

Agenda Item E.3.a
Attachment 1
November 2011

Evaluation of an epibenthic trolled longline to selectively catch chilipepper
rockfish (*Sebastes goodei*) off California

Date of Application: October 13, 2011

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Purpose and Goals

Chilipepper rockfish stocks on the west coast are considered healthy. However, because of weak stock management, harvest of these stocks is limited. In 2009, the total catch of chilipepper was estimated to be 311 mt of a 2,885 mt OY, or 11% of the total allowable catch. Area closures to protect overfished rockfish species have effectively closed access to this resource.

The goal of this project is to describe and evaluate the effectiveness of a species-selective longline technique, which if proven effective, will allow commercial fishermen access to chilipepper rockfish, a relatively abundant species of rockfish, while avoiding the weaker stocks. This fishery is constrained by the current rockfish area closures (Rockfish Conservation Areas, RCA), implemented to protect overfished rockfish species. Despite the depressed condition of some west coast groundfish stocks, there are other stocks that remain healthy. These healthier stocks could safely sustain increased harvest levels if they could be fished more cleanly and without bycatch of more depleted stocks. If stronger stocks could be targeted without increasing fishing mortality on depressed stocks, the California commercial fishing fleet would have additional fishing opportunities that would provide some economic relief to the industry while providing the public with a highly desirable product.

The research goal for the EFP is to establish the performance characteristics of the gear and to rigorously document the catch and bycatch when deployed in areas where chilipepper are abundant and bycatch species are not, under commercial fishing conditions. Specific objectives of the experiment are:

- 1) to test the trolled gear and fishing strategy with vertical lines and artificial flies, and
- 2) determine Groundfish Fishing Areas that are abundant with chilipepper rockfish, and that correspond to low densities of overfished species.

This latter objective may better help to answer the question of how EFP results can potentially be translated into future fleet-wide fishing opportunities.

Disposition of Catch

Target species (chilipepper) and legal incidental catch, such as widow rockfish, will be retained for sale. Fish not authorized for sale would be released alive if possible. If desired, incidental catch of certain species (e.g., canary and yelloweye) that cannot be released alive could be retained by the observer and provided to NMFS, CDFG, or other researchers.

Justification and Broader Significance

This EFP seeks to explore development of new, cleaner fishing opportunities in fulfillment of and compliance with the Magnuson-Stevens Act (MSA) mandates and goals (e.g., National Standards 1, 8, and 9). If more selective fishing methods can be developed, it is hoped that there will be additional opportunity in the groundfish fishery, which has been greatly constrained since rockfish conservation areas (RCAs) and lowered quotas were implemented to rebuild overfished species.

The long-term goal, if experiments prove successful, is to allow commercial fishing with this gear off the entire West Coast, including in the RCAs, by the Open Access and Limited Entry participants. This gear could also be used by fishermen to avoid species of concern and could create a fishery that would fill out the portfolios of those who make up the bulk of the fishermen in the West Coast's coastal communities. Thus, the benefits of this EFP would extend beyond the initial EFP participants.

Despite the generally depressed condition of many west coast groundfish stocks, there are some stocks that remain healthy. These healthier stocks could safely sustain increased harvest levels if they could be fished more cleanly and without bycatch of more depleted stocks. If stronger stocks could be targeted without increasing fishing mortality on depressed stocks, the West Coast commercial fishing fleet would have alternative fishing opportunities that would provide some economic relief to the industry while providing the public with highly desirable sustainably harvested local seafood.

Details

Total Duration of the EFP

This EFP proposal is for a total of 2 years (2013-2014).

Location of Fishing under the EFP

The EFP fishing would be conducted off **central California** between 38.0 degrees (Pt. Reyes) and 36.0 degrees (Point Lopez).

Within this area, fishing would occur at **depths of approximately 80-120 fm**. It is thought that there is a high-density of the target chilipepper rockfish in this range and that they tend to get smaller in size and schools are thinner in shallower depths. This range is currently within the non-trawl RCA established to protect overfished rockfish species. Vessels authorized under this EFP would be allowed to fish inside the current RCA using otherwise legal open access fixed gear.

