

FAUNAL DIVERSITY OF NAYACHAR, A NEWLY EMERGED ISLAND : ORTHOPTERA (ACRIDOIDEA)

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INTRODUCTION

The 'Nayachar Island' lies on the mouth of the river Hooghly near Haldia Port in the district Medinipur of West Bengal. The Island is spindle shaped with an area of about 29.38 sq. km. The Island is flat and only four feet above the river level. During monsoon major portion of the Island remains submerged at high tide for a few hours during full moon and days. The entire Island remains covered with three species of grasses, supporting the major fauna of this Island ecosystem.

Kirby (1914), Willemse (1968), Tandon (1973, 1975), Bhowmik (1984) and Hazra *et. al.*, (1993) contributed to the knowledge of Orthoptera from West Bengal. However, there is no record of grasshopper fauna from newly emerged Island. The present work, therefore, was initiated to make an inventory of Acridoidea of Nayachar Island. The study unravels a wealth of knowledge of grasshopper fauna based on 350 examples collected through different seasons of the year representing 15 species.

SYSTEMATIC ACCOUNT

Order ORTHOPTERA

Superfamily ACRIDOIDEA

Key to the families

1. Foveolae of the vertex contiguous, superior and forming the extremity of the fastigium; stridulatory mechanism absent.....*Pyrgomorphidae*
- Foveole lateral or inferior, never forming the tip of the fastigium, stridulatory mechanism present *Acrididae*

Family I PYRGOMORPHIDAE

Key to genera

1. Anterior margin of prosternum strongly reflexed and dialated.....*Chrotogonus* Serville, 1839
 — Anterior margin of prosternum neither reflexed nor dialated. Tegmina long and narrow, body moderately slender*Atractomorpha* Saussure, 1862

Genus *Atractomorpha* Saussure, 18611. *Atractomorpha crenulata* (Fabricius)

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

1969. *Atractomorpha crenulata* : Kevan and Chen, *Zool. J. Linn. Soc.*, 48 : 187.

Material examined : Rest House site, Nayachar, 1(M), 2(F), 13.v.1992, A. K. Hazra; Hut site, Nayachar, 2(M), 1(F), 13.v.1992, A. K. Hazra; Rest House site, Nayachar, 1(M), 1(F), 19.viii.1993, A. K. Hazra; Meen Dweep 1(M), 16.xii.1992, A. K. Hazra; 1(M), 2(F), MIC site, Nayachar, Haldia, 12.viii.1999, A. K. Hazra.

Diagnosis : Medium size. Lateral pronotal lobe always with a membranous area near posterior margin; pronotal carinae ill defined; lateral margin of pronotal disc well-defined; divergent and somewhat convex in the metazone; tegmina pointed, extending for one-fourth of their length beyond the hind femora.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Bardhaman, Birbhum, Darjeeling, Haora, Hooghly, Jalpaiguri, Maldah, Medinipur, Murshidabad, Nadia, Purulia, 24-Parganas, West Dinajpur), Andaman and Nicobar Islands, Andhra Pradesh, Bihar, Goa, Jammu & Kashmir, Kerala, Lakshadweep, Rajasthan, Orissa; BANGLADESH; BURMA; SUMATRA; PAKISTAN; SOUTH VIETNAM and SRI LANKA.

Remarks : This species is very thickly distributed and dominant in the Island.

Genus *Chrotogonus* Serville, 18922. *Chrotogonus (Chrotogonus) t. trachypterus* (Blanchard)

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

1959. *Chrotogonus (Ch.) t. trachypterus* : Kevan, *Publcoes Cult. Co. Diam. angola*, no. 43 : 147.

Material examined : 1(M), 2(F), Rest House site, Nayachar, Haldia, 18.xii.1992, A. K. Hazra; 1(M), Mean Dweep, Nayachar, Haldia, 18.xii.1992, A. K. Hazra; 1(F), Rest House, site, Nayachar, Haldia, 24.iii.1993, A. K. Hazra; 1(M), 1(F), Hut site, Nayachar, Haldia, 30.i.1996, A. K. Hazra.

