

Mather, Wharton B. University of Queensland, Australia. New inversions in *D. rubida*.

Two new complex inversions and one new simple inversion have been detected in flies from New Guinea on chromosome II R--complex G and H and simple I. Relating these to the giant chromosome photographic map for

*D. rubida* (Mather, W. B., 1961, Genetics 46:799) G has limits 6.1 - 15.3, H 7.1 - 14.1, and I 4.7 - 5.5. In addition, a new complex--J on chromosome III has limits 23.5 - 26.0.





Mather, Wharton B. University of Queensland, Australia. *D. rubida* inversion polymorphism.

It has been shown previously (Mather, 1964) that certain inversions vary significantly in frequency at different times of the year at Port Moresby, New Guinea. It is the purpose of this report to measure inversion

frequency in a different geographical region at Bulolo, New Guinea and to compare the inversion frequency patterns in these two populations.

Material was collected from fermenting banana baits at Bulolo in August, 1963 and February, 1964.

The material was analyzed by mating males and despermed females from the wild against a standard strain and scoring seven larvae from each mating against a photographic map (Mather, 1961). Salivary chromosomes were prepared by the method given in Strickberger (1962).

The results are set out in Table 1. It should be noted that when comparisons were made between August and February only certain inversions showed significant differences in frequency. These are indicated.

Particular attention should be drawn to the following results:

1. In chromosome II L inversion A has a significantly higher frequency in August than February in both males and females.
2. In chromosome II R inversion A has a significantly higher frequency in August than in February in females but not in males.