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TWO NEW SPECIES OF *ADELOPYGA* FROM AFRICA

(Hymenoptera Chrysididae)

Introduction

The chrysidid tribe Elampini comprises a number of genera representing a few highly modified species. In eastern hemisphere these genera are: *Prochridium* (1 species from Egypt), *Haba* (2 species from Kazakhstan, 1 species from Tunisia), and *Adelopyga* (1 species from Oman) (KIMSEY & BOHART, 1990). The two new species here described can be quite well included in the genus *Adelopyga* Kimsey, 1987. The male genitalia supports the validity of genus *Adelopyga*, while the collecting sites suggest a distribution in the subsaharan arid regions at the transition between the Palaearctic and the Afrotropical regions.

The following abbreviations are used: F = flagellomere, MOD = midocellus diameter, PD = puncture diameter, Rs = forewing radial sector, T = gastral tergum, and S = gastral sternum.

***Adelopyga oisteini* n. sp.**

Holotype ♂ Body length 3.2 mm. Face flat with scapal basin transversely ridged, with a median vertical line, and without pubescence. Frons with shallow punctures $0.3 \approx 0.5$ MOD in diameter and $0.2 \approx 0.6$ PD apart. Malar space 1 MOD long, genal carina absent (fig. 1a). Antennae: scape metallic green, pedicel and flagellomeres non metallic dark brown. FI shorter than pedicel: relative lengths of P/FI/FII = 1.45/1.2/1.0, FIII and followings nearly as long as broad (fig. 1b).

Pronotum short and strongly converging anteriorly, regularly punctate (PD ≈ 0.5 MOD and $0.4 \approx 0.8$ PD apart) with a smooth stripe, about 1.0 PD in width, at the posterior border. Punctures on mesonotum as on pronotum, larger on scutellum, $0.7 \approx 0.8$ MOD in diameter and $0.25 \approx 1.0$ PD apart, and on metanotum, 1.0 MOD in diameter and $0.1 \approx 0.2$ PD apart. Lateral angles of propodeum triangular and punctate.

Head and thorax dorsum green with gold effulgence on vertex, pronotum, mesonotum and scutellum. Mesopleuron green, coarsely punctate, $0.8 \approx 1.0$ MOD in diameter and $0.1 \approx 1.0$ PD apart, without evidence of episternal sulcus. Tegulae non metallic brown. Anterior wings as in fig. 1c, the medial cell is setose and the Rs length is less than $1/3$ of stigmal length, posterior wing without veins and with 6 hamuli.

Tibiae with metallic green shining on external side, non metallic brown on the internal one. Femora, and tarsi non metallic brown. Tarsal claws with a single sub parallel tooth, apical tarsomeres curled, appearing prehensile.

