2018 DEEP-SET BUOY GEAR (DSBG) EXEMPTED FISHING PERMIT (EFP) ACTIVITY REPORTS

The attached activity reports were submitted by the following DSBG EFP holders for the 2018 fishing season (listed in order of date received):

- Nathan Perez (F/V Bearflag 2)
- Daniel and William Fuller
- Fred Hepp (F/V Plumeria)
- Andrew Rasmussen (F/V Sundowner)
- Ben and Jack Stephens (F/V Tres Mujeres, DEA)
- Michael Graves (F/V Fishtail)
- Chugey Sepulveda (PIER)
- John Ford (F/V J-B)
- David Haworth (F/V Elizabeth H.)
- David Haworth (F/V Pacific Horizon)
- John Foster (F/V Chula)
- David Hutto (F/V Terlingin)
- Matt White (F/V Lil Jack)
- Scott Breneman (F/V Circle Hook)
- Ron Ellis (F/V Defiance)
- Kent Jacobs (F/V Patricia J)
- Raymond Kennedy (F/V Rainman)
- Steve Mintz (F/V DJ)

BEAR FLAG 2 2018 DSBG FISHING REPORT

During the 2018 fishing season F/V Bearflag 2 made 57 DSBG sets. We caught 98 swordfish, 1 escolar, xx brown thresher sharks, and xx blue sharks. Out of the 57 sets made, 20 were observed. This gave us 35% coverage.

Outfitting the boat to fish DSBG takes a bit of engineering and is a substantial investment. Adding linked DSBG is another expensive piece of equipment that requires even more engineering. It is more expensive to install the gear than to buy the equipment because of the amount of man hours necessary to properly install it.

Gear tending is fairly easy as long as the weather is nice (15 knots or less). It takes under an hour to set, and about an hour to retrieve the ten pieces of DSBG. With proper flags and radar reflectors, it is easy to see the gear visually and on radar. With the strike indicator buoy, it is obvious when you are hooked up. It would be feasible to fish up to 20 buoys if you have the proper gear, and this would increase the daily catch rate. I would not suggest fishing with three hooks on one DSBG line, because the liters wrap around the main line and get tangled.

Productive fishing areas can be small at times, so the ocean can become a tight parking lot with multiple boats and buoys. This makes it hard for all vessels in the area to navigate the waters. Making this fishery a limited-entry fishery would help reduce these problems in the future.

In order to make this fishery viable, some adjustments need to be made to increase productivity. As of now, with a 1.7 average daily swordfish catch rate, and the low price due to imports, this fishery will become a sport style-fishery like harpooning, and not a commercial-style fishery like the drift gill net. A more prosperous swordfish season would result from the development of a night-time fishery to harvest swordfish, and would also allow fishermen to set 20 sets of gear rather than 10. I hope this report and others like it will help develop this fishery into a sustainable and viable alternative to fishing swordfish on the west coast.

Thanks,
Nathan Perez
F/V Bearflag 2

Deep Set Buoy Gear Summary Report for *F/V AUDAX* for 2018

Executive Summary

The exempted fishery permit for Daniel and William Fuller to fish deepset buoy gear targeting Swordfish in the southern California bight was approved by the council in September 2018. Once receiving approval efforts were initiated to outfit the vessel, purchase equipment, and build the gear necessary to participate in the fishery. This included the design and construction of high flyers, the design and construction of the float lines, construction of the branch lines, main line, and filling the aluminum spools.

Due to inexperience with the gear, initial fishing was done with 5 pieces in total, utilizing only one branch line per piece. This provided the opportunity to evaluate methods for maintaining contact with the gear per the regulations outlined in the permit, as well as to reduce the probability of tangles. This approach was also beneficial in configuring stowage plans for the gear while utilizing other gears concurrently. After four trips the crew is now comfortable with the gear management protocol and the plan is to increase the number of pieces of gear during 2019 fishing activities.

Between November 10 and December 30, 2018, a total of four 1-day trips were undertaken. The exempted fishery permit requires having the first 10 fishing days observed and observers were carried on each of the four trips for a 100% coverage rate. The average trip duration was 12 hours (range: 11:10 – 12:45) and the average set duration was 3:35 (range: 1:20 – 3:50). Total hook hours were 93:08. Squid was used for bait in all but 2 sets where mackerel were used. While it has been documented that mackerel can be an effective swordfish bait, it appears that the tangle probability is increased and under the conditions experienced mackerel didn't appear to fish as effectively.

Gear configuration

Construction of the gear was time consuming as there is little information available on what appears to be the most effective configuration. Initially we loaded 900' of 2.5 mm mainline on two spools and 1000' on 3 spools. From the weighted ends, marks we placed every 25 feet so that baits could be deployed at specific depths depending on conditions. Eight-pound lead weights were attached to the terminal end of the line with a longline snap. To deploy the gear the lead would be dropped over the side allowing the line to spool out until reaching the desired depth where the branch line would be attached. Branch lines consisted of 30' 1.8 mm monofilament, crimped to a standard longline clip on one end and a Mustad 3998 16/0 hook on the other. Two lights are attached to the mainline approximately 3 feet above the branch line snap. At this point the boat begins moving forward at approximately 3 knots as the line is slowly payed out. Once deployed, the float line and hi flyer is attached to the mainline with a longline clip. Deployment usually takes between 5 and 8 minutes depending on conditions.

Careful consideration was given to the construction of the buoy (float) line as during the orientation process it was made clear that there had been issues with turtle entanglements. It was stressed that the buoy line should be as streamlined as possible to avoid any future such incidents. A longline snap was spliced to the terminal end of 3/8 in blue steel polypropylene rope, which is used to connect the float line to the main line. The other end of the rope is fed through two 7-pound PVC floats (bite indicators), and knotted so that the floats are approximately 30 inches apart and can't slide up or down the line. A

clove hitch is then tied around the mounting hole of a 45 pound non-compressible float. The license number and vessel identification are painted on the non-compressible float in bold black letters and are clearly visible per permit requirements. Finally, a stainless-steel carabiner was spliced inline to make for easy attachment of the hi-flyer.

Due to the relatively small size and limited storage of the vessel, construction of easily stowable, yet highly visible hi-flyers was paramount. Several float configurations were utilized with the best being two 10 pound (7x14") PVC floats. The final design was modular and consisted of 10' of 1" aluminum tubing and 4 feet of ¾" schedule 80 PVC. The PVC floats were slid over the aluminum tubing with the bottom of the lowest float being approximately 30" above the bottom of the aluminum pole. A light weight radar reflector was attached to the pole near about 24" from the top, ultimately about 5' above the water. A strobe was also attached just below the radar reflector. A bright yellow flag was attached to the very top of the pole. Three and a half pound weights were connected to the bottom end of the PVC with a carabiner, allowing for quick attachment. About 12" of the PVC is inserted into the aluminum pole, so that the weight is approximately 4.5 feet below the floats. This seemed to give ample stability and provided easy deployment and stowage. However, while there was little trouble seeing the hi-flyers either through Fujinon gyro-stabilized binoculars (12x40) or radar, it seems reasonable to modify the float location so that the flag, light, and radar reflector are as high as possible above the water. These trials will be conducted in the early summer of 2019.

