

## REDISCOVERY OF *EPERIGONE ALBULA* IN CENTRAL TEXAS CAVES (ARACHNIDA: ARANEAE: LINYPHIIDAE)

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### ABSTRACT

The tiny *Eperigone albula* spider has been rediscovered in leaf and other organic litter from caves. The many new records are from seven counties in central Texas. The female internal genitalia are illustrated for the first time.

### INTRODUCTION

Zorsch and Crosby (1934) described *Eperigone albula* from one male and five females that were obtained by Berlese funnel extraction from Tallulah, Madison Parish, Louisiana, in 1933. No subsequent records have been attributed to this species until now. Because Tallulah is in the far northeastern section of Louisiana, it is surprising but not impossible to have rediscovered the species in caves of central Texas. This spider appears to be abundant in the leaf litter which collects in the entrances of central Texas caves. Because of its small size (about 1 mm), it is likely that collectors have over-

looked this species in the past. New collections by Berlese funnel extractions of leaf litter from ravines and rock crevices from eastern Texas and northern Louisiana should be interesting, to see if this tiny species is also present in the regions between the known records.

### TAXONOMY

*Eperigone albula* Zorsch and Crosby

*Eperigone albula* Zorsch and Crosby, 1934:245-246, fig. 1A-D; Millidge, 1987: 2-3; Buckle et al., 2001:113.  
*Eperigone* new species: Cokendolpher and Reddell, 2001:50.

**Description.**—The description by Zorsch and Crosby is adequate for recognition of this species. The drawings (Zorsch and Crosby, 1934:fig. 1A-D) are de-

tailed and agree with the new material. Because the internal genitalia of the female has not previously been illustrated, it is shown in Fig. 1. These internal parts are much more darkly pigmented than illustrated by Zorsch and Crosby (1934:Fig. 1D) and are easily seen on uncleaned specimens.

**Comments.**—Millidge (1987) excluded this species from *Eperigone* based on the genitalia. He did not provide details, just that it was different. We propose that *E. albula* belongs to the group of species currently placed in *Eperigone* that includes females with broad, posteriorly truncated epigynal plates that are not split [e.g., *E. index* (Emerton) and *E. entomologica* (Emerton)]. Whether this group actually belongs in *Eperigone* or *Erigone* is uncertain at this time. “*Eulaira*” *suspecta* Gertsch and Mulaik (1936: fig. 3) has a similar epigynal plate, but the internal structures differ as do the male palps. Chamberlin & Ivie (1935) considered the placement of *suspecta* in *Eulaira* dubious, but did not offer another combination. Cokendolpher and Reddell (2001) stated that “This is an undescribed species known from many caves in Central Texas. It is related to “*Eulaira*” *suspecta* Gertsch and Mulaik, which is known from a cave in Val Verde County” [Texas].

**Records.**—TEXAS: *Bell County*: Big Crevice, Fort Hood, 13 May 1999 (J. Reddell, M. Reyes), 5 females; 14 June 2000 (J. Reddell, M. Reyes), 1 female; Figure 8 Cave, Fort Hood, 20 April 1998 (L. J. Graves, J. Reddell, M. Reyes), 1 male; Fools Cave, Fort Hood, 1 April 1999 (J. Reddell, M. Reyes), 1 female; Hidden Pit Cave, Fort Hood, 18 Aug. 2003 (C. Pekins, J. Reddell, M. Reyes), 1 female; Keilman Cave, Fort Hood, 26 Sept. 1997 (J. Reddell), 1 female, 9 immatures; 23 April 1998 (J. Reddell, M. Reyes), 2 males, 5 females, 1 immature; Peep in the Deep Cave, Fort Hood, 8 May 1998 (J. Reddell, M. Reyes), 1 female, 1 immature; Poison Ivy Pit, Fort Hood, 2 Dec. 2002 (M. Reyes), 2 males, 1 female, 1 immature; Price Pit, Fort Hood, 6 May 1999 (J. Reddell, M. Reyes), 2 females, 3 immatures; Soldiers Cave,

Fort Hood, 25 March 1999 (J. Reddell, M. Reyes), 1 male, 2 immatures; Viper Den Cave, Tumble Down Entrance, Fort Hood, 13 Jan. 1995 (M. Warton), 1 male.