Fishing effort will be concentrated in areas with canyon edges and walls, smooth hard bottom, with no rocks (example: canyon south of Año Nuevo). Areas to be selected for high-density target species will be between 38.0 degrees (Pt. Reyes) and 36 degrees (Point Lopez).

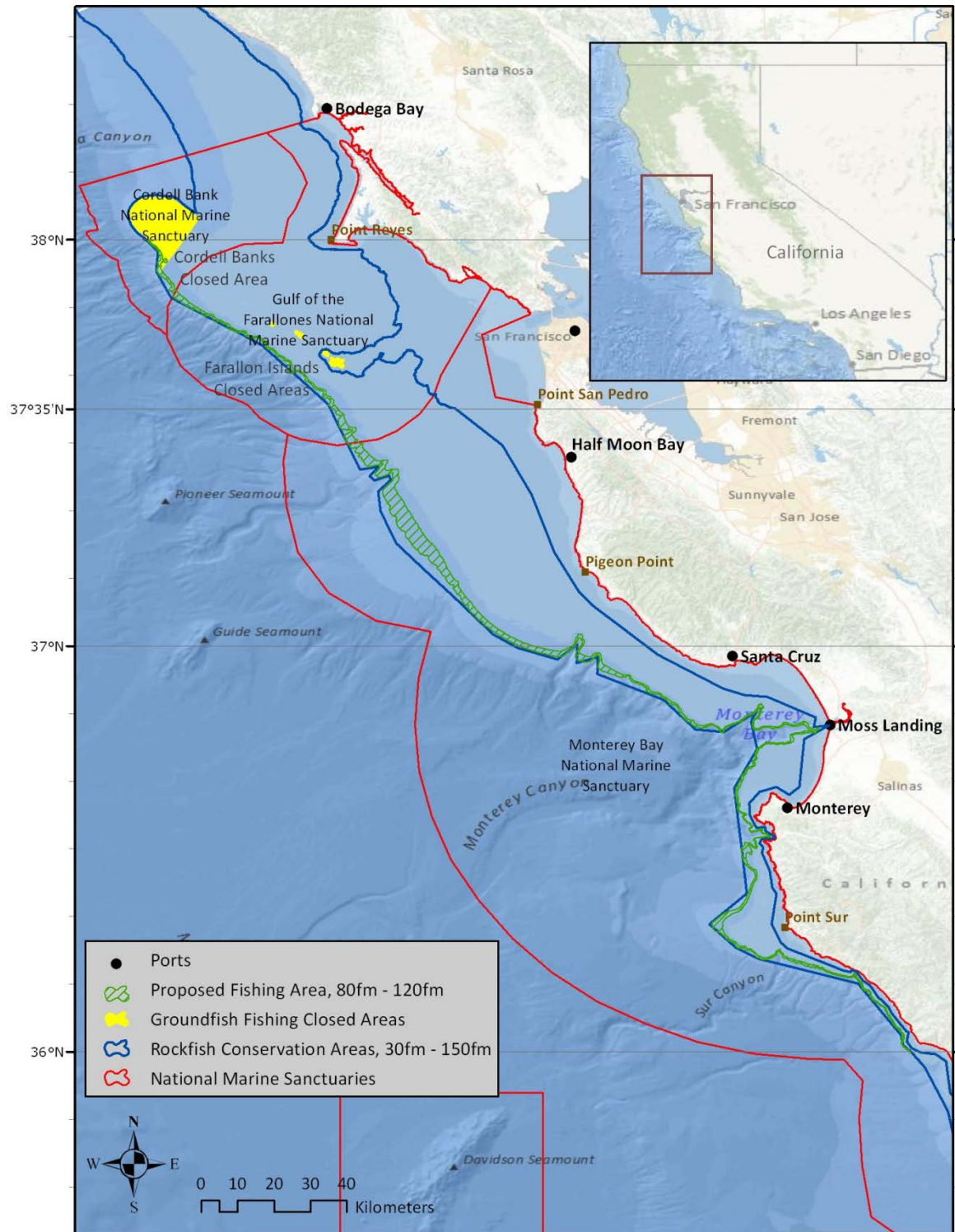


Figure 1: Map of the proposed EFP fishing area.

