

First Occurrence of the Bankclimber *Plectomerus dombeyanus* (Valenciennes, 1827) (Mollusca: Unionidae) in Illinois

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ABSTRACT

Fresh-dead specimens of the freshwater mussel Bankclimber *Plectomerus dombeyanus* (Valenciennes, 1827) were discovered in the Illinois portion of the Ohio River near America, Pulaski County, Illinois, at river mile 970 (37.12104N, 89.11468W) during the summer of 2012. The specimens were deposited in the Illinois Natural History Survey Mollusk Collection, Champaign (INHS 42354 and INHS 42977). While reported from elsewhere in the Ohio River basin, these specimens represent the first time the species has been recorded in Illinois.

The Bankclimber *Plectomerus dombeyanus* (Valenciennes, 1827) is a freshwater mussel (Mollusca: Unionidae) that typically has a thick, rhomboidal shaped, moderately inflated shell and obtains lengths up to 150-mm (Parmalee and Bogan, 1998; Williams et al., 2008). Its periostracum is greenish brown to brown and darkens to black with age, and its nacre is usually deep purple (Parmalee and Bogan, 1998; Williams et al., 2008). *Plectomerus dombeyanus* has been described as a “mud-loving” species that “delights in sluggish flowing water” (Call, 1895). The animal inhabits medium to large rivers, oxbow lakes, and lowland ditches, and is found in clay, mud, sand or rocky substrates (Oesch, 1984; Williams et al., 2008). It occurs along channel margins in sluggish to moderate current, but can be found buried in steep slopes a considerable distance from the main channel (Oesch, 1984; Williams et al., 2008).

Plectomerus dombeyanus is commonly found in Gulf drainage streams from the Alabama River west to eastern Texas, including the lower Mississippi River to its confluence with the Ohio River (Parmalee and Bogan, 1998; Williams et al., 2008). The species was first reported from the Ohio River basin in 1981, when two live individuals were discovered in Kentucky Lake, Trigg County, Kentucky (Pharris et al., 1984). Since then, *P. dombeyanus* has expanded its range throughout the lake (Parmalee and Bogan, 1998; Cicerello and Schuster, 2003), and has been found downstream of the Kentucky Dam in the Tennessee River (JES pers. obs). The Bankclimber also has been collected at three locations in the Kentucky portion of the

Ohio River mainstem: 1) in 1982, a relict specimen at river mile 944, near Paducah, McCracken County (Ron Cicerello, Kentucky State Nature Preserves Commission, retired, pers. comm.); 2) in 1996, a fresh-dead specimen at river mile 784, which is at its confluence with the Green River, Henderson County (Watters and Myers Flaute, 2010; Ohio State University Division of Molluscs, Columbus, Bivalve Collection #58992), and 3) in 2012, two live individuals at river mile 935 (Heidi Dunn,

Ecological Specialists, Inc., pers. comm.). However, the animal has not been listed as part of Illinois’ native mollusk fauna (e.g., Cummings, 1991; Cummings and Mayer, 1992; Cummings and Mayer, 1997; Tiemann et al., 2007) until now. One fresh-dead 48-mm specimen was discovered in the Ohio River at river mile 970 (37.12104N, 89.11468W) near America, Pulaski County, Illinois, on 27 June 2012 by JES (Figure 1). Another fresh-dead specimen (44-mm) was recorded from the



Figure 1. Bankclimber *Plectomerus dombeyanus* (INHS 42354) from the Ohio River at river mile 970 (37.12104N, 89.11468W) near America, Pulaski County, Illinois.

same site on 15 August 2012 by JST and KSC. These specimens represent the first time *P. dombeyanus* has been recorded in Illinois. The specimens were deposited in the Illinois Natural History Survey Mollusk Collection, Champaign (INHS 42354 and INHS 42977).

The means by which the animal is expanding its known range is unknown. Pharris et al. (1984) suggested that *P. dombeyanus* might be expanding its range by either artificial transportation (e.g., fish stockings) or as a result of habitat alterations from impoundment construction. The fish host for *P. dombeyanus* is unknown at this time. Pharris et al. (1984) also pointed out that their discovery of *P. dombeyanus* in the Tennessee River occurred before the Tennessee-Tombigbee connection occurred. Watters and Myers Flaute (2010) stated the Meyers Pool of the Ohio River probably represents the northernmost extent of the species. Given that the Ohio River is at the extreme northern limits of the species' range, and Williams et al. (1993) listed the species as currently stable throughout its range, we do not recommend *Plectomerus dombeyanus* for state-listing in Illinois.

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