1781

Tribe **Gryllini** Laicharding, 1781

19. *Gryllus (Gryllus) bimaculatus*

De Geer, 1773*

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

2010. *Gryllus (Gryllus) bimaculatus*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, 314: 192.

Material examined: 1 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 11.xii.2014, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Chandigarh, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Pondicherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere:* Africa, Malaysia, Mediterranean Region, Myanmar, Nepal, Pakistan, Singapore and Sri Lanka.



Fig. 6. *Gryllus (Gryllus) bimaculatus* De Geer, 1773

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

20. *Phonarellus (Phonarellus) minor*
(Chopard, 1959)

1877. *Brachytrypus (Gymnogryllus) erythrocephalus* Saussure, *Mem. Soc. Geneve*, **25**: 130.

2010. *Phonarellus (Phonarellus) minor*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 202.

Material examined: 1 ex, Bali Islands: Sunderban, West Bengal, 26.v.2014, coll. B. Mitra and party; 1 ex, Bali Island: Sunderban, West Bengal, 30.v.2014, coll. B. Mitra and party.

Distribution: India: Assam, Bihar, Chhattisgarh, Goa, Delhi, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttarakhand, Uttar Pradesh and West

Bengal. *Elsewhere:* Mghanistan, Iran, Java, Myanmar, Pakistan and South Vietnam.

Remarks: This species was reported from Sunderbans by Mitra *et al.* (2014).

21. *Teleogryllus (Brachyteleogryllus) occipitalis*
(Serville, 1838)

1838. *Gryllus occipitalis* Serville, *Ins. Orth.*,: 339.

2010. *Teleogryllus (Brachyteleogryllus) occipitalis*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 208.

Material examined: 1 ex, Bali Islands: Sunderban, West Bengal, 25.v.2014, coll. B. Mitra and party; 1 ex, Bali Islands: Sunderban, West Bengal, 26.v.2014, coll. B. Mitra and party; 1 ex, Bali Island: Sunderban, West Bengal, 30.v.2014, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Gujarat, Himachal Pradesh, Karnataka, Kerala, Lakshadweep, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Sikkim, Tamil Nadu, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere:* Annam, Bangladesh, Bangkok, Bhutan, Borneo, Celebes, China, Indonesia, Indo-China, Japan, Java, Kuala Lumpur, Laos, Malaysia, Myanmar, Nepal, Philippines, Sarawak, Sri Lanka, Sumatra, Sulawesi, Taiwan, Thailand, Tibet and Vietnam.

Remarks: This species was reported from Sunderbans by Mitra *et al.*, (2014).

Tribe **Modicogryllini** Otte &
Alexander, 1983

22. *Modicogryllus (Modicogryllus) confirmatus*
(Walker, 1859)*

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

2010. *Modicogryllus (Modicogryllus) confirmatus*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 220.

Material examined: 1ex, Bali Island: Sunderban, West Bengal, 26.v.2014, coll. B. Mitra and party; 3 exs, Bali Island: Sunderban, West Bengal, 30.v.2014, coll. B. Mitra and party; 2 exs, Gangasagar crematorium: Sagar Island, Sunderban, West Bengal, 17.viii.2014, coll. B. Mitra and party; 1 ex, Pakhirla: Gosaba Island, Sunderban, West Bengal, 10.ix.2014,

coll. B. Mitra and party; 2 exs, Pakhirala: Gosaba Island, Sunderban, West Bengal, 10.xii.2014, coll. B. Mitra and party; 2 exs, Devnibas: Bokkhali, Sunderban, West Bengal, 17.ii.2015, coll. B. Mitra and party; 1 exs, Peyaratoli: Bali Island, Sunderban, West Bengal, 24.iii.2015, coll. B. Mitra and party. 2 exs, Henry's Island: Bokkhali, Sunderban, West Bengal, 22.v.2015, coll. B. Mitra and party; 2 exs, Satjelia Island, Sunderban, West Bengal, 30.v.2015, coll. B. Mitra and party; 1ex, Kalisthan: Bokkhali, Sunderban, West Bengal, 16.vi.2015, coll. B. Mitra and party; 1exs, Henry's Island: Bokkhali, Sunderban, West Bengal, 16.vi.2015, coll. B. Mitra and party; 13 exs, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party; 1ex, Banidhal: Bali Island, Sunderban, West Bengal, 12.x.2015, coll. B. Mitra and party; 2exs, Kalisthan: Bokkhali, Sunderban, West Bengal, 6.xi.2015, coll. B. Mitra and party.

