

Notes on West African *Acridomorpha* Dirsh, 1966 (Orthoptera)

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Notes are provided on 57 species from Cameroun, Cape Verde Islands, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal and Sierra Leone. The male of *Cyphocerastis pulcherrima* Ramme is described and figured. There are several first records: two from Guinea, one from Ghana, and five from Liberia. *Eurysternacris brevipes* Chopard, ♂ and *Gastrimargus procerus* (Gerstaecker), ♂ ♀ are depicted, also nymphs of *Zonocerus variegatus* (Linn.).

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In connection with the Lund University Expedition to Gambia in 1977 a small amount of material of *Acridomorpha* was also collected in Senegal and this was studied at the request of Dr. Roy Danielsson, Lund University. At the same time additional material from other West African countries found in the Natural History Museum, Aarhus, Denmark (in the text N. M.) and in the Zoological Museum, Copenhagen, Denmark (in the text Z. M.) was studied and the results are presented below.

The material from Senegal was collected by Cederholm, Danielsson, Hammarstedt, Hedquist, Larsson, Mireström, Norling and Samuelson during February–March and November 1977. This material is kept in the Entomological Museum, Lund Univ., Lund, Sweden. In the text the localities in Senegal are given as numbers (loc.) only; they are explained in Tab. 1.

Annotated list of species

EUMASTACOIDEA

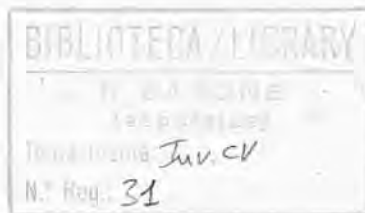
Afromastax zebra (Gerstaecker, 1889)

Material: Guinea, Nzerekore, 1 ♀ (Z. M., Olsen leg.)

The specimen belongs to the subspecies *occidentalis* Descamps, 1977, previously only known from Ghana and Ivory Coast. The determination was verified by Descamps.

Table 1. Collecting localities investigated in 1977 by the Lund University Zoology Museum (cf. Cederholm & Danielsson, in press).

Loc. No.	Date	Geographical position
14	3–4.III	Senegal, 1 km NW Bignona, 26 km N Ziguinchor. UTM 28 PCK654170.
15	4.III	Senegal, 1 km N Toubakouta, 10 km S Ziguinchor. UTM 28PCJ600819.
16	4.III	Senegal, 3 km SSW Toubakouta, 10 km S Ziguinchor. UTM 28PCJ585782.
17	5.III	Senegal, 2 km E Niaguis, 11 km E Ziguinchor. UTM 28PCJ74-89-.
19	6.III	Senegal, village Saré Sara, 21 km ESE Kolda. UTM 28PEK27-19-.
21	7.III	Senegal, 3 km N Tanaff. UTM
22	8.III,	Senegal, 3 km SSE Brin, 11 km SW
	9.XI	Ziguinchor. UTM 28PCJ53-83.
23A	8.III	Senegal, 1.5 km NE Djibelor, 6.5 km SW Ziguinchor. UTM 28PCJ575885.
28	8.XI	Senegal, Mpak, 11 km S Ziguinchor. UTM 28PCJ64-79-.
29	8–9.XI	Senegal, 1 km NE Djibelor, about 7.5 km SW Ziguinchor. UTM 28 PCJ56-87-.
30	10.XI	Senegal, Cap Skiring. UTM 28PCJ60-19-.
31	11.XI	Senegal, Parc National Basse Casamance. UTM 28PCJ29-68-.
32	11.XI	Senegal, 2.5 km ESE Ziguinchor. UTM 28PCJ66-89-.
33	12.XI	Senegal, 18 km N Ziguinchor, at Tabi. UTM 29PCK 65-09-.
34	12.XI	Senegal, 10 km SE Diouloulou. UTM 28PCK32-35.
41	20.XI	Gambia, 6 km N Kartung. UTM 28 PCK08-51-.



