

Scientific Note

A RANGE EXTENSION OF *HOMALODISCA COAGULATA* (SAY) (HEMIPTERA: CLYPEORRHYNCHA: CICADELLIDAE) TO SOUTHERN CALIFORNIA

Although there are 13 species of *Homalodisca* in the western hemisphere (Young, D. A. 1968. U.S. National Museum Bull., 261), there are only four in the U.S.: *H. coagulata* (Say) [eastern, especially southeastern, U.S.], *H. lacerta* (Fowler) [Arizona, California], *H. insolita* (Walker) [southeastern U.S.], and *H. elongata* Ball [Texas, Arizona] (Young, D.A. 1958. Bull. Brooklyn Entomol. Soc., 53: 7–13). Of these, *H. coagulata* has been previously referred to under the synonym *H. triquetra* Fabr. by many American authors (Young 1958), and *H. lacerta* similarly has been referred to under the synonym *H. liturata* Ball (Nielson, M.W. 1968. USDA Tech. Bull., 1382); see Nielson (1968) or Young (1968) for the synonymies of these species.

Homalodisca coagulata has become established recently in southern California, making it the second *Homalodisca* sp., along with the native *H. lacerta*, to occur in the state. Specimens of *H. coagulata* have been taken in Ventura, Los Angeles, Orange, Riverside and San Bernardino Counties, on *Citrus*, *Pinus*, *Eucalyptus*, *Platanus*, *Prunus*, and *Ficus* with collections dating back to 1990. We suspect that this leafhopper probably entered California in nursery stock, as eggs, which are difficult to detect but are frequently intercepted during agricultural quarantine inspections.

Homalodisca coagulata is a vector of phony peach disease (Turner W. F. & H. N. Pollard. 1955. J. Econ. Entomol., 48: 771–772; Young 1958; Nielson 1968) and Pierce's disease of grape (Nielson 1968) in the southern U.S. It feeds broadly, and has been reported from 73 plant species in 35 families (Turner W. F. & H. N. Pollard. 1959. USDA, Tech. Bull., 57; Nielson 1968). In southern California, new circumstances suggest that it *may* be implicated as a vector of a bacterium (MLO) causing dieback to Oleanders planted along freeways (A. Purcell, personal communication). Eggs are laid in clusters in the lower epidermis of leaves of, usually herbaceous, plants (Turner & Pollard 1959, Nielson 1968). First and second instar nymphs, which do not survive well on woody plants, prefer herbaceous hosts, especially corn, cotton, cowpeas, hollyhock, okra, lambsquarter, and sunflower (Turner & Pollard 1959, Nielson 1968). After summer hosts become senescent, older nymphs and adults move to the stems and twigs of woody plants, and feed preferentially on ash, crapemyrtle, oak, peach, and silktree (Turner & Pollard 1959, Nielson 1968). Adults usually feed solitarily, but can sometimes congregate in large numbers on single plants (Turner & Pollard 1959, Nielson 1968). In southern California, they have been observed to line up along terminal twigs of leafless, dormant peaches (N. Nisson, personal communication). In Georgia, overwintering adults on oak have been known to drop to the ground during cold (freezing) nights and return to the tree when temperatures rose during the day (Pollard, H. N. & G. H. Kaloostian. 1961. J. Econ. Entomol., 54: 810–811).

Young (1958) provides a key to the *Homalodisca* of the U.S. *Homalodisca*

Table 1. Diagnostic traits for *Homalodisca* sp. in California.^a

Character	<i>H. coagulata</i>	<i>H. lacerta</i>
Male size ^b	10.8–13.0 mm	8.5–10.2 mm
Female size ^b	12.3–13.8 mm	10.0–11.2 mm
Head markings ^b	discontinuous white/creme flecks	continuous white/creme sinuous lines
Aedeagal processes ^b	2 pair ^c well developed	1 pair ^d greatly reduced

^a U.S. species with transparent anterior area of forewing.

^b Young (1958: couplet 2).

^c Young (1958: fig. 1 c–g).

^d Young (1958: fig. 2 a–g).

coagulata and *H. lacerta*, as the only California *Homalodisca*, together, separate from *H. insolita* and *H. elongata*, by having an anterior area on their forewing that is transparent (vs. forewing completely opaque) (Young 1958: key couplet 1). *Homalodisca coagulata* can be separated from *H. lacerta* by its slightly larger size, the development of the markings on its cephalic dorsum, and the number and development of aedeagal processes (Table 1).

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Records.—CALIFORNIA. LOS ANGELES Co.: Rosemead, 12 Sep 1995, D. Papilli, *Ficus benjamina*. ORANGE Co.: Irvine, 19 Jan 1990, S. Quintana, *Citrus* sp., *Pinus* sp. RIVERSIDE Co.: Corona, 1 Sep 1994, E. Reeves. SAN BERNARDINO Co.: Fontana, 28 Feb 1994, S. Langford. VENTURA Co.: Ventura, 7 Mar 1994, P. Phillips, *Eucalyptus* sp.

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