Momma, Eizi. Hokkaido University, Sapporo, Japan. Domestic Drosophila in Hawaii.

From Jan. 19 to Feb. 11, 1967, Drosophila populations were sampled from six main islands in Hawaii. Collections were made with the use of traps containing usually fermented banana (guava fruit was used at Hana) at one hour intervals from sunrise to sunset for two days in each island excepting in Oahu (for one day) by the help of Prof. E. Elmo Hardy, Univ. of Hawaii. We were interested in distribution of immigrant species, and therefore copses near human habitations limited to the lower altitudes (below 2000 ft.) were chosen as collecting sites. Collection sites in each island were as follows: Kauai - 2 miles northward from Lihue, Oahu - Campus of the Univ. of Hawaii, Molokai - 7 miles northeastward from Kaunakakai, Lauai - 2 miles northeastward from Lanai City, Maui - 2 miles southeastward from Kakawao and 3 miles northward from Hana, Hawaii - 6 miles westward from Hilo.

A total of 67,566 flies represented by 3 genera, 15 species (except 12 specimens of unknown spp.) was obtained as given in Table 1. All specimens excepting only 3 individuals were of immigrant species. D. nasuta was the most abundant species in every island excepting in Molokai. The most predominant species in Molokai was D. simulans. D. hydei was the second dominant species in Lanai, though few or no fly of this species were found in other islands.

Table 1. Number of flies collected by trapping in Hawaii (Jan.-Feb., 1967)*

Island	Kauai	Oahu	Molokai	Lanai	Maui	Hawaii	Total
(Immigrant species)							
Chymomyza							
procnemis	-	-	-	101	1	-	102
Drosophila							
ananassae	36	48	2	-	295	3	384
busckii	1	-	3	-	1	1	6
carinata	1	-	414	1711	858	-	2984
hydei	-	1	-	7063	3	-	7067
immigrans	298	28	388	726	1460	507	3407
kikkawai	41	12	2	-	15	104	174
melanogaster	-	-	-	203	33	2	238
nasuta	13201	2402	3502	17049	2208	3974	42336
polychaeta	690	19	-	1	-	-	710
simulans	1775	458	3935	1344	1424	1237	10153
(Endemic species)							
Scaptomyza							
confusa	-	-	1	-	-	-	1
varifrons	-	-	1	-	-	-	1
palmae?	-	-	1	-	-	-	1
Drosophila							
crassifemur	-	-	-	-	2	-	2
(Unknown species)	3	-	1	-	1	7	12
Total	16026	2968	8250	28198	6301	5835	67578
No. of species collected	11	7	11	8	12	12	25?

* Identification of the flies was confirmed by Hardy's descriptions (1965, 1966).

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Lifschytz, E. and R. Falk. The Hebrew University, Jerusalem, Israel. A system for fine structure analysis of chromosome segments.

In a previous note (DIS 42:89) we presented a complementation map of recessive lethals which were induced in the segment of the X-chromosome that was covered by a w^+•Y-chromosome. It was shown that most lethals were multi-genic and that even those, for which there was no direct evidence that they were aberrations, interfered with recombination in their vicinity.