

Anodonta suborbiculata Say 1831
Flat Floater

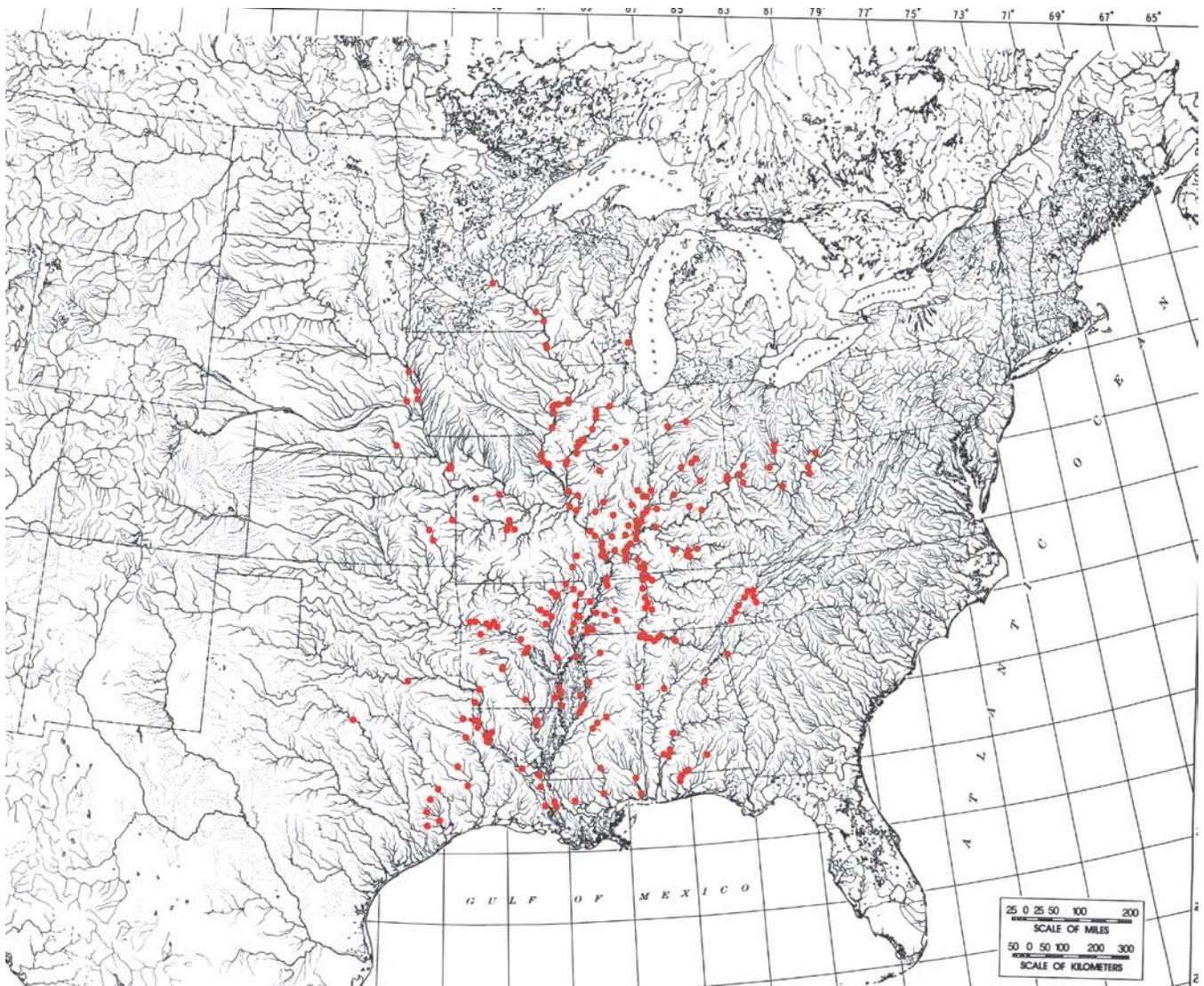


(UF 376151, length 124 mm. Coosa River, Weiss Reservoir, mouth of Big Cedar Creek, Floyd County, Georgia)

