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.

so it may be more common than previously thought. Emerson and Price (1981) listed _Suricatoecus quadricipes_ (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 quadricipes_ 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 _Neotrichodeltes 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. quadricipes_ (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. quadricipes_, but smaller.

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