*Bexar County*: Bob Wire Cave, 8.4 miles NW Helotes, 5 Aug. 1994 (A. G. Grubbs), 1 male, 1 immature; Cave No. 194, 4.5 miles NE Helotes, 14 Oct. 1995 (A. G. Grubbs), 1 male (in Cokendolpher collection); Eagles Nest Cave, Camp Bullis, 9 Nov. 1993 (J. Ivy, J. Treviño, G. Veni), 1 female; 20 April 1999 (J. Reddell, M. Reyes), 1 male, 21 females, 21 immatures (1 male, 3 females in Cokendolpher collection); Elm Water Hole Cave, 10-11 May 2000 (M. Reyes), 2 females; Leon Hill Cave, Camp Bullis, 24 May 2003 (J. Reddell, M. Reyes), 1 female; Record Fire 1 Pit, Camp Bullis, 18 Nov. 1993 (J. Ivy, J. Treviño, G. Veni), 1 female; Toad Cave, no date (A. G. Grubbs), 1 male; Up the Creek Cave, Camp Bullis, 22 April 1999 (J. Reddell, M. Reyes), 1 male.

*Comal County*: Washington Cave, Camp Bullis, 21 Nov. 1996 (J. Reddell, M. Reyes), 1 female.

*Coryell County*: B. R.’s Secret Cave, Fort Hood, 9 Feb. 1992 (J. Reddell, M. Reyes), 1 female; Copperhead Sink No. 2, Fort Hood, 20 Feb. 1999 (J. Reddell, M. Reyes), 1 female; Porter Cave, Fort Hood, 8 April 1999 (J. Reddell, M. Reyes), 2 females.

*Hays County*: Wimberly Bat Cave, 8 Feb. 1987 (W. R. Elliott), 1 female.

*Travis County*: 3-Holer Cave, 1 May 1992 (J. Reddell, M. Reyes), 2 females, 6 immatures; District Park Cave, 19 Jan. 1991 (J. Reddell, M. Reyes), 1 female, 1 immature; Moss Pit, 5 March 1991 (J. Reddell, M. Reyes), 1 male; No Rent Cave, 11 June 1990 (J. Reddell, M. Reyes), 1 male, 3 females; Wade Sink, 7 Feb. 1991 (J. Reddell, M. Reyes), 1 female.

*Williamson County*: Avery Ranch Cave, March 1994 (M. Warton), 1 female; Beck Crevice Cave, 3 June 1996 (J. Reddell, M. Reyes), 1 female; Beck Horse Cave, 15 May 1996 (J. Reddell, M. Reyes), 1 female; 29 May 1996 (J. Reddell, M. Reyes), 1 male, 4 females, 3 immatures; Core Barrel Cave, 4 June 1991 (J. Reddell, M. Reyes), 2 females; Lobo’s Lair, 1 Sept 1991 (W. Elliott, J. Reddell, M. Reyes, M. Warton), 2 males, 7 females, several immatures (in Buckle collection); 13 Sept. 1991 (J. Reddell, M. Reyes), 2 males, 5 females, 16 immatures; Susana Cave, 7 March 1991 (J. Reddell, M. Reyes), 1 male; Testudo Cave, 29 May 1991 (J. Reddell, M. Reyes), 3 males, 2 females, 21 immatures; Texella Cave Karst Park, 5 mi. NNE Georgetown, 14 Sept. 1995 (A. G. Grubbs), 1 female; Venturi Cave, March 1994 (M. Warton), 1 male.

**Notes.**—All of the new records, except possibly that from Texella Cave Karst Park, are from caves. Because a specific cave is not listed on the label from the Karst Park, it is likely that it was collected on the surface relatively close to a cave entrance. Litter was listed for all of the collections for which habitat or collection methods

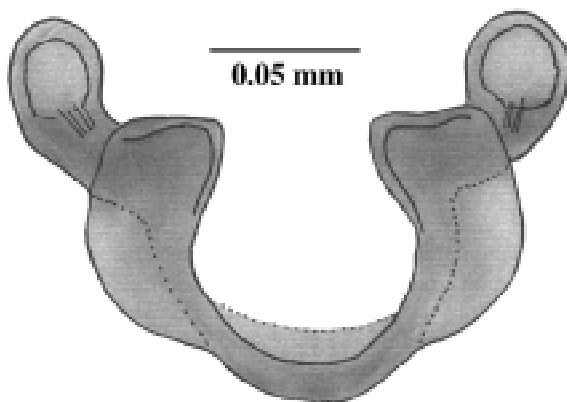


Fig. 1. Ventral view of internal genitalia: female *Eperigone albula* from 3-Holer Cave, Travis County, Texas.

were recorded. Almost all of the collections were obtained by Berlese funnel extractions.

*Eperigone albula* is easily recognized when found in samples from caves because it is the smallest spider with eight eyes and short legs from Texas caves. The female genitalia are very darkly pigmented and easily seen with lower magnification of a dissecting microscope, making identifications certain.

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