

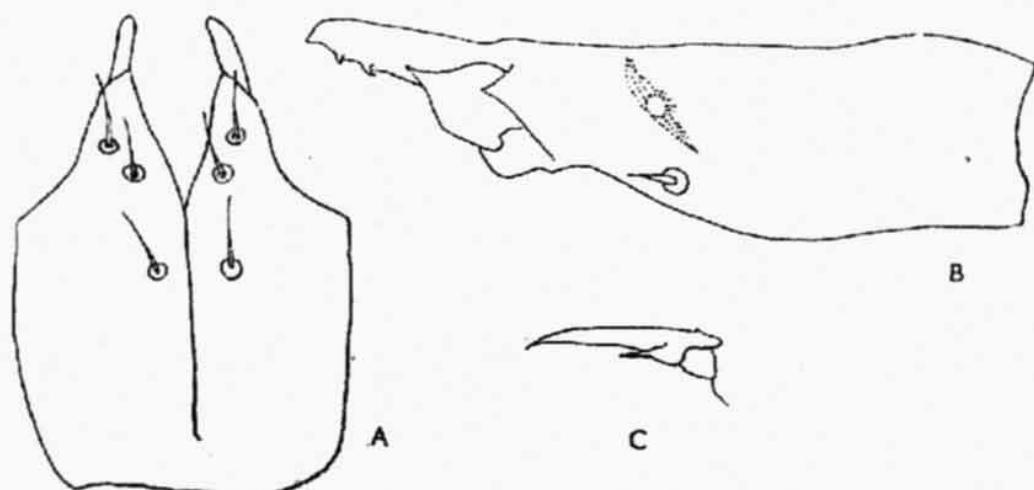
## THE TAXONOMIC PLACEMENT OF THE GENUS VARROA OUDEMANS, 1904 (ACARI, DERMANYSSIDAE)

K. SAMŠIŇÁK and O. HARAGSIM

Institute of Parasitology, Czechoslovak Academy of Sciences, Prague  
Research Institute of Apiculture, Dol near Libčice

**Abstract.** For the monotypic genus *Varroa* Oudemans, 1904 a subfamily Varroinae has been erected within the framework of the family Dermanyssidae Kolenati, 1859. *Varroa jacobsoni* Oudemans, 1904 is recorded from Europe for the first time.

The genus *Varroa* Oudemans consists of a single species *V. jacobsoni* Oudemans, 1904. In spite of a great economic importance of this species, living in bee-house where it causes death of foetus, its more exact taxonomic classification has not yet been contemplated. This is due to the fact, that this mite rarely occurred in the collections of acarologists. Until recently it has been known only from the Sunds islands and from the Southern Asia. The authors detected this mite in Europe (Bulgaria), where it had been probably brought in with a shipment of mother-bees Haragsim and (Samšiňák 1972). On the basis of this finding, when a sufficient amount of material was available, the genus was placed in the respective taxonomic system. This genus belongs to the family Dermanyssidae according to Evans and Till (1966). However, it stands fairly apart from the other genera in this family. In some character (polytrichy, stouter marginal setae) it somewhat resembles the mite *Melittiphis alvearius* (Berlese 1896), which is



**Fig. 1.** *Varroa jacobsoni* Oudemans, 1904, Female: A) gnathosoma (ventral view), B) chelicera, C) specialized setae of palps

the representative of the monotypic subfamily Melittiphinae Evans et Till, 1966. On the other hand the differences in the shape of the ventral shields, hypostomal setae and the shape of chelicerae justify the erection of a particular subfamily

