REVIEW OF FLATIDAE IN SOUTHERN AFRICA, WITH KEYS AND DESCRIPTIONS OF NEW SPECIES (HOMOPTERA, FULGOROIDEA)

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ABSTRACT. The Flatidae (Homoptera) in South Africa are reviewed. Keys, descriptions, illustrations and collection data are provided to enable identification of 26 genera (5 new) and 36 species (6 new). The following new genera are described: *Increda*, with type species *fulva* (Hesse); *Safracis*, with type species mira (Stål); *Safroka*, with type species *areolifera* (Walker); *Sajuba* with type species *reversa* (Melichar); *Xerona*, with type species *archiva* Medler, sp. n. The following new species (exclusive of one listed above) are described: *Calauria virilis*, *Paroxychara cowla*; *Stenocyarda digita*, *Stenocyarda solitaria*, *Xerona valiena*.

New synonymies (junior synonym followed by senior synonym) are: *Afrophantia iphigeneia* Linnavuori = *Afrophantia mycenis* Fennah; *Phantia aethiopica* Linnavuori = *Caesonia bellula* (Stål); *Ulundia decisa* Distant = *Ulundia madagascariensis* (Signoret); *Ormenis nigropunctula* Melichar = *Juba plagosa* (Distant); *Juba africana* Synave = *Juba plagosa* (Distant); *Juba rudebecki* Synave = *Sajuba reversa* (Melichar).

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Introduction

This is a report on all known genera and species of Flatidae with distribution in South Africa. The family Flatidae belongs to Homoptera, Auchenorrhyncha, Fulgoroidea. Close relatives are leafhoppers and plantoppers. Immature stages of flatids produce long, wax filaments, and adult females provide a protective wax covering for egg deposits. All Flatidae have tegmina with a wide precostal margin traversed by numerous crossveins, and the base of the clavus is pustulate.

Previous knowledge on South Africa Flatidae in large part is found in scattered publications during 1851 to 1980 by Walker, Stål, Melichar, Distant, Schmidt, Jacobi, Fennah and Synave. These workers reported new species or locality records based on specimens in widely scattered collections by individuals. Expeditions also provided specimens. Synave (1958b, 1959) reported 5 genera and 7 species from Swedish (Lund University) Expedition in Southern Africa.

Data from expeditions of British Museum of Natural History during 1972, and Berlin Museum of Natural History (1992-1995, Koch, et al. 1995: 89-211) are reported at this time.

The foundation for extensive review of South Africa Flatidae was made possible by study of all available types of species described by earlier workers. Types and other material were loaned through helpful cooperation of curators of various depositories.

Major sources of material examined were accessions at Natal Museum, Pretoria Plant Protection Research Institute, and South African Museum.

Material and Methods

Arrangement of genera and species follows Metcalf Catalogue sequence in large part. Literature citations are restricted to original publication, and post Metcalf (1957) contributions applicable to South Africa.

Measurements: Measurements on type specimens are standardized in the following format: Length in mm overall in lateral view from anterior margin of head to posterior margin of tegmen; v (vertex), p (pronotum), m (mesonotum), along the dorsal midline; f (frons) from dorsal apex to frontoclypeal suture; t (tegmen) from basal margin to center of apical margin; pcl (postclaval sutural margin) from apex of clavus to intersection with arc of sutural angle, or tip of sutural angle, Width v (vertex) transversely along intergenal suture or maximum width above eyes; f (frons) maximal point, usually near antennal insertions; t (tegmen) at maximal point between costal and sutural margins at apex of clavus. Measurements were made with binocular microscope fitted with 15x ocular and grid of 20 units. The 3x objective was used for most measurements.

Throughout this article the morphological character "spine" refers only to hind leg spines. In keys, the metatibial lateral spines are used (e.g., 1, 2). In descriptions, the spines are given by formula - metatibial lateral, metatibial apical, metatarsal I (e.g., 1:6:6, 2:7:7). In a few species, the metatarsal spines may be obscured by a pad of minute hairs.

When possible, illustrations and measurements were made on the holotype ♂ and allotype ♀ of a species. In cases were primary types were unavailable, a representative specimen named as plesiotype was used. The term has no status under taxonomic rules, but the specimen bearing my blue plesiotype label is identified in relation to published data and examination by future workers.

Locality data have been supplemented with latitude and longitude map coordinates given in the Times Atlas of the World, volume IV, 1956 edition. Information on place names not found in the gazetteer was helpfully provided by Michael Stiller.

Codens sensu Arnett, et al. (1993) are used to specify museums or depositories that loaned specimens of identified specimens, as follows:

AMNH, American Museum of Natural History, New York, N.Y.
BMNH, The Natural History Museum, London, England.
BPBM, Bernice P. Bishop Museum, J. Linsley Center for Research in Entomology, Honolulu, HI, 96819.
CASC, California Academy of Sciences, San Francisco, CA, 94118.
HNHM, Hungarian Natural History Museum, Budapest, Hungary.
ISNB, Institut Royal des Sciences Naturelles de Belge, Bruxelles, Belgium.
MCSN, Museo Civico Di Storia Naturale "Giacoma Doria", I-16121, Genoa, Italy.
MHNC Musee d'Historie Naturelle, La Chaux-De-Fonds, Switzerland.
MNHN, Museum National d'Histoire Naturelle, Paris, France.
MRAC, Museum Royal de l'Afrique Centrale, Tervuren, Belgium.
MZLU, Museum of Zoology and Entomology, Lund University, Helgonavagen 3, Sweden.
NHMW, Naturhistorisches Museum, 3. Zoologische Abteilung, Postfach 417, Wien, Austria.
NHRS, Museum of Natural History, Stockholm, Sweden.
NMBZ, National Museum, P.O.Box 240, Centenary Park, Bulawayo, Zimbabwe.
NMSA, Natal Museum, Private Bag 9070, Pietermaritzburg 3201, Natal, South Africa.
OXUM, University Museum, Parks Road, Oxford, OXI 3PW, England, UK.
PPRI, Plant Protection Research Institute, Pretoria, South Africa.
SANC, South African National Collection of Insects, South African Museum, Cape Town, South Africa.
SMNS, Staatliches Museum fur Naturkunde, Rosenstein 1, D-7000 Stuttgart, Germany.
SMTD, Staatliches Museum fur Tierkiunde, Dresden, Germany.

TMSA, Transvaal Museum, P.O.Box 413, Pretoria, 0001, South Africa.
UNSA, University of Natal, P.O.Box 375, Pietermaritzburg, 3200 Natal, South Africa.
ZMHB, Museum fur Naturkunde der Humboldt-Universitat, Berlin, Germany.
ZMUH, Universität Zoologisches Institut und Zoologisches Museum, Hamburg, Germany.

SYSTEMATICS

Key to the Genera of Flatidae in South Africa

1. Tegmina held horizontally in repose, precostal margin wide [FLATOIDINAE] 26
-- Tegmina held vertically; precostal margin not especially widened [FLATINAE] 2
2. Frons with or without median longitudinal carina; anterior margin of vertex with or without carina; tegmen costal margin usually sinuate or constricted caudad near C+R; scutellum, clavus and/or bulla strongly elevated; subapical line of crossveins usually present; usually 2 longitudinal veins (R+S, M or R, S+M) arising from basal stem; overall appearance dark shades of brown [SELIZINI] 22
-- Not as described; typical flatids, mostly green or stramineous, sometimes light brown [FLATINAE] 3
3. Recognizable vertex on dorsum of head clearly separated from frons by transverse intergenal carina; vertex flat, rugulose; tegmen with 2 longitudinal veins (R+S, M) arising from basal stem; veins R and S branches extending parallel; ovipositor valvulae III not sclerotized, not fitted for piercing; one metatibial lateral spine ..... 2. *Siphanta* Stål
-- Not as described; ovipositor valvulae III sclerotized, fitted for piercing 4
4. Antennal segment I distinctly passing lateral margin of frons, segment II flattened, about 5 times longer than segment I ..... 1. *Ityraea* Stål
-- Antennal segment I short, not passing, or only slightly passing, lateral margin of frons 5
5. Disc of frons more or less concave, median longitudinal carina absent, vertex present 6
-- Disc of frons flat or convex, median longitudinal carina or remnant present or absent; vertex present or absent 7
6. Anterior margin of head rimlike, thin; frons deeply concave; dorsum of head, pro- and mesonotum wihout median sulcus; overall color reddish brown; 2 metatibial lateral spines ..... 3. *Phlebopterum* Stål
-- Anterior margin of head thick, not rimlike; frons shallowly concave, dorsum of head, pro- and mesonotum with broad median sulcus; overall color green or tawny, 1 metatibial lateral spine ..... 4. *Aulophorina* Karsh
7. Short globular species nearly as broad as long; overall color brown, rarely green. Length 6 mm or less 8

-- Species not short and globular; overall color green or stramineous, rarely brown. Length 6 mm or longer 12

8. Head truncate, or nearly so; anterior margin delimited by intergenal transverse carina that borders shelflike vertex; in lateral view frons/vertex margin angulate; ocelli very small; tegmen with strong subapical line of crossveins; overall color uniformly brown ..... 5. *Afrophantia* Fennah

-- Head obtuse or triangular, dorsum formed by extension of frons posteriorly to anterior margin of vertex that is delimited by transverse intergenal carina or remnant; ocelli absent; dorsum of head, pro- and mesonotum usually with sulcus and longitudinal carina or suture; subapical line of crossveins variable; color brown or green 9

9. Head elongate, acutely conical; tegmen postclaval margin extended, sutural angle acutely pointed (fig 5); ocelli absent. ..... 8. *Paroxychara* Lallemand & Synave

-- Tegmen postclaval margin not extended; sutural angle not acutely pointed 10

10. Tegmen postclaval sutural margin extremely short or absent; convex apical margin and subapical line of crossveins terminating at apex of clavus; ocelli very small or absent 11

-- Postclaval sutural margin not extremely shortened or absent; sutural angle usually well developed, ocelli usually present; overall color variable 12

11. Frons with raised median carina; tegmen vein M forked basally (fig 1) ..... 6. *Apolexis* Jacobi

-- Frons without raised median carina; tegmen vein M forked near apical margin (fig 7); head elongated, acutely conical; dark brown sulcus with median carina or suture extending from apex of head to scutellum ..... 7. *Calauria* Stål

12. Smaller species, length usually less than 10 mm 13

-- Larger species, length 12 mm or longer 15

13. One metatibial lateral spine; ocelli small; tegmen about as wide as long; apical margin shallow convex; sutural angle not prolonged (fig 2) ..... 9. *Phantia* Fieber

-- Two metatibial lateral spines; head broadly conical 14

14. Ocelli very large, colored pink; tegmen longer than wide, apical and postclaval sutural margins convex, sutural and costal angles uniformly convex (fig 9); vertex present, its anterior margin delimited by transverse intergenal carina ..... 11. *Caesonia* Stål

-- Ocelli small; tegmen apical margin oblique, postclaval sutural margin straight or slightly convex, sutural angle acute, costal angle obtusely convex (figs 3, 4); vertex reduced to small remnants next eyes ..... 10. *Xerona* Medler

