

THE JUMPING PLANT LOUSE, HEMITRIOZA SONCHI CRAWFORD

(HOMOPTERA:PSYLLIDAE)¹

Frank W. Mead²

INTRODUCTION: A psyllid, Hemitrioza sonchi Crawford, is reported for the first time in Florida. This is the first record of this species south of Atlanta, Georgia. Its collection on a wild lettuce, Lactuca graminifolia Michx., at Orange Park, Florida by Kim M. Hakala, 8-VI-1984, is also a new host record. Some previously unpublished records of H. sonchi from the United States National Museum, Washington, D.C. are listed in a section to follow and include a new state record for Maryland. Very little is known about this psyllid except that it seems to be collected rarely and is known only from a few species of composite weeds with milky sap (Tribe Cichoriae). Because wild lettuce is in the same genus as garden lettuce, Lactuca sativa L., this psyllid possibly could infest commercial cultivars of lettuce and related ornamentals.

DESCRIPTION: Adult as in figs. 1A & 1B; length 1.9-2.9mm; width of thorax 0.6-0.7mm; antennae white with black tips; color of head and body red in mature specimens, but white, yellow, or orange in teneral specimens depending on age; legs with basal segments red, tarsi and nearly all of tibiae white; forewings generally hyaline but some cells having a diffuse light brown (smoky) area, 3 brown spots along posterior margin, conspicuous brown transverse band at middle; hind wings very small and hyaline. The nymphal form is distinctly triozone in form, being bordered completely by a dense fringe of wax-secreting setae (sectasetae); furthermore, the wing pad margins are almost continuous with those of the head and abdomen. For a more detailed description of the adults consult Crawford (1914) and Tuthill (1943).



Fig. 1. Hemitrioza sonchi Crawford. A) Dorsal view, 19 X. B) Left lateral view, 24 X. Photographs by V. Jane Windsor, 18-VI-1984. (DPI Photo #703009-3 and #703009-4)

IDENTIFICATION: Hemitrioza sonchi is the only known species in the genus Hemitrioza Crawford. Hemitrioza washingtonia Klyver was transferred to the genus Calophya Loew by Jensen (1949). See Crawford (1914) and/or Tuthill (1943) for keys to the subfamilies and genera. Hemitrioza is closest to Ceropsylla Riley, but the latter has

¹Contribution No. 594, Bureau of Entomology.

²Taxonomic Entomologist, Bureau of Entomology, P. O. Box 1269, Gainesville, FL 32602.

the forewings more pointed and elongate (about 3X as long as broad) whereas Hemitrioza has a more rounded wing (about 2X as long as broad). The only species of Ceropsylla in the eastern United States is C. sideroxyli Riley, and it is limited to southern Florida on false-mastic, Mastichodendron foetidissimum (Jacq.) Lam. Ceropsylla and Hemitrioza are the only American triozone genera that do not have the radius, media, and cubitus veins of the forewing diverging from the same point from the basal vein; instead, there is a short petiole. In Hemitrioza, the media and cubitus have a common petiole, but in Ceropsylla it is the radius and media. Beyond technical characters, Hemitrioza sonchi appears to be the only American psyllid having the combination of a red body and a clear forewing having a brown band at the middle and 3 brown spots on the hind margin.

RECORDS OF HEMITRIOZA SONCHI CRAWFORD IN THE U.S. NATIONAL MUSEUM (USNM) AND FLORIDA STATE COLLECTION OF ARTHROPODS (FSCA): Appreciation is extended to Dr. Douglass R. Miller for supplying records from the USNM.

1. Glen Echo, MD, Aug. 6, 1922, on Sonchus oleraceus, J. R. Malloch.
2. Chesapeake Beach, MD, June 24, 1923, J. R. Malloch.
3. Washington, DC, June 12, 1905.
4. 4-mile Run, VA, June 29, 1913, A. Wetmore.
5. Rock Creek Park, DC, April 22, 1923, J. E. Walter.
6. VA, Oct. 8, 1881, on Sonchus arvensis (No. 1046).
7. Washington, DC, 26.6, E. A. Schwarz.
8. Washington, DC, 19.6, E. A. Schwarz.

MD=Maryland; DC=District of Columbia; VA=Virginia. Dr. Miller (letter of 6-20-84) added that the specimens reported in the literature from Atlanta, Georgia, July 6, 1909, J. C. Bradley, collector, are not represented in the USNM. In the FSCA there are two recent collections: 1. Orange Park, Clay County, Florida, Pine Tree Plaza, behind Winn-Dixie Supermarket, 8-VI-1984; K. M. Hakala, collector, wild lettuce, Lactuca graminifolia Michx., numerous adults and nymphs. 2. Same collection data except 15-VI-1984, approximately 125 nymphs and adults.

HOSTS: Corn sowthistle, Sonchus arvensis L., annual sowthistle, Sonchus oleraceus L., and a native wild lettuce, Lactuca graminifolia Michx. Both species of Sonchus are considered naturalized from Europe.

DISTRIBUTION: District of Columbia, Florida, Georgia, Maryland, and Virginia.

SURVEY AND DETECTION:

1. Look for the jumping plant louse on composite plants with milky sap.
2. Infested plants have white, mealy deposits left on leaves by psyllids; suggestive of mealybugs.
3. Look for red-bodied adults with brown band at middle of forewing and 3 dark spots along hind margin; look for immatures (nymphs) that are pale, flat and waxy.
4. Submit specimens in vials of 75% isopropyl alcohol and/or place part of infested plant in plastic bag with towel to absorb excess moisture. If identity of host is in question, submit adequate sample (floral parts) for staff botanist.

LITERATURE CITED:

- Crawford, D. L. 1914. A monograph of the jumping plant-lice of Psyllidae of the New World. United States Nat. Mus. Bull. 85:1-186, 30 pl.
- Jensen, D. D. 1949. The identity of Hemitrioza washingtonia Klyver and Aphalara punctellus Van Duzee (Homoptera: Psyllidae). Pan-Pacific Ent. 25(4): 145-146.
- Tuthill, L. D. 1943. The psyllids of America north of Mexico (Psyllidae: Homoptera) (Subfamilies Psyllinae and Triozinae). Iowa State College J. of Sci. 19(4):443-660, 313 fig.