NEW BLATTODEA RECORDS FROM MISSISSIPPI AND ALABAMA[1]

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ABSTRACT: *Pseudomops septentrionalis* is reported from seven counties in Mississippi dating back to 1987. These records suggest a gradual range extension hypothesis for this species rather than the accidental human transport hypothesis proposed to explain an apparently isolated population in Auburn, Alabama. *Panchlora nivea* is reported from four counties in Mississippi including two early records considered to be adventive introductions with bananas. *Plectoptera picta* is reported from Alabama for the first time.

The recent publication of *The Catalog and Atlas of the Cockroaches (Dictyoptera) of North America North of Mexico* by Atkinson et al. (1991) is a compilation of museum specimen data and the available North American literature on cockroach distribution and serves as a useful reference for establishing whether a new collection represents a significant range extension. Based on these summarized distributions, Roulston and Appel (1997) reported a large range extension (500km) for *Pseudomops septentrionalis* Hebard from its reported native range of Texas, Oklahoma, Louisiana and northern Mexico to a disjunct site in Auburn, Alabama. This is noteworthy because, although the ranges of exotic species are often expanded by human transportation, Atkinson et al. (1991) suggest there is no evidence that the range of a native species has been expanded by human transport. Since Roulston and Appel stated that *P. septentrionalis* had not been reported from Mississippi, the intervening area, they postulated that the existence of the Auburn, Alabama population reflected recent human activity rather than a natural range extension.

Pseudomops septentrionalis was first noted in Mississippi in 1987 when Michael Ledlow collected four specimens at his home in Starkville, Oktibbeha County. Since then specimens have been collected in six additional counties scattered across the southern two-thirds of the state. Collections in the Mississippi Entomological Museum, Mississippi State (MEM), the University of Mississippi Insect Collection, University, MS (UMIC) and the Southern Hardwoods Laboratory research collections, Stoneville, MS (SHL) contain the following Mississippi specimens of *P. septentrionalis:*

Harrison Co.: Long Beach, 25 July 1994 (1) (MEM); **Hinds Co.:** Clinton, 5 July 1994 (1), 17 July 1995 (1), 28 July 1995 (1) (UMIC); **Holmes Co.:** 1.8 mi. S. Cruger on Hwy 49, 16 June 1989

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(2) (MEM); **Lincoln Co.:** Brookhaven, 12 July 1990, in home (1) (MEM); **Madison Co.:** Madison, 24 July 1998 (1) (MEM); **Oktibbeha Co.:** Starkville, 2 June 1987, incandescent light (1), 26 June 1987, incandescent light (1), 8 July 1987, blacklight trap (2), 25 June 1997 (1) (MEM); **Washington Co.:** Greenville, 10 July 1997 (1) (SHL); Leland, 20 June 1997 (1) (SHL).

These few records show that *P. septentrionalis* was present in central Mississippi approximately halfway between the edge of the presumed native range and the distant Auburn, Alabama population at least nine years prior to the discovery of the Auburn population and that *P. septentrionalis* is widespread in Mississippi. Although it is impossible to discount that the Auburn population was introduced through human activity, we feel the existence of widespread populations of *P. septentrionalis* in Mississippi supports a natural range extension hypothesis for the distribution of this species. It is possible that all the Mississippi records were the result of adventive introductions because the sites are all near major roads, but the proximity to highways may merely reflect accessibility to sites for collectors. We suggest the possibility that the native range of *P. septentrionalis* may include Mississippi and that cockroaches were not well represented in the extant collections from which the range maps were drawn. Presumeably future collections, especially in areas away from highways and development, will help resolve this question.

Panchlora nivea (L.) is another cockroach species that has not been previously recorded from Mississippi. Its reported distribution is southern Louisiana and Texas south through Mexico and Central America, the Greater Antilles, Bahamas, and peninsular Florida where it is common although probably introduced during the late 1970's (Atkinson et al., 1991). Atkinson et al. (1991) have speculated that *P. nivea* should also occur in coastal Mississippi, Alabama, the Florida panhandle, Georgia and South Carolina, but the following records are the first confirmed for Mississippi:

Harrison Co.: Gulfport, T7S R10W sec. 32, 8 May 1989 (1), 31 May 1989 (1), U.V. light (MEM); **Jackson Co.:** 1 mile West of Hwy 90 X Hwy 57, T7S R8W Sec. 25, 12 Apr. 1991, blacklight trap (1) (MEM); Gulf Coast Research. Lab., T7S R8W sec 33 NW, 12-13 Apr. 1991 (1) (MEM); I 10 at Escatawpa River, T75 R5W Sec.1 SW, 13 Apr. 1991 (1) (MEM); Grand Bay Savanna, 30°27'31"N 88°25'14"W, 28 Aug. 1995, blacklight trap in coastal savanna (1) (MEM).

There are two earlier Mississippi records (**Desoto Co.:** Horn Lake, 4 Dec. 1925, on bananas; **Oktibbeha Co.:** Starkville, 18 Nov. 1926, on bananas) that would extend the presumed northern range of this species by approximately 500 km, but we consider these specimens to be adventive because they were collected on bananas which at that time must have been shipped to these inland sites. The fact that the first recent records in Mississippi are from Gulfport, a major port for the importation of bananas, suggests that populations on the Mississippi coast may have originated through introduction. Conversely, the species may have spread naturally from populations in Louisiana or Florida. Several of the Jackson County sites are in natural areas far from human habita-

tion, indicating that the species is probably well established on the Mississippi coast.

The presence of the neotropical cockroach *Plectoptera picta* Saussure and Zehnter in the United States was confirmed by Nickle and Gurney (1985) who considered it more likely that the species was introduced rather than native to the U. S. Its known distribution includes Costa Rica and Veracruz, Mexico with separate disjunct populations in Louisiana and eastern Texas, and in Virginia and North Carolina (Nickle and Gurney, 1985; Atkinson et al. 1991). MacDonald and Combs (1989) also reported the species from southwestern Mississippi, a record that was overlooked by Atkinson et al. (1991). Schiefer collected a single specimen of *P. picta,* the first for Alabama, on 3 Aug. 1991 in Houston County, 0.5 miles north of the Florida line on Highway 109 by beating dead and dying trees. J. R. MacDonald collected a second specimen in Geneva Co., 6 miles West of Geneva, T1N, R20E, S25, SW 1/4 on 28 Aug. 1998 on *Liatris spicata* in a savanna area. These records represent a rather large range extension from either of the known United States populations but is approximately midway between them. The proximity of this record to Florida (0.5 miles) and Georgia (27 miles) suggests that *P. picta* will eventually be found in both of these states as well.

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