15. Head conical, frons extending convexly nearly to posterior margin of head; vertex remnant delimited by transverse intergenal carina adjacent to anterior margin of pronotum; dorsum of pro- and mesonotum with or without strong longitudinal carina; 1 or 2 metatibial lateral spines 16
-- Head truncate or shallowly obtuse; very short entire vertex present; pro- and mesonotum without longitudinal carina; 2 metatibial lateral spines 20
16. Frons carinate medially, margins flared over bases of antennae; antennal segment II black, cylindrical, about 4 times longer than segment I; apical margin of tegmen widely oval, no subapical line of crossveins ... . 12. ***Dalapax*** A & S
-- Antennal segment II not elongate, not black; tegmen apical margin narrowly convex, apical area with dense reticulation of crossveins 17
17. Frons and pronotum without median longitudinal carina 18
-- Frons with median carina; pronotum with crestlike median longitudinal carina 19
18. Vertex obtusely conical; tegmen without subapical line; 1 metatibial lateral spine ..... 13. ***Gyaria*** Stål
-- Vertex triangularly conical; tegmen with subapical line; 2 metatibial lateral spines, at least on one leg ..... 14. ***Gyariella*** Schmidt
19. Tegmen with 3 longitudinal veins (R, S, M) arising together from basal stem ..... 15. ***Decipha*** Medler
-- Tegmen with 2 longitudinal veins (R+S and M) arising from basal stem.... ..... 16. ***Safroka*** Medler
20. Head margin convex; full width vertex very short, anterior margin weakly delimited; tegmen costal angle narrowly convex, sutural angle nearly 90 degrees (fig 6); in dorsal view, pair of red stripes extending from frons to apex of clavus; overall color green or faded green .... 18. ***Paranotus*** Karsch
-- Head margin truncate; full width vertex anterior margin delimited by strong transverse intergenal carina; tegmen costal angle widely convex with configuration similar to that of sutural angle; overall color dark brown 21
21. Tegmen without subapical line of crossveins; apex strongly reticulated by crossveins (Fig 11); habitus robust ..... 17. **Afrormenis** Fennah
-- Tegmen with subapical line of crossveins; apex not strongly reticulated by crossveins (Fig 8); habitus not robust ..... 19. ***Ulundia*** Distant
22. Tegmen elongated and strongly constricted apically; postclaval sutural margin not raised (*Cyarda* complex) 23
-- Tegmen costal and sutural margins nearly parallel, not strongly narrowed apically; apical margin truncate or sinuate, postclaval sutural margin usually uplifted, sutural angle sharp, anterior margin of vertex carinate (*Juba* complex) 24

23. Two metatibial lateral spines; tegmen wide basally, strongly narrowed apically; costal margin sinuate, apical margin more or less convex with configuration of angles similar. Frons without median longitudinal carina ..... 20. *Afrocyarda* Fennah
-- One preapical metatibial spine; Apical margin of tegmen narrow, convex, both angles about equally convex, bulla greatly elevated ..... 21. *Stenocyarda* Fennah
24. One metatibial lateral spine; tegmen apical margin oblique truncate, sutural angle raised (fig 10) ..... 24. *Sajuba* Medler
-- Two metatibial lateral spines 25
25. Vertex as long as pronotum; tegmen sutural angle convex ..... 23. *Juba* Jacobi
-- Vertex much shorter than pronotum, tegmen sutural angle acute ..... 22. *Increda* Medler
26. Anterior margin of head carinate; pronotum pleuron anterior margin elevated, carinate; 2 longitudinal veins arising from basal stem, veins R+S at bulla; Size medium, length 12 mm or less ..... 25. *Safracis* Medler
-- Anterior margin of head not carinate; pronotum pleuron anterior margin foliaceous; 3 longitudinal veins arising from basal stem; no bulla; Length 13 mm or longer ..... 26. *Uysanus* Distant

Subfamily Flatinae
Tribe Phromniini Melichar

1. Genus *Ityraea* Stål

Ityraea Stål, 1866: 235 (gen. n.); Metcalf, 1957: 21 (catalog). Type species: *Flata nigrocincta* Walker, subsequent designation by Stål, 1866.

Diagnosis: Head truncate, carinate margins elevated; frons longer than wide, margins concave medially.

Antennal segment II laterally compressed, slightly curved, with large sulcus on interior face, 4x longer than segment I.

Tegmen apical margin broadly convex, one subapical line of crossveins. Metatibial lateral spines 2.

Distribution: Africa.

1.1 *Ityraea nigrocincta* (Walker)

Flata nigrocincta Walker, 1858b: 108 (sp. n.); *Ityraea nigrocincta* Synave, 1954: 30; Synave, 1958a: 148; Medler, 1990a: 151, fig. 6 (lectotype data).
Ityraea electa Melichar, 1901: 203 (sp. n.); Metcalf, 1957: 22 (catalog); Synave, 1958a: 148 (review); Medler, 1990a: 151 (synonymy); Medler. 1992b: 180 (lectotype data).
Ityraea gregoryi Distant, 1910a: 299 (sp. n.); Metcalf, 1957: 22 (catalog); Synave, 1954: 30 (synonymy); Medler, 1990a: 170 (lectotype data).
Ityraea patricia Melichar, 1901: 201 (sp. n.); Metcalf, 1957: 24 (catalog); Medler, 1990a: 151 (synonymy); Medler, 1993b:55, fig 1 (lectotype data); Medler, 1993e:41 (type data).

Ityraea speciosa Melichar, 1901: 202 (sp. n.); Distant, 1910a: 248, pl. XXIII, fig. 3; Metcalf, 1957: 25 (catalog); Medler, 1990a: 151 (synonymy); Medler. 1993e; 41 (paralectotype data).

Diagnosis: Junior synonyms of *I. nigrocincta* present a complex array of color variants without discernible differences in characters of male and female genitalia. The lectotype genitalia shown by Medler, 1990a, fig. 6, and color illustration of *I. patricia* by Melichar, 1923, pl II. fig. 16, enables recognition of *I. nigrocincta*. Metatibial spines formula 2:9-10:5 (in pad). Length 16-23 mm.

Measurements: Lectotype ♂, Paralectotype ♀ (BMHH). Length: Overall 18.0, 19.0; v 0.75, 0.75; f 1.33, 1.49; p 0.83, 0.87; m 2.82, 3.15; t 4.98, 5.64; pcl 1.49, 1.49. Width: v 0.83, 1.00; f 0.50, 0.54; t 2.82, 3.15. Hind leg spine formula: 2:9:5, 2:9-10:5.

Types examined: **BMNH:** Lectotype *nigrocincta*, ♂, S Africa: Port Natal. **ZMUH:** Lectotype (*electa*), ♀, Nord Usegua. **BMNH:** Lectotype (*gregoryi*), ♂, British E Africa. **MNHN:** Lectotype (*patricia*), ♂, Zanzibar: Mhonda-Ouzigona. **HNHM:** Paralectotype (*speciosa*), ♀, Tanzania: Tanga.

Specimens examined: **UNSA:** Natal: Eshowe Glinza Forest (28.54S 21.38E), 19.xii.1985, ♂, ♀. **PPRI:** KWA-Zulu: Kwalosha Forest nr Ndwedwe (21.32S 30.57E), 12.x.1989, 2 ♂,♀, E.v.d.Linde. **NHMW:** Natal: Port Natal [Durban], 3 ex, det Melichar.

Tribe Siphantini Melichar, status n.

2. Genus *Siphanta* Stål

Siphanta Stål, 1862: 69 (gen. n.); Synave, (1953) 1954: 28 (key); Metcalf, 1957: 231 (catalog); Fletcher, 1985: 3 (rev). Type species: *Poeciloptera acuta* Walker, subsequent designation by Melichar, 1901.

Diagnosis: Dorsum of head, pronotum and mesonotum flattened, rugulose; anterior margin of vertex delimited by transverse intergenal carina. Tegmen veins R and R+S arising from basal stem; branches of vein S extending apicad parallel to vein R. No subapical line of crossveins. Metatibial lateral spine 1.

Distribution: Australia, New Zealand, Indonesia, Hawaii, S. Africa (new record).

2.1 *Siphanta acuta* (Walker)

Poeciloptera acuta Walker, 1851: 448 (sp. n.); *Siphanta acuta*: Metcalf, 1957: 233 (catalog); Fletcher, 1985: 7, figs 1, 2, 89, 125-128 (rev); Medler, 1990a: 131, fig 12 (lectotype, plesiotype data).

Diagnosis: Species easily recognized by reference to published illustrations of external facies by Kirkaldy, 1907, pl. III, figs 2 & 4, and lectotype genitalia by Medler, 1990a, fig 12. Also see revision by Fletcher, 1985: 7. Col-

oration predominantly green or yellow green. Metatibial spines formula 1:7:8. Length 8-10 mm.

Types examined: BMNH: Lectotype *acuta*, ♀, Australia (New Holland). **BPBM:** Plesiotype *acuta*, ♂, Australia: Sydney, Koebele.

Specimens examined: O'BRIEN: Cape Province: Scarborough (34.12S 18.22E), 3 km S, 19.iv.1992, ♂, L.B.O'Brien, et al. **ZMHB:** Cape Province: Bellville (35.53S 18.36E, 16-20.xi.1999, 3 ♂, 3 ♀, 1 immature, U. Göllner. (NEW RECORDS for Africa).

Taxonomic note: Synave (1954: 28) included *Siphanta* Stål in his key to African genera of Flatidae. The basis for this record is speculative, as no specimen was found at ISNB, MRAC, or other collections examined prior to the bona fide specimen collected by L.B. O'Brien and U. Göllner.

Tribe Sisciini Melichar

3. Genus *Phlebopterum* Stål

Phlebopterum Stål, 1854: 248 (gen. n.); Synave, 1956: 207; Metcalf, 1957: 125 (catalog); Fennah, 1958a: 149. Type species: *Phlebopterum praemorsum* Stål, monobasic; junior synonym *Phlebopterum solitum* (Walker) .

Leptoflata Lallemand, 1931: 302 (gen. n.); Metcalf, 1957: 268 (catalog); Medler, 1993a:34 (*Phlebopterum*, synonymy). Type species: *Leptoflata sedeli* Lallemand, monobasic.

Diagnosis: Head frons and vertex delimited by transverse intergenal carina on anterior margin. Frons oval, disc concave, without median carina. Vertex convex between lateral margins. Tegmen with 2 longitudinal veins (R+S, M) arising from basal stem; apical margin outlined by row of dark brown spots, shape variable either convex or truncate, with or without subapical line of crossveins. Metatibial lateral spines 2.

Distribution: Africa, Madagascar.

Taxonomic note: Shape of head and tegmen of *Phlebopterum* is similar to that of *Miniscia* Medler and *Siscia* Stål in the Philippines. However, head and tegmen shapes are variable in species of *Phlebopterum* known in Africa and Madagascar.

3.1 *Phlebopterum solitum* (Walker)

Poeciloptera solita Walker, 1851a: 467 (sp. n.); Metcalf, 1962: 41 (*Ledra*, catalog error); Medler, 1990a: 160 (*Phlebopterum*, lectotype data).

Phlebopterum praemorsum Stål, 1854: 248 (sp. n.); Stål, 1866: 246 (*solita*, synonymy); Metcalf, 1957: 126 (*praemorsum*, catalog); Medler, 1988c: 125, fig. 13 (plesiotype data); Medler, 1994a: 223 (holotype data).

Diagnosis: Head produced, anterior margin angularly convex, foliaceous, carinate, frons concave, vertex convex laterally. Pronotum with narrow postocular ridge, not an eminence, Tegmen posterior margin not widened, 10 interveinal black spots; sutural margin meeting slightly convex apical margin at blunt right angle; pro- and mesotibiae flattened. Illustration of

P. praemorsum genitalia by Medler, 1988c, fig. 13, enables identification. Valvulae III margins with about 10 teeth in a row. Metatibial spines formula 2:6:6-7. Length 9 - 10 mm.

Types examined: BMNH: Lectotype *solita*, ♀, West Africa: Gold Coast Colony, Obuasi. **NHRS:** Holotype (*praemorsum*), ♀, Sierra Leone. **BPBM:** Plesiotype (*praemorsum*), ♂, Ivory Coast: Tai.

Specimens examined: UNSA: South Africa: Natal, Enseleni Reserve (28.40S 32.00E), 40m, Sandveld scrub, 7.iii.1980, ♀, P.E.Reavell. **PPRI:** South Africa: Natal, Charters Creek, St. Lucia (28.12S 32.25E), 14-16.i.1981, ♂, M.W.Mansell. N. Transvaal: Shewasaulu, 18.i.1965, ♀, M.Hoffmann. **ZMHB:** - Südafrika: Mkuze Game Reserve (27.36S 32.13E), 2-4.ii.1994, ♀, U. Göllner.

