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# Pennsylvania Fish & Boat Commission

BUREAU OF FISHERIES  
DIVISION OF FISHERIES MANAGEMENT  
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August 9, 2006

Bill Wurster  
Susquehanna River Tourn. Trail  
1104 Carlisle Road, Ste. 150  
Camp Hill, PA 17011

Dear Mr. Wurster:

The Pennsylvania Fish and Boat Commission (PFBC) appreciates all tournament sponsors who take special care to insure high survival of their catch. This late summer season we ask event sponsors to be especially cognizant of guidelines pertaining to care of catch at weigh-in sites and by anglers holding fish in livewells. The attached guidelines are intended to help tournament anglers and sponsors maximize survival of their catch and prevent spread of diseases and other non-native organisms from water to water.

Guidelines have been updated to detail how anglers and tournament sponsors can prevent spread of largemouth bass virus and other organisms. We list specific procedures that can be used to disinfect livewells and holding tanks. We ask sponsors to share this information with angler participants. Since largemouth bass virus has been detected in largemouth bass at F. J. Sayers Lake, greater care of tournament caught fish and preventative measures should be undertaken to prevent spread of the disease and greater care should be taken to prevent stress in bass at F. J. Sayers Lake. Stress associated with catching and holding bass can encourage disease problems.

Effective procedures for disinfection continue to evolve. Our intent is to provide what we know so far, but we hope to supply broader guidance in the future. Thank you for following these guidelines.

Largemouth bass virus has also been detected in smallmouth bass in the Susquehanna River. Although smallmouth bass have not been observed to die or exhibit illness from the virus, they do serve as carriers of the disease. In some cases, largemouth bass virus has been shown to reduce the number of adult largemouth bass. Following disease outbreaks, largemouth bass have exhibited an immune response in association with the disease and populations have recovered.

Thank you very much for your cooperation as we work together to reduce the spread of fish diseases and exotic species in Pennsylvania.

Sincerely,

Robert M. Lorantas  
Warmwater Unit Leader

Encls.

cc: L. Young, Chief, Fisheries Management

**Our Mission:**

[www.fish.state.pa.us](http://www.fish.state.pa.us)

*To provide fishing and boating opportunities through the protection and management of aquatic resources.*

## Tournament Participant Check List:

### ► If surface water temperatures are below 65° F (18.3° C):

- Use the livewell fill pump to spray in fresh oxygen rich lake/river water at **regular intervals** in order to exchange the entire volume of your livewell during each **pumping** session.

### ► If surface water temperatures are between 65° and 75° F (18.3-23.9° C):

- Use the livewell fill pump to **continuously** exchange your livewell's volume by spraying in fresh oxygen rich lake/river water.

### ► If surface water temperatures are above 75° F (23.9° C):

- Internally re-circulate aerated temperature-controlled water in your livewell, do not re-circulate your livewell with hot lake water (See Appendix for aeration outfit options).
- Add 8 pounds (2 half-gallon milk jugs) of block ice to a 30-gallon livewell every 3 hours (do not cool your livewell more than 10° F below lake water surface temperature).
- Add **non-iodized** salt to the livewell (1/3 cup per 5 gallons of livewell water). More salt will need to be added each time you follow the next step.
- Flush stale water (containing metabolic wastes) by replacing half of the livewell water every 2 hours with freshwater (avoid stagnant backwater, boat launches and shallow areas during exchange).

### ► At every tournament:

- Fill livewell to maximum capacity to reduce excessive sloshing (rear livewells experience less sloshing than forward livewells).
- Distribute fish evenly between your rear livewell compartments.

### ► Hooks, in or out:

If using a corrosion-resistant or specially coated hook (for example, bronzed, stainless steel, tin-cadmium, nickel):

- Every effort made to remove hooks using pliers, hemostat or hook remover with as little tissue damage as possible. Cut off the hooks from artificial lures to facilitate hook removal. (Cutting pliers can also be used to cut the barb and point, which allows the hook to be easily backed out).

