Recent range expansions for two introduced spiders, *Heser schmitzi* (Kulczyński, 1899) and *Zelotes tenuis* (L. Koch, 1866) (Araneae: Gnaphosidae), in California

Arthropods that are unintentionally introduced into a new location can be difficult to detect and may have negative consequences on native ecosystems (Snyder & Evans 2006). We describe range expansions for two introduced gnaphosid spiders in California.

*Heser schmitzi* (Kulczyński, 1899) was first described in 1899 by the Polish arachnologist Vladislaus Kulczyński based on a female collected by the Reverend E. Schmitz on the island of Madeira. This species was originally placed in the genus *Prosthesima* (Koch, 1872). Nearly a century later, the male was described by Platnick & Murphy (1998), who transferred it to the genus *Zelotes* (Gistel, 1848) and located specimens from Spain and the Canary Islands, as well as a single female collected in 1980 in Alameda County in California. Based on a very limited number of specimens, they speculated that this gnaphosid may have been introduced into California. At that time, only one male specimen and three females were known, in addition to the female holotype from Madeira, which could not be found. Senglet (2012) later transferred the species to *Heser* (Tuneva, 2004). We were unfortunately unable to learn much about the current status of *H. schmitzi* in Europe, but we believe that it is rarely collected there, although Senglet (2012) did report specimens at several locations in southern Spain in 2002.

Of note, one other species of the Old World genus *Heser* has also been introduced into North America and specifically is found in southern California (Platnick & Shadab 1983). *Heser nilicola* (O. Pickard-Cambridge, 1874) is quite similar to *H. schmitzi* but can be separated from that species by details of the genitalic morphology (Platnick & Murphy 1998).

Analysis of pitfall samples and general collecting in California have now revealed the presence of *H. schmitzi* throughout the Bay Area in Marin, San Francisco and San Mateo Counties, as well as farther afield in the Central Valley counties of Sacramento and Madera (Fig. 1). In addition, a year-round sampling regimen using a swimming pool surface as a pitfall trap (manuscript in preparation) has allowed us to analyze the temporal distribution of this species at one site in Marin County (San Rafael, 38°16’N, 122°33’12”W). Mature specimens are collected predominantly in May, June and July (range: 9 May–5 September, Fig. 2). The swimming pool surface, where many of the specimens were collected, is in the backyard of a suburban home located near oak and grassland habitats. Other habitats where this species has been found include oak savanna, disturbed lacustrine, and a heavily trafficked suburban park. *Heser schmitzi* appears to be abundant in some locations—64% (41 of 64) of the mature gnaphosids collected from a swimming pool surface over the course of about one year proved to be this species.

*Zelotes tenuis* (L. Koch, 1866) is distributed widely in southern Europe (Senglet 2011). At the time of the revision of the genus in North America (Platnick & Shadab 1983), a single specimen locality was known from Contra Costa County, California.