

OCCURRENCE OF THE UNIONID, *ANODONTA IMPLICATA* SAY,  
IN NORTH CAROLINA

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ABSTRACT

*Authentic valves of the naiad, Anodonta implicata Say, have been collected along the Chowan River in North Carolina approximately 5 miles south of the Virginia state line, a range extension of some 175 miles from the Potomac River. The mollusk is considered a "threatened species" in North Carolina.*

Previous publications have reported the range of *Anodonta implicata* Say as being from Nova Scotia and New Brunswick, Canada, to the Potomac River of Maryland and Virginia

(Johnson 1946, 1970; Burch 1975). Records by Athearn and Clarke (1962) and Fuller (1977) of material from South Carolina and the upper Cape Fear River basin of North Carolina,

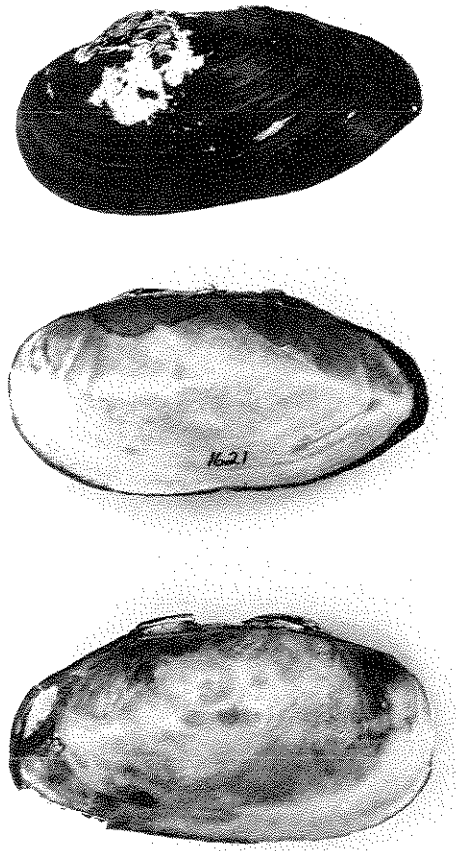


FIG. 1. *Anodonta implicata* Say. Top and middle, from the Chowan River, North Carolina; bottom from Plymouth Co., Mass.

respectively, are erroneous and were based on heavy specimens of *A. cataracta* Say with distinct pallial lines, the latter also having discolored nacre similar to that of *implicata* (Johnson 1970, personal communication). However, I can now positively report the occurrence of *implicata* in North Carolina from four valves I collected on the east bank of the Chowan River in Gates County, 5.5 miles NW of Eure, on 16 September 1971. The valves agree with Johnson's descriptions (1946, 1970) in the color of the nacre and the thickening of the anterior margin below the pallial line, and match known specimens of *implicata* from Massachusetts. They are deposited in the North Carolina State Museum invertebrate research collection under catalog numbers 1151 and 1621. This site, which is about 5 miles south of the Virginia state line, represents a range extension of around 175 miles and indicates that the mollusk can be ex-

pected in Coastal Plain parts of the intervening river systems of Virginia.

Fuller's report (1977) was part of the North Carolina Endangered Species Symposium, where *implicata* was assigned to the "undetermined" category because of insufficient data to assess its statewide conservation status. Since so little of the Chowan drainage is in North Carolina and this is its known southern limit, *implicata* should properly be regarded as "threatened" in the state, based on the criteria of the symposium's mollusk committee. This designation is substantiated by the occasional eutrophication-algal bloom problems in the Chowan River not far from the sample site, as these could have deleterious effects on the molluscan fauna. Extensive collections in piedmont sections of the Cape Fear, Neuse, and Tar-Pamlico drainages have produced many specimens of *cataracta* but none of *implicata*, and if the latter is in these systems, it probably is in the Coastal Plain. It is also a potential inhabitant of the Coastal Plain part of the Roanoke drainage, located between the Chowan and Tar-Pamlico.

#### ACKNOWLEDGMENTS

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