

## **Lake Shenandoah 2003**

Lake Shenandoah is a 36 acre impoundment owned by the Department of Game and Inland Fisheries. The lake is located in Rockingham County near the City of Harrisonburg. Urban development surrounds much of the lake. Much of the lake is shallow (<3 ft.) and the maximum depth near the dam is 25 feet. Excessive nutrients entering the lake keep the water green with algal blooms through most of the year. Anglers have the opportunity to catch largemouth bass, bluegill, crappie, common carp, channel catfish and musky from Lake Shenandoah.

Throughout its history Lake Shenandoah has had chronic fisheries problems that can be attributed directly to development in the drainage. A public golf course and expanding residential housing have introduced excessive nutrients and sediments to Lake Shenandoah. The result has been severe negative impacts on fish habitat. Excessive nutrients cause profound algal blooms which alter water quality. Decaying planktonic algae causes all the water in the lake except the upper few feet below the surface to become void of dissolved oxygen during the summer months. Low oxygen levels can suppress aquatic insect populations and stress fish. In addition, shallow water in the upper two arms of the lake with freshly deposited sediments creates poor physical habitat for all fish species. Compounding the problem, prey fish can avoid predators in this shallow water and become overpopulated and "stunted". The overpopulated bluegill and crappie compete with young bass and catfish for the limited food supply causing poor growth for all fish species.

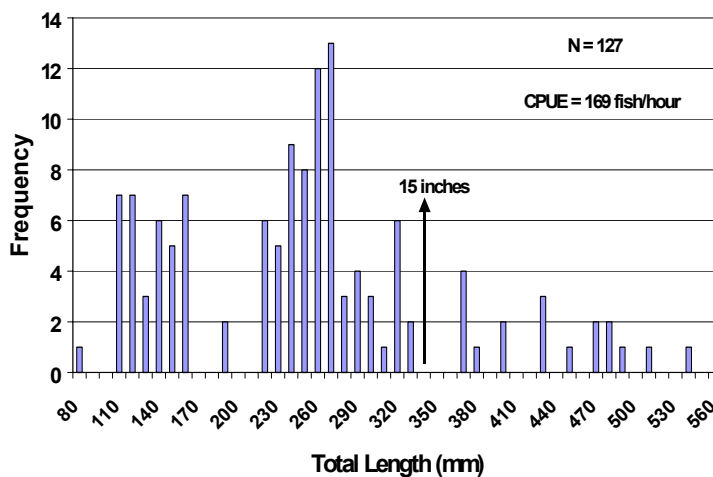
Currently, biologists are looking into ways to renovate Lake Shenandoah creating suitable habitat for a healthy fish population.

### **FISHING**

#### Largemouth bass

"Fair" with a good size distribution best describes the largemouth bass population of Lake Shenandoah. In the 1970's and 1980's the bass population consisted mainly of fish less than 12 inches in length. The 18 inch minimum-size regulation put into effect in 1989 has worked to restructure the bass population. Looking at the 2002 spring electrofishing data, largemouth bass recruitment appears to be weak. Young bass are having a difficult time competing with the large numbers of sunfish and crappie in the lake. Limited spawning area and poor summer water quality is also affecting young bass growth and survival. Largemouth can be found in modest numbers, with fish 9-15" making up the bulk of the fishery (see graph below). However, the spring 2002 electrofishing sample did reveal some large individual bass 4-6 lbs. The lower end of the lake toward the dam is where anglers should concentrate while targeting largemouth bass. The two "arms" at the head of the lake are extremely shallow (<3') and provide little habitat for bass.

