

Kurokawa, H. Tokyo Metropolitan University, Japan. Experiment on sexual isolation between two different strains of *D. asahinai*.

Two wild strains collected at distantly separated localities, Komi in Okinawa and Yunsui in Formosa were examined for sexual isolation. To test for mating preference, the usual multiple choice technique was employed at 25°C±. The result is summarized in the table. Incipient sexual isolation is one-sidedly demonstrated. The cross using Komi male showed high K-value (Levene 1949) with 0.313, which was significantly deviated from random mating. Accordingly, the χ^2 value was also large. On the other hand, the cross using Yunsui male showed very small K-value with -0.047.

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Cross	Homo(%)	Hetero(%)	$K_{1,2}$ & $K_{2,1}$	K_1 & K_2	χ^2	p
Komi, Yunsui♀ x Komi♂	60.0	38.0	0.313	0.133	10.62	0.01
Komi, Yunsui♀ x Yunsui♂	50.0	53.1	-0.047		0.18	0.7 ~ 0.5

Lifschytz, E.* and R. Falk. Hebrew University, Jerusalem, Israel. Fine structure analysis of the chromosome. Recombination values in the ma-1 region.

Lethals covered by Y mal⁺ have been mapped by complementation to a sequence of 34 complementation units. Some recombinational data in this region of the euchromatic-heterochromatic junction have recently been obtained in crosses of the type y v f 1^L/+ + + + 1^R x M5/Y where

the only viable males are recombinants.

The region investigated, which spans units 2-34 in our recent map (Mutation Research 8, 1969), encompasses 2.3 recombination units.

The gene order obtained in this recombination analysis is consistent with that obtained by the complementation tests.

It should be emphasized that we use only complete lethals, and only those giving no indication of any crossover inhibition. Additive recombination values were obtained in the various crosses.

Assuming the region to be saturated with lethals, the recombination value per cistron for the different regions of the map can be calculated. Some data presented in the table show that the region can be divided into two subregions.

	Units	Total Recombination	Recombination per Cistron
Subregion I	2-17	1.5%	~ 0.1%
Subregion II	17-34	0.78%	~ 0.045%

Although the data do not exclude some variation in the amount of recombination in different cistrons of each of the two subregions, it seems clear that in Subregion I the average level of recombination is twice as high as that in Subregion II.

Parental Constitution	Complementation Units	No. Females Counted	% Recombinants	Recombinants/Cistron
1. P235/Q463	2-34	26,813	2.310	0.69
2. P235/1 ^{A7}	2-17	7,144	1.530	0.10
3. E54/Q463	17-34	12,075	0.778	0.045
4. E81/E54	6-17	9,600	9.937	0.085
5. P235/Q256	2-7	7,646	0.444	0.085
6. W3/Q256	6-7	18,795	0.117	0.11
7. E81/Q256	6-7	19,490	0.123	0.12
8. W3/R9-28	6-7	18,632	0.107	0.10
9. E54/Q2	17-23	13,144	0.076	0.015
10. 3 ^{DES} /Q463	28(30)-34	16,355	0.025	0.012-0.005

It is worth indicating that a hot spot for X-ray induced breaks (presumably an intercalary heterochromatic region) is located just to the right of unit 17.

Data characterizing the two subregions in different pairing conditions as well as other features of recombination at this region will be presented elsewhere.

*Present address: Department of Biology, University of California at San Diego, La Jolla, California.