The initial investment was approximately $6000, which included the installation of the reel, Hi-flyer construction, bite indicators, non-compressible floats, line, hooks, longline snaps, crimps, and materials for constructing the hi-flyers. It will cost about an additional $1500 to construct five more sets of gear.

Observer Coverage

Four trips were undertaken and all four observed.

Fishing Summary

All fishing was conducted during daylight hours and gear pulled well before sunset. Swordfish were captured during 2 of the four trips and several other bites were noted and swordfish were not hooked. There was no interaction with any non-target species, however Meineke whales were observed in close proximity to the gear on two occasions. During trip two on 11/17/2018 at approximately 1500 we encountered a piece of buoy gear belonging to another vessel. The area was searched and when it was clear that there were no other pieces of gear, nor any vessels in the area, several calls were placed on VHF channel 16 to notify the owner. After some time it was clear the gear was lost and after conference with the observer the decision was made to recover the gear in order to return it to the owner. Fortunately, once on the beach, the owner was located and the gear was returned.

Future Considerations

To improve success and management of gear there are several things to consider. Firstly, invest time into stitching the hook into squid, and stitch the head to the mantel. This would improve durability of the bait during bill strikes. During our fishing efforts it was obvious when a squid had been struck by the bill of a swordfish and not hooked, as well as there being evidence on the leader. While certainly not a guarantee that a stitched bait would have hooked a fish, we feel it would have increased the chances. Secondly, continued evaluation of a low cost gps tracking device for maintaining contact with the gear.

Several options were evaluated prior to the initiation of fishing but all were far to expensive. The ideal technology would be a satellite buoy such as those manufactured by Satlink or Marine Instruments, however each buoy is nearly $2000 and one would need the ability to communicate with the buoy, which generally requires internet connectivity. AIS buoys were considered as well, but apparently USCG has deemed their use not appropriate for this activity. Radio call buoys were also a consideration, but the buoys are relatively large and cumbersome and the equipment to communicate with them is quite expensive. Investigation of a cost-effective tracking system will continue into 2019 as it will greatly increase the ability to fish two gear type concurrently. Finally, the height of the hi-flyer should be as high as feasible and the flags should be black. While the hi-flyers were easily visible, improvement could be made to our design.

To whom it may concern,

My name is Fred Hepp and I have an highly migratory species exempted fishing permit for swordfish on my F/V Plumeria 599359. I made 10 trips this year for swordfish , 9 of the trips were with buoy 1 trip was harpoon. I caught 1 swordfish on buoy gear and lost one. I also harpooned a swordfish. I am based out of Santa Barbara and most my trips were fishing around the northern Channel Islands.

My first 3 trips were fishing behind Anacapa and Santa Cruz Islands primarily getting used to the gear and the current drifts. We caught no swordfish and saw no signs of swordfish while looking. I figured it was early and the fish had not shown up yet as this was in June and July. On my fourth trip again behind Santa Cruz and anacapa island we had warm water 72degrees and again did not catch or see a swordfish. But we did entangle a sea turtle in our buoy line. We gently lifted turtle up in a net took pics and returned it to the ocean and it swam off. Did not think anything of it.

After my trip I was placed on probation and not allowed to fish for approximately 6 weeks which was historically prime time in the season. I was asked to alter my buoy arrangement which I did. And was told I would need an extra 4 days of coverage after initial 10 days of observer coverage. I did not see this as a big deal til after the fact. I heard other boats were upset with me for trying to close down the fishery. Then I found out that several of these other boats did not have streamlined arrangements of their buoys and were still out there fishing. I believe my turtle entanglement was a rare occurance hopefully the gear is better now.

Our fifth trip was a three day trip again behind Santa Cruz and Anacapa islands for nothing. Conditions were good, again buoy fishing and visually looking for swordfish.

Next trip we fished new area behind Santa Rosa Island we had good weather and had life in the water seeing, marlin and bluefin tuna. We had fish on and lost it while pulling it in good excitement but no fish . Next day wind blew us out of that area and we fished behind Santa Cruz Island. We ended up catching a 120lb fish. Nice.

Next 2 day trip fished same area as last trip but no fish. Had tough fishing in open ocean and fog. Locating buoys was tough as you could not see buoys visually or by radar if they went behind swells.

We fished another 2 day trip behind Santa Cruz Island again for no fish. Then did trip down off Point Dume 2 days for no fish but conditions looked good!

Our final trip was harpoon trip only and we harpooned one 120 lb swordfish off anacapa.

Our observer coverage was 15 days covered out of 18 days fished over 80 percent coverage.p I felt the observer was easy to get along with and did not interfere with our operations. I do think you could achieve the same info with a mounted video camera for each boat. But again it worked out for me just fine with observer on boat.

I did not have a logbook for the first 4-5 trips but during those trips I did have an observer. I was told I was okay long as observer was on board. Once I did have log book I did turn things in.

I did not have great success this year with swordfish catch in 18 days I caught one and lost one swordfish. I was able to visually look for harpoon swordfish while deploying buoy gear. There was only 2 occasions where I saw another boat, and neither time was there a gear conflict. I see there are boats

fishing in the protected waters off the Southern California bight that did pretty good. But there is lots of ocean to fish north and west of the northern Channel Islands.

One of the problems we had was that sometimes the leaders would get tangled especially if there was more than 1 leader per line. One of my thoughts would be to use two flags and put 5 hooks in between. The benefit would be having more hooks placed at depth with the same number of buoys/flags being used.

Overall thought it was a great way to enhance your harpoon swordfishing felt like everyday on the water I was going to have a chance to catch fish. I also knew I could go south and go where I heard guys were getting them but I figured I should try the area around here. The observers said we were basically doing the same thing as boats down south, I just think some years the fish do not move up to certain waters as each year things are different.

Fred Hepp

12/26/18

To Chris Fanning
NMFS West Coast Region

This is the 2018 final report for Andrew Rasmussen deep set buoy gear permit #628101 .

I made 4 trips for a total of 10 days that buoy gear was set . All 10 sets were observed for 100% coverage .I also set a drift gillnet 4 times . I didn't land any fish on buoy gear ,I had 1 200 lb swordfish to the boat and the leader broke .

I made 1 more swordfish trip, because of distance traveled to Santa Barbara Island I spent all day light hours traveling except one day that was to foggy I never set buoy gear , only drift gill net .

I reported that I was going to make another trip, but due to weather trip was canceled .

End of season buoy gear total 10 sets 100% observer coverage .

I don't have an analysis of data collected.

My conclusions are that it will be difficult to make a living in this fishery ,I will have to run all 10 sets of gear probably hire a crew .

My vessel is well suited for this fishery , but I only have room for 2 persons on board so when I take an observer I cannot take a crew . For this fishery to work the goal should be to that after the second year to address this problem .

