# Pennsylvania Field Office

**Northeast Region**

Wednesday,
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## Dwarf Wedgemussel
## Life History and Biology


***Alasmidonta heterodon***

STATUS: Endangered

DESCRIPTION: The dwarf-wedge mussel is relatively small, rarely exceeding 1.5 inches in length. The shell's outer surface (periostracum) is usually brown or yellowish brown in color, with faint green rays that are most noticeable in young specimens. Unlike some mussel species, the male and female shells differ slightly, with the female being wider to allow greater space for egg development. A distinguishing characterictic of this mussel is it's dentition pattern; the right valve possesses two lateral teeth, while the left valve has only one. This trait is opposite of all other North American species having lateral teeth (Clark 1981).

This mussel is considered to be a long-term brooder, with gravid females reportedly observed in fall months. Like other freshwater mussels, this species' eggs are fertilized in the female as sperm are taken in through their siphons as they respire. The eggs develop with the female's gills into a larvae (glochidia). The females later release the glochidia which then attach to the gills or fins of specific host fish species. Based on anecdotal evidence, such as dates when gravid females are present or absent, it


Recovery Plan
(pdf 2.82MB)

Fact Sheet

5 Year Review
(pdf 7.56MB)

**Return to Species Information**

appears that release of glochidia occurs primarily in April in North Carolina (Michaelson and Neves 1995). Recent research has confirmed at least three potential fish host species for the dwarf-wedge mussel to be the tessellated darter, Johnny darter, and mottled sculpin (Michaelson 1995).

RANGE AND POPULATION LEVEL: The dwarf-wedge mussel occurs in at least 25 stream reaches along the Atlantic Coast from New Brunswick, Canada, to North Carolina. Documented populations in Pennsylvania are located in the upper Delaware River (Wayne and Pike Counties).

HABITAT: The dwarf wedge mussel inhabits creek and river areas with a slow to moderate current and a sand, gravel, or muddy bottom.

REASONS FOR CURRENT STATUS: Freshwater mussels are sedentary filter-feeders, and as such, they are vulnerable to substrate disturbance, silt deposition, scouring, sensitive to water quality degradation, changes in channel morphology, and alterations of river hydrology. Sedimentation from development, nutrients (nitrates and phosphates) and chemicals from agricultural runoff and potassium, zinc, copper, cadmium and other elements from industrial pollution are some of the main threats to this species.

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