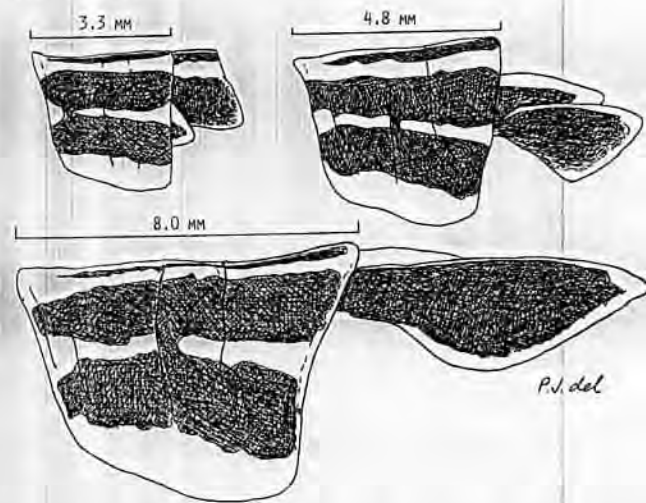


Fig. 1. *Zonocerus variegatus*. Colour design in different instars.

ACRIDOMORPHOIDEA

Phymateus cinctus (Fabricius, 1973)

Material: Nigeria, Pella 2.VII., 17.VII., 17.VIII.1951 (Z. M. and N. M. Jørgensen leg.) 3 ex.

Previously recorded from Nigeria (Cornes & Riley 1972) but without other information. The material was compared with specimens in the British Museum determined as *cinctus* and found conspecific.

Pyrgomorpha conica (Olivier, 1971)

Material: Senegal, loc. 30 10.XI.1977 1 ex, at light.

Pyrgomorpha vigneaudi (Guerin-Meneville, 1849)

Material: Guinea (Olsen leg.), Nzerekore 20.IX.1951 1 ex in Z. M., Kankau 2.IV.1951, 1 ex in N. M. Liberia, Bomi Hills 21.VII.1949, 1 ex in N. M. (Olsen leg.), Nigeria, Kaduna 2.IV.1966 1 ex in N. M. (author leg.), Cameroun, Bertoua 2.V.1966 1 ex in N. M. (author leg.).

The species has not previously been recorded from Liberia, but is known from all surrounding countries.

Zonocerus variegatus (Linnaeus, 1758)

Fig. 1.

Material: Liberia, 20 nymphs from same localities as imagines mentioned in Johnsen 1970 collected in I, V and XI-XII.

The nymphal instars were recently described by Chapman et al. (1977). To supplement this the nymphal pronotum is depicted in different instars (Fig. 1). The central part of its lateral lobe is black but is normally split into two broad black bands by a yellow longitudinal line. This line is normally interrupted by a narrow black streak at varying positions. In some specimens the yellow line along the middle of lateral lobe may disappear, leaving only a few small yellow spots.

Atractomorpha rufopunctata I. Bolivar, 1894

Material: Liberia, Tchien 4.V.1947 1 ex in N. M. Guinea, Nzerekore 24.VIII.1951 1 ex in Z. M. (both Olsen leg.).

May be added to the records from these countries in Johnsen (1970).

Spathosternum pygmaeum Karsch, 1893

Material: Senegal, loc. 15 4.III.1977 1 ex, loc. 28 8.XI.1977 4 ex, loc. 22 9.XI.1977 1 ex.

Cyphocerastis pulcherrima Ramme, 1929

Figs. 2-4.

Material: Guinea, Nzerekore VIII 1 ♂ in Z. M. (Olsen leg.).

Previously the species has been recorded from Sierra Leone (Dirsh 1965), Ghana (Jonston 1968)

