

Research Note

The cat fur mite, *Lynxacarus radovskyi* Tenorio, 1974 (Acarina: Astigmata: Listrophoridae) from cat, *Felis catus* in peninsular Malaysia

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Abstract. The cat fur mite, *Lynxacarus radovskyi* Tenorio, 1974 (Acarina: Astigmata: Listrophoridae) is reported from cats, *Felis catus* from three sites in peninsular Malaysia. The first site is a Malay village, Kampong Menteri in Taiping, Perak, where the mites were found on local pet cats. The other two sites are urban cities of Kuala Lumpur, in the Federal Territory and Georgetown, in the island of Penang. Mites from the urban areas were collected from stray cats. Although several ectoparasites (fleas, mites, ticks and lice) have been previously reported, *L. radovskyi* is recorded herein for the first time on cats from peninsular Malaysia.

The cat *Felis catus* is a very popular companion animal in peninsular Malaysia. However, many live as ferals. Studies conducted to elucidate the ectoparasites of domestic cat have shown the presence of ticks, mites, fleas and lice (Amin-Babjee, 1978; Shanta *et al.*, 1980; Abdullah *et al.*, 1990; Zahedi *et al.*, 1990). However, the cat fur mite, *Lynxacarus radovskyi* Tenorio, 1974 (Acarina: Astigmata: Listrophoridae) hitherto has never been reported. Moreover, it was not mentioned in the checklist of arthropods of domestic animals in Malaysia (Lee *et al.*, 1991). In this paper, the mite is reported for the first time on domestic cats from the country.

Surveys for cat parasites were conducted during two separate periods in peninsular Malaysia. The first was from December 2005 to March 2006 on pet cats in a Malay village,

Kampong Menteri in Taiping, Perak. This was then followed by a macroparasitic survey of stray cats of major cities in peninsular Malaysia namely, Georgetown in Penang, Kuala Lumpur in the Federal Territory, Malacca Town in Malacca and Kuantan in Pahang from May 2007 to August 2010. A total of forty pet cats from the village were captured and examined alive for ectoparasites using a pair of forcep. Fleas, ticks, lice and mites were collected and preserved in vials containing 70% ethanol.

On the other hand, all stray cats captured from the cities were euthanized prior to examination of their ectoparasites. The cats were captured from food courts and markets with the help of personnel from the municipality and animal shelters. Collection of ectoparasites was made by combing the cat fur with a fine-tooth comb. The collected

ectoparasites were also preserved in 70% ethanol pending processing and identification. The mites were then mounted in Hoyer's medium on glass slides and covered with cover slips before placing it into an oven at 40°C for about a week. The cover slips were ringed with nail-polish to prevent desiccation of the medium during storage. The mites were then identified using the figures and criteria outlined in Tenorio (1974).

Examination of ectoparasites on 40 pets at the village yielded three female *L. radovskyi* mites on two cats (5%). During the course of the subsequent surveys, a total of 543 stray cats were captured from urban cities (241 cats in Kuala Lumpur; 102 cats in Georgetown; 100 cats in Kuantan and 100 cats in Malacca Town). Eight stray cats (1.5%) were with these mites. An intensity of 239 mites were obtained from two cats in Georgetown and 83 mites from 6 cats in Kuala Lumpur, respectively. Most of the mites were females and a few were males and immatures.

Lynxacarus radovskyi (female) (Fig. 1) measures < 0.5mm; body cylindrical and elongate, dorsally arched; head ventrally directed; body heavily striated; well developed head and propodosomal plates (in males, these plates connected medially by a narrow sclerotized band); no opisthosomal plates (present in males); femur 1 with a conspicuous preapical dorsal sclerotized prominence.

No apparent lesions were observed on the cats. However, Tenorio (1974) stated that severely infested cats had mangy patches and scruffy appearance. Dandruff-like condition was associated with the presence of this mite (Craig *et al.*, 1993).

Lynxacarus radovskyi is widely distributed worldwide with reports on domestic cats in Hawaii (Tenorio, 1974), Florida and Texas in the USA (Greeve & Gerrish, 1981; Craig *et al.*, 1993), Queensland in Australia (Bowman & Domrow, 1978), Fiji (Munro & Munro, 1979), New Zealand (Jones, 2000) and the Philippines (Moya *et al.*, 2004).

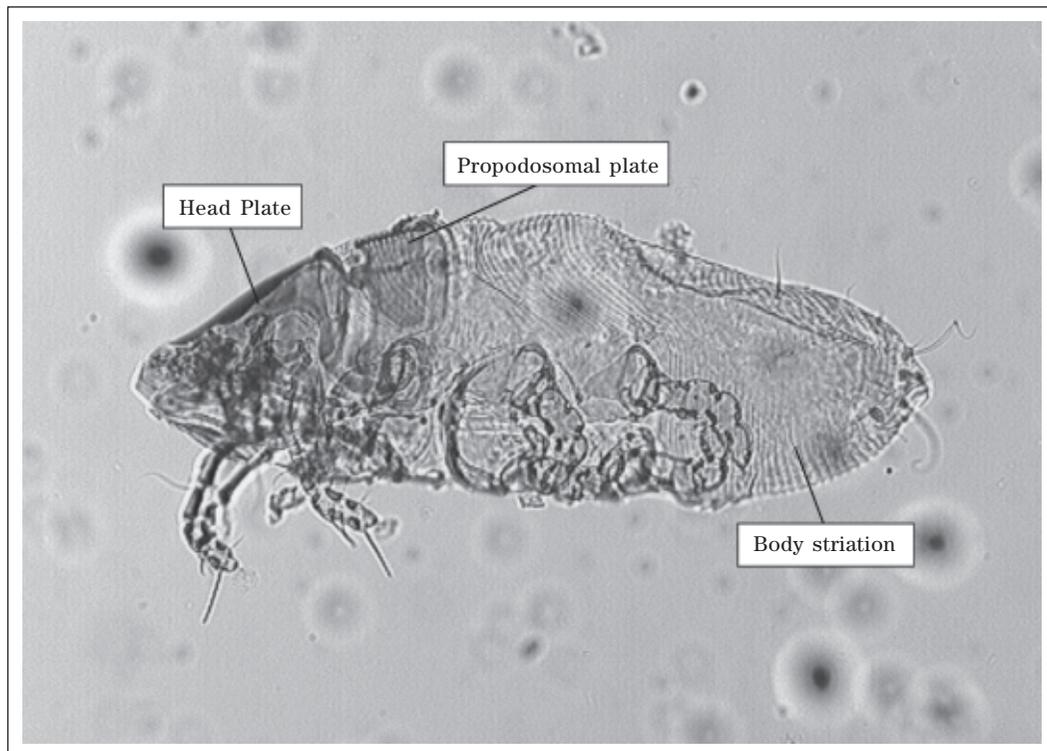


Figure 1. Female *Lynxacarus radovskyi* (magnification: 100x)

However, this mite is probably not commonly encountered. Several studies in the past have failed to reveal its presence on local cats of peninsular Malaysia. Although the mite is considered host specific in cats, Jaffe *et al.* (2005) found it on a dog that was found in the same environment as infected cats.

Additional studies on distribution of *L. radovskyi* in the country and its effect on the health status of the cat are deemed necessary.

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