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**The Symphyta of the Afrotropical Region.**  
**Genus *Athalia* LEACH, 1817, *Athalia himantopus*-group**  
(Insecta: Hymenoptera: Tenthredinidae: Allantinae)

**Frank KOCH**

Abstract

The *Athalia himantopus*-group of the sawfly family Tenthredinidae is revised, and a key is provided for the eight known Afrotropical species. The species of this group are characterised by the presence of a short and more or less truncate clypeus. Four species are re-described and four species are described as new to science, namely: *Athalia erythraeana* **sp. n.**, *A. flavobasalis* **sp. n.**, *A. sidamoensis* **sp. n.** and *A. taitaensis* **sp. n.** The subspecies *A. himantopus truncata* ENSLIN, 1914 and *A. himantopus obsoleta* BENSON, 1962, are interpreted as valid species - *A. truncata* ENSLIN **stat. rev.** and *A. obsoleta* BENSON **stat. n.** *Athalia marginipennis* Enderlein, 1920 **sp. rev.**, which is distributed from East to southern Africa, is a valid species and is removed from synonymy with *A. sjoestedti* KONOW, 1907. The phenology of *A. flavobasalis* and *A. marginipennis* is discussed, based on material from a series of yellow pan trap samples collected from February 1981 to June 1983 at Munanira, Burundi. All species are figured, and their distribution and relationships are discussed.

**Introduction**

Following the revision of the endemic Afrotropical *Athalia vollenhoveni* species-group (KOCH 2006), this contribution deals with the *A. himantopus* species-group, and is a further contribution to a broader taxonomic-systematic revision of the Afrotropical Symphyta, especially the genus *Athalia* LEACH, 1817, the main purpose of which is to reconstruct the phylogeny and historical distribution patterns of the group.

The first taxonomic review of Afrotropical *Athalia* was published by KONOW (1908). At that time, 16 species were known, and KONOW distinguished these on the basis of the shape of the clypeus, colour patterns and pubescence. In the following years numerous species were described (MOCSÁRY 1909; ENSLIN 1911, 1912, 1914; ENDERLEIN 1920; FORSIUS 1928, 1930, 1931; BENSON 1956, 1961), making a further revision necessary.

BENSON (1962) undertook this difficult task and revised the tribe Athaliini of the world. His work introduced a number morphological character states which had not previously been considered as taxonomically important for the group. For example, the lengths of the prelabium and inner spur of tibia<sub>3</sub>, and the shapes of the hypopygium and the serrulae of the female saw. The identification of the males of many species remained problematical, as the penis valves exhibit too few intra-specific differences (BENSON 1962). The first attempt to distinguish males based on the penis valves was that of CHEVIN (1985) within the framework of his investigation of Burundian material. Nevertheless, this work gave the impression that a revision of Afrotropical *Athalia* species could be relatively quickly achieved, as the keys of BENSON (1962) were very basic. Additionally, since BENSON (1962), very few Afrotropical species have subsequently been described (VIITASAARI & KNOTUNIEMI 1976; MUCHE 1979).

During the current study it came to light, that with a few exceptions, the keys published by BENSON (1962) are unsuitable for exact specific determinations, and in virtually all cases some doubt as to specific identity remained. It therefore became apparent that it was necessary to examine the primary types of all described species. With the exception of the *A. vollenhoveni*-group (KOCH 2006) and the here revised *A. himantopus*-group, BENSON's (1962) classification of species-groups cannot be accepted, as the character states he proposed are not sufficiently stable to be of diagnostic value. This is especially apparent for the species that exhibit a more or less elongated and medially rounded clypeus (Fig. 1a). It is therefore proposed to provisionally unite the Afrotropical species-groups of *A. glabricollis*, *A. cordata* and *A. furvipennis*, *sensu* BENSON (1962), with the *Athalia incomta* species-group *sensu* KOCH (2006).

In contrast to the species of the *A. incomta*-group, species ascribed to the *A. vollenhoveni*-group are easily distinguished on the basis of a medially excised clypeus (Fig. 1b), and species ascribed to the *A. himantopus*-group on the basis of a more or less truncate clypeus (Fig. 1c).

BENSON (1962), who proposed the *A. himantopus*-group, believed it to comprise a single species with three subspecific forms. Based on this approach, it appeared relatively easy to separate the available material, consisting of approximately 1.300 specimens. The current study has revealed, however, that the three subspecies of BENSON (1962) are in fact valid species, and an additional four species are described as new to science

Minor differences in colour patterning, especially of tergum<sub>1</sub> and coxa<sub>3</sub>, were seemingly considered by BENSON (1962) as falling within the range of variability of the species and he was further unable to distinguish differences in the hypopygia, the serrulae and the penis valves. This study confirms that morphological characters of the hypopygia, lancets and penis valves are too similar to be of value in specific differentiation.

Important characters for distinguishing species of the *A. himantopus*-group include colour patterns and the shapes of digiti. The shape of the digitus as a conspicuous distinguishing feature is the most important character for designating the males as holotypes or lectotypes. Furthermore, it was possible to distinguish the females based on a comparison of characters found in positively identified males in conjunction with the respective localities. Using this approach, it was possible to recognize specific differences in the shapes of the serrulae in the females of the species concerned.

Usually colour pattern alone is sufficient to identify a species. Examination of the genitalia is only necessary in a very few cases when the colour pattern differs and the recorded locality is outside of the known range of the species. In very old specimens the bi-colouration of the wings may have faded, and in such cases it is also necessary to examine the genitalia.

### Distribution

Species of the *A. himantopus*-group are known only from the Afrotropical Region and appear to be endemic to that region. In accordance with the zoogeographical classification of FRANZ & BEIER (1970), these species are distributed only in the Sahelian, East African and South African sub-regions.

As is the case with the *A. vollenhoveni*-group (KOCH 2006), species of the *A. himantopus*-group appear to prefer montane and submontane regions of Africa, with the exception of the species *A. himantopus*, which also occurs in the Karoo phytogeographical zone on the Eastern Cape coastal area, with annual precipitation of  $\pm 600$  mm per annum.

### Host plants

Little or nothing is known regarding host plants and larval stages of the *A. himantopus*-group. Information on host plants is here extracted from BENSON (1962), or is based on notes appended to specimens. For the majority of species reliable information on the larval stages is unavailable, as larvae are often difficult to collect. BENSON (1962) notes, as with the *A. vollenhoveni*-group, that species of the *A. himantopus*-group appear to prefer Brassicaceae as host plants, including some cultivated species.

### Material and methods

#### Abbreviations used in the text:

Material examined originates from the following institutions:

AMGS:	Albany Museum, Grahamstown, South Africa.
BMNH:	The Natural History Museum, London, UK.
CASC:	California Academy of Sciences, San Francisco, USA.
DEI:	Deutsches Entomologisches Institut im ZALF, Müncheberg, Germany.
DEUS:	Department of Entomology, University of Stellenbosch, South Africa.

HNHM:	Hungarian Natural History Museum, Budapest, Hungary.
ICIPE:	International Centre of Insect Phylogeny and Ecology, Nairobi, Kenya.
INRA :	Institut National de la Recherche Agronomique, Versailles, France.
ISNB:	Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium.
LACOURT:	Dr. J. LACOURT, Igé, France (private coll.).
LACM:	Los Angeles County Museum of Natural History, Los Angeles, USA.
MCSN:	Museo Civico di Storia Naturale 'Giacomo Doria', Genoa, Italy.
MNHN:	Muséum d'Histoire Naturelle, Paris, France.
MNHU:	Museum für Naturkunde, Humboldt-Universität, Berlin, Germany.
MRAC:	Musée Royal de l'Afrique Centrale, Tervuren, Belgium.
MZLU:	Museum of Zoology, Lund University, Lund, Sweden.
NHMW:	Naturhistorisches Museum, Wien, Austria.
NHRS:	Naturhistoriska Riksmuseet, Stockholm, Sweden.
NMBZ:	Zimbabwe National Museum, Bulawayo, Zimbabwe.
NMKE:	National Museum of Kenya, Nairobi, Kenya.
OLML:	Oberösterreichisches Landesmuseum, Linz, Austria.
PPRI:	ARC-Plant Protection Research Institute, Pretoria, South Africa.
RMNH:	Nationaal Natuurhistorische Museum (Naturalis), Leiden, Netherlands.
SAMC:	South African Museum, Cape Town, South Africa.
SEMC:	Snow Entomological Museum, University of Kansas, Lawrence, Kansas, USA.
SMNS:	Städtisches Museum für Naturkunde, Stuttgart, Germany.
TMSA:	Transvaal Museum, Pretoria, South Africa.
USNM:	National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA.
UZMT:	Zoological Museum, University of Turku, Finland.
ZMPA:	Museum of the Institute of Zoology, Polish Academy of Science, Warszawa, Poland.
ZMUC:	Zoological Museum, University of Copenhagen, Copenhagen, Denmark.
ZSM:	Zoologische Staatssammlung, Munich, Germany.

#### Morphological abbreviations:

C:	cuspis
D:	digitus
H:	harpe
MSA:	medio-subapical appendage
PP:	parapenis
T1:	protibia
T2:	mesotibia
T3:	metatibia

#### Other abbreviations:

MT:	Malaise trap
YP:	yellow pan
HT:	holotype
LT:	lectotype
PT:	paratype

#### The following measurements are used (Fig. 1b, d):

POL:	Postocellar line; the distance between the mesal margins of the two lateral ocelli.
OOL:	Ocular ocellar line: the distance between a compound eye and a lateral ocellus.
MS:	Malar space; the shortest distance between the base of the mandible and the edge of the compound eye.
IA:	Inter-antennal area; the shortest distance between the inner margins of the toruli.
LC:	Length of the clypeus; the vertical distance between the epistomal suture and the anterior margin of the clypeus medially.

The following ratios are applied: POL : OOL; MS : IA; IA : LC.

The material on which phenological studies are based was sampled by A. AUTRIQUE (INRA), during investigations of the population dynamics of aphids (Aphidina) by means of this yellow pan traps. The sampling period was from February 1981 to June 1983 (interrupted from August to September 1982) and was conducted in potato fields in the Munanira and Kisozi areas of Burundi. During this survey more than 4.000 specimens of Symphyta of approximately 20 species were sampled. Although CHEVIN (1985) partly investigated this material 20 years ago, some of the material was misidentified. The phenology (including the sex ratios) of two species belonging to the *A. himantopus*-group is, therefore, presented here anew. The phenological analysis makes it possible to describe the relative abundance of species throughout the entire sampling period. However, it must be considered that the recorded data correspond to the activity density which reflects the relative population movements. Such an analysis makes it possible to consider whether the recorded data correspond to the activity density reflecting relative population movements.

For the identification of female specimens it is necessary to examine the hypopygia and serrulae with care. The penis valves and genital capsules (harpe and parapenis) exhibit very little inter-specific differences and cannot be used alone for reliable identification. In addition, the penis valve is often poorly sclerotised, especially the dorsal part, and when viewed laterally, is relatively high in respect to the medio-subapical appendage (MSA), and so may become distorted during preparation. Nevertheless, the shapes of the penis valves are illustrated for the sake of completeness. Conversely, the shape of the digitus in inner lateral aspect is characteristic for the species, and is essential for the identification of species.

Specimens were studied by use of <sup>o</sup>Leica MZ12 and <sup>o</sup>Wild M8 binocular microscopes. The lancets and penis valves were studied with a <sup>o</sup>Leitz Laborlux S transmitted-light microscope. Illustrations of the serrulae and penis valves were photographed with a <sup>o</sup>Leica Wild MPS32 attached to the transmitted-light microscope. The outlines for the illustrations of the dorsal and ventral parts of the male genital capsule, including the digitus and cuspis, were prepared by scanning electron microscopy using a <sup>o</sup>Leo 1450VP scanning electron microscope. Details of the genitalia were filled in by hand while constantly cross-checking specimens through the microscope.

#### Key to the species groups of *Athalia* LEACH in the Afrotropical Region

- 1 Clypeus elongate medially and rounded in front (Fig. 1a) . . . . . *Athalia* "incomta"-group
- Clypeus short medially and more or less truncate or conspicuously excised in front . . . . . 2
- 2 Clypeus short medially and truncate to subtruncate in front (Fig. 1c) . . . . . *Athalia himantopus*-group
- Clypeus very short medially and conspicuously excised in front (Fig. 1b) . *Athalia vollenhoveni*-group

#### Diagnosis of the *Athalia himantopus* - group

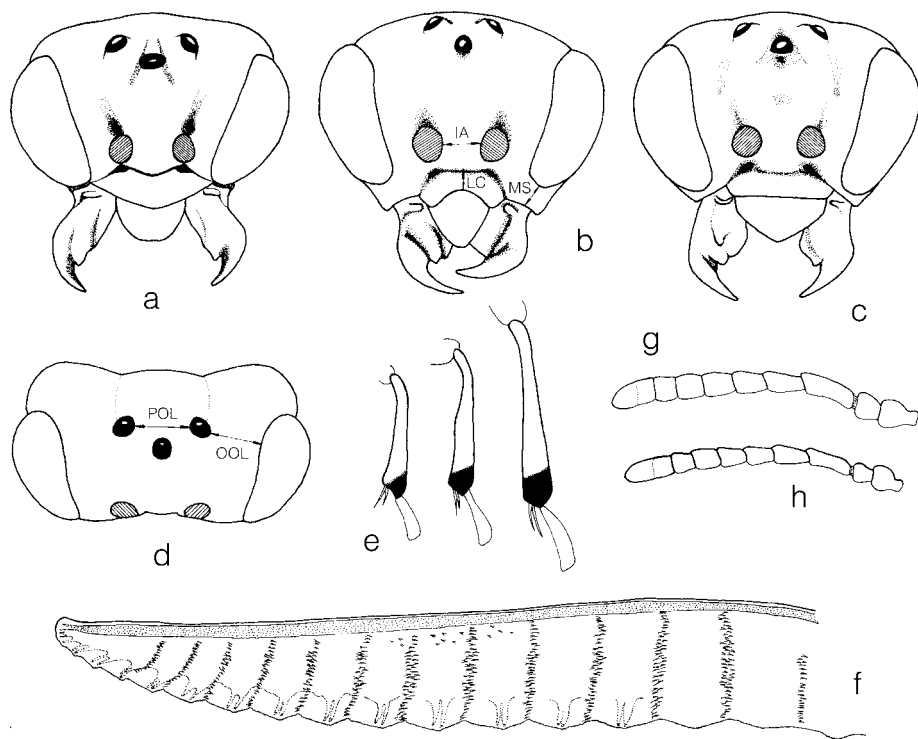
Head: black, clypeus pale in male; antenna black. Thorax: black; legs yellow, tibiae more or less black apically (Fig. 1e), tarsomeres black-ringed apically. Abdomen: yellow, tergum<sub>1</sub> either entirely yellow or with two blackish median markings; sawsheath black in apical half.