Description of the Gear to be Used

The gear is designed to selectively catch target chilipeppers in mid-water, when properly deployed, and will involve prospecting to avoid non-target species. A variety of gear is involved, including a hydraulic puller, conveyor belting or wide runner, fly-hooks, line, wire, snaps, small buoys (floats), one large buoy, and weights.

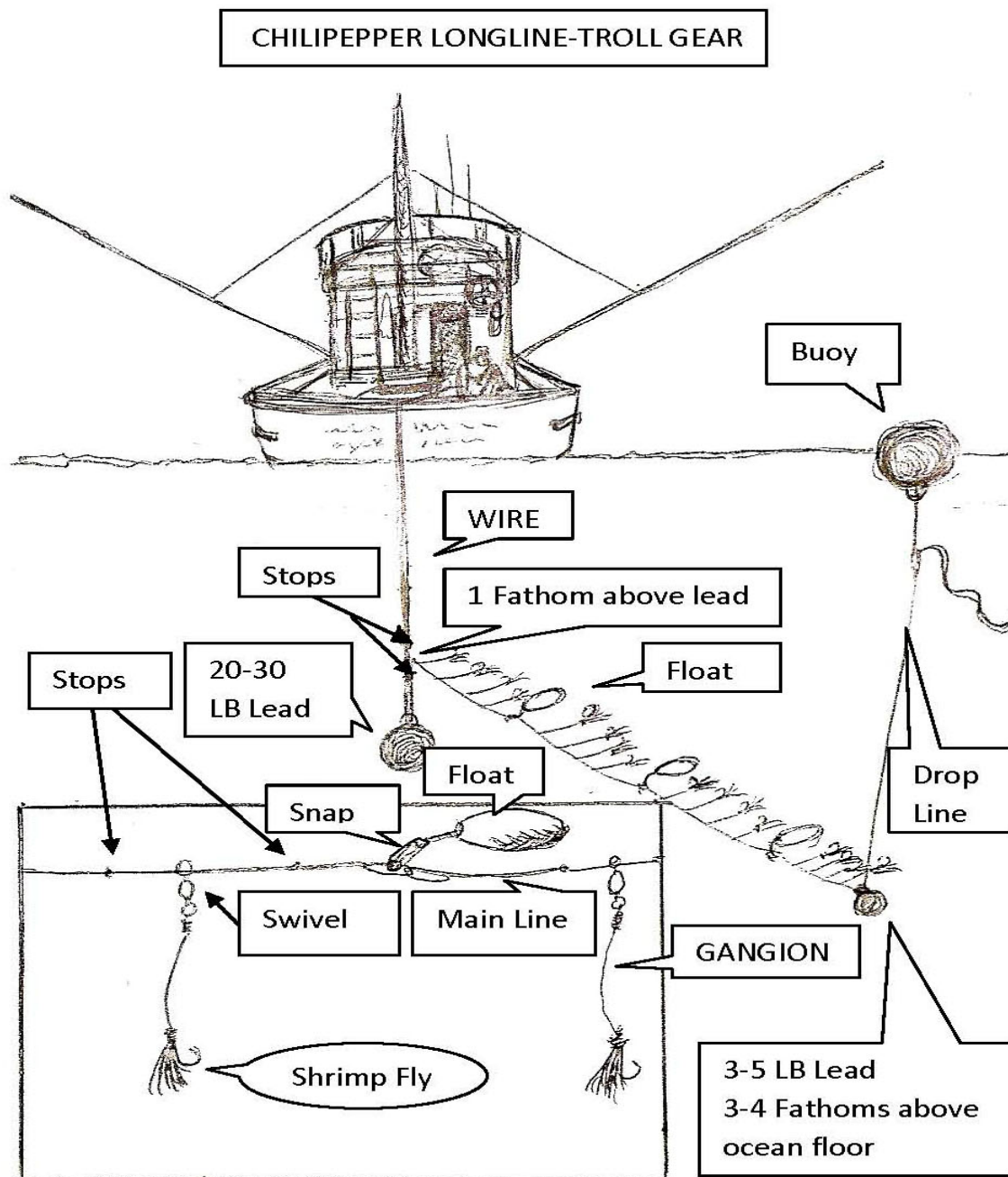


Figure 2. Gear description A

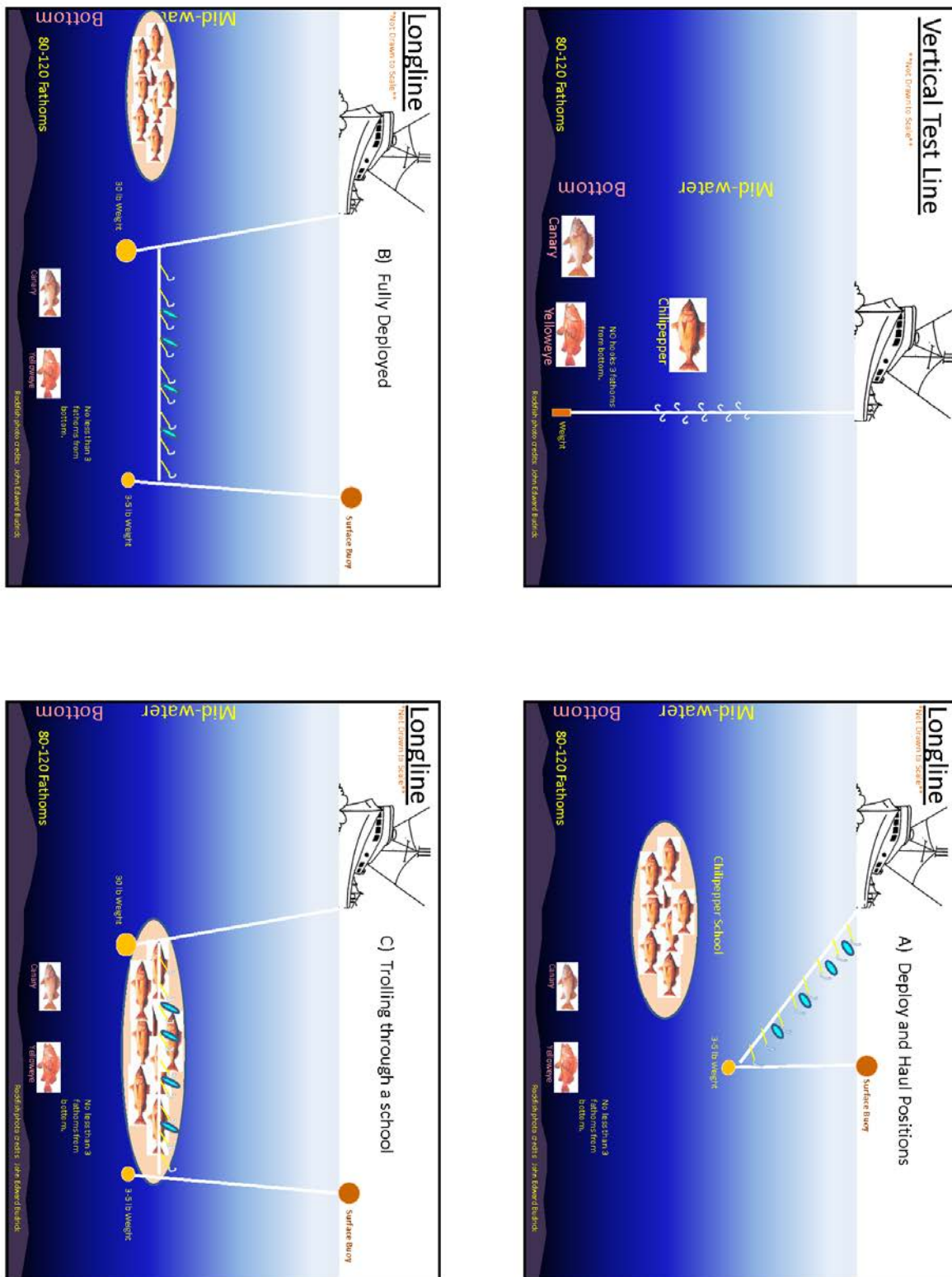


Figure 3. Gear description B

Specifications

Vertical Test Line

- No more than twenty (20) hooks (shrimp flies)
- No hooks closer than 3 fm of the bottom
- Weight – 3-5 lbs

