KEEPING BASS ALIVE: A Guidebook for Anglers and Tournament Organizers

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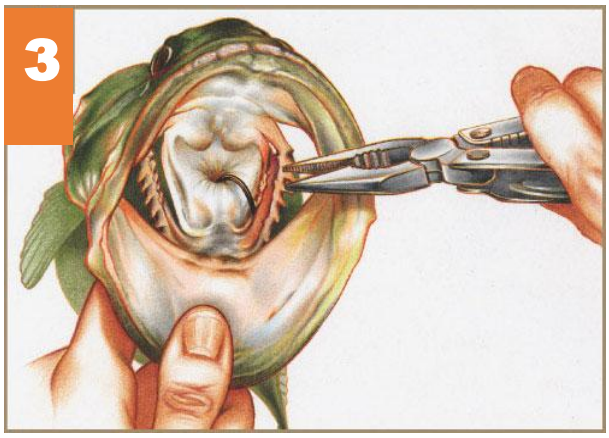
PART 1. The TOURNAMENT ANGLER'S role in improving survival of released bass

HOOKING, LANDING, AND HANDLING

- Minimize deep hooking. Set the hook quickly. Use barbless or circle hooks when practical.
- **Do not play fish to exhaustion.**
- **Limit air exposure to no longer than you can hold your breath!**
- **Protect the slime coat. Keep them off the carpet or deck. Grasp the line or the lower jaw**.
- Use a rubber or vinyl-coated soft mesh landing net if allowed – not hard knotted nylon.
- Hold smaller fish vertically by the lower jaw. Hold larger bass with two hands.
- Remove hooks quickly. Learn the hook-reversal technique for gut-hooked fish
- If this cannot be done quickly, use cutting pliers to cut the hook shank as close to the bend as possible.



Courtesy In-Fisherman Magazine

BASIC LIVEWELL MANAGEMENT

- Livewell oxygen levels need to be five (5) parts per million or higher. Oxygen is added by aeration.
- Livewells can pump in fresh lake water or recirculate livewell water. **A recirculating system is essential when the boat is on plane, being trailered, or when you are controlling livewell temperature (see below).**
- Be sure you understand the livewell control settings for freshwater intake versus recirculation.

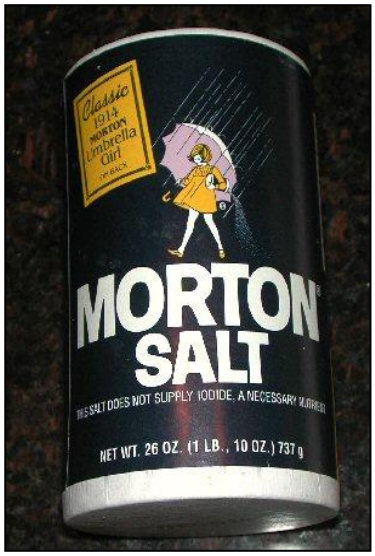
Water temperatures are coolest early in the morning. Cooler water holds more oxygen. Take water from open areas, avoiding stagnant backwaters, sloughs, or boat launch sites.

- **Water temps below 75°F for Largemouth Bass or below 70°F for Smallmouth Bass:**
  - **Pump fresh water regularly but also recirculating pump continuously.**

- **Water temperatures over 75°F for Largemouth Bass or 70°F for Smallmouth Bass:**
  - Fill the livewell, close drains, set the system to full-time recirculation.
  - **Cool livewell water 5-7°F below morning surface water temperature using small amounts of ice.** Eight to ten pounds of ice will cool 30 gallons of water for 2 to 3 hours. Experiment for your livewell.
  - **Excessive ice results in temperature shock and increased mortality after fish are released.**
  - Crushed ice drops temperatures faster but does not last as long as block ice or water frozen in plastic soft drink or milk bottles. The chlorine in ice is insignificant and will not harm your fish.
  - **Monitor temperatures with a floating thermometer** and add ice to maintain constant temperature. Consider the weather and carry sufficient ice for the entire day.
  - Periodic partial exchanges of water will help reduce waste product buildup, but it is not necessary with proper aeration. However -- **do not pump in hot or stagnant surface water**.