Head: in dorsal aspect (Fig. 1d) more or less narrowed behind eyes; antenna 10-segmented, 9<sup>th</sup> and 10<sup>th</sup> segments mostly indistinctly separated (Fig. 1g, h). Malar space conspicuously developed in female (Fig. 1c), very narrow or absent in male; clypeus short medially, conspicuously truncate or subtruncate (Fig. 1c).

Abdomen: sawsheath in lateral view (Fig. 4d) with posterior margin roundly pointed; in dorsal aspect (Fig. 4e) moderately narrow. Lateral view of female lancet very similar in all species, e.g. *A. himantopus* (Fig. 1f).

#### Species included:

1. *Athalia erythraeana* sp. n.
2. *Athalia flavobasalis* sp. n.
3. *Athalia himantopus* KLUG, 1834: 253.
4. *Athalia marginipennis* ENDERLEIN, 1920: 354. sp. rev.
5. *Athalia obsoleta* BENSON, 1962: 378. stat. n.
6. *Athalia sidamoensis* sp. n.
7. *Athalia taitaensis* sp.n.
8. *Athalia truncata* ENSLIN, 1914: 300. stat. rev.



**Figure 1a-h:** (a) *Athalia "incomta"*-group: head (frontal aspect); (b) *Athalia vollenhoveni*-group: head (frontal aspect); (c) *Athalia himantopus*-group: head (frontal aspect); (d) head (dorsal aspect); (e) *Athalia himantopus* KLUG: pro-, meso- and metatibiae; (f) lancet (lateral aspect); (g) male, antenna; (h) *Athalia flavobasalis* sp. n.: male, antenna.

**Remarks.** Sexual dimorphism in the *Athalia himantopus*-group is quite highly developed. The malar space of the male is absent or conspicuously narrower than in the female. The male differs from the female in having the clypeus pale. The male thorax is uniformly pubescent, but in the females of several species, except *A. himantopus* and *A. erythraeana*, there is a glabrous patch on either side of the mesosternum.

The intraspecific variability is visible especially in the pubescence of the mesosternum in the female. For example, the glabrous patches on the mesosternum are an essential character for the distinction between *A. himantopus* and *A. truncata* (BENSON 1962). This character varies, however, in *A. himantopus* from evenly pubescent to glabrous in about 15% of examined females. In some female specimens of *A. truncata* the glabrous patches are slightly hairy. Sometimes variation of this character is visible in other species.

#### Key to the species of the *Athalia himantopus*-group

- |   |   |                              |
|---|---|------------------------------|
| 1 | Wings uniformly flavescent-hyaline or more or less infusate throughout .....  | 2                            |
| – | Wings more or less bicoloured, flavescent basally and infusate apically .....   | 6                            |
| 2 | Wings infusate throughout .....   | 3                            |
| – | Wings uniformly flavescent-hyaline throughout .....   | 4                            |
| 3 | Wings slightly infusate; antennae of the male 1.3x as long as maximum head width;<br>digitus as in Fig. 7b. (southern Ethiopia) ..... | <i>A. sidamoensis</i> sp. n. |

- Wings conspicuously infusate; antennae of the female 1.6x as long as maximum head width (southern Kenya) ..... *A. taitaensis* **sp. n.** 4
- 4 Coxa<sub>3</sub> yellow, laterally blackish striped; digitus as in Fig. 4a (southern Africa) . *A. himantopus* KLUG
- Coxa<sub>3</sub> yellow, laterally only with small blackish marking (eastern Africa) ..... 5
- 5 Coxa<sub>3</sub> only at extreme base with a very small blackish spot; mesosternum with conspicuous glabrous patch on each side; digitus as in Fig. 6b ..... *A. obsoleta* BENSON
- Coxa<sub>3</sub> laterally with a conspicuous blackish spot at base; mesosternum moderately densely pubescent ..... *A. erythraeana* **sp. n.**
- 6 Tergum<sub>1</sub> entirely yellow ..... 7
- Tergum<sub>1</sub> yellow with two small blackish medial spots; digitus as in Fig. 5b .....  
..... *A. marginipennis* ENDERLEIN
- 7 Metepimeron entirely yellow; digitus as in Fig. 9b ..... *A. truncata* ENSLIN
- Metepimeron black, with narrow yellow posterior margin; digitus as in Fig. ... *A. flavobasalis* **sp. n.**

***Athalia erythraeana* sp. n.**

**Female.** Mandible reddish brown with narrow dirty whitish base; anterior margin of clypeus and labrum dirty white. Metascutellum yellow; metepimeron black with yellow posterior margin. Coxa, narrow basally and lateral surface blackish, lateral surface of coxa<sub>2</sub> blackish, coxa<sub>3</sub> with blackish spot at base laterally. Wings uniformly flavescent-hyaline throughout; costa, subcosta and stigma brown, venation of apical half yellowish brown, venation of basal half yellow. Tergum<sub>1</sub> entirely yellow.

Pubescence on head white. Antenna 1.5x as long as maximum head width, 8<sup>th</sup> flagellomere 1.0x as long as width. POL : OOL = 1.0 : 1.1 (HT, PT). MS : IA = 1.0 : 3.0 (HT), 2.8 (PT). Clypeus subtruncate, very slightly elongated medially (Fig. 2a). IA : LC = 1.0 : 0.9 (HT), 0.8 (PT). Pubescence on mesonotum and mesopleuron dense and whitish, mesosternum rather densely and white pubescent. Inner tibial spur of tibia<sub>3</sub>, 1.2x as long as apical width of tibia<sub>3</sub>. Sawsheath conspicuously pointed apically in dorsal view (Fig. 2b).

Length: 7.0-7.3 mm.

Serrulae 9-10: Fig. 2c.

Hypopygium: Fig. 2d.

**Male.** Unknown.

**Type material: Holotype:** ♀: “Eritrea”; “Assmara”; “VI”; “Holotypus, *Athalia erythraeana* ♀ sp. n., det.: F. KOCH 2006” (red) (UZMT).

**Paratypes** 3 ♀♀: Africa or., Erythraea (HNHM); Asmara, Eritrea, VII (DEI); Africa or, Eerythraea (DEI).

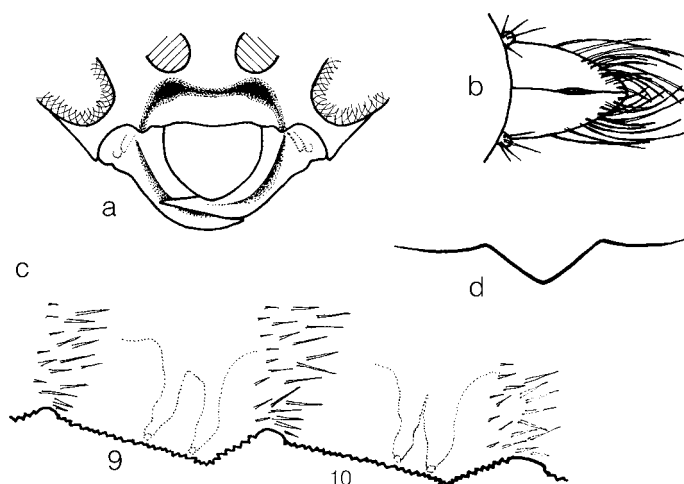
**Host plant.** Unknown.

**Distribution.** Eritrea (Fig. 13)

**Remarks.** The colouration of the wings of the new species is similar to that of *A. obsoleta* and *A. himantopus*. *Athalia himantopus* differs in the blackish striped coxa<sub>3</sub> and in having a southern African distribution. *Athalia obsoleta* is normally distinguished by the glabrous patches on mesosternum, the almost entirely yellow coxa<sub>3</sub>, only with a very small blackish spot at extreme base and the shallowly emarginated posterior margin of the clypeus (Fig. 6a). Furthermore, in dorsal view the sawsheath of *A. erythraeana* is by contrast to *A. obsoleta* (Fig. 6e) conspicuously pointed apically (Fig. 2b).

*Athalia erythraeana* varies in the colouration of the metascutellum from yellow to blackish brown, with a dirty yellow spot medially, tergum<sub>1</sub> may be marked by two small blackish spots medially, and the small blackish spot on coxa<sub>3</sub> is more reduced.

**Etymology.** This species is named after its country of origin.



**Figure 2a-d:** *Athalia erythraeana* sp. n.: (a) female, mouthparts with clypeus; (b) sawsheath (dorsal aspect); (c) serrulae 9-10, (d) hypopygium (posterior margin).

***Athalia flavobasalis* sp. n.**

**Male.** Mandible reddish brown, darker apically and broadly whitish at base; clypeus and labrum whitish. Metepimeron black with yellow posterior margin. Coxa<sub>1/2</sub> blackish basally and on lateral surface. Wings slightly bicoloured, with basal half slightly flavescent-hyaline and apical half slightly infuscate; costa, subcosta and stigma dark brown, and venation of apical half light brown, venation of basal half yellow. Tergum<sub>1</sub> entirely yellow.

Vertex and dorsal part of gena with light brown hairs, frons and ventral part of gena with white hairs. Antenna 1.5x as long as maximum head width, 8<sup>th</sup> flagellomere 1.1x as long as width (Fig. 1f). POL : OOL = 1.0 : 1.1-1.2 (1.1 HT). Clypeus truncate or very slightly elongated medially (Fig. 3a). IA : LC = 1.0 : 0.8-1.0 (1.0 HT). Malar space missing. Pubescence on mesonotum dense and light brown, mesopleuron and mesosternum with dense, pale pubescent. Inner tibial spur of tibia<sub>1</sub> 1.0x as long as apical width of tibia<sub>1</sub>. Digitus stout, rounded apically and moderately hook-like in lateral view (Fig. 3b).

Length: 5.8-7.0 mm.

Parapenis and harpe (ventral aspect): Fig. 3c.

Penis valve: Fig. 3d.

**Female.** Colouration similar to that of male, except for: clypeus brown with dirty yellow anterior margin, labrum light brown, base of mandible dirty whitish. Metascutellum brown. Antenna 1.5x as long as maximum head width, 8<sup>th</sup> flagellomere 1.0x as long as width. POL : OOL = 1.0 : 1.0-1.1. MS : IA = 1.0 : 2.5-3.3. IA : LC = 1.0 : 0.9-1.0. Pubescence on mesonotum and mesopleuron similar to that of male, mesosternum with a large conspicuous glabrous patch on each side. Inner tibial spur of tibia<sub>1</sub> 1.1x as long as apical width of tibia<sub>1</sub>.

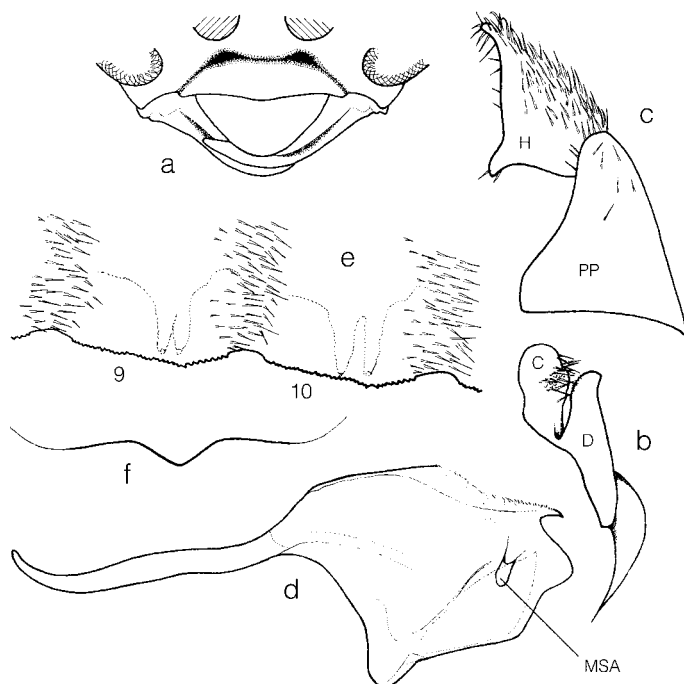
Length: 6.3-7.5 mm.

Serrulae 9-10: Fig. 3e.

Hypopygium: Fig. 3f.

**Type material: Holotype:** ♂: "Burundi, Munanira, 2.200 m, 1-14.I.1983, A. AUTRIQUE"; "Holotypus, *Athalia flavobasalis* ♂ sp. n., det.: F. KOCH 2006" (red) (MNHN).

**Paratypes:** 32 ♂♂, 79 ♀♀: **Burundi**, Kisozi, 22.VIII-4.IX.1981 (1 ♀); Munanira, 2.200 m, 18.VII.1981-8.IV.1983 (24 ♂♂, 72 ♀♀) A. AUTRIQUE, YP (MNHN, MNHU) (Fig. 15). **Democratic Republik of the Congo:** Kivu, Ngesho, 2.000 m, 3.-6.IV.1934 (1 ♀) G. F. DE WITTE (ISNB); Parc Nat. Albert, Ngoma, 19.-23.IV.1935 (1 ♀) H. DAMAS; Rutshuru, V.1937 (1 ♀) J. GHESQUIÈRE; Massif Ruwenzori, Kalonge, 2.030 m, R. Kiondo ya Kwanza, 9.II.1953 (1 ♀) P. VANSCHUYTBROECK & J. KEKENBOSCH; P. N. A., Secteur Sud, Mulikirehe, environs Rumangabo, 1.500 m, 21.IV.-15.V.1957 (1 ♂) C. DONIS (MRAC); **Ethiopia:** Lake Tana, Bahar Dar (1 ♂, 1 ♀) SCHÄUFFELE (SMNS).