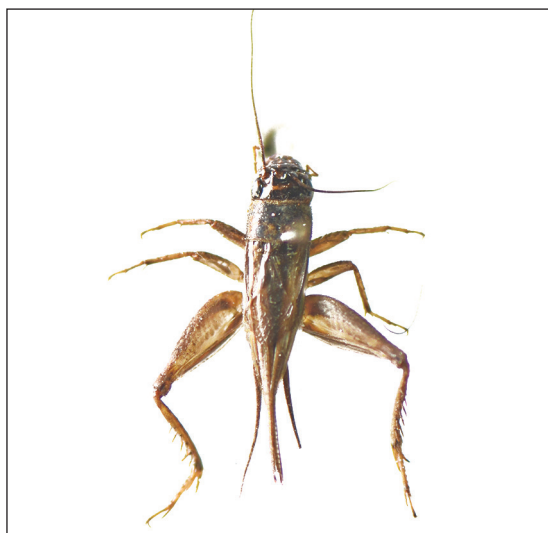


Fig. 7. *Modicogryllus (Modicogryllus) confirmatus*
(Walker, 1859)

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chandigarh, Chhattisgarh, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. *Elsewhere:* Bangladesh, China, Indo-China, Iran, Israel, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka and Thailand.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

Subfamily NEMOBIINAE Saussure, 1877

Tribe **Pteronemobiini** Otte &
Alexander, 1983: 164

23. ***Dianemobius fascipes*** (Walker, 1869)*

1869a. *Eneoptera fascipes* Walker, *Cat. Denn. Salt. Brit. Mus.*,: 67.

2010. *Dianemobius fascipes*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, 314: 240.

Distribution: India: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere:* China, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Sri Lanka and Taiwan.



Fig. 8. *Dianemobius fascipes* (Walker, 1869)

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

24. ***Polionemobius taprobanensis***
(Walker, 1869)*

1869a. *Trigonidium taprobanense* Walker, *Cat. Derm. Salt. Brit. Mus.*,: 102.

2010. *Polionemobius taprobanensis* : Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, 314: 241.

Material examined: 1 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Chandigarh, Chhattisgarh, Delhi, Himachal Pradesh, Kamataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere* : Bangladesh, China, Indonesia, Malaysia, Malacca, Myanmar, Perak, Sri Lanka, Sumatra and Vietnam.

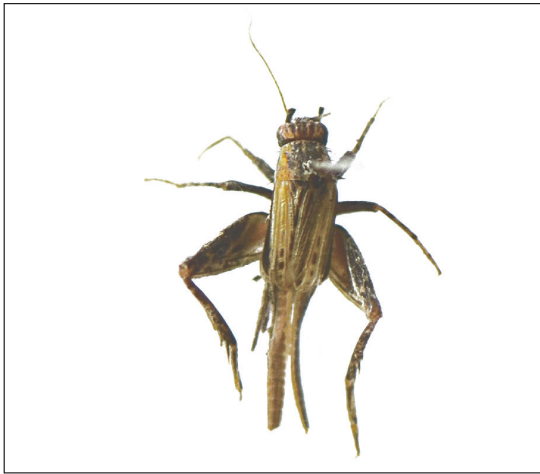


Fig. 9. *Polionemobius taprobanensis* (Walker, 1869)

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

25. *Pteronemobius (Pteronemobius) heydenii concolor* (Walker, 1871)*

1871. *Eneoptera concolor* Walker, *Cat. Derm. Salt. Brit. Mus.*, 5: 10.
2010. *Pteronemobius (Pteronemobius) heydenii* :Shishodia et al., *Rec. zool. Surv. India, Occ. Paper No. 314*: 242.



Fig. 10. *Pteronemobius (Pteronemobius) heydenii concolor* (Walker, 1871)

Material examined: 2 exs, Pakhirala: Gosaba Island, Sunderban, West Bengal, 14.xii.2014, coll. B. Mitra and party; 9 exs, Pakhirala: Gosaba Island, Sunderban, West Bengal, 16.xii.2014, coll. B. Mitra and party. 5 exs, Jotirampur: Gosaba Island, Sunderban, West Bengal, 16.xii.2014, coll. B. Mitra and party; 1 ex, Peyaratoli: Bali Island, Sunderban, West Bengal, 24.iii.2015, coll. B. Mitra and party; 1 ex, Pakhirala: Gosaba Island, Sunderban, West Bengal, 8.x.2015, coll. B. Mitra and party.