4. Genus *Aulophorina* Strand

Aulophorina Strand, 1928: 46 [replacement name for *Aulophorus* Karsch, 1890: 69, preoccupied by *Aulophorus* Schmarda, 1861]; Metcalf, 1957: 128 (catalog). Type species: *Aulophorus canaliculatus* Karsch, monobasic.

Diagnosis: Head anterior margin truncate, frons concave, with median carina. Vertex and pronotum lengths equal; dorsal longitudinal sulcus broad, extending from vertex across pro- and mesonotum; ocelli present. Tegmen longer than wide, apically tapered slightly, apical width less than at claval apex, margin truncate, costal and apical angles slightly convex, subapical marginal line present. Color green or faded green. Metatibial lateral spine 1.

Distribution: Africa.

4.1 *Aulophorina canaliculata* (Karsch)

Aulophorus canaliculatus Karsch, 1890: 69 (sp. n.); Strand, 1928: 46 (*Aulophorina*); Metcalf, 1957: 128 (catalog); Medler, 1990c: 107, fig. 25 (holotype and plesiotype data).

Diagnosis: Conforms with generic diagnosis. Illustrations by Melichar, 1902, pl. V. figs 20 & 20a show external facies. Illustration of plesiotype male by Medler, 1990c, fig. 25, shows genitalia characters. Metatibial spines formula 1:7-8:10. Length 7 - 8.5 mm.

Types examined: ZMHB: Holotype *canaliculata*, ♀, no head, Mozambique, Delagoa Bay. **ISNB:** Plesiotype *canaliculata*, ♂, South Africa, Bedford River.

Previous Records: Synave, 1958b:166, Natal (Lund Expedition); Synave, 1969:185, Transvaal: Nelspruit (USNM).

Specimens examined: UNSA: Natal:.Empangeni area, Mailrath Farm (28.45S 31.55E), 110 m, 9.xi.1984, ♀, P.Reavell; Enseleni Reserve (28.40S 32.00E), 40 m, 24.i.1982, ♀, P.E.Reavell; Lake Sibayi (27.16S 32.46E), 10 m, at light, 1.1982, ♀, P.Atkinson; Makatini Flats (27.24S 32.11E), 17 m, at light, xi.1982, ♀, P.Atkinson; Mkuze Reserve (27.40S 32.15E), 120 m, at

light, iii.1982, ♂, P.E.Reavell; Mseleni Mission (27.20S 32.34E), 30 m, at light, ii-xi.1984, 9 ♂, 5 ♀, P.Atkinson; Pongola Farm (24.21S 31.38E), 300 m, at light, ii.1983, ♂, ♀, P.Atkinson; Richard's Bay Mineral (28.38S 32.15E), 33 m, at light, xii.1980, ♀, P.Atkinson; St. Lucia (28.20S 32.25E), hygrophilous grassveld, 14.x.1984, ♀, P.E.Reavell; St. Lucia Smith's Farm (28.20S 32.25E), 40 m, Sandveld bush, 12.i.1986, ♀, P.E.Reavell. **PPRI:** Natal: Zululand, Mkuzi (27.37S 32.03E), xii.1946, ♂, ♀, DDT No. 470. Transvaal: Altyddroog Farm, 13 km W Beitbridge (22.11S 29.53E), 8.ii.1990, 3♂, 4♀, M.Stiller; Beitbridge (22.14S 28.59E), 6.iii.1990, ♂, M. Stiller; Boyne, 15-16.xii.1963, 2♂, ♀, A.L.Capener; D'Nyala NR (23.43S 27.49E), light trap, 5.x.1989, 3♂,♀, I.M.Millar; Doorndraai Dam NR (24.14S 28.44E), 4-7.ii.1980, ♀, W.A.Harrop; Elandshoek (25.32S 30.42E), 28.xi.1968, ♀, A.L.Capener; Hennops River, 20 km W Pretoria (25.47S 27.55E), 5.iii.1980, ♀, C.G.E.Moolman; Kurt Steyn Bridge, Olifants River, 13.i.1965, ♂, A.L.Capener; Langjan NR (22.52S 29.13E), ♂, M.Stiller; Lapalala NR (23.51S 28.17E), ♀, S.Grobbelaar; Lekgalameetse NR (24.10S 30.14E), ♂, ♀, N.Verheijen; Loskopdam, 20 km SE (25.22S 29.35E), 9-13.ii.1981, ♂, ♀, C.G.Moolman & W.Harrop; Loskopdam NR (25.25S 29.20E), 12-13.xii.1985, ♂, I.M.Millar; Messina NR (22.23S 30.03E), 7.iii.1990, ♂, M.Stiller; Mogol NR (23.58S 27.45E), 28.i.1988, ♂, N.Verheijen; Moketsi (23.36S 30.06E), 8.x.1965, 2♂, 5♀, *Cassia petersiana*, P.Paliatseas; Monument Pta (25.46S 28.11E), 30.x.1967, ♀, C.M.Niemann; Naboomspruit, Vischgat (24.32S 26.36E), 11.iii.1963 ♀, van Schalkwyk; Nelspruit (25.30S 30.58E), 9.ii.1966, 2♂, 2♀, P.Paliatseas; Nylsvley NR (24.29S 28.42E), 1095 m, x.1978, ♀, C.D.Eardley; Nylsvley NR (24.39S 28.42E), ♀, G.Ferreira; Pienaarsrivier (25.15S 28.18E), 16.xi.1967, ♀, C.M.Niemann; Pietersburg (23.54SS 29.23E), 12.viii.1965, ♀, M.Hoffmann; Roodeplast (25.41S 28.18E), ♀, I.M.Millar; Rustenburg (25.40S 27.12E), 17.xi.1964, ♂, P.Paliatseas; Rustenburg, ii-iii.1965, 5♀, A.L.Capener; Rustenburg, ♀, S. Grobbelaar; Rustenburg NR (25.40S 27.12E), 19.ii.1985, ♀, M.W.Mansell; Rustenburg NR, 19.ii.1985, ♂, ♀, C.G.E.Moolman; Shawo, Kruger NP (24.59S 31.55E) 16.i.1865, 2♂, ♀, A.L.Capener; Shewasaulu, 18.i.1965, ♀, M.Hoffmann; Soutpan (25.24S 28.06E), ♀, R.Oberprieler; Stoffberg, turnoff to Belfast, 5 km N (25.23S 29.48E) ♂, N.Verheijen; Warmbaths (28.29S 18.41E), 22.xii.1964, 3♀, *Croton gratissimus*, A.L.Capener; Waterval Boven (25.40S 30.20E), 20.xi.1967, ♂, E.Binkman. **BPBM:** Mseleni MIssion, 11.1982, ♂, ♀, P.Atkinson, ex UNSA; Beitbridge, 8.ii.1990, ♂, ♀, M.Stiller, ex PPRI. **ZMHB:** Namibia: Katima Mulilo (17.29S 24.17E), 3-8.iii.1992, ♂, U. Göllner; Botswana: Chobe Park (18.33S 24.03E), 11.iii.1993, ♂, J.Deckert.

Tribe Phantiini Melichar

5. Genus *Afrophantia* Fennah

Afrophantia Fennah, 1958b: 535 (gen. n.); Medler, 1988c: 142, Ivory Coast, key). Type species: *Afrophantia mycenis* Fennah, original designation.

Diagnosis: Anterior margin of head almost truncate; dorsal margin of frons a narrow rim separated from vertex by transverse intergenal carina; in profile view anterior margin of head at nearly right angle; tegmen postclaval sutural margin extremely short, convexly merged with apical margin; strong subapical line of crossveins extending from costal vein to apex of clavus. Illustrations by Fennah, 1958b, figs 30, 1-3, show vertex and pronotum, head in profile, and tegmen. Valvulae III margin with about 6 small sharp teeth. Metatibial lateral spines 2.

Distribution: Africa south of the Sahara.

5.1 *Afrophantia mycenis* Fennah

Afrophantia mycenis Fennah, 1958b: 536, fig 30 (sp. n.); Medler, 1993b: 54 (holotype data).

Afrophantia iphigeneia Linnavuori, 1973: 132, fig. 79 (sp. n.); Medler, (*mycenis*, based on comparison of holotypes, SYN. N.).

Diagnosis: Conforms with generic diagnosis, Illustrations by Fennah, 1958b, fig. 30, 4-6, show characters of the male genitalia. Color light brown. Metatibial spines formula 2:6:4. Length 4 - 6.5 mm.

Measurements from paratype: ♂. Length: Overall 4.5; v 0.17; f 0.66; p 0.33; m 0.83; t 3.49; pcl 0.17. Width: v 0.50; f 0.66; t 2.16. Hind leg spine formula: 2:6:4 (in pad of spines).

Types examined: **MNHN**: Holotype *mycenis*, ♂, Senegal: Dakar, Ile aux Serpents. **AMNH**: Holotype (*iphigeneia*), ♂, Sudan: Equatoria, Juba-Nimule.

Previous records: Medler, 1988c:142, Swaziland: Eranchi (MRAC).

Specimens examined: **UNSA**: Natal: Empangeni, Addison Park (28.30S 31.45E), 135 m, *Panicum max.*, 9.x.1979, ♂, ♀, P.E.Reavell; Enseleni NR (28.40S 32.00E), 40 m, grass veld, 8.iv.1981, 5♀, Enseleni NR, 40 m, *Themeda*, ♂, P.E.Reavell; Manguzi Forest Edge, grass, 4.i.1988 ♀; Mntunzini (28.55S 31.45E), 40 mm, grass, 10.iii.1981, ♂, P.E.Reavell; Richard's Bay Area (28.50S 32.05E) 25 m, *Themeda triandra*, 5.v.1980, ♀, P.E.Reavell. Zimbabwe: Victoria Falls, Miombo woodland, 3.i.1981, 3♀, P.E.Reavell. **PPRI**: KWA-Zulu: Lake Sibaya, E Shore (27.22S 32.43E, 18-20.i.1981, ♂, 2♀, I.M.Millar. Natal: Kosi Bay (26.58S 32.48E), 9.ii.1990, ♂, 2♀, N. Verheijen; Hluhluwe, Kuleni Farm (27.54S 23.22E, 13-14.ii.1990, 5♂, 4♀, I.M.Millar & N.Verheijen; Kuleni Farm, 14.xi.1990, 6♂, 4♀, N.Verheijen. Transvaal: Dunstable Farm (24.27S 30.45E), i.1990, 2♂, ♀, V.M. Uys. **BMNH**: Zululand: Mtunzini (28.55S 31.45E), 7-14.ix.1949, 2♂,

♀, A.L.Capener, BM 1952-254. **BPBM**: Hluhluwe, 14.xi.1990, ♂, ♀, N. Verheijen, ex PPRI; Mtunzini, ix.1949, ♂, ♀, A,L,Capener, ex BMNH. **ISNB**: Zululand: Mtunzini (28.55S 31.45E), 7-14.ix.1949, ♂, A.L.Capener. **ZMHB**: Südafrika: Itala Game Reserve (27.30S 31.20E), 27-29.i.1994, ♀, U. Göllner.

6. Genus *Apolexis* Jacobi

Apolexis Jacobi, 1936: 38 (gen. n.); Metcalf, 1957: 138 (catalog). Type species: *Apolexis monardi* Jacobi, monobasic.

Diagnosis: Head conical, frons with median longitudinal carina; no ocelli. Mesonotum disc depressed between strong lateral carinae. Tegmen costal and apical margins continuous semicircular to apex of clavus, subapical line of crossveins delimiting narrow margin (fig 1); bulla protruding and pustulated; clavus vein A2 strongly carinate, raised. Metatibial lateral spines 2.

Distribution: Angola.

6.1 *Apolexis monardi* Jacobi

Apolexis monardi Jacobi, 1936: 39 (sp. n.); Metcalf, 1957: 138 (catalog).

