Entomofauna

ZEITSCHRIFT FÜR ENTOMOLOGIE

Band 27, Heft 17: 209-216 ISSN 0250-4413 Ansfelden, 30. April 2006

Three new Afrotropical species of Platygastrinae
(Hymenoptera, Platygastridae)

Peter Neerup BUHL

Abstract

Three new species are described, viz. *Amblyaspis elgonensis* **sp. nov.** (Kenya), *Platygaster gambiana* **sp. nov.** and *Synopeas pallidicornis* **sp. nov.** (both from Gambia). The work is illustrated by 13 text-figures.

Zusammenfassung

Drei neue Arten werden beschrieben: *Amblyaspis elgonensis* **sp. nov.** (Kenya), *Platygaster gambiana* **sp. nov.** und *Synopeas pallidicornis* **sp. nov.** (beide aus Gambia). Die Arbeit ist mit 13 Abbildungen versehen.

Introduction

The material described below is preserved in Naturhistoriska Riksmuseet, Stockholm, Sweden (loan by courtesy of B. VIKLUND).

Amblyaspis elgonensis sp. nov. (figs 1-5)

Holotype: ♀, Kenya, Mt. Elgon National park, 2490 m, 28.I.1975, among dead bamboo, T. KRONSTEDT leg. Paratypes: 2 ♀♀ with same data as holotype.

♀: 1.4 - 1.8 mm. Black, antennae and tegulae dark brown, T1 with brownish tint; legs including coxae light reddish brown with apex of mid and hind femora and of mid and hind tibiae darkened.

Head from above (fig. 1) fully 2.2 x as wide as long, as wide as mesosoma, with a

strong and complete hyperoccipital carina, finely reticulate-coriaceous (not transversely so); occiput laterally with weak vertical striae. OOL and LOL equal. Head in frontal view 1.2 x as wide as high. Antenna (fig. 2) with A1 as long as width of head.

Mesosoma 1.5 x as long as wide, 1.1 x as high as wide. Sides of pronotum reticulate-coriaceous (not longitudinally so) except along narrow margins. Mesoscutum faintly and uniformly reticulate-coriaceous, without notauli, with sparse hairs unevenly distributed (most of them where notauli should have been); hind margin with a small but distinct triangular prolongation medially (fig. 4). Mesopleuron smooth. Scutellum (figs 3-4) with dense yellowish-white hairs all over. Metapleuron smooth, with long, pale pilosity, this very sparse in anterior half. Propodeal carinae slightly separated, parallel, semitransparent brown; area between them smooth and shiny.

Forewing as long as entire body, 2.25 x as long as wide, with faint brownish tint and dense microtrichia; marginal cilia slightly more than 0.1 width of wing. Hindwing 5.6 x as long as wide; marginal cilia one-third the width of wing.

Metasoma (fig. 5) 1.1 x as long as head and mesosoma combined. T1 along middle with two longitudinal, converging carinae on a smooth background, laterally hairy. T2 with distinct, hairy basal foveae, otherwise smooth. T3-T6 with dense micropunctation and superficially implanted hairs.

Most similar to Palaearctic *A. roboris* (WALKER, 1835), but this species has more roughly sculptured head, hind margin of mesoscutum straight, and darker propodeum, T1 and coxae than *A. elgonensis*, cf. also VLUG (1985).

Platygaster gambiana **sp. nov.** (figs 6-9)

Holotype: ♀, Gambia, Kombo St. Mary, Bakau, 17.-18.III.1977, Michael SÖDERLUND leg.

♀: Length 1.3 mm. Black, antennae, mandibles, tegulae and legs dark brown; trochanters, fore tibia, basal half of mid and hind tibiae, and segments 1-4 of all tarsi yellowish brown.