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

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

26. *Pteronemobius (Pteronemobius) montanus* Chopard, 1933*

1933. *Pteronemobius montanus* Chopard, *Stylops.*, 2(5): 117.



Fig. 11. *Pteronemobius (Pteronemobius) montanus* Chopard, 1933

Material examined: 4 exs, Peyaratoli: Bali Island, Sunderban, West Bengal, 24.iii.2015, coll. B. Mitra and party; 1 ex, Pakhirala : Gosaba Island, Sunderban, West Bengal, 16.xii.2015, coll. B. Mitra and party.

Distribution: India: Arunachal Pradesh, Assam, Meghalaya, Sikkim and West Bengal. *Elsewhere:* Myanmar.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

V. Family TRIGONIDIIDAE Saussure, 1874

Subfamily TRIGONIDIINAE Saussure, 1874

(Eades *et al.*, 2016)

Tribe **Trigonidiini** Saussure, 1874

27. *Amusurgus (Amusurgus) fulvus*

Chopard, 1969*

1969. *Amusurgus lateralis* Chopard, *Fauna of India, Orth.*, 2 *Grylloidea*,: 291.

2010. *Amusurgus (Amusurgus) fulvus*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 253.



Fig. 12. *Amusurgus (Amusurgus) fulvus* Chopard, 1969

Material examined: 1 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party.

Distribution: India: Tamil Nadu and West Bengal. *Elsewhere:* Myanmar and Sri Lanka.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

28. *Amusurgus (Amusurgus) oedemeroides*

(Walker, 1871)*

1871. *Eneoptera oedemeroides* Walker, *Cat. Derm. Salt. Brit. Mus.*, **5**: 11.

2010. *Amusurgus (Amusurgus) oedemeroides*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 253.

Material examined: 1 exs, Peyaratoli: Bali Island, Sunderban, West Bengal, 10.vi.2015, coll. B. Mitra and party.

Distribution: India: Tamil Nadu and West Bengal. *Elsewhere:* Myanmar and Sri Lanka.



Fig. 13. *Amusurgus (Amusurgus) oedemeroides* (Walker, 1871)

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

29. *Anaxipha longipennis* (Serville, 1839)*

1839. *Trigonidium longipenne* Serville, *Orthopteres.*: 351.

2010. *Anaxipha longipennis*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 254.



Fig. 14. *Anaxipha longipennis* (Serville, 1839)

Material examined: 2 exs, Pakhirala: Gosaba Island, Sunderban, West Bengal, 10.xii.2014, coll. B. Mitra and party; 2 exs, Pakhirala: Gosaba

Island, Sunderban, West Bengal, 16.xii.2014, coll. B. Mitra and party. 4 exs, Jotirampur: Gosaba Island, Sunderban, West Bengal, 16.xii.2014, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Assam, Himachal Pradesh, Karnataka, Manipur, Meghalaya, Orissa, Tamil Nadu and West Bengal. *Elsewhere:* Africa, Australia, Madagascar, Malaysia, Mauritius, Myanmar, Philippines, Queensland, Seychelles, Sri Lanka and Tropical Asia.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

30. *Homoeoxipha lycoides* (Walker, 1869)*

1869a. *Phyllopalpus lycoides* Walker, *Cat. Derm. Salt. Brit. Mus.*,: 71.

2010. *Homoeoxipha lycoides*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 255.

