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Incidence of dipterans causing myiasis in dogs and cats treated in two veterinary clinics in Peradeniya

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Myiasis, a maggot infestation of wounds in animals, can be classified into three major groups on the predatory behavior of parasites; obligatory, facultative and accidental. For the first time in Sri Lanka, we attempted to examine the relationship between occurrence of myiasis in dogs and cats with the weather pattern (rainfall and humidity). The samples were collected from the Government Veterinary Hospital (GVH), Gatambe and the Veterinary Teaching Hospital (VTH), University of Peradeniya.

Retrospective data were collected using OPD administration books (GVH) and history sheets (VTH) from January to December 2014 and January to September 2014 respectively to check the incidence of myiasis. A total of 119 (GVH) and 180 (VTH) myiasis cases were reported from respective clinics out of which 295 (98.7%) were from dogs and only four (1.3%) were from cats. The number of cases was highest in July 2014, since the temperature and humidity were optimum for the growth of maggots. From March to October, the number of cases kept increasing while the temperature was above 25^0C and humidity was 79-80% except in June. The number of cases decreased from December (records received only from GVH) to February when the temperature fluctuated around 24^0C. There appears to be no clear relationship between myiasis case reports and rainfall. The findings on the positive relationships between myiasis with humidity and temperature, agree well with published information. However, in similar studies the number of cases decreased with increasing rainfall. Therefore further studies are required on the subject.

In a subsequent prospective study conducted during January to September 2015, representative samples of maggots from wounds of dogs and cats from both clinics were collected, preserved and identified morphologically. A total of 51(GVH) and seven (VTH) maggot samples were collected from the respective clinics. A detailed morphological study revealed that all infestations were due to a single species of fly namely *Chrysomya bezziana* (Diptera: Calliphoridae). A majority of reported hosts were males (82.7%) of cross breeds (63.8%) and were between 0-4 years (37.93%). Data generated in this study are confined to dogs and cats. Myiasis is a clinical and surgical complication in livestock, wild and zoo animals as well and a detailed study is needed. It is important that the veterinarians educate pet owners with regard to early recognition of wounds and prompt referral of such affected animals to veterinary clinics to avoid myiasis.