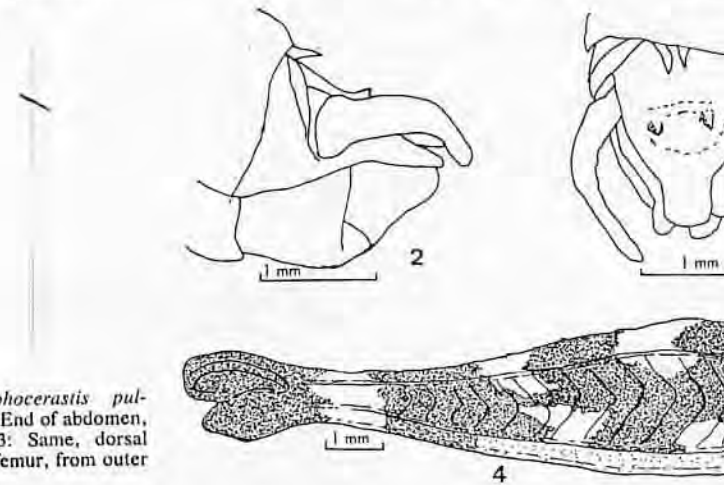


Fig. 2-4. *Cyphocerastis pulcherrima* ♂. 2: End of abdomen, lateral view. 3: Same, dorsal view. 4: Hind femur, from outer side.

and Ivory Coast (Gillon 1974). The specimen is thus a first record from Guinea.

Only the female sex of the species has been described. This male conforms in all characters to the description of the female. The male has the following dimensions: length of body 16.2, length of pronotum 3.8, length of posterior femur 11.1, length of posterior tibia 10.1, length of tegmen 5.5. In Ramme (1929) the measurements given for the male must really have been those for the female as only female material was at his disposal. Posterior tibia with 10 outer spines, the most proximal is a mere tubercle, and 9 inner spines. The spines all shiny black. Hind femur is depicted in Fig. 4; end of abdomen. Figs. 2-3. The constriction of cercus before apex seen in other species hardly noticeable. Supra-anal plate with two tubercles in central part.

Eucoptacra anguliflava (Karsch, 1893)

Material: Senegal, loc. 23 A 8.III.1977 1 ex.

Epistaurus succineus (Krauss, 1877)

Material: Senegal, loc. 17 5.III.1977 1 ex.

Acorypha karschi (Martinez, 1902)

Material: Guinea, Nzerekore I, XI, XII. 1952 5 ex in Z. M. (Olsen leg.). Liberia, Ganta 29.XII.1946 1 ex in N. M. (Olsen leg.).

This is the first record from Liberia.

Acorypha modesta Uvarov, 1950

Material: Nigeria, Joz 24.II.1948 1 ex in N. leg.).

Acorypha clara (Walker, 1870)

Material: Niger, Zinder 24.XI.1927 1 ex (Madsen leg.). Senegal, Dakar 1927 1 ex (Madsen leg.).

Eyrepocnemis plorans (Charpentier, 1843)

Material: Liberia, Gbong Mts. XI, 1 ex Caught in copula.

Heteracris annulosus (Walker, 1870)

Material: Mali, Timbuctou (= Timbuktu) 1 ex in Z. M. (Madsen leg.).

Heteracris pulchripes (Schaum, 1853)

Material: Cameroun, 1914 1 ex in Z. M. Ial Hauschild. Liberia, Gbarnga 18.XII.1930.XI.1946 1 ex, in N. M. (Olsen leg.).

Not previously recorded from Liberia.

Heteracris vinaceus (Sjöstedt, 1923)

Material: Ghana, IV 1 ex in Z. M. (Anders-

The species has previously been from Zaire, Ruanda, Uganda, and T. 1970), but this is the first record from

***Cataloipus cymbiferus* (Krauss, 1877)**

Material: Ghana (on label "Guinea" as used during the period of Danish administration) 1 ex in Z. M. (Chenon leg.).

***Cataloipus fuscocoeruleipes* Sjöstedt, 1923**

Material: Senegal, loc. 34 12.XI.1977 1 ex.

Genus under revision by Jago (Centre for Overseas Pest Research, London), consequently determination tentative (See Johnsen 1981 on Gambian material).

***Abisares viridipennis* (Burmeister, 1838)**

Material: Guinea, Nzerekore I and XII. 1950-51, 3 nymphs in Z. M. (Olsen leg.).

The nymphs may easily be referred to species by the shape of the pronotal crest, which is very well-developed as in imagines.

***Cardeniopsis* Dirsh, 1955**

Material: Liberia, Saniquellie 10.II.1947 1 nymph in N. M. (Olsen leg.).

