

PARC NATIONAL DE LA GARAMBA. — MISSION H. DE SAEGER

en collaboration avec

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G. TROUPIN et J. VERSCHUREN (1949-1952).

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SIPHONAPTERA

BY

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Although the fleas of nearby Uganda are fairly well known, no fleas have been recorded from the north-eastern corner of the Congo where the Parc National de la Garamba is situated (between 3°8' and 4°4' N, and 29° and 30° W). This area is a vast undulating grassy plain, surrounded by bush/savannah country. The relatively few large hills in the Parc reach at most an altitude of about 1.000 m. As low-lying monotonous stretches of land in the tropics have a rather monotonous flea-fauna with a species-composition of low numerosity, it was no surprise to find that the same appears to hold true for the Parc National de la Garamba. Although the large-scale program of research and general collecting did not permit an emphasis on flea-collecting, the sample obtained (99 specimens) gives some insight into the flea-fauna of the Parc and thus furthers our still scanty knowledge of the fleas occurring in central Africa.

Apart from a few specimens collected at Gangala-na-Bodio (3°41' N, 29°09' E), all fleas were collected in the environs of Bagbele (\pm 4°20' N, 29°20' E) and in the environs of Naworoko (\pm 3°50'—4° N, 29°25' E).

The numbers in square brackets after each record listed below are the collecting-numbers as specified in H. DE SAEGER, 1956, Exploration du Parc National de la Garamba. Mission H. DE SAEGER. Vol. 5: Entomologie. Renseignements éco-biologiques: 1-555.

Family HYSTRICHOPSYLLIDAE

Subfamily DINOPSYLLINAE

Dinopsyllus lypusus JORDAN and ROTHSCHILD, 1913.

Dinopsyllus lypusus JORDAN and ROTHSCHILD, 1913, Novit. zool., 20: 570, figs. 36, 37.

Gangala-na-Bodio, X-XI.1949, host unknown, leg. H. DE SAEGER, 1 ♂ [25]. Bagbele, 9.XI.1950, from nest of a rodent, leg. J. VERSCHUREN, 1 ♂, 3 ♀ [947].

A common flea in the lower parts — occurring from sea level to about 2.300 m — of central, eastern and southern Africa and known from Sudan, Uganda, Kenya, Tanganyika, Congo, Angola, Malawi, Southern Rhodesia and Natal. The normal hosts are murid rodents such as *Rattus*, *Arvicanthis*, *Thamnomys*, *Lemniscomys*, *Lophuromys*, *Steatomys*, *Dasymys*, *Oenomys*, *Pelomys*, *Otomys* and *Tachyoryctes*.

Subfamily CTENOPHTHALMINAE

Ctenophthalmus bacopus JORDAN, 1933.

Ctenophthalmus bacopus JORDAN, 1933, Novit. zool., 38: 350, figs. 69, 71.

Bagbele, leg. J. VERSCHUREN: 9.XI.1950, from nest of a rodent, 1 ♂, 2 ♀ [947]; XI.1950, from burrow of a rodent, 1 ♀ [958]. Naworoko, leg. J. VERSCHUREN: 3.I.1951, from a surface nest of a rodent, 4 ♂, 5 ♀ [1038]; 4.I.1951, from a nest of a rodent in hollow of a tree at 6 m above ground, 1 ♀ [1050]; 12.I.1951, from a surface nest of a rodent, 2 ♂, 4 ♀ [1076]; 15.I.1951, from the burrow of an elephant shrew, 1 ♀ [1080]; 12.I.1951, from a surface nest of a rodent, 2 ♀ [1083]; 24.IV.1951, from nest of a rodent, 1 ♂, 1 ♀ [1602]; 23.V.1951, from *Dendrocygna viduata*, 1 ♂ [1819]; 6.VI.1951, from a surface nest of a murid rodent, 4 ♀ [1878]; 7.VI.1951, from a murid rodent, 1 ♂ [1965]; 21.VI.1951, from nest of a rodent, 2 ♀ [2000]; 1.VIII.1951, from nest of a murid rodent, 4 ♂, 4 ♀ [2240]; 26.III.1952, from nest of a rodent, 1 ♀ [3248].

