

Dear Dr. Belcher Carolyn.Belcher@dnr.ga.gov

We have not had a chance to meet although I hope this email finds you well. I decided to write to you directly because I researched your profile in the SAFMC. As the council member and chief of the Marine Fisheries Section, charged with the management and oversight of recreationally and commercially important marine species, I believe you will be the appropriate person to direct this email to.

I started spearfishing by freediving in 1996. I have been in the spearfishing industry since the late 90's distributing the biggest manufacturers of spearfishing world here in North America. I am also a very passionate spearfisher-freedom diver. My wife and I care deeply about the resource as well as for my vested interest in the sport. My concern on the current state of the fishery for gag grouper and some of the fish in the Grouper Snapper Complex tells me there is some information that the council needs that may have not been included and researched. I am not a marine biologist or a scientist, I am an experienced Freediver with a 25-year track record spearfishing off our coastline from FL – NC. This is my educated opinion and please interpret it and share it if you find it useful.

After the three days of public comments, and listening to the various user groups I feel the White Paper is lacking in regards to the commercial spearfishing data, and does not have enough research on the recreational side. I believe this may have also been a reason why the council added the consideration to remove spearfishing-gear, not enough is known about the actual impacts from both recreational and commercial sectors.

The concerns and the motions addressed are accurate: spearfishing gear is highly selective and efficient. The commercial spearfishing industry, because it is allowed to use SCUBA and explosive devices (powerheads) is going to destroy these fisheries. It already has been doing so in the Carolinas the last 10 years or so. Here is why:

1. Power Heads: Commercial fisherman like to use power heads because they stun and kill the fish on impact. It saves them air, and potentially hazardous situations under-water wrestling the bigger fish that succumb to them. It is not more humane. Sound is three-times as audible under water, the impact of a powerhead, which resonate like a depth charge exploding to the fish, has an incredibly deafening impact on not only the fish but the entire eco system where these fish are being destroyed. Smaller fish are stunned and even die nearby and larger fish all scamper akin to a bomb shelter from the deafening sound. It is a complete and utter war on the otherwise quiet marine eco system. There is nothing selective or sustainable related to the use of power heads. Use of a power head also scares away any potential predator like a shark or other curious fish. It sends all of the grouper, or snapper - except a few wise ones - that are fish targeted in the "snapper grouper complex" - into a hole most of the time. They do not head for deeper water. They head into their lair immediately to seek shelter. At this point it's an easy kill. The diver now acts as a grown lionfish would attack it's prey, corners the fish, and kills it. The commercial spear-fisher also likes to have a power head to kill a problematic shark, that upon relying on its survival instinct just wants to eat the divers' fish. A heavy commercial stringer going

to the surface is the motivation for an investigating shark to get power headed. Happens all the time. It is unconscionable to me that in 2022 we allow commercial harvesting of wildlife in this manner.

2. Commercial Scuba Spearfishing in regards to its position on selectiveness and sustainability: The best commercial spearfishing model relies on multi-day ideal weather windows, multiple dives a day, average non dangerous technical depths, and efficiency in minimizing energy and resources expended for the highest yield and consequently ROI. One successful diving trip (please see the likes of Benny the Butcher on social media platform Instagram as an example) yields 1000lbs of gutted grouper. To obtain this yield in addition to 500lbs of hogfish, and other fish in the Complex, it makes the most sense to hit a good spot. Grouper and snapper are bottom dwellers, territorial, and associate with structure. When an invader comes toward a reef they typically approach to investigate and exert territorial display. This is the sweet spot for any good spear-fisher. The first dive and surprise encounter always leads the best fish, before they spook. Hogfish in particular are especially vulnerable to an attack from a diver. An Alpha Male Hogfish is not a dumb fish, by its very nature and evolution it displays its size to thwart off offenders, turns broadside and confronts a diver. It does so most of the time as the Alpha male protecting his harem. This is an evolved evolutionary defense mechanism that has backfired on this species with human beings. Particularly divers armed with explosive heads, long bottom times, and the ability to surround a local reef eco system, ledge, rock, or a shipwreck. Groupers are more suspicious; however they usually will retreat to a dark section of their cave or hole in a shipwreck to watch from a shadow until the diver pops in with a light to shoot the fish. On a small live-bottom section of reef or whip-wreck on one dive, two experienced divers, can kill every single viable grouper. It is not hard once practiced over and over. The other viable fish that get away have been hunted before and retreat by crossing over the reef to the sand and as far away as they can rather than go into the bottom structure.