Andrew Rasmussen
tshark7@cox.net
226 Los Alamos ave
Santa Barbara Ca. 93109

This is the annual report for DSBG fishing efforts under the EFP issued to Ben and Jack Stephens pertaining to the F/V Tres Mujeres (33ft. trawler) and DEA (24ft. trailerable skiff)

In 2018 F/V Tres Mujeres engaged in 14 days of fishing effort using traditional DSBG targeting swordfish. 14 sets were made using 10 pieces of gear each day for each set (some were hauled and re-set). Each piece mainly used a single hook at bottom of gear configuration. Out of a total 150 pieces set, only 2 pieces used a 2 hooks configuration (1 at 200m and other at 300m). No fish were either hook nor landed on the 2 hook configuration. Squid was the primary bait used on 99% of the pieces of gear. Only 2 pieces used something different, an artificial lure and mackeral.

During the 14 total days fished, there were 11 days of observable coverage which amounted to 79%. Labor Cost of observers was covered by NMFS. Of those 14 days, 21 fish were hooked and only 16 swordfish were landed. 5 swordfish and 3 other species (1 sleeper shark and 2 brown threshers) were released alive.

The gross revenue from swordfish was $9,175.30 and $0 for other species.

Overall primary gross operating expenditures were $5402.59 which included fuel&oil, bait, crew, food (observer included).

Start-up cost (added hydraulics, reel, buoys, flags, line, weights, terminal tackle, etc.) amounted to $9,010.19

*Total first year **Revenues: $9,175.30 ($573 per fish average price)**

Total first year **Expenditures: $13,041.29**

In 2018 F/V DEA engaged in 10 individual days of fishing effort using traditional DSBG targeting swordfish. 10 sets were made using 10 pieces of gear. Each piece of mainly used a single hook at bottom of gear configuration. Out of a total 100 pieces set, only 4 pieces used a 2-hook configuration (1 at 200m and 1 at 300m). No fish were either hook nor landed on the 2-hook configuration.

During the 10 total days fished, there were 8 days of observable coverage which amounted to 80% coverage. Labor Cost of observers was covered by NMFS. For those 10 days, 26 swordfish were hooked and only 18 were landed. 8 swordfish and 1 brown thresher were released alive.

Overall gross expenditures were $4254.12 which included fuel&oil, bait, crew, food (observer included)

The gross revenue from swordfish was $8,649.40 and $0 for other species.

Start-up cost (added hydraulics, reel, buoys, flags, line, weights, terminal tackle, etc.) amounted to $8,710.19

*Total first year **Revenues: $8,649.40 ($481 per fish average price)**

Total first year **Expenditures: $12,964.31**

**NOTE: revenues were not nearly as high as projected due to both smaller than average size of fish landed and market price lower than expected.*

In analyzing the data from both vessels and comparing their efficiency and effectiveness from a short fishing season it can be determined there is no significant difference between operating a 33 ft. vessel compared to a 24ft. vessel while targeting swordfish using DSBG. Though, because of such a short fishing season for both vessels and that both vessels operated from the same port fishing the same grounds, it is difficult to make a complete comprehensive conclusion as to which vessel is more efficient. Additionally, due to the high first year expenditures of the start-up cost, the overall economic viability should be looked at after a longer second season has been fished in order to get a better cost analysis of operations.

Based upon catch record, the potential might exist for using a small trailerable vessel the entire coast of California, but because the SCB has consistently more favorable weather conditions the window of opportunity may be limited by that factor alone.

Moving forward, we would like to continue to pursue fishing the standard DSBG in 2019 in order to record further data that will help determine the economic viability of using standard DSBG to target swordfish using smaller fishing vessels.

Ben Stephens

Jack Stephens

F/V Tres Mujeres & F/V DEA

FINAL REPORT FOR DEEP SET BUOY GEAR 2018

PARTICIPANT MICHAEL GRAVES VESSEL FISHTAIL
DOC# 1030136

ALL TRIPS WERE STARTED AND ENDED AT SANTA BARBARA HARBOR. BOAT AND CREW MADE 6 TRIPS WITH 100% OBSERVER COVERAGE. TOTAL OF 2 SUNFISH LANDED - 1 LOST - 1 THRESHER SHARK LANDED AND 4 RELEASED SAFELY AT BOATSIDE BY CUTTING LEADER. SEEING GOOD POTENTIAL IN THIS FISHERY AND HAVE BUILT MORE GEAR AS WELL AS MODIFIED VESSEL TO SAFELY STORE AND DEPLOY GEAR AS WELL AS ADDING A SYSTEM TO SAFELY LIFT AND DRAG FISH ABOARD.

SAW 3 OR 4 OTHER BOATS THAT I BELIEVE WERE FISHING DSBG GEAR BUT DID NOT GET CLOSE ENOUGH TO SEE THEIR GEAR OR VESSEL NAME. TWO OR THREE GILLNET BOATS WERE ALSO IN THE AREA TOWARDS THE LATTER PARTS OF MY EFFORTS.

ALL IN ALL IM VERY INTERESTED TO WHAT THIS NEW SEASON MIGHT HAVE IN STORE AND HAVE A BETTER UNDERSTANDING TO WHERE THESE FISH MAY BE AROUND/FOUND

TWO THINGS I WOULD LIKE TO ADRESS IS 1. THE ADDITION OR ALOWANCE OF DIFFERENT BAITS AND 2. MAYBE A MORE REFINED DATA LOGBOOK TO ALLEVIATE THE NEED OF A FEDERAL OBSERVER AS IM QUITE SURE MY BOAT IS THE SMALLEST AND LEAST AMOUNT OF SHAREABLE SPACE, ESPICIALLY WHEN IM DECKING POSSIBLY MULTIPLE FISH, NO DISRESPECT TO ANY OF THE GUY'S WHOM IVE HAD ABOARD THEY HAVE ALL BEEN RESPECTFUL AND SOMETIMES KNOWLEDGEABLE TO THE TASK AT HAND

WOULD ALSO LIKE TO ADRESS MY GRATITUDE TO THE PEOPLE WHO HAVE MADE THE STEPS TO ALLOW AND MAINTAIN THIS FISHERY — THERE IS NO FISH LIKE THE SWORD FISH

REGARDS, M. Graves

Pacific Fisheries Management Council Summary EFP Report

2015-2018 PIER Deep-Set Buoy Gear and Linked Buoy Gear EFP Updates

Preliminary Summary- May, 2019

EFP Holder/Manager: Chugey Sepulveda, PhD; Pfleger Institute of Environmental Research, PIER www.pier.org

Report Prepared by: Chugey A. Sepulveda, PhD & Scott A. Aalbers, MS

PIER EFP background and progress to date: In 2018, PIER managed two groups of cooperative fishers operating under exempted status to test deep-set fishing gears for swordfish off the California coast. This update reports on exempted fishing trials performed using both deep-set buoy gear (DSBG) as well as linked buoy gear (LBG). As reported previously, all fishing gear configurations were assembled by the EFP manager based on standardized designs that were previously tested during NOAA sponsored research trials. Cooperative fisher training sessions were performed onboard the PIER research vessel according to EFP terms and conditions. All cooperative fishers were issued vessel logbooks, EFP documentation and observer staffing protocols prior to the initiation of fishing activities. Vessels were mandated to carry NOAA certified observers on initial fishing trips and maintain a minimum coverage rate of >30% over the course of the PIER DSBG EFP. Observer coverage mandates for LBG in 2018 were set at 100% by the NOAA WCR.