Head from above (fig. 6) 2.0 x as wide as long, fully 1.2 x as wide as mesosoma; occiput smooth, distinctly margined in front; vertex with a few faint transverse striae behind ocelli; front smooth, laterally in lower third weakly fan-like striated. OOL:LOL = 2:3. Head in frontal view 1.3 x as wide as high. Antenna (fig. 7) with A1 as long as distance between inner orbits, 0.8 x as long as height of head; A9 1.4 x as long as wide.

Mesosoma 1.6 x as long as wide, 1.2 x as high as wide. Sides of pronotum smooth. Mesoscutum smooth and hardly hairy; notauli indicated in posterior half by the raised mid lobe, this broad at posterior end, reaching base of scutellum; scuto-scutellar grooves wide, with a few long hairs. Mesopleuron smooth. Scutellum (fig. 8) smooth, almost bare. Metapleuron with pilosity all over. Propodeal carinae short, parallel, transverse area between them smooth and shiny.

Forewing clear, reaching middle of T5, 2.3 x as long as wide, with fine and rather sparse microtrichia; marginal cilia hardly 0.1 width of wing. Hindwing 5.1 x as long as wide, with two hamuli; marginal cilia 0.25 width of wing.

Metasoma (fig. 9) as long as head and mesosoma combined, hardly as wide as mesosoma. T1 crenulated. T2 striated in basal foveae to hardly half of length, medially smooth. T3-T6 smooth, each with a few superficially implanted hairs laterally, forming a medially interrupted transverse row on each of T3-T4.

P. gambiana is somewhat similar to *P. flagellata* BUHL, 2003, but it has less slender antennae than this species. *P. ethiopica* BUHL, 2004 is more sculptured and has metasoma of a different shape than *P. gambiana* (BUHL 2003, 2004). An unusually smooth species, differing in the almost smooth head and mesosoma from similar species also from other regions, e.g. North American *P. huachucae* (ASHMEAD, 1893), cf. FOUTS (1924).

***Synopeas pallidicornis* sp. nov.** (figs 10-13)

Holotype: ♂, Gambia, Kombo St. Mary, Bakau, 28.-29.X.1977, Michael SÖDERLUND leg.

♂: Length 1.0 mm. Black, antennae and legs light brownish yellow, A7-A10 and last segment of all tarsi very slightly darker; mandibles and coxae medium brown; tegulae dark brown.

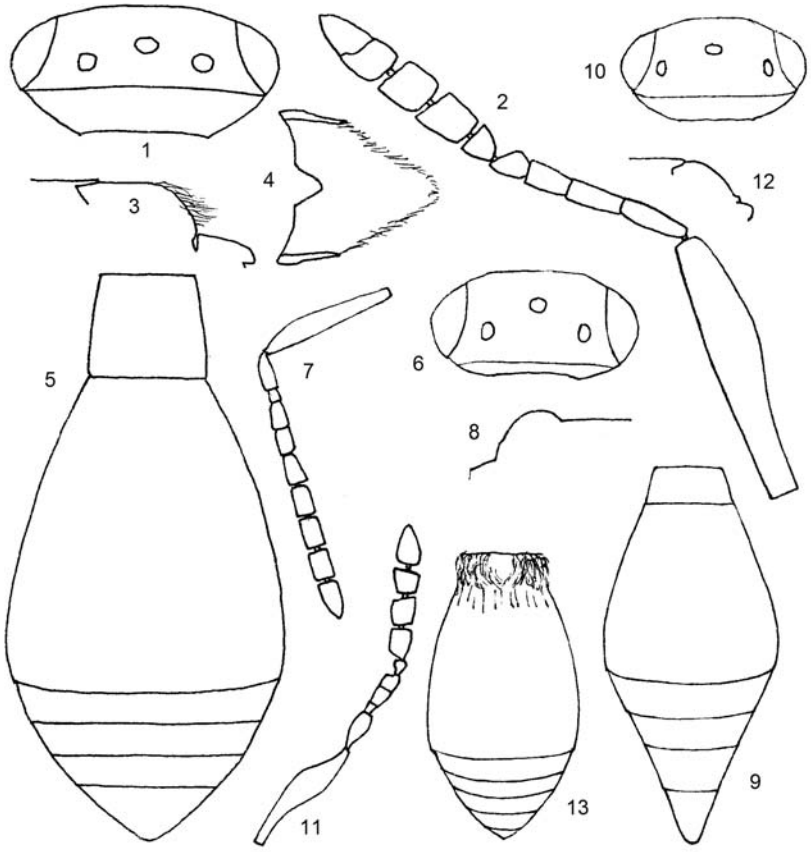
Head from above (fig. 10) 2.0 x as wide as long, almost 1.2 x as wide as mesosoma, finely reticulate-coriaceous (not transversely so); hyperoccipital carina distinct and complete but not strong; OOL equal to shorter diameter of lateral ocellus. Head in frontal view 1.25 x as wide as high. Antenna (fig. 11) with A1 0.9 x as long as height of head; flagellar pubescence very short.

