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Research Note

# MOSQUITO LARVAL PRODUCTION AND SPECIES SUCCESSION FROM AN AREA OF IRRIGATED RICE FIELDS IN HAVANA, CUBA

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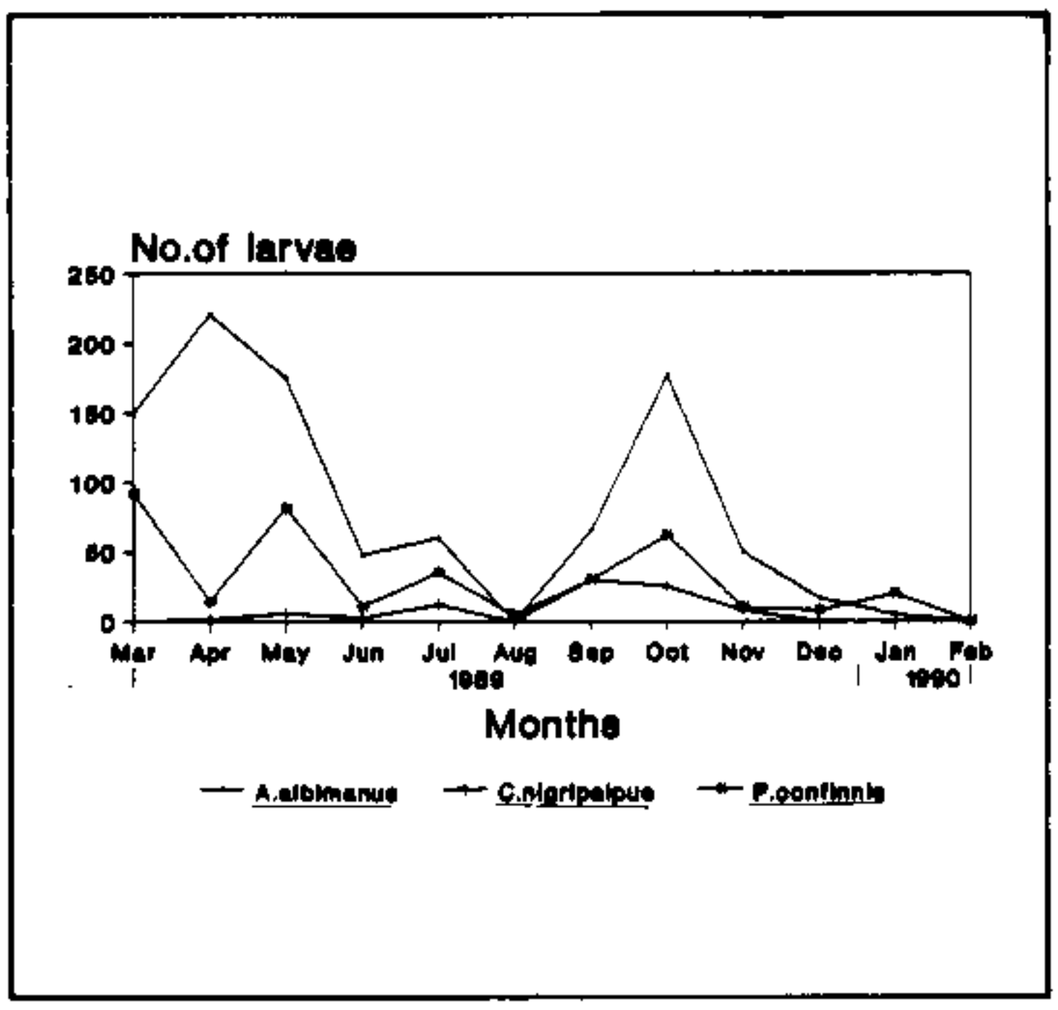
The riceland agroecosystem, and productive rice fields in particular, has been identified by a number of authors as sites of mosquito breeding. However, the relative abundance of mosquitoes breeding in these rice fields varies extensively from year to year and field to field (D. M. Chambers et al., 1981, *Mosq. News, 41:* 233-240).

Considerable attention has been focussed on irrigation programmes as foci of mosquito productions with associated health problems (W. F. Snow, 1983, *J. Trop. Med. Hyg., 86:* 237-245).

The observations reported below describe the succession of mosquito species and their fluctuations in numbers in one breeding site at Havana Province.




Number of 3rd-4th instar larvae of mosquitoes from an area of irrigated rice field in Havana, Cuba Mar/89-Feb/90.

Biweekly collections were made between March 1989 – February 1990 in one rice field in the two crops of the year (summer and winter). The larvae of mosquitoes were sampled using a standard metal dipper.

The results of the collections of the most abundant species in the breeding site are shown in the Figure. A total of eight mosquito species were collected during the study.

Three categories of mosquitoes can be recognized in association with the rice-growing cycle in the locality: (1) species already breeding in the natural swamp area which increase in numbers as a result of irrigation of the rice fields, but show little relation between their numbers and the cycle of rice growth. In this category *Psorophora confinnis* was present. This species was among the eight mosquito species taken by the dipper, comprising 24% of the total of captures; (2) primary colonizers of the rice fields, being *Anopheles albimanus* the most common species of the early stages of the rice growing cycle. This species reached two peaks numbers, one in March-May and another in September-October. These peaks agree with the second stage of the vegetative cycle of the culture named beginning of shooting processes and the formation of the panicular primordium.. In February and August mosquito larvae were not collected because the breeding place was dry. *A. albimanus* was the species most abundant numerically in the rice fields (63.3%), and their number showed an association with the cycle of the rice growth; (3) species such as *Culex nigripalpus, C. atratus, C. pilosus, Aedes scapularis, P. ciliata* and *Uranotaenia saphirina* were typical in the intermediate stages of the rice-growing cycle. These species contributed 12.7% of the total of captures.