possible to collect all molten mouthparts. The absence of a set of discarded mouthparts, in addition to the first and second instar sets and those in the pupa cases, proves the absence of an extra instar. Any mouthparts which might be overlooked in this inspection can be recovered by melting the medium and filtering through a small cone of filter paper, on which the mouthparts can be located under the binocular. The writer has used this method to demonstrate that heterozygous Ww has three instars only. The case of giant is going investigated, with substitution of finely strained banana agar for the S 101 medium.

Cochrane, Flora. Eye colors of D. pseudo-obscura. A histological study of wildtype and seven eye color mutants of D. pseudo-obscura at various stages in development has been made.

Sepia affects pigment during the late phase of pupal development and during adult life. The influence is a chemical one due to which all of the eye pigment eventually becomes yellow and brown. The actual amount of pigment is probably not reduced.

Eosin suppresses the formation of part of the pigment granules throughout pupal development but does not appear to influence them chemically. Purple affects the rate of production of red pigment. Purple recessive retards the formation of red so little as to make purple almost indistinguishable from wildtype; only in combination with vermilion or orange is the effect of purple obvious. Purple1 recessive retards the production of red considerably, and purple to such an extent that few red granules are present at emergence but many appear in older flies. Vermilion and orange suppress the entire early phase of pigment development but allow the late phase to proceed as in wildtype.

In a culture resulting from a pair mating of eosin (w6) flies three were found which had slightly pigmented eyes. This color which was found to be allelomorphic to w6 was called buff (w6B). By mating buff to wildtype buff were obtained in the F1. The eyes of buff contain more pigment than those of the wildtype.

Crew, F.A.E. and R. Lamy. The Px Inversion in pseudo-obscura. The sex-linked character, Plexus, which much resembles the autosomal character called smoky by Dobzhansky, has been found to be associated with a very small inversion between y and w, and is not necessarily connected with the larger inversions on the X-chromosome described by other writers (Dobzhansky, Tan, Koller) though the larger inversion existed originally in the px stock. It is uncertain whether the mosaics that occur in px matings are connected with the large inversions or with the Px inversion proper.