Diagnosis: Conforms with generic diagnosis. Small, dark brown species. Tegmen of lectotype ♂ illustrated (fig 1); vein S apparently joins R at bulla, but origin obscured by pustules. Lectotype ♂ genitalia illustrated (fig 12). Metatibial spines formula 2:6-8:8-9. Length 4.5 mm.

Measurements from Lectotype ♂: Length: Overall 4.5; v 0.54; f 0.91; p 0.42; m 0.82; t 3.15; pcl 0.00. Width: v 0.58; f 0.75; t 1.49. Hind leg spines formula: right 2:8:9, left 2:6:8.

Type examined: SMTD: Lectotype ♂, Angola: Santo Amaro, IX, Miss. Sc. Swisse; here designated. **MHNC**: Paralectotype ♀, Mus La Chaux-de-Fonds, Angola, Santo Amaro, IX. (not seen)

Specimens examined: BMNH: Angola: Luimbale, Mt Moco, 1,800-1,900 m, iii.1934, 6♀, K. Jordan, BM 1934-435. **CASC**: Angola: Nova Lisboa, 23.ix.1949, ♀, B. Malkin.

7. Genus *Caluaria* Stål

Calauria Stål, 1866: 245 (gen. n.); Metcalf, 1957: 129 (catalog). Type species: *Calauria sulciceps* Stål, monobasic.

Diagnosis: Habitus illustration by Melichar, 1902, pl v, fig 1, helps recognition of the genus. Frons convex, with longitudinal carina. Tegmen vein S once branched basally at site of bulla; rarely twice branched; vein M branched near apical margin; subapical vein terminating at claval apex. Ocelli very small or absent. Metatibial lateral spines 2.

Distribution: Africa.

Key to species of *Calauria*

Color brown; dorsal carina in sulcus on head, pro- and mesonotum well developed..... *sulciceps* Stål

Color green; dorsal carina and sulcus on head, pro- and mesonotum weakly developed..... *virilis* Medler

7.1 *Calauria sulciceps* Stål

Calauria sulciceps Stål, 1866: 245 (sp. n.); Metcalf, 1957: 129 (catalog); Synave, 1958: 167 (redescribed); Medler, 1994a: 224, figs 15, 24 (lectotype, plesiotype data).

Diagnosis: Habitus illustration by Melichar, 1902: 9, pl V, fig 1. Tegmen of lectotype ♀ illustrated by Medler, 1994a, fig 24, is reproduced (fig 7) to show R+S stem and apical forking of vein M. Plesiotype genitalia illustrated by Medler, 1994a, fig 15. Valvulae III margin with about 6 flat teeth equally spaced.

Metatibial spines formula 2:6-8:4-5 (in pad). Length 3.5 - 4.5 mm.

Types examined: **NHRS**: Lectotype ♀, Cape of Good Hope [Cap. B. Spei]. **NHRS**: Plesiotype ♂, Cape of Good Hope.

Previous records: Synave, 1958b: 167 (Lund University Expedition); Synave, 1969:185, South Africa: Cape Town (USNM).

Specimens examined: **PPRI**: Cape Province: Knysna (34.03S 23.03E), i.1979, 2♀, C.Kok & S.J.v.Tonder; Plettenberg Bay (34.05S 23.21E), i.1979, ♀, C.Kok & S.J.v.Tonder; Plettenberg Bay, 13.xi.1990, 2♀, V.Uys; Natal: Cathedral Peak, Forestry area (28.55S 29.14E), 10.xi.1981, 2 ♂, I.M.Millar; Untentweni (30.40S 30.30E), 9-14.iii.1961, ♀, A.L.Capener. Transvaal: Groblersdal (25.10S 29.23E), 11.ii.1981, ♀, C.Kok & S.J.v.Tonder; Zuurberg (33.22S 25.44E), 13.xi.1966, ♀, A.L.Capener. **BMNH**: Cape Province: Katberg, 4000 ft [1219 m] (32.29S 30.41E) xi-xii.1932, ♂, ♀, R.E.Turner, BM 1933-69; Mossel Bay, 28.i.1939, ♀, R.E.Turner, BM 1939-266; Somerset East, 10-22.xii.1930, 1-26.i.1931, ♂, 2♀, R.E.Turner, BM 1931-37, 1931-95; Worcester, 1.1929, ♀, R.E.Turner, BM 1929-26. South Africa: Pirrie Dam, W of Stutterheim, ii.1944, 2♀, J.Omer Cooper, BM 1948-276. **MZLU**: Cape Province: Cape Town (33.56S 18.28E), Rondebosch (33.58S 18.29E), 21.i.1951, 2♂, ♀; Skoorsteen Kop (34.02S 18.22E), 250-500 ft [76-152 m], 28.1.1951, 5♂, 4♀, Brink-Rudebeck, Swedish South Africa Expedition. **BPBM**: ex MZLU, Skoorsteenkop, 28.i.1951, ♂, ♀, Swedish S.Afr.Exp. **MRAC**: Cape Province: Witsands, 18.i.1948, ♂, ♀, A.J.Duke. **NHMW**: Cape of Good Hope, ♂, *sulciceps*, coll Signoret, det Melichar.

7.2 *Calauria virilis* Medler sp. n.

Diagnosis: Overall color green. Sulcus on head and thorax very shallow, without longitudinal carina; no ocelli; tegmen shape and venation similar to *sulciceps* (fig 7), but veins not sharply traced.

Holotype male genitalia illustrated (fig 13); processes arising from apex of aedeagus; anal segment with unique ventral triangular basal projection. Metatibial spines formula 2:7:9. Length 4.5 - 5.0 mm.

Measurements: Holotype ♂, allotype ♀, Length: Overall 4.5, 5.0; v 0.42, 0.62; f 0.83, 0.91; p 0.33, 0.33; m 0.87, 1.00; t 3.65, 3.82; pcl 0.17, 0.17. Width: v 0.66, 0.75; f 0.71, 0.75; t 1.83, 2.49. Hind leg spine formula: 2:7:9, 2:7:9.

Type material: ZMHB: Holotype ♂, allotype ♀, paratypes, 2 ♂, 6♀, Sudafrika: Coastal N.P. & Tsitsikamma Forest (34 11 S, 24 29 E), 28.iv-1.v.1995, Göllner. **SANC**: ex ZMHB: Paratypes, ♂, ♀, same label as holotype. **BPBM**: ex ZMHB: Paratypes, ♂, ♀, same label as holotype. **PPRI**: Paratype, ♀, Cape Province: Plettenberg Bay (34.03S 23.23E), 13.ii.1990, V.Uys; Paratypes, ♂, ♀, Steytlerville (33.20S 24.20E), 15.ii.1966, A.L. Capener; Paratypes, ♂, 3♀, Cape Province: Storms River Mouth (33.59S 23.52E), 18.ii.1966, A.L.Capener.

8. Genus *Paroxychara* Lallemand & Synave

Paroxychara Lallemand & Synave, [1951] 1952: 24 (gen. n.); Metcalf, 1957: 319 (catalog). Type species: *Paroxychara capeneri* Lallemand & Synave, original designation.

Diagnosis: Head strongly prolonged, pointed, dorsal surface distinctly grooved; tegmen apical margin oblique, sinuate, meeting postclaval sutural margin at acute angle. Valvulae III with small flat spaced teeth similar to *Calauria*. This taxon is closely similar Calauria, but differs in shape of tegmen.

Metatibial lateral spines 2.

Distribution: East and South Africa, Madagascar.

Key to species of *Paroxychara*

Apex of segment IX narrow, not overlapping aedeagus..... ..... *capeneri* Lallemand & Synave

Apex of segment IX broad, expanded to cover aedeagus .... *cowla* Medler

8.1 *Paroxychara capeneri* Lallemand & Synave

Paroxychara capeneri Lallemand & Synave, [1951] 1952: 27, figs 7-8 (sp. n.); Metcalf, 1957: 319 (catalog); Synave, 1980: 2 (holotype & paratype data); Medler, 1993a: 24 (paratype data)

Diagnosis: Head elongate, frons elongate, smooth, convex from lateral margins, without median carina; shallow sulcus on dorsum of head, pro- and mesonotum with median carina or remnant, margined narrowly by brown pigment lines, pronotum postocular eminence triangular.

Tegmen of ♂ (#189) in Stockholm Museum illustrated (fig 5) shows venation in greater detail than seen in tegmen figured by Fennah, 1958a, fig. 91 E. The acute point of elongated postclaval sutural margin is broken in Stockholm specimen, but if intact would conform with numerous specimens examined in South African collections. Valvulae III posterior margins with row of 6 small peglike teeth.

Metatibial spines formula 2:8:5 (in pad). Length 4.15-5.5 mm.

Measurements: From holotype ♂, Stockholm ♀, #189. Overall 4.15, 4.25; v 0.66, 0.66; f 1.00, 1.00; p 0.33, 0.33; m 0.66, 0.75; t 3.32, 3.49; pcl 0.50, 0.33. Width: v 0.46, 0.42; f 0.54, 0.66; t 0.66, 1.99. Hind leg spine formula: 2:8:5 (obscured in pad).

Types examined: ISNB: Holotype ♂, South Africa: Pretoria District, Hennops River (25.47S 27.55E), 27.ix.1950, A.L.Capener; Paratypes, 62 examples, same label data, A.L.Capener, not examined. **MRAC:** Paratype ♂, riv Rwindi, Sud lac Edouard, 1000 m, 9.ii.1936, L. Lippens.

Specimens examined: UNSA: Natal: Pietermaritzburg (29.36S 30.24E), 5 km S, 10.v.1984, sex not visible, R.Ferguson; Watertown Timber Co, (28.20S 32.14E), ii.1982, 2♂, 5♀, P.Atkinson. **PPRI:** Natal: Cathedral Peak, Forestry Area (28.55S 29.14E), 10.xi.1981, 2♂, I.M.Millar; Lake Sibaya, E Shore (27.22S 32.43E), 18-20.i.1981, ♂, I.M.Millar. Transvaal: Barberton (25.48S 31.03E), iii.1979, 2♂, C.Rok; Bronkhorstpruit (25.50S 28.43E), 4.iii.1963, ♂, H.A.D.van Schalkwyk; Donkerhoek (30.32S 25.29E), 31.i.1984, ♀, V.M.Swain; Doorndraai Dam NR (24.18S 28.44E), 4-7.ii.1980, ♀, W.A.Harrop; Elandshoek (25.32S 30.42E), 8-13.iii.1967, 2♀, A.L. Capener; Groblersdal (25.10S 29.23E), 11.ii.1981, 2♂, ♀, C.G.Moolman & W.Harrop; Happy Rest NR (22.59S 29.46E, Swept from *Helichrysum kraussii*, 10.iii.1990, ♂, 2♀, M.Stiller; Kruger National Park, Pretorius Kop (25.09S 31.16E), 591 m, 17.i.1985, ♂, N.C.Pienaar; Lekgalameetse NR (24.10S 10.14E), 13-17.ii.1989, ♂, N.Verheijen; Loskopdam NR (25.25S 29.20E; 9-13.ii.1981, ♀, C.G.Moolman & W.Harrop; Nelspruit (5.30S 30.56E), 22.xi.1967, 2♂, E.Brinkman; Nylstroom, 10 km NE (24.38S 28.29E); 4.ii.1980, 2♀, C.G.Moolman; Nylsvley NR (24.39S 28.42E), 1095 m, ix.1978, 5♂,2♀, G.Ferreire; Percy Fyfe NR (24.03S 29.07E); 10-12.iii.1980, ♀, C.Kok; Pilgrims Rest, 10 mi N (24.54S 30.46E), 15.i.1963, ♀, A.L. Capener; Presidenterus nr Witbank (25.41S 29.22E), 20.i.1989, ♂, N.Verheijen; Rustenburg NR (25.40S 27.12E), 23-27.ii.1981, 2♂, ♀, 7.xii.1983, ♂, I.M.Millar; Rustenburg NR, 17-20.iii.1984, ♀, C.Moolman; Schoongelegen (23.34S 27.49E), 27.i.1988, ♂, ♀, N.Verheijen; Soutpan (25.24S 28.06E), 17.ii.1981. ♂, M.W.Mansell, 16.xi.1983, ♀, I.M.Millar, 21.iii.1990, ♀, M. Jonsson; Verena, 10 mi SW, 6.ii.1969, ♂, H.K.Munro; Waterberg, NE of Thabazimbri (24.27S 27.40E), 29.iv.1990, ♀, M. Stiller; White River (25.20S 31.01E), 9.vii.1963, ♀, Paliatsas. **BMNH:** Grahamstown, ii.1902, ♀, M.Daly

& M.Sole; x.1903, ♀, C.W.Mally, Albany Museum; Rustenburg, 6.i.1944, ♂, A.L.Capener, NM 1953-226; Rhodesia: Umtalia, iii.1957, ♀, N.L.H.Krauss, BM 1957-226. **MRAC**: S. Africa: Pretoria, Fruntains (25.46S 28.12E), 20.i.1954, ♀, A.L.Capener. **NRHS**: Natalia (only label). #189.