Longline

- 3 segments:
 - a drop line from a surface bouy
 - linked (skates) main line,
 - a drop line attached to a reel
- All lines maintained at least 3 fathoms from the bottom
- DROP LINE - FROM BOUY
 - Weight - 3 to 5 lb (mainline will connect about 1 fathom above this weight)
 - Surface bouy
- MAINLINE – Between two drop lines
 - 200-1000 lb. test monofilament (lower test for smaller vessels, stronger test for larger vessels)
 - approximately 1000 - 1,083 feet
 - 1000 hooks per set maximum
 - shrimp flies (hooks) (no bait)
 - 12” monofilament ganions/leaders with swivel (approximately 60 lb test)
 - leaders spaced approximately 13” apart
 - 20 small floats, every 50 hooks (floats have short tethers and attach to the mainline w/ snaps)
- DROP LINE – FROM VESSEL
 - Weight - 30 lb

Deployment

Vertical Test Line

- Prior to setting the longline gear, a test set will be made with vertical line to ensure that the target species is present and minimize the chance of encountering any overfished rockfish.
- Using acoustic soundings, no hooks will get within 3 fm of the bottom.
- The weight may hit the bottom initially, then immediately be pulled up a bit.

Longline

Once the test set establishes the presence of chilipepper rockfish, the longline will be deployed:

- The vessel moves slowly ahead as the longline is deployed (gear is attached to the vessel at all times).
- The mainline may be spooled to a drum. One end, with buoy and weight attached in such a way that the gear does not touch the bottom, is sent overboard as the boat moves slowly ahead, and the remaining gear is deployed.
- The weighted buoy line length is adjusted in such a way that does not have bottom contact to reduce the likelihood of bycatch and to prevent the hooks from hanging up on bottom.

- When the line reacts to bites, take the boat out of gear and fish will climb the line to the floats as they do with vertical gear on up and as line is pulled, line rises to the surface. Boat must be going ahead while pulling to keep the fish on. The terminal drop line remains at 85 fathoms.
- As the boat moves forward the drop line moves close to the end of the boat tight and fish continue to climb the line.
- As the line is towed in, fish stay in area of line where school is, (pull through spot of fish). As line is pulled on board it becomes vertical and can be alternatively stacked in basket gear.

Effort

Time to fish will be short each fishing day, taking place at daybreak and late evening. During the day chilipepper come off the bottom and once they are mid-water they are difficult to catch by this method. Therefore the morning and evening are the best times.

Number of vessels covered under the EFP

Three (3) vessels are proposed for participation.

Species to be Harvested (target and incidental)

Table 1 provides an overview of the species that may be caught under the EFP, their status, and estimated catch amounts.

Table 1. Overview of Target and Incidental Species Caught under the EFP

Species	Target or Incidental?	Overfished? Y/N	Depth Range	Estimated Amount of EFP Harvest
Chilipepper <i>Sebastes goodei</i>	Target	No	0-1080 ft (0-180 fms)	To be determined by GMT
Widow Rockfish <i>Sebastes entomales</i>	Incidental	Yes*	0-1050 ft (0-175 fms)	To be determined by GMT
Bocaccio <i>Sebastes paucispinis</i>	Incidental	Yes	0-1050 ft (0-175 fms)	To be determined by GMT
Canary Rockfish <i>Sebastes pinniger</i>	Incidental	Yes	0-900 ft (0-150 fms)	To be determined by GMT
Yelloweye Rockfish <i>Sebastes ruberrimus</i>	Incidental	Yes	150-1200 ft (25-200 fms)	To be determined by GMT
Cowcod <i>Sebastes levis</i>	Incidental	Yes	132-1620ft (22-270fms)	To be determined by GMT
Dorkblotched Rockfish <i>Sebastes crameri</i>	Incidental	Yes	240-1200ft (40-200fms)	To be determined by GMT
Pacific Ocean Perch <i>Sebastes alutus</i>	Incidental	Yes	180-2100ft (30-350fms)	To be determined by GMT

**As of Oct. 3, 2011, it is "Overfished" according to PFMC (below B40) but "not overfished" in 2010 Status of U.S. Stocks Report to Congress (above B25). However, a new stock assessment is anticipated in November 2011.

