Zhimulev, I.F. and O.V. Ilyina. Institute of Cytology and Genetics, Novosibirsk, USSR. Localization and some characteristics of sbr in D. melanogaster.

No.	Genotype	Temperature °C	Flies tested	Without one or more postscutellars (%)
1.	sbr/sbr	18	984	94 (9.6)
2.	sbr/sbr	25	675	282 (42)
3.	sbr/sbr	25	685	269 (39.2)
4.	sbr/sbr	30	168	44 (26)
5.	sbr/Df(1)v^{64f29}	25	145	132 (93)
6.	sbr/Df(1)v^{L4}	25	136	135 (99)
7.	sbr/Df(1)v^{L3}	25	998	1 (0.1)
8.	sbr/Df(1)v^{L3}	25	226	0 (0.0)
9.	sbr/Dpv^{+}Yy^{+}	25	940	10 (1.06)
10.	sbr/Dpv Yy^{+}	25	936	9 (0.96)
11.	sbr/Dpv Yy^{+}	25	274	0 (0.0)
12.	Batumi wild strain ♀♀ sbr^{+}	25	450	5 (1.1)

sbr (1-33.4) shows "bristles small; one or more missing, particularly the postscutellars" (Lindsley and Grell 1968). Penetrance strongly depends on the temperature (see table, Nos. 1-4). The results of crosses with the various duplication and deficiency chromosomes (Lefevre 1971) allow estimates of the cytological location of sbr (see table, Nos. 5-12) within the interval 9F5-6 - 9F8-11. Genetical position is between ras (1-32.35) and 1(1)Q54 (1-32.81) (map positions from Lefevre 1971).

In the haplo condition with the "allelic" deficiencies (64f29 and L4) the following peculiarities were found:

(1) Reduced viability: 205 FM-6/sbr and only 145 Df/sbr hatched from FM-6/Df(1)^{64f29} x sbr males. Df/sbr heterozygotes hatched two days later. Haplo sbr females had normal fertility. (2) High frequency of postscutellars missing: more than 93% in haplo condition compared with 42% in the homozygotes. Moreover, about half of the heterozygotes had missed all four postscutellars.

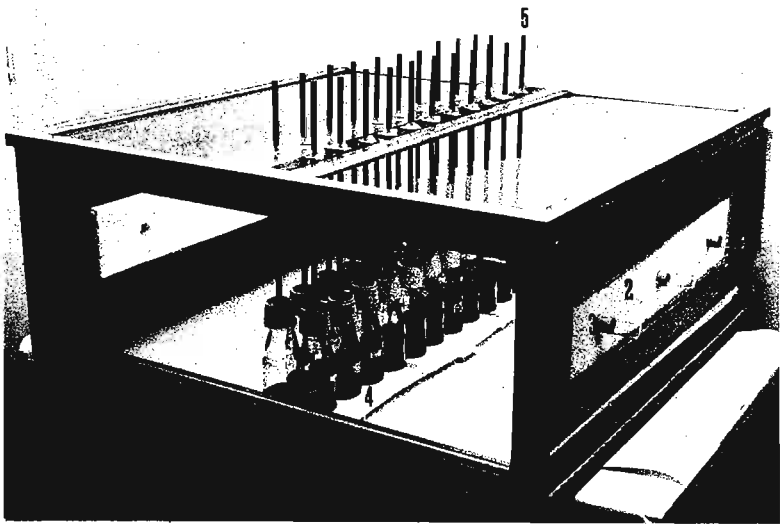
References: Lefevre, G., Jr. 1971, Genetics 67:497-513.

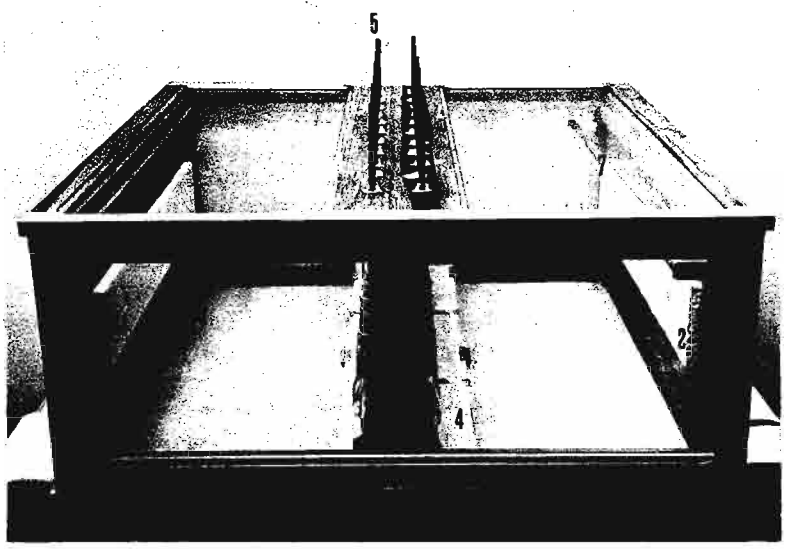
TECHNICAL NOTES

Bélo, M. and P.M. Lacava. Universidade Estadual Paulista "Julio Mesquita Filho". Faculdade de Ciências Agrárias e Veterinárias, Jaboticabal, SP, Brasil. Box for testing nutritional preferences (yeasts) in Drosophila.

This box has been used for our studies in reference to nutritional preferences in Drosophila species, under controlled laboratory conditions. Figures 1 and 2 show the box, which is 96 cm wide, 97 cm long, and 38 cm high, built with glass and wood.

On the sides (1) there are sheets of styrofoam (2), measuring 12 x 70 x 4 cm. In each





Figs. 1 and 2: Two views of the box for nutritional preferences. (1) Lateral wall;(2) styrofoam sheets; (3) holes; (4) map; (5) rods; (6) plastic hoods; (7) ultraviolet light.

styrofoam sheet there are three well-spaced holes (3) to fix the tubes of flies. Inside, on the glass bottom, there is a map (4) used in order to distribute the 22 bottles (two for each kind of yeast) to avoid association of the same kinds of yeasts together. The lateral wall (1) may be removed in order to place and remove the bottles.

The 34 cm rods (5) passing through the holes in the wooden part of the top terminate with slightly flared plastic hoods (6) which are used to close the mouths of the bottles. On the upper part of this plastic hood there are two washers, to give them greater weight in adapting to the bottle's mouth. When the bottles with certain kinds of yeasts are exposed to the flies, the plastic hoods are not totally elevated, but remain partially covering the entrance to the bottles to avoid an indiscriminate rush of flies to the bait.

Within the box there is an ultraviolet light (7) of 30W (germicidae) used to sterilize the environment. In each test the 11 species of yeasts were placed separately in 0.25 liter bottles containing synthetic medium (Mittler 1952), two days before each test.

Reference: Mittler, S. 1952, Science 115:271-272.

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Bock, I.R. and P.A. Parsons. La Trobe University, Bundoora, Victoria, Australia.

Culture methods for species of the Drosophila (Scaptodrosophila) coracina group.

Special methods have been in use for some time in several Drosophila laboratories for rearing species which cannot be cultured on one of the several standard media. In particular, a number of the Hawaiian endemics can be cultured quite successfully if the larvae are given coarse moist sand in which to pupate; vials containing young larvae are placed without stoppers into a jar containing the sand, and the larvae ultimately leave the food vial and bury into the sand for pupation. Adults of the next generation are aspirated from the sand jar.