

Banisteria, Number 43, pages 98-99
© 2014 Virginia Natural History Society

SOME RECORDS OF CHEWING LICE FROM CARNIVORES IN VIRGINIA. — Chewing lice are insects placed in three suborders of the Order Phthiraptera. Most species parasitize birds and thus, some refer to those as the “bird lice”. However, in North America a few species are ectoparasites of rodents, ungulates, and carnivores. While surveying mammals in Virginia for fleas I also encountered a few chewing lice. Three species of trichodectid chewing lice belonging to the suborder Ischnocera from carnivores are here reported, all of which are new state records.

All of the host mammals were road kills and were brushed or combed for ectoparasites. Lice were preserved in 70% ethanol and then processed by decolorization in 5% KOH overnight, dehydrated in an ethanol series, cleared in xylene, and mounted on slides in Canada balsam. Identifications were made using the key and illustrations in Whitaker (1982). All specimens have been deposited in the collections at the Virginia Museum of Natural History, Martinsville, VA.

Stachiella octomaculatus (Paine, 1912) is a parasite of Raccoons, *Procyon lotor* as documented by Emerson (1972) and Price et al. (2003). Three of 31 (10%) Raccoons were infested from these localities: 1♂ 4♀ ex *P. lotor*, 23 September 1982, New Kent, New Kent Co., VA; 1♂ 2♀ ex *P. lotor*, 15 October 1987, Annandale, Fairfax Co., VA; 8♂ 9♀ ex *P. lotor*, 1 March 1992, Troutdale, Smyth Co., VA. Raccoons from Fairfax Co. (n=26), and one each from Arlington, Fauquier, and Prince William counties were not infested.

Stachiella larseni Emerson, 1962 is a host-specific parasite of American Mink, *Neovison vison* according to Emerson (1972) and Price et al. (2003). Only 2 American Minks were examined, one of which (50%) was infested; 1♂ 4♀ and 1 nymph ex *N. vison*, 22 February 1997, Cross Junction, Frederick Co., VA. Another mink from Dinwiddie Co. was not infested.

Neotrichodectes mephitidis (Packard, 1873) is a parasite of skunks and has been taken from the Striped Skunk, *Mephitis mephitis* and the Hooded Skunk, *Mephitis macroura* as documented by Emerson (1972) and Price et al. (2003). In this study 2 of 7 (29%) Striped Skunks were infested from these localities: 4♂ 21♀ ex *M. mephitis*, 10 November 1982, Bull Run, Prince William Co., VA; 2♀ ex *M. mephitis*, 19 September 1983, Seven Fountains, Shenandoah Co., VA. Three Striped Skunks from Fairfax Co. and one each from Fauquier and Highland counties were not infested.

Other species of chewing lice are known to parasitize other carnivore species in North America but

none were taken in this study from Gray Fox (n=8), Red Fox (n=8), Bobcat (n=2), and Coyote (n=2) in Virginia. Most species of chewing lice are very host-specific and all specimens reported here were taken from the type host species. Prevalence of infestation and parasite loads were lower than those reported by Whitaker (1982). Some of the road-kill animals were not very fresh and no detergent washing technique was used to recover lice. These differences in technique may account for the low numbers.

ACKNOWLEDGEMENTS

Lance Durden, John Whitaker, Jr., and editor Steve Roble all made valuable suggestions that improved the manuscript.

LITERATURE CITED

Emerson, K. C. 1972. Checklist of the Mallophaga of North America (north of Mexico). Part III. Mammal host list. Desert Test Center, Dugway, UT. 28 pp.

Price, R. D., R. A. Hellenthal, R. L. Palma, K. P. Johnson, & D. H. Clayton. 2003. The Chewing Lice: World Checklist and Biological Overview. Illinois Natural History Survey Special Publication 24. 501 pp.

Whitaker, J. O., Jr. 1982. Ectoparasites of Mammals of Indiana. Indiana Academy of Science Monograph No. 4. Indianapolis, IN. 240pp.

Ralph P. Eckerlin
Natural Sciences Division
Northern Virginia Community College
Annandale, Virginia 22003
reckerlin@nvcc.edu