Hitherto this species, a parasite of murid rodents (the above recorded occurrence on the bird *Dendrocygna viduata* is accidental), was only known from the Congo Republic, Central African Republic and Uganda. The new records indicate that the distribution of this common species is con-

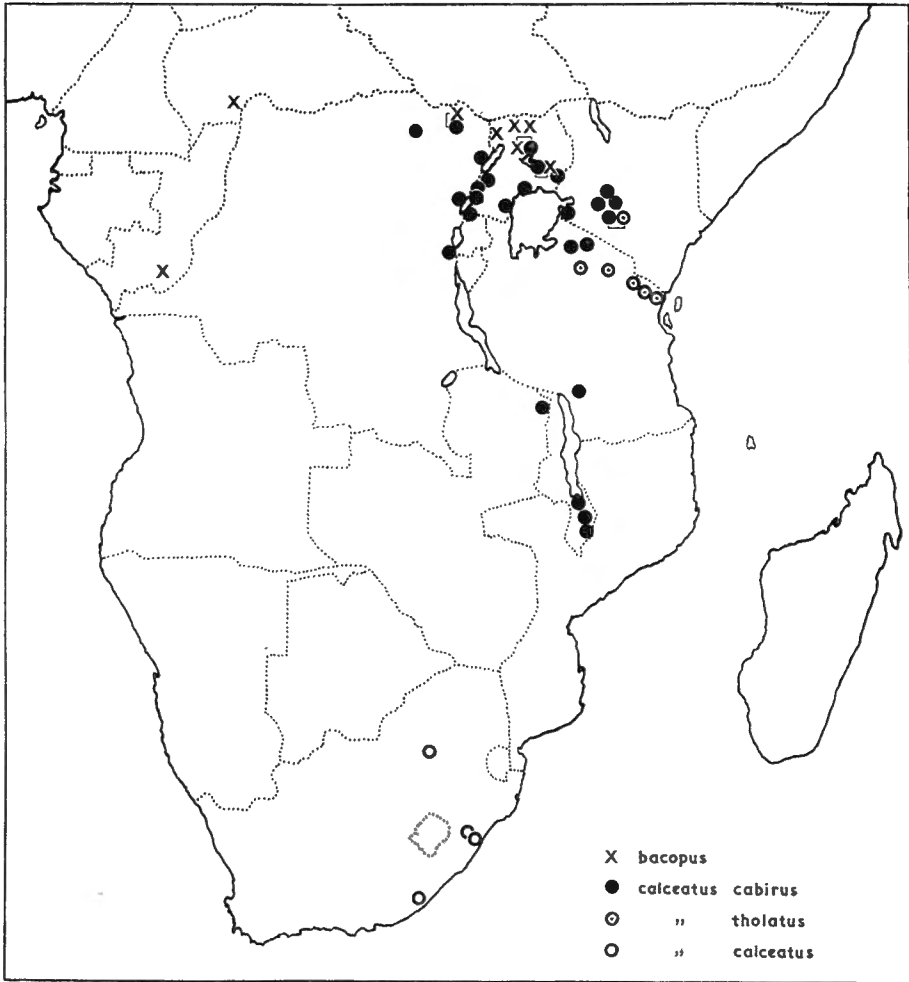


FIG. 1. — Map showing the distribution of *Ctenophthalmus bacopus* and the three subspecies of *C. calceatus*.

tinuous throughout the northern part of the Congo and presumably also the southern half of the Central African Republic. As can be seen in Fig. 1, *C. bacopus* replaces the closely related *C. calceatus cabirus* to the north of the range of the latter. The two forms were found together, even in the same nest, at Bagbele, and in Uganda at Lira and Serere.

***Ctenophthalmus calceatus cabirus* JORDAN and ROTHSCCHILD, 1913.**

Ctenophthalmus cabirus JORDAN and ROTHSCCHILD, 1913, Novit. zool., 20 : 549, figs. 20, 21.

Bagbele, leg. J. VERSCHUREN : 9.XI.1950, from a surface nest of (?) *Lemniscomys* in an abandoned manioc field, 1 ♂, 6 ♀ [943]; 9.XI.1950, from nest of a rodent, 3 ♀ [947].

A very common flea of murid rodents at rather low elevations in east-central Africa. The distribution of this and the two other subspecies of *C. calceatus*, based on specimens which I have examined, is shown in Fig. 1.

Family ISCHNOPSYLLIDAE

Subfamily ISCHNOPSYLLINAE

***Lagaropsylla hoogstraali* SMIT, 1957.**

Lagaropsylla hoogstraali SMIT, 1957, Rev. Zool. Bot. afr., 55 : 171, figs. 34-39.

Naworoko, 3.X.1951, from *Tadarida faradjius*, leg. H. DE SAEGER, 1 ♂ [4033].

Quite a widespread flea of bats of the genus *Tadarida*, recorded from Sudan, Rwanda and Madagascar.

***Lagaropsylla idae* SMIT, 1957.**

Lagaropsylla idae SMIT, 1957, Rev. Zool. Bot. afr., 55 : 165, figs. 7-12.

