Rahman, S. M. Z. and V. K. Singh. Bhagalpur University, Drosophila Laboratory, Bhagalpur, India. A survey of Bhagalpur population of Drosophila.

Attempts were made to collect mainly D. ananassae and D. malerkotliana at Bhagalpur height below 60 metre in India, between Jan. 21st to Feb. 15th, 1967, with an object to study the population genetics of these species. But the collections, with a total number of 3447 flies, showed seven other species too, as are indicated in the table below. These included a new species belonging to the montium subgroup. Samples were obtained from three different localities, each situated at about three miles from the main collection centre, the T.N.B. College garden. The baits used for trapping were fermented bananas and orange, the hours of collection being morning and evening. Specimens were primarily identified in collaboration with Dr. A. P. Jha of the Drosophila Laboratory, Bhagalpur University and later confirmed by Prof. T. Okada of the Tokyo Metropolitan University, Japan. D. busckii was predominant in the T. N. B. College collections, whereas D. ananassae and D. bipectinata were predominant species at Nayabazar and Khanjarpur, respectively. A notable fact of the collection was that D. immigrans sturtevant and Chaetodrosophila quadrilineata (de Meijree) were found only in the T. N. B. College garden.

Table 1. Numerical data of drosophilid flies collected in the three regions of Bhagalpur.

Species	T.N.B.College Garden	Nayabazar	Khanjarpur	Total
D. ananassae	199	617	135	951
D. bipectinata	89	22	198	309
D. busckii	876	30	134	1040
D. immigrans	50	0	0	50
D. kikkawai	79	18	55	152
D. melanogaster	269	101	131	501
D. malerkotliana	98	3	102	203
Chaetodrosophila quadrilineata	170	0	0	170
+D. spp of montium sub-group	55	10	6	71
	1885	801	761	3447

+ New species.

Ehrman, Lee. Rockefeller University, New York City. Double matings and infectious hybrid sterility in D. paulistorum.

In the superspecies D. paulistorum there is apparently a cytoplasmic factor which causes the maternally transmitted hybrid male sterility produced by crosses between certain strains (Dobzhansky and Pavlovsky, 1967). This factor may sometimes be transmitted by injection (Williamson and Ehrman, 1967), and is retarded in its effects by heat shocks (Ehrman, 1967). Therefore, it seemed reasonable to attempt the transfer of this infectious entity by copulation. Virgin females of the Santa Marta strain were observed copulating with sterile hybrid males for normal intervals of time in this species (Ehrman and Strickberger, 1960). These sterile males, which resulted from either the Raposo #95♀ x Llanos #13A♂ or Llanos #13A♀ x Santa Marta #2♂ interracial crosses, transfer no functional sperm. Following the mating, the individual females were isolated and allowed to "incubate" the presumed infection for five to six days. Then they were crossed to fertile nonhybrid males of their own strain. The progeny which resulted from the second matings were scored for fertility by culturing and afterward, by dissection in isotonic saline and inspection for the presence of motile spermatozoa. The results were negative. All Santa Marta progeny produced additional generations and only an occasional sterile male was discovered. This occasional sterility was no more frequent than that usually found in standard laboratory stocks of this material.
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