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To Tom Murray,

Bob and I worked well together and with the exception of him not having any assistant, things went better than expected. By waiting until data could be taken with the largest quantities caught per trap, we could literally see the effectiveness of the trap for sub-legal fish escapement in a worse case situation due to large numbers of fish during haul-back. In some cases we had over 200 fish in a single trap, timing this in this manner, we were able to achieve enough statistics for final evaluation in less than half the intended time. This study was conducted, I feel, in the best possible conditions for the following reasons:

Black sea bass are found in many depths of water and start spawning from June until September. While these fish do come in from offshore in the Spring, quantities are variable and water temperatures tend to vary. Water temperature is a HUGE factor for this species when factoring in escapement of traps. During our surveys and noticed by Bob Fisher and also Josh Moser of NMFS during a tagging trip we made, the sea bass brought to the surface suffered greatly when thrown overboard. This is due to a water temperature difference that is usually between 20 and 30 degrees. During our surveys, divers had stated that on three different wreck sites, the bottom temperature was 47 degrees! We bring the fish to the surface at 72 degrees; what a shock it is for them! During my tagging that I did with Josh for NMFS, I attempted to use my live tanks on board to immediately have our fish back into the water with double oxygenation. The fish all went into terrible shock and **NONE** went to the bottom when released! We had to pick them all back up and take their tags out. Only when we released them back into the water immediately would they survive.

My point to all of that information was this: Escapement of sub-legal sea bass from ALL traps MUST come during the haul-back period for the greatest survival rate as our survey has just proved ***CAN*** be done! As soon as we start to haul back, the fish start to try to escape. In certain cases, we had 100% of sub-legal fish escape with my experimental trap, while the 1.5" mesh traps did very little and retained many sea bass as small as 6 inches! This was a horrible sight when we released these fish and they merely floated on the surface with not enough strength to swim to the bottom. Generally when we surpassed 80 feet, we noticed that these fish when brought to the surface would suffer from bladder expansion to where the air bladders would be out of the mouth. Secondly would be the huge difference in water temperatures from bottom to surface. Last but certainly not least, the predator factor of sea gulls on the surface and several species of fish as they try to get to the bottom such as the general bluefish gauntlet hanging near structure for most of the year.

Most sea bass habitat traps sit in water depths of 80 feet and over. Survival of sub-legal fish released by ANY method at the surface would be minimal at best. If I had to put a percentage on this; probably less than 10% and more like 5%. Imagine the results of this new trap design in the hundreds of thousands of these traps now used offshore! The importance of releasing the under 11" sea bass is that they start to spawn at 8". Industry will no doubt complain because they will be afraid of what they may loose. Let me explain fully just how they will benefit:

My trap design consists of exactly 1/2 the wire mesh trap being made from 2" mesh: Top, back panel and bottom. Here is our best selling points to industry and commission members as to not inconvenience the fisherman with very little cost involved.

#1) Being that the 2" portion of the new traps will cover top, back and bottom, this will allow the fisherman to have NO waste when removing the same 1.5" mesh as they would only have to cut the rings that hold the trap together. Generally they twist right off. When the 2" portion is put into place, the rings are replaced and the other 1.5" portion may be used in making another new trap!

#2) When the trap sits on the bottom, the 2" portion on the bottom will not interfere with the catch ability of the 1.5" mesh on the outsides! This is currently why they use 1.5" mesh and this will give them the advantage that they currently have of more surface area to attract fish. It is neither the top of the trap nor the bottom that attracts fish, but the sides that provide this attraction. This the fisherman will retain 80% of what he does now! Also, Using 2" for the top, back and bottom will place the majority of the 2" mesh in the parlor or holding area of the trap! How important will this be? When the traps are lifted, as in our survey, 66.6% of the holding area will be a dedicated 2" escapement for all fish! Even the entry fish will have a chance to now escape! Truthfully speaking, the only surface area lost will be the back panel, this is not where the fish enter the trap. With a 0% loss for surface area, 0% loss of material, 50% material replacement that allows almost 75% more

chance for fish to escape during haul-back, there should be no arguments, it only makes perfect sense! (Due to the fact that 66.6% of the 2" mesh is in the holding area with also 2" being on the bottom of the entrance portion also will give you the 75% figure I used previously for escapement.)

It is quite obvious that a ONE 2" MESH escapement was the idea of someone who knew nothing of this fishery as clearly defined by our survey. Allowing a "biodegradable panel" to be made of plastic is ridiculous and will be the attack of my next project. If a trap is lost, the panel releases the plastic panel where?? We need this change and I will give you anything and any help by representation that you may need to see this through. We can take several different traps in to demonstrate just how easy these traps can be converted with little cost to the fishermen. We can also explain how the fishermen will benefit from a higher grade of more valuable fish along with less time to grade through the smaller fish that will save valuable time and therefore money! This will far exceed any loss! It is a "win win situation" that by allowing all sublegal spawning sea bass to escape our traps, stock sizes will increase to give us larger quota's for the future fishery.

While stock sizes have increased by the small changes so far, this, I believe, will be the most noticeable immediate change in ANY FISHERY due to the millions of 6" to 11" sea bass being needlessly destroyed by unacceptable release methods that do not allow for water temperature shock and air bladder expansion due to significant depth retrieval through thermoclines. It is my estimation that over 90% of these 6" to 11" fish are currently being destroyed today under current regulation. Let's do what it takes to save these vital fish!

Sincerely,

Jim Dawson