

**November 2005 Mississippi River Mussel Survey Summary**  
**Prepared by Nuclear Management Company, LLC**

The most recent freshwater mussel surveys of the Upper Mississippi River were prepared for the US Fish & Wildlife Service (USFWS) by the Minnesota Department of Natural Resources (MDNR) between 2000-2001 (Kelner & Davis 2002) and 2003-2004 (Davis 2004). Both reports present consistent information regarding the presence of mussel species near the Monticello Nuclear Generating Plant (MNGP), located on the Mississippi River at River Mile (RM) 900.

The 2000-2001 study surveyed mussel species in the Coon Rapids Pool, located near the Mississippi River RM 867. This is the closest study site to MNGP. A total of 587 mussels representing six species were collected at 19 sites (Kelner & Davis 2002, p. 11). Species collected consisted of *Lampsilis cardium*, *Lampsilis siliquoidea*, *Lasmigona complanata*, *Lasmigona compressa*, *Ligumia recta* and *Pyganodon grandis* (Kelner & Davis, Appendix II). Two of these species, *Ligumia recta* and *Pyganodon grandis* (or *Anodonta grandis*) were also observed in the Upper Mississippi River in a 1940 survey by J.B. Moyle.

Recent correspondence with Sarah Hoffman of the MNDR Natural Heritage and Nongame Research Program provided the 2003-2004 study. Of the six species observed in the 2000-2001 survey, all were again observed in August 2004 in the immediate vicinity of the MNGP site. Five of the six aforementioned species (*Ligumia recta*, *Lasmigona complanata*, *Pyganodon grandis*, *Lampsilis siliquoidea* and *Lampsilis cardium*) were observed to be present in the immediate vicinity of MNGP. The final species, *Lasmigona compressa*, was documented approximately 3.5 miles upstream of MNGP. The 2003-2004 survey also found five additional species to occur in the Upper Mississippi River Drainage (Davis, Table 4). Two of these species were documented by Moyle in 1940—*Utterbackia imbecillis* (or *Anodonta imbecillis*) and *Anodontoides ferussacianus*.

Major Mississippi River Mile (RM) locations:

Coon Rapids: RM ~867  
Elk River: RM ~884.8  
MNGP: RM 900

**References:**

Davis, Mike. (Minnesota Department of Natural Resources). 2004. *Minnesota Statewide Mussel (Bivalvia: Unionidae) Survey: 2003-04*. Ecological Services Division. December.

Kelner, Dan & Mike Davis. (Minnesota Department of Natural Resources). 2002. *Final Report: Mussel (Bivalvia: Unionidae) survey of the Mississippi National River and Recreation Area Corridor, 2000-01*. Ecological Services Division. July.

Moyle, J.B (Minnesota Department of Conservation). 1940. A Biological Survey of the Upper Mississippi River System. Fisheries Research investigational Report No. 10. Division of Game and Fish. June 1.