**Figure 3a-f:** *Athalia flavobasalis* sp. n.: (a) female, mouthparts with clypeus; (b) cusps and digitus (left, inner lateral aspect); (c) parapenis and harpe (right, ventral aspect); (d) penis valve (left, lateral aspect); (e) serrulae 9-10; (f) hypopygium (posterior margin).

**Kenya:** Nairobi, 1.660 m (1 ♂) (MNHN); Kikuyu, 30.IV.1902 (1 ♂) F. THOMAS (MNHU); Mt.Kenya, VIII.-X.1927 (1 ♀) A. INSOLL (BMNH); Karen, Nairobi, 3.V.1967 (1 ♂) C. D. MICHENER (SEMC); N.Nandi For., nr. Chemisia, XII.1979 (1 ♂) N.Nandi Exped. (NMKE); Kakamega Distr., Isecheno, Isecheno Forest Reserve, 1.600 m, 0.24°N, 34.86°E, 21.-28.II.2002 (1 ♂) R. R. SNELLING (LACM). **Rwanda:** Ruhengeri (riv. Penge), 1.800-1.825 m, 29.IX.1934 (1 ♀); 4.-5.X.1934 (2 ♂♂); Ruhengeri (Moruguhu); 1.800-1.825 m, 6.II.1935 (1 ♀) G. F. DE WITTE (ISNB, BMNH). **Uganda:** Kampala, 10.-24.II.1915 (1 ♂); 1.-6.IV.1919 (2 ♂♂); C. C. GOWDAY (BMNH); Kibale Forest (border), Kanyawara, MT, 10.VII.-10.IX.1996 (1 ♂, 1 ♀) J. J. M. V. ALPHEN (RMNH).

**Host plant.** Unknown.

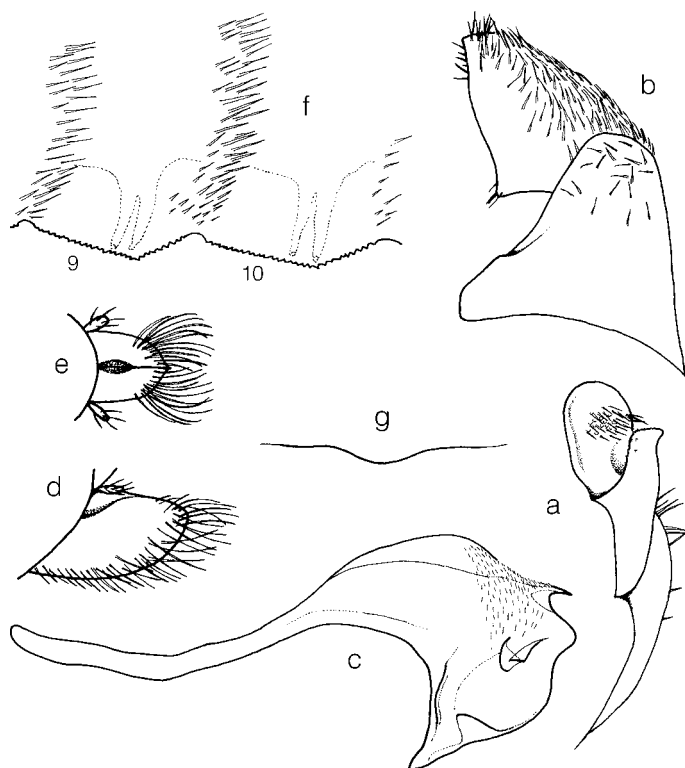
**Distribution.** Democratic Republic of the Congo, Ethiopia, Rwanda, Uganda (Fig. 12).

**Remarks.** Most of the examined material was collected in Burundi and identified by CHEVIN (1985) as *A. himantopus truncata*. *Athalia truncata* differs significantly from the new species by the presence of the entirely yellow metepimeron, and also in the shape of the apically subtruncate digitus of *A. truncata* (Fig. 9b).

Differentiation of *A. marginipennis* is more problematic. Most specimens of *A. marginipennis* are distinctly larger, the wings are conspicuously bicoloured, and tergum<sub>1</sub> is more or less blackish coloured, whereas tergum<sub>1</sub> is entirely yellow in *A. flavobasalis*. Only very few individuals have been examined with minute blackish markings on tergum<sub>1</sub> (Kenya, Kakamega District). A rare condition in females is that the mesosternum is more or less sparsely haired rather than having glabrous patch on each side. The shape of the digitus in lateral view (Figs 3b, 5b) is especially useful to distinguish both species, together with the MSA of the penis valve. This is narrowly attached in *A. flavobasalis* (Fig. 3d), but broadly so in *A. marginipennis* (Fig. 5d). In females the differentiation is more difficult, but viewed collectively the colouration of tergum<sub>1</sub>, the shape of the clypeus (Figs 3a, 5a), and serrulae (Figs 3e, 5e), which are shallower in *A. flavobasalis*, make specific differentiation possible.

**Etymology.** The specific epithet refers to the entirely bright yellow tergum<sub>1</sub> of this species.





**Figure 4a-g:** *Athalia himantopus* KLUG: (a) cuspis and digitus (left, inner lateral aspect); (b) parapenis and harpe (right, ventral aspect); (c) penis valve (left, lateral aspect); (d) sawsheath (lateral aspect); (e) sawsheath (dorsal aspect); (f) serrulae 9-10; (g) hypopygium (posterior margin).

### *Athalia himantopus* KLUG

*Athalia himantopus* KLUG, 1834: 253.

**Type locality:** Capland [South Africa].

*Athalia himantopus himantopus* BENSON, 1962: 378.

**Male.** Mandible reddish brown, becoming darker apically, and broadly whitish at base; clypeus and labrum whitish. Metepimeron black with narrow yellow posterior margin. Coxa<sub>1</sub> black, only anterior surface more or less yellow, coxa<sub>2</sub> at base and lateral surface black, coxa<sub>3</sub> with a blackish longitudinal stripe from base to apex; tibiae black ringed apically (Fig. 1g). Wings moderately uniformly flavescent-hyaline throughout, sometimes apically inconspicuously infuscate; costa, subcosta and stigma dark brown, venation of apical half brown, venation of basal half yellow. Tergum<sub>1</sub> with two blackish median spots.

Pubescence on head white. Antenna 1.4x as long as maximum head width, 8<sup>th</sup> flagellomere 0.8-0.9x as long as width (Fig. 1e). POL : OOL = 1.0 : 0.9-1.0 (1.0 LT). Malar space very narrow; MS : IA = 1.0 : 6.3-10.0 (6.3 LT). Clypeus subtruncate, very slightly emarginated medially (Fig. 1c). IA : LC = 1.0 : 0.7-0.8 (0.8LT). Pubescence on mesonotum dense and whitish, mesopleuron and mesosternum more or less densely white pubescent. Inner tibial spur of tibia<sub>1</sub> 1.2x as long as apical width of tibia<sub>3</sub>. Digitus slightly stocky, in lateral view, narrowly subtruncate apically and slightly hook-like (Fig. 4a).

Length: 7.0-8.2 mm.

Parapenis and harpe (ventral aspect): Fig. 4b.

Penis valve: Fig. 4c.

**Female.** Colouration similar to that of male, except for: clypeus brown with dirty whitish anterior margin, labrum and base of mandible dirty whitish. Antenna 1.4x as long as maximum head width, 8<sup>th</sup> flagellomere 0.8-0.9x as long as width. POL : OOL = 1.0 : 0.9-1.0. MS : IA = 1.0 : 2.2-2.8. IA : LC = 1.0 : 0.7-0.9. Pubescence on head white, behind lateral ocelli and on mesonotum slightly yellowish; mesopleuron whitish pubescent, mesosternum with more or less dense whitish pubescent. Inner tibial spur of tibia<sub>3</sub> 1.0x long as apical width of tibia<sub>3</sub>.

Length: 7.5-10.0 mm

Sawsheath (lateral aspect): 4d.

Sawsheath (dorsal aspect): 4e.

Lancet (lateral aspect): 1h.

Serrulae 9-10: Fig. 4f.

Hypopygium: Fig. 4g.

**Type material. Lectotype:** ♂: "13746"; "Capland, LICHTENSTEIN s."; "Lectotypus, des.: F. KOCH, 2006" (red); "*Athalia himantopus* KLUG ♂, det.: F. KOCH 2006" (MNHU).

**Paralectotypes:** 3 ♂♂, 3 ♀♀: same data as lectotype (2 ♂♂, 2 ♀♀); ex. Schausammlung [Exhibition] (1 ♂, 1 ♀) (MNHU).

The designation of the lectotype is necessary, because the application of names in the *A. himantopus*-group is very confused. In moderately good condition, antennae are missing.

**Other material examined. Lesotho:** Brakfontein, 2.III.1924 (1 ♀) W. LINGNAU (DEU); Mamathes, 18.XI.1945 (1 ♀); 23.III.1953 (1 ♂) A. JACOT-GUILLARMOD (AMGS); 30. XI.1952 (19 ♂♂, 4 ♀♀); 4.XII.1952 (1 ♀), 7.XII.1952 (9 ♂♂, 5 ♀♀); 14.XII.1952 (9 ♂♂, 1 ♀); 20.XII.1952 (1 ♂); 31.XII.1958 (1 ♀) C. JACOT-GUILLARMOD; Maphutseng, Malibamatse Riv. 11.I.1955 (1 ♂, 1 ♀); Masoeling nr. Mamathes, 30.IX.1956 (3 ♂♂, 1 ♀); Makhapung Valley, 17.I.1955 (1 ♀); 18.I.1955 (2 ♀♀); 19.-21.I.1955 (1 ♀) A. JACOT-GUILLARMOD (AMGS). **South Africa:** EASTERN CAPE: Wthm., Caffraria (1 ♂) (NHMW); Algoa Bay, IX.1895 (5 ♂♂, 5 ♀♀); 19.X.1895 (1 ♂); 20.X.1895 (1 ♂, 2 ♀♀); 22.X.1895 (1 ♀); 4.XI.1895 (1 ♀); 1.XII.1895 (3 ♂♂); 12.IV.1898 (1 ♀) BRAUNS (DEU, NHMW, USNM, ZSM, TMSA, UZMT); Port Elizabeth, 15.X.1895 (1 ♀); 18.X.1895 (1 ♂); 1899 (1 ♂) J. L. DREGE (SAMC); 10.IX.1952 (1 ♀) J. LANE (AMGS); Addo, 19.IV.1896 (1 ♂, 1 ♀); Uitenhage, 10.V.1896 (1 ♀) BRAUNS (ZSM, TMSA, UZMT); Kowie, 1.XII.1896 (2 ♀♀) PENTHER (NHMW); Sunday River, 10.IV.1898 (1 ♀); 12.IV.1898 (1 ♀) BRAUNS (TMSA); Willowmore, 10.XI.1903 (2 ♂♂); 20.II.1904 (6 ♂♂, 1 ♀); 8.V.1906 (1 ♀); 20.II.1907 (1 ♀); 28.IX.1919 (1 ♀); 20.XII.1919 (1 ♀) BRAUNS (AMGS, ZSM, TMSA, UZMT); Grahamstown, 18.IV.1904 (1 ♀); 8.I.1912 (1 ♂, 1 ♀) E. M. CLERRY (AMGS); Grahamstown, Agrl. Dept., 25.VIII.1908 (1 ♀) C. W. MALLY (DEUS); Grahamstown, 4.IX.1911(2 ♂♂) J. HEWITT (AMGS); East London VII.1914 (1 ♀); 1915 (1 ♀) LIGHTFOOD (SAMC); East London, 8.VI.1920 (2 ♀♀) (PPRI); 5.IX.1954 (1 ♀) R. LE GRELLIER (AMGS); Prospect, Komgha, X.1906 (2 ♀♀) (DEUS); Pondoland, X.1917 (1 ♀) H. H. SWINNY (TMSA); New England, 21.XII.1923 (1 ♀) R. I. NEL (DEUS); Resolution, Albany Dist., 23.III.1928 (1 ♂); 20.IV.1928 (1 ♀); 22.IV.1928 (1 ♀) A. WALTON (DEUS, TMSA); Resolution, Grahamstown, I-IV.1928 (3 ♂♂, 2 ♀♀); 1930 (4 ♂♂) WALTON (SAMC); Venterstad Region, X.1935 (15 ♂♂, 3 ♀♀); Burghersdorp & Nootgedacht, Albert Dist., X.1935 (1 ♂, 1 ♀) Mus. Staff (SAMC); Karreed, 28.I.1936 (1 ♀) (DEUS); Stutterheim, 3.X.1947 (1 ♀) E. ROGERS; 20.IV.1954 (1 ♀) E. MCC. CALLAN (AMGS); Cradock, X.1948 (1 ♀) L. C. MOOLMAN (DEUS); Cathcart, II.1951 (1 ♀) E. HART; Keiskama Hoek, X.1951 (1 ♀) A. MURRAY; Coega, 26.V.1955 (1 ♂) E. MCC. CALLAN (AMGS); Middelburg, 2.III.1957 (4 ♂♂, 3 ♀♀) H. D. BROWN (PPRI); Berlin, 20.IX.1962 (1 ♂) A. DOTT-MACKOY (AMGS); Grahamstown, VIII.1946 (1 ♀) I. LEWIS; VIII.1946 (1 ♀) J. JOHNSTONE; 4.XI.1950 (1 ♀) C. N. SMITHERS; 16.IV.1951 (1 ♂) N. J. MYERS; IX.1951 (1 ♀) A. PATERSON; X.1951 (1 ♂) J. CRAIG; 24.III.1952 (1 ♂) N. J. MYERS; 4.V.1952 (1 ♀) E. MCC. CALLAN; 14.X.1952 (1 ♀) H. D. BROWN; 25.III.1953 (1 ♀) N. J. MYERS; 4.VI.1953 (1 ♂) A. CARNEGIE; VII.1953 (1 ♀) B. MEYERS; VIII.1953 (1 ♀) D. GAYMAN; 29.IX.1954 (1 ♂) A. D. CALEY; IX.1954 (1 ♀) C. BARUER; IX.1954 (1 ♂) J. MULLISAN; IX.1954 (1 ♂) M. OSBORN; 24.IX.1954 (1 ♂) R. M. RAINOLD; 5.X.1954 (1 ♀) F. JUNOR; 27.VII.1955 (1 ♀) P. ALLISON; VIII.1956 (2 ♂♂) P. O. COOPER; 9.VIII.1958 (1 ♀) M. SEARLE; 23.IX.1959 (1 ♀) D. H. CUMMING; 7.III.1960 (1 ♀) S. KUBISCH; 19.IX.1960 (1 ♂) L. NAYLER; 11.X.1960 (1 ♀) D. M. WHISKEN; 7.X.1964 (1 ♀) A. JACOT-GUILLARMOD; 24.VIII.1967 (2 ♂♂); 7.IX.1967 (1 ♀); 14.II.1968 (1 ♂); 3.VIII.1968 (1 ♀); 14.XI.1968 (1 ♀); 19.VIII.1969 (1 ♀); 22.VIII.1969 (1 ♂); 25.VIII.1969 (1 ♀); 6.X.1969 (2 ♀♀) J. G. H. LONDT; 3.IX.1969 (1 ♀) P. MOORCROFT; 16.VIII.1982 (1 ♀); Grahamstown, Strowan, 15.X.1967 (1 ♀); 17.III.1968 (1 ♀) C. JACOT-GUILLARMOD; Grahamstown, Belmont Valley, 5.II.1970 (1 ♂, 4 ♀♀), F. W. GESS (AMGS); Grahamstown, Hilton, 13.XI.1966 (1 ♂); 21.-28.X.1970 (1 ♂, 8 ♀♀); 17.III.1971 (1 ♂, 1 ♀); IV.1971 (1 ♀); 1.-5.X.1975 (1 ♂, 4 ♀♀); 5.-8.X.1975 (1 ♂, 7 ♀♀); 8.-12.X.1975 (1 ♀); 12.-15.X.1975 (2 ♀♀); 15.-19.X.1975 (1 ♀); 22.-26.X.1975 (1 ♀); 29.-31.X.1975 (1 ♀); 9.-12.XI.1975 (1 ♀); 12.-16.XI.1975 (1 ♀); 3.-16.II.1976 (1 ♀); F. W. GESS, MT; Grahamstown, Table Farm, 12.-15.II.1971 (8 ♂♂, 24 ♀♀); 12.-25.II.1971 (9 ♂♂, 19 ♀♀); 26.-

