

were mated or unmated from irradiation to the 5th or the 7th day after treatment. From this it was concluded that when males were unmated the sperm was reabsorbed and/or spontaneously ejaculated.

To explain the variations in the rate of dominant lethals, it was supposed that the variation fitted with different stages of spermatogenesis that were treated. In the first 5 days, sperm that was mature at treatment was used. In the next 5 days, sperm was used which was maturing (spermatid stage) at treatment. After the 11th day, sperm that was immature at treatment was used.

Later the frequencies of point-mutations (y, w, and sn), gynandromorphs, and hyperploid males were studied in the two periods 1-6 and 7-10 days after treatment. Wild-type males were irradiated (960 r) and mated to virgin y w sn females, two of each sex per vial. At the beginning of the 7th day the males were transferred to another 5 virgin females. The following data were obtained.

| Days after treatment | Total females and gyn. | Point-mutations | Gynandromorphs | Hyperploid males |
|----------------------|------------------------|-----------------|----------------|------------------|
| 1-6 | 59856 | 8 | 35 | 12 |
| 7-10 | 47007 | 22 | 32 | 56 |

From this it is concluded that spermatids are more sensitive to irradiation than mature spermatozoa.

Mainx, F. Structural variety in wild populations of European species of the obscura group.

For some time I and my collaborators have been occupied with this problem. In a short time a paper will appear containing general statements and the salivary chromosome maps of D. subobscura, D. obscuroides, and D. amnigua. A second paper will deal with a qualitative analysis of the inversions in D. subobscura (Austrian, British, and other strains). Further current investigations deal with the selective value of inversions in artificial populations, with quantitative analysis of certain populations, with selection of inversions by inbreeding, and with X-ray-induced inversions in D. subobscura.

Makino, Sajiro, and Kanehisa, Takeharu A preliminary survey of the geographical distribution of Drosophila in Hokkaido. Central, East, and North.

The species of Drosophila so far collected from Hokkaido and their distribution are preliminarily listed below. For description, the island of Hokkaido was divided into four regions-- South,

| | South | Central | East | North |
|----------------------------|-------|---------|------|-------|
| <u>Amiota</u> sp. | | + | | |
| <u>Scaptomyza</u> sp. | + | + | | + |
| <u>Hirtodrosophila</u> sp. | | + | + | + |
| <u>H. cinerea</u> group | + | | | |
| <u>melanogaster</u> | | + | | |
| <u>auraria</u> | + | + | + | + |
| <u>suzukii</u> | + | + | + | + |
| <u>obscura</u> group | | + | + | |
| <u>transversa</u> | + | + | + | + |
| <u>nigromaculata</u> | + | + | + | + |