

RICE DELPHACID

Sogatodes orizicola (Muir)

Order: Homoptera

Family: Delphacidae

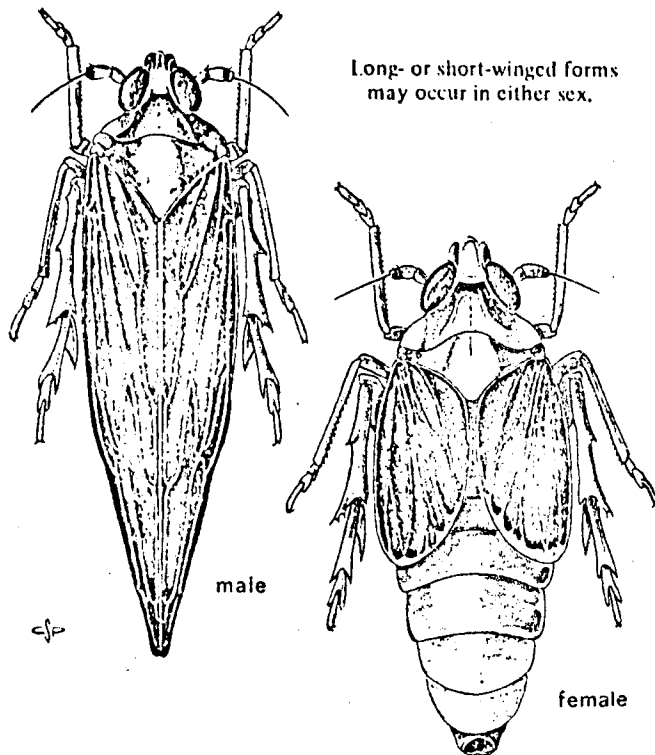
DETECTION MANUAL

(Addition)

D.T. 3:75

RECOGNITION CHARACTERS

Adult — The adult male is 3.5–4 mm. long in the long-winged form but only slightly over 3 mm. in length in the short-winged form. Most specimens of both sexes will have long wings. There is a pale yellow stripe running down the center of the dorsum of the head and thorax. The male body is dark brown in color while the female color is yellowish brown. The wings of the male are darker in color near the apex. This planthopper has a flat, almost vertical face and a movable spur at the apex of the hind tibia. It does *not* have the one or more rows of short spines along the tibiae found in leafhoppers.



Egg — The slightly-curved, white egg is usually inserted along the midrib of the rice leaf, with the tip of the egg protruding from the leaf surface. The egg color changes with embryonic development and hatches in 8-10 days.

Nymph — The nymph is similar in appearance to other planthoppers and leafhoppers. It is about 0.5 mm. in length as a first instar nymph. White to light-yellow in color, it has two pale brown stripes on the dorsum. Successive instars increase size to about 2.5 mm. in length with darkening of color generally. Wing pads are present in the fourth and fifth instars with adult transformation following the fifth instar.

HOST RANGE

Cultivated and wild rice, red rice and probably wild grasses in the vicinity of rice fields are the better hosts for this pest.

ECONOMIC DAMAGE

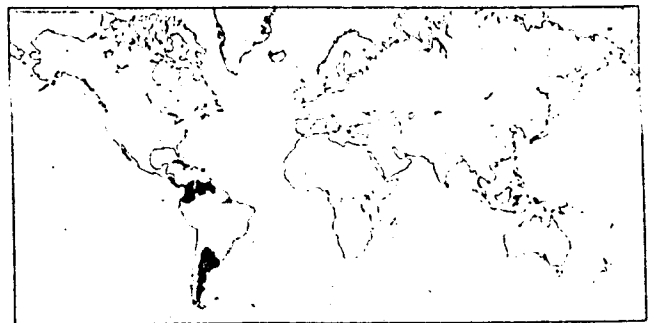
This pest is the principal vector of "hoja blanca," a virus disease of rice. This disease has been eradicated from the continental United States and is not known to exist here at present. The insect itself is not seriously damaging to its host except through disease transmission.

DETECTION NOTES

1. Look for "hoja blanca" signs which include:
 - a. Longitudinal pale yellow or white stripes on the leaves.
 - b. Mottled (yellow and green) stripes on the infected leaves.
 - c. Stunted plants which are a sign of infection.
 - d. Heads which are reduced in size or which appear aborted in the sheath.
 - e. Heads which are erect from "blanks" instead of pendulous from well-filled kernels.
2. Use sweep net on hosts (and weedy grasses) for any suspect specimens. Weedy grasses are less likely hosts.
3. Submergence of rice plants through flooding may show insect pests which have become dislodged.
4. Blanc states (1960) that rice should be in the four-leaf stage to properly survey for the disease which in California would be in July, August and September. He also indicates the best time for planthopper collection from sweeping of rice is from 0900–1100 in, the morning.

DISTRIBUTION

This insect vector has been reported from Colombia, Argentina, Brazil, Venezuela, Costa Rica, Cuba, Dominican Republic, Dutch and British Guiana, El Salvador, Guatemala, and Panama. Florida, Mississippi and Louisiana were formerly infested but have been considered free of the pest since 1959.



QUARANTINE SUMMARY

Fed. Foreign No. 55, Fed. Foreign No. 69 and Fed. Territorial Quarantine No. 13 (Refer to Exclusion Manual).

REFERENCES

- Blinc, I. L., 1960. Unpublished Study Notes on Rice Delphacid, *Sogata orizicola* Muir, CDA, 2 pp.
- Commonwealth Inst. of Entomology, 1966. Distribution Map of Insect Pests, Vol. II.
- Cronk, Wendell P., 1964, in CDA Bulletin Vol. 53, No. 4, p. 190. Foreign Insect Pests - A Threat to California Rice.
- Douglas, W. A., and J. W. Ingram, 1942. Rice Field Insects. USDA Circular No. 632, 32 pp.
- McMillian, W. W., 1963. Reproductive system and mating behavior of *Sogata orizicola* (Homoptera: Delphacidae). Ann. Entom. Soc. Amer. 56:330-334.
- Nichols, Carl W. and R. F. Wilkey, 1959. Hoja blanca (white-leaf), a destructive virus disease of rice. CDA Bull. Vol. 58:32-36.
- USDA, CEIR 1958. The rice delphacid, *Sogata orizicola* Muir, and two closely related species. (Homoptera: Fulgoroidea: Delphacidae), Vol. 8 pp 973-974.

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