28.II.1971 (1 ♀); 1.-3.III.1971 (3 ♀♀); 3.-8.III.1971 (2 ♂♂, 7 ♀♀); 8.-10.III.1971 (2 ♂♂, 7 ♀♀); 10.-15.III.1971 (2 ♂♂, 8 ♀♀); 15.-17.III.1971 (15 ♂♂, 33 ♀♀); 19.-24.III.1971 (1 ♂, 1 ♀) F. W. GESS, MT; Grahamstown, Howison's Poort, 19.-22.XI.1971 (1 ♂); 6.-14.I.1972 (1 ♂); 14.-19.I.1972 (1 ♀); 14.-29.II.1972 (1 ♀) F. W. GESS, MT (AMGS); Grahamstown, Albany Dist., 13.III.1955 (1 ♂) H. D. BROWN; 3.V.1956 (1 ♂) E. MCC. CALLAN (AMGS, PPRI); Pearston, 16.III.1969 (1 ♀) L. C. STARKE (PPRI); Gxulu River, 15.XII.1970 (2 ♀♀) J. G. H. LONDT (AMGS); Kenton-on-Sea, 23.-29.X.1970 (2 ♀♀); V.1971 (2 ♀♀); VI.1971 (2 ♀♀, 1 ♂); VII.1971 (1 ♂, 1 ♀); 14.-21.X.1971 (4 ♂♂, 3 ♀♀); 21.-26.X.1971 (1 ♀); XII.1971 (1 ♂, 1 ♀); R. A. JUBB, MT; Grahamstown, 33.19S,26.31E, 28.VI.1986 (1 ♀); 24.XI.1988 (1 ♀) S. V. NOORTH (SAMC); Grahamstown, Belmont Valley, 19.-21.X.1971 (1 ♀); 26.-28.X.1971 (1 ♀); 28.-31.X.1971 (1 ♀) F. W. GESS, MT; Willowmore, 18 km on Baviaanskloof Rd., 6.X.1971 (1 ♀); Grahamstown, Manley Flats, 5.XI.1972 (9 ♂♂, 1 ♀) C. JACOT-GUILLARMOD (AMGS); Bathurst, I.1976 (1 ♂) G. L. PRINSLOO (PPRI); Mountain Zebra Park, Cradock, XII.1985 (1 ♀) J. G. H. LONDT; Morgan Bay, 30.III.-4.IV.1989 (1 ♀) F. W. & S. K. GESS (AMGS); Between Swaerhoek & Mountain Zebra Nat. Park, 32.18S,25.30E, 6.II.1990 (2 ♂♂) M. JONSSON (PPRI); 15 km E. Grahamstown, 12.IV.1992 (1 ♀) O'BRIEN & G. B. MARSHALL (CASC). FREE STAAT: Reddersburg (1 ♀) BRAUNS (TMSA); Bethel (1 ♀) BESTE (MNHU); Smithfield, 1910 (1 ♀) KANMEMEYER (SAMC); Paul Roux, 14.I.1937 (1 ♂) (DEUS); Senekal, II.1941 (1 ♀) (DEUS); 22.X.1972 (1 ♀) (PPRI); Chicago, Lindley Dist., 1.I.1965 (1 ♀); 2.I.1965 (1 ♂); 17.-28.I.1968 (8 ♂♂, 6 ♀♀) D. J. BROTHERS (AMGS); Smithfield, 28.XII.1969 (1 ♀) J. G. H. LONDT (AMGS); Golden Gate, 18.I.1973 (2 ♀♀) L. VÁRY (TMSA); Tussen-due-Riviere Res., 30.30S,26.12E, 20.-24.I.1994 (1 ♀) V. M. UYS; 30.III.-3.IV.1987 (1 ♀); 26.I.1994 (2 ♂♂) C. D. EARDLEY (PPRI). GAUTENG: Pretoria, II.1911 (1 ♀) HEWITT; VII.1952 (1 ♀) S. STRAW (AMGS); Pretoria North, 21.X.1971 (1 ♀) E. HOLM (PPRI). KWAZULU-NATAL: Estcourt, 1894 (2 ♀♀) E. HAVILAND (SAMC); Mfongosi, V.1916 (1 ♂); XII-II.1935 (1 ♀) W. E. JONES (SAMC); Weenen, 2.840 ft., VI.-VII.1923 (1 ♂); VII.-IX.1923 (1 ♂); II.1925 (1 ♀); VI.1925 (1 ♂) H. P. THOMASSET (PPRI, UZMT); Durban, I.1945 (1 ♀) C. EDMONSTORA; 22.XII.1951 (1 ♀) E. BARKER (AMGS); 5.VIII.1960 (1 ♀) (NMBZ); I.-III.1969 (1 ♀) C. BOOTH (SAMC); Mtunzini, 7.-14.IX.1949 (1 ♀) A. L. CAFENER (TMSA); Cathedral, 6.000 ft., 20.-23.III.1955 (2 ♀♀) H. K. MUNRO (PPRI); Durban, Burman Bush, 29.V.1961 (1 ♀); Ladysmith, 21.III.1963 (1 ♀) Empey Coll. (AMGS); Hilton, 24.I.1966 (1 ♂) J. S. TAYLOR (USNM); Nottingham Road 29.22S, 29.59E, 15.I.1981 (2 ♂♂); Coleford Nat. Res. 29.57S, 29.27E, 16.XI.1981 (1 ♂) S. J. v. TONDER & C. KOK; Cathedral Peak area, above Mike's Pass, 28.59S, 29.145E, 1.973 m, 19.-23.I.1986 (1 ♀) J. S. DONALDSON (PPRI); Hluhluwe Game Res. 28°02'S, 32°05'E, 5.XII.1995 (1 ♀) F. KOCH (MNHU). NORTH WEST: Magaliesburg, 5.XI.1968 (1 ♀); Schoemanville, Dam Wall, 12.X.1975 (1 ♂) Empey Coll. (AMGS); Klerksdorp, Vaal ri., 20 km W. of Bothaville, 12.I.2001 (1 ♂, 1 ♀) M. SNIŽEK (OLML). NORTHERN CAPE: Kimberley, Bro. Power, 1912 (1 ♂, 1 ♀) (SAMC); Richmond Dist., III.1931 (2 ♀♀); Melton Wold, Victoria W. Dist., X.1935 (2 ♂♂); Colesberg, X.1935 (9 ♂♂, 1 ♀) Mus. Staff (SAMC). WESTERN CAPE: Murraysburg Dist., III.1931 (2 ♂♂, 3 ♀♀) Mus. Staff (SAMC). **Zimbabwe:** Bulawayo, I.VII.1948 (1 ♀) R. C. ELHOFF (MRAC).

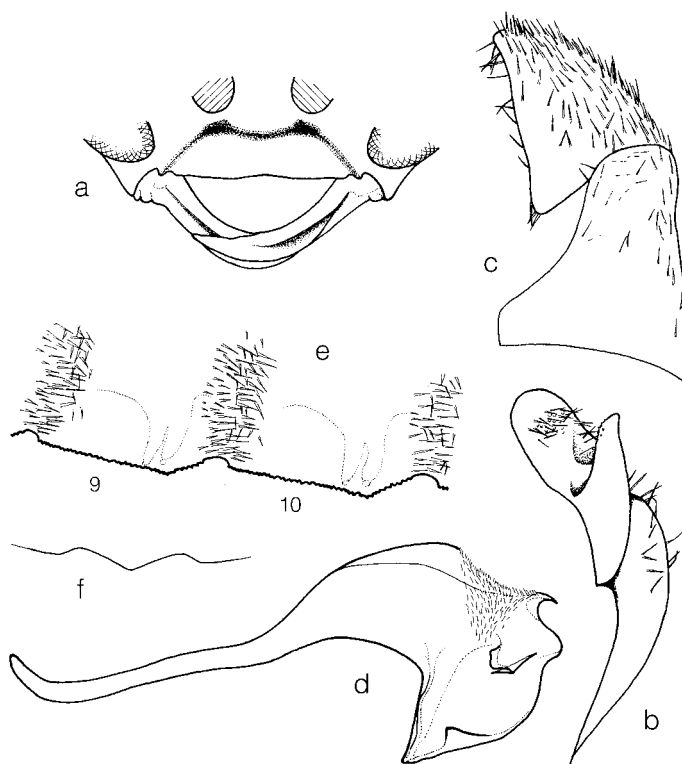
**Host plant.** *Nasturtium* spp. (Brassicaceae) (BENSON 1962: 341); Larvae on *Brassica oleracea* L. (Brassicaceae) (BENSON 1962: 378). According to the examined material: Grahamstown, Belmont Valley, 5.II.1970 (1 ♂, 4 ♀♀), on flowering *Foeniculum vulgare* MILL. (Umbelliferae).

**Distribution.** Lesotho, South Africa, Zimbabwe (Fig. 10).

**Remarks.** According to the catalogue (number: 13.746) of the MNHU the syntype series contains seven specimens (4 males and 3 females). This material has been examined and three males and one female were identified as *A. guillarmodi* BENSON, 1956.

*Athalia himantopus* is similar to *A. marginipennis* and their ranges partly overlap (Figs 10, 11), but *A. himantopus* is distinguished by the conspicuous black longitudinal stripe on coxa. Only in very few cases is this black stripe reduced to a more or less large spot (Settlers Dam; Venterstad; Howison's Poort, Grahamstown; Stutterheim; Mamathes), or is absent altogether (Resolution, Grahamstown). In such cases it is necessary to examine the genitalia for certain identification. The digitus (Fig. 4a) of *A. himantopus* is conspicuously hook-like as compared to that of *A. marginipennis* (Fig. 5b). Furthermore, the wings of *A. marginipennis* are slightly bicoloured, but in very old material the bicolouration is sometimes faded and is not easy to discern. The metascutellum of the females of *A. himantopus* is always black as opposed to *A. marginipennis* in which it is yellow.

Morphological differences compared to *A. obsoleta* with has similarly coloured wings are discussed under that species. According to BENSON (1962) the nominotypical form *A. himantopus himantopus* differs from the other two subspecies, namely *A. himantopus obsoleta* (*A. obsoleta*) and *A. himantopus truncata* (*A. truncata*), by the dense pubescence throughout. This character in truth varies and *A. himantopus* may be evenly pubescent to more or less glabrous. Approximately 15% of examined specimens exhibit a large glabrous patch on each side of the mestosternum.



**Figure 5a-d:** *Athalia marginipennis* ENDERLEIN: (a) female, mouthparts with clypeus; (b) cuspid and digitus (left, inner lateral aspect); (c) parapenis and harpe (right, ventral aspect); (d) penis valve (left, lateral aspect); (e) serrulae 9-10; (f) hypopygium (posterior margin).

*Athalia marginipennis* ENDERLEIN sp. rev.

*Athalia marginipennis* ENDERLEIN, 1920: 354.