The most efficient harvest comes from cornering all of the available fish in a local reef and harvesting them with explosive heads, multiple spears on one gun, and lift bags. This is what a good successful dive yields to a good commercial spear-fisherman on SCUBA. Freedivers, by contrast, do not have the bottom time to corner and scare several bottom dwellers on the same reef simultaneously given the limitations of a human holding their breath, particularly in depths past 50'.

3. Comparison to effort and yield of a commercial hook-and-line fisherman targeting grouper and snapper in the complex: A commercial hook-and-line operator moves around to multiple spots because it is in their best interest. The same fish as the commercial spear-fisherman target have an ebb and a flow of feeding cycles and other environmental factors out of the fisherman's controls. When enough fish are caught typically they get scared and the bite stops, very large individuals can hang up and break even the most experienced fishermen in the reef or structure. Or, simply the tide changes and the fishing vessel has to reposition its drift and anchor to try to reconfigure its vessel's position over the fish school. This is the difference; the diver once on the bottom with SCUBA apparatus has an accurate visual of the movement of the fish schools, behavior, escape plan, and they don't have to reposition, or leave. They can immediately target the largest unsuspecting fish. By contrast, when the fish stop biting the fisherman are forced to give the fish a break and move. This is a fundamental difference, the pressure stops whilst fishing, whilst commercial spearfishing it never abates.

4. Economic impact of Commercial spearfishing Vs Recreational Spearfishing.

According to your own data in the Spearfishing in the South Atlantis Snapper Grouper Fishery, Recreational Snapper Grouper Fishery in 2017 (attachment), the MRIP report - collecting the data for this White Pages - reports landing of 42,652 fish landed between GA-NC.

I take a lot of issues with this data on so many levels, least of which is that landing 2 years prior were reported at just over 6000 fish.

Assuming these 2017 landing estimates were accurate this would be the equivalent of 10,663 divers spearfishing recreationally, or, landing their 1 per person grouper limit 4 times a year. 10,663 divers on a boat averaging four divers are equivalent to 2665 boat trips. On average, a 4-person boat trip costs a crew with all expenses involved for diving \$1000 or more. This contributes \$2,665,750 with a maximum impact of 42,652 fish to create this amount revenue.

By contrast, 1 commercial trip limit is 1000lbs of grouper and 500lbs of Hogfish.

Those limits would equal 100 fish weighing 10lbs average, and, 50 10lb Hogfish which is equivalent to the same pressure as that of 150 recreational divers' daily bag limit. The average active recreational diver in NC dives 4 times a year.

Logically, 10 commercial spearfishing trips limit of 10,000lbs, is equivalent to the daily bag limits of 1000 divers, always taking into consideration a 10lb fish. The pressure on the resource from 1000 recreational divers is much less impactful compared to the economic benefit the group provides.

Dr Belcher the Spearfishing White Paper attached for your reference backs and complements my points and observations. I have seen very noticeable differences in behavior, local fish population density, and lack of presence in the same patches of live bottom reefs and wrecks. In some species like hogfish, which are hermaphrodites, I noticed a considerable diminution in the number of mature female specimens, a direct impact of a burgeoning commercial spearfishing industry for these fish. Lastly, as an experienced life-long recreational Freediver I am of the fervent opinion that a drastic reduction in the commercial gag quota needed. Also please consider what implication to the other fish like hogfish a gag closure would cause, with added pressure on the species from the same indiscriminate practices described above.

I would be delighted to participate in any volunteering opportunities or as a representative for the recreational spearfishing group if I could offer any help. Please share this information as you see fit with the SAFMC.

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