LIVEWELL ADDITIVES

- **Commercial livewell additives and oxygen enhancers may contain ingredients that are not approved by the U.S. Food & Drug Administration (FDA)** to treat water containing fish that could potentially be consumed by humans. For this reason, State and Federal fishery agencies do not recommend the use of any of these products. This includes Hydrogen Peroxide and Sodium Percarbonate.
- **FDA does approve non-iodized salt (NaCl). One (1) cup per 15 gallons of livewell water when in recirculation mode.** Avoid salt if using in-livewell oxygen generating devices as this may produce chlorine.
- For ammonia reduction when recirculating use FDA-approved ClorAM-X® at 0ne (1) tablespoon/10 gallons.



OXYGEN INJECTION

- **For catches of Largemouth Bass over 20 lbs. when water temperature is above 75°F (70°F for Smallmouth Bass), aeration alone may not maintain safe oxygen levels. Oxygen injection from a pressurized cylinder or an oxygen concentrating device can maintain oxygen saturation in the livewell water.**
- Pressurized cylinders must be secured and maintained in good condition.
- When using oxygen supplementation, run recirculation pumps to create surface agitation and help expel carbon dioxide and excess (supersaturated) oxygen.
- For a detailed look into the science of oxygen supplementation and an inexpensive DIY system, see:

  https://tpwd.texas.gov/fishboat/fish/recreational/catchrelease/livewell.phtml

LIVEWELL VENTILATION

- **Lift livewell lids regularly** to allow fresh air to circulate into the compartment.
- Vent the recirculating system aspirator to fresh air with a length of vinyl tubing.
- **Install livewell lid vents** that allow fresh air in, carbon dioxide out, and moderate temperature.

REDUCING MECHANICAL INJURY

- Make sure there are no obstructions or fittings that would injure fish in the livewell.
- **Keep livewells full.** Reduce sloshing by plugging overflow drains prior to rough water runs.
- Use "pool noodles" or floating perforated foam mats to help cushion the ride.
- **Distribute fish between livewells or compartments to reduce crowding and stress.**

CULLING

- Culling is legal in many states and provinces. In some states a decision to keep or release a fish must be made before a fish is placed in the livewell. Know the local regulations.
- Metal cull clips that require penetrating the fish's mouth should not be used.
- **Cull tags that have strong spring clips or ratchets can pinch too tight and increase stress and cause open sores. Choose clips that lock in place but do not pinch hard.**
- **Colored dorsal fin clips are a good alternative that allow identification of individual fish without pinching a clip on the jaws.**
- Keep smaller fish in a separate compartment. Only tag fish that are likely to be culled.

BAROTRAUMA RELIEF – FIZZING

- Fish caught from water greater than 20 feet can suffer from over-expansion of the swim bladder (hyper-buoyancy). Fish suffering from this condition are less likely to survive.
- If fish can be released immediately, they will often swim down to the depth where water pressure naturally recompresses the swim bladder. If not, they must be fizzed.
- **Fizzing is best done in the boat as soon as the fish shows signs of distress.** Treat fish quickly if fish cannot maintain upright position, float on their sides or belly up, are constantly rolling, or diving.
- **Learn proper fizzing technique** using a 1-1/2" 18-gauge needle fitted with an internal wire reamer.
- The needle is inserted approximately ½ to 1 inch behind (towards the tail) the tip of the pectoral fin.
- Hold fish under water as you remove the reamer to see bubbles escaping from the needle.
- Do not squeeze the fish to force out more gas.
- **A Texas Parks & Wildlife Department study found mouth fizzing resulted in significantly higher risk of damage to internal organs and lower survival and is therefore no longer recommended.**
- Studies have proven that weighted fin clips do NOT cure barotrauma or reduce related mortality.
- Detailed fizzing instructions are found in these videos:

  www.bassmaster.com/conservation-news/video/fizzing-smallmouth-bass/

  www.bassmaster.com/conservation-news/video/how-and-where-to-fizz-largemouth-bass/

AT THE WEIGH-IN

- **Use weigh-in bags provided by the tournament officials.** They control pace by the number of bags out.
- **Fill weigh-in bags with at least two gallons of livewell water**… *do not use warm water at boat side*.
- Put only five fish in a bag, fewer if they are over 4 pounds each. Use a second bag if needed. Waiting in line with fish in a closed bag for more than two (2) minutes will reduce survival as oxygen is rapidly depleted.