Naworoko, 30.IV.1952, from *Tadarida condylura*, leg. J. VERSCHUREN, 1 ♂ [4731-4].

A common parasite of *Tadarida* in Malawi, Tanganyika, Congo, Angola, Uganda, Central African Republic, Congo Republic, Nigeria, Sierra Leone and Dahomey.

Family PULICIDAE

Subfamily XENOPSYLLINAE

***Xenopsylla brasiliensis* (BAKER, 1904).**

Pulex brasiliensis BAKER, 1904, Proc. U. S. nat. Mus., 27 : 378, 379, 435.

Gangala-na-Bodio, X-XI.1949, host unknown, leg. H. DE SAEGER, 1 ♀ [25].

A very common flea of rats in Africa, especially in central and eastern parts of the continent.

Xenopsylla cheopis (ROTHSCHILD, 1903).

Pulex cheopis ROTHSCCHILD, 1903, Ent. mon. Mag., 39 : 85, pl. 1 figs. 3, 9, pl. 2 figs. 12, 19.

Gangala-na-Bodio, X-XI.1949, host unknown, leg. H. DE SAEGER, 1 ♂ [25].

The well-know and in many tropical and subtropical regions very common rat-flea which in many parts of the world is the principal vector of the plague bacillus.

Xenopsylla nubica (ROTHSCHILD, 1903).

Pulex nubicus ROTHSCCHILD, 1903, Ent. mon. Mag., 39 : 84, pl. 2 figs. 10, 16.

Naworoko, leg. J. VERSCHUREN : 17.I.1952, from nest of a rodent, 1 ♂ [3028]; 24.I.1952, from a rodent's nest in a burrow, 3 ♀ [3051].

This species is principally associated with gerbilline rodents (*Gerbillus*, *Jaculus*, *Dipodillus*, *Tatera*), but occasionally also found on other rodents; known from Egypt, Sudan, Uganda, Kenya, Malawi, Nigeria, Senegal, Ghana and Israel.

Subfamily **ARCHAEOPSYLLINAE****Ctenocephalides felis strongylus** (JORDAN, 1925).

Ctenocephalus felis strongylus JORDAN, 1925, Novit. zool., 32 : 98.

Bagbele, 16.XII.1949, from *Mungos mungo gotneh*, leg. J. MARTIN, 2 ♀ [172]; Naworoko, leg. J. VERSCHUREN : 14.I.1951, from *Mungos mungo gotneh*, 1 ♀ [1079]; 9.VI.1951, from *Mungos mungo gotneh*, 1 ♀ [1964]; 1.VIII.1951, from *Herpestes ichneumon*, 1 ♂ [2163]; Naworoko, leg. H. DE SAEGER : 12.IX.1951, from *Felis serval*, 3 ♂ [2440]; 14.IX.1951, from *Felis serval*, 1 ♂, 1 ♀ [2445]; 15.III.1952, from *Genetta tigrina aequatorialis*, 3 ♂, 6 ♀ [3398].

An extremely common flea of fairly large mammals, usually carnivores, which do not construct a proper nest.

Subfamily PULICINAE

Echidnophaga gallinacea (WESTWOOD, 1875).

Sarcopsyllus gallinaceus WESTWOOD, 1875, Ent. mon. Mag., 11: 246.

Naworoko, leg. J. VERSCHUREN: 14.I.1951, from *Mungos mungo gotneh*, 4 ♂, 7 ♀ [1079]; 11.VII.1951, from *Phalacrocorax africanus africanus*, 1 ♂ [2077].

This common stick-fast flea occurs on poultry and other birds as well as on a large variety of mammals in many tropical and subtropical parts of the world.

Echidnophaga larina JORDAN and ROTHSCHILD, 1906

Echidnophaga larina JORDAN and ROTHSCHILD, 1906, Thomp. Yates Lab. Rep. (N.S.), 7: 49, pl. 1 fig. 12, pl. 2 fig. 18, pl. 3 fig. 25.

Naworoko, 23.V.1951, from *Dendrocygna viduata*, leg. J. VERSCHUREN, 2 ♀ [1819]; Naworoko, 25.I.1952, from *Phacochoerus aethiopicus*, leg. H. DE SAEGER, 1 ♀ [3045].

Quite a common flea in tropical Africa, occurring preferably on *Phacochoerus*, but also on other large animals such as *Orycteropus*, *Proteles*, *Hyaena* and *Canis*. The occurrence on the bird *Dendrocygna viduata* is doubtless accidental. The three females recorded above are not quite typical, but they would still seem to fit in the range of individual variation (which is rather great) of this species.

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