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The Ubx/bx transvection effect in the entire compound chromosome C(2;3)EN.

In Ubx/bx flies, the phenotype is enhanced when one of the chromosomes is involved in a rearrangement which has a break in 3R between the locus of bx and the centromere (the transvection effect,

Series	Progeny	Exceptions	Transmitted	% tr.	0	4
A	1718	37 (2.2%)	11	29.7	11	0
B	1638	34 (2.1%)	9	26.4	7	2
C	1878	28 (1.5%)	15	53.5	14	1
D	1545	20 (1.3%)	8	40.0	7	1
E	1189	32 (2.7%)	11	34.4	11	0
F	1783	41 (2.3%)	27	51.2	21	0
G	1052	19 (1.8%)	4	21.1	4	0
H	1642	26 (1.6%)	10	38.5	8	2
I	2241	39 (1.7%)	18	46.2	16	2
J	1107	21 (1.9%)	7	33.3	7	0
K	3322	33 (1.0%)	12	36.4	11	1

Lewis 1954). In the entire compounds now available, the 3L arm is placed between the locus of bx and the centromere (composition: 3R3L·2L2R), and it is of interest to know whether breaks in 3R under these conditions can also exaggerate the Ubx/bx phenotype.

Flies carrying C(2;3)EN, Ubx chromosomes were irradiated with 3000 r and mated to flies with normal meta-centric third chromosomes

carrying bx<sup>34e</sup>. Following the numerical scale of 0-4, most of the progeny had a transvection score of 3; the exceptions fall into two distinct categories, those with a score of 0 or a weak 1 and those with a score greater than 3.

The table is a summary of the data. Over 90% have a score of 0. Since they occurred singly, in most cases, and in subsequent crosses appear to be the result of changes on the third chromosome, it seems likely that these represent induced changes of some sort. Some other exceptions also enhance or reduce the haltere effect. Mosaic and complete somatic and gonadal mutants were observed. Cytological analysis of these exceptions will be undertaken.

Gromko, M.H. Bowling Green State University, Bowling Green, Ohio. An attempt to reduce population size through extensive trapping.

Only one attempt to manipulate a local population of *Drosophila* through extensive trapping is reported in the literature (Dobzhansky and Wright 1943). One possible reason for the failure of extensive trapping to reduce population size in that experiment is that adults may have been im-

migrating to the study area from the large continuously wooded surrounding area. *Drosophila* have been demonstrated to show bait-directed movement (Johnston and Heed 1975) and to be capable of long distance migration. Here I report an attempt to reduce population size of *D. affinis* in an isolated woodlot. Although migration from other woodlots is not impossible, the frequency of such events is limited by the woodlot's island nature.

The study area, Carter Woods (Wood County, Ohio), is a small (6.3 acre) woodlot dominated by oak and hickory. It is surrounded by fields usually planted in corn. The nearest neighboring woodlot is 1.5 km distant, with no fence rows or migratory corridors of any kind between.

Sixty-four baits (old banana and yeast) were placed in the woodlot at 15.2 m (50 ft) intervals in a rectangular grid. The bait-grid was situated centrally, and occupied approximately 60% of the total wooded area. Collections were made in all activity periods in which it was not raining, and were carried out over a period of 18 consecutive days in August, 1979. Temperature, humidity, approximate wind speed and degree of cloud cover were recorded at the beginning of every collection period. Baits were removed and replaced with previously unused baits so that no bait was left in the woodlot for more than nine days.

8,157 individuals of 19 species of *Drosophila* were removed from the woodlot over the 18-day trapping period. The most abundant species and their approximate relative frequencies in the collections were *D. putrida* (0.35), *affinis* (0.25), *tripunctata* (0.11), *falleni* (0.09), *robusta* (0.06), and *algonquin* (0.05). The daily relative abundance data were analyzed using factor analysis and multiple regression (SPSS). Of the large number of data manipulations tried, the outcome that explained the largest amount of variability gave the following results. For the fungus-feeding species (predominantly *D. putrida*, *tripunctata*, and *falleni*), the regression of abundance on time was positive, large and highly significant. The increase in population size was not unexpected for these species as the experiment was carried out in late