602

(*Rev. Zool. afr.*, 90, n° 3) (*A paru le 30 septembre 1976*).

Paraceroglyphus xenopsylla sp. n., a new hypopus phoretic on *Xenopsylla cheopis* in Kenya

(*Acarina*)

By A. FAIN and T.G. SCHWAN

INTRODUCTION

During the year 1975 the junior author collected numerous fleas from various rats in Kenya. Some of these fleas carried hypopi belonging to two different species of mites. one is *Psylloglyphus uilenbergi* ssp. *kivuensis* Fain and Beaucournu, 1976, the other is a new species of the genus *Paraceroglyphus*, which is described here.

Family **SAPROGLYPHIDAE** Oudemans, 1924

Genus **Psylloglyphus** Fain, 1966

Psylloglyphus (Psylloglyphus) uilenbergi kivuensis Fain & Beaucournu, 1976

This subspecies has been described from several fleas (*Ctenophthalmus* sp., *Dinopsyllus* sp. and *Xiphiopsylla* sp.) collected by Dr Rahm from various rats in the Kivu Province, Zaïre (during 1964 to 1971).

It has been found again by the junior author in Kenya during the year 1975. All of the habitats sampled were within 1-2 kilometers of

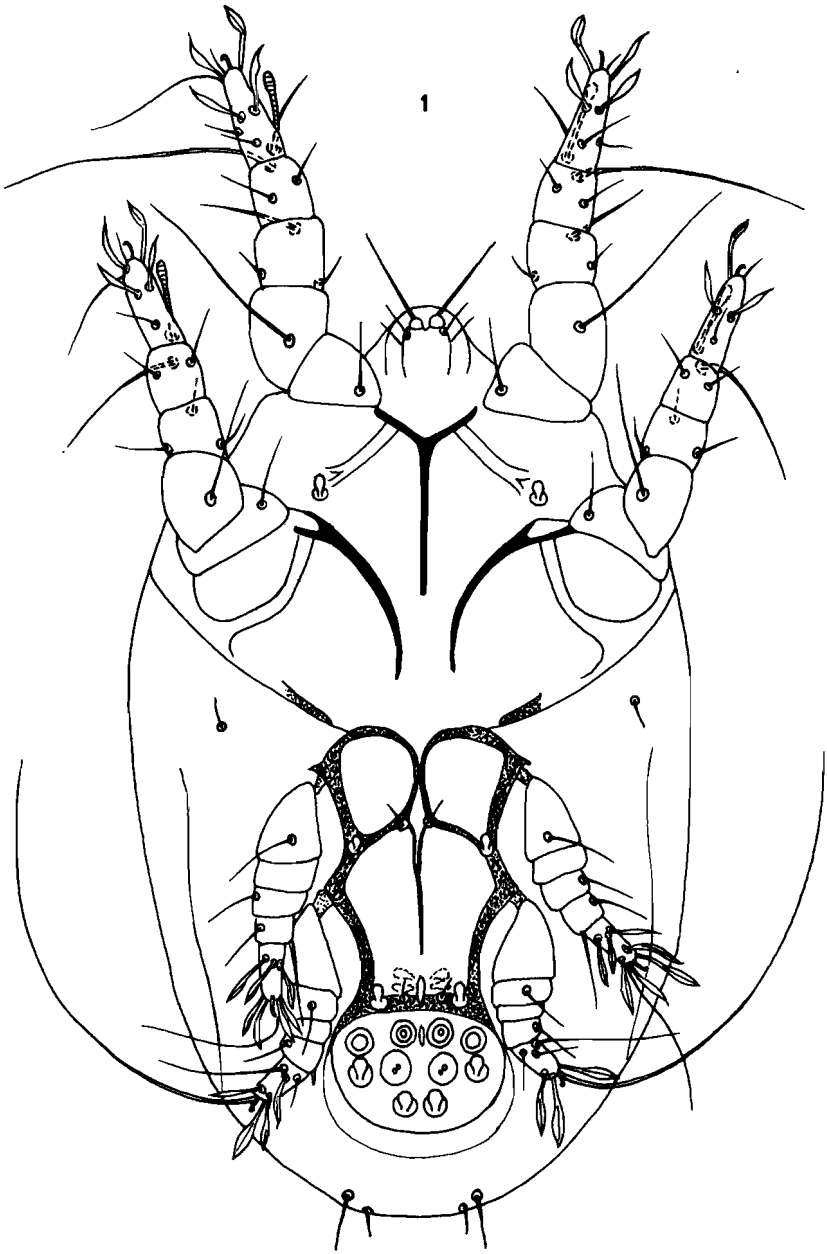

Fig. 1. — *Paraceroglyphus xenopsylla* sp. n. - Hypopus in ventral view.

the northeast shore of Lake Nakuru, land which was once part of a dairy farm (Baharini Farm) but is now part of Lake Nakuru, National Park. The altitude varies between 1737 and 1752 m.

