



Largemouth Bass Virus Fact Sheet

What is the Largemouth Bass Virus (LMBV)?

Largemouth bass virus kills have been minor in comparison to kills caused by other factors, such as pollution and poor water quality. However, LMBV kills have received publicity because largemouth bass are a popular game fish, and the virus attacks adult fish. The virus appears to attack the swim bladder due to the yellow or brown, waxy residue often present in the bladder of infected fish. Fish about to die from the virus are often found floating on the surface, swimming in circles. There are no external sores associated with the virus. Although stressing factors such as warm water temperatures, low dissolved oxygen, poor water quality and poor handling have often been associated with kills involving the LMBV; there is no evidence that these stressing factors directly contribute to the presence or lethality of the virus. However, infected fish that appear healthy and unstressed have not been known to die as a result of the virus.

Where has the virus been found?

LMBV was discovered in Lake Weir, Fla. in 1991. In 1995, LMBV was reported in Santee-Cooper Reservoir of South Carolina where an estimated 1,000 largemouth bass died from July-September.

The virus has been found in wild fish from 15 states including Alabama, Arkansas, Florida, Georgia, Indiana, Kentucky, Louisiana, Michigan, Missouri, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas.

Largemouth bass kills associated with LMBV have occurred in nearly 20 locations, including: Santee-Cooper Reservoir and Greenwood Reservoir (S.C.); W.F. George Reservoir (Ala. and Ga.); Sardis Reservoir, Lake Ferguson and Tunica Cutoff (Miss.); Sam Rayburn, Lake Fork and Lake Conroe (Texas); Toledo Bend (Texas and La.); Atchafalaya Basin, False River (La.); Grand, Tenkiller, Hudson and Fort Gibson lakes (Okla.); Table Rock Lake (Mo.); Lake Monticello and Columbia Lake (Ark.).

The virus has been found in several Arkansas watersheds, including, Beaver, Bull Shoals, Norfolk, Dardanelle, Conway, Greers Ferry, Ouachita, Hamilton, Greeson, DeGray,

DeQueen, Millwood, Lower White Oak, Monticello, Chicot, Felsenthal, and Columbia lakes, and pools 5 and 9 of the Arkansas River. The virus was not found in bass from Hinkle, Upper White Oak, Catherine, Brewer, Poinsett, Mallard, and Charles. Largemouth bass kills have only occurred on lakes Monticello and Columbia.

Are largemouth bass the only fish known to carry the virus?

No, the virus has been known to occur naturally in guppies, smallmouth bass, spotted bass, Suwanee bass, bluegill, redbreasted sunfish, white crappie and black crappie. However, largemouth bass are the only fish in which the virus has been known to cause death.

Will all fish that are infected with the virus die?

No. It seems that LMBV becomes a lethal disease when fish are subjected to stressful situations. Sardis Lake (Miss.) experienced their first major largemouth bass die-off in late summer immediately following a major fishing tournament. The water temperatures were already high and the added stress of being caught by anglers allowed the virus to overcome the bass' immune systems. This scenario seems to hold true for all of the LMBV associated die-offs. Several populations of healthy largemouth bass are known to carry the virus without any apparent harm to the fish.

How is the virus transmitted?

The virus has been found to survive in live-wells for up to four hours, and boats traveling between waters may spread the virus. Other ways that the virus may be transmitted include spread by amphibians, largemouth bass stockings and fish-to-fish contact.

What are the effects of LMBV on largemouth bass populations or fishing success?

The numbers of bass that have died in association with the virus are typically low in comparison with the entire population. Although fishing may be poor immediately following a fish kill, it is thought that the virus will have no long-term effects on the largemouth bass population.

Are fish infected with the virus safe to eat?

Yes. No similar type of virus has been known to infect humans. However, scientists recommend that you thoroughly cook all fish as a precaution.

What is the Arkansas Game and Fish Commission doing about the virus?

Nothing can be done to eradicate the virus in wild fish populations. However, we continue to educate the angling public on ways to reduce spread of the virus and

minimize its impacts. We collect largemouth bass from wild and hatchery-raised populations to determine the distribution of LMBV in Arkansas. In addition, we work with other state and federal agencies in an attempt to gain a better understanding of the virus.

What can anglers do to help?

Even though we do not know exactly how the virus is spread, there are a few simple steps that anglers can take that may help prevent the spread of LMBV.

1. Do not transfer fish or fish parts from one body of water to another. Not only does this practice risk introducing the LMBV to the new lake, it is also illegal.
2. Anglers can disinfect live-wells by adding 1/8 cup of bleach per gallon of water. Let the bleach solution sit for 5 minutes, then rinse out your live-well and allow to air dry before going to another lake. Do not leave the bleach solution in the live-well for a long time, because bleach is very corrosive to metal
3. An alternative to bleach is to drain all water from the live-well and bilge pump, and allow to air dry.
4. Reduce the stress of handling a fish by landing quickly, unhooking fish in the water (those fish that will be released), do not allow the fish to touch marine carpet, avoid removing the protective slime coat, and run live-well continuously during summer months.
5. Conduct fishing tournaments during cooler weather to reduce stress on caught fish.
6. If you see a fish that you suspect may have the virus, please contact the Fisheries Division of the Arkansas Game and Fish Commission at 877-525-8606.