**Lake Shenandoah Largemouth Bass  
Spring Electrofishing 2002**



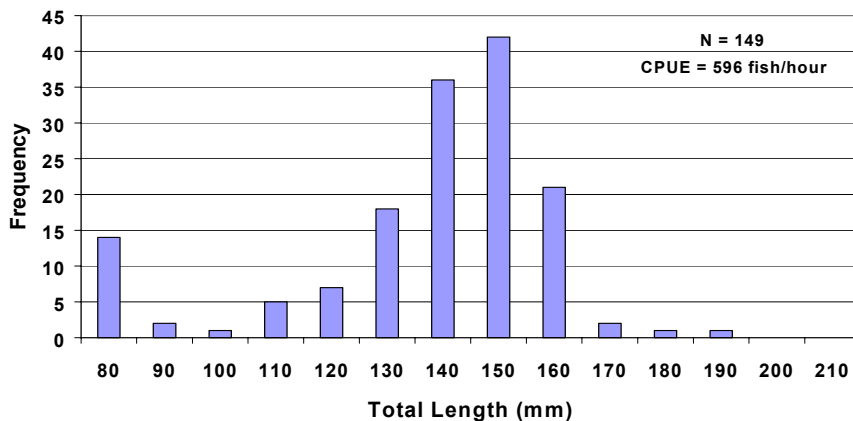
Crappie

Black crappie in Lake Shenandoah are severely "stunted". Few fish over 6" have been sampled by biologists in recent years. Until the lake can be renovated the crappie population will probably remain unchanged.

Bluegill

Bluegill in Lake Shenandoah are also moderately "stunted" Few fish over 6" have been collected by biologist in recent years. However, the lake does harbor good numbers of bluegill. A graph of the 2002 spring electrofishing sample is printed below. Without habitat improvement, the bluegill population will probably remain unchanged.

**Lake Shenandoah Bluegill  
Spring Electrofishing Sample 2002**



### Channel catfish

The Department annually stocks channel catfish fingerlings in the lake. Some channel catfish are also reproducing naturally. Biologists have had a difficult time collecting catfish from the lake. Lake renovation would also benefit the catfish population. Anglers that fish after dark at Lake Shenandoah have recently reported some good catches of catfish.

### Muskellunge

The one bright spot at Lake Shenandoah is the musky fishery. Musky do not naturally reproduce in Lake Shenandoah therefore the Department must stock fingerlings each year. Biologists have sampled musky up to 20 lbs from the lake in recent years. Remember, musky are top predators on the food chain and are never found in large numbers. However, Lake Shenandoah offers anglers a great opportunity to catch a musky. Musky are a "cool-water" fish and are active even during the winter months. Musky are caught from the lake every of the year. Due to the lake's murky water, anglers should use baits that have a lot of "action".

## **REGULATIONS**

### Largemouth bass

Only one bass over 18 inches total length may be harvested per day. All bass less than 18 inches long must be released.

### Crappie

There is no minimum size limit on crappie in Lake Shenandoah. Anglers can harvest 25 crappie per day.

### Bluegill/sunfish

There is no minimum size limit on sunfish in Lake Shenandoah. Anglers can harvest 50 sunfish (in aggregate) per day.

### Channel catfish

There is no minimum size limit on Channel Catfish in Lake Shenandoah. Anglers can harvest 20 catfish per day.

### Muskellunge

There is a 30 inch minimum size limit on musky in Lake Shenandoah. Anglers can only harvest musky greater than 30 inches. Anglers can harvest 2 musky per day.

## **General**

Gasoline motors, swimming, wading, ice skating, hunting, trapping, camping, organized fishing tournaments, and alcoholic beverages are prohibited. Fishing is permitted 24-hours a day unless otherwise posted. All other activities shall be conducted only during daylight hours. Fishing regulations shall conform to general statewide regulations unless otherwise posted.

## **FACILITIES**

Lake Shenandoah has a large gravel parking lot and a paved boat ramp w/ courtesy dock. Almost the entire perimeter of the lake is accessible for shoreline angling.

The Lake Shenandoah Preservation Association is active in beautification projects at Lake Shenandoah. The organization has built a walking trail around the upper end of the lake, constructed several park benches, and created a flower garden in the parking area.

## **MORE INFORMATION**

For more information about Lake Shenandoah contact:

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