DSBG EFP Fishing Effort (2015-2018): Despite cooperative fisher interest in DSBG deployments above Point Conception, all DSBG fishing effort to date continues to be focused from the Channel Islands (~34°N) to the Mexican border out to ~100 nautical miles (~120°W). As with past years, the distribution of effort has likely been influenced by proximity of fishing grounds to homeport of the EFP participants. As discussed in the 2017 report, spacing of effort throughout the deployments was patchy with monthly

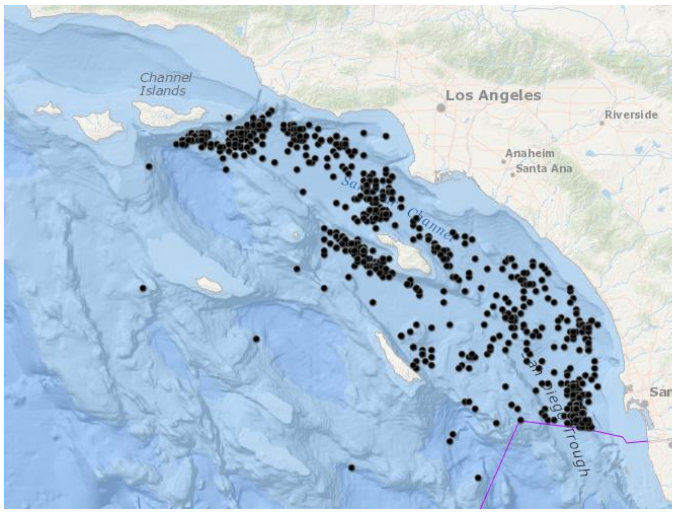

Figure 1. PIER DSBG-EFP effort map over the 2015-2018 fishing seasons.

clumping of effort in areas of high productivity.

During the 2018 fishing season, 236 DSBG sets were made by five vessels bringing the total number of DSBG sets performed under the PIER DSBG EFP to 979. In 2018, the average trip duration was 4.0 days with nearly all fishers deploying a full complement of 10 pieces of gear/set. To date there have been more than 9,578 pieces of DSBG deployed during the PIER EFP efforts. There was one set of gear reported missing during the 2018 season but it was found the following day by another DSBG EFP fisher. Thus over the course of the PIER EFP history only one piece of DSBG has been lost due to a mechanical failure during the 2016 season.

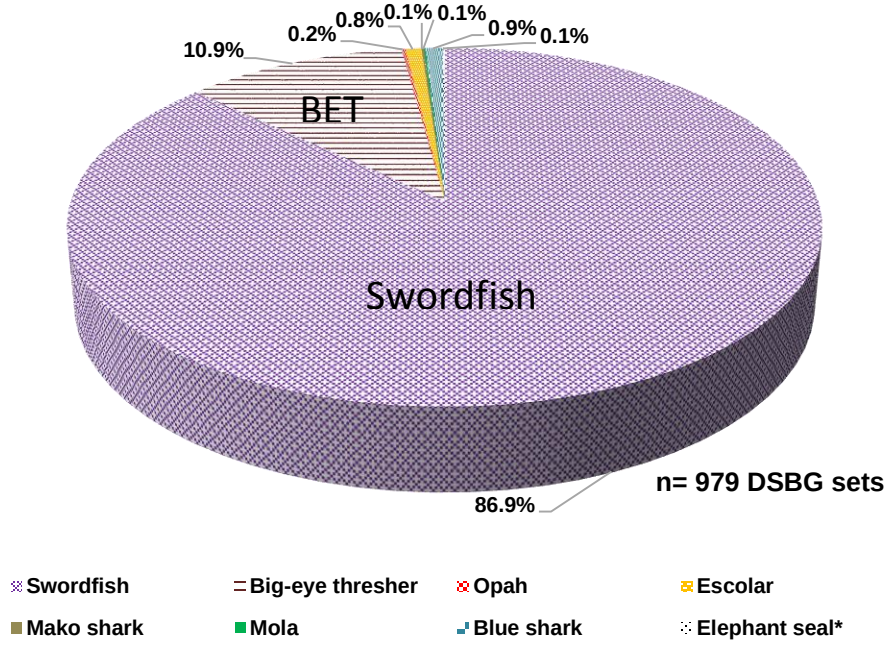

***Figure 2**:* Catch composition of six commercial fishing vessels targeting swordfish using deep-set buoy gear (DSBG) under the PIER DSBG EFP over the course of 979 set days off southern California from 2015-2018. *Released alive and alert

Fishing effort in 2018 decreased to 15,939 hook soak hours from a high of 23,014 hook soak hours during the 2017 season. Decline in DSBG effort is, in part, due to the transition of two DSBG EFP participants to the LBG EFP as well as market dynamics (see Market discussion below).

DSBG Catch: To date, the PIER-EFP has landed 1,425 swordfish over the course of 842 standardized 8hr fishing days (approximately 66,895 hook soak hours). Overall, swordfish have comprised >87% of the catch, with bigeye thresher sharks making up an additional 11% (Figure 2). Catch of other marketable species consisted of opah, escolar and mako sharks, with minimal catch of other non-target species (<1%). To date, DSBG EFP and research trials have resulted in similar catch composition across all years (2011-2018). Two observed interactions with northern elephant seals have occurred during the PIER DSBG EFP trials (2016 and 2018) as well as a single

interaction during DSBG research deployments. For all interactions, strike detection assisted in expediting release and individuals were reported to be in good condition (alive and alert).

Target catch rates have varied by vessel and year, with mean annual catch rates ranging from 1.27 to 1.95 swordfish per standardized 8-hr set day and non-standardized catch rates from 1.03 to 1.71 swordfish per fishing day. Average daily catch rates in 2018 were similar to 2015 catch rates and lower than both the 2016 and 2017 seasons.

DSBG EFP Observation: The PIER DSBG EFP observation rate consistently remained above 30% for all vessels throughout all seasons (2015-2018). Overall mean observer rate for all years combined is 38%. In 2018, Observer placement and staffing was handled by the NOAA West Coast Region. As with previous seasons, all vessels were required to check in and out with NOAA, CDFW, and PIER to report trip dates and number of days fished.

To more accurately assess non-observed trips, catch and bycatch were reported daily to PIER via a mandatory call in/text procedure and verified through observer, logbook and landings records. Since 2016, all swordfish were also tracked using traceability tags that allow markets to verify vessel and captain of marketed catch.

Deep-set Linked Buoy Gear (DSLBG) Exempted Fishing Permit Report (2018): Exempted LBG trials commenced in September of 2018 following final approval and EFP issuance through the NOAA west coast region. Upon execution of the LBG EFPs, PIER assisted with the rigging and outfitting of three cooperative vessels. The research team also provided some initial training either aboard the PIER vessel or the cooperative platform. The delayed start (September/October vs June/July) of the LBG fishing season coincided with an already suppressed local swordfish market. This resulted in a relatively low starting price for LBG caught swordfish (See market dynamics below), which contributed to reduced LBG fishing effort during the 2018 season. Additionally, because fishers were mandated to have 100% observer coverage on all LBG trips, operators at times opted to use DSBG instead of LBG to avoid having to call in an observer for any last minute trips. Lastly, delays associated with the mid-season gear transition and crew training may have also contributed to reduced LBG fishing effort in 2018.

