

PLEUROBEMA CORDATUM (RAFINESQUE, 1820)
Ohio Pigtoe, White Pigtoe

SYNONYMY:

Pleurobema obliquum obliquum (Lamarck, 1819). (Ortmann, 1919:69)

Quadrula cordata (Rafinesque, 1820). (Frierson, 1927:53)

Quadrula cordata cordata (Rafinesque, 1820). (Haas, 1969:297)

Pleurobema cordatum cordatum (Rafinesque, 1820). (of authors)

CLASSIFICATION:

Family Unionidae (Fleming, 1828) Ortmann, 1911.

Subfamily Ambleminae (Rafinesque, 1820). Morrison, 1955.

Genus Pleurobema Rafinesque, 1820.

CHARACTERISTICS: Shell medium size, triangular, compressed to subinflated, solid; umbos narrow, directed anteriorly, sculpture concentric, nodulous; posterior ridge approximates hingeline, creating a narrow escutcheon; surface of disc distinctly sulcate from umbo to ventral margin; periostracum smooth, lustrous, yellowish brown to reddish brown with distinct, interrupted bright green rays in young specimens; hinge curved, cardinal teeth heavy, lateral teeth short, thick; nacre typically white, very rarely pinkish.

SIMILAR SPECIES: Pleurobema plenum (Lea, 1840) is higher, asulcate except old specimens; umbos full, apposed; escutcheon wide; periostracum clothlike, dull. Pleurobema rubrum (Rafinesque, 1820) is scalene triangular; umbos very narrow, pointed; rays very diffuse; nacre typically pink, rarely white. Pleurobema sintoxia (Rafinesque, 1820) is rounded, asulcate; umbos apposed; rays diffuse.

RANGE: Simpson (1914:882) reported this species from the:

"Ohio, Cumberland, and Tennessee River systems; west in Illinois to the Mississippi; Claiborne, Alabama."

We have never seen specimens of this species anywhere outside the Ohio River basin. Specimens so labeled from outside this area have so far proved to be misidentifications of Pleurobema sintoxia (Rafinesque, 1820), Pleurobema rubrum (Rafinesque, 1820), Pleurobema taitianum (Lea, 1834), or Fusconaia flava (Rafinesque, 1820).

RANGE IN OHIO: This species is limited in distribution to the Ohio River and a few of its larger tributaries. It is known to occur in some numbers in the lower half of the Muskingum River and there is a fairly recent record of its occurrence in Ten-Mile Creek, a smaller tributary of the Ohio River (1965). The only other recent OSUM Ohio records are those of subfossil specimens collected in 1961-1962 from the Scioto River, which indicate that this species did once exist there also.

HABITAT: Ortmann (1919:73) says of P. cordatum:

"It is the shell, which largely contributes in forming the shell-banks, in rather deep, steadily flowing water, and, . . . it is present also in riffles, and immediately above them, in strong current, and among coarse gravel."

Parmalee (1967:36) adds:

"The large river form [P. cordatum] appears more tolerant of a sand or gravel bottom mixed with mud, and it lives at depths of 3-10 feet or more."

These observations agree with our own.

SELECTED REFERENCES:

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- Ortmann, Arnold E.
1919 A monograph of the Naiades of Pennsylvania. Part III. Systematic account of the genera and species.
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- Parmalee, Paul W.
1967 The fresh-water mussels of Illinois.
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Bryant Walker, Detroit, Michigan, 3 volumes, 1540 pp.