

## Groundfish Exempted Fishing Permit Proposal: Commercial Midwater Hook & Line Rockfish Fishing in the RCA off the Oregon coast

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### Purpose and Goals

#### Purpose

The main purpose of this exempted fishing permit (EFP) proposal is to test a modified, midwater trolled longline gear configuration for selective commercial harvest of underutilized midwater rockfish species within the Fixed Gear Rockfish Conservation Area (FG RCA) while avoiding overfished yelloweye rockfish. Prior to the closure of the FG RCA in 2002, the area between 30 and 100 fathoms off the Oregon coast supported a commercial hook and line fishery for midwater rockfish (i.e. yellowtail, widow and canary rockfishes). Although these midwater rockfish stocks are currently healthy and underutilized (Table 1) they are largely inaccessible to fixed gears since they predominately occur in the 30-100 fm FG RCA that remains closed due to yelloweye rockfish. The proposed EFP gear is configured to minimize bycatch of yelloweye rockfish with built-in enforceable mechanisms to avoid the bottom. This configuration has been historically successful for harvesting midwater rockfish species in waters off Oregon with low impacts to yelloweye rockfish and salmonids. Furthermore, similar EFPs (i.e. Oregon sport longleader and Emley/Platt) with hooks lifted above bottom to selectively target mid-water rockfishes have been very successful at avoiding yelloweye rockfish and salmon; in 52 combined trips, they caught 11.4 mt of midwater rockfishes, 0.0175 mt of yelloweye rockfish, and only 1 Chinook salmon.

**Table 1.** Non-trawl sector impacts (mt), harvest allocations, and remaining yield from yellowtail, widow and canary rockfishes stocks from 2015 – 2016. Impacts with yields as percentages of harvest allocations are in parentheses. Non-trawl harvest allocations for 2017 are presented for reference with 2017 total impacts are still unknown. 2018-20 allocations are expected to be similar 2017.

	Yellowtail Rockfish	Widow Rockfish	Canary Rockfish
2015 Non-trawl Impacts	5.1 (1.2%)	0.7 (0.5%)	9.0 (19.0%)
2016 Non-trawl Impacts	5.1 (1.2%)	1.4 (1.0%)	12.0 (25.3)
2015-16 Non-trawl Harvest Allocation	441.7	149.1	47.4
<b>Estimated Annual Remaining 2015-16 Yield:</b>	<b>436.6 (98.8%)</b>	<b>148.1 (99.3%)</b>	<b>36.9 (77.8%)</b>
2017 Non-trawl Harvest Allocation	619.9	1,196.1	406.5

A secondary goal of this EFP is to test new electronic monitoring devices (EM) tailored to small vessels that are difficult to otherwise observe (e.g. small nearshore boats). Federal observer coverage is only available for a limited number of fixed gear trips on an annual basis. If this EFP is successful at selectively targeting midwater

rockfish then good rationale exists for advancement to an actual fishery. However, there may be resistance to allowing non-monitored fixed gear vessels to fish within the FG RCA until yelloweye rockfish are declared rebuilt. This EFP will have both human observers (100% coverage) and EM so that new experimental EM systems can be evaluated and considered as a future monitoring mechanism in lieu of observers.

**Goals**

This EFP will comply with and advance the goals and mandates of the Magnuson-Stevens Act (MSA) by:

1. Allowing experimentation with a commercial gear configuration intended to avoid bycatch of overfished yelloweye rockfish while facilitating optimized harvest of midwater rockfish stocks (yellowtail, widow, and canary rockfishes), consistent with National Standards 1 and 9.
2. Permitting community small-scale fisher access to historically utilized rebuilt fishery resources once important to the hook and line midwater rockfish fishery and coastal Oregon communities consistent with National Standard 8. Non-trawl allocations of these stocks are currently underutilized (Table 1).
3. Providing additional opportunity, spatial areas and target stocks for Oregon hook and line groundfish fishers whose access has been constrained by the implementation of both the RCA, and lower impact quotas for yelloweye rockfish. Allowing access to these stocks by hook and line fishers may relieve harvest pressure on exploited salmon and nearshore groundfish stocks.
4. Collecting scientific data on the performance of this experimental commercial gear configuration for:
  - a. selectively targeting and harvesting midwater rockfish stocks (i.e. yellowtail, widow and canary rockfishes).
  - b. avoiding bycatch of the overfished yelloweye rockfish stock and other protected species.
  - c. potential future expansion into a viable, sustainable commercial midwater hook and line fishery.