Between September 2 and December 14, 2018, three EFP vessels made a total of 28 LBG sets on seven directed trips. A total of 246 LBG sections containing 738 baited hooks were soaked for a total of 171 hours. Twenty of the LBG sets consisted of a full complement of 10 LBG sections, including 30 baited hooks, while the remaining eight set days included a combination of both

DSBG and a partial complement of between 3 and 7 sections of LBG. LBG sets occurred between Santa Cruz Island and the Mexican border.

LBG Catch: Catch on LBG EFP sets consisted almost entirely of swordfish (96%; n=28) along with a single mako shark. All LBG catch was marketable and no catch was released or discarded. Although comparison of catch rates between LBG and DSBG are premature due to the limited number of LBG EFP sets to date, initial daily swordfish catch rates on LBG are similar to initial DSBG catch rates (~1 swordfish/day). Differences in gear configurations, crew familiarity and other variables between LBG and DSBG also confound comparisons at this time. We anticipate increased LBG effort during the 2019 fishing season now that EFP vessels have been properly outfitted and are familiar with LBG setting and haul back procedures.

Catch Composition: Although the PIER LBG EFP did not have any non-marketable catch during the 2018 trials, these data are preliminary and were collected over a small window of time during a single season. A more comprehensive comparison of catch composition can be obtained by comparing the PIER research set data to that of the DSBG EFP operations. These comparisons suggest that LBG and DSBG catch composition has been similar over multiple seasons (2015-2018; see PIER research summary report).

PIER LBG EFP Observation: Based on NOAA WCR mandates for the 2018 season, all LBG EFP vessels carried a NOAA observer on all trips in which LBG was deployed (i.e., LBG trips were 100% observed).

Market Dynamics: During the 2018 season DSBG and LBG price was consistently lower than that received in previous seasons. Market price started lower in 2018 than in previous years despite the lack of domestic swordfish product available from other sources (i.e., the Hawaiian longline fleet was not fishing and DGN fleet did not have significant early landings). Initial DSBG landings were received at around $7.00 to 7.50 and price continued to fall as the season progressed even prior to any considerable landings from the DGN fishery or other DSBG vessels. In September/October, fishers experienced a further reduction in domestic swordfish price, which fishers attributed to an increased import volume from several different countries. Similar to previous seasons, DSBG fishers considerably reduced fishing effort when price per pound dropped below ~$5.00. Another notable trend was the poor market for small swordfish (<100lb), which resulted in fishers struggling to sell a portion of each trips catch.

EFP Outreach: Throughout the EFP trials, PIER has worked with cooperative fishers to communicate EFP progress, summarize logbook data, place observers on vessels, and provide

routine reports to HMS managers. In addition, PIER has continued to refine gear designs (DSBG and LBG), assess stock structure and address other research questions that relate to swordfish and other HMS species, including the post-release survivorship of bigeye thresher sharks captured on DSBG and LBG. PIER will continue to provide updates to the community, PFMC, and the HMS Management Team & Advisory Subpanel throughout the duration of DSBG and LBG EFPs.

To NMF:

I Started fishing the DSBG in December 2018. I Had a 100% observer coverage for all of my DSBG sets. The observers also observed the Drift gill net sets that were set on the same fishing trips. All of the observers were great to have on board and were very helpful.

I went fishing with the intent to use the drift net and the DSGB at the same time. My thought was to locate the fish in the day time with the DSBG and then fish the net at night. I consulted my sea surface temperature satellite images before leaving and knew the area I wanted to fish with both types of gear. Most of my sets were from Point Loma to the south end of San Clemente Island. I used artificial squid lures the first trip then switched to frozen squid for the remainder of the sets. I used green and blue strobe lights as that was working well in the net at the time. I had one hook at 1000 feet with a thawed squid on.

At this time I have still not caught a fish with the DSBG set up. I was very hopeful to catch a fish with this set up as I fished the gill net in the same areas and came up with fish every night. I may have had one bite as one of the squid looked a little torn but nothing solid.

I think that this may be a fishery that takes some patience and has a learning curve to get the gear set right. I had a few tangles when the hooks came up they were wrapped around the main line and looked to not be fishing well. I had a break down with my DSBG reel and was unable to fish the reel anymore after pulling an abandoned long line that I drove by and that ended my 2018 DSBG season. I am confident and looking forward to catching fish in the 2019 season.

John Ford F/V J-B

Nicholas Haworth

David Haworth

F/V Elizabeth H.

EFP Report

On the fishing vessel Elizabeth H., we conducted ten sets with 100% observer coverage, and an additional five sets with zero observer coverage. During these fifteen sets with 66.7% observer coverage throughout, we caught twenty swordfish.

We really enjoyed fishing buoy gear over our short summer season. It served as a good supplement during the interim between other fisheries. It was a fun fishery, which almost reminded me of sportfishing. However, looking at it objectively as a commercial fishery, we did notice a few things that could use improvement. There is far too much downtime; we are a family of fishermen, and only working ten sets of gear will just not make people enough money. Of course, in ideal conditions, with spectacular fishing,ten sets of gear would be profitable, but that is rarely, if ever, the case. When fishing is slow, during early or late season, we simply need to have more gear to fish. Ten sets of gear arejust not enough to work with to make any profit. The concern of gear loss on some boats is understandable; however, thisis a completely avoidable issue.With recent advancements in technology, we currently use buoys that give us real time data for location, drift speed, and temperature, with a 30-mile range. In short, losing a buoy or even losing track of a single buoy for any length of time is nearly impossible.

Another issue that is hindering our success is our inability to fish after sunset. Oftentimes the swordfish bite very early or very late in the evening, and it makes it almost impossible to have the fish onboard by sundown (swordfish at times takes hours to tire out, even with multiple weights attached to them). I am extremely confident that being able to have gear in the water before sunrise and after dark would increase our chances of catching swordfish, while having no effect on bycatch. As the fishery grows the aforementioned tracking buoyswould be the best optionto reduce the amount of lost gear.

I recommend that you open your mind to the ideas I presented above, and seriously consider allowing the limit of a mere ten buoys to be increased. Southern California's history has been deeply influenced by the commercial fishing culture. This livelihood is a slowly dying trade, andthe needs of the remaining fishermen need to be heavily taken into consideration. If you really want fisherman to survive and be able to live in Southern California basing their income solely on fishing buoy gear, it simply cannot be donewithten buoys fishing duringa mere eight hours of daylight. These limitations are too extreme and unrealistic to survive in the economic climate of Southern California. We currently have the technology to have a tracking buoy on each of our ten floats; there is no possibility for loss. I think it would be beneficial data for this newly expanding fishery as well as all buoy gear fishermen if you would consider a trial period in which the Elizabeth H. fished a total of fifteen floats (instead of the standard ten), and toable to fish these floats 24 hours a day.

Please contact Nicholas or David Haworth with any further questions.

