

THE SUGARCANE DELPHACID (HOMOPTERA:
DELPHACIDAE) EXTENDS ITS NORTH AMERICAN RANGE
INTO LOUISIANA

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The sugarcane delphacid, *Perkinsiella saccharicida* Kirkaldy, an insect pest of sugarcane, was first discovered in Louisiana on October 19, 1994, in a sugarcane field approximately 58 km southeast of Lafayette. Identification was provided by F. W. Mead, Florida Department of Agriculture, Division of Plant Industry, P.O. Box 1269, Gainesville, FL 32614.

The sugarcane delphacid is a recent introduction to North America having been first reported in Florida in 1982 (Sosa 1985), Georgia in 1983 (Nguyen 1984), Texas in 1989 and Mexico in 1991 (Meagher et al. 1991). The sugarcane delphacid is probably native to Papua, New Guinea, but with the movement of sugarcane, it is widespread in Java, Taiwan, southern China, Malaysia, and eastern Australia. It is also established in the Hawaiian Islands, Mauritius, Reunion, Madagascar, and South Africa (Fennah 1969). In the Western Hemisphere, Risco (1969) reported the sugarcane delphacid in Ecuador in 1966 and in Peru in 1967. Feeding by nymphs and adult oviposition cause some plant damage (Allsopp & Bull 1990), but of principal concern is the insect's ability to vector *Fijivirus* sp., the causal agent of Fiji disease (Francki & Grivell 1972).

After the initial discovery of the pest in Louisiana, the sugarcane producing parishes (counties) of Louisiana were sampled during November 1994 to determine sugarcane delphacid population densities and geographic distribution within the state. One to four fields were sampled per parish in each of 20 sugarcane producing parishes. These 20 parishes comprised about 159,296 ha of cultivated sugarcane. Fields of harvestable cane (about 3.8 m tall), uniformly spaced within each parish (about 8 km apart), were selected for survey. Visual counts of nymphs and adults were made on 4 sugarcane stalks at 10 sites about 3 m apart along one or two field edges. Additionally, one leaf (3-5 down from the whorl) was examined for oviposition.

The sugarcane delphacid was found in 22 of the 60 fields sampled and in 13 of the 20 parishes sampled. The sugarcane in these 13 parishes comprises 79% (about 125,821 ha) of the total sugarcane cultivated in Louisiana. Numbers of individuals (adults + nymphs) per locations ranged from 0 to 12. The highest density was 0.3 per stalk in a field in St. Mary Parish. When the sugarcane delphacid was initially found in Florida, densities ranged from 0.5 per stalk to 35.7 per stalk (Sosa 1985). No oviposition was detected; oviposition was obviously occurring but apparently at such low levels that it was not detected.

Although the sugarcane delphacid was found in very low numbers, our survey detected an infestation gradient with the highest populations found in the coastal parishes and decreasing density in the inland parishes (Fig. 1). Immatures were, in general, found in parishes with high adult numbers.

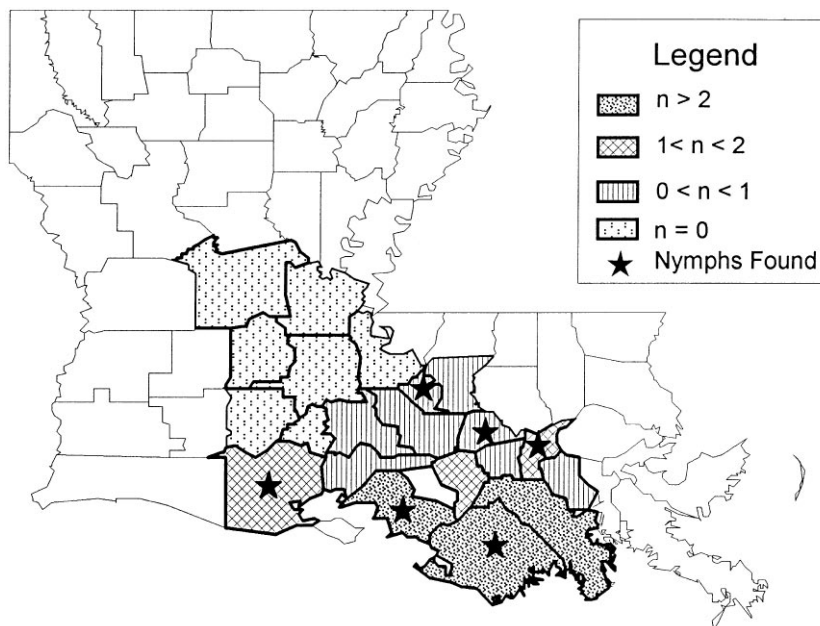


Figure 1. Distribution of the sugarcane delphacid in Louisiana sugarcane. Groupings in legend are based on the mean total number of adults and nymphs per location within a parish.

Densities of the sugarcane delphacid remained low in Louisiana sugarcane fields through the winter. Sweep net samples taken from 100 fields in late May and early June of 1995 did not detect any adults or nymphs. Because of potential of the sugarcane delphacid to become an economic pest, we will continue monitoring field densities and geographic distribution of this insect in Louisiana.

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SUMMARY

The sugarcane delphacid, *Perkinsiella saccharicida* Kirkaldy, was discovered in Louisiana, 19 October 1994. This insect is a new record for Louisiana and was found in 13 of 20 sugarcane producing parishes surveyed.

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