**Justification**

The implementation of the RCA in 2002 to protect overfished species has prevented commercial hook and line fishers from accessing historically important midwater stocks that are currently healthy and underutilized. Gear types with built-in mechanisms for keeping the gear off the bottom, such as, the non-whiting midwater IFQ trawl and Oregon recreational longleader fishery EFP, have been allowed access to these underutilized stocks. Authorized midwater gear types have demonstrated gear with built-in mechanisms for fishing off the bottom minimize the catch of yelloweye rockfish while allowing harvest levels adequate to support a fishery (Table 2). This EFP would allow fishers to test a historically-used gear intended for targeting these underutilized stocks at a commercial scale, while still meeting the goal of the RCA of avoiding bycatch of yelloweye rockfish.

**Table 2.** Summary of yelloweye rockfish bycatch percentage and total fishery catch of all species for two midwater gear types.

<b>Fishery</b>	<b>Yelloweye Rockfish (% of Total Catch)</b>	<b>Total Catch (mt)</b>
OR Recreational Yellowtail EFP (2009 & 2011)	0.08%	5.16
Non-whiting Midwater Trawl IFQ (2016)	<0.01%	1167.75

## Broader Significance

If this experimental gear configuration proves successful in intent, the goal is to allow commercial hook and line fishers using this gear type to fish for midwater rockfish species in the RCA. The creation of a hook and line fishery for these underutilized stocks will provide an additional portfolio option for small-scale fishers, such as Oregon's commercial open access and Nearshore Black & Blue Rockfish fleets. Diversity in fishers' portfolios may mitigate harvest pressure on nearshore stocks while providing a buffer against downturns in harvest opportunity for stocks such as Chinook salmon or sablefish, upon which many of these hook and line fishers also rely.

## Proposed Methods

In formulating the proposed methods for this EFP various specific objectives were considered including:

- **Creating a statistically valid sample size:** The methods proposed are aimed at providing sufficient numbers of fishing vessels, days, locations, tacks, fishing depths, gear measurements, and hook counts to formulate valid statistical conclusions about the ability of this gear configuration for both avoiding yelloweye rockfish bycatch and for harvesting midwater rockfish species in ratios to support available future commercial fishery. A "tack" is the trolling equivalent of a tow, set, or drift and will be the unit of effort. A "spread" is the term for the entire gear configuration.
- **Feasibility and efficiency:** Proposed methods are economically viable for participants to cover the cost of fishing (fuel, gear, bait, VMS, etc.) under this EFP.
- **Safety at-sea:** This consideration is paramount and the proposed methods of this EFP are designed to allow enough time each year for choosing safe weather days to maximize the days fished within the defined constraints of the EFP.
- **Precaution to minimize risk to protected resources:** Because overfished yelloweye rockfish and salmonids will likely be encountered during EFP fishing, several precautionary measures are proposed to minimize and account for catch of protected species (see **Precautionary Measures**). These measures include 100 percent observer coverage and hard caps for yelloweye and other protected species. Anecdotal information from fishers who fished this gear in the 1990's suggest negligible amounts of salmon bycatch will be encountered but no data exist to inform this assertion.

## Total Duration of the EFP

This EFP proposal is for a total of two years (2019-2020). During each year, up to 30 vessel-days are requested, based on sample size requirements necessary to demonstrate gear effectiveness, estimated impacts to yelloweye rockfish (see **Estimated Harvest Amounts and Requested Set-Asides**), and resources available for observer coverage. Impacts to target and protected species will be monitored on a trip by trip basis and fishing will cease when impacts reach species hard cap quotas.

