

Mutation Notes - Other Species

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New and undescribed mutants of *Drosophila mojavensis*.

A number of previously undescribed and newly arisen spontaneous, recessive mutations from natural and laboratory populations of cactophilic *Drosophila mojavensis* are described herein. Geographical locations mentioned are listed in Etges (1990). Because of the paucity of morphological genetic markers in this species, the locations for the autosomal mutants remain to be determined. The only morphological mutants so far assigned to particular chromosomes are either X linked or have been previously assigned through linkage analysis using allozyme markers described by Pantazidis and Zouros (1988; recessive mutant *brown eye*, *br*, located on the fourth chromosome). All mutants are available from the author and will be deposited in the Bowling Green Stock Center.

X chromosome:

yellow body, *y*, absence of most dark body pigmentation, abdominal tergites lightly banded, and most significantly, all spots at the base of the hairs on the thorax, the key character for the entire *repleta* species group, are missing. A *y* allele with similar effects is also known from *D. hydei* (Spencer, 1947). Derived from an inbred line from Punta Onah, Sonora, collected in 1988.

tan body, *t*, slight reduction in dark pigmentation. Derived from a laboratory population from Punta Onah, Sonora, collected in 1991.

white eye, *we*, no eye color pigment, does not effect male testes coloration. This mutant was isolated from separate made collections in 1988 and 1989 from Punta Prieta, Baja California Norte. Therefore, this allele must be segregating in low frequency in nature.

vermilion eye, *v*, bright red-orange eyes. This strain has been in culture in W.B. Heed's lab for years. He obtained it from L.E. Mettler, and it originated from wild flies collected in the Chocolate Mountains in southern California, U.S.A.

Autosomes:

adobe, *ad*, dark brick red eyes. This was isolated by Richard H. Thomas from a stock collected in the Cerro Colorado region near Desemboque, Sonora. It is not the same as *br* described by Pantazidis and Zouros (1988). F2 progeny from *ad* X *br* crosses contained both phenotypes and a very dark brown eye phenotype, but it has not been determined whether these two are independently assorting.

ruby, *ru*, dark red eyes. Derived from a stock collected from the Santa Rosa Mountains near Tucson in 1988.

Several compound mutants have also been constructed:

vermilion eye-ruby eye, *v-ru*. These flies have an apricot eye color (duplicate recessive epistasis).

yellow body-adobe eye, *y-ad*.

References: Etges, W.J. 1990, *Ecological and Evolutionary Genetics of Drosophila* (J.S.F. Barker and W.T. Starmer, eds.), Plenum Press, pp. 37-56; A.C. Pantazidis and E. Zouros 1988, *Heredity* 60:299; Spencer, 1947, *Adv. Genet.* 1:359.

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A wing mutation in *D. subobscura*.

To study the viability in homozygous condition of O chromosomes of *D. subobscura* from Bellingham (Washington), appropriate crosses using the lethal balanced strain *Va/Ba* were performed (Sperlich et al., 1977; Mestres et al., 1990). One of the chromosomal lines obtained in homozygous condition presented a wing mutation. Veins L4