

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 there-
fore coves near human habitations limited to the lower altitudes (below 2000 ft.) were cho-
sen 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, Lanai - 2 miles northeastward from Lanai City, Maui - 2 miles southeast-
ward 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 except-
ing 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 (Immigrant species) | Kauai | Oahu | Molokai | Lanai | Maui | Hawaii | Total |
|-------------------------------|-------|------|---------|-------|------|--------|-------|
| <i>Chymomyza</i> | | | | | | | |
| <i>procnemis</i> | - | - | - | 101 | 1 | - | 102 |
| <i>Drosophila</i> | | | | | | | |
| <i>ananassae</i> | 36 | 48 | 2 | - | 295 | 3 | 384 |
| <i>busckii</i> | 1 | - | 3 | - | 1 | 1 | 6 |
| <i>carinata</i> | 1 | - | 414 | 1711 | 858 | - | 2984 |
| <i>hydei</i> | - | 1 | - | 7063 | 3 | - | 7067 |
| <i>immigrans</i> | 298 | 28 | 388 | 726 | 1460 | 507 | 3407 |
| <i>kikkawai</i> | 41 | 12 | 2 | - | 15 | 104 | 174 |
| <i>melanogaster</i> | - | - | - | 203 | 33 | 2 | 238 |
| <i>nasuta</i> | 13201 | 2402 | 3502 | 17049 | 2208 | 3974 | 42336 |
| <i>polychaeta</i> | 690 | 19 | - | 1 | - | - | 710 |
| <i>simulans</i> | 1775 | 458 | 3935 | 1344 | 1424 | 1237 | 10153 |
| (Endemic species) | | | | | | | |
| <i>Scaptomyza</i> | | | | | | | |
| <i>confusa</i> | - | - | 1 | - | - | - | 1 |
| <i>varifrons</i> | - | - | 1 | - | - | - | 1 |
| <i>palmae?</i> | - | - | 1 | - | - | - | 1 |
| <i>Drosophila</i> | | | | | | | |
| <i>crassifemur</i> | - | - | - | - | 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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