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tät Berlin. Increase in frequency of a
detrimental in a laboratory wild stock.

out of 21 males tested to have a detrimental in heterozygous condition in the second chromo-
some. Of these 3 males, 8 balanced stocks (1/Cy) were established, 6 of them behaved as lethals
and 2 as semilethals. These 8 factors were allelic. But in the 28 combinations necessary
to test the allelism the frequency of surviving compounds varied greatly, and was in most
cases higher than expected, even in crosses between lethals. The survivors were entirely ster-
ile, however. As these and further experiments suggest (Belitz, in preparation), the geneti-
cal background seems to determine whether the factor in question acts as a lethal or as a semi-
lethal and whether or not the fitness of the heterozygotes is high. Beginning in 1961, fecun-
dity, fertility and longevity in the same subline decreased, giving at last a stock with ex-
treme low viability. A new genetical analysis yielded the following results: 85 males were
tested for second-chromosome detrimentals. In 83 males each second chromosome contained a
semilethal, in the other 2 one second chromosome had a lethal, the other one a semilethal.
These factors, so far tested, proved to be allelic to the detrimentals found in 1958. But the
newly isolated homozygous animals are fertile in some cases. Third-chromosome detrimentals
were looked for in 57 males, but no one was found.

The Berlin wild-stock of D. melanogaster has
been reared in our laboratory for more than 30
years. In 1958 we derived from this stock some
sublines which have since been kept in mass
cultures. All of them had good viability. At
that time we found in one of these sublines 3

Krimbas, C. B. College of Agriculture,
Greece. Further data on inversion poly-
morphism of D. subobscura in Greece.

has been decided to study big samples of this population in spring and late summer. An impor-
tant spring sample (N=216) has been studied by analyzing the males' genotype, crossing them
to homozygous females for Standard order in all their chromosomes.

In chromosome A, A2 showed a net increase in frequency compared to the preceding years.
J3+4 was not found this time. The chromosome E frequencies were similar to the late summer
ones of last year, in this way disproving a cyclical seasonal change. In chromosome U, UI+2+7
showed a net increase in frequency, while in chromosome O, OST decreased.

Chromosomes A2 seem to have size decreasing capacities in regard to AST. Also UI+2+4
seem to be size increasing, while UI+2+7 size decreasing. These differences are still not
statistically significant to the 5% level. Only the genotypes for chromosome U showed a net
departure from Hardy-Weinberg ($0.01 < P < 0.001$) in having heterozygotes more than expected and
less homozygotes. Fitnesses have been estimated (ratio between observed and expected) for
the six main genotypes: UI+2/UI+2=0.42, UI+2+4/UI+2+4=0.78, UI+2+7/UI+2+7 = 0.25, UI+2+4/UI+2=
1.21, UI+2+7/UI+2+4 = 1.05, MMM UI+2+7/UI+2 = 1.46. A fitness surface has been constructed
with these values, which showed a maximum at the point UI+2 freq=0.35; UI+2+4 freq=0.40 and UI
+2+7 freq=0.25, $\bar{w}=0.9962$. The actual population lies quite near to the maximum (UI+2 freq=
0.32, UI+2+4 freq=0.48, UI+2+7 freq=0.20, $\bar{w}=0.9929$). This shows that our fitness estimates are
not very far from reality.

Some data suggested the possibility of seasonal
changes in frequencies of structural types of
chromosome E in Parnes population (Greece) of
D. subobscura (Krimbas, 1964, Evolution-in
press). In order to investigate this point it

Fujii, S., Kanehisa, T. and Ohnishi, M.
Kobe University, Japan. Biochemical
analysis of "Freckled-type melanotic tu-
mor" inducible fraction.

maximum adsorption at around 280 m μ and minimum at 260 m μ . So far from the fraction from 15
gr. wet weight flies, purified by some organic solvents, DNA or RNA could not be found in this
fraction. There is no incorporation of p³² in this fraction, though the other two fractions
from the chromatography incorporate this isotope.

After the co-working of Kanehisa with Prof.
Barigozzi and co-workers, Universita Di Milano,
the 0.3 M NaCl-eluted fraction which can induce
"Freckled-type tumor", from D.E.A.E. cellulose
column-chromatography, was tested for the pres-
ence of nucleic acids. This fraction has a