

## **Environmental Protection Act 1990, section 79**

### **Nuisance fly investigation report**

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**Date: 22 August 2012**

#### **Fieldwork undertaken**

Visits were made to a number of Ditchling and Westmeston residents on 25 July and 9 August 2012. Samples of live specimens were collected in order to identify which species were present. Inspection of wing venation using a microscope confirmed that the flies collected at every location were *Fannia canicularis*.

The Macs' Farm was visited on 9 August and the poultry sheds were inspected with the farmer. The internal areas of the poultry sheds were clean with little ammonia noticed in the air. The litter was dry and friable and few flies were present. Those insects that were seen had clearly entered from outside. Measures taken to minimise humidity and propagation of insects included hose-fed water drinkers, red-top-type fly traps and predatory wasp larvae. Poultry are separated by a platform from the litter beneath.

On 16, 17 and 20 August 2012 a District-wide survey was undertaken to assess whether *F. canicularis* was ubiquitous, or whether their presence was concentrated in the areas from which complaints have been received (principally Ditchling, North Chailey, South Chailey and Barcombe). Weather conditions were favourable during each day of the survey. Ditchling, including The Macs' Farm, was visited each day to confirm that flies were present (they were). Locations to the north of the Downs were visited including Westmeston, Ditchling, Wivelsfield, Plumpton, Plumpton Green, East Chiltington, North Chailey, South Chailey, Town Littleworth and Barcombe. Six poultry farms, or establishments with mixed livestock including poultry, were visited during the survey.

Flies present at each location were netted and identified using a hand-lens and confirmed to be *F. canicularis*. This species was present in high numbers in almost every location visited within the Lewes District to the north of the Downs and to the west of the River Ouse. *F. canicularis* does not appear to be present in elevated numbers to the south of the Downs escarpment or within Lewes or Ringmer. The flies favour shady areas such as the insides of houses and out-buildings. They also appear to favour humid or damp areas and eschew dry locations.

Of the six farms visited, four hold an organic status, one is not registered organic but operates without pesticides, and the other is a conventional farm which uses pesticides. The conventional farm had an elevated population of *F. canicularis* but had fewer flies than three of the four organic farms, where no pesticides are used. The fourth organic farm, which is operated by the same family as The Macs' Farm in Ditchling and in an identical fashion, had very low numbers of flies and was one of the few locations visited where *F. canicularis* was mostly absent. The mixed livestock farm which operates

without pesticides had high numbers of flies in a goose shed and within a house, but low numbers elsewhere, including a poultry enclosure. The goose shed was shady and wet within.

All other areas inspected involved visits to homes and business premises as well as an evaluation of the general environment. *F. canicularis* was present in elevated numbers in all of these areas, where residents and proprietors reported the same fly problem. Flies were present in and around buildings but were less obvious in the wider environment. Large structures providing shade appeared to attract greater numbers of flies. These included farm buildings, but no correlation between commercial practises and the proliferation of flies was revealed. The absence of flies at one organic farm operated in the same manner as The Macs' Farm is considered to be a key finding.

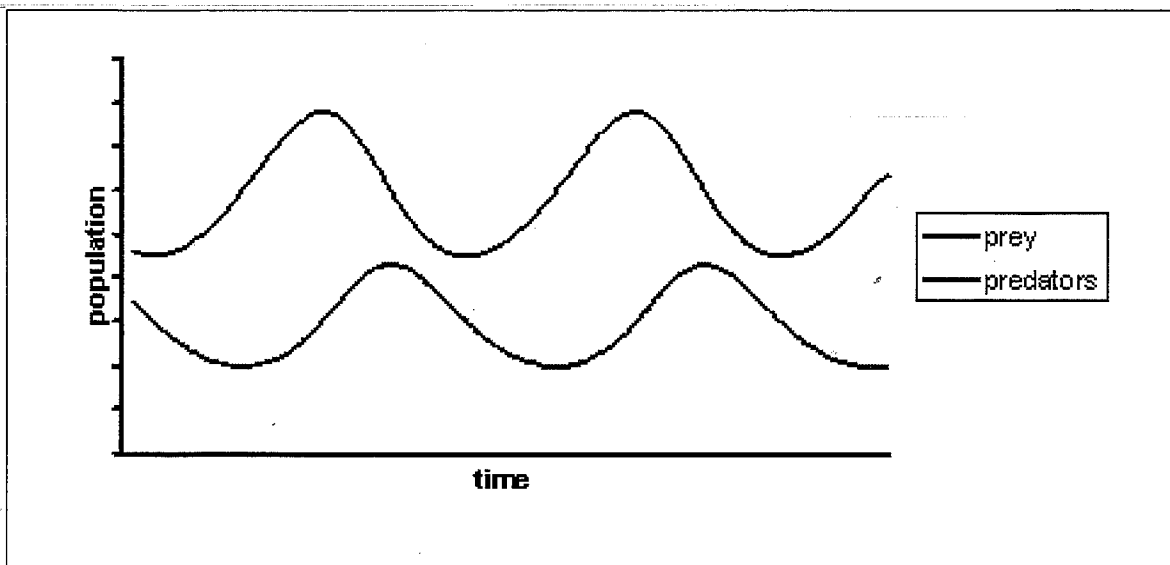
A final visit was made to The Macs' Farm on Monday 20 August to inspect the external areas of the farm. During the ninety minutes I spent with the farmer, flies were present in shaded areas but the ranging areas used by poultry were largely insect-free. This appeared to be because the hens eat any small creatures they find when they pick the ground – a behaviour I personally witnessed during my visit. The ground was reasonably dry and was certainly

period of weather between April and July this year. Heavy clay soils of the Low Weald to the north of the Downs held more rainwater than usual for the time of year and locations at the foot of the Downs have received additional rainwater run-off from the Downs escarpment, making them wetter still. Retention of water by the clay soils produced excellent breeding conditions at the optimum time of year for *F. canicularis* and this is the reason why the insect has been present in such great numbers in these areas.

The Environmental Protection Act 1990, section 79 contains provisions for Environmental Health Officers to use enforcement powers to deal with nuisance insects. Insects must be arising as a result of processes at commercial premises for these enforcement powers to be applied against the person responsible for the nuisance. Because flies in Ditchling are causing a nuisance as a result of natural causes, there is no person responsible for their propagation. This effectively means enforcement powers cannot be used to deal with the fly problem and Lewes District Council does not have a statutory duty to take action.

### What happens next?

The wet weather and geology described above have combined to provide excellent environmental conditions for breeding populations of *F. canicularis*. Nature will eventually take its course. It could reasonably be suggested that a cold winter followed by average weather conditions in 2013 will result in a return to average numbers. Additionally, the flies' natural predators should prosper as a result of the increase in food and their numbers will follow a similar peak and trough which curves slightly out of phase with their prey. I have reproduced an illustration of this below.



Example of predator/prey relationship over time

This concludes my report.