

A Study on Fruit Fly and of *Dacus Ciliatus*

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Received: 06-04-2023

Revised: 25-04-2023

Accepted: 19-05-2023

ABSTRACT

The Rewa region is quite lovely and has a diverse population of fruit flies. Because of its varied geography and climatic conditions, the area is a natural habitat for many fruit flies. The current inquiry examines the relative prevalence of several species of fruit flies in the Rewa region. The research period at Rewa saw a particularly severe fruit attack. In the cucurbitaceous fields, timely netting was done to determine the relative incidence of various species. 1860 flies were caught in total during the season, which ran from July to November. 1701 of these flies belonged to the *Dacus cucurbitae* coq. species, 106 to the *Dacus ciliatus* species, and the remainder to other *Dacus* species. *Dacus cucurbitae* and *Dacus ciliatus* had a 16:1 ratio.

Keywords: fruit fly, *dacus*, *ciliatus*

I. INTRODUCTION

The city of Rewa district in Madhya Pradesh is highly recognised. It is located on the state's northeastern border. The coordinates are 24032' North and 81018' East. The village is 320 metres above mean sea level and is built on a plateau. The town was encircled by the rivers "Beehar" and "Bichiya" on almost three sides. The entire region is made up of an undulating plateau, which is encircled by the Panna range to the north-west and the Kymore range to the south. Both ranges run in south-westerly and north-westerly directions. In actuality, the upper Vindhyan system and the lower Vindhyan system of rocks are two separate groupings of rock formations.

Fruit flies are well-known worldwide pests of fruit and vegetable crops. They are polyphages that feed on a variety of plants, although the intensity of an infestation varies depending on the host. In Haryana, Rana et al. (1992) examined the biology of the guava fruit fly and noted the influence of temperature and relative humidity on the fly's incidence. *Dacus ciliatus* and *Dacus cucurbitae* coq's relative incidence was studied by Chaturvedi in 1947. Kanpur's cucurbits are on. Vandine (1909) provided a succinct overview of melon fly publications up until that year. According to him, a fly's life cycle takes three weeks to complete.

The relative preference of *Dacus cucurbitae* for 10 types of squash planted in one field in semi-humid (Udaipur) and semi-arid (Jobner) Rajasthan, India, was examined by Pareek and Kavadiya in 1994.

II. METHOD AND MATERIAL

The flies were seen in the lab on a variety of contaminated fruits, including those from the markets in Rewa City, Govindgarh, Padra, Maihar, Satna, and Sidhi, as well as the agricultural areas of the Rewa Division. The method for raising collected fruit fly larvae described by Newell (I.M.), Vanden Bosch (R), and Haramoto (F.H.) in 1951 was adjusted to fit Indian conditions. The procedure required taking the larvae out of the fruits and placing them in dishes with a rearing medium, such as a small, fresh piece of guava fruit. In the lab or the field, regular records of experiments and observations were kept.

III. CONCLUSION AND RESULTS

Table 1 lists the observations that were made during the study period. The table above demonstrates that, when compared to *Dacus zonatus*, the infestation of *Dacus ciliatus* was stronger in July than from August through November. There was not a single *Dacus ciliatus* specimen seen in the month of November.

Table 1: The relative frequency of various species

S.No.	Months	Total No. of <i>Daws zonatus</i> observed	Total No. of <i>Dacus ciliatus</i> observed	Other Species of <i>Dacus</i>
1.	July 2022	426	58	23
2.	August 2022	150	26	12
3.	September 2022	710	16	9
4.	October 2022	315	6	5
5.	November 2022	100	-	4

A laboratory experiment was also conducted to determine the proportion of various species by introducing contaminated fruits from various locations in Rewa and observing the various species that emerged from these fruits.

According to Pruthi (1942), during July and October, cucurbit infection by *Dacus cucurbitae* coq. and *Dacus ciliatus* varied from 40% to 80% in Delhi. The typical prevalence of this fly on cucurbit crops is from 29% to 35%, and certain cases of 100% infestation were also recorded in 1955, according to the 1958 annual report of the vegetable research farm Govindgarh, Rewa.

In order to determine the extent of the infestation at Rewa, observations were taken on a 20-acre cucurbit field in the Padra neighbourhood near the river 'Beehar'. Every time, a random number generator was used to choose the field for the observations as well as the quantity of plants.

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