Spofford, J.B. University of Chicago, Chicago, Illinois. Variegation for dm in $Dp(1;3)N^{264-58}$.

This duplication, inserting 3B4-3D5 into region 80, is cited in Lindsley and Grell, p. 373, as seeming "to carry a mutant allele of dm." According to Lefevre, the rightmost band identified in the duplication is 3D5 and the locus of dm is in 3D4 or 3D5.

It seemed likely that the uniform dm phenotype heretofore recorded for the complete translocation - duplication-bearing 3 plus deficiency-bearing X - and for dm/Y;Dp/+ hyperploid males was the result of extreme variegation rather than mutation accompanying the adjacent break. To check this, dm/Y;Dp males were constructed whose own and whose mother's Su(var) genotypes would improve the chance that bristles of normal thickness would develop from the resulting strong suppression of variegation.

Males taken from a dm/C(1)DX, y f stock were crossed to y w;Su(var) ♀♀. Daughters (heterozygous for Su(var)) were crossed to y w/Y;Su(var) Dp/Su(var) ♂♂. Sons that were phenotypically y^+ w^+ were found to fall into three classes for bristle thickness: Approximately half had typical dm bristles while the remainder were either indistinguishable from dm^+ or intermediate. Males of these three types were individually mated to C(1)RM, y w/Y;$Su(var)^+$/$Su(var)^+$ ♀♀ and presence of pigment in the eyes of daughters (verifying presence of Dp in the tested male) and/or presence of dm^+ in sons (indicating that the tested male had resulted from crossing over in his F_1 mother) were noted. Four kinds of arrays of progeny-types were found:

Phenotype of Tested Male:	Number Tested	Progeny Classes ♂ all dm ♀ all w	♂ dm or semi-dm ♀ w^m or w	♂ all dm ♀ w^m or w	♂ all dm^+ ♀ all w
"non-dm"	6	-	2	3	1
"semi-dm"	7	-	-	7	-
"dm"	8	8	-	-	-

Among the "non-dm" males, one was evidently a crossover, not carrying the Su(var) Dp chromosome. The remainder whose bristles approached wild-type to a noticeable degree all carried the Su(var) Dp chromosome. Presumably, homozygosity for Su(var) completely suppressed dm-variegation when other factors (Su(var) in the maternal genotype, paternal source of the Dp) were favorable, while heterozygosity for Su(var) and the third chromosome from the dm stock only partially suppressed this variegation. Among the progeny of these suppressed-dm^m males, heterozygosity for Su(var) was insufficient to permit expression of the dm^v gene in any but a few sons when the mother lacked the Su(var) allele, even though the mothers carried a Y.

Sharma, A.K., K.S. Gill and G.S. Miglani. Punjab Agricultural University, Ludhiana, India. Studies on chromosomal polymorphism in natural populations of D. busckii.

Seasonal distribution, habitat, and chromosomal polymorphism were studied over a period of two years (1970-71 and 1971-72) in and around the campus of the Punjab Agricultural University, Ludhiana. The fly is found only from November to June; the peak period being from January to March, the mean temperature in February 1971 and 1972 was 14.6°C and 11.7°C respectively. Flies were easily available on the decaying vegetables and fruits, particularly on vegetables. Chromosomal polymorphism was studied in the progenies of 172 female flies; 31 (18%) of these progeny showed inversion loops in the salivary chromosomes of the third instar larvae. The number of inversion loops varied from one to four per progeny; 15, 7, 7 and 2 progenies had 1, 2, 3 and 4 inversions respectively. These different inversions are classified into 21 different types on the basis of their break points. All inversions are paracentric; one inversion is 6 units long, the others vary from 0.5 to 3.5 units. Frequencies of different types of inversions ranged from 1.11 to 4.88 per cent. Nine different types of inversions were present in both years. Inversions are distributed non-randomly in different chromosomes and in right and left arms of the larger chromosomes; 2 inversions are present in the X, 6 in 2L, 8 in 2R, 4 in 3L, 1 in 3R and none in fourth chromosome. The presence of 14 out of 21 inversions in the second chromosome is perhaps related to the occurrence of many desirable gene blocks in this chromosome.