of the subgenus Hirtodrosophila, was frequently collected on tree trunks. The abundance of this species and others of the hirticornis group on tree trunks was observed also at other localities in Japan (Toda 1982, unpubl.).

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Valentin, J. University of Göteborg, Sweden. The maternal age effect on recombination is entirely reversed in mei-9b D.melanogaster.

It has been known for quite some time that the age of a female affects the recombinant frequency among her offspring (the early work is summarised by Bridges 1927). The textbook description is that this maternal age, or brood, effect causes recombination to decrease during the first ten or so days of egg-laying.

In fact, the pattern is more complicated, and in the X chromosome two opposing trends occur: distally, recombination increases with increasing age, while proximal recombination decreases with increasing age (Valentin 1972, Lüning 1981). In the middle of the chromosome, maternal age has little influence on recombination.

The preceding paragraph describes the normal situation in the X chromoxome. A number of meiotic mutants display a similar pattern, although of course at much lower levels of recombination. However, it appears that mei-9b has an entirely different brood pattern.

Table 1 shows recombination frequencies in the X chromosome in mei-9b and in control flies, displayed separately for five 2/3 day broods. Actually, the marker genes were sc-cv-ct^6-v-f^5-Dp(1;1)sc^{V1}, y^+, but for clarity the material is shown lumped for sc-ct (distal region), ct-f(middle region) and f-y^+ (proximal region).

The difference in pattern between mei-9b and control is dramatic. In the distal region, the control series shows the expected increase of recombination, but mei-9b shows a decreasing trend. The very low value in the first brood is probably a spurious effect, but even if it is real the pattern deviates entirely from control. In the middle of the region, the control values also increase (quite reasonably and in agreement with older data, since the segment studied includes more distal than proximal material). In mei-9b, there is instead a considerable reduction of recombination with broods. And in the proximal region, the control pattern is a steady decrease as expected, while in mei-9b data hint a minimum value in the third brood. Admittedly, the difference between patterns is not as striking proximally as elsewhere in the chromosome, but at least for the distal and middle regions, there can be no doubt that the maternal age effect is quite difference in mei-9b than in control flies.

Table 1. Recombination frequency in the X chromosome of mei-9b and control (mei+) D.melanogaster as a function of brood (maternal age).

		Days after mating (broods)				
Region	Strain	1 - 2	3 - 4	5 - 7	8 - 9	10-11
sc-ct	mei-9b	1.8	4.6	3.8	3.4	2.5
	Control	15.0	15.0	18.9	22.9	20.8
ct-f	mei-9b	7.5	8.5	5.1	3.9	2.9
	Control	36.2	34.4	51.4	55.2	54.0
f-y+	mei-9b	2.3	2.4	1.6	1.7	1.9
	Control	14.9	12.8	13.2	13.0	11.1
No. of off-	mei-9b	440	950	1066	939	970
spring	Control	1330	2281	2640	2460	2565

Since the cause of the maternal age effect is unknown, it is very difficult to explain what the abnormal behaviour of mei-9b might depend on. But accumulation of data on deviations from "normal" brood effects is probably necessary if we are to begin to understand such brood effects some time in the future.

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