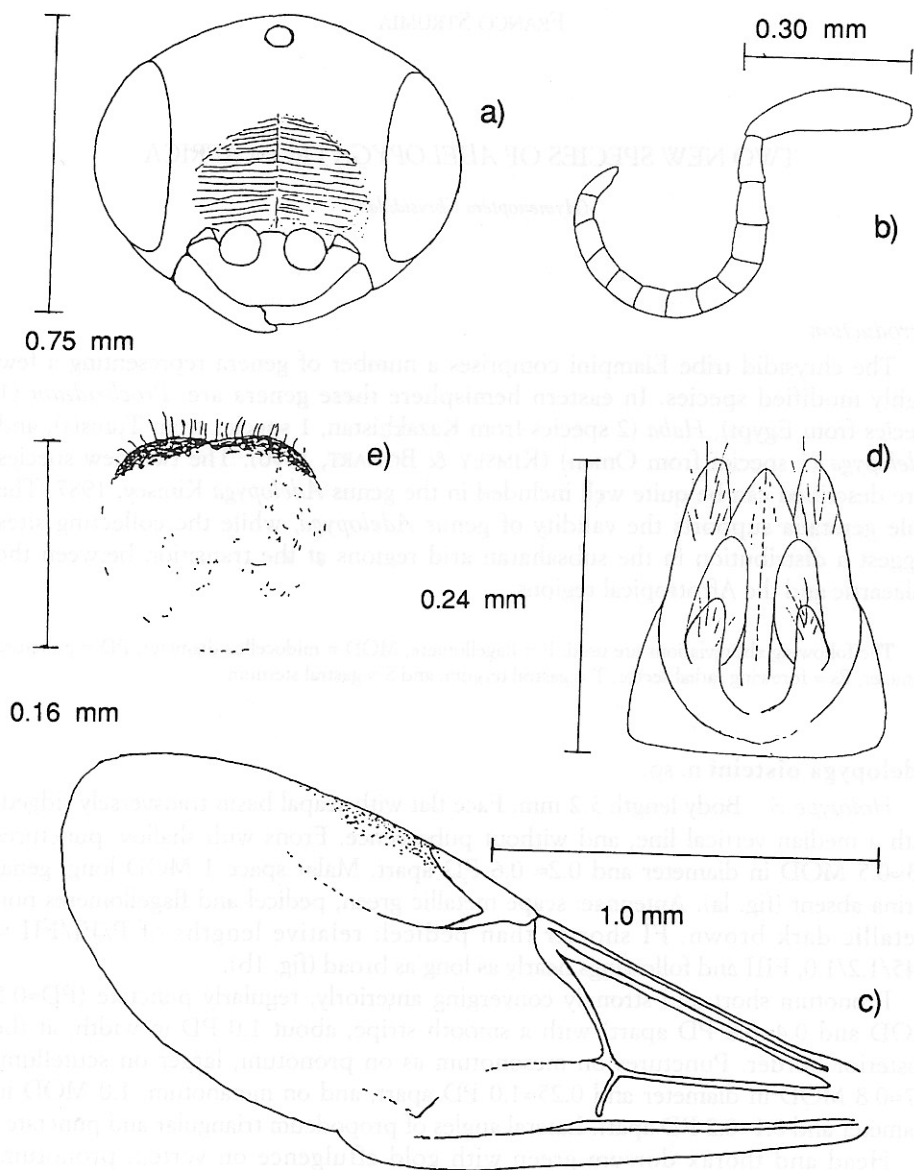


Fig. 1 *Adelopyga oisteini* n. sp.: a. head, frontal view, b. antenna, c. fore wing, d. male genitalia, ventral view, e. SVIII.

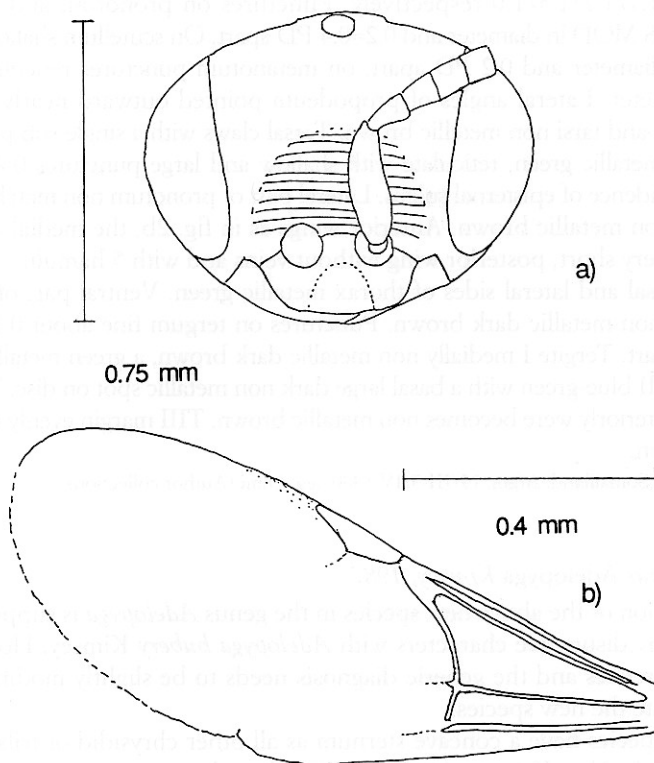


Fig. 2 - *Adelopyga afgoiensis* n. sp.: a. head, frontal view, b. fore wing.