Diagnosis : Hind wings hyaline or occassionally faintly tinged yellowish brown but never infumated or infuscated, apparantly always fairly well developed and always at least two-third as long as tegmina.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Birbhum, Darjeeling, Haora, Jalpaiguri, Kochbihar, Maldah, Medinipur, Purulia, 24-Parganas), Bihar, Madhya Pradesh, Orissa and Rajasthan; BANGLADESH; NEPAL and PAKISTAN.

Remarks : Found in dry condition on a bare sandy ground and we have found in summer seasons.

Family ACRIDIDAE

Key to the subfamilies

1. Prosternal process or tubercle usually absent 2
- Prosternal process or tubercle present 3
2. Stridulatory serration on inner side of hind femur present Truxalinae
- Stridulatory serration on inner side of hind femur absent Acridinae
3. Radial area of tegmen with a series of regular, parallel stridulatory veinlets Hemiacidinae
- Stridulatory veinlets of radial area of tegmen absent 4
4. Lower external lobe of hind knee with spine-like apex Oxyinae
- Lower external lobe of hind knee with apex rounded, angular or subacute, but not spine-like 5
5. Mesosternal interspace closed Tropidopolinae
- Mesosternal interspace mostly open 6
6. Dorsum of pronotum flat or weakly tectiform, with medium and lateral carinae linear (Linear carinae some times obliterated); male cercus with strongly compressed, lobiform or subacute, down curved apex Eyprepocnemidinae
- Dorsum of pronotum of variable shape; lateral carinae, if present, not linear; male cercus variable, but not as mentioned above Catantopinae

Subfamily GOMPHOCERINAE

Genus *Leva* Bolivar, 1909

3. *Leva cruciata* Bolivar

1914. *Leva cruciata* Bolivar, *Trab. Mus. Nac. Cienc. Nat. madr.* (ser. Zool.) **20** : 65.

1929. *Leva cruciata* : Uvarov, *Revue Suisse Zool.*, **36** : 450.

Material examined : 1(M), Hut site, Nayachar, Haldia, 17.xiii.1992, A. K. Hazra; 1(F), 2(M), Rest House site, Nayachar, 18.8.1993, A. K. Hazra; 2(M), 2(F), *Accacia* Plantation site, Nayachar, Haldia, 26.vii.1994, A. K. Hazra; 1(M), 1(F), MIC site, 26.vii.1995, A. K. Hazra.

Diagnosis : Pale yellowish, dull reddish brown; fastigium angularly produced, in female subtransverse; inferior foveolae indistinct; frontal costa of fastigium angular; dorsum of pronotum constricted, anteriorly truncate obtusely angulate posteriorly, median carina produced; lateral carinae excurved in prozona and metazona to form 'X' shaped marking.

Distribution : INDIA : West Bengal (Nayachar, Birbhum, Bardhaman, Maldah, Medinipur, Murshidabad, Nadia), Bihar, Karnataka, Tamil Nadu; Oriental region.

Remarks : The species is generally found in open fields amongst short grasses.

Subfamily ACRIDINAE

Key to genera

1. Size large; head long, conically ascending; fastigium of vertex extended much in front of the eyes, broad and truncated at apex; antennae ensiform *Acrida* Linnaeus
— Size medium; head not ascending; fastigium broad or narrow, more or less rounded at the apex; antennae may or may not ensiform 2
2. Antennae always ensiform; lateral carinae at pronotum straight and parallel *Phlaeoba* Stål
— Antennae filiform; lateral carinae of pronotum not straight and parallel 3
3. Pronotum constricted in prozona; foveolae of fastigium narrowly trapezoid, visible from above *Aiolopus* Fieber
— Pronotum not as above; foveolae of fastigium not visible from above 4
4. Pronotum with raised median crest, Pronotum 'X' marking always with anterior and posterior arms separate rounded usually to rectangular behind and with pale 'X' marks
..... *Oedaleus* Fieber
— Pronotum with well marked crest and annulated behind; without 'X' marks *Trilophidia* Stål

Genus *Acrida* Linnaeus, 1758

4. *Acrida exaltata* (Walker)

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

1954. *Acrida exaltata* : Dirsh, *Bull. Soc. Faud. Ent.*, 38 : 149.

