

Notes on the melectine genus *Paracrocisa* Alfken, with a new record of *P. sinaitica* Alfken (Hymenoptera, Anthophoridae)

by

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ABSTRACT. — A new Arabian record is given of the rare melectine bee *Paracrocisa sinaitica* Alfken. Additional notes on the morphology of the genus, with drawings of some structural features, are supplied as well as a map of the known distribution of *Paracrocisa*.

Among the recent acquisitions of solitary parasitic bees in the collection of the British Museum (Nat. Hist.) a unique specimen was found of the melectine *Paracrocisa sinaitica* Alfken, originally described from the Sinai Peninsula. As bees in this genus are only seldom encountered, a new record for this species in the extreme E corner of Arabia, deserves special attention. I wish to thank Mr. George R. Else, of the Hymenoptera section, who permitted me to identify this and other melectines in the collections under his care.

Material. — ARABIA: 1 ♂ (dissected, fig. 1-4), Oman Sultanate, Muscat (Gulf of Oman), Ruwi, III.1976, K. M. Guichard (BM).

A perfectly fresh specimen of *P. sinaitica* in excellent condition, agreeing in almost every respect with the few known examples of that sex from Israël, Sinai and Egypt, photographed and figured in my previous account (loc. cit., pl. 2, fig. 9 and textfigs).