David Haworth
Nicholas Haworth
F/V Pacific Horizon

Linked and Deep Set Buoy Gear Report

Fishing Effort – On fishing vessel Pacific Horizon we spent two days fishing both Deep set buoy and linked gear. During our fishing efforts we experienced 100% Observer coverage. We managed to catch one swordfish each evening on the Deep Set gear, while catching nothing on the linked gear.

Analysis – With both our fish being over 200lbs we ended up grossing around $2500 dollars. Which paid for our fuel and bait but with fishing on such a large vessel 6 normal crew members, we could not afford to continue our fishing efforts due to decent fishing offshore. We did enjoy seeing that the fishery was very clean with no bycatch involved, but it seems to be on to small of a scale for a vessel of this caliber, with such high fuel bills, crew, insurance, and satellite imaging costs it is hard to survive on either 10 buoys or 30 linked gear hooks.

Recommendations – Two things I would like to see as the fishery develops is the ability to fish more gear, and to be able to fish at night. During times of slower fishing it would be nice to be able to fish more gear. Especially with a larger boat it is quite easy to handle 10 buoys or one set of linked gear. To Conclude: The fishery as a whole it is safe and clean for the environment, but it does not seem it can support a larger fishing vessel.

F/V Chula 2018- 2019 DSBG and Linked Gear Preliminary Report

The Chula fishing season for 2018-2019 began on June 22, 2018 and ended on January 29, 2019. During that time 121 sets were made using DSBG, 161 swordfish and 4 Escolar were landed. Of the total swordfish, 8 were landed by harpoon, not DSBG. Less than 10 Brown Thresher Shark were hooked and released live in good condition.

The Chula had over 10 sets of the Linked DSBG with observer coverage on all Linked DSBG sets. Observer coverage of Individual DSBG was done whenever Observers were available resulting in higher than average coverage rates.

It should be noted that 161 total swordfish landed in 2018-2019 is about one half the total number of swordfish landed on F/V Chula using a large mesh gill net during each of the past two seasons. I hope by implementing some of the recommendations from me and others that the Linked and Individual DSBG fishery will become as successful as previous less sustainable methods.

My recommendations for changes to the gear would be: 1. Limit the number of hooks per Individual Buoy Gear to one hook set at a depth greater than 300 ft. 2. Increase the number of Individual Buoy Gear allowed at any one time to 15-20. This would be allowed only on days when Linked DSBG is not used. When it is desirable to use both Linked and Individual DSBG the maximum number of total hooks allowed to be fished at any one time will be 30. The distribution of the hooks used on each type of DSBG would be at the discretion of the Captain. This would allow for the Individual DSBG, which is easier and quicker to set, pull, and reset, to be used to locate a body of fish. Then once located, the Captain has the choice to combine the two methods to maximize fishing efforts. The boat will still be required to be in visual contact and tending gear at all times.

Because of the combined use of both types of gear in this manner, and the difficulty of predicting what type of gear will be used on each trip, some type of flexibility is needed with regards to the current requirements for observer coverage on all Linked DSBG sets. For example, if a trip begins as Individual DSBG trip and an observer is not on the boat and a large body of fish are located while fishing with the Individual DSBG, current regulation requires the vessel return to shore and obtain an observer before the Linked DSBG can be used. This is an

extreme financial hardship and a waste of valuable fuel, for the Captain and crew to make. In this case it is very likely that the fish will move or other boats will move into the area before a return to the area with an observer can be made. It has also been my experience that at times observers are not available, particularly at the best fishing times when most boats are fishing. I am not suggesting any observer coverage at all for Linked DSBG, but instead, after a boat has made the mandatory 10 observed linked DSBG sets, perhaps the requirement for observer coverage on all sets could be applied with some flexibility so that Captains are able to make the best use of all gear available on the boat

It is also my recommendation to limit licenses for DSBG and Linked DSBG to individuals who are either an Owner/Captain of a boat and have made swordfish landings in each of the past 5 years either by Harpoon or Drift Gill Net.

John Foster
Captain, F/V Chula

Hello Chris,

Here is a brief summary of my 2018 DSBG EFP effort which started in September 2018 and ended 10/12/18 14 trips in all with 3 fish landed and 2 fish lost at the boat. I started with 5 sets of DSBG and I ended up with 8 sets on the last 4 trips. I used mostly squid for bait with an occasional mackerel my gear consistent at 1200' 6 and 8 lb lead 18° hook and two lights mostly blue in color. I set my gear where I saw a strong thermalcline at 900 ft to about 1100 feet with good signs of fish and bait, that is where I caught my fish and had several lost and damaged baits. I did not catch any other fish but the swordfish. 12 of my trips were with an observer and the remaining 2 were without the observer. The observer has all the 12 trips report and copies of the fish landing reports. Enclosed are the copies of the reports

she made and the 2 reports that I filled out for trips 13 and 14. I might add that I feel fortunate to have been picked for your EFP DSBG program and look forward to a full 2019 season. The observer I had on the boat was an asset to my fishing effort in many ways. I hope this is the type of information you are looking for.

Thank you,

David W Hitt

Owner + operator

F/V Terlingua

PFMC preliminary report 2018

I would like to start this Preliminary report by thanking the commission for the opportunity to participate in this fishery. We got off to a slow start as we were delayed by the shipyard in installing new fish finder and transducer. We also had problems with our new binoculars from Fraser Optics witch did not work.

Got through the first trip with no major tangles with 1 hook per line with squid . Matt was the observer. Baits held up and rigging was up to par. Deployment was smoother the second time. Slow methodical approach seems to be the way. From spool changes, light , bait. finally buoy flag deployments and retrievals,. Preparation and communication are key. Understanding the gear overall length and the flossed marks in the mainline will be the key to this puzzle. Currently I have 4 different sized mainlines 5 of each size. 1000,1100,1200,1300 feet with flossed red markers 300' from the top and bottom. My crewmember is getting the rhythm but I need to coach him to keep him focussed. I help him anyway possible and switch from driving the boat setting and retrieving the gear. We lost a couple radar reflectors but that was my fault as they were not rigged properly attached. I will address this issue this week with a saw and pvc pipe. We started using 25' leaders 400 lb leader .Next trip were using 500 pound leader. The second trip we will be fishing 2 baits per line. One bait on the bottom and one 300' above at the red flossed mark both baits will have 2 lights attached. Last trip we marked a fish 100' above the scatter layer at 12-1230am at 700'not sure if it was a swordfish. Later reports revealed a fish every other day for Johnny and Jeremy on the chula on the buoy gear. There were also a few fish seen floating from 14 to Avalon bank around the same time. We fished below him on the northern edge of the 267 contour line . I studied the terrafin and Eco cast website to try to choose my fishing locations accordingly. Not confident in my longline clips I think I will switch to the heavy duty models with heavy duty swivels. Progress not perfection. After re reading the regulations I realized the flags need to be labeled and marked with boat number and documentation number also. I addressed the issue and I am ready for trip 2

Trip 2 February 27th Tyler was our observer . Saw a break in the weather and saw favorable conditions on Terrafin of water up to 63.6 degrees on the ridge a couple days before hand . No updated picture from website . I left on 2 day old intel found out later water was pushed west of ridge we made it to 209 and ended up setting up inside on scatter layer that was 400' thick 900-1300'. Water was 61.5 - 62.1 on new fish finder . Marked and circled area set 6 sets of gear for 4 hours in a straight line. Was told to number flags to better keep count of gear and order of deployment. Possible humbolt squid bite on 2 of the deep squids upon retrieval. Prior To gear retrieval a pod of slow moving rissso dolphins passed though area , another sign of possible squid in area. On this trip we were restricted by speed and time also with debris from storms. Retrieval of gear pulling slow and steady with the boat in gear has been the key to no tangles so far.

