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A new species of *Knemidokoptes* producing mange in the Palm-Swift

(Acarina: Sarcoptiformes)

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We describe here a new species of *Knemidokoptes* producing mange in African Swifts.

This species belongs to the genus *Knemidokoptes* FÜRSTENBERG. It is well distinct from the five species known so far in this genus (see FAIN and ELSEN, 1967) and it is necessary therefore to creat for it a new species.

The species is named after Mr. A. DEROO who kindly presented us the infected birds. These were collected in Togo during the first joint-expedition sent to Togo by the Universitaire Centrum van Antwerp and the Museum in Tervuren.

Knemidokoptes derooi nov. spec.

FEMALE (holotype) (fig. 1, 3): The holotype is 303 μ long (gnathosoma included) and 290 μ wide. In four paratypes these measurements (length x width) are: 285 μ × 270 μ; 288 μ × 258 μ; 309 μ × 300 μ; 315 μ × 306 μ. The holotype contains one completely developed larva and three young eggs. Most of the other females contain one larva and two or three eggs. The dorsal striation is characteristic. This striation is not scaly as in the other species of the genus but it is thick and clearly interrupted at several places by means of very narrow furrows. These furrows are particularly distinct in three main areas: one is

longitudinal and situated in the mid-line immediately behind the scutum, the two others are lateral and in front of the *d 2* setae. The propodosomal shield is 84 μ wide and has a maximum length of 29 μ (in the mid-line), In four paratypes these measurements are : 90 $\mu \times 30\ \mu$; 87 $\mu \times 28\mu$; 87 $\mu \times 29\ \mu$ and 82 $\mu \times 28\ \mu$. There are two small shields in the dorso-lateral region of the propodosoma. The anus is dorso-

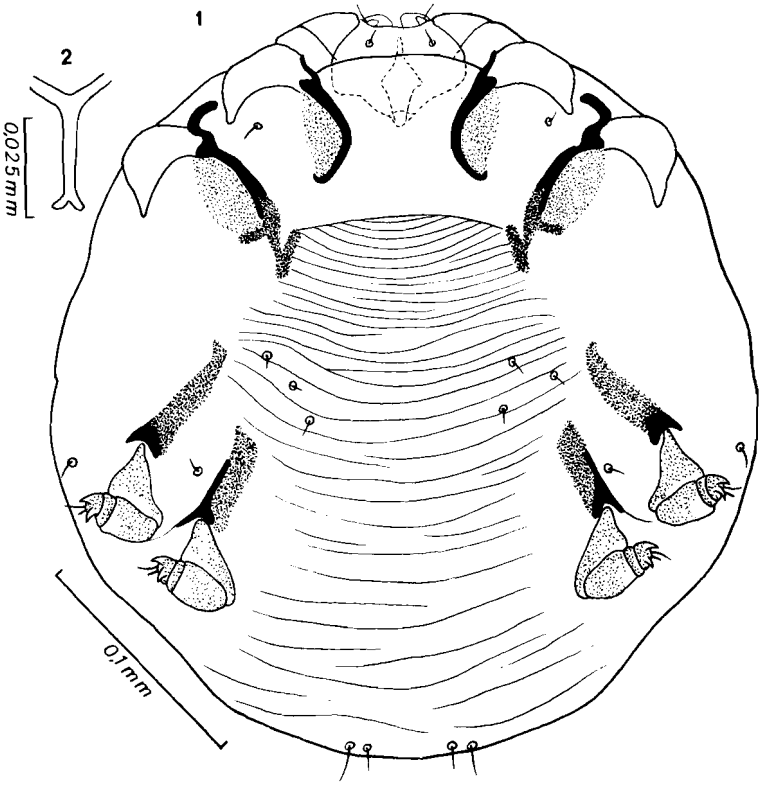

Fig. 1-2. — *Knemidokoptes derooi* n. sp. - Female, in ventral view (1); - Male: sternum (2).

terminal. The ring of the *bursa copulatrix* is slightly sclerotized. The epimera I are strongly recurved outwards. The epimera III are very short. The legs are very short and they do not extend beyond the body margins. The anterior legs are completely dorsal and only their epimera are visible ventrally. All the tarsi are ending into two triangular and slightly recurved sclerotized processes.

Chaetotaxy : *sc e* much longer (30 to 35 μ) than the *sc i* (6 to 10 μ). These two setae are always clearly separate. The *l5* are 120 to 140 μ long. There is no hair on the trochanter III.

MALE (allotype) (fig. 2): The body (including gnathosoma) is 186 μ long and 156 μ wide. The paratype is 190 μ long and 147 μ wide. General characters as for the male of *Knemidokoptes fossor* but the