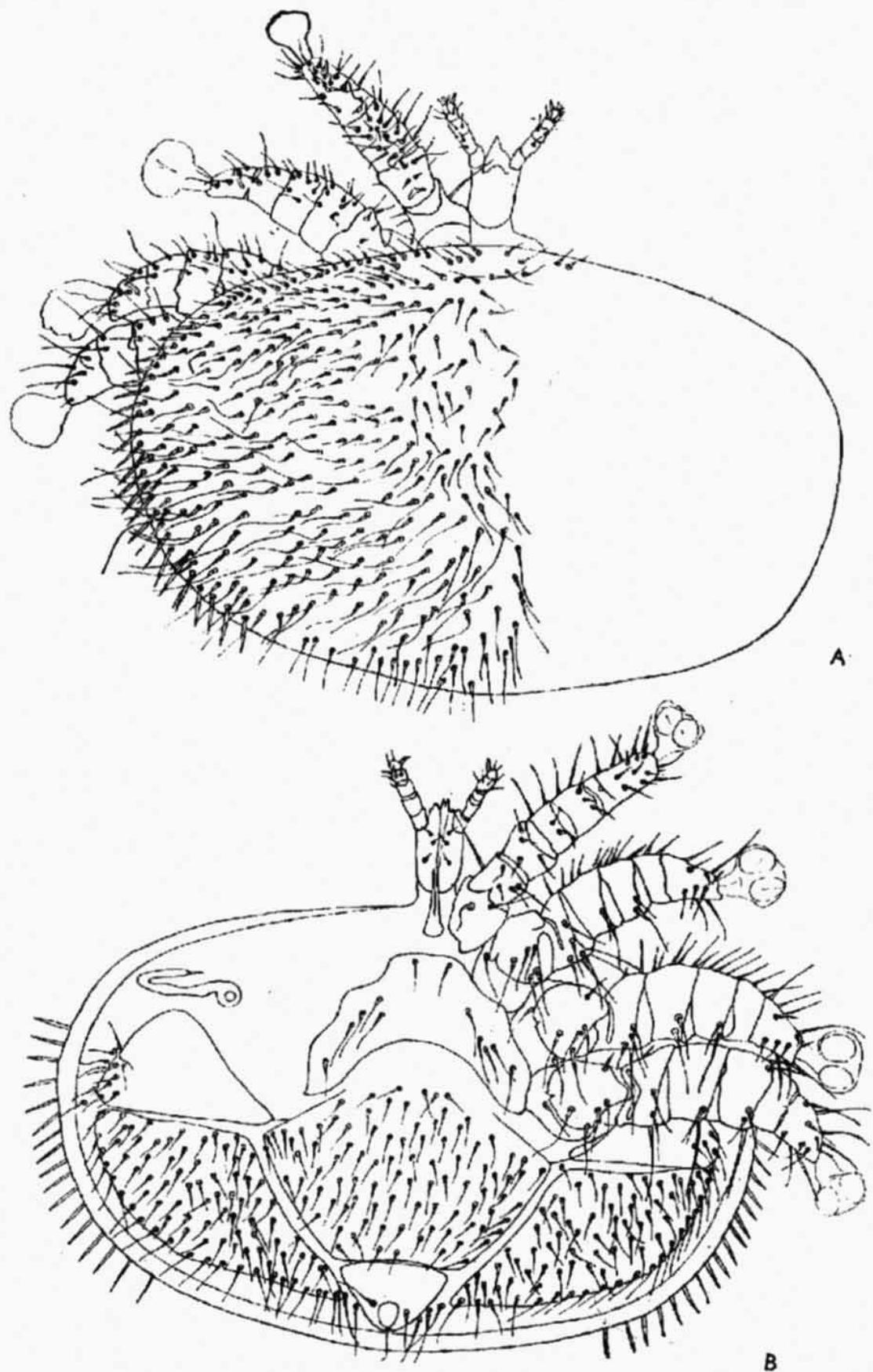


Fig. 2. *Varroa jacobsoni* Oudemans, 1904. Female: A) dorsal view, B) ventral view

## Varroinae subf. n.

**Diagnosis:** Chelicerae as shown in Fig. 1. b., movable digit with 3 teeth in the apical half. On the lower part of gnathosoma the seta hyp. 2. is lacking. Dorsal setae simple, the initial arrangement of setae is disappearing in thick polytrichy. Some dorsomarginal setae thickened. The dorsal shield undivided. Sternal shield and metasternal shields fused, bearing 4 pairs of sternal and 2 pairs of metasternal setae, 2 pairs of sternal and 3 pairs of metasternal pores. Genito-ventral shield large and thickly covered with setae, other ventral shields also large, covering nearly the whole posterior half of ventral part of body. Peritremes have a transverse position. Male (after Davydova and Salchenko 1973): Chelicerae without digits, with short spermatodactylus only. Typical genus: *Varroa* Oudemans, 1904

Females of *Varroa jacobsoni* Oudemans, 1904 differ somewhat in dimensions. For example the original specimens from the Oudemans' collection (Samarang, 1904, lgt. Jacobson) measure  $1120 \times 1620 \mu$  (holotype) and  $1100 \times 1500 \mu$ . Another specimen of the same collection originating from Sumatra, 1919 (lgt. Jacobson):  $1200 \times 1650 \mu$ . Ehara (1968) reports the dimensions  $1100 \times 1700 \mu$  in specimens from Japan. Our specimens from the vicinity of Peking (2 ♀♀) measure  $1260 \times 1800 \mu$ , from Bulgaria  $1240-1770 \times 1840-1990 \mu$ . No morphological differences were found.

**Acknowledgements.** Our thanks are due to Dr. L. van den Hammen from Leiden for the kind loan of the material from Oudemans' collection and to Dr. Peter Natcheff from Sofia for making available other research material.

## ТАКСОНОМИЧЕСКОЕ ЗАЧИСЛЕНИЕ РОДА VARROA OUDEMANS, 1904 (ACARI, DERMANYSSIDAE)

К. Самшичак и О. Харгесим

**Резюме.** Для монотипического рода *Varroa* Oudemans, 1904 было создано подсемейство Varroinae в рамках семейства Dermanyssidae Kolenati, 1859. Вид *Varroa jacobsoni* Oudemans, 1904 впервые зарегистрирован в Европе.

## REFERENCES

DAVYDOVA M. S., SALCHENKO V. L., Mites *Varroa jacobsoni* Oudemans, 1904, (Parasitiformes, Gamasoidea) from the Far East. In: Novye i malo izvestnye vidy fauny Sibirii 7: 18-26, 1973. (In Russian.)  
EHARA S., On two mites of economic importance in Japan (Arachnida, Acarina). Appl. Ent. Zool. 3: 124-129, 1968.  
EVANS G. O., TILL W. M., Studies on the British Dermanyssidae (Acari: Mesostigmata.) Part II Classification. Bull. Brit. Mus. (Nat. Hist.) Zool. 14: 109-370, 1966.  
OUDEMANS A. C., On a new genus and species of parasitic acari. Notes Leyd. Mus. 24: 216-222, 1904.  
HARAGSIM O., SAMŠIČAK K., L'Acarien *Varroa jacobsoni* Oudemans decouvert en Europe. Bull. Apicole 15, No 2. 1972.

Received 11 March 1974.

K. S., Parasitologický ústav ČSAV,  
Flemingovo n. 2, 166 32 Praha 6,  
ČSSR