

## Occurance of *Cephalopenia titillator* in Camels (*Camel dromedarius*) at Tripoli-Libya

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### Abstract

Forty camels were examined at Tripoli slaughter house, ten of them were found infected with *Cephalopenia titillator* (camel nasal bot fly). The larvae occurred mainly in the nasopharynx and occasionally were found embedded between turbinated bones. The nasal cavity was congested and filled with mucus in which some larvae were entangled. The mean larval burden were 5.3. The rates of different larval stages were 32% L1, 74.5% L2, and 43.5% L3.

The results indicate lower infection rates in Libya than other neighboring countries.

### Introduction

*Cephalopenia titillator* the camel bot fly is a cosmopolitan parasite and is found in all camel-raising parts of the world ( Zumpt, 1965; and Soulsby, Reprinted, 1976). A high incidence has been reported in Chad ( Graber and Gruvel, 1964) and other parts of west Africa ( Currasson, 1947) as well as the Sudan ( Steward, 1950 (Soliman, 1965), Ethiopia and Somali,( Bekele, 2001) , Jordan (Sharif et. Al. 1977), Iraq ( Abul hab and Alaffass, 1977), Iran ( Rak and anwari, 1974), India ( Brunetti, 1975), Pakistan ( Minar et. Al. 1977), and USSR ( Kunichkin, 1975)

Its pathogenic effects are frequently underestimated despite its high prevalence in camels. The nasopharyngeal myiasis of camels is caused by the larva of *Cephalopenia titillator* Clark 1797, Clinically the disease is characterized by respiratory and neurological disorders ( Droandi, 1936 and Currasson, 1947). The major lesions observed were congestion of the pharyngeal mucosa with profuse serous and haemorrhage in early cases. In some cases ulcers-like lesions and nodules containing pus ( Bekele, 2001).

In Libya like most other regions the camel bot fly is quite frequent. A few isolated reports no epidemiological studies have been made and therefore the present work was undertaken to study the prevalence of infection in slaughtered camels in Tripoli area.

### Materials and Methods

Forty heads of camels (*Camelus dromedarius*) were collected from a slaughterhouse in Tripoli which deals with animals raised locally. Most of the animals examined were 4 months to 4 years old. Sexes were sampled are males only. After removal of the skin from the head a sagittal section was cut with a hand saw. All the sinus

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opened and larvae were collected from nasal passages, anterior and posterior head sinuses. After all the heads of a given batch were processed, First, Second and third instars ( L1, L2 and L3) were counted and identified according to keys (1965).

## Results

Out of 40 examined animals in the slaughter places survey 10 (25%) were infected with *Cephalopenia titillator*.

Most cases developed no obvious signs other than developed clinical signs such as nasal discharge, restlessness, frequent sneezing and snoring on inspiration. Examination of the nasal cavity following slaughter revealed that the sinuses were congested with dark mucus in which the larval stages of parasite were entangled (Fig. 1).

The mean larval burden in infected animals were 5.3 with 1.7 L1, 1.3 L2 and 2.3 L3. out of 53 recovered 32% were L1, 24.5 % L2, and 43.5 % L3.

The first instar larvae were never found in the posterior part of frontal sinuses. Third instar larvae recovered from nasopharynx and oropharynx were all numbers of first, second, and third instar larvae recovered from heads were 16 respectively (fig.2).

## Discussion

Eggs of this fly are deposited in the nostrils of camels and moult to larvae attached to nasal passages and pharynx ( Fatani and Hilali, 1994).

The present study showed that camels in Libya are not highly infected with *Cephalopenia titillator* when compared with other countries. 25% of camels were found to be infected.

Geographically, Camel nasal flies occur wherever camels live ( Zurbrugg, 1965). Infection rates of 47%, 81%, 86 %, and 74% were reported from Iraq, Egypt and Sudan respectively (Soliman, 1965, Alani et. Al. 1991).

Results in this study revealed that the percentage in Libya less than other countries. There are no differences in infection rates in different ages of the animals.

Results of the present investigation describes for the first time the occurrence of *Cephalopenia titillator* in Libya and provide base line data for the future studies concerned with *Cephalopenia titillator* in camel in Libya.

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Fig.1: Larvae of *Cephalopenia titillator* accumulated in the nasal cavity

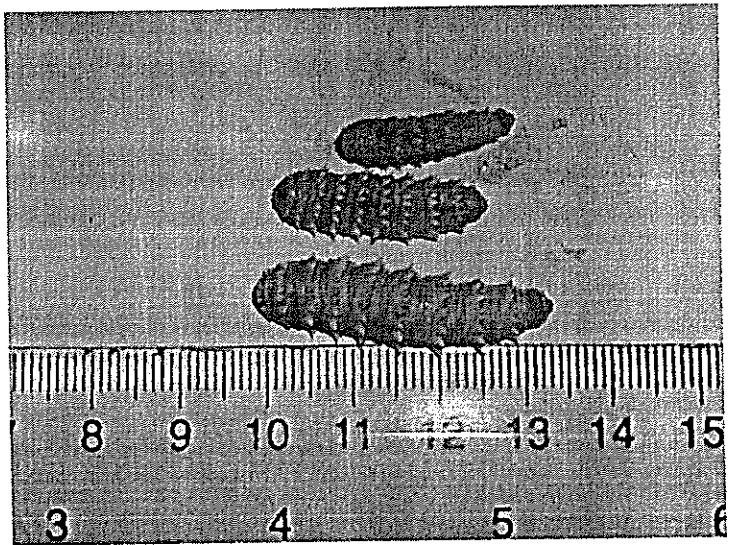


Fig.2: Larvae of *Cephalopenia titillator* in different size