

Beitr. Ent.	Berlin	ISSN 0005 – 805X
50 (2000) 1	S. 175 – 177	11.04.2000

## A new species of *Allocoelia* MOCSÁRY, 1889 from South Africa (Hymenoptera: Chrysididae)

With 1 figure plate

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### Summary

*Allocoelia kuhlmanni* nov. spec. is described from South Africa. The new species belongs to the *glabra* group. Drawings of the lateral propodeal tooth and the genital capsule are included in the description. The phylogenetic relationships of the new species are discussed.

### Zusammenfassung

*Allocoelia kuhlmanni* nov. spec. wird aus Südafrika beschrieben. Die neue Art gehört zur *glabra*-Gruppe. Die Beschreibung wird durch Zeichnungen des lateralen Propodealzahns und der Genitalkapsel ergänzt. Die phylogenetischen Beziehungen der neuen Art werden diskutiert.

### Introduction

*Allocoelia* is a small genus of chrysidid wasps restricted to Southern Africa. As far as it is known the members are nest parasites of Masaridae (KIMSEY & BOHART 1991). The genus has recently been revised in detail by KIMSEY (1986). According to her work, there are 9 species which share between 3 species groups: the *capensis* group, the *quinquedens* group, and the *glabra* group. A new species of the latter is described in the present paper.

### Terminology and abbreviations

In order to enable a direct comparison with the descriptions and diagnostic features given by KIMSEY (1986), I have adopted her terminology and description scheme. The used abbreviations correspond to that of KIMSEY & BOHART (1991); the following are used: F = flagellomere, M = media, MOD = midocellus diameter, P = pedicellus, Rs = radial sector, S = gastral sternum, T = gastral tergum.

### *Allocoelia kuhlmanni* spec. nov.

#### Material

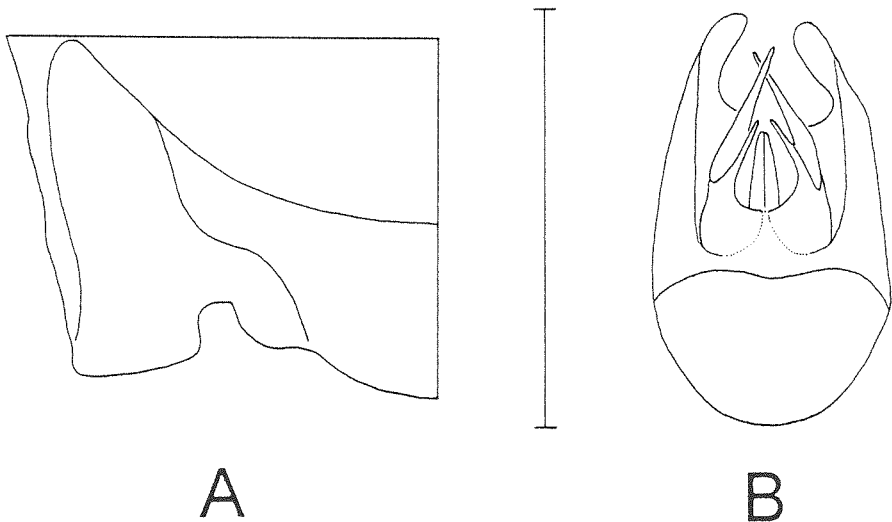
Holotype: South Africa, 40km SW Springbok (29°56'S/17°38'E), 29.09.1997, leg. M. KUHLMANN. The type is deposited in the collection of the Museum of Natural History (Transvaal Museum), Pretoria, South Africa.

**Ethymology:** The specific epithet is derived from and dedicated to Dr. MICHAEL KUHLMANN who caught the holotype of the new species; a noun in the genitive case.

**Description: Male**

Body length 4mm. Head and thorax black, except apical part of clypeus, tips of mandibles, posterior third of pronotal collar, and most of the lateral pronotal lobe hyaline brown, posterior margin of scutellum, posterior margin of metanotum and legs dark brown, but coxae and femorae of front legs almost black. T-I red, with a blackish spot at the sloping base and a whitish border in the posterior part. T-II red, becoming yellow at the apical margin. S-I red, S-II, and S-III dark brown. Malar space 1.0 MOD long. Relative lengths of P / F-I / F-II are 1.0 / 0.8 / 0.6. F-III and the following flagellomeres somewhat shorter than broad. Pronotum without anterolateral carinae, anterior corners with a very small acute angle. Mesopleuron without scrobal groove. Propodeal tooth deeply notched posteriorly; its posterior margin more than two times broader than the depth of the notch, straight and parallel to the anterior margin of T-I. Dorsal surface of propodeal tooth polished and almost impunctate (fig. 1A). Propodeal enclosure punctate. Forewing without Rs+M; Rs short, less than one-third of the stigmal vein length. T-II with narrow apical platform and a basolateral convexity, the apical margin very feebly serrated. Genital capsule as in fig. 1B.

