

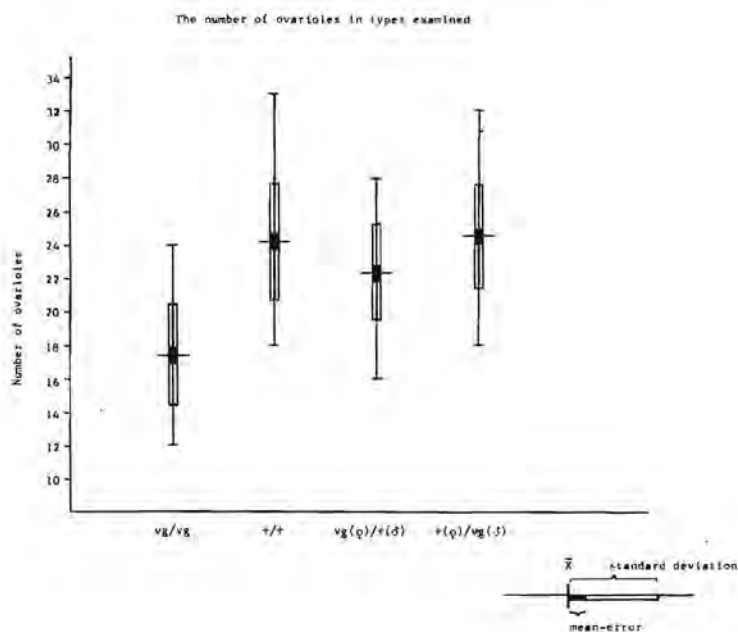
Mikulska, Grygoń. Department of Zoology, University of Nicholas Copernicus, Institute of Biology, Toruń, Poland. The number of ovarioles in the ovaries of females of reciprocal crosses of the types wild of Toruń and vg/vg *D. melanogaster* Meig.

The fecundity of females heterozygous for vg originating from the cross of wild type of Toruń and vg/vg was examined by Grygoń (1970). The result of crossing was always advantageous when compared with vg/vg , and compared with $+/+$, it was advantageous if the female used was $+/+$. With reference to these studies, the anatomical

verification is presented here.

The numbers of ovarioles were counted in the following types: 1. $+/+$ of Toruń, which has been bred since 1960 in the Genetic Laboratory of Zoology Department in Toruń, 2. vg/vg , originating from the laboratory ETH in Zürich and bred in Toruń since 1966 and 3. females originating from reciprocal crosses of these types.

The number of ovarioles in types examined



All the flies were raised on cornmeal medium (500 g of water, 4 g agar, 34 g sugar, 68 g cornmeal and yeast suspension - for 10 bottles) in excess of the medium and uniform conditions. Ten pairs of virgin flies were used to start each culture. The ovaries were removed on the fifth day of life and they were stained with methylene blue in Ringer's fluid with a few drops of alcohol to harden the tissues (Melou 1961). The statistic analysis of results was based on a sample of 50 individuals and from each one ovary was prepared (Melou's method). The results are presented in the table and illustrated in the diagram. As they show, the type $+/+$ of Toruń has an average number of ovarioles of 24.2 ± 0.98 .

In comparison to the French type Banyuls-Union and Oregon (Melou op.cit.) it is a little more fecund. The type vg/vg indicated 17.44 ± 0.44 .

The number of ovarioles in types examined

Number of ovarioles in:	vg/vg	$+/+$	$+(\delta)/vg(\rho)$	$+(\rho)/vg(\delta)$
Range	12 - 24	18 - 33	16 - 28	18 - 32
M (n=50)	17.44 ± 0.44	24.2 ± 0.98	22.36 ± 0.39	24.5 ± 0.43

Females of the reciprocal cross in which the $+/+$ female was used, showed a slightly higher number of ovarioles than the type $+/+$, and a slightly lower number when the female used for crossing was vg/vg .

As in the initial crosses the females were vg/vg both combinations seemed to be expedient.

These anatomical relations explain the experimental data of Grygoń (op. cit.) and are in accord with them.

References: Grygoń, B., 1970, Zesz. Nauk. UMK Toruń, Nauki Mat. Przyr. 22, Biologia 12: 27-36; Melou, J.P., 1961, Ann. de Génétique 3: 25-28.