Mesosoma almost 1.6 x as long as wide, fully 1.1 x as high as wide. Sides of pronotum in upper 0.6 finely reticulate-coriaceous (not longitudinally so) and evenly covered with numerous hairs, along narrow hind margin and in lower 0.4 smooth and bare. Mesoscutum evenly and moderately hairy, weakly reticulate-coriaceous, without notauli; hind margin medially with a distinct prolongation which is about as long as wide, dark brown, smooth, not swollen, reaching base of scutellum; scuto-scutellar grooves with dense white hairs. Mesopleuron smooth. Scutellum (fig. 12) with dense hairs except along midline which is slightly keeled, posteriorly brownish and slightly pointed just above propodeal carinae. Metapleuron smooth and bare in anterior 0.2, rest with long white pilosity. Propodeal carinae brownish, curved, fused.

Forewing clear, 2.4 x as long as wide, with microtrichia in apical two-thirds which become very fine and dense towards tip of wing; marginal cilia absent. Hindwing 5.4 x as long as wide; marginal cilia hardly 0.25 width of wing.

Metasoma (fig. 13) almost 1.1 x as long as mesosoma, hardly as wide as this, 1.4 x as wide as high. T2-T6 smooth except for at stripe of reticulate-coriaceous sculpture in front of hind margin, T7 reticulate-coriaceous except basally; T4 with one superficially implanted hair on each side, T5 with three such hairs, T6 with a complete transverse row of such hairs.

This species differs from *S. ibadanensis* BUHL, 2004 (only female known) e.g. in having head more transverse and less roughly sculptured. *S. bicolor* SUNDHOLM, 1970 (only female known) differs from *S. pallidicornis* in having smooth occiput. *S. soederlundi* BUHL, 2005 (only female known) has head less transverse and hyperoccipital carina weaker than *S. pallidicornis*. *S. royi* BUHL, 2001 (only female known) has scutellum without trace of keel and less hairy, also metapleuron less hairy than in *S. pallidicornis*. All the mentioned species have darker body appendages than *S. pallidicornis* (SUNDHOLM 1970; BUHL 2001, 2004, 2005).



Figs 1-5 *Amblyaspis elgonensis* sp. nov. ♀: 1 head; 2 antenna; 3 scutellum in lateral view; 4 scutellum in dorsal view; 5 metasoma.
Figs 6-9 *Platygaster gambiana* sp. nov. ♀: 6 head; 7 antenna; 8 scutellum in lateral view; 9 metasoma.
Figs 10-13 *Synopeas pallidicornis* sp. nov. ♂: 10 head; 11 antenna; 12 scutellum in lateral view; 13 metasoma.

References

BUHL, P.N. 2001: Taxonomical notes on Platygastridae (Hymenoptera, Platygastroidea). - Entomofauna 22: 17-38.

BUHL, P.N. 2003: New species of African Platygastrinae (Hymenoptera: Platygastridae). - Phegea 31: 25-32.

BUHL, P.N. 2004: New African Platygastrinae (Hymenoptera: Platygastridae). - Folia ent. hung. 65: 65-83.

BUHL, P.N. 2005: New species of South African Platygastrinae (Hymenoptera, Platygastridae). - Entomofauna 26: 281-304.

FOUTS, R.M. 1924: Revision of the North American wasps of the subfamily Platygastrinae. - Proc. USNM 63: 1-145.

SUNDHOLM, A. 1970: Results of the Lund University Expedition in 1950-51. Hymenoptera: Proctotrupoidea. - South African Animal Life, Lund, 14: 306-401.

VLUG, H.J. 1985: The types of Platygastridae (Hymenoptera, Scelionoidea) described by HALIDAY and WALKER and preserved in the National Museum of Ireland and in the British Museum (Natural History). 2. Keys to species, redescriptions, synonymy. - Tijdschr. Ent. 127: 179-224.

Author's address:
Peter Neerup BUHL
Troldhøjvej 3
DK-3310 Ølsted
Denmark
e-mail: pnbuhl@snm.ku.dk

Literaturbesprechung

Simon LEATHER (ed.) 2005: Insect Sampling in Forest Ecosystems. 303 pp. Blackwell Publishing, Oxford.

Dette er en meget relevant bog for de fleste insektsamlere. Den indgår i "Methods in Ecology"-serien og rummer ud over gennemgang af et væld af indsamlingsmetoder også de vigtigste matematiske formler til beregning af fx, hvor meget det er nødvendigt at samle i en given population for at nå en vis præcision, og til beregning af parasitisme- og prædationstryk. Desuden afsluttes hvert kapitel af en skematisk oversigt over de i kapitlet behandlede indsamlingsmetoder, i hvilken sammenhæng de bedst anvendes, og fordele og ulemper. Samt en litteraturliste – der er i alt cirka 1.000 henvisninger i bogen.

Kapitlerne er: Indsamlingsteori og –praksis, insekter på rødder, pitfall traps, insekter i underskoven, insekter på skud, stængler og stammer, flyvende insekter, trækroner, vandfyldte hulheder i træ, vandinsekter, termitter og parasitoider og prædatorer.

Sidste kapitel er uforholdsmæssigt kortfattet (24 sider) mod fx de to foregående (henhv. 34 og 32 sider). Vigtigheden af parasitoider og prædatorer berettiger til en fyldigere behandling, og konkret vejledning i indsamling og klækning må man da også ty til den refererede litteratur for at finde. Omvendt virker det tilfældigt, at termitter er behandlet så fyldigt, mens myrer (for ikke at tale om de vanskeligt indsamlede myregæster) næsten brillerer med deres fravær.

Der er mange tankevækkende sammenligninger mellem indsamlingsmetoder. Fx synes ketsjning overraskende effektiv sammenlignet med Malaisefælder og fangbakker, mens motoriserede vakuum-sugere har vist sig at samle mange små arter tæt ved jorden, som ketsjeren ikke når. Gentages ketsjning på standardiseret vis, er det også en meget præcis metode (under 10 procents variation fra gang til gang).

Generelt er fangbakker mindre effektive end Malaisefælder, mens fx hvide fangbakker er mere effektive til fangst af svirrefluer. Man kan med fordel danne sig et overblik over alle sådanne sammenligninger, før man drager i felten!

Der gennemgås mange originale fældekonstruktioner, som nok burde afprøves noget mere. Fx en pitfall trap med overkanten 10-20 cm under jordoverfladen med groft net ovenfor, der danner et rør, som dyr i jorden kan trænge gennem. Eller mere specielt en koformet Malaisefælde, der afgiver CO_2 for at tiltrække kvægfluer.

Ikke mindst værdifuld er bogens søgelys på alle de usikkerhedsfaktorer, man skal være opmærksom på, når man vil sammenligne fangster fra forskellige lokaliteter eller tidspunkter. Allerede indsamlingsmetoderne giver utroligt forskellige resultater, og hertil kommer, at samme art opfører sig forskelligt under forskellige forhold, så resultatet bliver vildledende selv (eller netop) med anvendelse af præcis samme teknik.

