South Atlantic Golden Crab Fishery Overview

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The golden crab fishery is now poised to fulfill its potential for delivering high quality live crab anywhere in the world. Accordingly, we are writing this overview to provide fishermens' perspective on the process of setting an Acceptable Biological Catch (ABC) and Annual Catch Limit (ACL) for the golden crab fishery and to request that factors outlined in this letter be considered when these levels are set.

The Scientific and Statistical Committee (SSC) is faced with a difficult task whenever assigning a Maximum Sustainable Yield (MSY) and an ABC to fisheries that are lacking in biological data. Direct fishermen input, especially when there is a severe lack of data, will benefit the SSC and other decision makers when deciding upon fishing levels and limits such as an ACL. Information from fishermen will help to explain trends in the fishery and to provide clarity on points not reflected in the data.

For fisheries where there is a lack of data, historical landings and harvest levels could be a significant factor in determining an MSY. We believe our average annual landings since 1997 of around 550,000 pounds does not represent an appropriate MSY or ACL for our fishery.

Reasons why landings are not a good indicator of stock size:

- **The fishery is technically difficult and dangerous.** For example, distance (up to 120 miles) and fishing depths (up 2300 feet) are great. The Gulf Stream is universally present and the fast current precludes the use of surface buoys. These and other complicating factors discourage all but the persistent and skilled from participating in the fishery. As a result, landings do not reflect population size. The present golden crab fishery is now down to 11 permits, with full time golden crab fishermen using four permits harvesting the majority of the crab. Our resource is currently underutilized and can sustain much higher landings.

- When the original golden crab FMP was put in place in 1995, fishermen rushed to meet the criteria to be a part of the new limited access fishery (34 permit holders in 1996). On average, landings in the golden crab fishery have dropped over the past 9 years (average of 665,000 lbs from 1998 – 2002 and 417,000 pounds from 2003 – 2006), with a high of 1,034,000 lbs in 1997. This is because of a drop in fishermen conducting the fishery, not because of a decrease in the resource. In the late 1990s, many golden crabbers were part time, and realized that they didn't have the capabilities to seriously and safely fish for golden crab (for example, large boat size or equipment) or to make a profit.

- **The primary reason the resource is underutilized and landings are below fishing capacity is because fishermen have been unable to sell more crabs.** Traditional methods of maintaining the life, quality, and strength of crabs effectively eliminate all markets except local ones in which prime condition is not

required and the crabs can be processed or sold very quickly. We are well along in implementing new procedures and infrastructure to eradicate these limitations.

Reasons why the crab market has been underutilized:

- The golden crab fishery is now poised to fulfill its potential for delivering high quality live crab anywhere in the world. Since inception of the fishery, crabbers have been handicapped by temperature problems. Regulations require that crabs be landed alive. Golden crabs live in 42-degree ambient surroundings. In the 10 minute trap-bound journey to the surface, they are traumatized by exposure to 75- to 85-degree waters of the Gulf Stream. Immediately they are placed in ice which provides a temporary recovery. However, carefully conducted studies demonstrate that after 72 hours on ice, nearly 30% of deepwater crabs will die. In six days, less than 20% will be alive.

- These facts place severe limitations on the quality and marketability of golden crab. The mortality taking place in the days following capture of the crabs forces quick landings and local sales. Delivering healthy live crabs beyond the local landing area of the catcher vessel is a near impossibility. The use of refrigerated sea water on the vessel at sea and ashore results in a mere 3% dead loss over ten days. Three of the four most active golden crab boats either now have or will soon install such holding systems.

- Sales of healthy live golden crabs can now be made in New York, Boston, San Diego, and Hong Kong or virtually anywhere else. Demand is intense, prices are high. **Current participants are prepared to increase production using this technology to transform the fishery into a model of an efficient, sustained, high value operation.**

Reasons why the golden crab is not at risk of being overfished:

- **There is parent stock located in protected or un-fished areas.** We worked with the Council and staff in creating golden crab allowable gear zones in the Coral Habitat Areas of Particular Concern (C-HAPCs). These C-HAPCs were set up to protect unique deepwater corals, prime habitat for the deepwater golden crabs. This is especially true in the northern zone where we believe most fishable grounds are now protected by the C-HAPCs, and it may not be economically feasible to fish in the northern zone. Restrictions created by the C-HAPCs will provide significant protection for the resource.

