

Paik, Y.K. and K.C. Sung. Hanyang University, Seoul, Korea. Chromosome inversions in Korean populations of *D. melanogaster*.

The natural populations of *D. melanogaster* were sampled at 17 different localities in Korea from 1977 to 1978. The results to be reported below include a portion of the present study, which was done in 1977. Fifty-eight different inver-

sions were detected from nine local populations on examination of 1875 wild-caught females; four inversions were found in Chromosome X; ten in Chromosome 2R and 17 in the 2L; 15 in Chromosome 3R and 12 in the 3L. Of these inversions, six were common cosmopolitan types, four were semicosmopolitan, seven were new and common endemic, and 41 were new and rare endemic. Of this last group there were five overlapping inversions occurring in Chromosome 3. In a population sampled four times, the frequency changes of some of the cosmopolitan inversions followed a seasonal trend; some of the common endemics remained stable in frequency from month to month. Coefficients of similarity obtained based on the types and frequencies of inversions found appear to illustrate distinctiveness of each population rather than similarity between populations tested. In the following list the approximate breakpoints of the present series of inversions are given in terms of Bridges' salivary maps.

Chromosome	Break points	Chromosome	Break points	Chromosome	Break points
X	1D; 3F	2L	31F; 36F	3L	66D; 73B
	8C; 18B	(cont'd)	37A; 40A	(cont'd)	69C; 77C
	10B; 12B		37E; 39E		71E; 75E
	13F; 16E	2R	42A; 60A		72F; 78B
2L	22A; 26B		42D; 60F	3R	83C; 85B
	22A; 33B		42E; 43A		86D; 88E/F**
	22B; 25C		43B; 46E		86F; 96A
	22D/E; 34A*		47C; 54D		87B; 92F
	23B; 25E/F		47E; 55E		87F; 90F
	23E; 33E		51F; 60D		88C; 98F
	24A; 31F		52A; 56F*		88C/D; 93C
	25B; 28C		54B; 59C		88D; 90F
	26A; 31A		56D; 59B		88D; 94A
	26A; 34E	3L	61F; 67E		89C; 96A*
	37A; 40A		62A; 63C		91C; 93B
	30A; 34A**		63C; 72E*		92D/E; 100F*
	31B/C; 34E/F**		65E; 67D		93D; 98F*
	31F; 35D		66D; 71D**		

* denotes cosmopolitan types; ** denotes semicosmopolitans.

Note: Three overlapping inversions on the 3L and two overlappings on the 3R are not included in the list.

Pinsker, W. University of Tübingen, Germany. Relation between effective population size and allozyme polymorphism in *D. subsilvestris* and *D. subobscura*.

Wild flies of the *Drosophila obscura*-group were collected in a forest near Tübingen (West Germany) during September 1975, 1976 and 1978. Using the malt bait method recommended by Prof. Lakovaara (Oulu, Finland), flies of six different species could be trapped. The numbers of specimens are given in Table 1.

Table 1. Number of flies collected in a forest near Tübingen.

	Sept. 75	Sept. 76	Sept. 78	Total
<i>D. subobscura</i>	157	392	201	750
<i>D. obscura</i>	15	44	75	134
<i>D. subsilvestris</i>	5	23	34	62
<i>D. helvetica</i>	-	3	3	6
<i>D. ambigua</i>	1	-	-	1
<i>D. tristis</i>	-	1	-	1

According to these collection data, *D. subobscura* seems to be 12.1 times more frequent than *D. subsilvestris* in this area. Kimura and Crow (Genetics 49: 725-738) have postulated a correlation between the effective population size and the genetic variability for selectively neutral alleles. In the formula

$$H = \frac{1}{4N_e u + 1}$$