**Type locality:** Deutsch-Ostafrika [Tanzania], Nyembe-Bulungwa.

**Male.** Mandible reddish brown, becoming darker apically, and broadly whitish at base; clypeus whitish, labrum dirty whitish to light brown. Metepimeron black with narrow yellow posterior margin. Coxa<sub>1/2</sub> narrow at base and lateral surface more or less blackish, coxa, with very small blackish spot at extreme base. Wings bicoloured, with basal half slightly flavescent-hyaline and apical half infuscate; costa, subcosta and stigma dark brown, venation of apical half brown, venation of basal half yellow. Tergum<sub>1</sub> with two blackish median spots.

Pubescence on head whitish. Antenna 1.4x as long as maximum head width, 8<sup>th</sup> flagellomere 0.9x as long as width. POL : OOL = 1.0 : 0.9-1.0. Malar space very narrow; MS : IA = 1.0 : 9.0-10.0. Clypeus very slightly emarginated medially (Fig.5a). IA : LC = 1.0 : 0.6-0.8. Pubescence on mesonotum dense and whitish, mesopleuron and mesosternum rather densely white pubescent. Inner tibial spur of tibia<sub>3</sub> 0.9x as long as tibia<sub>3</sub> apical width. Digitus slender, in lateral view moderately hook-like apically (Fig. 5b).

Length: 7.0-8.3 mm.

Parapenis and harpe (ventral aspect): Fig. 5c.

Penis valve: Fig. 5d.

**Female.** Colouration similar to that of male, except for: clypeus brown with dirty yellow anterior margin, labrum light brown, base of mandible dirty whitish. Metascutellum yellow.

Antenna 1.4x as long as maximum head width, 8<sup>th</sup> flagellomere 0.8-0.9x as long as width. POL : OOL = 1.0 : 0.9-1.0 (1.0 LT). MS : IA = 1.0 : 3.3-3.8 (3.5 LT). IA : LC = 1.0 : 0.7-0.9 (0.9 LT). Pubescence on head white, yellowish behind lateral ocelli and on mesonotum; mesopleuron whitish pubescent with a small glabrous ventro-lateral patch, mesosternum with a large conspicuous glabrous patch either side. Inner tibial spur of tibia, 1.1x as long as apical width of tibia.

Length: 7.5-9.3 mm

Serrulae 9-10: Fig. 5e.

Hypopygium: Fig. 5f.

**Type material. Lectotype:** ♀, "D.O. Afrika, Nyembe-Bulungwa, 1914, HAMMERSTEIN S."; "Mus. Zool. Polonicum, 12/45"; "Lectotypus, des.: F. KOCH, 2006" (red); "*Athalia marginipennis* ENDERLEIN ♀, det.: F. KOCH 2006" (ZMPA).

**Paralectotypes:** 3 ♀♀: same data as lectotype (ZMPA).

The designation of the lectotype is necessary, because the application of names in the *A. himantopus*-group is very confused. In good condition, left antenna is missing.

**Other material examined. Botswana:** Serowe, Farmer's Brigade, XII.1988 (1 ♀); II.1989 (3 ♀♀); IV.1989 (1 ♀) P. FORCHHAMMER, MT (USNM). **Burundi:** Kisozi, 9.-23.I.1981 (1 ♂); 20.II.-6.III.1981 (1 ♂); 8.-21.VIII.1981 (1 ♂); 26.XII.-6.I.1982 (1 ♂); Munanira, 2.200 m, 7.II.1981-6.VIII.1983 (267 ♂♂, 135 ♀♀) A. AUTRIQUE, YP (MNHN, MNHU) (Fig. 14). **Democratic Republic of the Congo:** Ituri, Blukwa, 11.XI.1928 (2 ♂♂, 2 ♀♀); Buba, 22.III.1929 (2 ♀♀) A. COLLART (UZMT); Kivu, Tshengelero (près Munagana), 1.750 m, 21.VIII.1934 (1 ♂); Kivu, Munagana (Djomba), 2.000 m, 23.VIII.1934 (2 ♀♀) G. F. DE WITTE (ISNB); Kivu, Kabare, 1954 (1 ♀) R. S. SAINTE FAMILLE; Kivu, Kavimvira (Uvira), I.1956 (1 ♂); Kivu, Uvira, 5.I.1960 (1 ♀) G. MARLIER (MRAC). **Kenya:** Kikuju, Escarpement (1 ♀) (MCSN); Nairobi (1 ♀) LOVÉN (NHRS); Forest de Nairobi, 1.700 m, XI.-XII.1911 (1 ♀) ALLUAUD & JANNEL (MNHN); Nairobi, 1.660 m, VI.1932 (1 ♂, 1 ♀); Nyeri, 8.VI.1932 A. SEYRIC (MNHN); Plateau, 10.I.1944 (1 ♂) H. P. v. HEERDEN (DEUS); Narok Dist., Ewaso Ng'iro, 18.II.1968 (1 ♀) C. L. HOGUE; Naivasha, IX.1939 (1 ♀) H. J. A. TURNER (USNM); Stony Athi, E. A. U. Nat. Hist. Soc., V.1940 (1 ♀) Biol. Survey; Naivasha, III.1941 (1 ♀); Kabarnet Dist., Baringo, I.1944 (1 ♀) Museum Staff; Malaba For., Kabras K. C., IX.1953 (1 ♀) P. MUTESHI (NMKE); Meru, 24.VII.-1.VIII.1975 (1 ♀) U. DALL'ASTA (MRAC); Nairobi, 10.VII.1987 (1 ♂) (DEI); 14.V.1988 (1 ♀) (BMNH); SE, Taita Hills, Wundanyi, 22.XI.1999 (1 ♂) M. SNIŽEK (OLML). **Lesotho:** Mamathes, 20.XII.1952 (1 ♂) C. JACOT-GUILLARMOD (AMGS). **Malawi:** Kasungu, Mtunthama, VIII.1982 (1 ♀); IX.1982 (1 ♂, 1 ♀) J. FEEHAN (BMNH). **Namibia:** Kaoko Otavi, III.1926 (14 ♂♂, 14 ♀♀) Mus. Exped. (SAMC, MNHU); Rundu, 19.I.1993 (1 ♂) M. SCHWARZ (MNHU). **Rwanda:** Bunambi, (Volc. Muhavura), 2.325 m, 5.IX.1934 (1 ♀) Ruhengeri, (Sources Kirii), 1.800-1.825 m, 3.X.1934 (2 ♀♀); Ruhengeri (riv. Penge), 1.800-1.825 m, 4.-5.X.1934 (2 ♀♀) G. F. DE WITTE (ISNB). **South Africa:** FREE STATE: Wapener, IV.1940 (1 ♀) C. C. HATTINGH. (PPRI); Senegal, XII.1940 (1 ♀) (DEUS); Harrysmith, SW foot of Platberg, 2.000 m, 28.15S, 29.09E, 20.II.1984 (1 ♀) C. G. E. MOOLMAN (PPRI). GAUTENG: Johannesburg (1 ♀) G. KOPROW (TMSA); Pretoria, 3.III.1902 (1 ♀) S. MERSTRA (TMSA); Roodeplaat, 20.-25.II.1916 (2 ♀♀) BREYER (TMSA); XI.1957 (1 ♀); IV.1958 (1 ♀) J. BOT; 10.III.1971 (1 ♀); 4.VI.1972 (1 ♂); 7.VI.1971 (1 ♀) B. BARNES; XI.1978 (3 ♂♂, 1 ♀) C. D. EARDLEY (PPRI); Silverton, 1.I.1962 (1 ♀) Empey Coll. (AMGS); Brummeria, 15.IX.1969 (1 ♀) M. W. STRYDOM; Roodeplaat dam, nr. Pretoria, 24.41S, 28.18E, 23.IX.1986 (2 ♂♂, 13 ♀♀); 16.IX.1986 (7 ♀♀); 9.IX.1986 (9 ♀♀); 1.X.1986 (1 ♀); J. S. DONALDSON; Pretoria, 25.45S, 18.12E, 17.I.1982 (1 ♀) B. GROBBELAAR (PPRI). KWAZULU-NATAL: Newcastle, 189[illegible?] (1 ♂, 1 ♀) A. E. HUNT; Mfongosi, III.1916 (1 ♀); IV.1916 (4 ♂♂); IV.-V.1934 (1 ♂) W. E. JONES (SAMC); Weenen, 2.840 ft., VIII-IX.1923 (1 ♂, 2 ♀♀) H. P. THOMASSET (PPRI); Hattingspruit, 21.I.1961 (1 ♀); 23.IX.1961 (1 ♂) Empey Coll. (PPRI); Drakensberge, Dragon Peaks Park, 29°02'S, 29°26'E, 9.XI.1993 (1 ♂); Itala Game Reserve, 27°30'S, 31°20'E, 8.XII.1995 (1 ♂) F. KOCH (MNHU). LIMPOPO: NE, Zoutp. Dist., VII-VIII.1916 (1 ♂) H. G. BREYER (TMSA); Rosslyn, 23.IV.1919 (1 ♂, 1 ♀) (PPRI); Potgietersrust, X.1919 (1 ♀) T. C. MELLE (SAMC); Pienaarsrivier, 11.IX.1975 (1 ♀) C. MOOLMAN & S. A. STEYNBERG (PPRI); Mogoto Nature Reserve, Zebediela, 24.15S, 29.13E, 22.-25.X.1979 (1 ♀); Ben Albert Nat. Res., Thabazimbi, 28.37S, 27.23E, 24.-28.XI.1980 (1 ♀) C. D. EARDLEY (PPRI); Duiwelskloof, 23.42S, 30.06E, 15.XII.1985 (1 ♀) J. S. DONALDSON (PPRI); Wolkberg, 24°02'S, 30°00'E, 12.-16.II.1997 (1 ♀); Soutpansberg, Lajuma, 23°02'S, 29°26'E, 22.-31.X.2004 (4 ♂♂, 1 ♀); 7.-14.III.2006 (1 ♀) F. KOCH, YP; Nylsley Nature Res., 24°39'S, 28°41'E, 22.-26.III.2006 (3 ♂♂) F. KOCH (MNHU). MPUMALANGA: Lydenburg (3 ♀♀) F. WILMS (MNHU); Barberton, IV.1911 (1 ♂) H. EDWARDS (SAMC); Piet Retief (1 ♂);

III.1918 (1 ♀) BRAUNS (TMSA); Pretorius Kop, 1.IV.1952 (1 ♀) L. VARI (HNHM); Waterval Onder, 6.X.1962 (1 ♂) Empey Coll.; Waterval Boven, 20.XI.1967 (1 ♀) E. BRINKMAN (PPRI); 10.-11.II.2000 (1 ♀) J. HALADA (OLML); Kruger Nat. Park, Onder Sabie, 2.VI.1969 (1 ♀) M. W. STRYDOM; Komatipoort, 3.VI.1969 (1 ♀) M. W. STRYDOM; Kruger Nat. Park, Skukuza, 24.59S, 31.55E, 18.VIII.1984 (1 ♀) L. E. O. BRAACK; Barberton, XII.1978 (1 ♀), C. D. EARDLEY (PPRI); Blyderevierspoort Nat. P. Canyon, 24°39'S, 30°50'E, 21.XI.1997 (1 ♀) F. KOCH (MNHU). NORTH WEST: Ottoshoop, IV.1916 (5 ♂♂) H. G. BREYER (TMSA); De Wildt, 25.47S, 28.01E, IV.1979 (1 ♂) C. D. EARDLEY (PPRI); Klerksdorp, Vaal Riv., 20 km W of Bothaville 12.I.2001 (1 ♀) M. SNIŽEK (OLML). **Swaziland:** (1 ♂) (ZSM). **Tanzania:** Kibosho, Katona (1 ♀) (HNHM); Ru Usomi, 2.600 m, 9.VI.1891 (1 ♀) STUHLMANN (MNHU); N.W. Tanganika, 1910 (1 ♀) GRAUER (MNHU); Kilimandjaro, 1905-06 (1 ♀) SJOESTEDT (NHRS). **Uganda:** Bussu Busonga, V.1909 (1 ♂) E. BAYON (MCSN); Ankole, Kichwamba, 23.-29.IV.1968 (1 ♂); 1.-5.V.1968 (1 ♀) P. J. SPANGLER (USNM). **Zimbabwe:** Salisbury, 21.II.1912 (1 ♀); 21.V.1913 (1 ♂) (SAMC); Umtali District, 8.IX.1931 (1 ♂) P. A. SHEPPARD (TMSA); Bulawayo, Hillside Dam, 18.X.1979 (1 ♂, 1 ♀); Bulawayo, Matsheamhlope, 9.II.1976 (1 ♀) D. K. B. WHEELER (NMBZ).

**Host plant.** Brassicaceae according to the examined material: élevage sur *Brassica* from Kivu: Uvira, 5.I.1960, G. MARLIER (1 ♀).

**Distribution.** Botswana, Burundi, Democratic Republic of Congo, Kenya, Lesotho, Malawi, Namibia, Rwanda, South Africa, Tanzania, Uganda, Zimbabwe (Fig. 11).

**Remarks.** *Athalia marginipennis* was misidentified and wrongly synonymised by BENSON (1962) with *A. sjoestedti* KONOW, 1907 (KOCH 2006). This error in synonymy is difficult to understand as *A. sjoestedti* is characterised by its conspicuously medially excised clypeus and is therefore ascribed to the *A. vollenhoveni*-group (KOCH 2006).

According to ENDERLEIN (1920) the syntype series comprised only four females. This material has been studied. Additionally, a further specimen which is labelled as "cotype" with the same data as the lectotype was also located. This last-mentioned female is identified as *A. truncata*, and cannot be regarded as a syntype in the true sense.

In a few cases, especially with specimens from eastern Africa, coxa<sub>3</sub> is more blackish and this may lead to confusion with *A. himantopus* which has a predominantly blackish striped coxa<sub>3</sub>. Further morphological differences to *A. himantopus* are discussed under that species. The males of both species are easily distinguishable by the shape of digitus.

