The competitions among the species ovipositing on *Cestrum* flowers apparently do not have a main importance for the control of the population of these drosophilids. This conclusion is supported by two evidences: the low effective occupation of the ovipotion sites, and the occurrence of seasonal population fluctuations providing an alternation between *D. cestri* and *D. incompta* as dominant species.

References: Brncic, D., 1978, Revta bras Biol. 38:647-651; Brncic, D., 1983, in: *Genetics and Biology of* Drosophila (Ashburner, M., H.L. Carson, and J.N. Thompson, jr., eds.), vol. 3, London, Acad. Press; Napp, M., and D. Brncic 1978, Rev. Bras. Genet. 1:1-10;
Sepel, L.M.N., 1992, Genética ecológica e relações evolutivas em espécies do grupo *flavopilosa* de *Drosophila.* Master thesis, Univ. F. do Rio Grande do Sul, Porto Alegre, Brazil; Vilela, C.R., 1984, Revta bras. Zool. 2:63-69; Wheeler, M.R., M. Takada, and D. Brncic 1962, Univ. Texas Pub. 6205: 395-413.

Species and numbers of flies collected in the residue deposit area of an orange juice factory.

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Figure 1 shows the Bascitrus Agro-Indústria S/A area in the Mirassol municipality with the sites where the flies were collected. The trucks receive discarded organic matter (trash) (site 1) and take it to the field, where it will be used as organic manure (site 4). Another part of the "trash" is transported and deposited in canals inside a eucalyptus plantation (site 5). Fly collection was performed rapidly, less than three minutes at each site. Among the flies (2325) captured (Table 1), *Chrysomya putorica, Copromyza* sp., *Hippelates* sp., *Musca domestica, Palaeocepsis scabra* and *Stomoxys calcitrans*, normally grow in lees. *Atherigona orientalis* and *Anastrepha* sp. are found in orchards and/or in fruit plantations, in agreement with the presence of a small orchard and a pig breeding house at site 2. Flies of the genus *Copromyza* were common in landfills (site 3). The results showed the conspicuous presence of *D. melanogaster* and *D. hydei* at some sites, such as a

Table 1. Percentage of flies collected at residue deposit sites.

species	site 1	site 2	site 3	site 4	site 5	site 6	site 7	site 8
Atherigona orientalis	79	39			3		3	
Anastrepha sp.		1						
Copromyza sp.		1	65					
Chrysomya putorica		1						
Drosophila hydei	5	12	3	88	31	89	30	3
D. latifasciaeformis		1						
D. melanogaster	4	28	18	12	64	11	64	97
Fannia pusio	4	1	14		1		1	
Hippelates sp.	4	9						
Musca domestica	4	5			1		1	
Omidia obessa		1						
Palaeosepsis scabra							1	
Stomoxys calcitrans		1						
Total	74	317	97	258	578	271	591	139

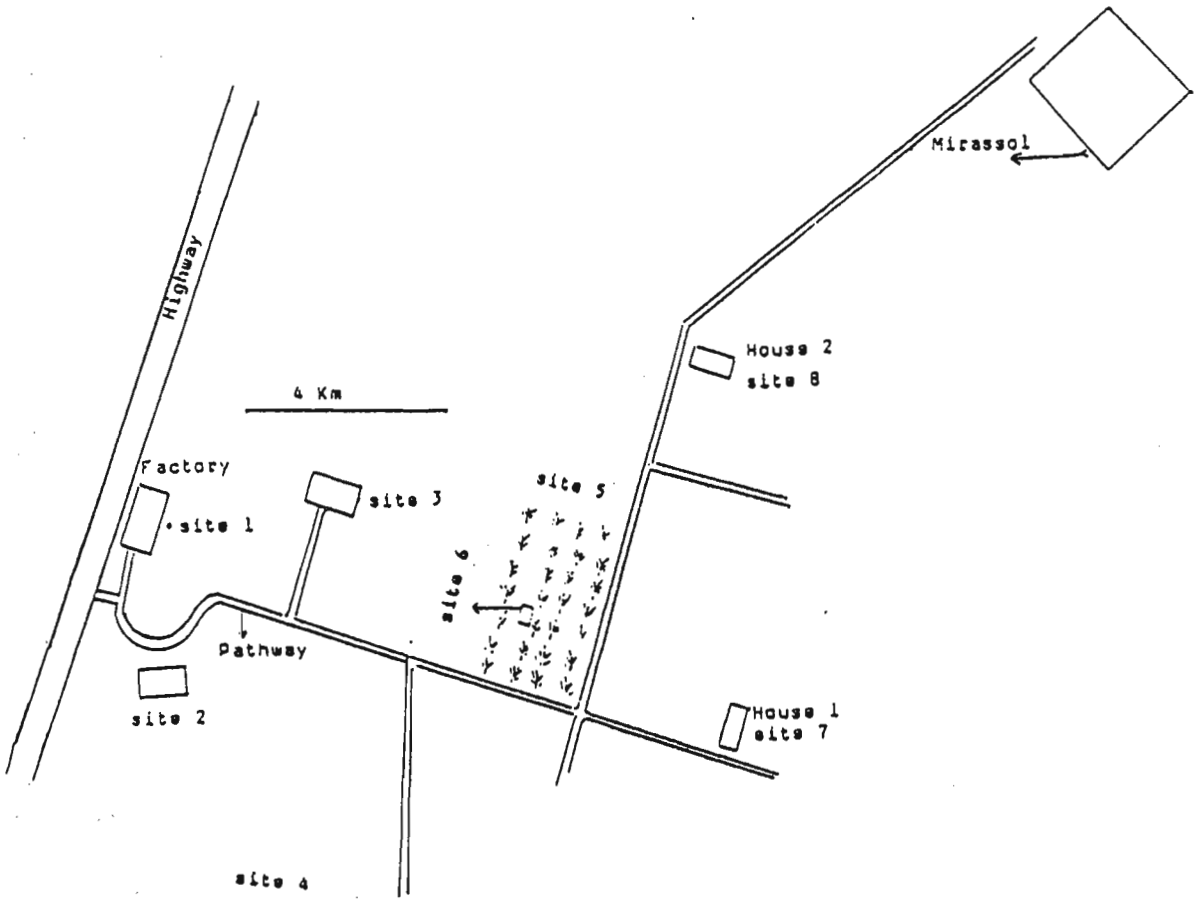

Figure 1. Map of the area where the flies were collected.

field (site 4), inside the building (site 6), in the eucalyptus plantation (site 5), and houses 1 and 2 (sites 7 and 8), where only flies of these two species were collected. It is probable that the high numbers of flies bred in the canals inside the eucalyptus plantation (site 5) spread to houses located nearby, where they become pests, impairing the quality of life in the dwellings near the breeding site. *D. melanogaster* is a cosmopolitan species which in Brazil lives only in cities or near human residences more than the native *D. hydei* which also presents positive sinanthropism. *D. melanogaster* is a rare species in Brazil, while the sibling species *D. simulans* is more common and, contrary to the sister species, also explores the woods. The collections showed that *D. melanogaster* and *D. hydei* developed very well on the residues resulting from orange grinding, showing that they may have developed adaptations that may not have occurred in other species of *Drosophila*. Indeed, studies carried out by Mourão (1966) in two woods, one inside and the other outside Mirassol (6 km from house 2) showed a strong diversity of *Drosophila* species.

Reference: Mourão, C.A., 1966, PhD Thesis, IBILCE-UNESP, São José do Rio Preto, SP, Brazil.