Tergum finely and regularly punctate (punctures 0.25 MOD in diameter and 0.2-0.5 PD apart). A non metallic and smooth stripe on posterior margin of TII and TIII, the width about 2 PD. TIII with a non metallic brown stripe on the central half of the posterior margin, which is evenly rounded and without incisure or teeth.

Male genitalia, in ventral view, and SVIII are shown in fig. 1d and 1e respectively.

♀ unknown.

Holotype ♂ - Mali: Yelimane, 9.IX.1989, leg. K. Fiskvatn, P. Krokene, and B. Johannessen (Author collection).

***Adelopyga afgoiensis* n. sp.**

Holotype ♀ Body length 2.0 mm. Face nearly flat with scapal basin finely and transversely ridged and with a few punctures close to eyes margin, without pubescence. Frons with punctures about 0.5 MOD in diameter and 0.4 to 1.0 PD apart. Malar space I MOD long. FI as long as FII and shorter (0.8) than Pedicel, other flagellomeres as long as broad (fig. 2a).

Length of head in dorsal view, pronotum, mesonotum, scutellum, and metanotum in the ratio 2.3/1.7/1.7/1.3/1.0 respectively. Punctures on pronotum and mesonotum shallow, $0.5 \approx 0.8$ MOD in diameter and $0.2 \approx 0.4$ PD apart. On scutellum shallow punctures 1.0 MOD in diameter and 0.2 PD apart, on metanotum punctures reticulated and 1.5 MOD in diameter. Lateral angles of propodeum pointed outward nearly orthogonal. Femora, tibiae, and tarsi non metallic brown. Tarsal claws with a single sub parallel tooth. Mesopleuron metallic green, reticulate with shallow and large punctures $0.7 \approx 1.0$ MOD, and without evidence of episternal sulcus. Lateral part of pronotum non metallic wrinkled.

Tegulae non metallic brown. Anterior wings as in fig. 2b, the medial cell is setose and the Rs is very short, posterior wing without veins and with 5 hamuli.

Head, dorsal and lateral sides of thorax metallic green. Ventral part of thorax and gastral sterna non metallic dark brown. Punctures on tergum fine about 0.3 MOD and $0.1 \approx 0.4$ PD apart. Tergite I medially non metallic dark brown, a green metallic shining in Lateral view. TII blue-green with a basal large dark non metallic spot on disc. TIII strongly converging posteriorly were becomes non metallic brown. TIII margin evenly rounded.

♂ unknown.

Holotype ♂ Somaliland: Afgoi, 15/III-5/IV.1980, leg. Olmi (Author collection).

REFERENCES

Revision of genus Adelopyga Kimsey, 1987

The inclusion of the above new species in the genus *Adelopyga* is supported by the sharing of many distinctive characters with *Adelopyga huberi* Kimsey. However there are a few differences and the generic diagnosis needs to be slightly modified in order to accommodate the new species.

The new species have a concave sternum as all other chrysidid of tribes Elampini and Chrysidini. Also KIMSEY (1987) noted that the apparent convexity in his specimens could be an artifact produced by preservation in liquid, and not a distinctive and peculiar morphological character.

All the tarsal claws of *oisteini* n.sp. and *afgoiensis* n. sp. have one subparallel tooth, and all the apical tarsomeres are curled, appearing prehensile. In *huberi* Kimsey such a features are restricted to the mid and hind tarsal claws, and to the fore and mid tarsomeres respectively.