The genus not previously recorded from Liberia. The only species known from W. Africa is *nigropunctatus* (I. Bolivar, 1881). The closest record of this species to Liberia is French West Africa (probably in Mali), and Nigeria.

***Catantops axillaris* (Thunberg, 1815)**

Material: Cape Verde Islands, San Vicente 3.XII.1945 2 ex in Z. M. (Atlantide exp. leg.).

The two specimens, females, have brownish posterior tibia and internal disc of posterior femur, not red as normally in this species, but otherwise they appear conspecific with *axillaris*.

***Catantops melanostictus* (Schaum, 1853)**

Material: Senegal, loc. 34 10.XI.1977 1 ex.

***Catantops quadratus* (Walker, 1870)**

Material: Guinea, Nzerekore III. and V.-IX. 3 ex in Z. M. (Olsen leg.).

***Catantops spissus* (Walker, 1870)**

Material: Senegal, loc. 23A 8.III.1977 1 ex, loc. 34 12.XI. 1 ex.

***Catantops stylifer* (Krauss, 1877)**

Material: Senegal, loc. 34 12.XI.1977 2 ex.

***Ornithacris turbida* (Walker, 1870)**

Material: Ghana (on label "Guinea" as used during the Danish period) 2 ex (Schönning & Sannom leg.) in Z. M.

***Acrida bicolor* (Thunberg, 1815)**

Material: Sierra Leone, Bo 11.VI.1949 1 ex in N. M. (Olsen leg.). Senegal, Dakar 15.X.1950 1 ex in Z. M. (Galathea-exp.). Guinea, Nzerekore 20.IV.1950 1 ex and 14.VI.1953 1 ex in Z. M. (Olsen leg.).

***Acrida sulphuripennis* (Gerstaecker, 1869)**

Material: Guinea, Nzerekore 21.I.1951 1 ex in Z. M. (Olsen leg.). Liberia, Sarbahtown between Balaeybokribli and Sinoe 29.VI.1947 1 ex in N. M.

This is the first record from Liberia.

***Acrida turrata* (Linnaeus, 1758)**

Material: Senegal, loc. 28 8.XI.1977 1 ex, loc. 33 12.XI.1977 1 ex. Guinea: Nzerekore I, IV-XII 1950-51 numerous ex in Z. M. Liberia, Kakata 25.IX.1946, 2.X.1946, 23.XI.1946, 24.XI.1946 6 ex, Monrovia 25.VIII.1947, 6.IX.1946, 22.XI.1949 3 ex, Bomi Hills 31.VII.1949 1 ex, between Sinoe and Lexington 11.VII.1947 1 ex, Tchien 26.V.1947, 2.VI.1947 2 ex, all in N. M. (Olsen leg.). Cameroun, Kribi 24.-26.IV.1966 2 ex in N. M. (author leg.). Nigeria, 80 km E Benin 13.IV.1966 1 ex in N. M. (author leg.). Ghana IV. 1947 1 ex in Z. M. (Andersen leg.).

One female was collected at light.

***Amphicremna scalata* Karsch, 1896**

Material: Liberia, Kakata 24.IX.1946, 1 nymph in late instar in N. M. (Olsen leg.).

***Parga cyanoptera* Uvarov, 1926**

Material: Nigeria, Kano 28.III.1966 1 ex in N. M. (author leg.).

Genus in need of revision. Determination based on antennae, which are as depicted by Dirsh (1970).

***Holopercna gerstaeckeri* (I. Bolivar, 1890)**

Material: Liberia, Toweh town 21.III.1947 1 nymph (Olsen leg.) in N. M.

Imagines from other localities in Liberia were recorded by Johnsen (1970).

***Sherifuria haningtoni* Uvarov, 1926**

Material: Senegal, loc. 33 12.XI.1977 1 ex, loc. 34 12.XI.1977 1 ex.

