

SCIENTIFIC NOTE

***Greenidea formosana* (Maki), an Aphid New to the Hawaiian Islands (Homoptera: Aphididae: Greenideinae)**

JOHN W. BEARDSLEY

Department of Entomology, University of Hawaii, Honolulu, Hawai'i 96822, USA

ABSTRACT. *Greenidea formosana*, an aphid new to the Hawaiian Islands, was collected for the first time in Hawai'i on the campus of the University of Hawaii at Manoa, Oahu, on 26 February 1993 by J.W. Beardsley, on foliage of common guava, *Psidium guajava*. *Greenidea formosana* is an Asian species belonging to the the subfamily Greenideinae. This group was previously unrepresented in Hawaii, and this is the first reported occurrence of *G. formosana* outside of Asia.

On 26 February 1993, I found an unusual appearing brownish aphid lightly infesting a small bush of common guava, *Psidium guajava* L., on the campus of the University of Hawaii at Manoa, Honolulu. About 30 adult and immature aphids were collected. Slide preparations were made and the aphid was identified as *Greenidea* sp., possibly *formosana* (Maki). Subsequently, specimens were sent to Manya B. Stoetzel, aphid specialist, U.S. Department of Agriculture, Systematic Entomology Laboratory, Beltsville, Maryland, who confirmed that the species was *G. formosana*. This is a new record for Hawaii and for the Western Hemisphere, as this aphid was previously unknown outside of Asia according to Stoetzel. *Greenidea formosana* was described originally (Maki 1917) in the genus *Trichosiphum* Pergande, now considered a subgenus of *Greenidea* Schouteden (Eastop & Hille Ris Lambers 1976). *Greenidea* is the type genus of the subfamily Greenideinae, a small, largely Asian group not previously known from the Hawaiian Islands. *Greenidea formosana* has been redescribed and figured by Takahashi (1924) and Calilung (1967). It occurs in India, Bangladesh, Nepal, China, Japan, Taiwan (type locality), Ryukyu Is., Philippines, and Indonesia (Java, Sumatra) (Blackman & Eastop 1984). Recorded hosts of this aphid include plants in the families Myrtaceae (*Callistemon citrinus*, *Eugenia* sp., *Melaleuca* sp., *Psidium guajava*, *Rhodomyrtus tomentosa*, and *Tristania rufescens*), Moraceae (*Ficus microcarpa* and *Ficus wightiana*), and Clusiaceae (*Nesua ferrea*) (M.B. Stoetzel, pers. comm.). *Greenidea formosana* is an unusual appearing aphid. The nymphs and adult apterae are brownish in color, somewhat flattened in shape, with prominent cornicles that bear long hairs. Unlike most aphids, they move relatively rapidly when disturbed. In the alate adults, the slender, hair-bearing cornicles are exceptionally elongate, often exceeding the abdomen in length. A search of more than a dozen guava bushes, made by me in and near the University of Hawaii at Manoa during the week following the initial discovery, found only 1 additional small infestation of about 20–25 aphids. This and the original infestation disappeared after about 2 weeks, which suggests that under normal conditions this species is unlikely to develop populations large enough to cause serious direct damage in Hawai'i. Its potential as a vector of plant disease is unknown.

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