In *oisteini* n.sp. and *afgoiensis* n. sp. the pedicel is longer than the flagellomeres, but FI is not shorter than FII as in *huberi* Kimsey.

In *huberi* Kimsey and *afgoiensis* n. sp. the fore wing Rs is very short, while in *oisteini* n. sp. is longer being nearly $1/3$ of stigma length. However, it is possible that a longer Rs will turn out to be a sexual dimorphism when both sexes of the same species will become available. An exclusive character of *huberi* Kimsey is the presence of pale markings on the legs.

In conclusion the three species can be grouped in a single genus with enough shared characters and well distinct from the others of tribe Elampini. The genus validity is also supported by the male genital capsule. The most distinctive trait is the volsella with both digitus and cuspis large and rounded apically, the digitus longer than cuspis. The closest affinity of male capsule is with the genus *Xerochrum* Bohart, 1980 (Nearctic), and the genus *Haba* Semenov, 1954 (Palearctic). As for the general

resemblance the closest genus is *Haba*, however this has several distinctive features: face with scattered erect setae, medial vein strongly arched, Rs longer than 1/3 of stigma length, FI not shorter than Pedicel. All the known species are also of larger size: length 4≈5 mm (see also LINSENMAIER, 1959: 47). Another possible distinctive character at genus level is the number of hamuli on the hind wing anterior margin. In *Adelopyga* the number is reduced (5≈6) as in *Prochridium* (4), while in other Elampini genera the number is larger, typically 6≈15.

The couplets of KIMSEY & BOHART (1990: 149) must be a little modified as follows to include the newly described species:

4. Fore wing Rs reduced, less than 1/4 length of medial vein	5
Fore wing Rs one-half or more as long as medial vein	7
5. Fore wing venation restricted to basal third of wing, face without discrete scapal basin, western North America	<i>Microchrydium</i> Bohart
Fore wing venation extending over half wing length, scapal basin clearly indicated	6
6. Scapal basin clearly indicated, polished and impunctate; western North America ...	<i>Minimischa</i> Kimsey
Scapal basin clearly indicated, wrinkled or striate medially, pedicel longer than FI, Africa and Arabic Peninsula	<i>Adelopyga</i> Kimsey

REFERENCES

- KIMSEY L. S., 1987 An unusual new genus of Chrysididae from Oman (Hymenoptera) *Psicbe*, 94: 333-335.
- KIMSEY L. S. & Bohart R.M., 1990 The Chrysidid wasps of the World *Oxford*, 652 pp.
- LINSENMAIER W., 1959 Revision der Familie Chrysididae - *Mitt. Schweizerischen Ent. Gesell.*, 32: 1-240.

ABSTRACT

The genus *Adelopyga* Kimsey was described upon a two female specimens from Oman, *Adelopyga huberi* Kimsey, 1987. Here we describe two new species *A. oisteini* n. sp. from Mali and *A. afgoiensis* n. sp. from Somaliland. The holotype of the first being a male, the male genitalia of the genus are described for the first time. The generic placement of the new species is discussed and the distinctive characters of the genus *Adelopyga* are critically reviewed.

RIASSUNTO

Due nuove specie di Adelopyga dell'Africa (Hymenoptera Chrysididae).

Vengono descritte due nuove specie di Chrysididae africani che risultano appartenere al genere *Adelopyga* Kimsey, 1988, e precisamente *A. oisteini* n. sp. del Mali e *A. afgoiensis* n. sp. della Somalia. Precedentemente il genere era noto solo per due esemplari femminili di *A. huberi* Kimsey, 1988 dell'Oman. Per la prima volta vengono descritti i genitali maschili che mostrano l'affinità con i generi *Xerochrum* Bohart, 1980 (Nearctico), ed *Haba* Semenov, 1954 (Palearctico). I nuovi ritrovamenti estendono la distribuzione geografica di *Adelopyga* alla fascia arida subsahariana.