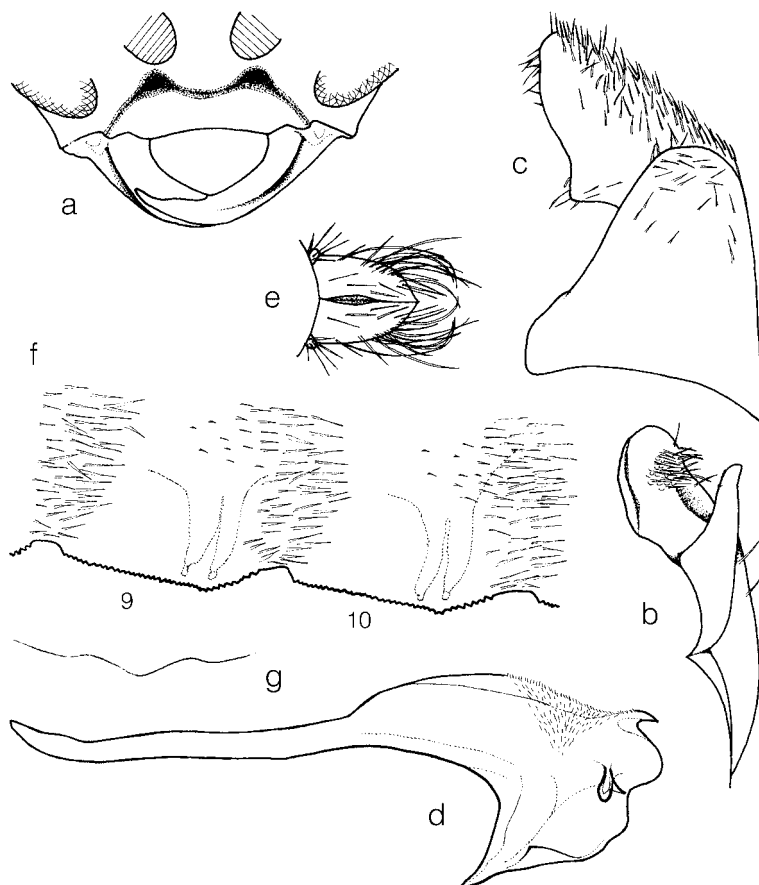
The small ventro-lateral glabrous patch on the mesopleuron of *A. marginipennis* is sometimes reduced or missing. The colour of the metascutellum varies from yellow through light brown to blackish, and the black median spots on tergum<sub>1</sub> may be very small or in very rare cases entirely absent (Namibia, Kaoko Otavi) and these specimens resemble *A. flavobasalis*. The morphological differences compared to *A. flavobasalis* are discussed under that species. The males of both species are easily distinguishable by the shape of digitus.

Furthermore, the variability of this species is apparent in the colouration of the metapleuron. The metapleuron is chiefly black with a yellow posterior margin, but in some specimens, especially from Botswana (Serowe), from South Africa (Roodeplaat and Pretoria), and from Namibia (Kaoko Otavi and Rundu) the colouration varies from black with yellow markings to entirely yellow, resembling *A. truncata*, but distinguishable on the shape of the digitus (Fig. 9b). Finally, in old material from Kaoko Otavi the bicoloration of the wings is faded, but examination of genitalia proves these specimens to belong to *A. marginipennis*.

The material from Burundi (Kisozi and Munanira) which was identified by Chevin (1985) as *A. himantopus truncata* Enslin has been examined and determined as *A. marginipennis*.

*Athalia marginipennis* is similarly widely distributed, like *A. truncata*, but more from East to South Africa. Very interesting is its old record in the Kaokoveld (Kaoko Otavi) from 1926. Although in the past 15 years the author has been working regularly in this area it was still not possible to report this species recently.

According to data on the label of the specimen from Swaziland, its locality is not nearer known, therefore the point on the distribution map is only approximately marked.



**Figure 6a-g:** *Athalia obsoleta* BENSON: (a) female, mouthparts with clypeus; (b) cuspis and digitus (left, inner lateral aspect); (c) parapenis and harpe (right, ventral aspect); (d) penis valve (left, lateral aspect); (e) sawsheath (dorsal aspect); (f) serrulae 9-10; (g) hypopygium (posterior margin).

***Athalia obsoleta* BENSON stat. n.**

*Athalia himantopus obsoleta* BENSON, 1962: 378.

**Type locality:** Ethiopia, Addis Ababa [Adis Abeba].

**Male.** Mandible dark brown, and broadly whitish at base; clypeus and labrum dirty whitish. Metepimeron black with narrow yellow posterior margin. Coxa<sub>1/2</sub> with basal half of lateral surface more or less blackish, coxa<sub>3</sub> with very small blackish spot at extreme base. Wings uniformly flavescent-hyaline throughout, apically slightly darker; costa, subcosta and stigma brown, venation of apical half yellowish-brown, venation of basal half yellow. Tergum<sub>1</sub> with two small blackish median spots.

Pubescence on head white. Antenna 1.5x as long as maximum head width, 8<sup>th</sup> flagellomere 1.0x as long as width. POL : OOL = 1.0 : 0.9-1.0. Malar space absent. Clypeus subtruncate, very slightly emarginated (Fig. 6a). IA : LC = 1.0 : 0.7-0.9. Pubescence on mesonotum dense and whitish, mesopleuron and mesosternum rather densely and white pubescent. Inner tibial spur of tibia<sub>3</sub> 1.1x as long as apical width of tibia<sub>3</sub>. Digitus very slender, pointed apically and scarcely hook-like in lateral view (Fig. 6b).

Length: 7.2-7.6 mm.

Parapenis and harpe (ventral aspect): Fig. 6c.

Penis valve: Fig. 6d.

**Female.** Colouration similar to that of male, except for: clypeus, labrum and base of mandible yellowish. Antenna 1.5x as long as maximum head width, 8<sup>th</sup> flagellomere 1.0x as long as width. POL : OOL = 1.0 : 0.9 (1.0 HT). MS : IA = 1.0 : 2.8-3.1 (3.1 HT). IA : LC = 1.0 : 0.7-0.8 (0.8 HT). Pubescence on head white, slightly yellowish behind lateral ocelli and on mesonotum; mesopleuron more or less densely whitish pubescent, mesosternum with a large conspicuous glabrous patch on each side. Inner tibial spur of tibia<sub>3</sub> 1.0x as long as apical width of tibia<sub>3</sub>. Sawsheath in dorsal view obtusely pointed apically (Fig. 6e).

Length: 7.5-10.0 mm

Serrulae 9-10: Fig. 6f.

Hypopygium: Fig. 6g.

**Type material. Holotype:** ♀: "Type" (red circle); "Damp spots by river"; "Ethiopia: Addis Ababa, 7,500 ft, 30.IX.1945, K. M. GUICHARD, B. M. 1945-30"; "Holotype, *Athalia himantopus obsoleta* subsp. n. ♀, det. R. B. BENSON. 1960"; B. M. Type, Hym. 1.771"; "Holotypus, teste: F. KOCH, 2002" (red); "*Athalia obsoleta* BENSON ♀, det. F. KOCH '02";

**Paratypes:** 8♂♂, 7♀♀: same data as holotype, except: 30.IX.-13.X.1945 (BENSON 1962) (BMNH).

**Other material examined. Ethiopia:** 1909 (2♀♀) ROSENBERG; Scioa, Let-Marefiä, VI-VII.1880 (MCSN); IV-VII.1881 (1♀) ANTINORI (UZMT); Scioa, L. Cialabaka, VI.1885 (1♀) RAGAZZI (MCSN); Bahar Dar, 27.X.1968 (1♂) K.W. & H. HARDE; VI-VII.1969 (1♀) SCHÄUFFELE (SMNS);

**Host plant.** Unknown.

**Distribution.** Ethiopia (Fig. 13).

**Remarks.** BENSON (1962) distinguished three geographical races including the nominotypical form with very few intermediates, and separated *A. himantopus obsoleta* together with *A. himantopus himantopus*, both with uniformly flavescent-hyaline wings, from *A. himantopus truncata* with bicoloured wings. According to BENSON'S (1962) key *A. himantopus himantopus* differs from *A. himantopus obsoleta* in having the mesosternum pubescent.

The type material of *A. himantopus obsoleta* was examined and corresponding to the two other species *A. himantopus* and *A. truncata* recognised as a valid species *A. obsoleta*.

In the colouration of the wings *A. obsoleta* is, in reality, similar to *A. himantopus*, but differs in having coxae<sub>3</sub> entirely yellow and a conspicuously slender and pointed digitus (Fig. 6b), this being apically subtruncate in *A. himantopus* (Fig. 4a). The mesosternum of the females of *A. himantopus* is mostly pubescent throughout, whereas in *A. obsoleta* two glabrous patches are apparent. Furthermore, the serrulae of *A. obsoleta* are flatter than those of *A. himantopus*. Finally, both species occur allopatrically with *A. obsoleta* occurring in eastern Africa (Fig.13) and *A. himantopus* in southern Africa (Fig.10).

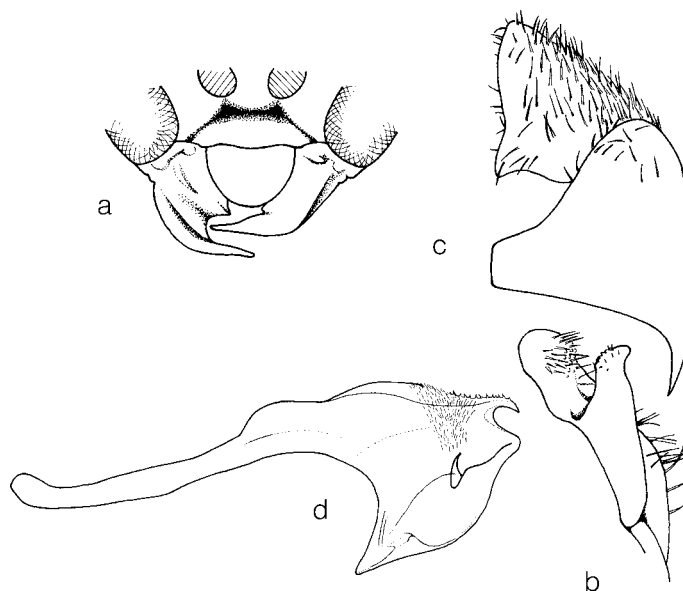
Currently, the variability of the species cannot be adequately assessed since specimens from localities other than the type locality in Addis Ababa [Adis Abeba] are scarce. Nevertheless, the variability of this species is apparent in the colouration of the metapleuron. It is predominantly black with a yellow posterior margin, but in some species, especially from Scioa and Bahar, the colouration varies from black with yellow markings to almost entirely yellow. The glabrous patches on the mesosternum may also be slightly hairy.

### *Athalia sidamoensis* sp. n.

**Male.** Mandible dark brown, becoming reddish-brown apically, and broadly whitish at base; clypeus whitish; labrum dirty whitish becoming light brown medially. Metascutellum light brown, metepimeron black with narrow yellow posterior margin. Coxa, narrow basally and lateral surface blackish, coxa<sub>2</sub> with blackish spot at base laterally, coxa<sub>3</sub> with very small blackish spot at extreme base. Wings uniformly infusate throughout, basally a touch darker; costa and subcosta brownish black, stigma and rest of venation brown. Tergum<sub>1</sub> entirely yellow.

Vertex and dorsal part of gena with light brown hairs, and ventral part of gena with white pubescens. Antenna 1.3x as long as maximum head width, 8<sup>th</sup> flagellomere 1.1x as long as width. POL : OOL = 1.0 : 1.0.





**Figure 7a-d:** *Athalia sidamoensis* sp. n.: (a) male, mouthparts with clypeus; (b) cuspis and digitus (left, inner lateral aspect); (c) parapenis and harpe (right, ventral aspect); (d) penis valve (left, lateral aspect).

Malar space absent. Clypeus very slightly elongated medially (Fig. 7a). IA : LC = 1.0 : 0.9. Pubescence on mesonotum dense and light brown, mesopleuron and mesosternum rather densely and white pubescent. Inner tibial spur of tibia<sub>3</sub> 1.1x as long as tibia<sub>3</sub>, apical width of tibia<sub>3</sub>. Digitus stout, in lateral view hook-like (Fig. 7b).

Length: 6.0 mm.

Parapenis and harpe (ventral aspect): Fig. 7c.

Penis valve: Fig. 7d.

**Female.** Unknown.

**Type material. Holotype:** ♂: "Ethiopia: Sidamo Province, Dilla, 38°18'E, 6°24'N, 4.000 m, 25.III.1974, V. O. DEMASI"; "*Athalia himantopus* (KL.), D. R. SMITH 77"; "Holotypus, *Athalia sidamoensis* ♂ sp. n., det.: F. KOCH 2006" (red) (CASC).

**Host plant.** Unknown.

**Distribution.** Ethiopia (Fig. 12).

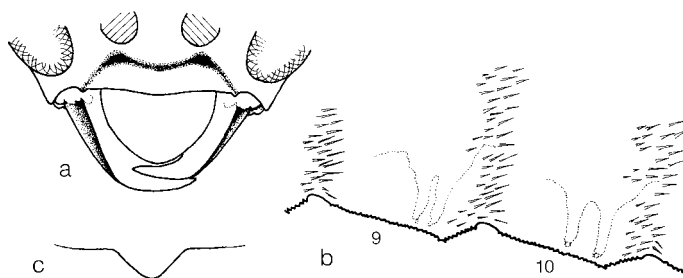
**Remarks.** *Athalia sidamoensis* is distinguished by its infusate wings from the other known species of the *A. himantopus*-group, except *A. taitaensis*. *Athalia taitaensis* differs from *A. sidamoensis* by the conspicuously more infusate wings and by the longer antennae (1.6x as long as maximum head width).