Hvis man betragter indsamling af insekter som noget relativt uproblematisk, der kan overstås på få linjer (hvilket de fleste insektbøger jo nøjes med), er nærværende bog god at blive klogere af.

Peter Neerup Buhl

CHVALA, Milan 2005: The Empidoidea (Diptera) of Fennoscandia and Denmark. IV Genus *Hilara*. - Fauna Entomologica Scandinavica Vol. 40, Verl. Brill, Leiden / Boston.

Ein Buch mit sehr solidem Einband und Fadenheftung, 233 Seiten, 424 Abbildungen. In der Reihe „Fauna Entomologica Scandinavica" ist nun der vierte Band über Empidoidea (= Empididae, Hybotidae, Atelestidae und Microphoridae) erschienen. Dieser Band behandelt ausschliesslich die grosse und äusserst schwierige Gattung *Hilara*. Es werden 90 mittel- und nordeuropäische Arten beharbeitet, wovon bisher 73 in Scandinavien und im russischem Anteil Fennoskandiens nachgewiesen sind. Das sind mehr als die Hälfte der 173 aus Europa bekannten Arten.

In den einleitenden Kapiteln werden unter anderem Morphologie, etwas Terminologie, Biologie und Zoogeographie mit einer Tabelle zur Verbreitung der 90 Arten in Europa besprochen. Es folgt ein ausführlicher Bestimmungsschlüssel für die Arten. Den Hauptteil des Buches nehmen die Einzelbeschreibungen der Arten ein. Diese sind nach Artengruppen und einige davon wiederum nach Artkomplexen sortiert, was auch durch eine vorangestellte Artenliste veranschaulicht wird. Alle 12 Artgruppen sind im Verlauf dieses Kapitels ausführlich beschrieben und mit den Bestimmungsmerkmalen versehen. Die ebenfalls umfangreichen Artbeschreibungen enthalten Morphologie, Verbreitung, Biologie und bei allen 90 Arten jeweils Abbildungen der Bestimmungsmerkmale, vor allem Beine und Genitalstrukturen der Männchen. In einer Tabelle wird noch einmal die Verbreitung der 90 Arten in den Niederlanden und Grossbritannien sowie in den einzelnen Provinzen von Dänemark, Norwegen, Schweden, Finnland und dem russischen Anteil Fennoskandiens veranschaulicht. Literaturverzeichnis und Index beschliessen das Buch.

Ein gelungenes Bestimmungswerk für diese Gattung, das in keiner zoologischen Bibliothek und bei keinem europäischen Dipterologen fehlen sollte. W. SCHACHT

Druck, Eigentümer, Herausgeber, Verleger und für den Inhalt verantwortlich:
Maximilian SCHWARZ, Konsulent für Wissenschaft der O.Ö. Landesregierung,
Eibenweg 6, A-4052 Ansfelden, E-Mail: maxschwarz@inode.at
Redaktion: Erich DILLER (ZSM), Münchhausenstrasse 21, D-81247 München, Tel.(089)8107-251
Fritz GUSENLEITNER, Lungitzerstrasse 51, A-4222 St. Georgen a.d. Gusen
Wolfgang SCHACHT, Scherrerstrasse 8, D-82296 Schöngeising, Tel. (089) 8107-302
Erika SCHARNHOP, Himbeerschlag 2, D-80935 München, Tel. (089) 8107-102
Emma SCHWARZ, Eibenweg 6, A-4052 Ansfelden
Dr. Wolfgang SPEIDEL, Museum Witt, Tengstrasse 33, D-80796 München
Thomas WITT, Tengstrasse 33, D-80796 München, E-Mail: thomas@witt-thomas.com
Postadresse: Entomofauna (ZSM), Münchhausenstrasse 21, D-81247 München,
E-Mail: erich.diller@zsm.mwn.de oder: wolfgang.schacht@zsm.mwn.de