

Pacific Fisheries Management Council Summary Report

2015-2016 PIER deep-set buoy gear EFP

Preliminary Findings-March, 2015

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PIER EFP background and progress to date: In September, 2015 PIER was issued an exempted fishery permit (EFP) to trial deep-set buoy gear off the Southern California coast. Funding to purchase and assemble all fishing gear, staff observers and manage EFP operations was secured through supportive non-governmental organizations (NGO's) and the NOAA region. Cooperative fisher training sessions were performed onboard the PIER research vessel according to terms and conditions of the EFP. Cooperative fishers were provided with vessel logbooks, EFP documentation and observer staffing protocols prior to the initiation of fishing activities. Vessels were mandated to carry NOAA trained observers with a minimum coverage rate of 30%.

Geographic location: EFP sets in 2015-2016 were conducted between Point Conception, CA (~34°N) and the Mexican border and out 100 nautical miles. EFP fishers have stated interest in deploying DSBG in the more northern portions of the EFP range, however, to date fishing efforts have been focused primarily within the SCB.

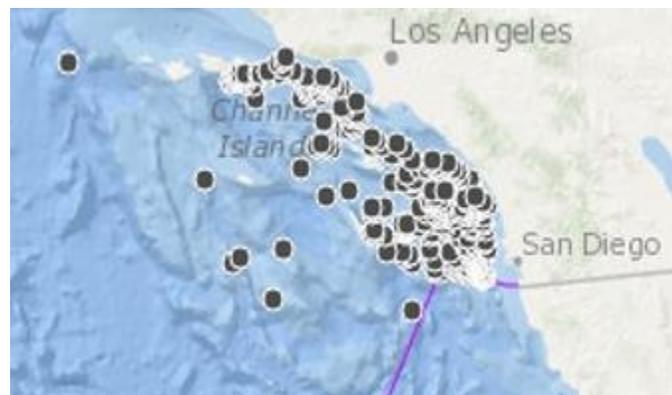


Figure 1. PIER DSBG-EFP effort over the 2015-2016 seasons.

EFP Catch to date (2015-2016): To date the PIER-EFP has landed 611 swordfish over 349 8hr fishing days. Overall six individual cooperative fishing vessels have participated in the DSBG EFP trials, with four participating in 2015 and five fishing in 2016. Catch rates varied by vessel and year with an overall average of 1.75 swordfish/8hr day. Mean trip duration was 3.6 days with nearly all sets consisting of a full deployment of 10 buoys on each fishing day. Although up to three hooks can be deployed per piece of gear, EFP deployments to date have shown that

most (>95%) sets consist of only one hook/piece of gear. In over 27,920 hook hours, one single piece of DSBG was lost due to a mechanical failure aboard one of the cooperative vessels.

Swordfish comprised the bulk (~80%) of the catch with other marketable species comprising 98% of total landings (Fig. 2). Collective EFP trials to date have resulted in a similar catch rate and composition to previous PIER research efforts. Swordfish landings from the five cooperative fishing vessels operating under the

DSBG EFP have likely exceeded annual landings from the CA harpoon fishery in both 2015 & 2016.

Incidental catch rates were low (~1.2%) with only one interaction with any species of concern, Northern elephant seal, *Mirounga angustirostris*. The elephant seal interaction was documented in the year 1 deployments where it was observed to be alive and alert prior to release (at-sea observer indicated that hook was shed from the animal).

PIER DSBG-EFP Catch to Date

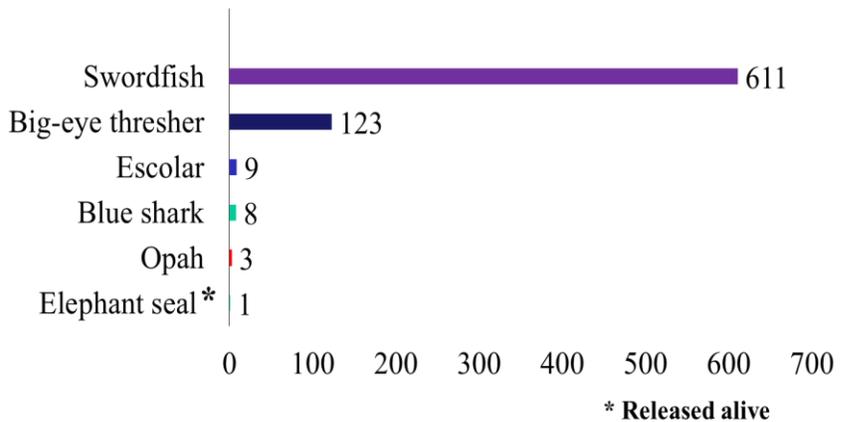


Figure 2: PIER-DSBG EFP total catch from 113 trips (349 8hr days with mean trip duration of 3.6 d) between September, 2015 and January, 2017

The cumulative onboard observer rate was 41% for cooperative vessels participating in the PIER-DSBG EFP, with all vessels consistently remaining above the 30% minimum observer coverage mandate. Observer placement was mandatory if a vessel dropped below 35% observer coverage or if DSBG and drift-gillnet (DGN) were fished on the same trip. All vessels were required to check in and out with NOAA, CDFW, and PIER for each trip to report trip dates and number of days fished. Catch and bycatch were reported daily to PIER via a mandatory call in procedure and verified through observer and logbook records. In year 2, all catch was also tracked using collar identification tags (Figure 3). Collar tags have enhanced the tracking of EFP fish through the market and have positively contributed to market price. Preliminary estimates suggest an average market price of approximately \$7.50/lb.



Figure 3. Collar tag used to trace DSBG-caught fish through the market chain.

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. PIER will continue to provide updates to the community, PFMC, HMS Management Team & Advisory Subpanel throughout the EFP duration.