**Etymology.** This species is named after the Ethiopian province Sidamo as place of origin.

#### *Athalia taitaensis* sp. n.

**Female.** Anterior margin of clypeus dirty whitish; mandible black. Metascutellum light brown; metepimeron black with yellow margin. Coxa<sub>1/2</sub> with lateral surface black, coxa<sub>3</sub> with very small blackish spot at extreme base. Wings infusate throughout, basal half slightly darker, costa and subcosta black, stigma and remainder of venation blackish-brown. Tergum<sub>1</sub> entirely yellow.

Vertex and dorsal part of frons and gena with light brown hairs, ventral part of frons and of gena with white hairs. Antenna 1.6x as long as maximum head width, 8<sup>th</sup> flagellomere as long as width.



**Figure 8a-d:** *Athalia taitaensis* sp. n.: (a) female, mouthparts with clypeus; (b) serrulae 9-10; (c) hypopygium (posterior margin).

POL : OOL = 1.0 : 1.1 (HT, PT). MS : IA = 1.0 : 3.2 (HT, PT). Clypeus subtruncate, very slightly elongated medially (Fig. 8a); IA : LC = 1.0 : 0.8 (HT), 0.9 (PT). Pubescence on mesonotum dense and light brown, mesopleuron and mesosternum rather densely pubescent and pale. Inner tibial spur of tibia<sub>3</sub> 1.1x as long as apical width of tibia<sub>3</sub>.

Length: 8.3-8.8 mm.

Serrulae 9-10: Fig. 8b.

Hypopygium: Fig. 8c

**Male.** Unknown.

**Type material. Holotype:** ♀, “Kenya south, Taita Hills, Wundanyi, 5-10.IV.1997, leg. MAREK HALADA”; “Holotypus, *Athalia taitaensis* ♀ sp. n., det.: F. KOCH 2006” (red) (OLML).

**Paratype** 1 ♀: same data as holotype (MNHU).

**Host plant.** Unknown.

**Distribution.** Kenya (Fig. 12).

**Remarks.** With their wings entirely infuscate *A. taitaensis* and *A. sidamoensis* are conspicuously different from the other known species of this species-group.

The variability of this species is apparent in the small ventro-lateral glabrous patch on the mesopleuron and a larger one on each side of mesosternum of the paratype, whereas in the holotype the mesosternum is sparsely haired rather than having glabrous patches.

**Etymology.** The species epithet refers to the type locality, Taita Hills, in southern Kenya.

### *Athalia truncata* ENSLIN, stat. rev.

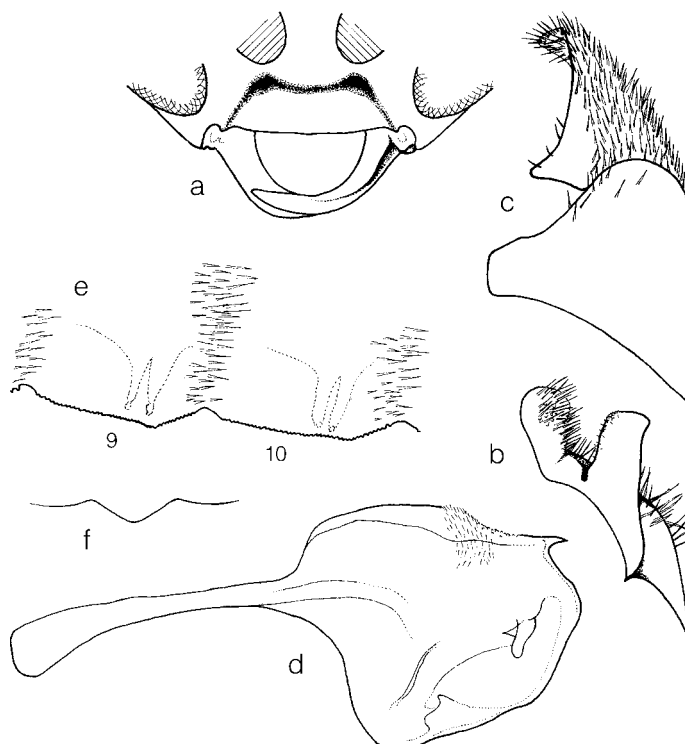
*Athalia truncata* ENSLIN, 1914: 300.

**Type locality:** Belgian Congo, Mufungwa [Democratic Republic of the Congo].

*Athalia himantopus truncata* BENSON, 1962: 377.

**Male.** Clypeus and basal half of mandible whitish, apical half reddish-brown; labrum light brown with yellow base; supraclypeal area light brown. Metepimeron entirely yellow. Coxa<sub>1</sub> narrow at base and lateral surface more or less blackish, coxa<sub>2</sub> with very small blackish spot at extreme base. Wings bicoloured, with basal half flavescens-hyaline and apical half slightly infuscate; costa and subcosta blackish, stigma and venation of apical half blackish brown, remainder of venation of basal half yellow. Tergum<sub>1</sub> entirely yellow.

Vertex and dorsal part of gena with light brown hairs, frons and ventral part of gena with white hairs. Antenna 1.5x as long as maximum head width, 8<sup>th</sup> flagellomere 1.0x as long as width. POL : OOL = 1.0 : 0.9-1.0 (0.9 HT). Clypeus truncate or very slightly elongated medially (Fig. 9a). IA : LC = 1.0 : 1.0-1.2 (1.0 HT). Malar space missing. Pubescence on mesonotum dense, light brown, mesopleuron and mesosternum rather



**Figure 9a-d:** *Athalia truncata* ENSLIN: (a) female, mouthparts with clypeus; (b) cuspis and digitus (left, inner lateral aspect); (c) parapenis and harpe (right, ventral aspect); (d) penis valve (left, lateral aspect); (e) serrulae 9-10; (f) hypopygium (posterior margin).

densely and palely pubescent. Inner tibial spur of tibia, 1.2x length of apical width of tibia<sub>3</sub>. Digitus stout, in lateral view broadly subtruncate apically (Fig. 9b).

Length: 6.8-7.8 mm.

Parapenis and harpe (ventral aspect): Fig. 9c.

Penis valve: Fig. 9d.

**Female.** Colouration similar to that of male, except for base of mandible, clypeus and base of labrum dirty yellow; supraclypeal area brown. Metascutellum light brown. Antenna 1.5x as long as maximum head width, 8<sup>th</sup> flagellomere 0.8x as long as width. POL : OOL = 1.0 : 0.8-0.9. MS : IA = 1.0 : 2.8-3.2. IA : LC = 1.0 : 1.0-1.1. Inner tibial spur of tibia, 1.1 x as long as apical width of tibia<sub>3</sub>. Pubescence on mesonotum similar to that of male, mesopleuron more or less densely and palely pubescent with a small ventro-lateral glabrous patch, mesosternum with a large conspicuous glabrous patch on each side.

Length: 7.5-8.3 mm.

Serrulae 9-10: Fig. 9e.

Hypopygium: Fig. 9f.

**Type material. Lectotype:** ♂, "Type" (red); "Mufungwa, 17.XII.11"; "*Athalia truncata* ENSLIN ♂, Dr. ENSLIN det."; "Lectotypus, des.: F. KOCH, 2006" (red); "*Athalia truncata* ENSLIN ♂, det. F. KOCH '06" (ZSM).

**Paralectotypes:** 3♂♂, 1♀: same data as lectotype (2♂♂, 1♀) (DEI, UZMT, ZSM); Musée du Congo, Mufungwa, Sampwe, 17.XII.1911, Dr. BEQUAERT (1♂) (MRAC).

The designation of the lectotype is necessary, because the application of names in the *A. himantopus*-group is very confused. In good condition.

**Other material examined.** **Comoros:** La Grille (Guiri), 850-900m, 14.XI.1973 (1 ♂); 15.XI.1973 (1 ♀); L. MATILE (LACOURT). **Democratic Republic of the Congo:** Congo da Lemba, I.1913 (1 ♀) R. MAYNÉ (MRAC); Rutshuru, 13.XII.1937 (1 ♂) J. GHESQUIERE (ISNB); P. N. U., Kilwezi, 16.-21.VIII.1948 Mis. G. F. DE WITTE, 1790a (1 ♂); P. N. U., Masombwe, 1.120 m., 4.-16.X.1948, Mis. G. F. DE WITTE, 1873a (1 ♀); P. N. U., Kiamokoto-Kiwakishi, 1.070 m, 4.-16.X.1948, Mis. G. F. DE WITTE, 1886a (1 ♂) (ISNB); Katanga, Luano terr., Elisabethville, 14.X.1955 (1 ♀) M. LIPS; Katanga, Luebe, VIII, IX.1956 (1 ♀) R. P. T. DE CATER (MRAC). **Malawi:** Mlanje, 23.IV.1913 (1 ♀); 12.VII.1913, (1 ♂) S. A. NAEVE (UZMT). **Tanzania:** Nyassa-See, Wiedhafen, 20.I.-5.II.1899 (1 ♀) FÜLLEBORN (MNHU); Katona, inter Marti et Arusha, I.1906 (1 ♀) (HNHM); Sigi, 19.XI.1905 (1 ♂); Kisuani, 15.I.1906 (1 ♂) SCHRÖDER, S. V. (MNHU); (paratype of *Athalia marginipennis*) Nyembe-Bulungwa, 1914 (1 ♀) HAMMERSTEIN (ZMPA); Songea, Litembo, 1.500 m, 18.XI.1958 (1 ♀) C. LINDEMANN (ZSM); East Usambara Mts., Amani, 1.000 m, 10.VII.1980, (1 ♀); Mt. Rungwe, 1.900 m, 20.VIII.1980 (1 ♀) M. STOLTZE & N. SCHARFF (ZMUC). **Zambia:** I.II.-1.IV.1945 (1 ♀) W. EICHLER (ZMPA). **Zimbabwe:** Salisbury (1 ♀) D. DODDE (SAMC); Salisbury, 21.II.1912 (1 ♂) (UZMT); Salisbury, 18.XI.1918 (1 ♀) (SAMC); Umtali, 26.XII.1953 (1 ♀); Trelawney, 27.I.1954 (1 ♂) N. J. MYERS (AMGS); Mount Selinda, Chirinda Forest, Melsetter, 22.IX.1973 (1 ♂) PINHEY-GODEMOOR; Bembezi, 25.IX.1974 (1 ♀) L. HENNEBERG; Umtali, 4.XI.1981 (1 ♂, 2 ♀♀); 18.I.1982 (1 ♀); D. K. W. WHEELER (NMBZ, MNHU); Nyanga N. P., Pungwe Fall, 18°27'S, 32°47'E, 11.XI.1997 (1 ♂) F. KOCH (MNHU).

**Host plant.** Larvae on *Nasturtium* sp. (Brassicaceae), A. J. M. CARNEGIE (in litt.) (BENSON 1962: 377).

**Distribution.** Comoros, Democratic Republic of the Congo, Malawi, South Africa, Tanzania, Zambia, Zimbabwe (Fig. 13).

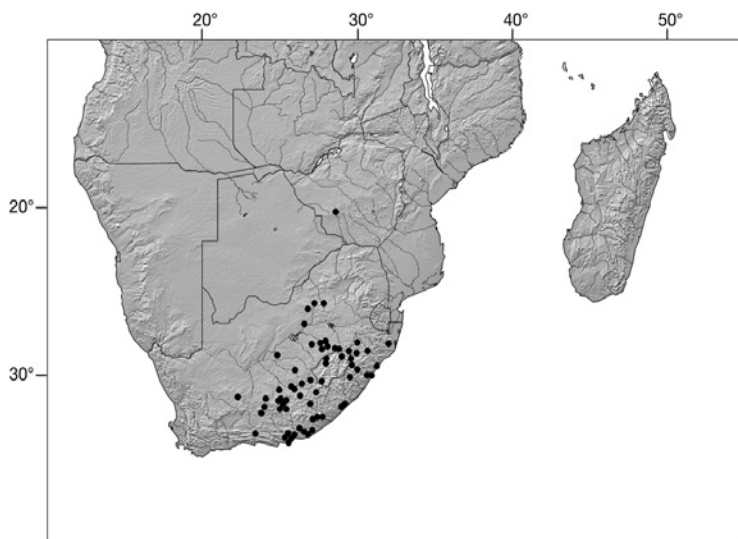
**Remarks.** BENSON (1962) considered *A. truncata* with its bicoloured wings to be a geographical race of *A. himantopus*, and erected the new subspecies *A. himantopus truncata* to accommodate it. But the bicolouration of wings is typical for three different species, which are *A. marginipennis*, *A. flavobasalis* and *A. truncata*. Based on this misinterpretation BENSON (1962) has given partly false distributional data for *A. truncata*. The actual range of *A. truncata* appears to be considerably more limited than was described by BENSON (1962), who reported the species additionally from Egypt, Sudan, Ethiopia, Kenya and Uganda. He further mentioned a record for Natal (South Africa), which is somewhat doubtfully.

According to ENSLIN (1914) the original syntype series comprised seven specimens (6 ♂♂, 1 ♀). Five of these have been examined and are recognised the valid species *A. truncata*, which is separable from *A. himantopus* on the basis of the entirely yellow metepimeron and tergum<sub>1</sub>. One male paralectotype (MRAC) is labelled as "Holotypus" (red), but in the description by ENSLIN (1914) does not indicate which specimen was the holotype. The label was probably added later, and is therefore invalid.

