

Gupta, J.P. Banaras Hindu University, Varanasi, India. A preliminary report on *Drosophilids* of Manipur, India.

During recent years a considerable amount of attention has been paid in this country to the field observation of *Drosophila*, especially in connection with the taxonomy, ecology and geographical distribution. As a result of this several new and newly recorded species have been added to the list of Indian *Drosophilids*. Still now a vast area of great ecological interest remains virgin or very poorly exploited.

Drosophila species collected
at Khongnangpheidekpi (Manipur, India)

Species	Subgenus	Number
1. <i>D. immigrans</i>	<i>Drosophila</i>	207
2. <i>D. nasuta</i>	"	165
3. <i>D. takahashii</i>	<i>Sophophora</i>	15
4. <i>D. eugracilis</i>	"	42
5. <i>D. malerkotliana</i>	"	27
6. <i>D. bipectinata</i>	"	32
7. <i>D. melanogaster</i>	"	5
8. <i>D. kikkawai</i>	"	7
9. <i>D. nepalensis</i>	"	8
10. <i>D. busckii</i>	<i>Dorsilopha</i>	19
TOTAL		527

Recently collections were made twice, once in the month of October and once in February 1972 at Khongnangpheidekpi (Manipur) and its adjoining vicinity by using various fermenting fruits as bait. A total of 527 specimens were collected; they comprised ten species belonging to the three subgenera of the genus *Drosophila*, viz., *Sophophora*, *Drosophila* and *Dorsilopha*.

Among the species lured to fermenting fruits, *D. immigrans* and *D. nasuta* were seen in large numbers. Another interesting feature noticed during these collections was that *D. nasuta* and *D. eugracilis* were only seen in October whereas *D. immigrans* and *D. nepalensis* in February only. This very clearly indicates that the natural populations of these four species observe seasonal activity.

Acknowledgements: Author is very thankful to the U.G.C. for extending financial assistance.

(Continued from preceding page)

Table 3. χ^2 values for the differences of sex-linked recessive lethals in controls compared with different broods of 4 generations.

Sl No	Generation	B R O O D S						TOTAL
		A	B	C	D	E	F	
1	control vs F ₁	2.15	0.68	0.14	0.27	1.72	5.26	11.96
2	control vs F ₂	2.04	2.58	2.53	0.45	1.66	0.81	16.00
3	control vs F ₃	3.02	1.75	1.70	0.67	1.64	1.36	17.46
4	control vs F ₄	2.95	1.70	1.68	0.19	-	-	10.72

females. F₁ females were mated individually with y sc^{S1} In49 sc⁸ males while the F₁ males were mated individually with bw;st females to score for sex-linked recessive lethals and translocations, respectively.

The other half of the males were allowed to feed again on a medium containing 50 gms of irradiated glucose in 100 cc of medium along with fresh females of ORK. The experiment was repeated in the above manner for four generations. The results are presented in Table 1 and 2.

A χ^2 test has been done to compare the following groups: 1) Control vs F₁, 2) Control vs F₂, 3) Control vs F₃, and 4) Control vs F₄. The results of the statistical analyses are presented in Table 3.

The present investigation revealed that irradiated glucose when mixed in medium could induce mutations in *Drosophila melanogaster*.