SOME OBSERVATIONS ON THE SAP-SUCKING INSECT *POECILLOPTERA PHALAENOIDES* (L) HOMOPTERA: FLATIDAE

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Beginning in 1969, and especially during the two-year period, 1971–72, there has been a somewhat protracted outbreak on ornamental trees in Trinidad of a large, white, moth-like, sap-sucking insect, **Poecilloptera phalaenoides** (L). The nymphs and egg-rows of the insect are covered with a white, flocculent substance which, together with the long lines of adults that remain suspended underneath the twigs, give the heavily infested trees a quite spectacular frosty appearance. I have heard the picturesque term, "moth-blight" used to describe infestations of this insect.

HOST PLANTS

Its main host plants are legumes. It prefers saman but frequently infests cassia species **(Cassia biflora, C. fistula and C. spectabilis)**, flamboyant **(Delonix regia)** and devil's ear **(Enterolobium cyclocarpum)**. One of the very few trees of the species **Schizolobium parahyba** in Trinidad was infested with it. The most recent invasion that I have seen was on **Peltophorum pterocarpum** in Centeno. I have also seen it infest the non-leguminous fruit trees, dunks and mango, but fortunately only when these have been in the close vicinity of heavy infestations on saman.

A survey of the South American literature does not appreciably extend its host range. Dinther (1960) described the insect and recounted that in 1956 there was an outbreak on saman in Surinam. In a recently published catalogue of insects associated with plants in Brazil (Silva et al., 1968), its host plants are revealed to include other legumes closely related to its Trinidad host species. In one Venezuelan insect list (Acosta, 1964), it is imprecisely associated with "legumes", in another (Martorell, 1939), it is recorded as having been taken on pigeon pea.

DISTRIBUTION

The distribution of the infestations in Trinidad is rather interesting. So far, they have been found only in the western part of the island, including the two main urban areas. In Port-of-Spain significant infestations occur only in the St. Clair and St. James districts. Just a little east of the St. Clair district the infestations diminish markedly,

becoming only minimal on the insect's leguminous hosts in the Botanic Gardens.

In the San Fernando area, the only infestations observed have been on the several saman trees in and close to the grounds of the Naparima College.

TIME OF OCCURENCE

Some rhythm has already become apparent in the current outbreak. There have been three generations per year. There is some variation in the time of occurence of the insect stages between isolated trees or groups of trees in an area, but the general picture in Port-of-Spain for the two-year period 1971–72 has been that the adults are most numerous in February, June and October. The infestation in San Fernando is somewhat out of phase with those in Port-of-Spain, with the peak adult populations there occuring about midway between the peaks in Port-of-Spain.

HISTORY OF OUTBREAKS

The records of the Ministry of Agriculture in Trinidad (Anon. 1955; Anon undated) show that there was an outbreak of this insect in 1955. The Ministry's entomologist at the time discussed a heavy infestation on **Enterolobium cyclocarpum**, a species only lightly infested during the current outbreak. The records of the insect museum at the University of the West Indies, St. Augustine, suggest outbreaks in 1935, 1943, 1949 and 1959. Fennan (1945) collected numerous specimens in the St. Augustine area in 1942.

PREDATORS AND PARASITES

I have seen these insects preyed on by birds, but these cannot effect any considerable natural control because of the inaccessibility of the insects, suspended as they are under the unstable twigs of the plant. The abatement of the 1955 outbreak in Trinidad was associated with the activity of an unspecified parasite (Anon, 1955). In Brazil, the insect is known to be parasitized by the dryinid, **Mesodryinus poecilopterae** Rich. (Silva. **et al** 1968).

PATTERN OF INFESTATION

The pattern of infestation on trees attacked in the current series of outbreaks does not conform with that described by Fennah (1945). The populations that he saw were restricted on saman to branches that were dying back. Rather, the rule during the past few years has been that saman trees are so heavily and completely infested that honeydew excreted by the insect rains down from all parts of the tree foliage. On no other species of tree, either, have I found a distribution of these in-

sects that would suggest that less healthy parts of a plant are more attractive to or favour the development of the insect.

The coincidence of the current protracted outbreak with the occurrence of periods of unusually high rainfall over the past few years suggests a causal relationship which I have not been able to substantiate by a comparison of the available outbreak and precipitation records. True, the outbreak records are imprecise and incomplete, but nevertheless the distribution, development and persistence of the attack point to a causal factor other than weather.

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