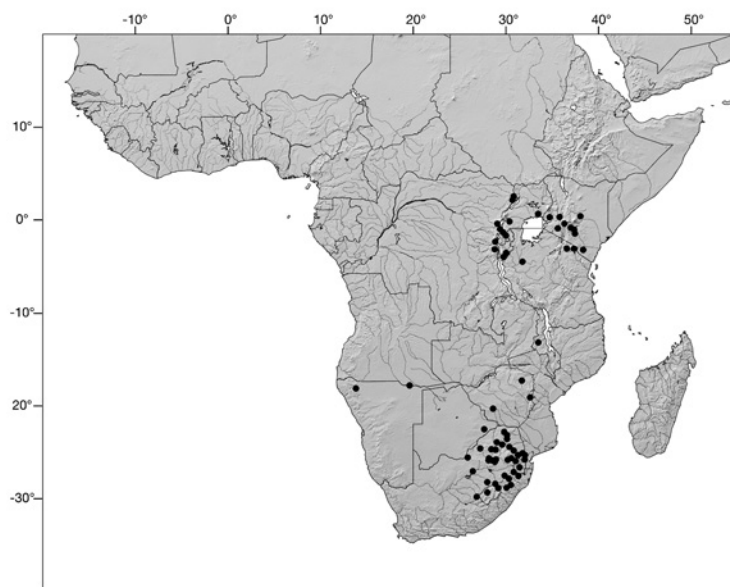
*Athalia truncata* distinctly differs from other species with bicoloured wings and in having the metepimeron yellow. Only in two of the specimens examined (i.e. the mislabelled holotype from Mufungwa and one female from Umtali) is the metepimeron partly black-spotted. Also the colour of the supraclipeal area varies from entirely black to whitish, and in rare cases, the clypeus has only a narrow light brown anterior margin. Furthermore, the blackish spot at the base of coxa<sub>2</sub> is sometimes variable in size, but never larger than the length of half a coxa. Conversely, according to ENSLIN (1914) terga<sub>7/8</sub> of males are brown coloured, but in reality these are yellow; the seemingly brown colouration being an artefact resulting from preservation.

Moreover, the variability of females is discernable in the pubescence of the mesopleura and mesosternum. In some female specimens the small ventro-lateral patch on the mesopleuron is scarcely visible. Especially in a female from Katona [Tanzania] the mesopleuron is evenly pubescent and the mesosternum is sparsely haired rather than having glabrous patches.

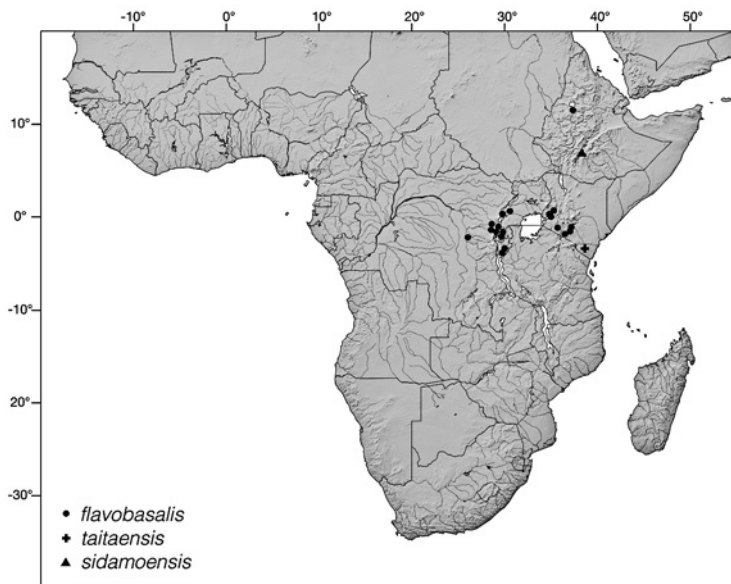
The male of *A. truncata* is easily distinguished from those of all other species by the conspicuously subtruncate apex of the digitus.



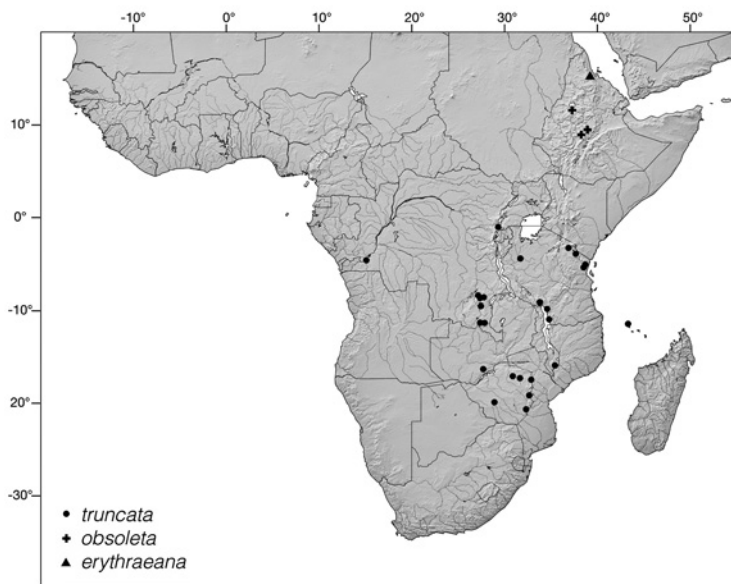
**Figure 10:** Distribution of *Athalia himantopus* KLUG.



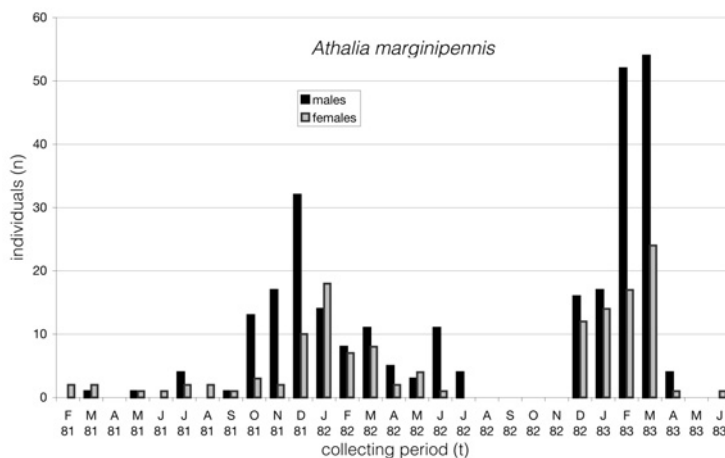
**Figure 11:** Distribution of *Athalia marginipennis* ENDERLEIN.



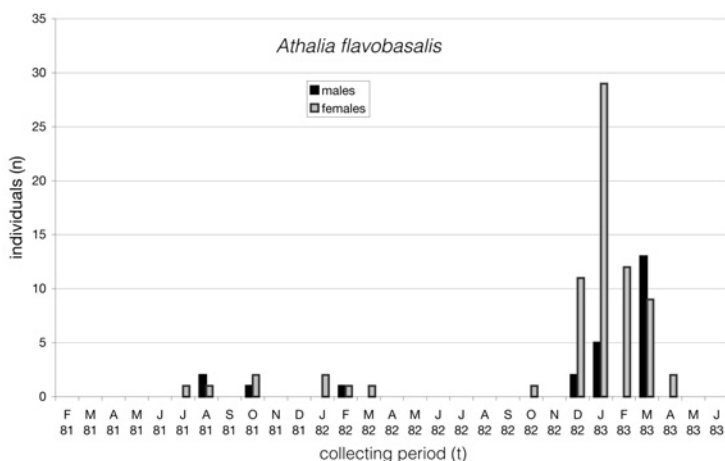
**Figure 12:** Distribution of *Athalia flavobasalis* sp. n., *A. sidamoensis* sp. n. and *A. taitaensis* sp. n.



**Figure 13:** Distribution of *Athalia erythraeana* sp. n., *A. obsoleta* BENSON and *A. truncata* ENSLIN.



**Figure 14:** Phenological analysis of *Athalia marginipennis* ENDERLEIN at Munanira, Burundi, February 1981 to June 1983.



**Figure 15:** Phenological analysis of *Athalia flavobasalis* sp. n. at Munanira, Burundi, February 1981 to June 1983.

### Phenology

The phenology of Afrotropical sawflies is very poorly understood, due principally to the fact that many species do not lend themselves to such studies, being either rare, or infrequently sampled. To date, only two studies provide information on the phenology of a few African species of the genus *Athalia* (CHEVIN 1985, KOCH 2003).

The phenological results presented by KOCH (2003) was based on material collected by F. W. GESS from November 1971 to March 1972, using Malaise traps at two localities near Grahamstown in the Eastern Cape Province, South Africa. During the course of this study four species of *Athalia* were sampled, being: *A. mashonensis* ENSLIN, 1911, *A. himantopus* KLUG, 1834, *A. guillarmodi* BENSON, 1956 and *A. gessi* KOCH, 2003; the last named being the most commonly sampled species with 806 individuals (404 ♂♂, 402 ♀♀).

CHEVIN (1985) was the first to publish on sawfly catches from yellow pan traps in potato fields. This study was based on material from two localities, Munanira and Kisozi, in Burundi, and sampling was conducted between April 1981 and April 1983. Most of the total sawfly material (3.964 specimens) originated from Munanira, the remainder (122 specimens) from Kisozi. *Athalia* spp. represented 94.9 % of the total 4.086 sawflies recorded in the study.

This material was examined as part of the on-going revision of Afrotropical Symphyta (KOCH in prep.), and it should be noted that some of species used in this study were incorrectly identified, while others require re-assessment. For example, CHEVIN's (1985) species *A. concors* KONOW, 1908, in fact represents a new species; the commonest species in the study, *A. pluto* BENSON, 1961, is in reality *A. clavata* KONOW, 1907; and *A. segregis* KONOW, 1907, represents *A. melanopoda* ENSLIN, 1912 (KOCH 2006). Furthermore, the use of the combination *A. himantopus truncata* ENSLIN (BENSON 1962) is invalid and within the scope of this revision the specimens referred to by CHEVIN (1985) are identified as *A. marginipennis* ENDERLEIN.

In total 498 individuals, that were determined by CHEVIN (1985) as *A. himantopus truncata* were examined. Finally 402 individuals (267 ♂♂, 135 ♀♀) represent *A. marginipennis* and 96 individuals (24 ♂♂, 72 ♀♀) represent the new species *A. flavobasalis*.

A phenological analysis of *A. marginipennis* (as *A. himantopus truncata*) is provided by CHEVIN (1985), but quantitative information on the phenology of the different sexes is not provided. Both the graph illustrating activity density per month (CHEVIN 1985: 207, Fig. 17) and the re-assessed results outlined here (Figs 14, 15) are in quantity approximately congruent, despite the fact that *A. himantopus truncata sensu* CHEVIN (1985) represents two species, *A. marginipennis* (Fig. 14) and *A. flavobasalis* (Fig. 15).

According to this results presented here, both *A. marginipennis* and *A. flavobasalis* appear to be univoltine species (Figs 14, 15), with the activity peaks for *A. marginipennis* in December 1981 (42 individuals) and March 1983 (76 individuals), whereas for *A. flavobasalis* only one clear activity peak is apparent in January 1983 (34 individuals).

Furthermore, the main flight period of *A. marginipennis* in 1981/82 (Fig. 14) covered a period of about 10 months with a second smaller peak of activity in June 1982 (12 individuals), and thus, it was in contrast to 1983 distinctly longer, whereas in 1983 the flight season was with 5 month from December 1982 to April 1983 with a clear activity peak in March very short and the number of specimens reduced drastically in April (5 individuals).

In 1982/83 the flight activity of *A. flavobasalis* was also brief; five month from December 1982 to April 1983, with the peak of activity density in January (Fig. 15). In contrast, during the flight season of 1981/82, *A. flavobasalis* was verifiable with very few specimens over 9 month, with a gap of activity in September and November/December and without a clearly-defined peak of activity.

The results of the fluctuation of sex ratios for *A. marginipennis* (Fig. 14) and *A. flavobasalis* (Fig. 15) are also distinctly different. In almost all sampled months, excepting January and May 1982, males of *A. marginipennis* are prevalent over females. This prevalence is especially conspicuous during the peak of activity in December 1981 (32 ♂♂ : 10 ♀♀; ratio: ♂ : ♀ = 3.2 : 1.0), June 1982 (10 ♂♂ : 1 ♀; ratio: 10.0 : 1.0) and March 1983 (54 ♂♂ : 24 ♀♀; ratio: 2.3 : 1.0). For *A. flavobasalis* a reversed sex ratio was found during the flight period of 1983, except March (13 ♂♂ : 9 ♀♀; ratio: 1.4 : 1.0). During the remainder of the sampling period, especially during the activity peak in January, females were more prevalent than males (5 ♂♂ : 29 ♀♀; ratio: 1.0 : 5.8).

It should be noted, however, that reliable sex ratios for sawflies cannot be determined through the use of yellow pan traps alone. Nevertheless, the observed changes in the prevalence of different sexes may, provide valuable contributions to the knowledge of the autecological behaviour of sawflies. Further detailed studies of the phenology of African sawflies need to be undertaken before a clearer picture can be drawn of flight periodicity, but the results presented here give some baseline data for further studies.

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### Zusammenfassung

Die *Athalia himantopus*-group wurde revidiert. Ein Bestimmungsschlüssel für die bekannten 8 afrotropischen Arten wird vorgelegt. Die Arten dieser Gruppe sind durch den kurzen und mehr oder weniger abgestutzten Clypeus gekennzeichnet. Vier Arten werden redeskribiert und vier für die Wissenschaft neue Arten (*Athalia erythraeana* **sp. n.**, *A. flavobasalis* **sp. n.**, *A. sidamoensis* **sp. n.** and *A. taitaensis* **sp. n.**) werden beschrieben. Die Unterarten *A. himantopus truncata* ENSLIN, 1914 und *A. himantopus obsoleta* BENSON, 1962, werden als valide Arten *A. truncata* ENSLIN **stat. rev.** and *A. obsoleta* BENSON **stat. n.** erkannt. Die von Ostafrika bis ins südliche Afrika verbreitete *Athalia marginipennis* ENDERLEIN, 1920 **sp. rev.** ist kein Synonym von *A. sjoestedti* KONOW, 1907, sondern eine valide Art. Für die Arten *A. flavobasalis* und *A. marginipennis* wird die Phänologie dokumentiert, basierend auf Material, das mit Gelbschalen von Februar 1981 bis Juni 1983 in Munanira, Burundi, gesammelt wurde. Alle Arten sind abgebildet, ihre Verbreitung und Verwandtschaft werden diskutiert.

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