Material examined : 1(M), 2(F), Rest House site, Nayachar, Haldia, 18.viii.1993, A. K. Hazra; 1(M), 1(F), Hut site, Nayachar, Haldia, 31.x.1996, A. K. Hazra; 1(M), 2(F), Meen Dweep, 12.xii.1997, A. K. Hazra; 2(M), 1(F), MIC site, Nayachar, Haldia, 12.viii.1999, A. K. Hazra.

Diagnosis : Head conically ascending, basal part narrow; fastigium of vertex broad, laminate and truncate at extremity; transverse sulcus of pronotum present about the middle of pronotal disc;

male subgenital plate, in profile, comparatively long, with more elongated part, the upper margin with small projection, tegmen without pointed apex, a little produced beyond the hind knee; and wings slightly shorter than tegmina.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Birbhum, Bardhaman, Haora, Hugli, Jalpaiguri, Maldah, Medinipur, (Murshidabad), Arunachal Pradesh, Jammu & Kashmir, Kerala, Rajasthan, Tamil Nadu, Elsewhere : AFGHANISTAN; BANGLADESH; IRAN; SAUDI ARABIA and PAKISTAN.

Remarks : Found almost throughout West Bengal. It is found in grasses and cultivated fields.

Genus *Aiolopus* Fieber, 1853

5. *Aiolopus thalassinus tamulus* (Fabricius)

1798. *Gryllus tamulus* Fab. *Ent. Syst. Suppl.*, : 195.

1968. *Aiolopus thalassinus tamulus* : Hollis, *Bull. Br. Mus. nat. Hist. (Ent.)* 22(1) : 347.

Material examined : 2(M), 3(F), Rest House site, Nayachar, Haldia, 18.viii.1993, A. K. Hazra; 3(M), 1(F), Hut side, Nayachar, Haldia, 25.ii.1999, A. K. Hazra; 1(M), 2(F), Hut site, Nayachar, Haldia, 5.1.1994, A. K. Hazra; 3(M), 4(F), MIC site, Nayachar, Haldia, 12.viii.1999, A. K. Hazra.

Diagnosis : Size medium; antennae as long as head and pronotum together; fastigium with forward angle more acute; foveole narrowly trapezoid, about twice as long as wide; frontal ridge gradually narrowing and almost angular towards fastigial end; sparsely punctured; pronotum somewhat saddle-shaped, posterior margin rounded; tegmina, longer, exceeding hind femur; posterior femur unicolourous, without any oblique fuscia or marking, posterior tibiae usually with red colouration in apical fourth and broadly separated from black band by a wide bluish grey band.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Bardhaman, Darjiling, Haora, Hooghly, Jalpaiguri, Maldah, Medinipur, Nadia, Purulia, 24-Parganas), Andaman & Nicobar Islands, Bihar, Delhi, Himachal Pradesh, Karnataka, Madhya Pradesh, Rajasthan, Tamil Nadu. Elsewhere : AUSTRALIA; BORNEO; BURMA; CHINA; JAPAN; MALAYA; PAKISTAN; SINGAPORE; SRI LANKA; SUMATRA and TAIWAN.

Remarks : *A. thalassinus tamulus* is thickly populated in the Island and occur almost all the districts of West Bengal.

