location is in agreement with the genetic map position of 6.5-7.0 determined above.

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References: Baker et al. 1978, Genetics 90:531; Baker, B.S. and A.T.C. Carpenter 1972, Genetics 71:255; Carpenter, A.T.C. and L. Sandler 1974, Genetics 76:453; Lindsley, D.L. and E.H. Grell 1968, Carnegie Inst. of Wash. Publ. No. 627.

Lee, T.J. Chungang University, Seoul, Korea. Sexual isolation among four species in the Drosophila auraria complex.

The D. auraria complex was divided into four species, D. auraria, D. biauraria, D. triauraria and D. quadraria (Bock and Wheeler 1972). The sexual isolation among three species, D. auraria, D. biauraria, and D. triauraria, was significantly demonstrated (Kurokawa 1960; Lee 1970).

For the experiment of mating preference a usual male multiple choice method was used. Results of the tests are summarized in Table 1. It is noted that the sexual isolation showed a weak degree in all of the crosses except for one case. A higher sexual isolation was seen in the crosses with D. quadraria males than in the reverse cases with D. auraria males. This difference caused by the males may be partly attributed to the morphological difference between their genitalia. It can hardly be concluded from morphological, physiological and distributional studies (Lee 1974a, 1974b) that, of the members belonging to species D. auraria complex, D. quadraria would be the ancestral species.

Table 1. Sexual preference tests among four species.

Crosses ♀♀	♂♂	Homogamic (%)	Heterogamic (%)	Isolation index	Coefficient of joint isolation
A , D X	A	45	51	0.063	0.338
A , D X	D	71	17	0.614	
B , D X	B	69	50	0.160	0.088
B , D X	D	64	62	0.016	
C , D X	C	50	63	0.115	0.162
C , D X	D	78	51	0.209	

(A: D. auraria, B: D. biauraria, C: D. triauraria, D: D. quadraria)

References: Kurokawa, H. 1960, Jap. J. Gen. 35:161-166; Lee, T.J. 1974a, Rev. Tech. & Sci., Chungang Univ. 1:9-16; Lee, T.J. 1974b, Theses Collection, Chungang Univ. 19:63-73.

Leigh Brown, A. J. National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina. Molecular weights of seven Drosophila enzymes.

Recent work in our laboratory (Leigh-Brown and Langley 1979; Leigh-Brown and Voelker 1979) has involved the estimation of the native molecular weight of several Drosophila enzymes for which such data were not previously available (O'Brien and MacIntyre 1978). As our earlier report gave only the results, I present here the methods used and the data on which those estimates were made.

Determination of sedimentation constants ($s_{20,w}$) by sucrose density gradient sedimentation was carried out according to the procedure of Martin and Ames (1961). Gradients were made in 5 ml cellulose nitrate tubes by layering 1.15 ml of each of 20%, 15%, 10% and 5% solutions of sucrose in 0.05M Tris-HCL pH 7.5 with 1 mM dithiothreitol (Sigma). They were then stored at 4°C for 24 hours. Crude fly homogenate was prepared in the same buffer by homogenising 0.5 g cn bw; ri e flies, centrifuging in the homogenate for 20 minutes at 15,000 rpm, and filtering through glass wool. The extract was then passed through a 40%/80% ammonium sulphate precipitation step and was diluted until the protein concentration, measured by $O.D._{260}/O.D._{280}$, was less than 20 mg/ml. Rabbit muscle Ldh was added (800 units/ml) and 0.1 ml was layered on top of each gradient. Three such gradients were centrifuged for 15.5 hr at 39,000 rpm in a Beckman SW 51 rotor at 4°C. After the run, two-drop fractions were collected on ice and assayed. Rabbit muscle lactate dehydrogenase and D. melanogaster alcohol dehydrogenase were used as standards.