

Banisteria, Number 37, pages 42-43
© 2011 Virginia Natural History Society

WHAT KIND OF FLEAS DOES YOUR DOG HAVE?
— Only a few of the approximately 2500 known species of fleas worldwide have common names. These are usually common flea species that are parasites on humans and domestic animals. The dog flea, *Ctenocephalides canis* (Curtis, 1826), and the cat flea, *Ctenocephalides felis* (Bouché, 1835), are among these. By their names, one would expect dogs to have the dog flea and cats the cat flea. What do we actually find in Virginia? I have examined the fleas taken from 29 dogs from Virginia. In total, 244 fleas were identified and all were cat fleas! The cat fleas from dogs were obtained from the following counties in Virginia (those marked with an asterisk are new county records): Accomack*, Albemarle*, Arlington, Augusta*, Chesterfield*, Fairfax*, Fauquier*, Henrico, James City*, Loudoun*, Louisa*, Prince William*, York*, and Portsmouth City*. In the surrounding jurisdictions of West Virginia, Maryland, and the District of Columbia two dogs from each were examined and 321 additional fleas

were collected. Once again all were *C. felis*, the cat flea.

What species of fleas do cats in Virginia carry? Eighteen cats yielded 208 fleas and all were cat fleas. Records were obtained from the counties of Accomack*, Chesterfield*, Culpeper*, Fairfax*, Fauquier*, Loudoun*, Prince William*, and Warren*, as well as the City of Fairfax*. So it appears that domestic cats and dogs in and around Virginia carry only cat fleas. Perhaps wild canids carry the dog flea. Small numbers of foxes and coyotes were examined but the outcome was the same. Four of seven Red Foxes (*Vulpes vulpes*) examined had a single cat flea each. Five Gray Foxes (*Urocyon cinereoargenteus*) and a single Coyote (*Canis latrans*), all from Fairfax County, had no fleas.

The dog flea is known from Virginia but the records are old. The last record of *C. canis* in Virginia was in Richmond in 1937 (Fox, 1940). In Maryland, there is a 1920 record from Takoma Park (Fox, 1940). Apparently, dog fleas were never as numerous as cat fleas, but even less so today.

Fleas of the genus *Ctenocephalides* evolved in the Old World where 13 species occur (Beaucournu & Menier, 1998). Both the cat and the dog flea now occur worldwide, having been spread with domesticated dogs and cats. In Fairfax County, Virginia, as well as elsewhere, the cat flea has colonized Virginia Opossums (*Didelphis virginiana*; seven of 30 examined

were infested) and Raccoons (*Procyon lotor*; two of 23 were infested). The cat flea is the principal vector of the bacterium, *Rickettsia felis*, which causes a febrile disease in humans. Domestic cats and their fleas are probably the main sources of human infections but the wild opossums in suburban neighborhoods are reservoir hosts for the bacterium (Boostrom et al., 2002).

LITERATURE CITED

Beaucournu, J. C., & K. Menier. 1998. Le genre *Ctenocephalides* Stiles et Collins, 1930 (Siphonaptera, Pulicidae). Parasite 5:3-16.

Boostrom, A., M. S. Beier, J. A. Macaluso, K. R. Macaluso, D. Sprenger, J. Hayes, S. Radulovic, & A. F. Azad. 2002. Geographic association of *Rickettsia felis*-infected opossums with human murine typhus, Texas. Emerging Infectious Diseases 8: 549-554.

Fox, I. 1940. Fleas of Eastern United States. Iowa State College Press, Ames. 191 pp.

Ralph P. Eckerlin
Natural Sciences Division
Northern Virginia Community College
Annandale, Virginia 22003