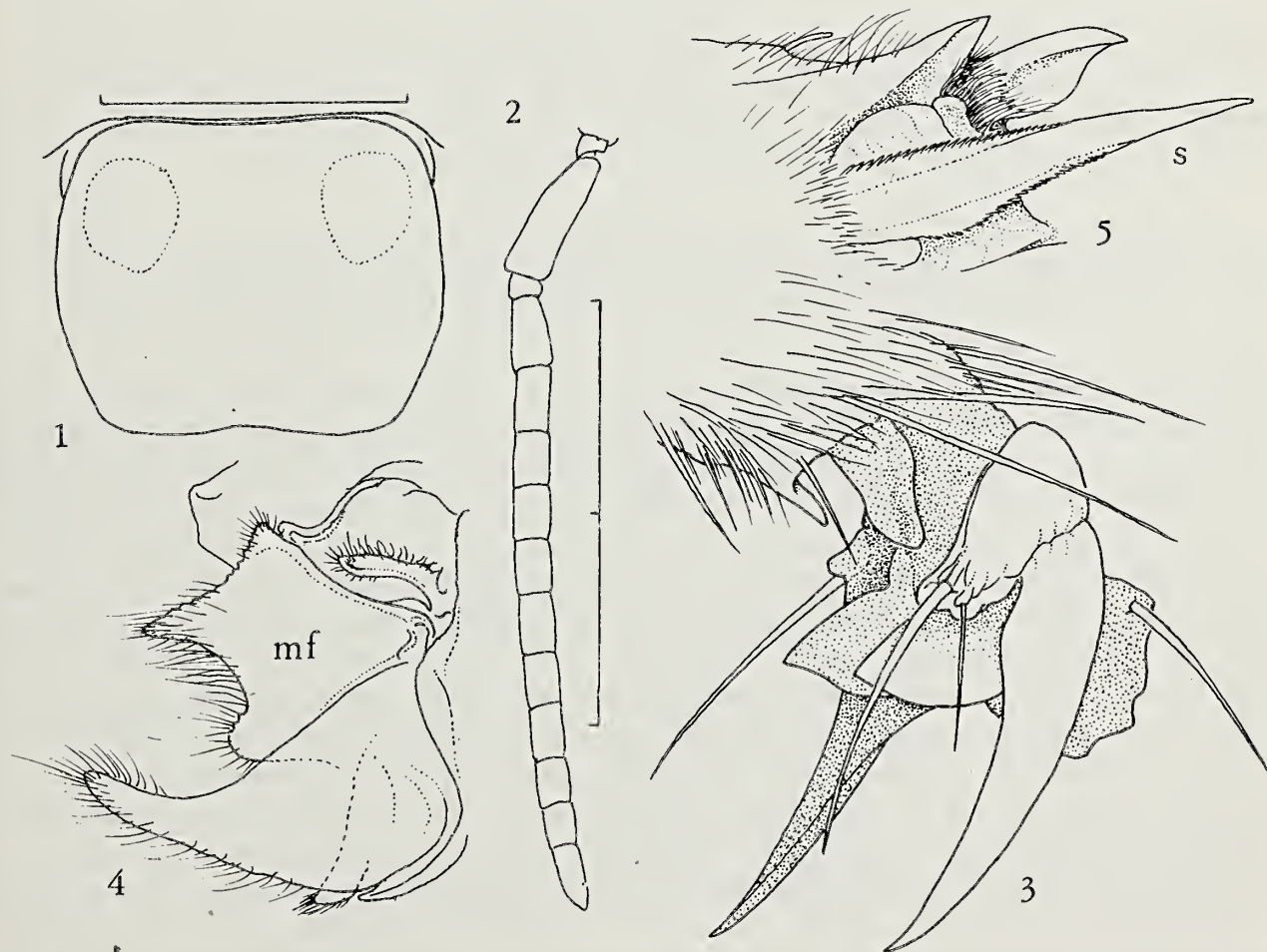


Fig. 1-4. *Paracrocisa sinaitica* Alfken, ♂ from Muscat; 1, frontal view of labrum, scale-line 1 mm; 2, antenna, scale-line 4 mm; 3, hind tarsal claw, oblique ventral view; 4, apical part of right gonocoxite with appendages, mf = "membranous flap". — Fig. 5. *P. kuschakewiczi* (Radoszkowski), ♀ from Konya (Turkey), apex of right mid tibia, interior view, s = tibial spur.



Fig. 6. Geographical distribution of *Paracrocisa* Alfken, with indication of known localities; A, *P. kuschakewiczi* (Radoszkowski); B, *P. guilochei* (Dusmet); C, *P. sinaitica* Alfken.

Paracrocisa was characterized in some detail in a recent paper on Old World Melectini (Lieftinck, 1972). So far only three closely allied species have become known, and redescrptions and illustrations of these can be found in the article just mentioned. The bees of this genus superficially resemble certain eastern *Melecta* fairly closely, viz *M. corpulenta* Morawitz and *transcaspica* Morawitz, which form a small group within that genus. Females of the latter are, however, characterized by very short decumbent abdominal tomentum, close and fine body punctation, hairless areas on thoracic dorsum, and some other peculiarities. All are early spring species which occur together with *Paracrocisa* in several localities. Apart from the modified leg structure and very differently shaped sternal plates and copulatory organs, *Paracrocisa* can be most easily distinguished from *Melecta* by the long slender antennae and short labrum. Other differences will be pointed out in my forthcoming revision of the genus *Melecta*.

Below some more details are given of the morphology of two species of *Paracrocisa*, in addition to those mentioned in the generic diagnosis and specific description of *P. sinaitica*.

A generic character not mentioned earlier and not found in any of the allied regional genera can be observed at the *mid* tibia of either sex. In addition to the compressed apical process - and the thick, articulated, spine-like marginal setae as well - a second slightly smaller and more rounded tooth exists to the inside of the main (exterior) projection of the tibia. These processes are best seen when viewed from within, facing the concave posterior surface of the tibia, and are present also in the female (fig. 5, of *P. kuschakewiczi*). Secondly, mention should be made of the shape of the biramous tarsal claws. As in the allied genera, the inner branch of the fore

tarsal claw in both sexes is but little shorter than the outer (main) branch, but on the mid and hind tarsi of *Paracrocisa* the inner ramus is much the shortest, compressed and plate-shaped, most conspicuously so in the male (fig. 3). This condition is only rarely met with in *Melecta*, viz almost exclusively in the males of the species group of *M. punctata* (Fabricius). It must be noted also, that the labrum of *P. sinaitica* is slightly longer than that of *P. kuschakewiczi*, but the existence in that species of a small apical mid-marginal prominence is apparently variable, as it is lacking in two of the three *sinaitica* males still before me at present (fig. 1). The antenna is shown in fig. 2.