**Diagnosis:** A typical member of the *glabra* group. Separated from *A. glabra* EDNEY, 1947, and *A. trautmanni* BRAUNS, 1928, by smaller size (4mm compared with 6.0 - 7.7mm in *glabra* and 6.0 - 6.5mm in *trautmanni*, respectively), larger malar space (1 MOD compared with 0.3 MOD) and different coloration of gaster (posterior part of T-I whitish compared with black in *glabra* and an entirely black gaster in *trautmanni*). Similar to *A. mocsaryi* (BRAUNS, 1903), whose type I studied, but in *A. kuhlmanni* the posterior margin of the lateral propodeal tooth is more than two times broader than the depth of the notch (fig. 1A) (as broad as the depth of the notch in *mocsaryi*), the malar space is larger (1 MOD compared with 0.7 in *mocsaryi*) and the pronotum is black except for the posterior margin (red in the holotype of *mocsaryi*; note the conflict with the description given by KIMSEY 1986). Finally, the gonocoxa of *A. kuhlmanni* is elongate and protrudes the tip of the cuspis (fig. 1B), while in *A. mocsaryi* it is exactly the other way round (see KIMSEY & BOHART 1991: fig. 89h).



**Fig. 1:** *Allocoelia kuhlmanni* spec. nov. (holotype): **A.** left lateral propodeal tooth, dorsal view; **B.** genital capsule, ventral view. Scale: 0.5 mm.

## Discussion

KIMSEY (1986) provided a phylogenetic analysis of the members of *Allocoelia*. According to her, the *glabra* group is characterized by the posteriorly notched propodeal tooth. Within this natural group *A. kuhlmanni* has all previously assigned autapomorphies of *A. mocsaryi* (i.e. F-I shorter than P, forewing RS vein reduced, and body with whitish markings) in common with that. Therefore, these character states have to be regarded as synapomorphies. Consequently, *A. kuhlmanni* and *A. mocsaryi* constitute adelphotaxa.

## Acknowledgements

Due to the kindness of Dr. MICHAEL KUHLMANN (Ahlen, Germany) I received the described specimen of the new species. I am indebted to Dr. PAUL BAYLISS (Pretoria, South Africa) for the loan of the holotype of *Allocoelia mocsaryi*. Finally, I thank Dr. MANFRED NIEHUIS (Albersweiler, Germany) and SUSANNE SCHULMEISTER (Göttingen, Germany) for reviewing the manuscript and making helpful suggestions.

## References

- KIMSEY, L. S. 1986: A re-evaluation of the systematic position of *Allocoelia* MOCSÁRY (Chrysididae, Hymenoptera) and a revision of the component species. - *Systematic Entomology* 11: 83-91.  
 KIMSEY, L. S. & BOHART, R. M. 1991 (1990): The chrysidid wasps of the world. - Oxford, New York, Toronto: Oxford University Press: xii pp., 652 pp.

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## Besprechungen

- BARKER, GARY M.: **Naturalised terrestrial Stylommatophora (Mollusca: Gastropoda)**. - Lincoln, Canterbury, New Zealand: Manaaki Whenua Press, 1999. - 253 pp., 7 Kladogramme, 453 s/w-Zeichn., 32 farb. Lebensbilder, 126 REM-Detailaufnahmen, 29 Verbreitungskarten. - (Fauna of New Zealand; No. 38). - ISSN 0111-5383

Als Beitrag zum Problem der Neozoen ist diese Bearbeitung der in Neuseeland eingeführten Landlungenschnecken von grundsätzlicher Bedeutung. Die 29 Arten aus 15 Familien stammen ursprünglich aus Europa, Nordamerika und der pazifischen Region. Die meisten sind mit Kulturpflanzen und anderen Gütern des Menschen ins Land gekommen, wobei die Einschleppung zum Teil auf frühe Einwanderungsphasen europäischer Kolonisatoren zurückgeht. Ihre weitere Ausbreitung ist eng mit den ländlichen Wirtschaftspraktiken verbunden, und das Buch versucht, das Schicksal der einzelnen Arten nachzuvollziehen. Es ist durchaus programmatisch, daß nicht von Einschleppung und Faunenfälschung die Rede ist, sondern vielmehr von den „naturalisierten“ (eingebürgerten) Arten und ihren Wirkungen auf die an sich sehr artenreiche indigene Fauna. Generell sind die Zuwanderer eher synanthrop, und ihre ökologische Erscheinung und Historie wird von einem neutralen biologischen Standpunkt aus untersucht. Das Ergebnis der Einzelfallprüfung ist außerordentlich interessant, weil es zu einer sehr differenzierten Betrachtungsweise führt, die beispielhaft für ähnliche Studien - insbesondere an Insekten - ist. Das Buch bietet daneben eine ausgezeichnete, reich illustrierte spezielle Zoologie der Stylommatophora mit Cladogrammen, Bestimmungstabellen und der Abbildung vieler morphologischer, anatomischer und Verhaltensdetails sowie von Verbreitungskarten. Eine bemerkenswerte, sehr liebevolle Bearbeitung.

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