***Coryphosima stenoptera* (Schaum, 1853)**

Material: Senegal, loc. 15 4.III. 2 ex, loc. 16 4.III. 1 ex, loc. 17 5.III. 1 ex, loc. 21 17.III 5 ex, loc. 28 8.XI. 7 ex, loc. 32 11.XI. 3 ex, loc. 22 9.XI. 1 ex, loc. 29 9.XI. 2 ex—all from 1977. Liberia, Monrovia, Owensgrove at Harbel, Firestone Plantation, Bomi Hills, Ganta, Waisi Forest at Ganta, Tappita, T'chien, Saniquellie, Bahr in Gola Forest, collected in I-II, VI-V, VII and X-XII 15 ex in N. M. (Olsen leg.). Sierra Leone, Pendembu 3.VI.1944 1 ex in N. M. (Olsen leg.). Nigeria, Kano 28.III.1966 in N. M. (author leg.). Guinea, Nzerekore I, V-IX and XII 1951-52 72 ex in Z. M. (Olsen leg.).

Previously only recorded once from Liberia, but the material presented above shows a wide distribution all over the country.

***Chirista compta* (Walker, 1870)**

Material: Senegal, loc. 17 5.III.1977 7 ex, loc. 19 6.III.1977 1 ex, loc. 22 9.XI.1977 1 ex, loc. 28 8.XI.1977 1 ex, loc. 29 9.XI.1977 1 ex.

***Zacompsa festa* (Karsch, 1893)**

Material: Senegal, loc. 29 8.XI.1977 2 ex.

***Gymnbothrus temporalis* (Stål, 1876)**

Material: Senegal loc. 16 4.III.1977 3 ex.

***Aiolopus thalassinus* (Fabricius, 1781)**

Material: Senegal, loc. 16 4.III.1977 1 ex, loc. 28 8.XI.1977 3 ex, loc. 29 9.XI.1977 3 ex.

***Eyrysternacris brevipes* Chopard, 1947**
Figs. 5-7.

Syn. *E. zolotarewskyi* Chopard, 1947 (Descamps 1968).
Material: Mali, Timbuktu, 24.VII.1927 1 ex in Z. M. (Madsen leg.).

In Figs. 5-7 some details of male morphology, not apparent in Dirsh's Fig. 383 (1965), are shown.

***Heteropternis coulouiana* (Saussure, 1884)**

Material: Senegal, loc. 31 11.XI.1977 1 ex.

***Heteropternis thoracica* (Walker, 1870)**

Material: Senegal, loc. 14 4.III.1977 1 ex.

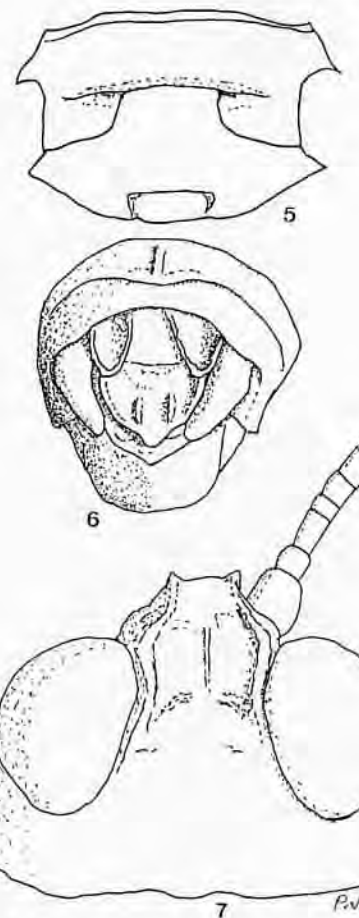


Fig. 5-7. *Eyrysternacris brevipes* ♂. 5: Mesosternum. 6: End of abdomen, dorsal view. 7: dorsal view.

***Gastrimargus africanus* (Saussure, 1888)**

Material: Senegal, loc. 29 9.XI.1977 1 ex.

***Gastrimargus procerus* (Gerstaecker, 1889)**
Figs. 8-9.

Material: Sierra Leone, Bo 17.VII.1949 1 ex in (Olsen leg.). Guinea, Nzerekore I, III-IX and XI in Z. M. (Olsen leg.). Liberia, Kakata, be Sarbahtown and Sinoe, Tapitta, Bomi Hills, be Babula Newton and T'chien, in IV-V, VII a 1946-49 6 ex in N. M. (Olsen leg.).

