

Points of Contact

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To: Roy E. Crabtree, PhD
c/o: Jack McGovern, PhD
NOAA Fisheries Service
Southeast Regional Office
Sustainable Fisheries Division
263 13th Ave. South
St. Petersburg, FL 33701

Re: Request for Exempted Fishing Permit for Golden Crab Research in the Gulf of Mexico.

Dear Dr. Crabtree,

This letter is a request of Brad Whipple and Howard Rau for an Exempted Fishing Permit (EFP) for the research project titled *Assessing harvest efficiencies and fishery viability for golden crab in the Gulf of Mexico*.

Proposed application period

October 2018 – October 2020

Objective

The purpose of this activity is to research the viability of a small-scale commercial golden crab fishing operation utilizing golden crab traps in the southeastern Gulf of Mexico. In order to determine if a golden crab fishery is a viable option in the Gulf of Mexico, this project will collect information on harvest rates, soak time, most effective trap style, bycatch and crab quality.

Golden Crab

The following description of golden crab is from the South Atlantic Comprehensive Ecosystem Based Amendment 1 (SAFMC 2010), which established golden crab allowable fishing zones, shrimp fishery access areas and the deepwater coral habitat areas of particular concern.

The golden crab, *Chaceon fenneri* is a large gold or buff colored species that inhabit the continental slope of Bermuda (Luckhurst 1986, Manning and Holthuis 1986) and the southeastern U.S. from off Chesapeake Bay (Schroeder 1959), south through the Straits of Florida and into the eastern Gulf of Mexico (Manning and Holthuis 1984, 1986; Otwell et al. 1984; Wenner et al. 1987; Erdman 1990). Reported depth distributions of *C. fenneri* range from

205 meters (672 feet) off the Dry Tortugas (Manning and Holthuis 1984) to 1,007 meters (3,304 feet) (off Bermuda (Manning and Holthuis 1986). Feeding habits are very poorly known. Golden crabs are often categorized as scavengers that feed opportunistically on dead carcasses deposited on the bottom from overlying waters (Hines 1990).

A submersible study in the eastern Gulf of Mexico (Lindberg and Lockhart 1993) found the greatest density of golden crabs (36.5 crabs/hectare) occurred on or near hard-bottom canyon features. Golden crabs occupy offshore oceanic waters along the Atlantic and Gulf of Mexico coasts as adults. Although abundance studies of golden crab are limited, the adult standing stock was estimated to be 7.8 million golden crabs and the biomass was estimated to be 6.16 million kilograms (13.6 million pounds) in the eastern Gulf of Mexico (Lindberg et al. 1989).

Offshore areas used by adults are probably the least affected by habitat alterations and water quality degradation. Currently, the primary threat to the golden crab population comes from oil and gas development and production, offshore dumping of dredged material, disposal of chemical and other wastes, and the discharge of contaminants by river systems (SAFMC 2010).

Most of the information and data on golden crab in the Gulf of Mexico is at least twenty years old. This project would allow for collection of new information on golden crab in the Gulf of Mexico.

History of the Golden Crab Fishery in the Gulf of Mexico

Historically, golden crab was fished in the Gulf of Mexico. In the early 1980's, golden crab fishing operations were occurring in the Gulf of Mexico, with vessels operating from Tampa and the Florida Keys. The late Bill Whipple, a red crabber from Massachusetts, and the father of applicant Brad Whipple, began trapping golden crabs in the Gulf of Mexico off the southwest coast of Florida in 1983 (Crosson 2013). In 1995, the Gulf Council considered developing a golden crab fishery management plan because of growing interest in the fishery. Effort in the Gulf of Mexico waned due to quality control issues and the ability to find a stable market for the product. However, in recent years, refrigerated sea water systems, trap technology, the stable ex-vessel value of golden crab, and increased market demand, have addressed many of the problems originally faced in the Gulf of Mexico golden crab fishery. With these changes and innovations, it appears that there is potential for a small-scale golden crab fishery to succeed in the Gulf of Mexico.