Genus *Oedaleus* Fieber, 1853

6. *Oedaleus abruptus* (Thunberg)

1815. *Gryllus abruptus* Thunberg, *Mem. Aca. Sci. St. Peterb.* 5 : 233.

1981. *Oedaleus abruptus* : Ritchie, *Bull. Br. Mus. nat. Hist. (Ent.)* 42(3) : 104.

Material examined : 1(M), 1(F), Rest House site, Nayachar, Haldia, 18.viii.1993, A. K. Hazra; 1(M), 2(F), Hut site, Nayachar, Haldia, 25.ii.1999, A. K. Hazra.

Diagnosis : Size small, fastigium of head almost flat; pronotum short, with incomplete, white cruciform marks, strongly carinated, and entire, the median sulcus visible on the sides of the pronotum before the middle, pointed behind; tegmina brown at base; wings hyaline at the base, with a broad black transverse band, curving inwards to the anal angle; hind tibiae red, with a yellow ring at the base.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Bardhaman, Birbhum, Darjeeling, Haora, Hooghly, Jalpaiguri, Kochbihar, Maldah, Medinipur, Murshidabad, Nadia, Purulia), Andhra Pradesh, Bihar, Goa, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh. Elsewhere : BANGLADESH; CHINA; PAKISTAN; SRI LANKA and THAILAND.

Remarks : This is a typical species of the genus with a wide distribution in South Asia and occurs in all type of vegetation cover.

Genus *Phlaeoba* Stål, 1860

7. *Phlaeoba infumata* Brunner

1893. *Phlaeoba infumata* Brunner, *Annali Mus. Civ. Stor. nat. Giacma Doria Geneva*, 13(33) : 124.

1914. *Phlaeoba infumata* Kirby, *Fauna British India*, Orthopt. (Acrididae) : 103.

Material examined : 2(M), 1(F), Hut site, Nayachar, Haldia, 13.v.1992, A. K. Hazra; 1(F), 1(M), Rest House site, Nayachar, Haldia, 18.viii.1993, A. K. Hazra; 1(M), MIC site, Nayachar, Haldia, 26.iv.1994, A. K. Hazra; 1(M), 2(F), MIC site, Nayachar, Haldia, 12.viii.1999, A. K. Hazra.

Diagnosis : Uniform brownish testaceous; fastigium above with a continuous median carina extending along the head and pronotum; antennae ensiform, as long as head and pronotum; together; pronotum rugose, with a rudimentary carina on each side between median and lateral carina; tegmina and wings longer than abdomen; wings fusco-hyaline, infuscated towards extremity; hind tarsi reddish.

Distribution : INDIA : West Bengal (Nayachar, Darjeeling, Haora, Hoogly, Jalpaiguri, Kochbihar, Maldah, Murshidabad, Nadia, 24-Parganas, W. Dinajpur), Arunachal Pradesh, Bihar, Delhi, Himachal Pradesh, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu. Elsewhere : BANGLADESH; S. CHINA; MALAYA and YLINAN.

Remarks : This species generally found throughout the year in moist places.

Genus *Trilophidia* Stål, 1873

8. *Trilophidia annulata* (Thunberg)

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

1965. *Trilophidia annulata* : Hollis, *Trans. R. ent. Soc. Lond.*, 117(8) : 251.

Material examined : 2(M), 1(F), Hut site, Nayachar, Haldia, 13.v.1992, A. K. Hazra; 1(M), Rest House site, Nayachar, Haldia, 19.viii.1993, A. K. Hazra; 1(M), 2(F), MIC. site, Nayachar, 31.i.1997, A. K. Hazra.