8.2 *Paroxychara cowla* Medler sp. n.

Diagnosis: Head pointed, frons convex, elongated; vertex elongated, with longitudinal sulcus that extends across pro- and mesonotum. Tegmen with costal margin strongly convex, apical margin oblique, sinuate, sutural angle pointed, postclaval sutural margin elongated. Shape similar to that shown for *P. capeneri* (fig 5).

Color dark brown black. Holotype genitalia illustrated (fig 17)

Valvulae III margin with well spaced spines intermixed with sparse fringe of hairs. Metatibial spines formula 2:7-8:3-4 (in pad). Length 4.0 - 4.75 mm.

Measurements from holotype male, allotype female: Length: Overall 4.00, 4.75; v 0.58, 0.66; f 0.91, 0.91; p 0.33, 0.33; m 0.66, 0.83; t 3.15, 3.15; pcl 0.50, 0.66. Width: v 0.50, 0.50; f 0.50, 0.58; t 0.42, 0.50. Hind leg spine formula: 2:8:3-4 in pad.

Type material: BPBM: Holotype ♂, Allotype ♀, Mozambique: Gaza Prov., Praia do Bilene Airport, 16.ix.1995, M. Olmi. **Paratypes:** 4♂, 6♀, same data as holotype; 2♂, 2♀, Maputo Prov.(26.00S 32.25E), 9 km N Ponta de Ouro, Ponta Malorgane Road Jct, M. Olmi. **BMNH**: Paratype ♂, Rustenberg, 6.i.1944, A.L.Capener, BM 1952-226.

9. Genus *Phantia* Fieber

Phantia Fieber, 1866: 498 (gen. n.); Metcalf, 1957: 130 (catalog). Type species: *Poecilopiera subquadrata* Herrich-Schaeffer, monobasic.

Diagnosis: Head conical; intergenal transverse carina lateral remnant delimiting conical frons from rectangular vertex. Tegmen with or without lines of small dark dots. apical margin shallow convex; costal and apical angles similar; Color green or brown. In lateral view, valvulae III apical margin rectangular. Metatibial lateral spines 1.

Distribution: Widespread, Africa, Europe.

9.1 *Phantia rufula* Jacobi

Phantia rufula Jacobi, 1915: 168 (sp. n.); Medler, 1986a: 110, fig 11 (holotype data)
Caesonia pinax Fennah, 1958b: 534, fig 29 (sp. n.); Linnavuori, 1973: 131, fig 77 (*Phantia*, Sudan); Medler, 1993b: 56 (*Phantia rufula*, synonymy, holotype data).

Diagnosis: Head short obtuse cone, frons about as long as wide, with median longitudinal carina; vertex without sulcus, lateral margins foliaceous and raised. Ocelli small. Tegmen posterior margin truncate, costal and sutural angles same convex configuration, one subapical line of crossveins (fig 2).

Illustration of holotype genitalia by Medler, 1986a, fig 11 shows characteristic scimitarlike process near apex of aedeagus.

Metatibial spines formula 1:7-8:2-4. Length 6 - 7 mm.

Measurements: Holotype ♂, Length: Overall 6.0; v 0.50; f 0.66; p 0.33; m 1.16; t 5.31; pcl 0.83. Width: v 0.58; f 0.66; t 2.99. Hind leg spine formula: 1:8:4.

Types examined: SMTD: Holotype *rufula*, ♂,Eritrea: Ghinda. MNHN: Holotype (*pinax*), ♂,Dahomey: Zagnanado.

Specimens examined: UNSA: Natal: Mseleni Mission (27.20S 32.34E), 30 m, at light, xii.1981, ♂,P.Atkinson. PPRI: Transvaal: Kruger NP, Pretorius Kop (25.09S 31.16E), 591 m, 17.i.1985, ♀, N.C.Pinaar; Langjam NR (22.52S 29.13E), light trap, 1.ii.1984, ♂, I.M.Millar; Langjam NR (22.52S 29.13E), 12-15.iii.1990, ♂, ♀, M. Stiller; Pretoria, Wonderboom (25.28S 28.12E), 24.ii.1965, 10♂, 3♀, P.Palistseas. MRAC: S. Africa: Swaziland, Eranchi, xii.1954-i.1955, ♂, 3♀, A.L.Capener.

Tribe Pseudoflatini Melichar, status n.

10. Genus *Xerona* Medler gen. n.

Diagnosis: Resembling *Aulophorina* in head shape but without concave frons and strong dorsal sulcus. Vertex replaced by extension of frons on dorsum of head. Tegmina membrane coriaceus, tegmen apex without subapical line of crossveins, sutural angle extended. Valvulae III margin with about 10 medium size teeth. Metatibial lateral spines 2.

Type species: *Xerona archiva* Medler, here designated

Distribution: South Africa.

Key to the species of *Xerona*

Tegmen with extensive network of crossveins; dorsum of head and thorax without contrasting color line .... *archiva* Medler

Tegmen with sparse network of crossveins; dorsum of head and thorax with dorsal orange red color line .....*valiena* Medler

10.1 *Xerona archiva* Medler, sp. n.

Diagnosis: Head bluntly conical, slightly wider than long; frons disc slightly concave, very short remnant of median longitudinal carina at dorsal margin; transverse intergenal carina delimiting vertex margin adjacent to anterior margin of pronotum; ocelli weak in male, stronger in female; postocular eminence conical, elevated. Allotype tegmen is illustrated (fig 4). Tegmen with 3 longitudinal veins (R,S,M) arising from basal stem, S, M and Cu veins forked, the stems about same length; strong network of crossveins; pcl sutural margin straight, slightly angled from claval apex; angulate at junction with apical margin; costal angle obtuse; apical margin oblique. Color of

tegmina stramineous in males, green in females. Genitalia of holotype male illustrated (fig 14); dorsal process arising fom apex of aedeagus. Metatibial spine formula 2:7:9. Length 11.0 mm.

Measurements from holotype male, allotype female: Length: Overall 11.0, 11.0; v 0.71, 0.75; f 1.33, 1.33; p 0.50, 0.54; m 1.49, 1.66; t 7.80, 8.80; pcl 2.99, 2.99. Width: v 1.00, 1.00; f 1.16, 1.16; t 4.81, 3.98. Hind leg spine formula: 2:7:9, 2:7:9.

Type material: BMNH: **Holotype** ♂, S.Africa: Pondoland, Port St. John (31.38S 29.33E), 15-31.v.1923, R.E.Turner, BM 1923-332; **Allotype** ♀, same label as holotype, x.1923, BM 1923-547. **Paratypes**, same label, 2♀, 12-30.vi.1923, BM 1923-363; ♀, 10-31.vii.1923, BM 1923-398; 2♀, 15-31.viii.1923, BM 1923-463; 2♀, x.1923, BM 1923-547; ♀, xi.1923, BM 1924-6; 2♀, 1-17.iii.1924, BM 1924-177. **BPBM:** ex BMNH, Paratype ♀, same label as holotype, ix.1923, BM 1923-510.

10.2 *Xerona valiena* Medler, sp. n.

Diagnosis: Head conical, apex of frons with short median carina; vertex reduced to triangular remnant margined by transverse intergenal carina at anterior margin of pronotum; postocular eminence of pronotum conical; in profile, mesonotum margin not raised at junction with pronotum. Tegmen costal margin strongly convex, extending obliquely, sinuate at acute sutural angle; postclaval sutural margin elongated, slightly convex; 3 longitudinal veins (R,S,M) arising from basal stem; without subapical line of crossveins. Illustration of holotype tegmen (fig 3) indicates sutural angle broken off but assumed to be acute. Undamaged specimen needed to verify this character. Genitalia of holotype male illustrated (fig 15), shows single pair of processes arising ventrally from apex of aedaegus. This configuration differs from genitalia of *archiva*, which has pair of processes arising dorsally from apex of aedeagus. Metatibial spines formula 2:7:8. Length 8.5 mm.

Measurements: Holotype male. Length: Overall 8.5; v 0.50; f 1.00; p 0.50; m 1.33; t 6.64; pcl 2.16. Width: v 0.75; f 1.00; t 3.65. Hind leg spine formula: 2:7:8.

Type material: MRAC: **Holotype**, ♂, Zululand, Eshowe (28.34S 21.38E), [no other data]. **UNSA: Allotype** ♀, S. Africa: Natal, Ngoye Forest, 400 m (28.50S, 31.40E), 11.i.1983, P.E.Reavell, climbers at edge of path.

11. Genus *Caesonia* Stål

Caesonia Stål, 1866, 244 (gen. n.); Melichar, 1901: 255, pl v, fig 13 (redescribed); Metcalf, 1957: 247 (catalog); Synave, 1962: 90; Type species: *Colobesthes bellulus* Stål, monobasic.

Diagnosis: Habitus illustration by Melichar, 1901, pl V, fig 13, shows conical head and distinct postclaval sutural margin meeting apical margin in convex angle. Frons with median longitudinal carina, lateral margins flared

over antennal sockets; Valvulae III margins bearing 14 stout teeth. Ocelli large, reddish. Color green or testaceous. Metatibial lateral spines 2.

Distribution: Africa.

11.1 *Caesonia bellula* (Stål)

Colobesthes bellulus Stål, 1855: 94 (sp. n.); Stål, 1866: 244 (Caffraria).
Caesonia bellula: Metcalf, 1957: 248 (catalog); Medler, 1994a 216, figs 23, 25 (holotype data).
Phantia aethiopica Linnavuori, 1962: 1, figs 1-4 (sp. n.); Linnavuori, 1973: 132 (*Caesonia*); Medler, here designated (*Caesonia bellula*, based on comparison of types, SYN. N.).

Diagnosis: Conforms with diagnosis of genus. Holotype tegmen illustrated by Medler, 1994a, fig 25. Supplementary illustration is here presented (fig 9) that shows well developed postclaval sutural margin and less than half vein terminations in subapical area arising from forks at subapical line of crossveins. Illustrations of aedeagus by Synave, [1953] 1954, fig 10, and holotype male genitalia by Medler, 1994a 216, figs 23, 25. Metatibial spines formula 2:8:5-6. Length 7 - 8 mm.

Types examined: **NHRS**: Holotype *bellula*, ♂, Natal: Caffraria. **SMNS**: Holotype (*aethiopica*), ♂, East Africa: Makoa, Lindner.

