"Tips on Building & Operating Short & Longer-Term Bait Storage Tanks"
Bruce Brenholdt Presentation, 9/9/22

Bruce is an active member of SMSC who has been diligent in his study of how to catch stripers at SML. His methods have paid off, making him winner of the Club's 2021 Fish Ladder contest, with an impressive 40" striper that topped all other fish reported by club members last year.

His presentation to club members on 9/9/22 was both entertaining and informative. He noted that catching & keeping finicky bait like alewives & gizzard shad can be like new grandparents tasked with babysitting a highly mobile 2 year old who's not potty trained nor fully communicative: at times frustrating, at other times joyful – but keep at it and you will get it right!

Bruce observed that most SML Striper guides use live bait, so he bought a cast net and learned to throw it after dark at his dock light & at other bait lights around the lake. The time and effort of each bait catching outing made him decide to build a bait storage tank on his dock in which he could keep alewives alive long enough to go striper fishing several times instead of just once, the next day.

He has designed & built 4 bait tanks over the years, learning from each experience. His current short term boat tank, his longer-term dock tank, & filters all are home-made. Affordable long term bait storage systems were not commercially available, so he built one!


WATER QUALITY success factors can be summarized in the anacronym ***TACCI:*** **T**emperature, **A**eration/oxygen content, **C**hemistry, **C**larity & **I**ncredible Attention & Monitoring. These key points are echoed by other expert striper anglers, including Keith Shannon from the Tennessee Striped Bass Association. Check out his document "Keeping Your Bait Healthy" now on the SMSC website (member password: bigbait).

Short-Term Bait Storage

Move bait from your cast net immediately into a salted & slightly cooled water tub to give stressed out alewives & shad an opportunity to shed scales & poop. Then transfer the bait to your on-board boat tank for same day fishing and/or transfer it to a longer-term storage tank.

Longer-Term Live Bait Storage

Bruce was inspired by the tank shown below in pic1, built by SMSC members Mike Ward & Tyler Early. Bruce's current long-term tank is shown in pics 2-4.

It kept 75+ large alewives alive for 5 weeks this June & July. After the daily high temp hits 85+ degrees, bait survival requires substantial icing to bring down the water temp. A 300Gallon white plastic round tank is best for longer term bait storage. Those taking on a tank project will need a commitment to live bait striper fishing, basic carpentry, plumbing & electrical skills, creativity, patience and persistence. Bruce recommends daily checks of water quality, periodic filter flushes/changes, & prompt removal of any dead soldiers so they don't foul the water, poison the other bait or clog the pump & filters.

Tank Location, Materials & Tips

Space – A dock area of at least 10' by 10' that is strong enough to support the filled tank weight (300 gal water @ 8.3 lb/gal = 2,500 pounds); must be in the shade; a climate controlled garage/shed is ideal if available & located close to the dock.
Plumbing – Danco Venturi aerator, Alpine 2100 GPH Pump, Filter Bucket with ½" holes in the bottom. The filter bucket is both a physical & biologic water filter; reusable furnace filter material removes bait scales & poop; the lava rock in the filter bucket acts as a biologic filter once "good bacteria" grow on the rocks; activated

charcoal improves water clarity; Pond Prime neutralizes ammonia from the bait's urine.







Electrical – Use a 120 volt dedicated circuit with a ground fault interrupter outlet for the pump & overhead lighting. Avoid 12 volt DC pumps due to a weak water flow, they are not very durable, they are prone to clogging, & it's a hassle to keep the battery charged.
Cost – Could be several hundred to $1000+ depending on the site & materials. Bruce used an oblong 300 gallon stock tank from Tractor Supply, 4'x6'x25"H; 83 lbs; $300 (tip – a dark colored tank is BAD because it is difficult to see & catch the bait!). A round white plastic tank is ideal, or paint the bottom of a dark tank with white Flex Seal.
Plumbing - 120 volt Alpine Cyclone PAL2100 Pond Pump (tip – put the pump outside the tank if you have room, which reduces some of the heat from the pump that is transferred into the water), $200. Moves 2,100 Gallons per Hour; 1.25" PVC pipe & fittings; (tip: use friction fits at key locations to make future pipe/pump changes easier). Danco Venturi for aeration & circulation (tip: water flow from the filter bucket into the tank creates additional bubbles).
Building Materials – Framing lumber for tank support & tank enclosure, insulation panels & plywood for tank shade & enclosure (tip: the lid is needed to keep otters & herons out!)
Water & **Other Items** – Lake water is best. (tip – if you have an irrigation system that draws water from the lake, tap into that for your water). Well water (ideally non-chlorinated) is OK, but needs to be thoroughly aerated before adding bait; add salt; add

SeaChem Pond Prime to neutralize chlorine & the bait's urine. Other materials & supplies needed include a 5 gallon plastic filter bucket, lava rock, activated charcoal, reusable furnace filters cut to the shape of the filter bucket, large & small bait nets, a water thermometer, & ice jugs when the air temperature is >85 degrees.

Your ultimate reward is ….. frisky bait to catch big stripers!

SMSC members interested in seeing Bruce's bait storage tanks are welcome to call him (336-340-6181) & set up a time to go see his tanks.