The golden crab fishery has operated successfully in the South Atlantic since 1995 with the implementation of the golden crab fishery management plan (FMP) (SAFMC 1994). The FMP established a limited entry permit system, golden crab fishing zones and other management measures. In 2010, golden crab allowable gear areas and the shrimp fishery access areas were established to protect deepwater coral pinnacles near the historic fishing grounds for deepwater shrimpers and crabbers. The successful implementation of South Atlantic Comprehensive Ecosystem Based Amendment 1 (SAFMC 2010) was due largely to the coordination and cooperation of the golden crab fishermen and the deepwater shrimp fishermen. In 2012, an annual catch limit of 2 million pounds of golden crab was established through the South Atlantic Comprehensive ACL Amendment (SAFMC 2012).

Currently, fish traps are prohibited in the Gulf of Mexico. This fish trap prohibition, began with Reef Fish Amendment 5 in 1994 which established a fish trap moratorium and a fish trap

endorsement (GMFMC 1993) The fish trap prohibition was finalized with Reef Fish Amendment in 1997 with the start of a ten year phase out period for fish trap use in the Gulf(GMFMC 1996). These amendments were implemented to ease law enforcement issues concerning legal fish trap use and to reduce pressure on reef fish.

Identification of the Problem

During the development of the original FMP for reef fish in the Gulf of Mexico (GMFMC 1981), exceptions were made in the definition of a fish trap for crustacean species that had historically been caught in the Gulf of Mexico, including stone crab, blue crab and spiny lobster. At the start of the Gulf fish trap prohibition, golden crab was not being actively fished in the Gulf of Mexico and an exception for a golden crab trap was not included in the regulations for the Gulf definition of a fish trap. However, golden crab traps are still listed on the list of allowable gear for the Gulf of Mexico. The current regulations (50 CFR §622.2) define a fish trap in the Gulf of Mexico as:

“a fish trap in the Gulf EEZ, a trap and its component parts (including the lines and buoys), regardless of the construction material, used for or capable of taking fish, except a crustacean trap (that is, a type of trap historically used in the directed fishery for blue crab, stone crab, or spiny lobster)”

The current regulations define a golden crab trap as authorized gear in the Gulf of Mexico 50 CFR §600.725(v):

Fishery	Authorized gear types
IV. Gulf of Mexico Fishery Management Council	
8. Golden Crab Fishery (Non-FMP)	Trap.

This EFP would provide an exemption to the fish trap definition (50 CFR §622.2) which supersedes the allowable gear list (50 CFR §600.725(v)) to allow for testing of golden crab traps in the Gulf of Mexico EEZ.

If we find that a sustainable golden crab fishery is viable in the Gulf of Mexico, we would go through the Council process to request an exception for golden crab traps be added to the regulations as allowable gear. If it appears that a sustainable golden crab fishery can be operated from the Gulf of Mexico, we may request the Gulf of Mexico Fishery Management Council to develop a fishery management plan for this fishery.

Collection Methods and Gear

This project would test the use of a line of traps, from 6-40 traps, baited with fish carcasses, set on the seafloor in the southeastern Gulf of Mexico, with soak times ranging from overnight to 17 days. Over the course of the project, the most traps in the water at any one time will be less than 100. Over the course of the project, we expect to set and haul our traps, a maximum of 60 times total. Each trap is marked on the GPS before deploying to ensure ease of finding the pot line when retrieving it. There are no buoy lines to the surface and the gear is set in muddy bottom

habitat. Sophisticated sounder technology is capable of identifying bottom characteristics that are suitable habitat (muddy bottom) for golden crab while avoiding coral patches that can destroy the fishing gear.

Location, Trap Type, and Frequency of Collection

Sampling will be conducted between of 25 and 28 degrees North, between 83 and 84 degrees West in depths ranging from 1800 to 2600 feet. This area is outside the Flower Garden Banks National Marine Sanctuary and the Florida Keys National Marine Sanctuary.

We plan to test a few variations of golden crab traps including:

- 40 traps, rectangle, 2'x3'x4', 1.5" square mesh around a rebar frame, 2 8"x8" top funnels, 3"x4" escape gap
- 8 traps, square, 6'x6'x2' steel frame, 4" mesh, 4'x6" side entrance, 3"x4" escape gap
- 8 traps, round, 6' diameter bottom tapered to 4 ½' top, 3' top entrance, 4" mesh, 3"x4" escape gap
- 8 traps, rectangle, 4'x3'x2' 1 ½" square vinyl coated wire mesh, 9"x9" top entrance, 3"x4" escape gap

The golden crab traps will be set at depths of 1500-2200 feet, which is outside the range of any other fishery operating in the area. We will use radar, AIS, and VHF to avoid potential interactions with other fishermen such as shrimpers and longliners who may be operating in the same area. We will also certainly precede to any vessels operating in currently regulated fisheries in the Gulf of Mexico.