KEY CHARACTERISTICS: Adults large, up to 200 mm, shell thin, rounded, broadly curved anteriorly and ventrally, angled posteriorly, usually compressed. Dorsal margin straight, umbos not elevated above hinge line. Surface of shell smooth and shiny, periostracum yellow, tan, brown or olive, darker on posterior slope, straw colored in young. Fine green rays throughout (often absent in old individuals), with one or two broad, bluish green bands from beak to the posterior point. Beak sculpture consists of coarse wavy bars becoming two divergent rows of tubercles appearing as irregular or broken double looped ridges. Beak

cavity shallow, nacre white, bluish or coppery, teeth absent. (Utterback 1915-16:245-204; Vidrine 1993:19-20; Howells et al. 1996:42-43; Parmalee and Bogan 1998:63-64)

DISTRIBUTION: Interior basin; primary historic range is from Iowa/Illinois to Louisiana/Mississippi and Kansas/Nebraska to Indiana/Kentucky, also Escambia River, Alabama and Florida. Range is expanding in response to river impoundment. Now established populations in Texas, Alabama, Georgia, Tennessee, Ohio, Wisconsin, and Minnesota.



SIMILAR SPECIES: *Anodonta hartfieldorum* resembles *A. suborbiculata* but is less round and usually more inflated with a more inflated umbo that is elevated slightly above the hinge line.

HABITAT: Found in medium to large rivers in backwaters, sloughs or river edges, ponds and lakes. Prefers areas with low flow and soft sediment. Sporadic in occurrence but often abundant where present.

BIOLOGY: Bradyctictic (Utterback 1915-16: pages; Barnhart and Roberts 1997:15-20.). Males produce spermatozeugmata (sperm spheres). Early and late embryos are found in from September to December, immature and mature glochidia from December to March. Glochidia are present on host fish from mid-January to mid-April (Roberts and Barnhart 1999:477-487). Of nine fish species in three families and one amphibian tested as possible hosts, the minnow *Notemigonus crysoleucas* and sunfish *Lepomis gulosus*, *Pomoxis annularis*

and *Micropterus salmoides*, produced juvenile mussels (Barnhart and Roberts 1997:15-20). Howells et al., (1996:42-43) reported glochidia of *A. sp. cf. suborbiculata* (form with raised umbos) from B.A. Steinhagen Reservoir metamorphosed on *Lepomis cyanellus*, *Lepomis megalotis* and *Ictalurus punctatus*. Growth is rapid; individuals often attain a length of >100 mm in two years.

CONSERVATION STATUS: Currently Stable (Williams et al. 1993:6-22).

ORIGINAL DESCRIPTION: *Anodonta suborbiculata* Say 1831. Say, T. 1831. 1(29): no pagination, not figured, 15 January 1831.

TYPE LOCALITY: Ponds, near the Wabash [River], [Posey County, Indiana]. Type presumably lost.

PARTIAL SYNONYMY:

Anodonta suborbiculata Say 1831 (January 29). Say 1831a: [no pagination], pl. 11; Say 1831b: [no pagination], pl. 11.

Anodonata (Nayadina) venusta De Gregorio 1914. De Gregorio 1914:65, pl. 12, fig. 2.

SYSTEMATICS: Phylogenetic relationships of the genus examined by Hoeh (1990:63-82). Most closely related taxa are *A. couperiana* and *A. heardi* (Gordon and Hoeh 1993:265-273). Specimens from Mississippi and Texas with slightly elevated umbos and a less rounded outline may be an undescribed species (*Anodonta sp. cf. suborbiculata*) (Vidrine 1993:19-20; Howells et al. 1996:42-43).

Compilers: Bernard E. Sietman, Illinois Natural History Survey, Champaign. (Add date).