

THE OCCURRENCE OF PRIMARY MYIASIS IN CATS CAUSED BY *PHAENICIA EXIMIA* (DIPTERA: CALLIPHORIDAE)

NEWTON GOULART MADEIRA, GERSON AUGUSTO R. SILVEIRA* & CRODOWALDO PAVAN*

Departamento de Parasitologia, I. B. UNESP, 18600 Botucatu, SP, Brasil *Departamento de Genética e Evolução, Instituto de Biologia, UNICAMP, Caixa Postal 6109, 13083 Campinas, SP, Brasil

In the family of Calliphoridae there are many species of flies which cause primary and secondary myiasis. *Phaenicia eximia* is a nearctic and neotropical species frequently found in rural and urban surroundings, that breeds primarily in carcasses and secondarily in rotten fruits and urban garbage. The species was found in Trinidad Tobago giving rise to secondary myiasis (V. I. E. Murray & K. Thompson, 1976, *Trop. Agric.*, 53: 263-266), while in Brazil, it is unknown as causing any kind of myiasis. This paper reports a case of primary myiasis in cats caused by *Phaenicia eximia*, in Campinas, São Paulo, Brazil.

A young female cat (*Felis domesticus* L.), around fifteen days old, still under mother care, was found exhibiting a great number of eggs and first instar larvae, located in its abdomen and urogenital region. One could verify after investigation, that the animal, even weakened and with skin desquamation, did not show any exposed wound which would have stimulated the flies to oviposit. Because the animal was so weak and strongly infested by larvae, it was sacrificed, and the larvae were allowed to complete their development. In this way third instar larvae and imagos could be used to allow better analysis and a more precise identification. *Phaenicia eximia* was identified in this case as causative agent of myiasis in cat.

We think it is important to report and to follow the myiasis assigned to species ordinarily not taken as causative of this kind of infestation. Our finding may probably be not an isolate case but, due to its rarity, it could be over looked. Often in our country, myiasis are

treated and no identification of the fly species that causes it is made.

The factors inducing the *P. eximia*, which normally oviposits in carcasses, to do it in an living animal, is still not known. One of these factors could be competitive displacement of *P. eximia* by exotic species, belonging to the genus *Chrysomya* (Rob. Desvoidy), recently introduced in the country (A. P. Prado & J. H. Guimarães, 1982, *Rev. Bras. Ent.*, 26: 225-231). This hypothesis is reinforced by data obtained in some Brazilian States, such as Goiás (M. J. Ferreira, 1983, *Rev. Bras. Biol.*, 43: 199-210), Minas Gerais (N. G. Madeira et al., 1982, *Rev. Bras. Ent.*, 26: 137-140), Rio de Janeiro (J. M. D'Almeida & H. S. Lopes, 1983, *Arq. Univ. Rur. Rio de Janeiro*, 6: 39-48), and São Paulo (A. P. Prado & J. H. Guimarães, 1982, loc. cit.) showing a decrease in the populations a levels of the native species of Calliphoridae, *P. eximia* included, followed by an increase in the population a levels of the species of *Chrysomya*.

In Australia, since the last century *Phaenicia cuprina* has been reported causing primary myiasis in sheeps (D. F. Waterhouse & S. J. Paramanov, 1950, *Aust. J. Sci. Res. ser. B* 3: 310-316). Williams & Richardson, 1983 (*Aust. J. Ecol.*, 8: 257-264) also suggest that the competition with other species for carcasses as breeding site as the cause for the behavioral change leading to the exploitation of living tissues of animals. These case of primary myiasis here reported being caused by *P. eximia* in cat seems to be related to a possible competitive displacement of *P. cuprina* observed in Australia.