The hypopi collected in Kenya were found on two different fleas :

1. *Dinopsyllus lypusus :*

From 2 *Lophuromys flavopunctatus,* in Acacia forest, 3 and 6 June : 6 fleas (2 males, 4 females) with 6 hypopi on total.

From 1 *Praomys natalensis,* in shrub between Acacia and grassland, 3 June : 1 male flea, with 3 hypopi.

From 1 *Otomys irroratus,* in grassland, 6 September; 3 fleas (2 males and 1 female) with 23 hypopi on total.

From several *Arvicanthis niloticus,* in grassland, 2-9 October: 4 female fleas, with 13 hypopi on total.

2. *Ctenophthalmus cabirus :*

From 1 *Lemniscomys striatus,* in shrub between *Acacia* and grassland, 3 June: 1 male flea with 1 hypopus.

From *Arvicanthus niloticus,* in grassland, 2-9 October : 2 female fleas, with 10 hypopi on total.

Family **ACARIDAE** Murray, 1877

Genus **Paraceroglyphus** Fain & Beaucournu, 1973

Paraceroglyphus xenopsylla spec. nov.

This new species is known only after the hypopus.

It is distinguished from *Paraceroglyphus meles* Fain and Beaucournu, 1973, the only other species known in the genus, by the following characters : body size much smaller, relatively smaller length of legs III and IV which are not visible from above, the much smaller size of the claws I to IV, the relatively greater length of solenidia *w* 1 of tarsi I-II and the solenidion of tibia III, the structure of the coxal fields III which are more close together or contiguous in the midline, the slightly more posterior situation of the setae *sc i,* almost on the same line with the *sc e,* the different shape of the antero-apical foliate hair of tarsi I and II, the more basal position of *w* 3 of tarsus I.

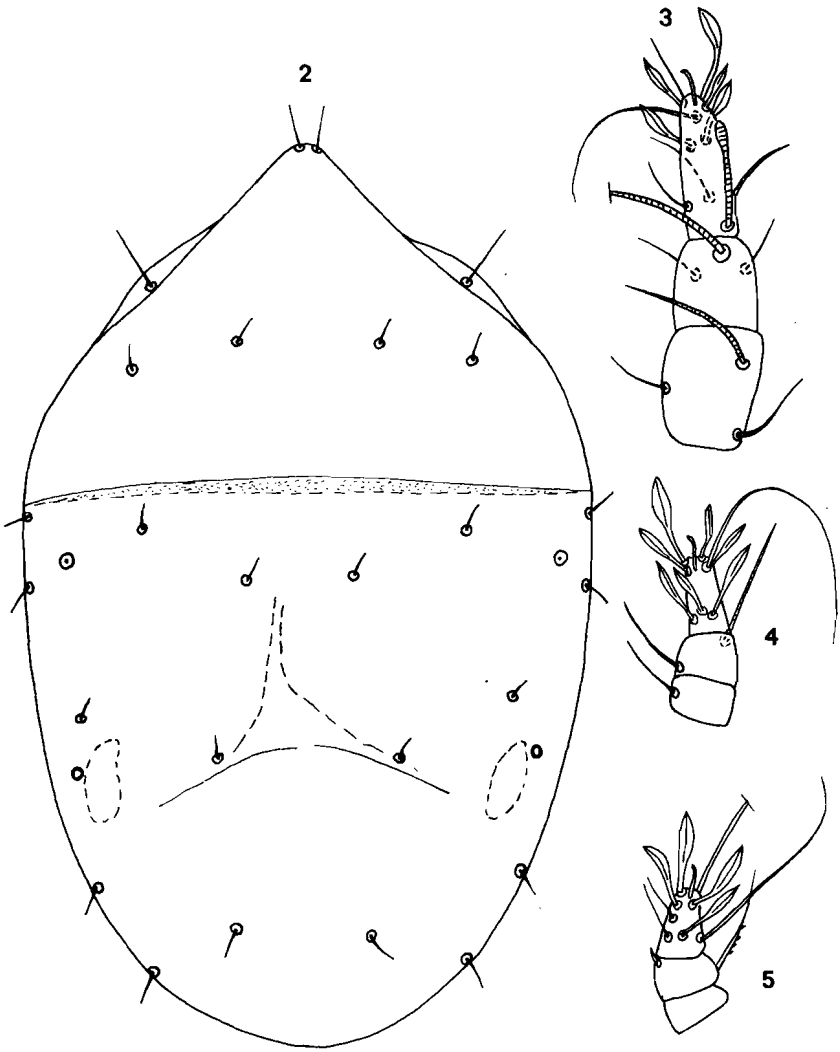

Fig. 2-5. — *Paraceroglyphus xenopsylla* sp. n. - 2. Hypopus in dorsal view; - 3. three apical segments of legs I; - 4. id. III; - 5. id. IV.

