

Species	Stages	Nuclei (interkinesis)	Cytoplasm		Yolk granules
			Hyaloplasm	Minute granules	
virilis	preblasteme		4.4	2.4-3.0	5.4-6.0
	blasteme	4.0-5.4	3.4-4.4	2.4-3.0	5.4-6.0
	early blas-	3.4-5.0			
	todermal	(achromatic part)		2.4-3.0	5.4-6.0
melano- gaster normal	preblasteme		4.4	3.0-4.0	5.0-5.4
	early blas-	4.0-5.0			
	todermal	(achromatic part)		3.0-3.4	5.0-5.4
melano- gaster lethal (with out X chromosome)	preblasteme		4.4	3.0-4.0	5.0-5.4

The details will be reported in another paper.

Ives, P. T. and Evans.
Alice T. A probable simultaneous double mutation in the Cy sp² chromosome.

In DIS-19, page 46, it was reported that a Cy bw sp² was recovered from a stock of net b cn bw/Cy sp². In DIS-22, page 71, a curious allele, or series of alleles, of the bw of this chromosome was reported, an

given the symbol bw^{47j}. In 1949 another allele was found which was bw-like when homozygous, but allelic only to Cy bw sp² and not to net b cn bw. On 51f5 we observed that orange (or) of Mossige, DIS-24:61, is also present in Cy bw sp² and that the 1949 bw-like mutant was an allele of Mossige's or and exactly like it in phenotype. At least one of the bw^{47j}-type alleles has proven to be an allele of Cy bw sp² or but not of net b cn bw, Mossige's orange, or the 1949 allele. Mossige's or is not present in other Cy chromosome of our stock list, including Cy al² lt² L⁴ sp², Cy pr, Cy sp², Cy L² sp², Cy al Bl lt² cn² L⁴ sp². Although of very similar phenotype, the mutant gene pd is not present in the Cy bw sp² or chromosome but cn² is. When In(2R)Cy crosses over from Cy cn² bw sp² or to its homologue and becomes homozygous the result is a bright yellowish-to-orange eye color, darkening with age, and sp² wings. The simplest interpretation seems to be that in 45a a double and simultaneous nonle mutation occurred at the bw and or loci of the standard Cy sp² chromosome. While technically it should be written as Cy cn² bw^{45a} sp² or^{45a}, it should be satisfactory and much easier to designate it only as Cy bw sp² or. The relation of the various bw^{47j}-type mutants of the local population to bw^{45a} and or^{45a} has not been investigated.

Janzer, Wolfgang Studies on cave animal characteristics.

In connection with studies on the evolution of cave animal characteristics, D. melano-
gaster has been tested. Cultures raised:

the dark for 10 generations showed no significant difference as to their photic responses when compared with those raised in the light. Further, stocks with dark body and eye color (se, e11) could be shown to exhibit significantly higher photophilous behavior than those with light body and eye color (w, y Hw). Of 8 different mutants tested (S/Cy, B, w, e11, se, y Hw, ar/ey^D, Berlin-normal), the mutant Bar (B) showed least photophily.