

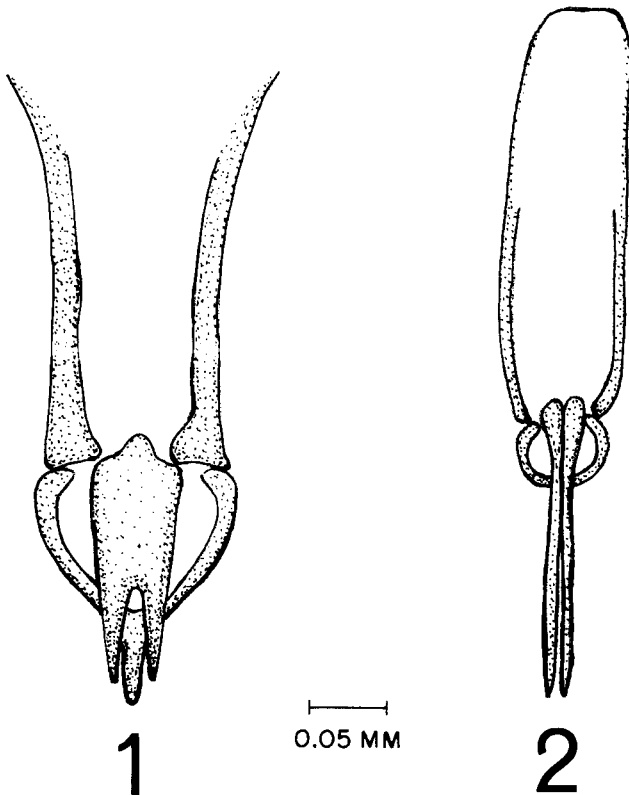
**New Records of Chewing Lice (Mallophaga: Trichodectidae)  
Found on North American Wild Foxes North of Mexico**

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**ABSTRACT:** A summary of trichodectid records is given for the five species of North American foxes, including finding *Neotrichodectes mephitidis* (Packard), a common louse on the Striped Skunk, on the Island Gray Fox from three of the off-shore Channel Islands and on the Gray Fox in Santa Barbara County, California.

Five species of foxes are found in North America north of Mexico. According to Hall (1981), these species and their ranges are: Arctic Fox (*Alopex lagopus*), Alaska and Canada; Red Fox (*Vulpes vulpes*), Alaska, Canada, southward to Mexico; Kit Fox (*Vulpes velox*), Alberta and the western United States, except Washington and Alaska; Gray Fox (*Urocyon cinereoargenteus*), southern Ontario, Manitoba, and continental United States, except Alaska, Washington, Idaho, and Montana; and Island Gray Fox (*Urocyon littoralis*), only on six off-shore islands in southern California.

To date there are no known records of Mallophaga on the Arctic Fox. *Suricatoecus vulpis* (Denny) is common on the Red Fox in Europe, but there are no previously published records of it in North America; we have examined a collection of this trichodectid species collected off a Red Fox in Montana,



Figs. 1, 2. Male genitalia. 1. *Neotrichodectes mephitidis*. 2. *Suricatoecus quadraticeps*.

so it may be more common than previously thought. Emerson and Price (1981) listed *Suricatoecus quadraticeps* (Chapman) as the species on the Kit Fox. The records upon which that information was based are from Fort Mojave, Arizona, and Tooele County, Utah. These were small collections and the identifications were tentative. Larger collections are needed to confirm this identification; with more specimens to study, this form may prove to be a new species. *Suricatoecus quadraticeps* is common on the Gray Fox. We have seen collections from Georgia, Indiana, Maryland, Mississippi, and Sonoma County in northern California. We also have seen two collections of *Neotrichodectes mephitidis* (Packard), the chewing louse commonly found on the Striped Skunk, off the Gray Fox collected on the mainland of Santa Barbara County in southern California.

We have studied two very large collections of over 300 adults each of the Striped Skunk louse. *N. mephitidis*, off the Island Gray Fox from Santa Cruz Island, Santa Barbara County, and Santa Catalina Island, Los Angeles County, and a smaller collection of 12 adults from San Miguel Island, Santa Barbara County, all of these being off-shore islands in southern California. The Striped Skunk is found in California, but does not occur on the off-shore islands. However, the large number of *N. mephitidis* specimens in the Island Gray Fox collections, in conjunction with the absence of any *Suricatoecus* lice, has led us to conclude that *N. mephitidis* is established on the Island Gray Fox and is the normal louse found on that host. We cannot offer any explanation as to how this Striped Skunk louse has become established on the Island Gray Fox in lieu of the *Suricatoecus* typically on foxes. Since we have only two records of 12 and 2 adults of *N. mephitidis*, respectively, from the Gray Fox on the mainland of Santa Barbara County, it is possible that these could be the result of a Gray Fox consuming a Striped Skunk; however, there is also a possibility that this skunk louse is common on the Gray Fox in that area. This question can be answered only by examination of more collections.

Werneck (1948) illustrated the male genitalia of *N. mephitidis* from eight subspecies of Striped Skunks in order to show the variation involved. We examined numerous specimens of this louse from Ontario, Quebec, and 22 states in the United States and found similar variation. Male genitalia of *N. mephitidis* (Fig. 1) and *S. quadraticeps* (Fig. 2), drawn to the same scale, are provided to assist others in distinguishing these two species. The male genitalia of *S. vulpis* are similar to those of *S. quadraticeps*, but smaller.

ACKNOWLEDGMENTS: We thank Dr. Paul W. Collins, Associate Curator, Department of Vertebrate Zoology, Santa Barbara Museum of Natural History, for providing the louse specimens from Santa Barbara County and from the off-shore islands. This study was partially supported by Projects No. Min-17-015 and Min-17-016, Minnesota Agricultural Experiment Station, St. Paul, Minnesota 55108, and has been assigned Paper No. 15,000, Scientific Journal Series.

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Accepted for publication 19 September 1986.