Diagnosis : Brown or grey with black markings, pubescent beneath; pronotum rugose, with a high median carina, forming two teeth in front, and with lateral carinae; tegmina grey, sometimes with two indistinct brown bands; wings yellow at the base, and brown or black beyond; hind tibiae brown with a pale band towards the base, and with a slight pale band beyond the middle.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Birbhum, Darjeeling, Haora, Hooghly, Jalpaiguri, Maldah, Medinipur, Murshidabad, Nadia, Purulia, 24-Parganas, Andhra Pradesh, Arunachal Pradesh, Bihar, Goa, Kerala, Karnataka, Orissa, Rajasthan, Tamil Nadu. Elsewhere : BANGLADESH; HONGKONG; JAPAN; JAVA; KOREA; MALAYA; MONGOLIA; PAKISTAN; SINGAPUR; SRI LANKA; SUMATRA and TAIWAN.

Remarks : It mainly occurs on bare ground adjoining Kuccha rods.

Subfamily HEMIACRIDINAE

Genus *Spathosternum* Krauss, 1877

9. *Spathosternum prasiniferum prasiniferum* (Walker)

1871. *Heteracris* (?) *prasinifera* Walker, *Cat. Derm Salt. Brit. Mus.*, 5 suppl. : 65.

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

Material examined : 1(M), 2(F), Hut site, Nayachar, Haldia, 13.v.1992, A. K. Hazra; 2(M), 3(F), Rest House site, Nayachar, Haldia, 19.viii.1993, A. K. Hazra; 1(M), MIC Site, Nayachar, Haldia, 26.vi.1994, A. K. Hazra; 2(M), (F), MIC site, Nayachar, Haldia, 11.viii.1999, A. K. Hazra.

Diagnosis : Broad blackish or dark green stripe running behind the lower part of the eyes and below the lateral carinae of the pronotum, central area of tegmen with a longitudinal black streak, generally almost obsolete in the male and well marked in the female, but very variable, sometimes being entire; tegmina reaching distal end of hind femora or slightly beyond it; wings well developed.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Bardhaman, Birbhum, Darjeeling, Haora, Hooghly, Jalpaiguri, Kochbihar, Maldah, Medinipur, Murshidabad, Purulia, 24-Parganas), Andhra Pradesh, Arunachal Pradesh, Bihar, Goa, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Jammu and Kashmir, Maharashtra, Orissa, Rajasthan, Tamil Nadu. Elsewhere : S. E. CHINA; THAILAND and VIETNAM.

Remarks : It occurs almost throughout India and is associated with most grassy habitats. This species is thickly populated and dominant in the Island.

Subfamily OXYINAE

Genus *Oxya* Serville, 1831

Key to the species (male)

1. Cercus laterally compressed, hardly narrowing towards apex, bifurcate at apex *fuscovittata* (Marschall)
- Cercus conical narrowing towards apex and obtuse or truncate apically *hyla hyla* Serville

Key to the species (female)

1. Ventral surface of subgenital plate almost completely flat or weakly concave, appearing wider posteriorly *fuscovittata* (Marschall)
2. Ventral surface of subgenital plate with two longitudinal ridges extending forwards from posterior margin *hyla hyla* Serville

10. *Oxya fuscovittata* (Marschall)1836. *Gryllus fuscovittatus* Marschall, *Ann. Wien. Mus. Vienna.*, 1 : 211.1971. *Oxya fuscovittata* : Hollis, *Bull. Br. Mus. nat. Hist. (Ent.)*, 26(7) : 289.

Material examined : 2(M), 1(F), Rest House site, Nayachar, Haldia, 18.viii.1992, A. K. Hazra; 1(M), 1(F), Hut site, Nayachar, Haldia, 31.i.1996, A. K. Hazra; 2(M), 1(F), Rest House site, Nayachar, Haldia, 25.ii.1999, A. K. Hazra.

Diagnosis : Integument finely pitted and shiny; female large in size; cercus of male compressed and bifurcate, and ventral surface of subgenital plate, in female, almost completely that on weakly concave.

Distribution : INDIA : West Bengal (Nayachar, Bardhaman, Birbhum, Darjeeling, Haora, Hooghly, Jalpaiguri, Kochbihar, Maldah, Medinipur, Murshidabad, Nadia, 24-Parganas), Andhra Pradesh, Jammu & Kashmir, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh. Elsewhere : AFGHANISTAN; PAKISTAN.