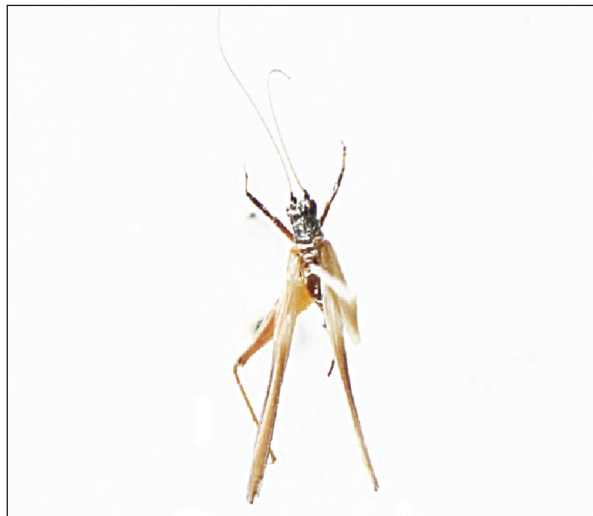


Fig. 15. *Homoeoxipha lycoides* (Walker, 1869)

Material examined: 3 exs, Pakhirala: Gosaba Island, Sunderban, West Bengal, 10.xii.2014, coll. B. Mitra and party. 1 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 16.xii.2014, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Jammu & Kashmir, Karnataka, Lakshadweep Island, Meghalaya, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. *Elsewhere:* Australia, Bangladesh, China, Malaysia, Maldives, Myanmar, Nepal,

Queensland, Perak, Singapore, Sri Lanka and Taiwan.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

VI. Family GRYLLOTALPIDAE
Blanchard, 1845

Subfamily GRYLLOTALPINAE
Blanchard, 1845

Tribe **Gryllotalpini** Leach, 1815
(Eades *et al.*, 2016)

31. *Gryllotalpa africana* Beauvois, 1805*

1805. *Gryllotalpa africana* Beauvois, *Insectes recueillis en Afrique et en Amerique, Orthopt.*,: 229.



Fig. 16. *Gryllotalpa africana* Beauvois, 1805

Material examined: 1 ex, Pakhirala: Gosaba Island, Sunderban, West Bengal, 9.xii.2014, coll. B. Mitra and party. 1 ex, Pakhirala: Gosaba Island, Sunderban, West Bengal, 16.xii.2014, coll. B. Mitra and party. 1ex, Peyaratoli: Bali Island, Sunderban, West Bengal, 24.iii.2015, coll. B. Mitra and party; 3 ex, Jotirampur: Gosaba Island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Chandigarh, Chhattisgarh, Delhi, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Meghalaya, Orissa, Pondicherry, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere:*

Africa, Bhutan, Iran, Madagascar, Malaysia, Myanmar, Nepal, Pakistan, Singapore, Sri Lanka and South Spain.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

V. Superfamily TETTIGONIOIDEA

Krauss, 1910

VII. Family TETTIGONIIDAE Krauss, 1902

Subfamily CONOCEPHALINAE

Burmeister, 1838

Tribe **Conocephalini** Burmeister, 1838

32. *Conocephalus (Anisoptera) longipennis*

(Hann, 1842)[#]

1842. *Locusta (Xiphidium) longipennis* Haan, *Gesch. Ned. Overszee. Bezitt*, 2: 189.

2010. *Conocephalus (Anisoptera) longipennis*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, 314: 1-366.



Fig. 17. *Conocephalus (Anisoptera) longipennis* (Hann, 1842)

Material examined: 1 ex, Pakhirala: Gosaba Island, Sunderban, West Bengal, 16.xii.2014, coll. B. Mitra and party; 1 ex, Jotirampur: Gosaba island, Sunderban, West Bengal, 9.x.2015, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands. *Elsewhere:* Restricted in the Pacific, but also seen from The Cariline Islands and Samoa. Widespread in the Oriental & Austro-Oriental regions.

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

Tribe **Copiphorini** Karny, 1912

33. *Euconocephalus pallidus*

(Redtenbacher, 1891)

1891. *Conocephalus pallidus* Redtenbacher, *Verhandl. zool. bot. Ges.*, 41: 414.

2010. *Euconocephalus pallidus*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, 314: 313.

Distribution: India: Andaman & Nicobar Islands, Assam, Chhattisgarh, Himachal Pradesh, Gujarat, Kerala, Meghalaya, Mizoram, Tamil Nadu, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere:* Bangladesh, Borneo, East Indies, Java, Myanmar, Philippines, Pi nang, Singapore, Sri Lanka and Tonkin.

Remarks: This species was reported from Sunderbans by Barman, 1993.

Subfamily PHANEROPTERINAE

Burmeister, 1838

Tribe **Elimaeini** Brunner von

Wattenwyl, 1891

34. *Elimaea (Elimaea) securigera*

Brunner von Wattenwyl, 1878

1878. *Elimaea (Elimaea) securigera* Brunner von Wattenwyl, *Monographie der Phaneropteriden.*: 93.

