

**A New Species of *Suricatoecus* (Mallophaga: Trichodectidae)
from the Fennec Fox (*Fennecus zerda*) from Egypt,
with a Key to the Recognized Species**

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ABSTRACT: The new species, *Suricatoecus fennecus*, is described and illustrated from specimens taken off *Fennecus zerda* (Zimmermann) (Carnivora: Canidae) from Egypt. A key to the 15 recognized species of *Suricatoecus* and a host list are provided.

We recently received 2 collections of Mallophaga from the fennec fox for identification. These lice are the first known to be recorded from this host and they represent a new species of *Suricatoecus* Bedford. It is our intent to describe and illustrate this new species here and to provide a key for the identification of the 15 recognized species of the genus.

Suricatoecus fennecus n. sp.
(Figs. 1-5)

MALE: External morphology and chaetotaxy as shown in Fig. 2. Head width, 0.35-0.37 mm; abdominal width, 0.53-0.57 mm; total length 1.06-1.12 mm. Preantennal head margin rounded with slight medioanterior concavity; antenna similar to that of female. Median tergal plate on each of abdominal segments III-VII; sternal plate on each of sternites IV-VII. Genitalia, less sac which is inconspicuous and unarmed, as shown in Fig. 4; width of basal apodeme, 0.08-0.09 mm; width of apical round structure at juncture of parameres and basal apodeme, 0.04-0.05 mm. Terminal abdominal segments narrowed, rounded, ventrally as shown in Fig. 5.

FEMALE: External morphology and chaetotaxy as shown in Fig. 1. Head width, 0.40-0.43 mm; abdominal width, 0.66-0.72 mm; total length, 1.24-1.32 mm. Head shaped as for male. Tergal plate on each of abdominal segments III-VIII; sternal plate only on abdominal segment VII. Ventral view of terminal abdominal segments as shown in Fig. 3; posterior margin of vulva with median indentation; each gonopod with inner lobe bearing several short setae.

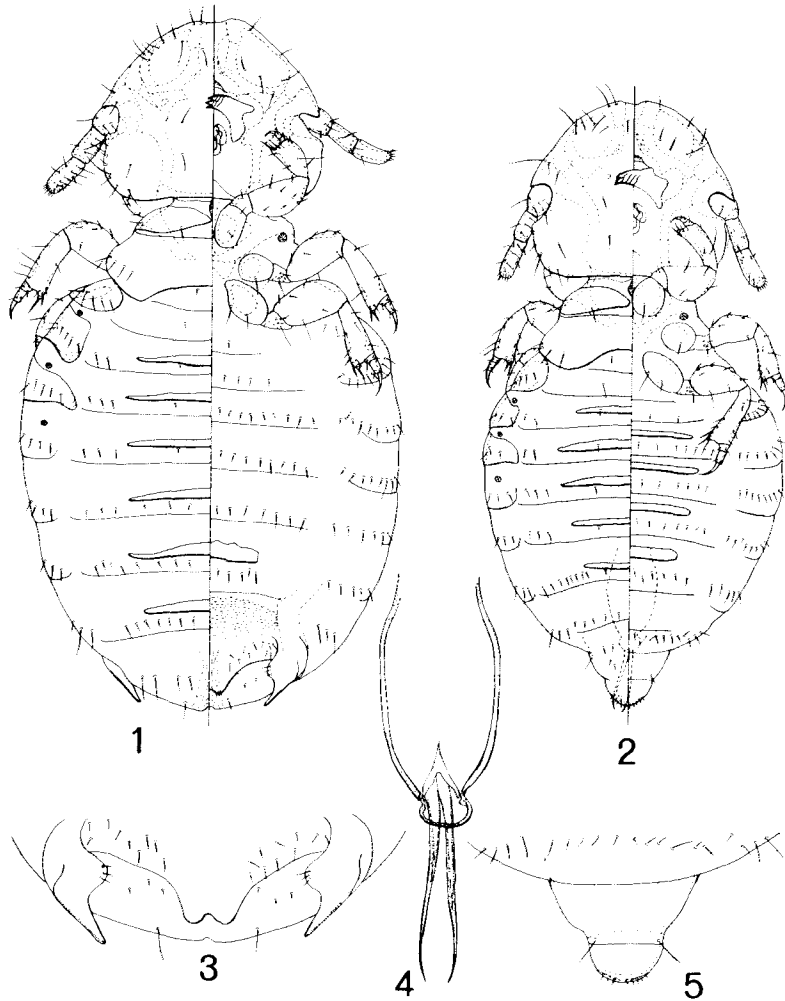
TYPE-HOST: *Fennecus zerda* (Zimmermann), the fennec fox.

TYPE-MATERIAL: Holotype male, allotype female, and 17 paratypes col-

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Figs. 1-5 *Suricatoecus fennecus*. 1. Female. 2. Male. 3. Female ventral terminal abdominal segments. 4. Male genitalia. 5. Male ventral terminal abdominal segments.

lected off the type-host, 3 December 1953, Wadi Natroun, Egypt; and 3 paratypes collected off the type-host, 28 January 1954, Faiyum, Egypt. The holotype and allotype are deposited in the U.S. National Museum.

