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**SEASONAL ABUNDANCE OF HORN FLIES,
 SIPHONA IRRITANIS-HAEMATOBIA IRRITANIS
 (DIPTERA : MUSCIDAE) In BENI-SUEF
 (With 2 Tables and 2 Figures)**

By

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دراسات موسمية عن ذبابة القرن (الهيماتوبيا اريتانز) في محافظة
 بني سويف

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أجريت هذه الدراسة في منطقتين من محافظة بني سويف لاستبيان مدى تواجد حشرة
 ذبابة القرن (الهيماتوبيا اريتانز) وأوضحت النتائج أن الفصول الدافئة من العام مثل
 فصل الصيف والربيع من أنسب الفصول لزيادة وتكاثر وتواجد هذه الذبابة . وقد وجدت
 الدراسة أيضاً بأنها تنتشر في الأماكن التي تصاحب درجة الحرارة العالية ودرجة الرطوبة
 العالية أيضاً . وكذلك وجدت نتائج الدراسة أيضاً بأن ذبابة القرن تنتشر على كل
 من الرأس والرقبة أكثر من بقية مناطق الجسم والأرجل .

SUMMARY

The present study was carried out at Beni-Suef Governorate in the period between July, 1988 and June, 1989 to clarify the seasonal prevalence of *Haematobia irritans* flies. The results revealed that the flies propagation in the Summer time predominated the other seasons. Also, the results indicated that the horn flies inhabit the temperate, moisted and semidesert ones. Moreover, the results obtained revealed that the head and neck was the most favourable region for blood sucking.

Key words : *Haematobia irritans*, Seasonal abundance.

INTRODUCTION

Horn flies are blood-sucking pests of cattle and other warm blooded animals in many regions. They are particularly severe in confinement situation, common in dairies and feedlots, where they breed in substrates such as spilled feed, silage, on manure and soiled bedding that accumulate along fences (KUNZ, 1980). The damage occasioned by the horn flies is chiefly through irritation, annoyance and blood loss which lead to reduction in milk yield and meat production (DRUMMOND *et al.*, 1981).

Valuable informations, however, on the ecology and seasonal rhythm of this parasite were included in the work of several authors e.g. RILEY and HOWARD (1889), MARLATT (1910), MAILEN (1941), BUEI (1952), McLINTOCK & DEPNER (1954) and ZUMPT (1973) who reported that horn flies were worlde wide in temperate region and very common in Amerca, Sweden, Aland islands, Finland, Africa, Europe, Turkey and USSR. In Egypt it is reported by HAFEZ & GAMAL-ELDIN (1963), KELANY *et al.* (1983) and HAFEZ *et al.* (1984). In the present study the author tried clarify the seasonal prevelance of this blood suckin fly in two regions in Beni-Suef Governorate of various climates.

MATERIAL and METHODS

Field observations of the present work were carried out in both Beni-Suef (agriculture) and Li-Fashin (Semi-desert) areas. Beni-Suef Governorate, Middle Egypt in the period between July 1988 and June, 1989. four groups of cattle inside and outside the stables in the two areas were chosen. The examined number reached 120 in each group (10 animals/month). The populations of adult horn flies were estimated by visual counting technige included 3 regions of the animal, the head and neck, body and the legs. the numbers of flies found on each region was counted alone. Some specimens were caught by method described by BRUCE (1938) and identified according to the key described by SMART (1956).

RESULTS

The present study, as shwon in Table (1) and Fig. (1), demonstrated that adults of *Haematobia irritans* had a very distinctive seasonal occurrence where the mean number of flies reached its maximum in Summer being 27.6 it was followed by that in Autumn, Spring and Winter where it reached 18.5, 11.1 6 8.7 respictively in the opened (outside the stable) area at Beni-Suef region, while in the closed (inside the stale) area in the same region the mean number of horn flies reached 20.0, 19.3, 8. & 5.3 in Autumn, summer, Spring and Winter respictively.

In El-Fashin region, the mean number of the flies reached its maximum in Summer where it was 24.1 and followed by that in Spring, Autumn and Winter where they reached 15.8, 18.0 & 7.8 respictively in the opened area. While in the closed area the maximum mean number in Summer reached 17.2 followed by that in Autumn, Spring and Winter where it reached 17.0, 14.5 & 2.4 respictively.

Concerning the distribution of horn flies among different parts of the animal body, the results as shown in Table (2) Fig. (2) revealed that the mean number of flies on head & neck predomonated the other parts. The mean number of horn flies on the head & neck in Summer predomonated the other seasons, where it reached 6.6 and it was followed by that in Spring, Autumn and Winter where it reached 5.3, 4.2 & 3.2 respictively. while the mean number of the flies on body reached its maximum in Summer when it was 4.1 followed by Spring (3.0); Autumn (2.6) and Winter (1.0).