11. *Oxya hyla hyla* Serville1831. *Oxya hyla* Serville, *Annl. Sci. nat.*, 22 : 287.1971. *Oxya hyla hyla* : Hollis, *Bull. Br. Mus. nat. Hist. (Ent.)*, 26(7) : 282.

Material examined : 1(M), 2(F), Rest House site, Nayachar, Haldia, 18.viii.1993, A. K. Hazra; 1(M), 1(F), Meen Dweep, Nayachar, Haldia, 12.xii.1997, A. K. Hazra; 2(M), 1(F), MIC site, Nayachar, Haldia, 11.viii.1999, A. K. Hazra.

Diagnosis : Body finely rugulose, shiny; size small; antennae longer than head and pronotum; supra anal plate trapezoidal with triangular apical projection; on both sides of supra anal plate

small tubercle present; cercus with subacute apex; subgenital plate in female with two longitudinal ridges extending forwards from posterior margin.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Birbhum, Bardhaman, Darjeeling, Haora, Hooghly, Jalpaiguri, Kochbihar, Maldah, Medinipur, Nadia, Purulia, 24-Parganas, W. Dinajpur), Andhra Pradesh, Assam, Arunachal Pradesh, Bihar, Goa, Himachal Pradesh, Karnataka, Kerala, Meghalaya, Tripura. Elsewhere : AFRICA; MADAGASCAR; NEPAL; SRI LANKA.

Remarks : This species is found in association with cultivated crops, vegetables, grasses etc. specially in moist areas.

Subfamily TROPIDOPOLINAE

12. *Tristria pulvinata* (Uvarov)

1921. *Tapinophyma pulvinata* Uvarov, *Ann. Mag. nat. Hist. London*, 7(6) : 497.

1929. *Tristria pulvinata* : Uvarov, *Revue Suisse Zool.*, 29 : 559.

Material examined : 1(M), 1(F), Rest House site, Nayachar, Haldia, 19.viii.1993, A. K. Hazra; 2(M), Hut site, Nayachar, Haldia, 25.ii.1999, A. K. Hazra.

Diagnosis : Fastigium of vertex. Parabolic, moderately narrow, antennae filiform; prosternal tubercle curved backwards, almost square in cross section, strongly widened apically, with slightly concave surface; tegmen and wings extending upto the apex of subgenital plate or shorter; male cercus in apical third incurved, down curved and laterally flattened posterior margin of last abdominal tergite in male, with a triangular projection on either side of mid-line; female subgenital plate with an angular projection on the posterior margin on either side of mid line; male subgenital plate almost near, compressed knife-like.

Distribution : INDIA : West Bengal (Nayachar, Bardhman, Haora, Jalpaiguri, Nadia, Purulia, 24-Parganas), Assam, Bihar, Maharashtra, Tamil Nadu. Elsewhere : SRI LANKA.

Remarks : This species occurs in limited numbers in the Island.

Subfamily EYPREPOCNEMIDINAE

Genus *Eyprepocnemis* Fieber, 1853

13. *Eyprepocnemis alacris alacris* (Serville)

1839. *Acridium alacre* Serville, *Hist. nat. Ins. Orth.*, 682.

1958. *Eyprepocnemis alacris alacris* : Dirsh, *Proc. R. ent. Soc. Lond.*, (B) 27(3-4) : 40.

Material examined : 2(M), 1(F), Rest House site, Nayachar, Haldia, 19.viii.1993, A. K. Hazra; 1(M), 1(F), MIC site, Nayachar, 25.ii.1999, A. K. Hazra; 1(M), Hut site, Nayachar, Haldia, 12.xii.1997, A. K. Hazra; 1(M), 2(F), MIC site, Nayachar, 12.viii.1999, A. K. Hazra.

