TM2, $Ubx^{130}$ DTS-I165/Sb stock were reciprocally crossed at 30°C to flies from an Oregon-R wild type stock no Ubx progeny survived in the +/+ ♀♀ x TM2, $Ubx^{130}$ DTS-I165/Sb ♂♂ cross, but in the reciprocal cross 7% of the progeny were Ubx,non-Sb. In addition TM2, $Ubx^{130}$ DTS-I165/ ru h th st cu sr $e^s$ ca ♀♀ have been checked for crossing-over. Exchanges involving ca occurred with a frequency of .026. The frequency in the ru-h region was .003 and in the h-th region .005.

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Hunter, A.S. University of the Pacific Stockton, California. Distribution of Drosophila of Gothic, Colorado.

During a 5-week visit in June and July of 1971 at the Rocky Mountain Biological Laboratory in Gothic, Colorado, collections of Drosophila were made in two different community types in order to compare the distribution of species. A banana and yeast bait was spread on the ground in the shade of trees and sweepings were made at half hour intervals during the day. The species collected were the same as those found by Dr. D.D. Miller in 1963. The number of each species collected in each community type is shown in Table 1.

Table 1. Drosophila collections Gothic July 1971

Site 1 Aspen community

| | athabasca | pseudoobscura | montana | subquinaria | suboccidentalis | Totals |
|---|---|---|---|---|---|---|
| Week 1 | 7 | 6 | 45 | 34 | 37 | 129 |
| Week 2 | 7 | 23 | 42 | 69 | 34 | 175 |
| Week 3 | 13 | 36 | 64 | 38 | 30 | 181 |
| Total | 27 | 65 | 151 | 141 | 101 | 485 |

Site 2 Spruce community

| | | | | | | |
|---|---|---|---|---|---|---|
| Week 1 | 30 | 18 | 10 | 14 | 26 | 98 |
| Week 2 | 22 | 27 | 11 | 27 | 36 | 123 |
| Week 3 | 26 | 23 | 19 | 15 | 34 | 117 |
| Total | 78 | 68 | 40 | 56 | 96 | 338 |

At that time of year, D. montana, D. subquinaria and D. suboccidentalis were the most abundant species. Of the five predominant species collected, three differed in the number collected in an aspen community as compared with those collected in a spruce-fir community. D. subquinaria and D. montana were collected in greater numbers in the aspen community while with D. athabasca the reverse was found. An analysis of variance of the data of Table 1 is shown in Table 2.

Table 2. Analysis of variance

| | Sum of squares | Degrees freedom | Mean square | F |
|---|---|---|---|---|
| Species | 1,224 | 4 | 306 | 3.4 |
| Location | 719 | 1 | 719 | 7.9 |
| Interactions | 2,978 | 4 | 745 | 8.3 |
| Deviations | 1,802 | 20 | 90 | |

Conclusions

Significant effect of location P = 0.005
Questionable effect of species P = 0.05
Definitely significant interaction P = 0.005

These preliminary data support the hypothesis that some species are more abundant in certain community types.