REMARKS: *Suricatoecus fennecus* is morphologically closest to *S. guinlei*

Werneck, 1948, found on *Otocyon megalotis* (Desmarest), the bat-eared fox which is also found in the semi-arid regions of Africa. However, both sexes of *S. guinlei* are slightly larger than *S. fennecus*; they have an evenly rounded preantennal head margin, without a shallow medioanterior indentation; and they lack evident abdominal spiracles. Additionally, the female of *S. guinlei* has different shapes of the posterior vulval margin and the single abdominal sternal plate. The male of *S. fennecus* has sternal plates on 4 abdominal segments, while that of *S. guinlei* has sternal plates only on 2 abdominal segments; the parameres of the *S. fennecus* male genitalia are evenly tapered from the base to the apex, while those of *S. guinlei* are enlarged in the basal third.

Key to Species of *Suricatoecus*

1. Antennae sexually dimorphic, with those of male having distinctly enlarged basal segment 2
- Antennae similar in both sexes 8
2. Male genitalia with parameres short, stout, not extending significantly beyond basal ring 3
- Male genitalia with parameres elongated, apically extending well beyond basal ring 5
3. Both sexes with 6 median abdominal tergal plates and prominent medioanterior indentation of head margin ... *mungos* (Stobbe, 1913)
- Both sexes with only 5 median abdominal tergal plates and shallow flattened medioanterior indentation of head margin 4
4. Male genitalic parameres wider than long ... *laticeps* (Werneck, 1942)
- Male genitalic parameres longer than wider *paralaticeps* Werneck, 1948
5. Parameres symmetrical 6
- Parameres asymmetrical 7
6. Male posterior abdomen narrow, sharply attenuated; female having abdominal segments II-VIII with tergal plates *occidentalis* Emerson & Price, 1980
- Male with posterior abdomen broad, bluntly rounded; female having only abdominal segments VII-VIII with tergal plates *helogaloidis* Werneck, 1948
7. Both sexes with rounded medioanterior head margin; male having some abdominal segments with 2 tergal plates *congoensis* Emerson & Price, 1967
- Both sexes with shallow medioanterior indentation of head margin; male having no abdominal segments with more than 1 tergal plate *helogale* (Bedford, 1932)
8. Both sexes without apparent abdominal tergal plates 9
- Both sexes with some evident abdominal tergal plates 11

9. Without apparent abdominal spiracles *hopkinsi* (Bedford, 1936)
 – With 3 pairs of apparent abdominal spiracles 10
10. Male genitalic parameres arched outward, distally converging; female vulval plate with medioposterior indentation
 *decepiens* (Hopkins, 1941)
 – Male genitalic parameres essentially straight, parallel; female vulval plate without medioposterior indentation
 *cooleyi* (Bedford, 1929)
11. Male genitalia without ring at base of parameres
 *fahrenheitzi* Werneck, 1948
 – Male genitalia with ring at base of parameres 12
12. Both sexes with no more than 6 abdominal tergal plates 13
 – Both sexes with more than 6 abdominal tergal plates 14
13. Both sexes with evenly rounded preantennal head margin and without evident abdominal spiracles; male abdomen with 6 tergal and only 2 sternal plates *guinlei* Werneck, 1948
 – Both sexes with slight medioanterior indentation in preantennal head margin and with 3 pairs of abdominal spiracles; male abdomen with 5 tergal and 4 sternal plates *fennecus* n. sp.
14. Female with 8 abdominal tergal plates *vulpis* (Denny, 1842)
 – Female with 7 abdominal tergal plates
 *quadriceps* (Chapman, 1897)

List of Species of *Suricatoecus* and Their Type-hosts

- Suricatoecus congoensis* Emerson & Price, 1967—*Crossarchus alexandri* Thomas & Wroughton, Congo cusimanse.
- Suricatoecus cooleyi* (Bedford, 1929)—*Suricata suricatta* (Schreber), suricate.
- Suricatoecus decepiens* (Hopkins, 1941)—*Mungos mungo* (Gmelin), banded mongoose.
- Suricatoecus fahrenheitzi* Werneck, 1948—*Cerdocyon thous* (Linnaeus), crab-eating fox.
- Suricatoecus fennecus* n. sp.—*Fennecus zerda* (Zimmermann), fennec fox.
- Suricatoecus guinlei* Werneck, 1948—*Otocyon megalotis* (Desmarest), bat-eared fox.
- Suricatoecus helogale* (Bedford, 1932)—*Helogale parvula parvula* (Sundevall), dwarf mongoose.
- Suricatoecus helogaloidis* Werneck, 1948—*Helogale parvula undulata* (Peters), dwarf mongoose.
- Suricatoecus hopkinsi* (Bedford, 1936)—*Nandinia binotata* (Gray), two-spotted palm civet.
- Suricatoecus laticeps* (Werneck, 1942)—*Atilax paludinosus* (G. Cuvier), water mongoose.

- Suricatoecus mungos* (Stobbe, 1913)—*Herpestes sanguineus* (Rüppell), slender mongoose.
- Suricatoecus occidentalis* Emerson & Price, 1980—*Crossarchus obscurus* F. Cuvier, western cusimanse.
- Suricatoecus paralaticeps* Werneck, 1948—*Atilax paludinosus* (G. Cuvier), water mongoose.
- Suricatoecus quadriceps* (Chapman, 1897)—*Urocyon cinereoargenteus* (Schreber), gray fox.
- Suricatoecus vulpis* (Denny, 1842)—*Vulpes vulpes* (Linnaeus), red fox.

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