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On the other hand, the large number of flies counted on the legs of animals was in Autumn (3.2) followed by Winter (2.6), summer (2.5) and finally Spring when the mean number reached (1.7).

Table (1): The mean number of Horn flies in different seasons among Beni-Suef and El-Fashin regions.

Locality	Beni-Suef		El-Fashin	
	Opened	Closed	Opened	Closed
Spring	11.1	8.1	15.8	14.5
Summer	27.6	19.3	24.1	17.2
Autumn	18.5	20.0	18.0	17.0
Winter	8.7	5.3	7.8	2.4

Table (2): The mean number of Horn flies on Head & neck, body and legs of Cattle in different seasons.

Site	Head & neck	body	Legs
Season			
Spring	5.3	3.0	1.7
Summer	6.6	4.1	2.5
Autumn	4.2	2.6	3.2
Winter	3.2	1.0	2.6

DISCUSSION

The present study revealed that the population of horn flies increased in hot season as well as in hot regions. Also the mean number increased clearly in the opened areas. The obtained results are in agreement with those reported by RILEY & HOWARD (1889), MARLATT (1910), MAILEN (1941), BUCI (1952) and DEPNER (1961) who reported that the horn flies, *Haematobia irritans*, were world wide in temperate regions and the high temperature increases the development of this fly. Also, the results showed that the horn flies inhabited and propagated quickly in the areas accompanied with high humidity (inside the stable). The obtained results are in agreement with those obtained by McLINTOCK & DEPNER (1954); KUNZ *et al.* (1972) and ZUMPT (1973) who reported that the temperature-moisture conditions and manure pollution were favourable for propagation of horn flies.

Moreover, the present study has cleared that the areas of the semidesert nature as El-Fashin were favourable for increasing the infestation rates by horn flies as indicated in the present data as well as the finding obtained by HAFEZ & GAMAL EDDIN (1963) and HAFEZ et al. (1984) on seasonal rhythm of horn flies in some localities of Egypt.

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A = Spring C = Autumn
 B = Summer D = Winter

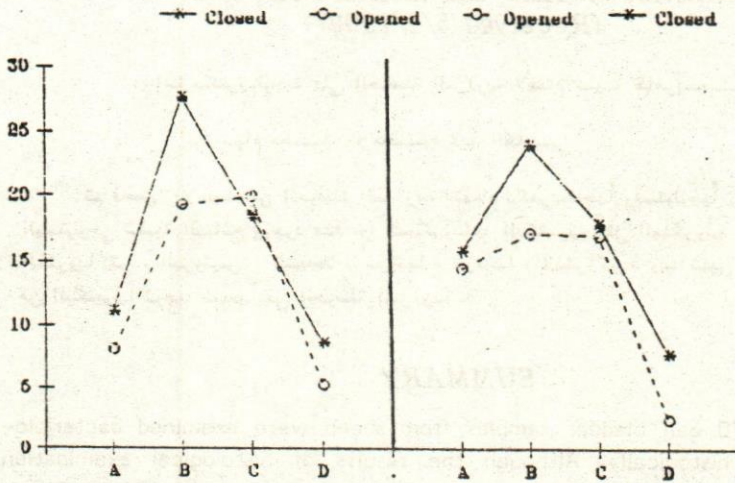


Fig. (1) : Seasonal abundance of Horn flies on Cattle in
 both Beni-Suef (left) and El-Fashin (right)
 region in different seasons.

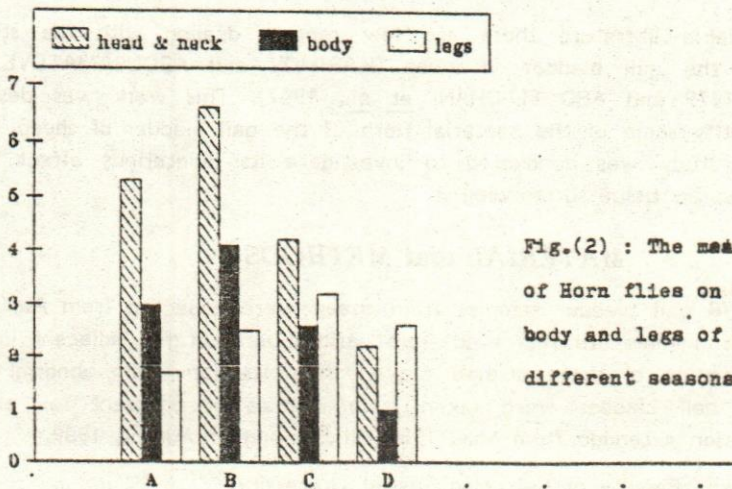


Fig.(2) : The mean numbers
 of Horn flies on head & neck
 body and legs of cattle in
 different seasons.