# Notes on *Dianthidium sibiricum* (Eversm.) and a New Species of *Stelis* Panz. (Hym. Apoidea).

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With 1 Text-figure.

The male of *Anthidium sibiricum* Eversm., originally discovered on the Kudia River, Siberia, by Prof. T. D. A. Cockerell (Ann. Mag. Nat. Hist., (9), 13, 1924: 526) has been once more and erroneously described by V. Gussakovskij (Arkiv f. Zool. 21 A, 10, 1932: 60). This second description was based on two specimens from Sedanka, Ussuri region, taken by R. Malaise. An additional description of the male genitalia and a sketch of the stipes of one of Cockerell's specimens have been given by Miss R. Isensee (Ann. Carnegie Mus. XVII, 3—4, 1927: 378, Pl. XXXI, Fig. 9). The descriptions given by Cockerell and Gussakovskij proved to be rather different; on comparing the descriptions of the males, Cockerell's description seems to fit the female specimen more closely than the one given by Gussakovskij himself. Cockerell's males were further taken by himself together with numerous females on flowers of *Sedum*. Only two males and no female were taken by R. Malaise at Sedanka. Gussakovskij's male must quite evidently belong to a very different form. Through the kindness of Dr. René Malaise of the Swedish Museum of Natural History, Stockholm, I had the opportunity of studing the male of *A. sibiricum* Gussakovskij. This male proved to belong to a new species of the genus *Stelis* — *Stelis* (*Protostelis*) *malaisei* n. sp., named in honour of Dr. R. Malaise, entomologist and traveller of world-wide reputation. It seems very probable that *S. malaisei* sp. n. is a parasite in the nests of *D. sibiricum* (Eversm.). It may also be noted that as to range, date, and superficial morphological characters all the specimens of the host and its supposed parasite correspond.

To the short description of the male given by Gussakovskij (1. c.) the following notes may be added.

*Stelis* (*Protostelis*) *malaisei* n. sp. ♂. Body almost cylindrical; abdomen rather long; mandibles short, three-toothed; maxillar palpi two-jointed. Calli humerales with narrow margin; second recurrent

vein ending a rather short distance beyond the second transverse cubital vein; pulvilli fully developed. Wings slightly infuscated; sternite VII (Fig. 1 C) long, strongly emarginated apically, and with long and stout basal lobes; sternite VIII (Fig. 1 B) nearly rectangular, strongly shortened, with triangular emargination at the apex, and with a short and massive basal lobe. Basal ring of the male genitalia (Fig. 1 A) strongly shortened and not prolonged upwards ventrally; stipites long, distinctly enlarged apically, and with a long finger-like projection in the middle of the inner side; cross-section of this projection round.

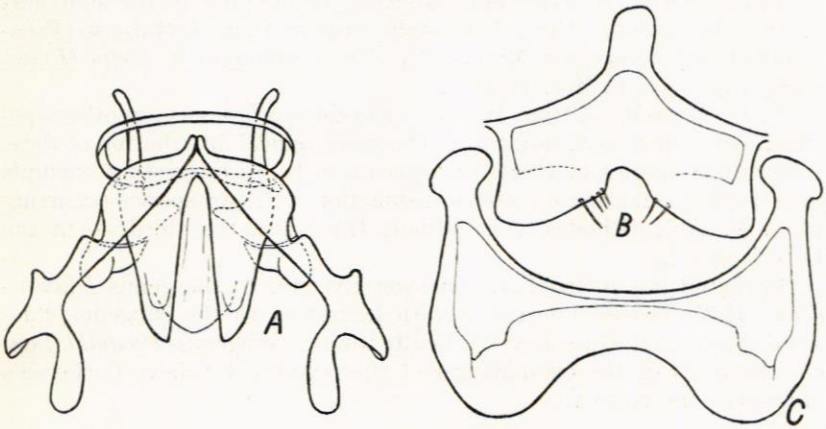


Fig. 1. *Stelis* (*Protostelis*) *malaisei* n. sp. A. Dorsal view of the male genitalia. B. Sternite VIII. C. Sternite VII.

Volsella strongly prolonged, composed of two pieces; the basal piece prolonged medially. Sagittae large and straight; basal lobes rather long and narrow.

Maritime Province, Sedanka near Vladivostok, 21.VI. 1930, R. Malaise, 1 ♂ (monotype), in the collection of the Swedish Museum of Natural History, Stockholm.

Size, yellow stripes on head, thorax, abdomen, and legs, form of sternite VIII, and that of stipites in the male genitalia are the same as in the subgenus *Protostelis*. I noted in 1938 (Konowia, XVII: 40) that this subgenus, as commonly understood, is an artificial one. *S. malaisei* is very closely related to *S. ruficornis* F. Mor. from Rhodes. Both of them are distinctly separated from all other known species of *Stelis* (s. l.) by the volsella being composed of two pieces and by the form of the apex of the stipites. A sketch of the male genitalia of *S. ruficornis* has been given by me in Trav. Ins. Zool. Ac. Sci. USSR, I, 1932: 388. These characters clearly indicate the phylogenetic affinity of both the species named.

Already H. Friese supposed (Bienen Europas, IV, 1898: 126; Tierreich 28, 1911: 399), that *Anthidium* (*Pseudoanthidium*) *paradoxum* Mocs. from Brussa belongs in fact to *Protostelis*. It is more than probable that both Mocsary and Friese were misled by the long hairs on the abdominal sternites of the male of *A. paradoxum* Mocs. This character is unusual in *Stelis*, but occurs both in *S. ruficornis* F. Mor. and in *S. malaisei*. On comparing the type specimen of *S. ruficornis* with the description of *A. paradoxum* this fitted it exactly, and the slight differences in the yellow bands on the abdominal tergites, I believe, could be referred to individual variation, or possibly to the shortness of the description. Thus, I strongly suspect that *Anthidium* (*Pseudoanthidium*) *paradoxum* Mocs. 1884 ♂ is a synonym of *Stelis* (*Protostelis*) *ruficornis* F. Mor. 1872 ♂.

*S. fossulata* Mocs. from Iran is, according to Mocsary, another species closely allied to *S. ruficornis*. The geographical distribution of these three allied species of *Protostelis* appears to be an interesting exemple of a typical subgeneric tertiary disjunction, viz. two species occurring in S. W. Asia (Rhodes, Asia Minor, Iran) and the third — in the Ussuri region.

Cockerell has referred *A. sibiricum* Eversm. to the genus *Dianthidium*; Ruth Isensee referred it with hesitation to the subgenus *Rhodanthidium*, and Gussakovskij finally to the subgenus *Proanthidium*. On the basis of the examination of the females, I believe Cockerell's opinion to be correct.