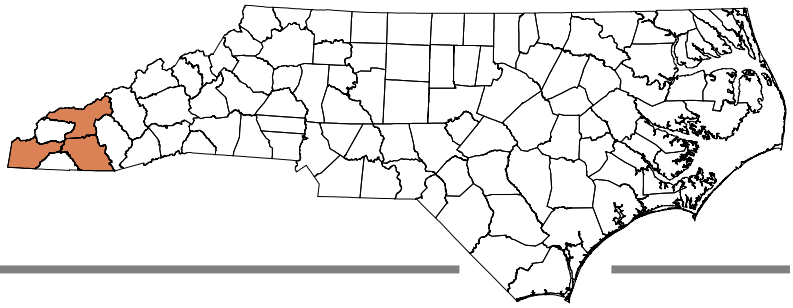
Littlewing pearlymussel

Pegias fabula
Endangered (November 14, 1988)



Description: The littlewing pearlymussel is small, rarely exceeding 1.5 inches (38 mm) in length. The shell's outer surface (periostracum) is usually eroded, giving the shell a chalky appearance. When the periostracum is present, the shell is light green or dark yellowish with dark rays. The shells exhibit sexual dimorphism; females have an inflated posterior ridge and a more truncated posterior end.

Life History: Much of the species' life history is unknown. However, it is thought to be a winter breeder and reproduce like other freshwater mussels. Males release sperm into the water, which are taken in by females through their siphons during feeding and respiration. The fertilized eggs are retained in the gills until the larvae (glochidia) are fully developed. The glochidia are released into the water and must then attach and encyst on a fish host's gill or fin. Here they transform into juvenile mussels and then drop off onto the stream bed. Greenside darters (*Etheostoma blennioides*) and emerald darters (*E. baileyi*) have been identified as host fish. The mussels specific food habits are unknown. However, adults are filter feeders and likely ingest food items similar to those consumed by other freshwater mussels (i.e., organic detritus, diatoms, phytoplankton, zooplankton, bacteria).

Habitat: It inhabits cool, clear, and relatively high gradient streams (of small to medium size) where it is sometimes found lying on a rocky stream bed in shallow water. However, it is more often hidden under large rocks.

Distribution: This once wide ranging species once inhabited numerous smaller tributaries of the upper Cumberland and Tennessee River basins in Alabama, North Carolina (Little Tennessee River, Swain County and Valley River, Cherokee County), Kentucky, Tennessee and Virginia. Currently, three populations may still survive in the Cumberland River system and three in the Tennessee River system, including a very small population in the Little Tennessee River, North Carolina.

Threats: The reasons for the decline in some populations are uncertain. However, most populations have been impacted by a number of factors (e.g., dams, runoff from coal mining operations and poor land use practices, municipal and industrial wastes, dredging).

Management Recommendations: Protect extant populations by enforcing existing natural resource protection laws and regulations. Improve habitat of extant populations and restore habitat of historical populations.

Sources: Bogan et al. 1983.

Species identification key is available at www.ncwildlife.org. (Click on "Wildlife Species and Conservation" and then "Species" for Mussel atlas.)