



Lake Maury 2005



Lake Maury is a 165-acre impoundment owned by the Mariner's Museum in Newport News. Built in 1931, the lake is the centerpiece of a 550-acre park in honor of Matthew Fontain Maury, a noted 19th century oceanographer and native Virginian. The lake is open seasonally to the public for a fee. The lake is closed during the winter months. The Mariner's Museum operates a concession stand and boat rental as no private boats are allowed. There is an extensive hiking trail around the lake and picnic areas for visitors to enjoy.

Historically, the lake has been stocked with channel catfish, largemouth bass, muskellunge, northern pike, redear sunfish, striped bass, and walleye. Populations of muskellunge, northern pike, striped bass, and walleye did not get fully established so stocking of these species was terminated. Lake Maury's fishery is now a blend of numerous species. The 2004 sample contained 9 different species of fish: largemouth bass, bluegill, brown bullhead, common carp, black crappie, American eel, yellow perch, golden shiner, and warmouth.

Sampling of the fishery in 2004 consisted of spring electrofishing on April 21st and April 26th. Electrofishing is a good sampling technique to get snap a shot photograph of what the fishery looks like at that present time. Electrofishing is most successful along shallow shoreline areas where you tend to find your bass and bluegill. Past sampling years relied upon gill netting in the fall to account for more pelagic fish species such as gizzard shad and white perch. Gill netting was not conducted in the fall of 2004.

The largemouth bass population was in fair condition. The CPUE was at a low 20.76/hr and down slightly from the previous sample in 2001 (CPUE = 25.2/hr). From the limited sample of 40 largemouth bass, the population structure is dominated by a high proportion of fish greater than 15" in length (PSD = 93, RSD-P = 72, RSD-M = 3). The PSD remained close to 2001 (PSD = 92), but the RSD-P showed a much higher value when compared to 2001 (RSD-P = 52). All bass appeared to be healthy and in good physical condition with high relative weights (intermediate: 101 and harvestable: 102). The good body condition of bass is most likely a result of their low population numbers and the great forage base of gizzard shad that exists in the lake. There was a significant gap in the length frequency distribution of the bass (refer to graph 1), as no fish between the 10 and 28 cm range were collected. This could be a result of a poor spawn of the 2001 year class. Future sampling of Lake Maury will continue to check for bass from that year class along with recruitment from other years. The largest bass sampled was 20" and 5.13 lbs.

The population density of bluegill appears to have improved since the previous sample in 2001. Catch rates went from 43.5/hr in 2001 to 138.6/hr in 2004. The bluegill sample consisted of 267 fish all less than 6 inches in length. The state of the bluegill

population is well represented by the large sample size. The bluegill population has been historically dominated by small fish. The abundant gizzard shad population and the direct competition they bring to the fishery severely impacted the size structure of the bluegill population. No redear sunfish were collected in our electrofishing sampling and only one black crappie was collected.

The sample of carp consisted of 12 healthy fish with 11 of them being larger than 23 inches in length. The largest carp was 30" and 12.76 lbs. Brown bullhead, American eel, yellow perch, golden shiner, and warmouth were all sampled in low abundance.

Past gill net samples have shown the lake to have an extremely abundant gizzard shad population. Lake Maury is shallow and eutrophic which provides great habitat for gizzard shad to feed on plankton and directly compete with the bluegill population. Gill netting was not conducted in 2004, so an accurate picture of the gizzard shad and white perch populations was not observed. Introduced stockings of predator fish over the years to diversify the fishery and control the gizzard shad population were unsuccessful. The gizzard shad population may provide the adequate forage needed to support a hybrid striped bass population. Possible stocking of hybrid striped bass might be in the future plans for managing Lake Maury.

Lake Maury is located at the Mariner's Museum in Newport News at the intersection of Route 60 and Route 17. For more information, please contact the concessionaire's office at 757-591-7799.

Table 1. Total weight, number, and catch per unit effort of fish sampled by electrofishing Lake Maury, April 21st and 26th, 2004

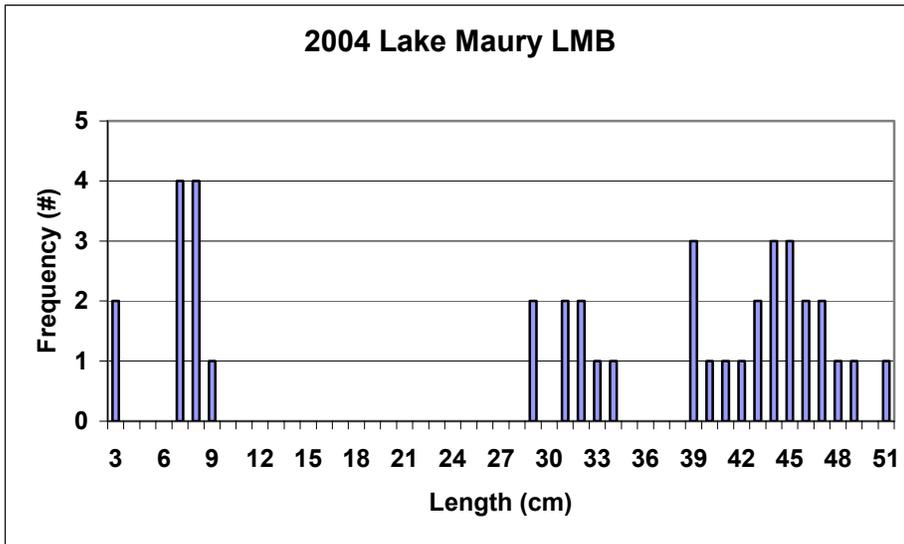
Species	Wt. (g)	N	Fing.	CPUE		Total
				Inter.	Harv.	
Largemouth Bass	33,528	40	5.7	1.1	14	20.8
Common carp	33368	12			6.2	6.2
Bluegill	1806*	267	73.2	65.4		138.6
American eel	3164	36				18.7
Brown bullhead	2904	7				3.6
Yellow perch	420	17	8.3	0.5		8.8
Warmouth	44	2				1
Black crappie	18	1				0.5
Golden shiner	10	1				0.5
Total		383				

*Bluegill combined weight is from 111 fish, not full 267.

Table 2. Population statistics for selected species collected by electrofishing Lake Maury, April 21st and 26th, 2004

Species	PSD	RSD-P	RSD-M	Wr	Wr (int)	Wr (harv)
Largemouth bass	93	72	3	101	101	102
Bluegill	0	0	0	102	102	
Yellow perch	0	0	0	117	117	
Common carp	100	8	8			

Graph 1. Length frequency of largemouth bass collected by electrofishing Lake Maury, April 21st and 26th, 2004



Graph 2. Length frequency of bluegill collected by electrofishing Lake Maury, April 21st and 26th, 2004