Previous records: Melichar, 1901: 255, fig 13 (Port Natal, Delagoa Bay)

Specimens examined: **UNSA**: Natal: Durban Westville (29.50S 30.50E), 300 m, 9.ii.1981, ♀, P.E.Reavell; Zululand University (28.45S 31.45E), 75 m, 16.i.1981, ♀, P.E.Reavell; Watertown Timber Co. (28.20S 32.14E), 65 m, at light, ♀, P.Atkinson; Umhtati, 10.iii.1916, Nos. 259, 274-75, 3♂, 5♀, C.Akerman. **PPRI**: Natal: Cathedral Forestry area, 10.xi.1981, ♂, I.M.Miller; Zululand, St. Lucia Park (28.30S 32.25E), 13.i.1968, ♂, 2♀, E, Brinkman; St. Lucia, Fanies Island Camp (28.10S 32.25E), 14-16.i.1981, ♂, I.M.Millar; Umkomaas (30.13S 30.48E), 2-8.ii.1962, ♂, ♀, A.L.Capener; Umtentweni (30.40S 30 30E), ♀, A.L.Capener. **BPBM** ex PPRI: Umhtati, 10.iii.1916, ♂, C.Akerman. **MNHN**: Afrique, Zululand. **ZMHB**: Zambia: Kafue National Park, Chunga Camp (15.02S 26.00E), 26-29.iii.1992, ♂, U. Göllner.

12. Genus *Dalapax* Amyot & Serville

Dalapax Amyot & Serville, 1843: 521 (gen. n.); Metcalf, 1957: 251 (catalog). Type species: *Flata postica* Spinola, monobasic.
Pseudoflata Guerin-Meneville, 1844: 360 (gen. n.); Metcalf, 1957: 251 (catalog). Type species: *Pseudoflata nigricornis* Guerin-Meneville, monobasic; junior synonym of *Dalapax postica* (Spinola).

Diagnosis: Head conical, no vertex, frons with median longitudinal carina and indistinct horseshoelike carinae. Antennae segment II black, cylindrical, about 5x longer than segment I. Tegmen apex convex, apical area with dense reticulation of crossveins, without development of dominant subapical

line, distinctive black spot at apex of clavus. Color green, faded green or dull white. Valvulae III margin with large teeth. Metatibial lateral spines 2.

Distribution: Africa.

12.1 *Dalapax postica* (Spinola)

Flata postica Spinola, 1839: 420 (sp. n.); Amyot & Serville, 1843: 521 (*Dalapax*, comb.); Stål, 1866: 247 (*Pseudoflata*, comb.); Synave, 1954: 41, fig. 16 (redescribed, aedeagus illus); Metcalf, 1957: 253 (catalog);

Pseudoflata nigricornis Guerin-M, 1844: 360 (sp. n.); Melichar, 1901: 251, pl I, fig. 16, 21; Melichar, 1923: 59 (*postica*, synonymy).

Flata nivis Walker, 1851a: 438 (sp. n.); Melichar, 1901: 438 (*Pseudoflata*, synonymy); Medler, 1990a: 152 (lectotype data).

Poeciloptera prasinaria Walker, 1851a: 458 (sp. n.); Stål, 1862b: 490 (*postica*, synonymy); Metcalf, 1957: 253 (catalog); Medler, 1990a: 154 (holotype data).

Flata bipunctata Walker, 1858b: 108 (sp. n.); Stål, 1862b: 489 (*postica*, synonymy); Medler, 1990a: 136 (lectotype data).

Diagnosis: Identification of this species is easily done by reference to the habitus illustrations of Melichar (1901, pl I, figs 16, 21). The black elongated antennal segment II is unique. Tegmen claval apex with distinctive black spot. Holotype male genitalia of *Poeciloptera prasinaria* Walker, junior synonymy of *Dalapax postica*, is illustrated (fig 16).

Metatibial spine formula 2:6-7:4 (in pad). Length 8.5 - 12 mm.

Measurements: Holotype male of *prasinaria*. Length: Overall 10.5; v 0.54; f 1.66; p 0.50; m 2.16; t 8.30; pcl 1.66. Width: v 0.83; f 1.00; t 4.81. Hind leg spine formula: 2:8:4 (obscured).

Types examined: **MRSN**: Lectotype *postica*, ♀, Cape of of Good Hope [Cap de Bonne Esperance]. **BMNH**: Holotype: (*nigricornis*), Cape of Good Hope, not found. **BMNH**: Lectotype (*nivis*), ♀, S Africa: Port Natal. **BMNH**: Holotype (*prasinaria*), ♂, S Africa: no locality. **BMNH**: Lectotype (*bipunctata*), ♀, S Africa: Port Natal.

Previous records: Distant, 1907: 203, pl. XX, fig. 15 (S. Africa records); Synave, 1958b: 168, Hluhluwe Game Reserve (Lund University Expedition).

Specimens examined: **UNSA**: Natal: Blythedale Beach (29.20S 31.20E), 5 m, 9.i.1980, 6♀, P.E.Reavell; Curres Post (28.40 21.02E), 7.v.1943, ♂, 3♀, R.S.Crass; Karkloof Falls (29.24S 30.47E), 1050 m, 5.iii.1988, ♂, ♀, T.Clark; Muller's Pass (27.52S 29.44E), 21.iii.1947, 2♂, 6♀, W.G.Rump; Pietermaritzburg, Clerendon School (29.36S 30.24E), 13.ii.1984, 12♂, 5♀, R. Deane; Shelly Beach (34.10S 18.26E), 3.ii.1984, ♀, D.Wheeler; St. Lucia (28.20S 32.25E), 40 m, 21.x.1984, ♂, P.E.Reavell; Tongaat (29.35S 31.07E), 1909, ♂, H.C.Burnup. **PPRI**: Cape Province: Baviaanskloof, nr Studtis (33.32S 23.58E), 8.iii.1977, 2♂, 7♀, M.W.Mansell; Bedford (32.41S 26.05 E), 29.i.1967, ♀, J.G.H.Londt; Cape Town (33.56S 18.28E), 20.iv.1983, ♀, H.Geershema; East London, Nahoun Bush (33.00S 27.54E), 28.iii.1965, ♀, A. L.Capener; Grahamstown (33.19S 26.32E), 12.iii.1860, ♀, D.M.Whisken;

King Williams Town (32.53S, 27.24E), 23.iii.1965, ♂, A.L.Capener; King Williams Town, Pirie Forest (32.43S 27.18E), 21.iii.1965, ♂, ♀, H.K.Munro; Port Alfred (33.36S, 26.54E), 7.ii.1966, 2♂, A.L.Capener. Natal: Cathedral Peak, Ndumeni River Forest, nr Mikes Pass (28.55S 29.14E), 1500 m, 23.ii.1984, ♀, R.Oberprielar & C.G.E.Moolman; Margate (30.51S 30.22E), 24.ii.1976, ♀, C.Moolman; Storms River Mouth (33.59S 23.52E), 18.ii.1966, ♀, A.L. Capener; Umkomaas (30.13S 30.48E), 2-8.ii.1962, ♂, ♀, A.L. Capener; Umtentweni (39.40S 30.30E), 4.iii.1967, 2♂, E.Bornmann; Zululand, St. Lucia Park (28.00S 32.25E), 13.i.1968, ♀, E.Brinkman. Transvaal: The Downs (24.07S 30.11E), iii.1968, ♀, V.M.Swain. **BPBM**: ex UNSA. Pietermaritzburg, 13.ii.1984, ♂, ♀, R.Deane. **IRSN**: Natal: Hluhluwe Game Reserve, 17.iv.1951, no.276. **MZLU**: South Africa: Natal, Hluhluwe Game Reserve (28.02S 32.05E), 17.iv.1951, 2♀, Brinck-Rudebeck, Swedish South Africa Exped; Port Elizabeth, 14.iii.1937, ♂, G.C.Clark. **OXUN**: Cape Prov., East London, 28.iii.1914, ♂, G.B.Longstaff; Cap, ♂, Westwood; Natal: Lower Umkomaas, 30 m S of Durban, 24.vi.1904, ♀, G.F.Leigh.

13. Genus *Gyaria* Stål

Gyaria Stål, 1862: 69 (gen. n.); Synave, 1954: 43 (redescribed); Metcalf, 1957: 255 (catalog). Type species: *Colobesthes walkeri* Stål, original designation.

Conoprosthius Karsch, 1890: 68 (gen. n.); Melichar, 1901: 252 (*Gyaria*, synonymy). Type species: *Conoprosthius limbipunctatatus* Karsch, monobasic.

Diagnosis: Head conical, no vertex; frons with faint longitudinal carinae. Tegmen apical area with dense reticulaion of crossveins without develpment of dominant subapical line, apex of clavus with or without black spot. Valvulae III margin with medium size teeth. Metatibial lateral spines usually 1.

Distribution: Africa.

Key to the species of *Gyaria*

Usually one metatibial lateral spine on each leg, rarely 1 leg with 2 spines. Tegmen sutural angle bluntly convex, claval apex without black spot, postclaval margin colored orange. Aedeagus apical process directed ventrally ..... *maynei* Schmidt

One metatibial lateral spine on each leg. Tegmen sutural and costal angles convex, configuration similar; claval apex with black spot, postclaval margin unmarked. Aedeagus apically without ventral process ..... *walkeri* (Stål)

13.1 *Gyaria maynei* Schmidt

Gyaria maynei Schmidt, 1924: 295 (sp. n.); Metcalf, 1957: 257 (catalog); Medler, 1993a: 28, fig 10 (lectotype data).

Diagnosis: Head conical, shorter than pronotum, no vertex. Diagnostic characters given in key to species. Measurements on holotype ♂, and paralectotype ♀, recorded by Medler (1993a: 28 fig 10) along with illustration of male genitalia. Color green, stramineous, or bleached. Metatibial spines formula 1:6-8:7-8. Length 9.25 - 12 mm.

Types examined: MRAC: Lectotype *maynei*, ♂, Zaire [Congo Belge]: Albertville.

Specimens examined: UNSA: Transvaal: Letaba (23.53S 30.18E), 590m, at light, xii.1981, ♂, P.Atkinson; Pretoria (25.28S 28.12E), 20.viii. 1976, ♀, R.Oberprieler. PPRI: Transvaal: Klerksoord, Pretoria, 9.viii.1961, 5♂, ♀, H.v.Schalkwyk; Wolkberg, nr Haenertsburg (23.55S 30.00E), 29.iii. 1986, 2♂, 4♀, S.Neser. ZMHB: Namibia: Kavango, Popa Falls (18.07S 21.35E), 26.ii-3.iii.1992, ♂, U. Göllner. BMNH: Transvaal: Modderfontein, X.1920, ♂, A.V.Langshaw, BM 1939-1. O'BRIEN: Namibia: Mahango GR, 24.iii.1992, ♂, L.O'Brien et al; Namibia: B7, 1 km N Tsumeb Jct (19.13S 17.42E), 29.iii.1992, ♂, ♀, L.O'Brien, et al. NHMW: Natal: Pinctown, Ertl, ♂, Phylliph. sinensis det Melichar, [det label is not Melichar's handwriting], error.

13.2 *Gyaria walkeri* (Stål)

Colobesthes walkeri Stål, 1855: 94 (sp. n.); Stål, 1866: 247 (*Gyaria*); Metcalf, 1957: 257 (catalog); Medler, 1994a: 224, fig. 13 (lectotype data).

Gyaria aethiops: Distant, 1910c: 249, fig. 46 (sp. n.); Metcalf, 1957: 256 (catalog); Medler, 1990a: 164 (holotype data, *walkeri*, synonymy).

Diagnosis: Head conical, shorter than pronotum, frons with faint traces of 3 longitudinal carinae. Diagnostic characters given in key to species. Habitus illustrations by Melichar (1901, pl I, fig 8), and Distant (1907: 204, pl xxiii, figs 5, 5a). Measurements on lectotype ♂ and paralectotype ♀ recorded by Medler (1994a: 224, fig 13), along with illustration of male genitalia. Color usually stramineous or dull white; small black spot at apex of clavus may be joined to short dash of orange on postclaval sutural margin.

Metatibial spines formula 1:6-7:5-8. Length 8.5 - 12 mm.

Types examined: NHRS: Lectotype *walkeri*, ♂, S. Africa, Caffraria. BMNH: Holotype (*aethiops*), ♀, Malawi: Zomba.

