MORPHOLOGICAL CHARACTERIZATION, PREVALENCE AND POPULATION DYNAMICS OF DOG FLEA (*Ctenocephalides canis*) AND CAT FLEA (*Ctenocephalides felis*), POTENTIAL AGENTS FOR ZOONOSES, IN DHAKA CITY

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Executive Summary

Ctenocephalides felis and *Ctenocephalides canis* are the most important ectoparasites of dogs and cats throughout the world. They affect the host and act as vectors of many deadly diseases. The main aim of the present study was to identify *Ctenocephalides* spp. through the morphological properties and to assess their prevalence in both stray and pet dogs and cats in Dhaka City. Typical morphological characteristics were observed in both species. The two species were separated according to the shape of the head, length of the first spine of the genal comb, number of bristles on the lateral meta-notal area (LMA), the number of short stout bristles in the interval between the post-median and apical long bristles of the dorsal margin of the hind tibia. A total of 25 flea infested dogs and 25 flea infested cats were found from 57 dogs and 77 cats, respectively. A higher prevalence was recorded in stray dogs (61.11%) and cats (79.17%) than that in pet dogs (14.29%) and cats (11.32%). The prevalence of flea infestation was 48.28% in young dogs and 39.29% in adult dogs. In case of cat, 34.62% young and 31.37% adult were found to be infested by fleas. Cross infection of both dogs and cats were observed by cat flea and dog flea, respectively. Among the examined fleas of dogs, 9 (60%) were *C. canis* and 6 (40%) were *C. felis*. Again, among the examined fleas of cats, 2 (13.33%) were *C. canis* and 13 (86.77%) were *C. felis* of the 11 *C. canis* identified, 8 (72.73%) were female fleas and 3 (27.27%) were male fleas. Of the 19 examined *C. felis* identified as 18 (94.74%) were female fleas and 1 (5.26%) male flea. As both fleas have public health significance, therefore, proper attention needs to be paid for the prevention of flea borne diseases through the control of dogs and cats' fleas.

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