Hypopus (fig. 1 - 5): In the holotype the idiosoma is 183 μ long and 119 μ wide. In 5 paratypes these measurements are: 184 μ × 122 μ; 183 μ × 120 μ; 179 μ × 117 μ; 177 μ × 114 μ; 176 μ × 114 μ. Dorsal surface poorly sclerotized, without pits or any other structure. Dorsal setae very thin and small, 4 to 6 μ long, the longest setae are the *v i* (10 μ long) and the *l* 5 (11 μ long). Ventral surface: palposoma relatively wider than in *P. meles* (length 12 μ, width 9,6 μ). Epimera II longer than in *P. meles*. Coxal fields III contiguous. The pregenital sclerite is longer than in *P. meles* and is bifurcate in its anterior half where it is fused with the epimeral arch III. Suctorial plate as in *P. meles*. Legs III and IV very short, completely ventral. The tarsal claws I to IV are very thin and short (length 4 to 4,8 μ). Setae *v e* not observed.

Chaetotaxy of the legs: Tarsi I-II with 5 foliate setae, all with a short base except the antero-apical seta whose cylindrical base is long; these tarsi bear also 4 simple setae. Tarsi III with 7 foliate and one long simple setae. Tarsi IV with 8 setae (4 foliate and 4 simple, of the latter one is very long).

Solenidiotaxy: *w* 1 of tarsi I and II 15 μ long, strongly inflated apically. The *w* 3 is situated in the basal third of the tarsus I. The solenidion *phi* of tibia I is narrow and 23-25 μ long; the *phi* of tibia III is very narrow and 18-20 μ long.

Host and locality:

On 3 *Xenopsylla cheopis* (females), from *Arvicanthis niloticus*, in grassland, near Lake Nakuru, altitude 1752 m, Kenya, 5 to 11 July 1975 (holotype and 9 paratypes, all hypopi).

On the same flea (female), from *Otomys irroratus* juvenile, same locality, 6 September 1975 (1 paratype hypopus).

Type in the Musée Royal de l'Afrique Centrale, Tervuren, Belgique.

Addresses of the authors:
A. Fain: Institute of Tropical Medicine, Antwerp.
T.G. Schwan: Nakuru Wildlife Trust, Lake Nakuru Park, Kenya.

REFERENCES CONCERNING THE HYPOPI PHORETIC ON FLEAS

BRINCK-LINDROTH, G. and SMIT, F.G.A.M., 1971. — The Kemner Collection of Siphonaptera in the Entomological Museum, Lund, with a Check-List of the Fleas of Sweden. — *Ent. Scand.*, 2 : 269 - 286.

COOREMAN, J., 1944. — Notes et observations sur les Acariens. III. — *Bull. Mus. roy. Hist. nat. Belg.*, XX (8): 12 - 14.

FAIN, A., 1966. — Un nouvel hypope vivant en association phorétique sur une Puce de Madagascar (Acarina : Sarcoptiformes). — *Rev. Zool. Bot. afr.*, 73 : 159 - 165.

FAIN, A., et BEAUCOURNU, J.C., 1972. — Notes sur les Hypopes vivant en association phorétique sur les puces en France (Acarina : Sarcoptiformes). — *Acarologia*, XIII (3): 522 - 531.

FAIN, A. et BEAUCOURNU, J.C., 1973a. — Deux nouveaux hypopes vivant en association phorétique sur des puces de Carnivores (Acarina : Sarcoptiformse). — *Acarologia*, XV (1): 138 - 143.

FAIN, A. et BEAUCOURNU, J.C., 1973b. — Description de trois nouveaux hypopes d'Anoetidae phorétiques sur des puces de Mammifères. — *Acarologia*, XV (3): 414 - 520.

FAIN, A. et BEAUCOURNU, J.C., 1976. — Trois nouveaux hypopes du genre *Psylloglyphus* Fain phorétiques sur des puces et un *Hemimerus* (Acarina : Saproglyphidae). — *Rev. Zool. Bot. afr.*, 90 : 181 - 187.

ZACHVATKIN, A., 1941. — Fauna of U.S.S.R. Arachnoidea, Vol. VI, nº 1. Tyroglyphoidea (Acari). — *Zool. Inst. Acad. Sci. U.S.S.R., new ser.*, 28 (English translation, 1959 : 1 - 573).

ZASUKHIN, D.N., IOFF, I.G. and TIFLOV, V.E., 1936. — Matériaux pour l'étude des parasites et des ennemis des puces. — *Vestn. Mikrob. Epidem. Parazit.*, 15 (1) (en russe) Saratov.: 27 - 44 (fig. 1 - 15).