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Assessment of relative incidence of the different species of fruit flies at Rewa region of M.P.

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ABSTRACTS

Rewa region is quit beautiful and rich biodiversity of fruit flies. Diverse mix climatic condition and topography which made the region a natural habitat for large number of fruit flies. Present investigation deals with the assessment of relative incidence of the different species of fruit flies at Rewa region. The attack of fruit this was very severe the research period year at Rewa. To know the relative incidence of different species the timely netting was carried out in the cucurbitaceous fields. The total number of flies captured in the season from July to November was 1860. Out of these flies 1701 flies were *Dacus cucurbitae* coq. and 106 *Dacus ciliatus*, and the remaining flies belonged to other species of *Dacus*. The ratio of *Dacus cucurbitae* and *Dacus ciliatus* was 16:1.

Key words : Assessment, Relative Incidence, Fruit flies.

INTRODUCTION

Rewa district is well known city of Madhya Pradesh. It is situatedon the North east border of the state. The geographical location $24^0$32' North and $81^0$18' East. The town is located on a plateau and is situated 320 meters above the mean sea level. The 'Beehar' and the 'Bichiya' rivers surrounded the town from almost three sites. The whole area is formed by an undulated plateau incircled by Panna range toward North- West and the Kymore range towards the southern side running across south west and North West direction. Infact the Vindhyan has two distinct groups of rock deposits viz. The upper Vindhyan system and the lower Vindhyan system of rocks.

Fruit flies are well known pests of fruit and vegetable crops throughout the world. They are polyphages and attack a wide range of plants although the indeces of infestation vary from host to host. Rana et al. (1992) analysed biology of Guava fruits fly infesting guava fruits in Haryana and observed the infulence of temprature and relative humidity on its incidence. Chaturvedi (1947) worked on relative incidence of *Dacus ciliatus* and *Dacus cucurbitae* coq. On cucurbits at Kanpur. Vandine (1909). has given a concise general account of the publications about melon fly upto 1908. He states that fly requires three weeks to complete its life cycle.

Pareek and Kavadiya (1994) recorded the relative preference of *Dacus cucurbitae* for 10 cucurbits grown in one field under semi

humid (udaipur) and semi arid (Jobner) agro climate conditions of Rajasthan India, was studied.

MATERIAL AND METHODS

The flies were observed in the laboratory, on various kinds of infested fruits, obtained from the agricultural fields of Rewa division as well as from the market of Rewa city, Govindgarh, Padra, Maihar, Satna, Sidhi etc. The method described by Newell (I.M.) Vanden Bosch (R) and Haramoto (F.H.) 1951 for the rearing of collected fruit flies larvae was adapted in a modified form to suit Indian condition. The Method involved removing the larvae from the fruits and transferring them to dishes containing a rearing medium e.g. small fresh piece of guava fruits. Regular records of experiments and observations were made either in the laboratory or in the field.

RESULTS AND DISCUSSION

The Observations made during the study period are described as under table-1 . The above table shows that the infestation of *Dacus Ciliatus* was greater in July than agust to November as compared with the *Dacus zonatus*. In the month of November no specimen of *Dacus ciliatus* was observed.

Table-1 The Relative Incidence of Defferent species

S.No.	**Months**	**Total No. of *Daws zonatus* observed**	**Total No. of *Dacus ciliatus* observed**	**Other Species of Dacus**
1.	July	426	58	23
2.	August	150	26	12
3.	September	710	16	9
4.	October	315	6	5
5.	November	100	-	4

A laboratory trial was also made to ascertain the proportion of different species by bringing the infested fruits from the different localities in rewa and nothing the different species coming out of these fruits.

Pruthi (1942) stated that at Delhi infestation of cucurbits by *Dacus cucurbitae* coq. and *Dacus ciliatus* ranged from 40% to 80% between july and october. According to annual report (1958) vegetable research farm Govindgarh, Rewa, usual incidence of this fly on cucurbit crops ranges from 29% to 35% even some cases of 100% infestation also have been recorded in 1955.

The observations to know the extent of infestation at Rewa were made on 20 acres of cucurbit field in the Padra near river 'Beehar', Rewa. The field for observations were selected randomly every time and the number of plants were also selected randomly.

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