

intermediate with respect to the virilis  $\neq$  implant, matches that of the  $\neq$  implants of the other species. In further experiments, darker allel-morphs of  $v^3$  are being used.

Just G. and Steiniger,  
F. Natural selection in  
D. melanogaster (normal-  
winged and vestigial)  
on the isle Greifswalder  
Oie.

In the spring of 1935 an investigation was entered on the isle cited to determine the value of selection under natural isle conditions in vestigial and normal-winged D. melanogaster, both put out experimentally on the isle. The investigation was con-

tinued in 1936 and will be also continued in 1937.

Lapedies, Daniel L. The effect of  $ci^D$  upon the facet number of Bar eye in D. melanogaster.

Isogenic Bar females were mated with  $bt^D/ci^D$  males at  $25^\circ C$ . In the  $F_1$  the facet numbers of the males were counted with a net micrometer. The facet numbers of 48  $F_1$  B;  $ci^D$  males =  $48.0 \pm 1.4$ , the facet number of 57  $F_1$  B;

$bt^D/\neq$  males =  $58.87 \pm 1.8$ . The size of the  $F_1$  female eye made facet counts impractical. While the  $B/\neq$ ;  $bt^D/\neq$  female eye was similar to the heterozygote  $B/\neq$  female eye in shape and size, and  $B/\neq$ ;  $ci^D/\neq$  female eye, due to a loss of facets along the entire anterior edge of the eye, was smaller and exhibited a different shape that showed little variation.

Neuhaus, M. Sterility mutations in D. melanogaster.

In order to detect genes in the X-chromosome, nonhomologous to bobbed but homologous to the Y, the following experiment was undertaken: yellow males were X-rayed (dosage about 5000 r)

and crossed to  $ClB/w^{ebb1}$ . Bar females from  $F_1$  were mated with  $w^{ebb1}$  males. Mutations homologous to bobbed and those arising in the active part of the X were obtained in  $F_2$ . Non-Bar females from  $F_2$  were crossed to their brothers<sup>2</sup> and if recessive mutations, having homologous in the Y arose in the X, then in  $F_3$  it would be possible to obtain females showing the same mutations. Among 1136 chromosomes examined the above mutations did not occur but at the same time it was found that in some bottles (10%) of  $F_2$  all males carrying the irradiated X-chromosome were sterile. This fact being established those males' sisters were crossed to y. v f B males, all sons from  $F_3$  having been tested on sterility. The following table shows a part of the results obtained: