Research Note

LISTROPHORID MITES ON LABORATORY ANIMALS IN PUERTO RICO[1, 2]

Although many papers have appeared recently on the taxonomy, hosts, and distribution of listrophorid fur mites (sens. lat.), information on the species which occur on laboratory animals in the Western Hemisphere is far from complete. Whitaker and Wilson[3] listed the fur mites of wild animals but not those of laboratory animals, and the work of Yunker[4] preceded some recent advances.

This note reports results of a survey of some laboratory animals (cats, dogs, guinea pigs, mice, and rats) for listrophorid fur mites (Families Listrophoridae, Myocoptidae, and Atopomelidae) in San Juan, Puerto Rico. Another purpose is to alert workers to a newly described fur mite capable of infesting a high percentage of cats in animal quarters.

To survey laboratory animals for listrophorid mites, we cut from the back of each animal a patch of hair (about 2 cm^2), placed the hairs in a Petri dish, and examined them under the stereoscopic microscope. These animals were in the School of Tropical Medicine Animal House, Puerta de Tierra, San Juan, Puerto Rico from December 27, 1972, to March 7, 1973.

In a survey of 105 laboratory animals we found a total of 29 infested with listrophorid mites (28%). Of 10 domestic cats, *Felis catus,* 7 were infested with *Felistrophorus radofskyi* (70%); of 25 domestic dogs, *Canis familiaris,* none were infested (0%); of 18 domestic guinea pigs, *Cavia porcellus,* none were infested (0%); of 27 house mice, *Mus musculus,* 9 were infested with *Myocoptes musculinus* (33%); and 2 were infested with *F. radofskyi* (7%); of 11 domestic rabbits, *Oryctolagus cuniculus,* 11 were infested with *Leporacarus gibbus* (100%); and of 14 Norway rats, *Rattus norvegicus,* none were infested (0%).

No listrophorid fur mites were found on dogs, rats or guinea pigs during this study. Previously, however, Tamsitt and Fox[5] reported the guinea pig fur mite, *Chirodiscoides caviae* Hirst (Family Atopomelidae) from a

[1] Manuscript submitted to editorial Board February 27, 1978.

[2] Thanks are expressed to Dr. J. F. Maldonado-Moll, School of Medicine, University of Puerto Rico, Río Piedras, for taking the photographs.

[3] Whitaker, J. O. and Wilson, N., Host and distribution lists of mites (Acari), parasitic and phoretic, in the hair of wild mammals of North America, North of Mexico, Am. Midl. Natur. 91: 1–67, 1974.

[4] Yunker, C. E., Mites in Flynn, R. J., Ed, Parasites of Laboratory Animals, Iowa State Univ. Press, Ames, 425–92, 1973.

[5] Tamsitt, J. R. and Fox, I., Mites of the family Listrophoridae in Puerto Rico, Can. J. Zool. 48: 398–9, 1970.

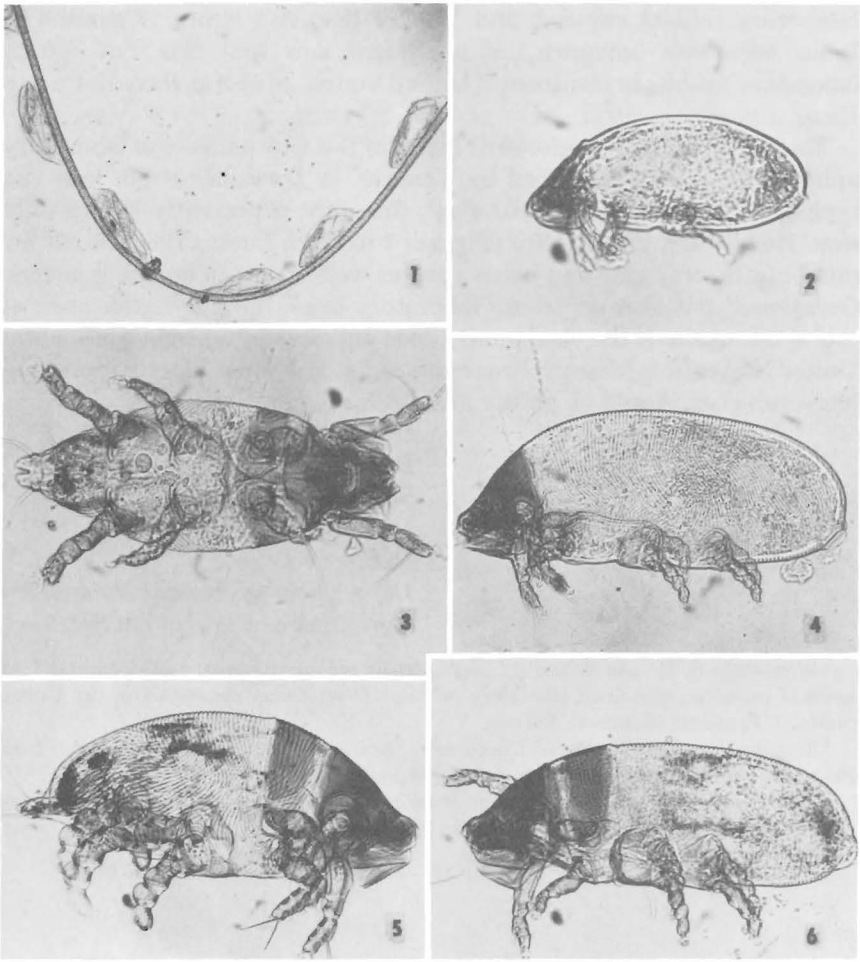

FIG. 1-6.—Photomicrographs (1, 45 ×; 2 to 6, 125 ×) of the cat fur mite, *Felistrophorus radovskyi*. 1. Eggs on cat hair. 2. Lateral view of larva. 3. Ventral view of male. 4. Lateral view of nymph. 5. Lateral view of male. 6. Lateral view of female.

guinea pig in this animal house. While none of the 57 guinea pigs, rats, and dogs were infested, 60% of the 48 cats, rabbits, and mice had mites. Of the three species of listrophorid fur mites found, only one, the myocoptic mange mite, *M. musculinus* (Koch), has heretofore been generally recognized as a pest. The rabbit fur mite, *L. gibbus* (Pagenstecher) may be more common among laboratory rabbits in the Western Hemisphere than formerly supposed. In India, Deoras and Patel[6] found 66% of 112

[6] Deoras, P. J. and Patel, K. K., Collection of ectoparasites of laboratory animals, Indian J. Entomol. 22: 7-14, 1960.

laboratory rabbits infested, and Yunker (loc. cit.) wrote, "Common in India; otherwise unknown." It is evident now that this mite affects laboratory rabbits in continental United States[7] as well as those in Puerto Rico.

The cat fur mite, *F. radovsky* (Tenorio) is a new parasite of laboratory animals. Originally described by Tenorio[8] in *Lynxacarus* but now the type species of *Felistrophorus* Fox[9], this mite is presently known only from Hawaii and Puerto Rico (Figures 1 to 6). In Puerto Rico the cat fur mite infests stray cats and house cats, as well as cats in animal quarters. Occasionally, it also occurs on laboratory mice, but the significance of this is uncertain. If the cat fur mite does not already range in continental United States, it is likely to be introduced at any time. Veterinarians and parasitologists should be on the lookout for it.

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[7] Weisbroth, S. H. and Scher, S., *Listrophorus gibbus* (Acarina: Listrophoridae). An unusual parasitic mite from laboratory rabbits (*Oryctolagus cuniculus*) in the United States, J. Parasitol. 57: 438–40, 1971.

[8] Tenorio, J., A new species of *Lynxacarus* (Acarina: Astigmata: Listrophoridae) from *Felis catus* in the Hawaiian Islands, J. Med. Entomol. 11: 599–604, 1974.

[9] Fox, I., *Felistrophorus*, a new genus of mites on cats in Puerto Rico (Acarina: Listrophoridae), Proc. Entomol. Soc. Washington 79: 242–44, 1977.