My experience with the observer program has been awesome. But with limited speed and limited bunk space I am limited to fish day trips only. This year I plan on picking up observers in Catalina , San Diego and possibly Ventura. Giving me an opportunity to try other productive areas . In June I will begin the process of removing generator ,squid lights, light shields, rack , wiring and ballasts. Eventually installing a Sea Frost 12volt RSW refrigeration in a approx. 1500lb fish hold.

I would like to say that estimates on costs to adequately participate in this fishery are are higher than the estimates in the paperwork and statements in meetings. . After installing new fish finder ,transducer , binoculars, buoys, flags, spools , line , lights, refrigeration and on board internet. The cost to participate for me will be around $17-$20k..I would gladly provide receipts if necessary.

Finally I would like to say that I have been approached by another permit holder and the discussion of proximity of gear was discussed.. I have come to find out this person only has a permit and does not own his own boat or the gear. He is also part of the group of participants that was trying to limit access to future applicants in this fishery. He tried to tell me to observe 1 mile around other gear. Sorry to say that will never happen. Under this permit I will adhere to the rules set forth by the commission. When and if rules are put into place restricting the amount of gear in a specific area I will adhere to those too. Until then I will set gear where I want period. In a fishery that has reached it lowest point of participation over the last few years. I find it pathetic that some of the same people responsible for for developing this fishery are the ones trying to restrict it's very access. This portion of the DSBG fleet has lost my respect forever even though I have known some of them for close 20 years. I find it funny that that these people have caught more fish with the buoy gear than harpooning but in commission meetings there is no mention of it. Instead these certain individuals pushed cutoff dates that would exclude future participants from this fishery even though people already purchased gear. Needless to say such discussions and statements have put undue stress on me my family and other new arrivals to this fishery.

Sincerely, Matt White

F.V. Lil Jack Dana Point Ca,

mattwhite72@hotmail.com

Annual Preliminary Report

Date: April 26, 2019
Vessel: Circle Hook
Permit Holder: Scott Breneman

Data Analysis:
My vessel, Circle Hook, was built and completed late last season. So I was only able to complete two trips in 2018 (December 18, 2018 and December 20, 2018).

- December 18, 2018 – 3 fish
- December 20, 2018 – 2 fish

Fishing was successful on both of my trips. 5 fish were landed, total, and lost 3. The market price was very low due to imported fish and East Coast fish. I was able to sell my fish for $5/lb, whereas I believe it should have been closer to $10/lb. I am still trying to make up my investment for this fishery. I believe this year will be successful. It can make sense, and can make money. I have my own markets and restaurants that I sell to directly that will appreciate the locally caught hook and line swordfish, which I can get a premium price for. Otherwise, it would be hard to compete with the import market.

Recommendations:
The only recommendation I have is to focus on the imported fish and try to figure out a way to prove the quality of the fish that we catch is better and worth the couple extra dollars a pound. I think it might be consumer awareness, and maybe some sort of import tax or law that could help offset the drop in price when there is an influx of product from non US waters.

Also, I have found that sport fisherman have started researching our fishing methods for swordfish and are going to start doing charters, which could interfere with commercial efforts. This could be a concern for you to look into.

Costs:
Observer Rate and Cost: Not Available (Unknown at this Time)

Other Cost:

- Gear $12,000 (swordfish only)
- Fuel $400/trip
- Vessel $320,000 2018 Anderson ***
- Bait $100/trip
- Crew Owner operated / 1 crew at $300/day

*** This vessel is also used for Federal fixed gear ground fish. So the cost of the boat cannot be fully attributed to the deep set buoy gear permit.

Side Note:
I will be focusing on collecting more data and doing more swordfish trips this season. My 2018 Anderson custom boat was unfortunately not completed until end of the year. This year (2019) I anticipate completing many more swordfish trips.

The boat is equipped with a VMS, if you would like to track our trips.

I respectfully submit this report and am happy to answer any questions you may have. I look forward to continuing to gain experience and knowledge in this fishery.

Scott Breneman
scott@westcaughtfishco.com
(949) 394-1904

4-16-19

RON ELLIS

F/V DEFIANCE DOC. # 605844

FINAL REPORT FOR DEEP SET BUOY GEAR 2018.

IVE MADE APPROXIMATELY 20-25 SETS WITH 14 SWORDFISH LANDED AND 6-7 SWORDFISH LOST AT THE BOAT. IVE RELEASED 2 THRESHER SHARKS ALIVE AT THE BOAT.

I BELEVE THIS IS A CLEAN WAY TO CATCH SWORDFISH AND COULD BE PRODUCTIVE AT CERTAIN TIMES OF THE YEAR. IM LOOKING FORWARD FISHING THIS YEAR AS LONG AS THE OBSERVERS ARE PAID FOR. I'M AFRAID IF WE HAVE TO PAY FOR OBSERVERS THE COST OF GOING FISHING WOULD BE TO HIGH OF A RISK

I HAVE HAD NO PROBLEMS WITH ANY OTHER BOATS SETTING BUOY GEAR.