Bycatch and Protected Species

The target species is golden crab. Incidental species expected to be harvested are red crab and isopods. Over the course of this project, we expect to harvest 30,000 – 50,000 pounds of golden crab, less than 5,000 pounds of red crab, and less than 10,000 pounds of isopods. All retained golden crab, red crab, and isopods will be sold. There will be no harvest of any currently regulated species in the Gulf such as reef fish or shrimp. If any of these species are caught, they will be returned to depth. However, due to the very low or non-existent bycatch of reef fish or shrimp, we don't anticipate this to happen.

Due to the depths at which the crab traps are set and the careful avoidance of deepwater corals, this project would not impact any of the listed or protected coral species in the Gulf of Mexico. The traps are set on the seafloor and there are no buoy lines to the surface, eliminating any potential entanglement hazards for marine mammals. Due to the depths at which the crabs are set and the bait used, no impacts to protected sea turtles is expected.

All traps have a biodegradable clasp on the doors to prevent ghost fishing in the unlikely event that they are lost. The project would not impact important fish habitat because traps will be set on mud bottom.

There is no anticipated impact on other fisheries, marine mammals, protected species or essential fish habitat during the duration of this project.

Record Keeping and Reporting

Data will be collected on every trip taken under this EFP. Data to be collected include location of trip, set and haul date and time, species harvested, bottom features, as well as information on any bycatch harvested. This information will be shared freely to the Gulf of Mexico Fishery Management Council and NOAA Fisheries. Landings information will be collected through the vessel trip ticket program when the golden crab are sold to licensed dealers.

About the Applicants

Brad Whipple has been participating in the Golden Crab industry in the South Atlantic since 1997, fishing from Key West to Fort Pierce. He is a member of the Golden Crab Advisory Panel and the Coral Advisory Panel and has worked extensively with the South Atlantic Council to promote the fishery, including habitat area of particular concern (HAPC) negotiations and other as well as other amendments. He has managed to establish his own export company, Captain Midnight Seafood, which has been instrumental in dramatically raising the ex-vessel value for Golden Crab. His fishing activity over the years, in addition to not losing any gear, has resulted in retrieving miles of line and hundreds of traps of ghost gear, leftover from the “gold rush” years of the fishery in the late ‘90’s. Brad’s goal has always been to continue to develop a responsible, sustainable, and valuable fishery.

Howard C. Rau, Jr. graduated from the University of South Florida in 1974. He immediately began operating his own vessels in commercial fisheries in Florida including fish trapping, swordfish, lobster, and golden crab. In 1990 he took an opportunity to engage in the fish trap fishery in Honduras with his boat, the Joyce Lynn II. That experience led him to become an advisory manager to boats fishing fish traps in the Bahamas. In 1992, Howard dedicated the Joyce Lynn II to golden crab fishing in the South Atlantic. In 1995 and 1996, he worked closely with the South Atlantic Fishery Management Council in implementing the Golden Crab FMP. From 2007 to 2010 he worked with the Council to develop Allowable Golden Crab Fishing Zones within the Deepwater Coral HAPC. And he continues to work with the council as Golden Crab Advisory Panel Member. He currently manages the F/V Pot Luck in the South Atlantic Golden Crab fishery and has built a new vessel, the Erica Frances, to fish Golden Crab in the South Atlantic Southern Zone.

Vessels to be Used in Project

Cape St. Mary's II

FL3897RL

Key West, FL

DeepSeaGold, LLC

Bradford Whipple – owner, Captain

4501 SW 44th Ave

Fort Lauderdale, FL 33314

Jason Wells – crew

F/V Erica Frances

638529

Fort Lauderdale, FL

Howard Rau – owner

1673 NE 36th St.

Oakland Park, FL

33334

Tim McGurl - Captain

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