Catch of species other than those listed in Table 1 are expected to be uncommon, although some yellowtail and perhaps other rockfish may be encountered in small numbers.

a. Species Descriptions

Descriptions of the **species life histories** can be found in Appendix B2 of the Pacific Coast Groundfish Fishery Management Plan.

<http://www.nwr.noaa.gov/Groundfish-Halibut/Groundfish-Fishery-Management/NEPA-Documents/upload/FMP-Appendix-B2.pdf>

Updated information on **species abundance** can be found in Chapter 3 of the Proposed Harvest Specifications and Management Measures for the 2011-2012 Pacific Coast Groundfish Fishery and Amendment 16-5 to the Pacific Coast Groundfish Fishery Management Plan to Update Existing Rebuilding Plans and Adopt a Rebuilding Plan for Petrale Sole; Final Environmental Impact Statement.

http://www.nwr.noaa.gov/Groundfish-Halibut/Groundfish-Fishery-Management/NEPA-Documents/upload/1112GF_SpexFEIS_100806-FINAL_feb21_.pdf

b. Estimated Harvest Amounts

Harvest amounts will be determined by the GMT.

Catch Accounting and Compliance

Attaining any of the above aggregate catch limits will terminate the EFP for all vessels. It is requested that there not be a trip limit for target species.

This EFP will incorporate a standardized data collection and reporting format as determined by NMFS Southwest Fisheries Science Center, Santa Cruz Lab, and Northwest Fisheries Science Center (Observer Program).

Observers: Under this EFP there will be 100% observer coverage with the cost of observer coverage borne by the EFP participants. Fisheries Observers will record all fish caught and ensure that aggregate bycatch limits are not exceeded, as well as collect data on fishing gear, location, catch, and disposition of catch.

Precautionary Measures

Given the potential to catch overfished species and by fishing in the RCA, the utmost caution will be taken with this experiment. The following measures are proposed and applicants are open to working with the PFMC, NMFS, and CDFG to implement others deemed necessary.

1. **Observers** – 100% observer coverage (a standard measure for EFPs, but worth noting here).
2. **Caps** – Based on input from the PFMC and NMFS, each boat will have either a *daily* or *trip* limit/cap of canary and yelloweye. If this cap is reached, based on catch accounting reports verified by the observer, fishing will cease for that day or trip.
3. **Trip reports and catch accounting** – On a timeline agreeable to NMFS and CDFG, trip and cumulative catch reports will be provided after each trip (e.g., within 48 hours).

Data Collection and Analysis Methodology

Data Collection

The following data will be collected by observer for all fishing under this EFP:

Gear Configuration

- Number of hooks
- Number of floats
- Weight sizes
- spacing of hooks
- number of hooks between floats
- length of drop line

Set and Haul Data:

- Position (GPS coordinates)
- Depth
- Time

Catch of each set of gear

- Species
- Total weight
- Species distribution
- Disposition (landings and discards)

If desired, incidental catch of certain species (e.g., canary and yelloweye) that cannot be released alive could be retained by the observer and provided to NMFS, CDFG, or other researchers for biological sampling.

Data Analysis

The applicant and the scientist (NMFS Santa Cruz Lab) will be responsible for data analysis. Data analysis will consist of statistical analysis of catch and bycatch of all species by set, trip, and month. Catch rates will be expressed as catch per hook, per set, per day, and per trip. Value of the catch will be recorded following sale. The final report will provide an estimate of fishing effort and total catch; absolute and relative species composition summarized by set, trip, and month; size composition of catch and bycatch; and sex ratio (if possible) and stage of maturity for chilipepper.

Participation

Choosing Participants

Vessels to participate in this EFP fishery will be chosen based on their ability to accommodate and pay for an observer, their willingness to maintain detailed catch data, and their willingness to participate during months when fish are available to this fishery.