Diagnosis : Concavity of fastigium of vertex distinct, with a low apical carinula, separating it from frontal ridge; pronotum above with a characteristic narrow dark spot; lateral carinae of pronotum converging forwards; prozona about as long as metazone; dark spots present on the wings, hind tibiae bluish-grey, with two whitish rings at the base and reddish apex and tarsus; male cercus gradually narrowing towards apex, incurved and downcurved.

Distribution : INDIA : West Bengal (Nayachar, Bardhaman, Birbhum, Darjeeling, Jalpaiguri, Maldah, Medinipur), Rajasthan, Tamil Nadu. Elsewhere : AFGHANISTAN; BANGLADESH; EAST PERSIA; PAKISTAN and SRI LANKA.

Remarks : This species is very thickly distributed in the Island.

Subfamily CATANTOPINAE

Genus *Catantops* Schaum

14. *Catantops pinguis innotabilis* (Walker)

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

1956. *Catantops pinguis innotabilis* : Dirsh, *Publcoes Cult. Co. Diam. Angola*, 28 : 1-150.

Material examined : 1(M), 1(F), Rest House site, Nayachar, Haldia, 18.viii.1993, A. K. Hazra; 2(M), 1(F), Hut site, Nayachar, Haldia, 12.xii.1997, A. K. Hazra; 1(M), MIC site, Nayachar, Haldia, 25.ii.1997, A. K. Hazra; MIC site, Nayachar, Haldia, 11.viii.1999, A. K. Hazra.

Diagnosis : Antennae shorter than head and pronotum together; prosternal tubercle thick, cylindrical, at base weakly compressed with rounded apex; lateral lobe of pronotum without coloured pattern; tegmina exceeds the hind knee by more than the length of pronotum; external disc of hind femur without the black median spot below the upper carinula; male cercus more upcurved, with more broadened apex and more projecting upper apical angle.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Darjeeling, Kochbihar, Medinipur, 24-Parganas), Arunachal Pradesh, Assam, Himachal Pradesh, Kerala, Orissa, Tamil Nadu. Elsewhere : JAVA; INDO-CHINA; MALAYA; NEW GUINEA; PHILIPPINES; SRI LANKA; SUMATRA; THAILAND; YUNAN.

Remarks : This species is rather limited in distribution.

Subfamily CYRTACANTHACRIDINAE

Genus *Cyrtacanthacris* Walker, 1870

15. *Cyrtacanthacris tatarica* (Linnaeus)

1758. *Gryllus locusta tartaricus* Linnaeus, *Syst. nat. (10th ed.)* : 432.

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

Material examined : 1(M), 2(F), Rest House site, Nayachar, Haldia, 19.viii.1993, A. K. Hazra; 2(M), Hut site, Nayachar, Haldia, 25.vi.1999, A. K. Hazra.

Diagnosis : Size large; general colouration yellow with brown and white; occiput mostly with on each side a darker coloured stripe, cheeks sometimes with indefinite darker spots or stripes; pronotum above on both sides with a broad velvety blackish brown band; tegmina with dense and thick reticulation and transverse oblique fasciae or irregular spots; wings hyalinous at the base somewhat yellowish, hind tibiae from below yellowish brown or yellowish hind tarsi red or brown.

Distribution : INDIA : West Bengal (Nayachar, Bankura, Maldah, Medinipur, Purulia), Andhra Pradesh, Bihar, Himachal Pradesh, Kerala, Orissa, Tamil Nadu. Elsewhere : AFRICA (except N. AFRICA) and SAHARA; SEYCHELLES; SUMATRA.

Remarks : The species is generally found in thick forest and sometimes also in the cultivated zones especially in mature paddy and maize fields.

SUMMARY

Fifteen species of grasshoppers belonging to 2 families and 14 genera collected from the Nayachar Island, Haldia, are recorded for the first time in this Communication.

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