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New Records of Eurymerodesmid Millipeds (Diplopoda: Polydesmida) from Arkansas, Kansas, Louisiana, Oklahoma, and Texas

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The milliped family Eurymerodesmidae occupies a variety of habitats in the central, southcentral, and southeastern United States; it ranges from northeastern NE, central IL, and southeastern NC to the Rio Grande and nearly to Tampa Bay, FL (Shelley 1990). The only component genus is *Eurymerodesmus* Brölemann, 1900, which comprises 25 species, nearly half of which (11 or 44%) occur in LA. *Eurymerodesmus mundus* Chamberlin, 1931, occurs from NE to AR and TX (McAllister et al. 2004), and herein, we document it from LA and new sites in AR and OK. We also provide new records of *E. amplus* (TX), *E. angularis* (LA), *E. b. birdi* (AR, KS, and TX), *E. melacis* (TX), and *E. mundus* and *E. pulaski* (AR).

Between October 2001 and October 2003, locales in Caddo Parish (Par.) were searched for *E. mundus*. Other eurymerodesmids were sampled through December 2007 from sites in AR, KS, LA, NE, OK, SD, and TX, many being along trails in state parks. Specimens were collected from damp areas in mixed deciduous and pine forests by overturning decaying logs and leaf litter with potato rakes. They were placed in vials containing 70% ethanol, returned to the laboratory for processing and sorting, and shipped to RMS for determination to the lowest taxonomic level. Voucher specimens are deposited in the North Carolina State Museum of Natural Sciences (NCSM). All localities cited below constitute new county/parish records.

Eurymerodesmus mundus Chamberlin 1931

AR: *Scott Co.*, Waldron, 6 January 2006, Waldron High School Students, ♂. **LA:** Caddo Par. near Ida, off US 71 and Munnerlyn Chapel Road (32°59.2'N, 93°53.5'W, elevation = 76 m), 24 October 2003, CTM ♂. **OK:** *Washita Co.*, Crowder Lake St. Pk., 8 November 2003, CTM, ♂, ♀. This species occurs in Lafayette, Miller, Polk, and Sevier cos., AR (McAllister et al. 2004), and the above record is the northernmost in the state. In OK, *E. mundus* has been reported from 13 cos. (Fig. 1), the above record being the westernmost (McAllister et al. 2004). The LA male was under bark of a decaying pine log at the edge of

deciduous forest that had been recently clear-cut. This record confirms McAllister et al.'s (2004) prediction of eventual discovery in this region of LA. The distribution is shown below in Fig. 1.

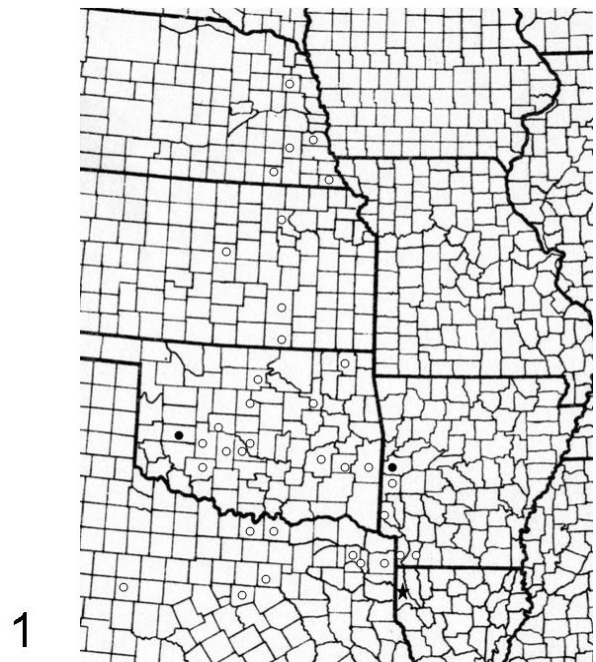


Figure 1. Distribution of *E. mundus*. Open circles (previous records); closed circles (new records); star (state record).

Eurymerodesmus amplus Causey 1952

TX: *Cherokee Co.*, Caddoan Mounds State Historic Park, 1 March 2003, CTM, G. Torres, 8♂, 7♀, 3 juvs. *Freestone Co.*, Fairfield Bay St. Pk., 9.7 km NE Fairfield, 21 December 2002, CTM, J. T. McAllister, III, 3♂. *Hardin Co.*, Village Creek St. Pk., Lumberton, 15 June 2004, CTM, ♂. *Limestone Co.*, Confederate Reunion Grounds St. Pk., 21 December 2002, CTM, J. T. McAllister, III, 3♂, 2♀. This milliped has been reported from several western parishes in LA and 18 cos. in east TX, and an allopatric population exists to the west in Mason Co., TX, on the Edwards Plateau region (Shelley 1990).

