

NOTE

Range Extension of False Meyer Scale, *Dynaspidotus pseudomeyeri* (Kuwana) (Hemiptera: Diaspididae) in the United States, and Newly Recorded Associations with a Parasitoid and Mite

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False Meyer scale, *Dynaspidotus pseudomeyeri* (Kuwana, 1932) (Hemiptera: Diaspididae), is an occasional pest of conifers in the northeastern United States. Likely native to Japan, *D. pseudomeyeri* was first recorded in the United States in New York in 1953 (Miller and Davidson 2005, Miller et al. 2005). It has since been reported from Washington, D.C. and southeastern Pennsylvania (Kosztarab 1996, Miller and Davidson 2005, Stimmel 2002). The host range of false Meyer scale is mostly limited to conifers with several recorded hosts belonging to Cupressaceae (*Chamaecyparis*, *Cupressus*, *Juniperus*, *Platycladus*, and *Thuja*) and Pinaceae (*Cedrus* and *Tsuga*) (Borchsenius 1966, Paik and Kim 1977, Nakahara 1982, Stimmel 2002, Miller and Davidson 2005); however, there is also one account of them occurring on Fagaceae (*Quercus*) in Korea (Suh and Son 2017). There are no previously recorded natural enemies of *D. pseudomeyeri*.

Kosztarab (1996) considered *D. pseudomeyeri* to be a rare species, and indeed it is represented by only half a dozen North American specimens in the Smithsonian National Museum of Natural History Collection (NMNH). Stimmel (2002), however, reported finding false Meyer scale at damaging levels “on a somewhat regular basis,” particularly around the Philadelphia area, and suggested it may eventually become a serious pest. We are unaware of additional reports of *D. pseudomeyeri* being

pestiferous in the intervening 15 years, but recognize that natural history information will be important if it does. We therefore report the first parasitoid wasps found to attack false Meyer scale herein. We also report a modest range expansion including two new state records from the northeastern United States.

MJS received samples of eastern arborvitae (*Thuja occidentalis* L.) from Schneckville, Pennsylvania from Steve Rineman through Karen Bernhard at the Penn State Lehigh County extension office. According to Bernhard, “two or three” arborvitae at the client’s residence “about 100 feet apart” in a row appeared to be in decline (Figs. 1–5). Upon examination, scale insects were found in abundance on the samples and tentatively identified as false Meyer scale. MJS sent specimens to SAS for identification confirmation, at which time it was discovered that *Encarsia perniciosi* (Tower) (Hymenoptera: Aphelinidae) were parasitizing the scales (Figs. 6–7). A cheyletid mite, *Cheletogenes ornatus* (Can. and Fanz.) was also found to reside within the vacated cuticles of parasitized scales (Figs. 8–9). Vouchers of the diaspidid, aphelinid, and mite are deposited in the NMNH.

A combination of morphological and molecular data were used for identification purposes. DNA extractions and slide-mounted vouchers were prepared following the same protocols listed in Dewey et al. (2018), for two ‘healthy’