Planned EFP Fishing by Participants

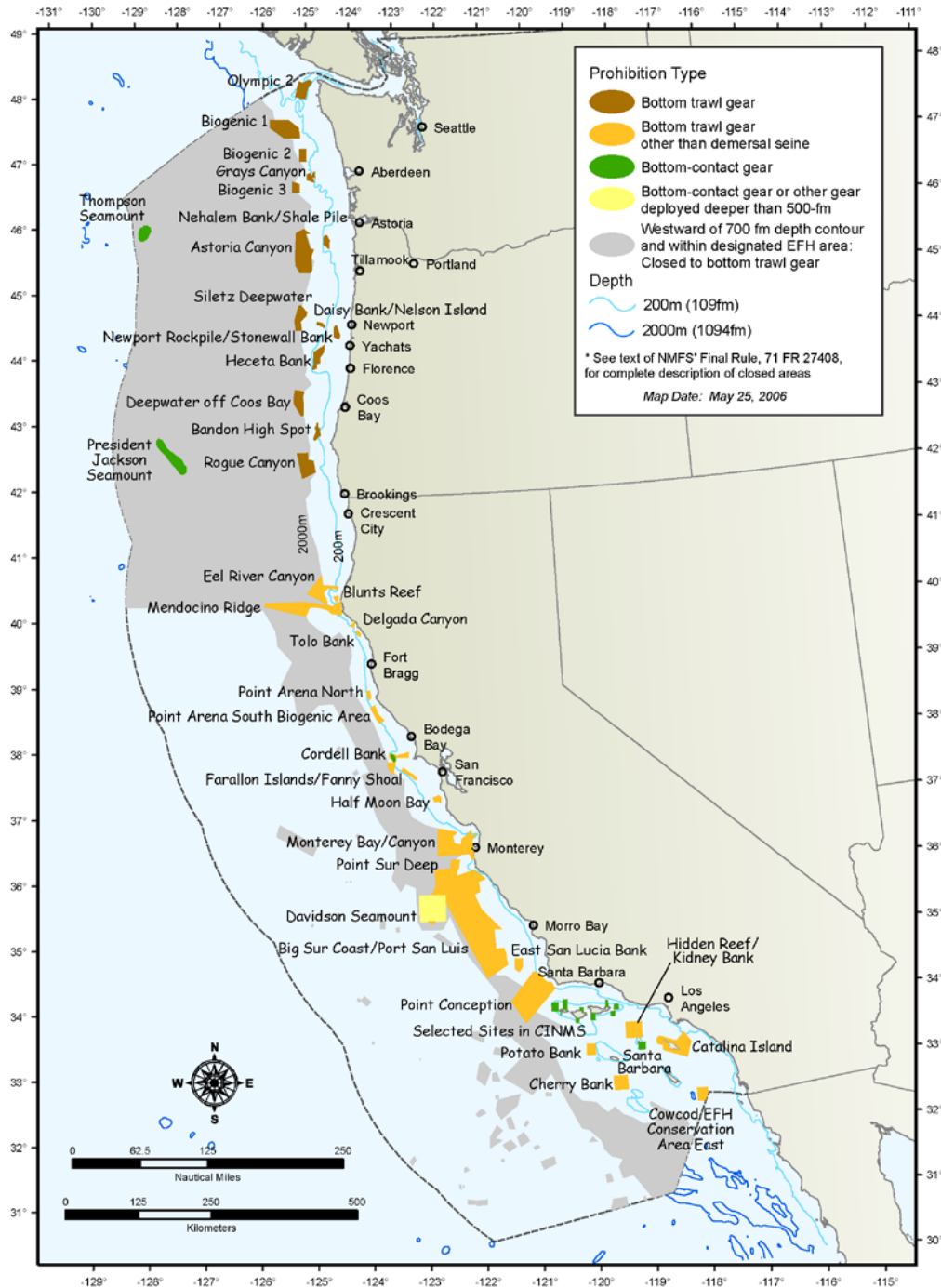
Timeframe / Months of fishing – Could be year round, but would be constrained by weather, marketing, and availability of observers.

Signatures

Steve Fosmark

Kathy Fosmark

Appendix A- Maps



EFH area closures to protect Pacific Coast groundfish habitat - Coastwide.