Previous records: Distant 1907:20, pl xix, fig 18 (Transvaal records).

Specimens examined: UNSA: Natal: Mseleni Mission (27.20S 32.34E), 30 m, at light, xii.1981, ♂, P.Atkinson; Nkandla Forest (28.43S 31.08E), 1200 m, on *Lippia savanica*, 29.iv.1980, 2♂, P.E.Reavell; uMmgeni River Valley (29.32S 30.31E), 6.iv.1984, ♂, R.Ferguson; Watertown Timber Co

(28.20S 32.14E); 65 m, at light, ♀, P.Atkinson. Transvaal: Soutpansburg (28.43S 26.04E), xi.1913, ♀, 2105; Zanthonburg, xi.1913, ♂, 2185. **PPRI**: Transvaal: Barberton (25.48S 31.03E), 14.x.1971, ♂, T.Bouwer; Ben Lavin NR, 23.07S 29.59E, 10.iii.1990, ♂, M.Stiller; D'Nyala NR (23.45S 47.49E), 6.x.1989, ♂, ♀, M.W.Mansell; Hans Merensky NR (23.40S 30.39E), 27-30.xi.1981, ♂, ♀, M.W.Mansell; Kralingen Waterberg (20.28S 17.13E), 22.xi. 1972, no abd, E.Holm; Onder Sabie (25.04S 31.57E), xi.1960, ♀, H.v. Schalkwyk; Pienaarsrivier (25.15S 28.18E), 16.xi.1967, 3♂, ♀, C.M. Niemann; Piet Retief (27.00S 30.48E), xi.1965, 2♂, 8♀, A. Barnard; Pretoria (25.28S 28.12E), 24.x.1949, ♂, 4♀, E.K.Hartwig; Waterval Boven (25.40S 30.20E), 20.xi.1967, ♂, E.Brinkman. **ZMHB**: South Africa: Sodwana Bay (27.37S 32.41E), 30.i-1.ii.1994, 4♂, 6♀, U. Göllner. **BPBM**: ex ZMHB, Sodwana Bay N.P., 30.i-1.ii.1994, ♂, ♀, U. Göllner. **MRAC**: Transvaal: Argent, 7-10.xii.1953, ♂, ♀, A.L.Capener; Letaba Valley, Tzaneen Dist, 10-11.xii.1958, ♂, ♀, A.L.Capener. **MZLU**: S. Africa: Johannesburg, 20.iv.1937, 2♂, G.C.Clark.

14. Genus *Gyariella* Schmidt

Gyariella Schmidt 1924: 297 (gen. n.); Metcalf, 1957: 258 (catalog). Type species: *Gyariella kapiriensis* Schmidt, original designation.

Diagnosis: Head moderately conical. Color green or stramineous, costal and sutural margins sometimes tinged with orange, conspicuous black spot at apex of clavus. Identification should be confirmed by comparison with illustrations of male genitalia (Medler, 1990c, fig 8; 1996b, fig 26). Normally 2 metatibial lateral spines on each leg, rarely one leg with single spine.

Specimens in museums seen by earlier authors may have *Gyaria walkeri* determination labels.

Distribution: Africa south of the Sahara.

Key to the species of *Gyariella*

Tegmen postclaval margin straight, sutural angle scarcely rounded, angulate ..... *cuspidata* (Melichar)

Tegmen postclaval sutural margin convex, sutural angle convexly rounded ..... *kapiriensis* Schmidt

14.1 *Gyariella cuspidata* (Melichar)

Gyaria cuspidata Melichar, 1901: 253 (sp. n.); Metcalf, 1957: 256 (catalog); Medler, 1990c: 110, fig 8 (*Gyariella*, holotype, plesiotype data).

Diagnosis: Male genitalia illustrated by Medler (1990c, fig 8) shows elongated bifid process projecting ventrally from apex of aedeagus. Metatibial spines formula 2:6-8:8-9. Length 11.5 - 14 mm.

Types examined: **ZMHB**: Holotype ♀, Togo: Bismarckburg. **ZMHB**: Plesiotype ♂, Cafferei.

Known in South Africa from plesiotype only.

14.2 *Gyariella kapiriensis* Schmidt

Gyariella kapiriensis Schmidt, 1924: 297 (sp. n.); Medler, 1993a: 28 (holotype data); Medler. 1996b: 143, fig. 26 (plesiotype data).

Diagnosis: Medler (1996b, fig. 26) illustration of plesiotype male genitalia shows elongate slender process projecting dorsally from apex of aedeagus; Metatibial spines formula 2:7-8:6-9. Length 9.5 - 14 mm.

Types examined: **MRAC**: Holotype ♀, Zaire [Congo Belge], Kapiri. **MRAC**: Plesiotype ♂, Zaire: Katanga, Kundelungu NP [Kundelungus].

Specimens examined: **PPRI**: South Africa: Cape Province, Graaff Reinet (32.15S 24.32E), iii.1938, on *Atriplex* and *Heteromorpha*, 2♂, ♀, J.B. Taylor. Transvaal, Pretoria (25.28S 28.12E), 8.x.1915, 2♀, AcP832.

Tribe Flatini Schmidt

15. Genus *Decipha* Medler

Decipha Medler, 1988c: 130 (gen. n., key). Type species: *Cryptoflata zielensis* Synave, original designation. (Junior synonym of *Poeciloptera dominicensis* Spinola).

Diagnosis: Dorsum of head very short; vertex anterior margin delimited by transverse intergenal carina adjacent to anterior margin of pronotum; vertex remnants small triangular areas next to eyes; frons longer than wide, lateral margins strongly carinate, strong median longitudinal carina nearly full length, evenly convex from frontoclypeal suture to posterior margin of head. Tegmen with 3 longitudinal veins (R, S, M) arising from basal stem, membrane reticulated by network of veins and crossveins, subapical line of crossveins extending from apex of clavus to costal angle; clavus heavily pustulate basally, apex with conspicuous black spot; claval veins A1 and A2 not joined in apical Y-stem.

Metatibial lateral spines 2.

Distribution: Africa South of Sahara.

15.1 *Decipha angulata* (Jacobi)

Cryptoflata angulata Jacobi, 1915: 169 (sp. n.); Medler, 1986a: 107, fig 4 (lectotype data); Medler, 1988c:138 (*Decipha*, comb.); Medler, 1993b 50 (paralectotype data).
Lawana viridis Synave, 1954: 38, fig. 15 (sp. n.); Medler, 1993a: 35, fig. 12 (holotype data, *Cryptolata angulata*, synonymy).

Diagnosis: Genitalia of *D. angulata* lectotype illustrated by Medler, 1986a, fig 4. Genitalia of holotype of junior synonym *D. viridis* illustrated by Medler, 1993a, fig. 12. Metatibial spines formula 2:7:7. Length 12.5 - 13.5 mm.

Types examined: **SMTD**: Lectotype *angulata*, ♂, German East Africa, Usambara. **MRAC**: Holotype (*viridis*), ♂, Katanga [Congo Belge]: Ganza.

Previous records: Synave, 1969: 186. (*viridis*) South Africa: Transvaal, (USNM).

Specimens examined: **UNSA**: Natal: Empangeni (28.30S 31.45E), ♂, Transvaal: Letaba (23.53S 30.18E), i-v.1982, 8♂, 3♀. **PPRI**: Transvaal: Kruger Natnl Park, Skukuza (24.59S 31.35E), 19.i.1984, ♀, I.M.Millar; Letaba Estates (28.53S 30.18E), 4.v.1979, ♂, S.Neser; Messina NR (22.23S 30.03E), 554 m, 11-12.ii.1915, ♀, M.W.Mansell; Strijdom Tunnel, Wylliespoort (22.58S 29.57E), 24-25.xi.1981, ♀, M.W.Mansell. **BPBM**: ex UNSA. Letaba, ii.1982, ♂, ♀, P.Atkinson. **ZMHB**: Namibia: Katima Mulilo (17.29S 24.17E), at light, 3-8.iii.1992, ♂, U. Göllner. Zambia: South Luangwa National Park, Mfuwe (13.06S 31.47E), 21-24.iii.1993, ♀, U. Göllner. **O'BRIEN**: Namibia: Mahango Game Reserve, 29.iii.1992, ♀, L.B. O'Brien, et al.

16. Genus *Safroka* Medler, gen. n.

Diagnosis: Head bluntly conical; frons extending dorsally to weak transverse intergenal carina, which is covered by anterior margin of pronotum; median longitudinal carina nearly full length; pronotum with strongly elevated median longitudinal carina, postocular eminence strongly elevated ridge extending from eye margin to apico-ventral margin of pronotum; mesonotum tricarinate, median carina not as well developed as lateral carinae. Tegmen with two longiudinal veins (R+S, M) arising from basal stem; numerous irregular crossveins forming heavily reticulated pattern over entire tegmen, crossveins extending from claval apex to costal margin aligned as weak subapical vein; prominent black spot at claval apex one width removed from sutural margin. Valvulae III inner face with teeth. Metatibial lateral spines 2.

Type species: *Poeciloptera areolifera* Walker, original designation and monotypic.

Distribution: Southern Africa.

Taxonomic note: This taxon is closely related to *Decipha* Medler, and *Cryptoflata* Melichar in Africa, but differs in venation and characters of the genitalia.

The following key helps recognition of 3 closely related taxa:

1. Tegmen with 3 longitudinal veins (R, S, M) ..... *Decipha* Medler
-- Tegmen with 2 longitudinal veins 2
2. R + S, M longitudinal veins arising from basal stem, distribution South Africa ..... *Safroka* Medler
-- R, S + M longitudinal veins arising from basal stem, distribution West Africa ..... *Cryptoflata* Melichar

16.1 *Safroka areolifera* (Walker)

Poeciloptera areolifera Walker, 1858b: 112 (sp. n.); Distant, 1910b: 249, pl. XXIII, figs. 4, 4a (*Cryptoflata unipunctata areolifera*, comb.); Metcalf, 1957: 275 (catalog), Medler, 1990a: 134 (holotype data, status).

Diagnosis: Conforms to generic characters. Habitus of tegmina and frontal view of head illustrated by Distant, 1910, pl. XXIII, figs. 4, 4a. Overall color green, usually with pale colored fascia extending from base to costal angle of tegmen. Illustration of plesiotype genitalia (fig 18) shows elongate fingerlike process arising from pygofer.

Metatibial spines formula 2:7:7. Length 12 - 14 mm.

Measurements: Mntunzini, plesiotype ♂; Mseleni, ♀ (BPBM vouchers ex UNSA). Length: Overall 12.0, 12.5; v 0.17, 0.17; f 1.49, 1.66; p 0.83, 0.87; m 2.66, 2.66; t 9.96, 10.62; pcl 3.15, 3.32. Width: v 1.00, 1.08; f 1.33, 1.33; t 6.14, 6.31. Hind leg spine formula: 2:7:7, 2:7:7.

Types examined: **BMNH**: Holotype ♀, S. Africa, Pt. Natal, 54.22. **BPBM**: ex UNSA. Plesiotype ♂, Natal: Mntunzina, Garland's Farm, here designated.

Previous record: Distant, 1910b: 249 (Natal).