Ron Ellis

Patricia J. 2018 DSBG year end summary

We fished a total of 89 days setting the DSBG .We had an observer onboard for a total of 40 days. We caught a total of 115 swordfish for the year. Out of the 115 fish 4 were harpoon, 111 were caught with DSBG. we were very pleased with the size and quality of the fish we caught, only 12 fish dressed out under 100 pounds, of those 4 were under 80 pounds. Our largest dressed out at 369 pounds! We were able to provide Catalina Island with fresh swordfish all season long, we also sold our fish to Santa Monica seafood and J&D seafood in San Pedro, I have never sold to J&D seafood in the past but since Santa Monica seafood has no place to unload in LA harbor we made arrangements with them to unload at their facility for 20 cents a pound so Santa Monica could pick up there. J&D seafood showed no interest in purchasing swordfish from us at first, they own 9 longline swordfish boats in Mexico and are one of the largest importers of swordfish on the west coast. J&D had told us that their customers were not familiar with DSBG fish and would not be willing to pay more per pound, they were however very impressed with the high quality of the fish we were unloading for Santa Monica. Late October Santa Ana winds prevented most of the fishing fleet from leaving port up and down the coast including Mexico, we however went fishing and hide behind the lee of Palos Verdes. When we unloaded J&D purchased 900 pounds from us at the going rate Santa Monica was paying due to the lack of fish available at the time, well their customers were asking for more of the same, they loved the quality of the DSBG swordfish, In November they bought nearly 4000 pounds from us, were looking forward to selling them more this coming season. We did get caught in those Santa Ana winds one afternoon with one fish on and 8 sets still out, 2 pleasure boats were calling mayday the coast guard was in full motion rescue but we were able to pull our gear and carry on with no problems, Malibu was on fire. I fished the majority of the season with my girlfriend Toni just the two of us, my standby crewmember was Smitty unfortunately he suffered symptoms of a heart problem while fishing, I was able to transfer him to Baywatch in what looked like good health, wished him well told him he was in good hands. He had a heart attack while in transport and died a month later in the hospital. This was somewhat responsible for me ending my fishing sooner than planned for the year. Toni and I had fished the same method as DSBG keeping the line attached to the boat successfully for several years prior to receiving our DSBG permit. This did give us an advantage into knowing how to set and present the bait and helped tremendously with the initial learning curve. At this time I am still working on improving our gear with lessons learned on strobe lights, radar reflectors, flags etc. We did fish in dense fog less than 50 feet of visibility with no problems we caught 4 fish that day; we had ships maneuver through our gear they were totally able to see our gear on radar .thought the year we had may ships and tugs towing barges that came through our fishing area with no problems, we were always able to contact them by vhf radio to inform them of our situation. We fished in areas loaded with all types of marine life the" Circus" as we referred to it we had no interactions whatsoever with any non target species. We caught 9 sharks kept 2 the rest were released alive and well, one had to be revived by lightly gaffing it in the corner of its mouth and pulling it along behind the boat until it swam away on its own. We caught and released a 70pound Escolar and the rest were swordfish. The observers were all very nice people and a pleasure to have aboard although I don't really see the need to have so much observer coverage, this was our first year with the

DSBG permit so I spent a lot of money setting up the boat with gear 10,000 dollars, we spent more time per day at sea than when we were harpoon fishing swordfish so we spent more on fuel $12, 000, we caught more fish than ever before $98,000, from what I understand 2018 was less productive than the previous two years for the DSBG were very excited for the upcoming season every year is so different in swordfishing .For that reason I think it's important to keep the EFP in place to provide more data for the future to see the varying differences from season to season ,for example if we have a year when the fish are in abundance at the surface "finning" and it's a great harpoon season will they be biting on the DSBG ? If the Humboldt squid show up will we be able to get bait to the fish without the squid devouring them? Will artificial bait work well? The 2018 season I used large squid for bait and it worked well for us but if conditions change we would try something different, that's fishing. This fishery works very well in harmony with harpoon fishing it compliments it. We all see the end of the drift net fishery coming and this I think is a great alternative, I fished the net years ago and did not like the by catch so I quit for that reason even though the money was good, I am excited with the prospect of being able to make a yearlong living fishing DSBG and harpoon swordfish. My son is 39 years old and has fished with me in the past and is looking forward to spending some time on the water with us, also my nephew Jake is turning 18 and will be our number 3 crewmember this upcoming season, he came along for a boat ride when he was 15 and 16 years old and we did pretty good with the harpoon, after this season I have found having a third crew is very helpful. I hope to be able to fish DSBG for the rest of my fishing career and to be able to pass it on down to future generations, thank you for this opportunity sincerely, Kent Jacobs, Toni Gomez, and our future generations

Regarding the preliminary summary report for 2018 DSBG, I submit the following:

F/V Rainman
Documentation number 1272816
Permit Holder: Raymond Kennedy

F/V Rainman deployed and fished DSBG for ten non-consecutive days before October, 2018. All fishing activities were conducted in the vicinity of the western Channel Islands, specifically Anacapa and Santa Cruz islands. Observer coverage was 100%.

During the tens days of fishing, no target species of swordfish were caught. Otherwise, only one non-target specie, a Mola Mola was caught and successfully released unharmed.

Much of these ten days were spent determining the best methods for deploying and retrieving the DSBG, in addition to making slight modifications, primarily to prevent tangling of the fishing leaders with the mainline. It became apparent that utilizing multiple fishing leaders per mainline amounted to multiple tangles, so began using just one single leader per mainline, baiting with large Illex squid or mackerel.

This fishery may prove challenging in this area, as sea conditions may not allow as many fishing days as southern waters.

Observer coverage may not be deemed necessary when utilizing a limited number of hooks, generally 10 for an entire set.

My plans for DSBG fishing 2019 will depend on when our ocean temperature comes up in this area, currently at 56 degrees. I am available to fish from May until Mid September, until I gear up for my lobster season.

Costs to gear up were approximately $16,000. This amount included the purchase of an offshore life raft and the addition of a swordfish plank, in combination with the standard costs of the DSBG hydraulic reel, spools, line and terminal tackle.

Please contact me with any questions.

Sincerely,

Raymond M Kennedy
F/V Rainman

May 22, 2019

Preliminary Report for Deep-set Buoy Gear Exempted Fishing Permit Activity 2018

Owner/Captain Steve Mintz

F/V DJ , USCG #550062

Pacific Fishery Management Council

To whom it may concern,

Having participated in the Deep-set Buoy Gear Exempted Fishing Permit for 15 days in 2018, I realize I need to spend more time at it. I spent more time and money than I had anticipated to rig and outfit my drift gillnet vessel with the DSBG gear. I do not have an accurate accounting of the total amount spent, but it was somewhere near $40K for all the equipment required for standard and linked DSBG (which I did not try and instead limited my attempts to standard DSBG only in 2018).

When we did get the boat rigged up, which took three of us, plus a welder and fabricator after 2.5 weeks, we went fishing and caught 6 nice fish after 4 days. We received $5 per pound when I expected $7.50 to $8 per pound price. I asked if I had brought in DGN fish, I was quoted $4.50 per pound. He said the specialty market could not support that many fish. Several other DSBG vessels landed 2-12 fish each, and in total, I counted 38 fish flooding the market. I became very ill and realized I had made a bad business investment in this so-called 'new wave' of fishing method.

On the next trip, my crew and I tried the standard DSBG hard for 8 days with an observer onboard, with not one fish to put in the hold. My crew was frustrated, and I hated to give up on the DSBG, but had to make money on the trip. We finished up the trip in 3 days with the drift gillnet and caught 12 swordfish plus some additional marketable catch. On the next trip, for 4 days fishing DGN, we had 74 nice grade swordfish for about a $36K paycheck. Economically, the DGN outperformed the DSBG. For the DGN-caught swordfish, we received $3.50 per pound, and the DSBG-caught swordfish were at less than $5 per pound.

I still believe the DSBG has a place with a limited amount of small vessels with a low overhead that could be efficient. There is limited market for the high end DSBG-caught fish. Seems like all the markets wants is to purchase fish at DGN prices. Without DGN, there would be a shortage of swordfish caught on the west coast. Using environmental methods, DGN is considered sustainable. DGN also catches high quality marketable fish (e.g. opah, louvar, mako shark, thresher sharks, tunas) in addition to swordfish that enhances the economic returns of the fishery.

I am anxious to try the DSBG again, but while I can also use the DGN on the same trip. The market for DSBG-caught fish is nowhere near as good as promoted in the beginning. I need to make a profit for me, the vessel, and the crew and that is difficult with the unregulated import fish competition in the market.

Sincerely,

Steve Mintz