

**دراسة في وبائية وحياتية**

**ذبابة الدودة الحلزونية**

***Chrysomya bezziana* Villeneuve. 1914.  
(Diptera: Calliphoridae)**

**في منطقة بغداد**

**رسالة مقدمة الى**

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**A Study in  
Epidemiology & Biology of Screw Worm Fly  
*Chrysomya bezziana* Villeneuve 1914  
(Diptera: Calliphoridae)  
In Baghdad Area**

**A THESIS SUBMITTED TO  
THE COLLEGE OF VETERINARY MEDICINE  
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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF DOCTOR IN PHILOSOPHY IN  
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**By  
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## SUMMARY

A survey of myiasis causing flies especially the old world screw worm fly *Chrysomya bezziana* Vill. 1914. (Diptera : Calliphoridae) was carried on in four districts around Baghdad city (Al-Fidlea, Al-Doura, White Gold Village & Al-Shouala) in the year 1997.

During that survey six genera *Chrysomya* (Rob-Desroidy), *Calliphora* (Rob-Desvoidy), *Lucilia* (Rob-Desvoidy), *Sarcophaga* (Meign), *Musca* (Linnaeus) & *Stomoxys* (Geoffry) were recorded through adult capturing, beside the seventh genus *Megaselia* (Rondani) was obtained through larval collection from sheep with mixed myiasis infestation.

The highest percentage of captured flies comprised to the species belong to the genera of family Calliphoridae: *Chrysomya*, *Calliphora* & *Lucilia* followed by those genera of family Muscidae *Musca* & *Stomoxys* then the species of *Sarcophaga* genus which belong to the family Sarcophagidae..

In regard to the genus *Chrysomya*; the study found that the *C. albiceps* (Wied.) had the highest percentage of collection followed by *C. megacephala* (Fab.) then the species *C. bezziana* (Vill.), which their larvae have great Med. & Vet. importance due to causing an obligatory myiasis for the 1st. species and facultative for the other two species.

The present study revealed that, the environmental conditions i.e. Temp., Humidity & Rainfall rates have a great impact on the Calliphorid flies existence especially the species *Chrysomya bezziana* which showed an increase in it's collection coincided with the increasment of myiasis cases in Autumn & Winter seasons.

Out of 270 myiasis cases recorded, 262 cases (97.01%) were found caused by the obligatory parasitic larvae of *C. bezziana*, the remained cases were found caused by different species of facultative parasitic larvae in single infestation or in mixed infestations with the obligatory parasite *C. bezziana*.

Cattle showed to be the highest rate (46.3%) of myiasis infestation amongst the other animals and according to the site of body infested the perineal region was the highest (52.59%) followed by the Fat-tail in sheep.

In regard to some biological aspects of the species *Chrysomya bezziana* in this study; Two successive generations were obtained through rearing under laboratory conditions, and the results showed that the mean of females ovipositing eggs 28.13%-40%, the mean of eggs/female ranged 55.77-93 and from the sixth day of female age.

The mean percentage of hatching ranged 71.44%-81.81%; and the mean of percentages of L<sub>1</sub> molting to L<sub>2</sub> were 79.33% and 66.01%, L<sub>2</sub> to L<sub>3</sub> 68.58% and 73.22% and L<sub>3</sub> to pupal stage were 72.3% and 77.4% for the 1<sup>st</sup> & 2<sup>nd</sup> generations respectively all were found higher than the mean percentages of adult emergence from pupae 61.19% for 1st. generation and 47.47% for the 2nd. generation. The mean percentages of hatching period, larval stage period and pupal stage period until adult emergence lasted from 309 hours (12.85 days) for the first generation, and for the second generation 321.33 hours (13.39 days).