Specimens examined: **UNSA**: Natal: Shakaskraal (29.24S 31.26E), ♀, Lake Chubhu, ♀; Mntunzini (28.55S 31.45E), Garland's Farm (28.59S 31.44E), 25 m, at light, iv.1982, ♂, P.Atkinson; Mseleni Mission (27.20S 32.34E), 30 m, at light, iii.1983, 2♀, P.Atkinson; Pietermaritzburg (29.36S 30.24E), ii.1984, ♀, R.Deane; Richard's Bay Mineral (28.38S 32.15E), xii.1980, ♀, P.Atkinson; Umhlanga Rocks (29.44S 31.05E), ♀; Zululand: Empangeni (28.30S 31.45E), ♂, ♀; Ukulu River (28.44S 31.54E), ♀. **BPBM**: ex UNSA. Mseleni Mission, iii.1982, ♀, P.Atkinson. **PPRI**: Natal: Charters Creek, St. Lucia (28.12S 32.25E), 14-16.i.1981, ♀, M.W.Mansell. **BMNH**: Natal: Bell Morely, ♀, Distant Coll, BM 1911-383; Port Natal (29.53S 31.00E), 49.28, ♂, 49.29 ♂, Natal, [no abdomen], J.F.Quekett, BM 1902-81 ♀; Natal, D'Urban (29.53S 31.00E), ♀, J.H.Bowker; Zululand, St. Lucia, (28.00S 32.25E), 16.vii.1964, ♂, BM 1964-681. **HNHM**: Natal: Bluff (29.53S 31.00E), 12.i.1912, ♀, A.J.T.Janse. **NHRS**: Durban (29.53S 31.00E), ♂, Mjoberg. **MRAC**: S. Africa: Malvern (29.53S 30.56E), ♀, coll. Shouteden. **OXUM**: Natal: Durban, Congella, 8.x.1904-4.xi.1905, ♂, ♀, G.F.Leigh, det. *Gyaria walkeri* Stål (misidentified). **CASC**: Angola: Vila Luso, Mox., 25.ix. 1949, ♂, B. Malkin.

Tribe Ormenisini Medler, status n.

17. Genus *Afrormenis* Fennah

Afrormenis Fennah, 1958a: 170 (gen. n.); Medler, 1993a: 29 (key) Type species: *Afrormenis neaera* Fennah, original designation.

Diagnosis: Head truncate, frons smoothly convex from frontoclypeal suture to posterior margin on dorsum of head, delimited by sharp transverse intergenal carina; very short vertex adjacent to anterior margin of pronotum; postocular eminence of pronotum raised; Tegmen with 2 longitudinal veins (R+S, M) arising form basal stem, bulla raised, no subapical line of crossveins, but strong network of rectangular cells apically; distinct clear spot extending mesad from R+C position. Metatibial lateral spines 2.

Distribution: East & South Africa.

17.1 *Afrormenis neaera* Fennah

Afrormenis neaera Fennah, 1958a: 170, fig 110 (sp. n.); Medler, 1993a: 29 (holotype data).

Diagnosis: Conforms with generic diagnosis. Overall color dark brown/black.

The holotype illustrated by Fennah, 1958a, fig 110, was examined and measured by Medler, 1993a:29. Tegmen illustration (fig 11) shows veins R+S, M and reticulated apical network of small crossveins without strong development of subpical line. The illustration enables comparison with tegmen of closely related *Ulundia madagascariensis* (fig 9). Holotype male genitalia illustrated (fig 19). Valvulae III margin with dense double row of 30-40 teeth. Metatibial spines formula 2:7-8:8-9. Length 7 - 11 mm.

Type examined: **MRAC**: Holotype ♂, Zaire (Belgian Congo): Dilolo.

Specimens examined: **BPBM**: Namibia: Grootfontein, 37 km NE on B8, 3940 ft [1200 m], at UV light, 27.iv.1995, ♀, G.M.Nishida. **ZMHB**: Namibia: East Caprivi, Katima Mulilo (17.29S 24.17E), 3-8.iii.1992, ♂, U. Göllner.

18. Genus *Paranotus* Karsch

Paranotus Karsch, 1890: 66 (gen. n.); Synave, 1956: 206; Metcalf, 1957: 122 (catalog); Fennah, 1958a: 154; Medler, 1988c: 125 (Ivory Coast). Type species: *Poeciloptera trivirgatus* Karsch, monobasic.

Chopardana Lallemand, 1942: 70 (gen. n.); Medler, 1988c: 125 (*Paranotus*, synonymy). Type species: *Chopardana lineata* Lallemand, original designation.

Diagnosis: Anterior margin of head almost truncate; frons median longitudinal carina half-length from dorsum, transverse intergenal carina weak, delimiting anterior margin of much reduced vertex; pronotum anterior margin slightly overlapping remnant of vertex; without crestlike longitudinal carina. Tegmen 3 longitudinal veins (R,S,M) arising from basal stem; sutural margin and extension of postclaval suture margin on same plane, sutural and apical margins meeting at right angle; cells lining apical margin longer than wide, crossveins forming weak irregular subapical line; claval veins joined in distinct Y-stem at apex of clavus. Metatibial lateral spines 2.

Distribution: Widespread in Africa south of the Sahara.

Taxonomic Note: *Paranotus* Karsch was classified in the tribe Sisciini by Melichar (1923:28) and Metcalf (1957:120). The 6 genera included in the tribe are an unnatural assemblage with differing characters of head, tegmina and genitalia. The frons of *Paranotus* is distinctly convex, not concave, and delimited by the intergenal transverse carina on dorsum of the head. The genus is here classified in the new Tribe Ormenisini.

18.1 *Paranotus rufilineus* (Walker)

Poeciloptera rufilinea Walker, 1858b: 116 (sp. n.); Synave, 1954: 37, figs 12-13; Metcalf, 1957: 123 (*Paranotus*, catalog); Medler, 1990a: 159 (lectotype data).

Chopardana lineata Lallemand, 1942:70 (sp. n.); Metcalf, 1957:72 (catalog); Medler, 1988c:125 (synonymy); Medler, 1993b:54 (*rufilineus*, lectotype data, synonymy).

Diagnosis: Specimens conform with generic diagnosis. Habitus illustrations given by Distant, 1910: 250, pl 23, fig 13a; Synave, 1954: 37, figs 12-13. Colored green or faded green, with 2 distinctive red stripes on dorsum, extending length of claval suture. Some specimens examined showed caducity, as reported by Medler, 1993: 14. figs 1-8. Tegmen illustrated (fig 6). Plesiotype genitalia illustrated (fig 20). The dorsal and ventral apical processes of aedeagus show slight variation in widely ranging population. Metatibial spines formula 2:8:2-4 (in pad). Length 6 - 8 mm.

Measurements: From plesiotype male. Length: Overall 7.0; v 0.17; f 0.91; p 0.42; m 1.33; t 5.64; pcl 1.49. Width: v 0.66; f 0.91; t 2.99. Hind leg spine formula: 2:8:2 (pad).

Types examined: **BMNH**: Lectotype, *rufilineus*, no abdomen, Port Natal, 55.96. **BMNH**: Plesiotype, *rufilineus*, ♂, Natal, 68.4, here designated. **MNHN**: Lectotype (*lineata*), ♀, Fr. Guinea: Kouibly.

Previous records: Distant, 1910: 250, pl 23, fig 23a (Natal).

Specimens examined: **PPRI**: KWA-Zulu: Lake Sibaya E. Shore (27.22S 32.43E), 18-20.i.1981, ♂, I.M.Millar; Natal: Vernon Crookes NR, Umzinto (30.17S 30.37E), 443 m, 25-26.iii.1985, ♂,2♀, M.W.Mansell; Umtentweni (30.40S 30.30E), 9-14.iii.1961, ♀, A.L.Capener. Transvaal: Letaba Estates (23.53S 30.18E), 10.i.1978, ♀, F.Honiball; Silkaatsnek (25.02S 26 25E), vii.1961, ♂, H.V.Schalkwyk; Soutpan (25.24S 28.06E), 17.ii.1981, ♂, ♀, W.M.Mansell; Zomerkomst Politzi, 20.iii.1965, ♀, M.F. Johannameier. **UNSA**: Natal: Manguzi Forest, 4.i.1988, ♂; Ngoge Forest (28.50S 31.40E), 400 m, 10.iv.1983, ♀, P.E.Reavell. **ZMHB**: Namibia: Muduma NP, Buffalo Trails Camp (18,10S 23.26E), at light, 12.iii.1992, ♀; J.Deckert; Bushmanland, Klein Dobe (19.25S 20.21E), at light, 19-21.ii.1992, ♂, J.Deckert; Zambia: Kafue NP, Chunga Camp (15.02S 26.00E), 26-29.iii.1993, ♀, U. Göllner. **BMNH**: Zululand, Eshowe (28.34S 21.38E), vi.1926, 2♂, R.E.Turner, BM 1926-277. **MRAC**: S. Africa: E. Transvaal, Montrose (25.55S 30.58E), 12.i.1956, ♂, A.L.Capener.

19. Genus *Ulundia* Distant

Ulundia Distant, 1910b: 250 (gen. n.); Metcalf, 1957: 354 (catalog); Fennah, 1958a: 168; Medler, 1988c: 143 (Ivory Coast). Type species: *Ulundia decisa* Distant, monobasic.

Chaetormenis Melichar, 1923: 73 (gen. n.); Synave, 1956: 213. Type species: *Elidiptera madagascarensis* Signoret, original designation.

Diagnosis: Vertex displaced by convex frons margined by transverse intergenal carina next to anterior margin of pronotum; frons median longitudinal carina and remnant of lateral U-shaped carinae give slight protrusion dorsally. Pronotum postocular eminence forming wide space between eye and tegula. Tegmen with 3 longitudinal veins (R,S,M) arising from basal stem, bulla slightly protruding, apical margin shallow convex, 2 subapical lines of crossveins, without reticulated network of small crossveins. Metatibial lateral spines 2.

Distribution: Africa south of the Sahara, Madagascar.

19.1 *Ulundia madagascariensis* (Signoret)

Elidiptera madagascariensis Signoret, 1860: 199 (sp. n.); Stål, 1866: 243 (*Ormenis*); Melichar, 1902: 76, fig 19 (habitus); Distant, 1910a: 250 (*Ulundia*); Synave, 1956: 214, figs 12-13 (*Chaetormenis*); Metcalf, 1957: 325 (catalog); Fennah, 1958a: 168, fig 108; (*Ulundia*, aedeagus);

Ulundia decisa Distant, 1910b: 250, pl. XXIII, fig. 1 (sp. n.); Metcalf, 1957: 354 (catalog); Medler, 1990a: 168, fig 66 (lectotype data); Medler, here designated (*madagascariensis*, SYN. N.)

Diagnosis: Body pruinose/fuscous, sometimes dusted with white wax. The habitus illustrations by Melichar, 1902, fig 19, and Distant, 1910b, pl. XXIII, figs 1, 1a, show dark tegmen with contrasting markings on costal margin and claval suture; tegmen illustration of South African specimen shows venation (fig 8). Male genital characters illustrated by Synave, 1956, figs 12-13, and Fennah, 1958a, fig 108 A & B. Valvulae III margin with dense double row of 30-40 teeth. Metatibial spines formula 2:7-8:8-10. Length 7 - 8.5 mm.

Types examined: **NHMW**: Lectotype *madagascariensis*, no abd, Madagas, det Sign, det. Mel, coll. Signoret (here designated). **BMNH**: Lectotype (*decisa*), ♂, S Africa: Durban.

Previous records: Distant, 1910b: 250, pl. XXIII, fig. 1 (Natal). Hesse, 1925: 166 (S W Africa).

Specimens examined: **UNSA**: Natal: Enseleni Reserve (28.40S 32.00E), 40 m., 7.iii.1980, ♀, P.E.Reavell; Mseleni Mission (27.20S 32.34E), 30 m, at light, ii.1982, ♀, P.Atkinson; Zululand, Ngoye Forest (28.50S 31.40E), 400 m, 15.xii.1983, ♂, P.E.Reavell. **PPRI**: Natal: Banga Neck Kosi Bay (27.00S 35.53E), 11.ii.1990, ♀, N.Verheijen; Hluhluwe, Kuleni Farm (27.54S 32.22E), 13-14.ii.1990, ♂,N.Verheijen; Mkuzi, Fog Forest (27.37S 32.03E), 21.x.1966, ♀, G.duPlessis; Port Alfred (33.36S 26.54E), 7.ii.1966, ♂, 4♀, A.L.Capener; St. Lucia Park (28.00S 32.25E), 24.i.1968, ♀, E.Brinkman;