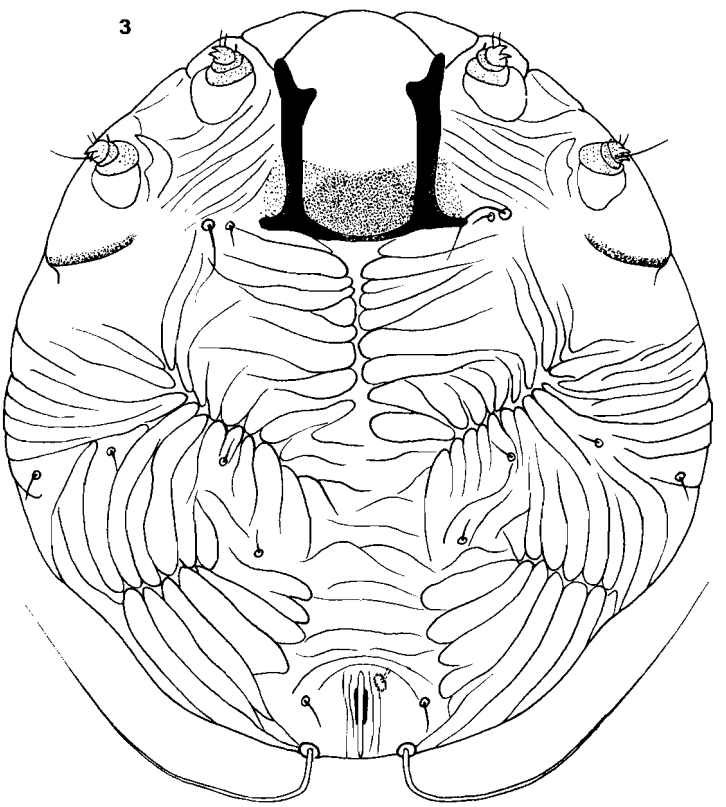

Fig. 3. — *Knemidokoptes derooi* n. sp. - Female, in dorsal view.

sternum is distinctly forked posteriorly, the legs are thicker and shorter and the propodosomal shield is wider (width 58 μ). The aedeagus is 21 μ long (lateral sclerites included).

Chaetotaxy : length of the *sc e*: 36 μ, of the *l5*: 120 μ. The *h* and *sh* are very short (less then 15 μ). The trochantera I and II bear one seta, the trochantera III and IV are nude.

LARVA (fig. 3). Total length 138 μ, width 106 μ. Setae *h* very short (less than 10 μ). Dorsal surface of the hysterosoma with numerous elongate and finely punctate areas (fig. 4).

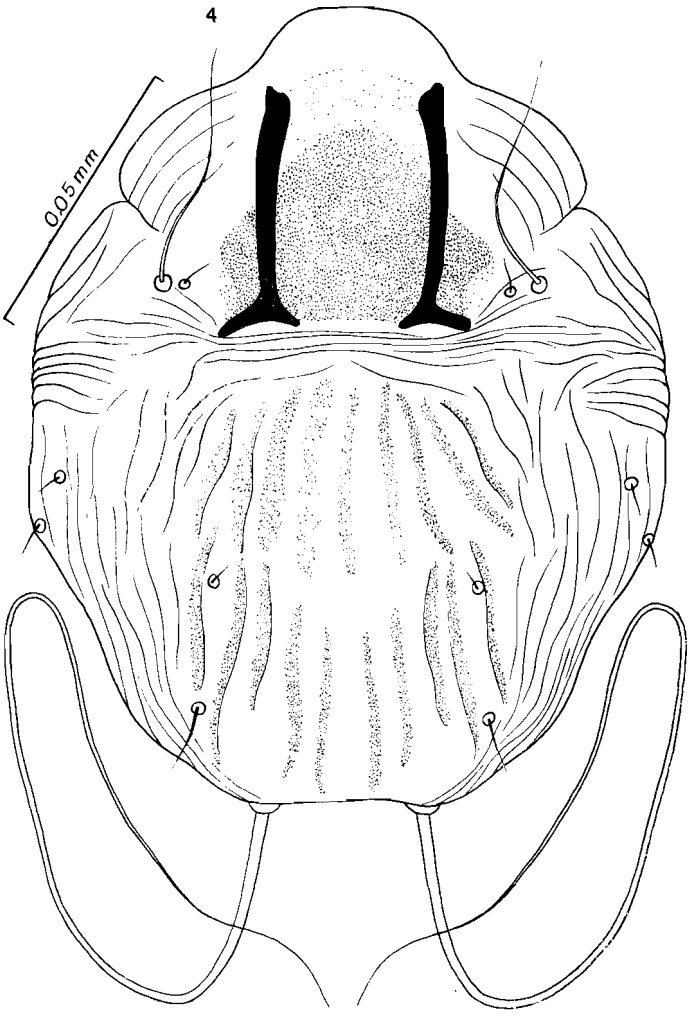

Fig. 4. — *Knemidokoptes derooi* n. sp. - Larva, in dorsal view.

Systematic position of *Knemidokoptes derooi* n. sp.:

This species is close to *Knemidokoptes fossor* (EHLERS). It differs from the latter by the following characters: in the female the dorsal cuticle does not bear scales but presents a striation that is

clearly interrupted in several areas; the body is larger and more rounded; the legs I and II are situated dorsally; the dorsal shield is wider; the anus is more posterior; the setae *sc e* are longer; the chitinous ring of the bursa is sclerotized. In the male, the body is larger; the sternum is forked posteriorly; the hysterosomal shield is less sclerotized; the legs are shorter; the aedeagus is longer. In the larva the dorsal surface of the hysterosoma bears several long and narrow punctate bands.

Pathological action: All the mites were embedded into the glossy skin covering the internal surface of the bill close to the lateral parts of the commissure. The lesions consisted of a slight thickening and squamous aspect of this skin. No lesions were observed on the external parts of the bill nor on the skin around the bill. The lesions were completely invisible when the bill was closed.

Host and locality: the mites have been collected on two Palm-Swifts, *Cypsiurus parvus* (LICHTENSTEIN), from Togo, West-Africa, at 16 november 1968 (holotype ♀; allotype ♂; paratypes: 12 ♀♀, 1 ♂, 2 nymphes, 1 larva). Two birds were parasitized among the four examined. These birds had been collected by Mr VERONESE for the Museum in Tervuren.

Holotype, allotype and 2 ♀♀ paratypes in the Tervuren-Museum; 1 ♀ paratype in the British Museum; other paratypes in the collection of the author.

SUMMARY

The author describes a new species of *Knemidokoptes* (*K. derooi*) producing mange in the palm-swift, from Togo (West-Africa). Two birds, among the four examined, were parasitized. The lesions were confined to the skin of the internal parts and only in the corners of the bill. They were visible only when the bill was open.

BIBLIOGRAPHY

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