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Assam, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Rajasthan, Sikkim, Tripura and West Bengal. *Elsewhere:* Australia, Indonesia, Java, Nepal, Philippines and Sri Lanka.

Remarks: This species was reported as *Elimaea securigera* Brunner, 1878 from Sunderbans by Agrawal & Ghose, 1995.

Tribe **Letanini** Hebard, 1922

(Eades *et al.*, 2016)

35. *Letana pyrifer* Bey Bienko, 1956 [#]

1956. *Letana pyrifer* Bey-Bienko, *Zool. Zh.*, 35(2): 650.

Material examined: 2 exs, Gangasagar Crematorium: Sagar Island, Sunderban, West Bengal, 17.vii.2014, coll. B. Mitra and party; 4 exs, Peyaratoli: Bali Island, Sunderban, West Bengal, 10.vi.2015, coll. B. Mitra and party.

Distribution: India: Madhya Pradesh, North West to South West India and Rajasthan.



Fig. 18. *Letana pyriferica* Bey Bienko, 1956

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

Tribe **Trigonocoryphini**
Bey-Bienko, 1954

36. *Trigonocorypha unicolor* (Stoll, 1787)*

1787. *Gryllus (Tettigonia) unicolor* Stoll, *Représentation exactement colorée d'après nature des spectres ou phasmes, des mantes, des sauterelles, des grillons, des criquets et des blattes*,: 13.

2010. *Trigonocorypha unicolor*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 313.

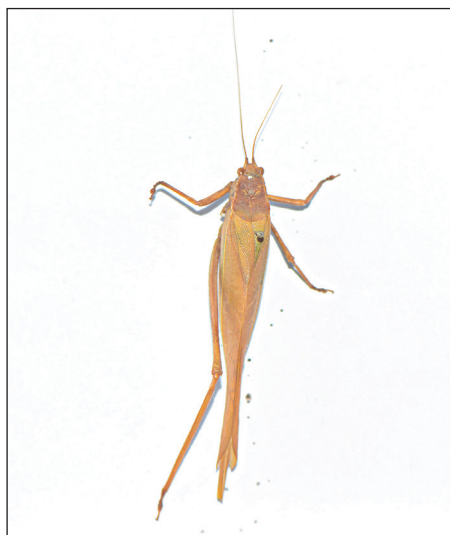


Fig. 19. *Trigonocorypha unicolor* (Stoll, 1787)

Material examined: 1 ex, Henry's Island: Bokkhali, Sunderban, West Bengal, 16.vi.2015, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Karnataka, Meghalaya, Orissa, Rajasthan, Tamil Nadu and West Bengal. Elsewhere: Java and Sri Lanka.

Remarks: This is the first report of this species from Sunderban Biosphere Reserve.

Tribe **Holochlorini** Brunner von
Wattenwyl, 1878

37. *Holochlora indica* Kirby, 1906

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

Material examined: 1 ex, Pakhirala: Gosaba Island, Sunderban, West Bengal, 10.ix.2015, coll. B. Mitra and party.

Distribution: India: Andaman & Nicobar Islands, Himachal Pradesh, Karnataka, Manipur, Meghalaya, Mizoram, Orissa, Sikkim, Tamil Nadu, Tripura and West Bengal. Elsewhere: Java and Sri Lanka.

Remarks: This species was reported from Sunderbans by Agrawal & Ghose, 1995.

Subfamily PSEUDOPHYLLINAE
Burmeister, 1838

Tribe **Cymatomerini** Brunner
von Wattenwyl, 1895

38. *Sathrophyllia rugosa* (Linnaeus, 1758)

1758. *Gryllus (Tettigonia) rugosa* Linnaeus, *Systema Naturae per Regna Tria naturae*, (10th ed.): 430.

2010. *Sathrophyllia rugosa*: Shishodia *et al.*, *Rec. zool. Surv. India, Occ. Paper No.*, **314**: 322.

Distribution: India: Karnataka, Madhya Pradesh, Manipur, Meghalaya, Sikkim, Tamil Nadu and West Bengal. Elsewhere: Java, Sri Lanka and Sumatra.

Remarks: This species was reported from Sunderbans by Agrawal & Ghose (1995).

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