

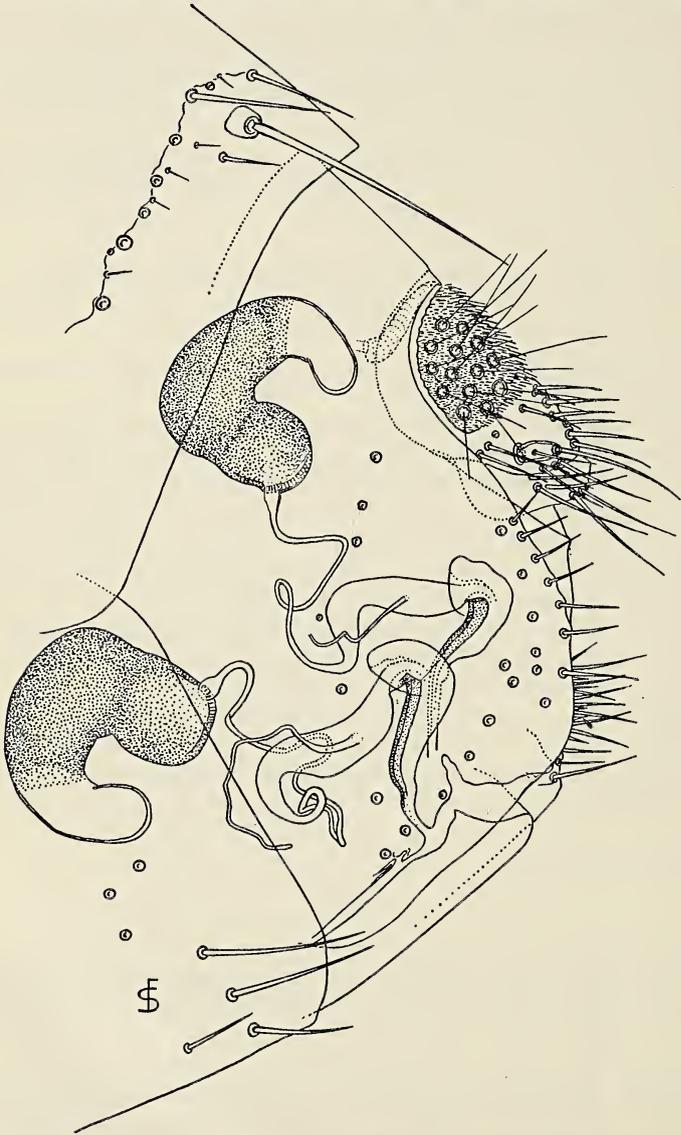
## Monstrosities in Siphonaptera II

by

FRANS G. A. M. SMIT

### Duplication of the receptaculum seminis in *Xenopsylla cheopis* Roths.

In my first paper on "Monstrosities in Siphonaptera" (Tijdschr. Ent. 90 : 35—42) I quoted a sentence from a letter of Dr K. J o r d a n (l.c. : 36—37): "I have studied only a few cases in our collection; the specimens have evidently been placed with the species where they belong and



Terminalia of *Xenopsylla cheopis* R. ♀, showing duplication of receptaculum seminis, ducts and bursa copulatrix.

I have not taken a note of them or cannot find a note at the moment. The species were *Xenopsylla cheopis* and an American '*Ceratophyllus*' of some kind". I was very pleased when the specimen of *X. cheopis*, as referred to above, was found some weeks ago. (The collecting-data of the specimen are : Satara, Bombay Presidency ; January 1920 ; host unknown ; leg. Major F. W. C r a g g). It is a great merit of the mounted specimen that it shows the ducts, albeit that high power had to be used to trace them. As the drawing shows, everything is double ; so there are also two bursae copulatrixes. It is very remarkable that the second spermatheca is nearly as well developed as the normal one ; it also has the same shape, but is a little smaller and its blind duct (ductus obturatorius) and ductus seminalis are somewhat shorter. The normal spermatheca lies upside down ; this is probably due to the accidents of preparation, though the present arrangement of the two spermathecae is quite symmetrical. It proved to be impossible to trace the connection of the second bursa copulatrix with the vagina. There is only one vagina, so I suppose the orifice of the second ductus bursae must be between that of the first ductus bursae and the vaginal gland.

This is not a case of atavism at all ; it is merely a duplication of an organ, such as occurs now and then in many insects. So we are still uncertain as to the origin of the blind duct, for I call in question H o l l a n d's supposition of the blind duct being a remnant of the ductus seminalis of the ancestral second spermatheca (Canad. Ent. 75 (9): 175—176). It is another question in what manner duplication of an organ originates. Is it due to splitting of the primitive germ cell or was that cell double, just like the two ways in which human twins come into existence ? I wonder.

The Zoological Museum, Tring (Herts.), England, February 1949.

## Notes on the occurrence of *Trioza nigricornis* Frst. (Hem. Hom. Psyllidae) in the Netherlands

by

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A note on the occurrence of *Trioza nigricornis* Frst. in the Netherlands was first published by B l ö t e (1927). The Psyllid was swept, most probably from *Rumex acetosella* L. in the Meyendel-area (near The Hague). The species remained unobserved until it was found at Wageningen in 1947 on its foodplant *Brassica Rapa* L. forma *rapifera* Metzg.

During the autumn of 1947 the Phytopathological Service at Wageningen received several rape-leaf-samples with homopterous larvae. These larvae could not at first be identified until they were found in great numbers on *Brassica Rapa* f. *rapifera* on the trial-plot of the Ph. Service. The entomologists G. v a n R o s s e m and C. F. v a n d e B u n d reared the larvae successfully. The adults were identified by the author and proved to be *Trioza nigricornis* Frst. The above mentioned workers of the Ph-Service paid further attention to the life-cycle of the species. During the period between 14-10-1947 and 2-12-1947 adults and larvae were found together on the hostplants. Further it