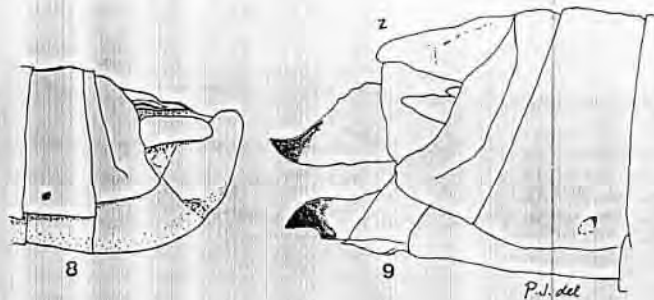


Fig. 8-9. *Gastrimargus procerus*. 8: End of ♂ abdomen, lateral view. 9: End of ♀ abdomen, lateral view.

From Liberia the species has previously only been recorded once and then without locality (Dirsh 1970). It appears to be widely distributed in this country. One fecula showed remains of grass.

End of male and female abdomen have been depicted Figs. 8-9.

***Locusta migratoria* (Linnaeus, 1758)**

Material: Senegal, loc. 34 12.XI.1977 1 ex.

***Humbe tenuicornis* (Schaum, 1853)**

Material: Senegal, loc. 34 12.XI.1977 1 ex.

***Oedaleus nigeriensis* Uvarov, 1926**

Material: Senegal, loc. 22 9.XI.1977 1 ex, loc. 28 8.XI.1977 3 ex, loc. 31 11.XI.1977 2 ex.

***Oedaleus senegalensis* (Krauss, 1877)**

Material: Mali, Gao 14.XI.1927 2 ex in Z. M. (Madsen leg.).

***Morphacris fasciata* (Thunberg, 1815)**

Material: Liberia, between Swenhbli and Kpahlorbli 23.VI.1947 1 nymph, Zuole 24.III.1947 1 nymph, both in N. M. (Olsen leg.). Senegal, loc. 17 5.III.1977 2 ex, loc. 19 6.III.1977 1 ex, loc. 28 8.XI.1977 1 ex.

***Trilophidia conturbata* (Walker, 1870)**

Material: Senegal, loc. 15 4.III.1977 1 ex, loc. 16 4.III.1977 1 ex, loc. 17 5.III.1977 2 ex, loc. 23A 8.III.1977 1 ex.

***Trilophidia repleta* (Walker, 1870)**

Material: Senegal, loc. 16 8.XI.1977 1 ex, loc. 29 8.XI.1977 1 ex.

***Acrotylus blondeli* (Saussure, 1884)**

Material: Mali, Timbuktu (= Timbuktu) 16.V.1927 4 ex, 20.VI.1927 1 ex, both in Z. M. (Madsen leg.), Ghana (on label Guinea as used when Danish) 2 ex in Z. M. Nigeria, Lamurde 1928 1 ex in Z. M. (Fog leg.), Kongolam 25.III.1966 12 ex in N. M. (author leg.).

The material from Mali is much paler in general colouration than material from other countries.

***Acrotylus patruelis* (Herrich-Schaeffer, 1838)**

Material: Senegal, loc. 16 4.III.1977 2 ex, loc. 21 7.III.1977 1 ex, loc. 22 8.III.1977 1 ex. Guinea, Nzerekore V 1 ex in Z. M. (Olsen leg.). Nigeria, Jos 24.II.1948 1 ex in Z. M. (Olsen leg.), Kongolam 25.III.1966 1 ex in N. M. (author leg.), Kaduna 2.IV.1966 1 ex in N. M. (author leg.).

***Mesopsis abbreviatus* (Beauvois, 1806)**

Material: Senegal, loc. 14 4.III.1977 1 ex, loc. 28 8.XI.1977 3 ex.

***Krausella amabile* (Krauss, 1877)**

Material: Senegal, loc. 34 12.XI.1977 17 ex.

***Leva gracilis* (Werner, 1913)**

Material: Senegal, loc. 22 8.III.1977 1 ex, loc. 30 10.XI.1977 3 ex.

Genus in need of revision.

***Dnopherula werneriana* (Karny, 1907)**

Material: Senegal, loc. 14 4.III.1977 2 ex.

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