

ACTINONAIAS LIGAMENTINA LIGAMENTINA (LAMARCK, 1819)
Southern Mucket

SYNONYMY:

Unio ligamentina Lamarck, 1819. (Lamarck, 1819:72)
Type Locality: "Habite la riviere de l'Ohio."

Unio calendis Rafinesque, 1831. (Rafinesque, 1831:3)
Type Locality: "In Dick River, etc." [Kentucky]

Unio crassus Sowerby, 1868. (Sowerby, 1868: Conch. Icon. 16:
non Say, 1817. pl. 95, fig. 520)

Lampsilis ligamentinus gibbus of authors, non Simpson, 1900.

?Lampsilis carinata calendis (Rafinesque, 1831). (Frierson, 1927:79)

Actinonaias carinata orbis Morrison, 1942. (Morrison, 1942:361)
Type Locality: [Tennessee River] "Florence, Ala.,
received by Lea from C. White. . ."

Actinonaias carinata of authors, non Barnes, 1823, in partim.

Actinonaias ligamentina carinata of authors, non Barnes, 1823, in partim.

Actinonaias ligamentina ligamentina (Lamarck, 1819). (Stansbery, 1973)

NOTE: The relatively high rounded form of A. l. ligamentina was the form described by Lamarck in 1819. At that time its range, always within the Ohio River system, included the Ohio River main stem, its tributaries from the south, and at least the lower reaches of some of its northern tributaries.

Barnes (1823:259) later described the elongate northern form as U. carinatus and U. ellipticus. Simpson (1914:540) described Lampsilis ligamentina gibbus as "a peculiarly humped form of ligamentinus, common throughout the southern range of the species, . . ." Simpson was of the erroneous opinion that U. ligamentina and U. carinatus were absolute synonyms. They are apparently subspecies of the same species. This results in L. l. gibbus being recognized today as a junior synonym of A. l. ligamentina.

CLASSIFICATION:

Family Unionidae (Fleming, 1828) Ortmann, 1911.

Subfamily Lampsilinae (von Ihering, 1901) Ortmann, 1910.

Genus Actinonaias Fischer & Crosse, 1894.

CHARACTERISTICS: Shell medium to large, high, elliptical, subinflated to inflated, solid; umbos low, sculpture finely double-looped; surface of disc without sculpture, periostracum brownish yellow, often with rather indistinct green rays; cardinal teeth heavy, lateral teeth thick; nacre white.

SIMILAR SPECIES: The more common subspecies, Actinonaias ligamentina carinata (Barnes, 1823) is elongate elliptical; periostracum usually with distinct broad green rays. Lampsilis abrupta (Say, 1831) nacre often orange to pinkish-orange; female quadrate; male often not separable from Actinonaias ligamentina on shell characters alone.

RANGE: Simpson (1900:540) described the range of A. l. ligamentina (as L. l. gibbus) as ". . . from the Ohio River southward." This was essentially correct except that it did not include the lower reaches of at least some of the Ohio's northern tributaries and did not necessarily restrict the range to the Ohio River system. Sometime since its description in 1819, this subspecies has become extirpated from all of its range except the upper Cumberland and Tennessee Rivers.

RANGE IN OHIO: Lamarck's type came from the Ohio River and older museum records reveal that this subspecies originally occupied the Ohio main stem along the southern margin of the state. There are OSUM records from the "Ohio R." (1800's); Muskingum River (1927); and West Branch Wolf Creek (1931) (tributary of the Muskingum). We know of no Ohio specimens collected since these records. It appears that this subspecies has been extirpated from the state. It seems to have been replaced, at least in part, by its counterpart Actinonaias ligamentina carinata (Barnes, 1823).

HABITAT: It has been our experience that A. l. ligamentina is a form of the riffles and runs of high gradient medium to large rivers. We have not found it in either headwater streams or in soft substrates. The transformation of our big rivers into lock-connected impoundments has all but eliminated big river riffle habitat from Ohio and elsewhere.

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