A key to the genus *Lutrilichus* Fain and description of a new species from the ermine, *Mustela erminea*, in Canada (Acarina: Sarcoptiformes)

A. Fain, F. S. Lukoschus, N. J. J. Kok, and F. V. Clulow

Volume 52 • Number/numéro 7 • 1974

Pages 941–944
A key to the genus *Lutrilichus* Fain and description of a new species from the ermine, *Mustela erminea*, in Canada (Acarina: Sarcoptiformes)

A. Fain

Institut de Médecine tropicale Prince Léopold, Antwerpen, Belgium

F. S. Lukoschus and N. J. J. Kok

Department of Zoology, Catholic University, Nijmegen, The Netherlands

AND

F. V. Clulow

Department of Biology, Laurentian University, Sudbury, Ontario

Received November 8, 1973


*Lutrilichus canadensis* sp. nov., parasitic on the ermine, *Mustela erminea*, in Canada, is described and figured in detail. A key to species of the genus *Lutrilichus* Fain, 1970 is presented.

The genus *Lutrilichus* Fain, 1970 to date consists of four species, all parasitic on small carnivores.

Work was supported in part by the National Research Council of Canada Grant A-5070 to this author.

The new species, described here, resembles *L. nivalis* Beron, 1973 described from *Mustela nivalis*, in Bulgaria. It is distinguished from *L. nivalis* mainly by its greater body size and the different form of its chaetotaxy.
Figs. 1-3. Lutrellichus canadensis sp. nov. Female holotype in lateral view (Fig. 1); tibias and tarsi III (Fig. 2) and IV (Fig. 3).
Fig. 4. *Lutrilichus canadensis* sp. nov. Male allotype.
FAMILY Chirodiscidae Trouessart, 1892
SUBFAMILY Labidocarpinae Gunther, 1942
TRIBE Schizocarpini Fain, 1971
GENUS Lutrilichus, Fain, 1970
Lutrilichus canadensis sp. nov.

FEMALE (HOLOTYPE) Figs. 1–3: Total length of the body 345 microns (μ), maximum width in lateral view 180 μ. Preshapeal shield very short. Cuticle finely striate. Anus terminal. Vulva situated 30 μ behind the anus. Posterior legs rather short. Tarsi III 27–30 μ long, with two strong, flattened and striated spines. Tarsi IV a little shorter with only one flattened spine.

Chaetotaxy—sc 1 and sc e are short hairs. The d 1 and d 2 are spines 34–36 μ long; d 3 much longer (95 μ) but strongly attenuate apically. The f 1, h, and sh are long and very progressively tapered apically. The l 2 is a spine 33 μ long. The l 5 is very long (180–200 μ). The d 5 is much longer (120 μ) than the anal or the d 4 and l 4 setae.

MALE (ALLOTYPE) Fig. 4: Length 305 μ, maximum width in lateral view, 165 μ. Preshapeal shield as in the female. Hysterosoma with an irregular and poorly sclerotized median shield behind the d 3 setae. Posterior extremity forming two wide membranous lobes partly sclerotized. Posterior legs longer than in the female.

Chaetotaxy—Anterior dorsal setae as in the female. The d 3 is very short and thin. The posterior extremity bears five pairs of long unequal hairs.

TYPE HOST: Mustela erminea Linnaeus.
TYPE LOCALITY: Hart Township, Ontario, Canada. 9.IX.1970.

DEPOSITION OF TYPES: Holotype and 12 paratypes female, allotype and 13 paratypes male, six nympha in the Canadian National Collection (C.N.C.), Canada Department of Agriculture, Ottawa, Canada. C.N.C., Type No. 13291.

Paratypes: British Museum (Natural History) London (1973. 578-9); Zoologisches Institut und Zoologisches Museum, Hamburg (A 50-73); Rijksmuseum van Natuurlijke Historie, Leiden; U.S. National Museum, Washington (3584); Institut de Médicine tropicale Prince Léopold, Antwerpen; Zoological Institute, Academy of Sciences, Sofia; Department of Biology, Laurentian University, Sudbury; Zoölogisch Laboratorium, Catholic University, Nijmegen.

KEY TO THE GENUS Lutrilichus Fain, 1970

(Females)

1. Setae d 1 and d 2 in the shape of conical spines abruptly attenuated apically. Ventral modified setae of tarsi III and IV as long or longer than half of the length of these tarsi........................................2
2. Body from 288 to 345 μ long. Setae sc i and sc e equal or subequal, distinctly narrower than the d 1...3
2. Body 429 μ long. Setae sc i and d 1 subequal and much thicker than the sc e.
On Hydricotis maculicollis kivuana, Zaire..............................................L. schoutedeni Fain, 1970
3. Setae d 3 and l 3 (the e 3 of Beron) shorter and unequal (25–30 μ and 40–45 μ). The a e and l 4 (the e 4 of Beron) equal, thin and short (12 μ). Body 288 μ long.
On Mustela nivalis, Bulgaria.................................................................L. nivalis Beron, 1973
3. Setae d 3 and l 3 much longer (95 μ to 105 μ) and tapering very progressively toward the apex. The a e about twice as long (50 μ) as the l 4. Body 345 μ long.
On Mustela erminea, Canada..............................................................L. canadensis sp. nov.
4. Most of the dorsal setae more than 100 μ long. The sc i and sc e are 110 to 120 μ long.
On Melogale orientalis, Java.......................................................L. javanicus Fain, 1970
4. Most of the dorsal setae less than 30 μ long. The sc i and sc e are 30 to 40 μ long. The d 1 to d 3 and l 1 to l 3 are 25 μ long.
On Prionodon insang, Sumatra.........................................................L. insang Fain, 1970

Acknowledgment

We thank Dr. P. Beron, Bulgaria, who kindly forwarded us the holotype of Lutrilichus nivalis Beron, 1973.
