Oncozygia clavicornis Stål (Hemiptera: Pentatomidae: Podopinae) in the Southwestern United States: New Distribution and Host-Plant Records

Stink bugs, or pentatomids, are among the most frequently encountered heteropterans (Froeschner 1988). Many species live up on plants, often feeding on fruits and seeds of their hosts, or on other insects in the case of the predatory Asopinae (e.g., Schuh and Slater 1995, Panizzi et al. 2000). Among the least-studied North American Pentatomidae are members of the subfamily Podopinae, sometimes referred to colloquially as turtle bugs (Barber and Sailer 1953; Slater and Baranowski 1970, 1978). With the exception of Amaurochrous cinctipes (Say) (McPherson and Paskewitz 1984), the habits of few other Nearctic podopines are known.

Plant associations for Oncozygia clavicornis Stål (1872) remained unknown until it was shown to develop in the crowns of bunchgrasses in southeastern states. Nymphs and adults were found most often on weeping lovegrass, Eragrostis curvula (Schrad.) Nees (Poaceae: Chloridoideae), a C₄ perennial grass native to central and southern Africa. The pentatomid’s colonization of E. curvula has occurred rapidly in ecological time. Weeping lovegrass has been planted along southeastern U.S. highways only since the 1940s, with most plantings dating from the 1950s or later (Wheeler 1999).

Oncozygia clavicornis proved difficult to find in the Southeast on native grasses. One adult was collected from the crown of bushy bluestem, Andropogon glomeratus (Walt.) B S.P., in Polk County, Florida (Wheeler 1999). Subsequently, the turtle bug has been found on bushy bluestem in Hardee County, Florida, 5 km north of Wauchula (10 adults on 2 Dec. 2000, 3 adults and 8 late instars on 3 Mar. 2001). Another native host of O. clavicornis in Florida is sand cordgrass, Spartina bakeri Merr.; nymphs, adults, or both were present on this grass in Highlands County, 7 km northwest of Avon Park (6 collections: 17 Nov. 2006, 23 Mar. and 14 Dec. 2007, 21 Mar., 18 June and 13 Nov. 2010) (A. G. Wheeler, unpublished).

Oncozygia clavicornis occurs not only in the Gulf and Coastal Plain of southeastern states (Alabama, Florida, Mississippi, North Carolina, South Carolina, and Virginia; Froeschner 1988, Wheeler 1999) but also in the Southwest. The species was described from an unspecified locality in Texas (Stål 1872). It since has been recorded in Texas from Galveston and Gillespie County (Barber and Sailer 1953) and College Station, Minter Springs [Brazos Co.], and Lange’s Mill [Gillespie Co.] (Wheeler 1999), but no host-plant records for O. clavicornis in the Southwest have been available. Here I give new southwestern distribution records of this turtle bug, including the first for Oklahoma, and provide the first host associations for the Southwest: the introduced weeping lovegrass (E. curvula) and three native grasses.

Specimens examined.—OKLAHOMA: Atoka Co., Rt. 109A, 15.1 km N of Boswell, 34°09.86’N 95°53.02’W, 22 Apr. 2000, 14 adults; 1 May 2000, 5 adults (~30 others seen); 19 May 2001, 2 adults (6 others seen); 20 Apr. 2002, 15 adults,