If the hook cannot be removed:

- Cut line above hook leaving a short piece of line. Cut off hooks from artificial lures when the lure cannot be extracted from the fish.

### ► Released bass that float after capture from deep water:

In Pennsylvania capture of bass from deep water typically occurs in a few deep-water lakes (example: Lake Erie, Raystown Lake and Lake Wallenpaupack). Bass caught from deep water may experience difficulty in submerging and swimming normally due to an over-inflated swim bladder. Procedures exist to expel pressure from the swim bladder using a hypodermic needle. Since the procedure requires knowledge of the location of the swim bladder, injury and death to the fish can result if carried out improperly. Anglers interested in mastering this procedure should consult publications that detail proper application such as the B.A. S. S. publication "Keep Bass Alive" and apply the procedure only if they are comfortable that they will cause no harm to released bass. Studies have shown that when properly carried out, survival of deep water caught bass with over-inflated swim bladders is enhanced. In most Pennsylvania waters this condition will not be evident and the procedure will not be necessary.

Remember, releasing fish alive and unharmed is a regulatory requirement in many situations.

► **Disinfection after the weigh-in process:**

To prevent “aquatic hitch hikers” and fish disease organisms from being moved from one water to another via boats and trailers, thoroughly clean both:

Empty and thoroughly rinse fish holding and handling equipment at the site. Be sure to remove any aquatic plant debris from boat trailers and boats.

Dead fish should be placed in a cooler on ice for later consumption or properly disposed of when you return home. Dead fish should never be disposed of at any waste containers at the access area.

Biological disinfection should be carried out by cleaning all fish holding equipment such as boat livewells. This can be accomplished by adding 1 cup of laundry bleach per 15-gallon livewell for one hour. CAUTION: This concentration is many times (20x) that of drinking water, can irritate skin and eyes and should not be used where splashing would allow this solution to get on skin or into eyes. Protective eyewear and gloves are recommended for persons involved in cleaning. The bleach solution should be circulated through livewell pumps for one hour while away from any waterway. Solution should be properly disposed of away from all waterways, plants and animals. Following cleaning, all equipment should be thoroughly flushed and rinsed from the system since corrosive action could affect valves and damage plastics parts. After thorough rinsing, allow equipment to dry completely. This cleaning and disinfection protocol has not been tested on all commercially available livewell equipment, and the disinfection protocol may damage some equipment. Therefore, check with the manufacturer prior to cleaning and disinfecting, and use these procedures at your own risk. Adopting this protocol insures that organisms not visible to the naked eye will be eliminated from fish holding and handling equipment.

Never, never move fish, aquatic plants, or any organism from one water to another. The potential to unintentionally introduce a nuisance aquatic species is too great.

**Appendix**

† You can retrofit your livewell with an *internally* re-circulating aeration system for under \$30 (this is a must if the boat is moving or on the trailer).

‡ You can retrofit your livewell with an oxygen injection system that will maintain adequate oxygen levels in more extreme conditions. One system, which requires a pressurized cylinder, regulator, hoses, and an air stone, can be purchased for \$300-\$450. Other systems use new proprietary electronic technology, cost less, but cannot be used with salt additives (see [www.aquainnovationsinc.com](http://www.aquainnovationsinc.com)). The Pennsylvania Fish and Boat Commission is aware of these systems, which we believe benefit survival of released bass. We have not tested or compared the effectiveness of these systems, interested anglers should review manufacture information to make informed decisions. Use of trade names does not constitute endorsement by the Pennsylvania Fish and Boat Commission.

-For more information please refer to: Gilliland, G., & H. Schramm. (2002). Keeping Bass Alive. B.A.S.S. Montgomery, AL.  
On line at: [http://sports.espn.go.com/outdoors/bassmaster/news/story?page=b\\_cons\\_bass\\_alive](http://sports.espn.go.com/outdoors/bassmaster/news/story?page=b_cons_bass_alive)