C. McAllister and R. Shelley

Eurymerodesmus angularis Causey 1951

LA: Webster Par., Lake Bistineau St. Pk., 1 January 2004, CTM, ♂. *Eurymerodesmus angularis* occurs in 6 LA pars., 7 cos. in AR, and 3 in TX (Shelley 1990; McAllister et al. 2004).

Eurymerodesmus birdi birdi Chamberlin 1931

AR: Scott Co., Lake Winkle, Waldron, 3 February 2006, S. Pickens, ♂. **KS:** Cherokee Co., 1.6 km S Galena off St. Hwy 26 at Schermerhorn Park, 4 May 2005, CTM, ♂. **TX:** Cass Co., Atlanta St. Pk., 3 October 2001, CTM, RMS, ♂. Harrison Co., Caddo Lake St. Pk., 12 November 2001, CTM, 3♂. This widely ranging milliped is known from AR, KS, LA, MS, MO, OK, and TX (Shelley 1990; McAllister and Shelley 2003; McAllister et al. 2002a,b, 2003a,b).

Eurymerodesmus melacis Chamberlin and Muliak 1941

TX: Brown Co., Brownwood St. Pk., 27 November 2002, CTM, ♂, juv. Coleman Co., 3.2 km E Talpa off US 67, 23 December 2006, CTM, 7♂. Edwards Co., 3.2 km SW Telegraph off US 377, 21 February 2004, CTM, 7♂. Sutton Co., Caves of Sonora, 18 November 2005, CTM, ♂♂, ♀♀, juv. *Eurymerodesmus melacis* is the westernmost congener in TX (Fig. 2), it inhabits caves on the Edwards Plateau, and is endemic in the state (Shelley 1990).

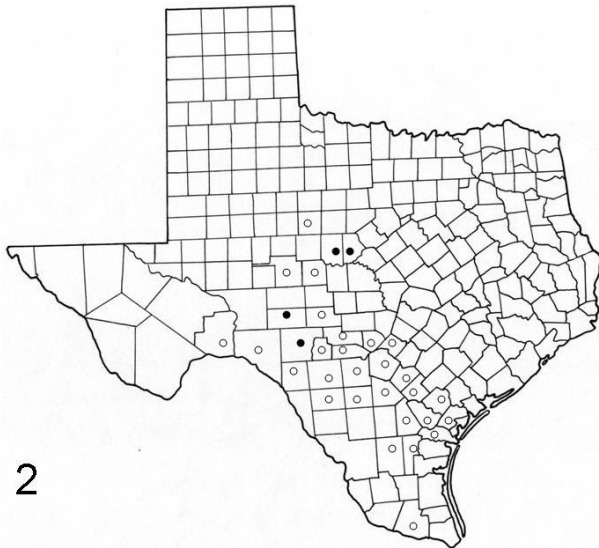


Figure 2. Distribution of *E. melacis* in TX. Open circles (previous records); closed circles (new records).

Eurymerodesmus pulaski (Causey 1950)

AR: Saline Co., 4.8 km S Shannon Hills, 26 December 2006, CTM, ♂, ♀, juv. Previously known only from Pulaski Co. (Shelley 1990; McAllister et al.

2002b, 2003a), *E. pulaski* was reported as "*Leptodesmus hispidipes*" by Bollman (1888) and *Paresmus pulaski* by Causey (1950); it was collected in the 1880s, 4.8 km south of Sweet Home by C. H. Bollman. Recent samples by McAllister et al. (2002b, 2003a) documented *E. pulaski* from Pinnacle Mountain St. Pk. and on the UALR campus and Rosedale Edition in western Little Rock. It is 1 of 5 endemic species of *Eurymerodesmus* in the state (Robison et al. 2008).

Interestingly, no eurymerodesmids were found by CM at several sites in northeastern NE or immediately north of the MO River watercourse in southeastern SD (Clay, Union and Yankton cos.), although there are records of *E. mundus* from Cass, Cuming, Jefferson, Lancaster, and Richardson cos., NE (Shelley 1990). This further supports the contention of Shelley (1990) that *Eurymerodesmus* probably does not occur in SD and the MO River is a boundary for the family.

Little milliped sampling has taken place recently in LA in general and the northwestern region in particular. Papers on the state's fauna include Chamberlin (1918a,b, 1920, 1942), Viosca (1919), Causey (1953, 1954, 1955, 1958, 1963), and Loomis (1959), and records can be gleaned from studies of taxa occurring there (Hoffman 1958; Shelley 1980, 1982, 1984a,b, 2002, 2006; Shelley and Golovatch 2000, Shelley and McAllister 2006). Northwestern LA is expected to harbor a diversity of species as suggested by studies in neighboring states (McAllister et al., 2002a,b, 2003a,b, 2004, 2005; McAllister and Shelley, 2005; Shelley et al. 2003a,b, 2005). Additional sampling in this region is recommended.

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