

MUSSEL STUDY NEAR HOBBS ISLAND ON THE TENNESSEE RIVER FOR BUTLER BASIN MARINA

On April 6,7,8, 1998 a freshwater mussel survey of the east channel along Hobbs Island in the Tennessee River was made.

Each day ten transects across the east channel and the number of each mussel species and total number of mussels found were recorded.

Thirty transects were made from Tennessee River mile 336.4 near the head of Hobbs Island downstream past the survey marker marking the lower end of possible construction to Tennessee R. mile 335.5. The transects were approximately one hundred and fifty feet apart and each covered approximately ten feet in width. Therefore, the survey covered just under sixteen percent of the total area of possible construction.

Five thousand two hundred and fifty-two mussels were found in the thirty transects representing seventeen species. Two endangered species were found. One individual of Pleurobema plenum was found in the second transect near the upper end of the search area. The other endangered species Lampsilis abrupta was found in eleven of the thirty transects. At least one L. abrupta was found in transect 3,5,7,11,12,15,16,19,20,21 and 22. Sixteen individuals of L. abrupta were found in the thirty transects.

The two most common species found were Elliptio crassidens, elephant-ear, and Pleurobema cordatum, Ohio pigtoe.

The following species were found and the total number shown by each.

<u>Scientific name</u>	<u>Common name</u>	<u>Total number In 30 transects</u>
<u>Megalonaias nervosa</u>	washboard	71
<u>Tritogonia verrucosa</u>	pistolgrip	6
<u>Quadrula metanevra</u>	monkeyface	22
<u>Quadrula pustulosa</u>	pimpleback	115
<u>Amblema plicata</u>	threeridge	15
<u>Cyclonaias tuberculata</u>	purple wartyback	115

<u>Pleurobema sintoxia</u>	round pigtoe	1
<u>Pleurobema plenum</u>	rough pigtoe	1
<u>Pleurobema cordatum</u>	Ohio pigtoe	725
<u>Elliptio crassidens</u>	elephant-ear	3,837
<u>Elliptio dilatata</u>	spike	2
<u>Obliquaria reflexa</u>	threehorn wartyback	14
<u>Ellipsaria lineolata</u>	butterfly	80
<u>Potamilus alatus</u>	pink heelsplitter	228
<u>Ligumia recta</u>	black sandshell	3
<u>Lampsilis teres</u>	yellow sandshell	1
<u>Lampsilis abrupta</u>	pink mucket	16
	TOTAL OF ALL SPECIES	5,252

The mussels were rather evenly distributed in each transect and not just concentrated in one area in the channel.

Based on the data collected, the east channel from near the head of Hobbs Island downstream for about nine tenths of one mile approximately 32,800 freshwater mussels are present representing at least seventeen species. Two of the seventeen species are considered endangered and are federally protected. As many as six rough pigtoes and one hundred pink muckets may occur in the area if the east channel were completely searched.