The distribution of *Paracrocisa* (see map, fig. 6) largely overlaps that of the allied genera *Eupavlovskia* and *Melecta*, many representatives of the last-mentioned genus being now known to occur simultaneously in apparently similar situations. The discovery of *P. sinaitica* so far to the east means an important extension of its known range.

Unfortunately nothing is yet known about the host relations of these bees. As suggested earlier by Popov (in Liefstinck, 1972: 255-260), they are most likely parasitic on species of the subgenus *Paramegilla* Friese of *Anthophora*, and maybe also on the equally vernal members of *Habropoda* and *Anthophora* s.str.

REFERENCE

- Liefstinck, M. A., 1972. Further studies on Old World melectine bees, with stray notes on their distribution and host relationships (Hymenoptera, Anthophoridae). — *Tijdschr. Ent.* 115: 253-324, textfig. 1-55, pl. 1-2.

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CHVÁLA, M., 1975. THE TACHYDROMIINAE (DIPT. EMPIDIDAE) OF FENNO-SCANDIA AND DENMARK. Fauna Entomologica Scandinavica, vol. 3, p. 1-336, fig. 1-790. Scandinavian Science Press Ltd., 2930 Klampenborg, Denmark. Prijs (ingenaaid): Dkr. 98.- (bij intekening op de gehele serie Dkr. 68,60, bij intekening op de delen die de Diptera behandelen Dkr. 88,20).

De studie van de soortenrijke subfamilie Tachydromiinae (fam. Empididae) was tot voor kort een moeilijke bezigheid. Baanbrekend werk hierin is vooral verricht door Collin sedert 1926. Chvála heeft Collin's werk voortgezet door de subfamilie Tachydromiinae te reviseren en grote aantallen nieuw materiaal te onderzoeken. Het resultaat van deze studie vormt in het derde deel van de Fauna Entomologica Scandinavica een rijk geïllustreerde en bijzonder goed verzorgde uitgave. Na enige korte inleidende hoofdstukken (o.a. over de nog slecht bekende ontwikkelingsstadia, de economische betekenis, de zoögeografie en de morfologie van de imagines) volgt het systematische gedeelte, waarin determinatietabellen en nauwkeurige beschrijvingen van de soorten uit het in de titel omschreven gebied te vinden zijn. Een literatuurlijst, een verspreidingstabel voor de verschillende districten en provincies en een index besluiten het werk. De illustraties zijn voortreffelijk uitgevoerd; van elke soort zijn detailtekeningen van de genitalia opgenomen en van bijna alle vindt men achter in het boek een fotografische weergave van een vleugel. De nomenclatuur is volledig up to date; hierbij wil ik echter twee opmerkingen maken. *Platypalpus maculus* (Zett.) (Pag. 105) zou moeten luiden *Platypalpus macula*: de soort is beschreven als *Tachydromia macula*, waarbij „macula” ongetwijfeld als substantief, niet als adjectief opgevat moet worden. De genusnaam *Stilpon* wordt nu eens als vrouwelijk (zoals in dit werk), dan weer als onzijdig opgevat; het Griekse woord „stilpon” (dialectische naam in het Zuiditalische Sybaris voor „dwerg”) is echter mannelijk van geslacht; men leze dus *Stilpon nubilus* Coll. en *S. lunatus* (Walk.).

Omdat de auteur in de tabellen en soortbeschrijvingen ook regelmatig aandacht besteedt aan meer zuidelijk voorkomende soorten, is dit werk ook zeer goed te gebruiken voor het op naam brengen van de in ons land voorkomende soorten, waarbij het aanbeveling verdient om tevens Collin's beschrijvingen in Vol. VI van „British Flies” (1961: deel 1) te raadplegen. — H. J. G. Meuffels.