- A large portion of the golden crab stock we are fishing is inaccessible to us because it is located in Bahamian waters. These waters are not being fished, and we do not anticipate that they will be fished for golden crab in the foreseeable future.

Other factors to consider:

- **Stock assessments are old and based on a small geographical area.** Past recommended MSY levels have ranged from 1.5 million lbs to 18 million lbs (in Amendment 3, NMFS suggested that a reasonable MSY should be from 1.5 to 2.5 million lbs). These wide-ranging estimates are almost a decade old and were based on the small geographical area being fished in the 1990s.

- NMFS, nor fishermen, have witnessed a decrease in crab size over the years. Our landings have been consistent, and we haven't seen a decrease in our catch per unit effort (CPUE).

- It appears that the deepwater golden crab (*Chaceon fenneri*) is extremely similar to the deepwater red crab found off New England (*Chaceon quinquedens*). Both are members of the *Geryonidae* family and are comparable in their life history, the small scale of the fishery, and how it is conducted. In 2006 and 2007, the TAC for red crab was set at 5.928 million lbs. We would like to request that the SSC closely examine similarities between the two fisheries when considering an ACL for golden crab.

For these reasons, we believe an appropriate and sustainable ACL for this underdeveloped fishery must be higher than recent landings. We suggest an ACL of 5 million lbs. We also think it is very important for golden crab to have a new stock assessment. In addition, we are willing to explore ways such as cooperative research that can improve data and data collection methods. **We are committed to developing a thriving model fishery and being good stewards of the resource.**

Regarding management of golden crab, we are interested in exploring LAP program management for the golden crab fishery for five major reasons:

1) From the late 1970s through the end of the last century, a parade of 50 or more individuals and corporations, many but not all from Alaska, attempted to fish golden crab in U.S. waters. All without long-term success. However, significant fishing effort was expended by vessels as large as 180 feet in length, many hundreds of large, heavy traps and thousands of feet of connecting line were lost or abandoned, gear conflicts with local fishermen were numerous, and an ethic of "only the tough and ruthless should survive" prevailed. The impact on local fishermen was so severe that a 35 square mile sanctuary was established wherein only boats 65 feet or less in length could fish. With the implementation of ACLs in fisheries nationwide, we anticipate the possibility of a reenactment of the scenario as fishermen from other areas acquire golden crab permits through purchase or lease, engage in similar fishing practices and seriously disrupt the conservative and conscientious development of this small fishery. The livelihoods of historical golden crab fishermen who have consistently worked with the Council for the pursuit of prudent fishing practices would be endangered. Furthermore, coral habitat would be at risk if new entrants were unfamiliar with benthic habitat where golden crab are found, or even more serious, if they were uncaring about its value. A LAP program

would provide individual limits on the amount of crab that can be taken and eliminate the gruesome possibility of overfishing and the race to fish described above. Even if this extreme situation did not materialize, aggressive fishing effort by some new participants, especially after the establishment of an ACL, could decrease profitability of historical golden crab fishermen. A LAP program would prevent the development of this imbalance.

2) There are 11 permits in the South Atlantic Golden Crab Fishery. Each permit is specific to one of three zones, northern, middle, or southern, except that a middle or southern permit may be transformed into a northern permit. However, this process is not reversible; the permit remains a northern one regardless of the wisdom of making the change. Several fishermen own more than one permit, but are only able to fish one zone at a time if they own a single vessel, which is the case with all of us. The fact that permits can be leased, a somewhat cumbersome process which is not designed for frequent changes in participants, still does not allow fishing two zones at once. This is because only one permit may be assigned to a vessel at any given time. Buying an additional boat is not a cost-efficient option. A LAP program can be designed to efficiently provide the desired flexibility and control. Such a program could go a long way toward resolving the paradox that currently two zones are virtually unfished even though there are ample crabs in those areas.

3) We feel we can be better stewards of the resource by selling pounds under a LAP on a temporary basis instead of selling our entire permit in perpetuity to someone whose landings are relatively unlimited and may not care about the resource and habitat.

4) We would like the flexibility a LAP program offers so that boat repairs and illness do not interrupt our ability to make a living.

5) Establishment of a LAP could be coupled with increased affordable monitoring via paper trails, electronic logbook, etc. and result in overall improved enforcement of the fishery to ensure control over potential illegal fishing.

We thank the Council and SSC for giving us the chance to provide input into the process and appreciate our voices being heard. We would like to maintain our proactive and successful working relationship with the Council and see this as yet another opportunity do so.