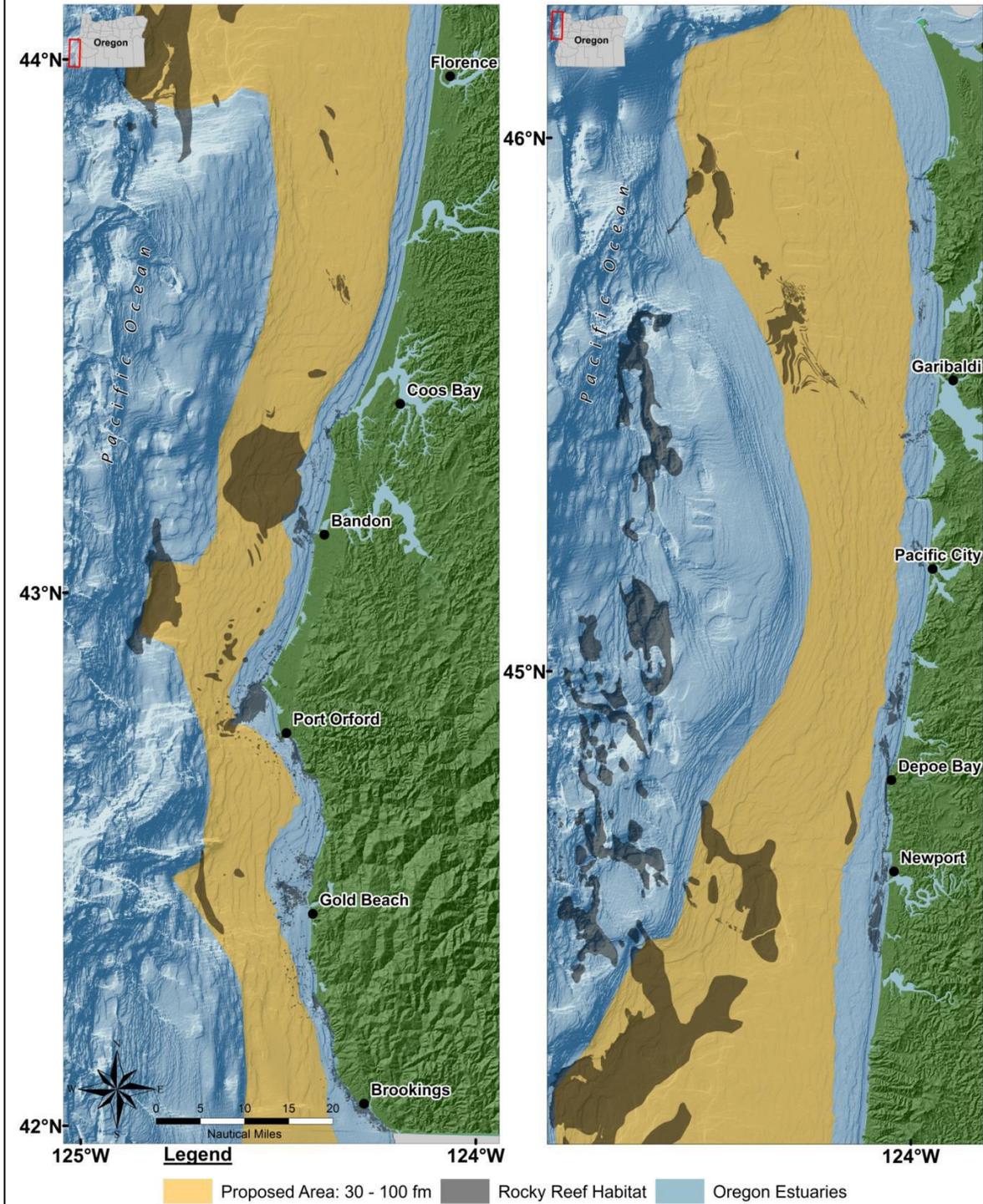
## Location of Fishing under the EFP

The area proposed for fishing is rocky reef habitat in the RCA off the Oregon coast, from 30 to 100 fathoms, 42.00° to 46.26° N (Figure 1). For official coordinates demarcating the RCA area between the 30 – 100 fathom lines off Oregon see:

[http://www.westcoast.fisheries.noaa.gov/fisheries/management/groundfish\\_closures/rockfish\\_areas.html](http://www.westcoast.fisheries.noaa.gov/fisheries/management/groundfish_closures/rockfish_areas.html)

Prior to closure, the RCA was commercially fished for midwater rockfish species because this is the primary area inhabited by these underutilized species as demonstrated by habitat suitability maps in Appendix A.

## Proposed Fishing Area for Oregon Commercial EFP: Rockfish Conservation Area 30 - 100 fm

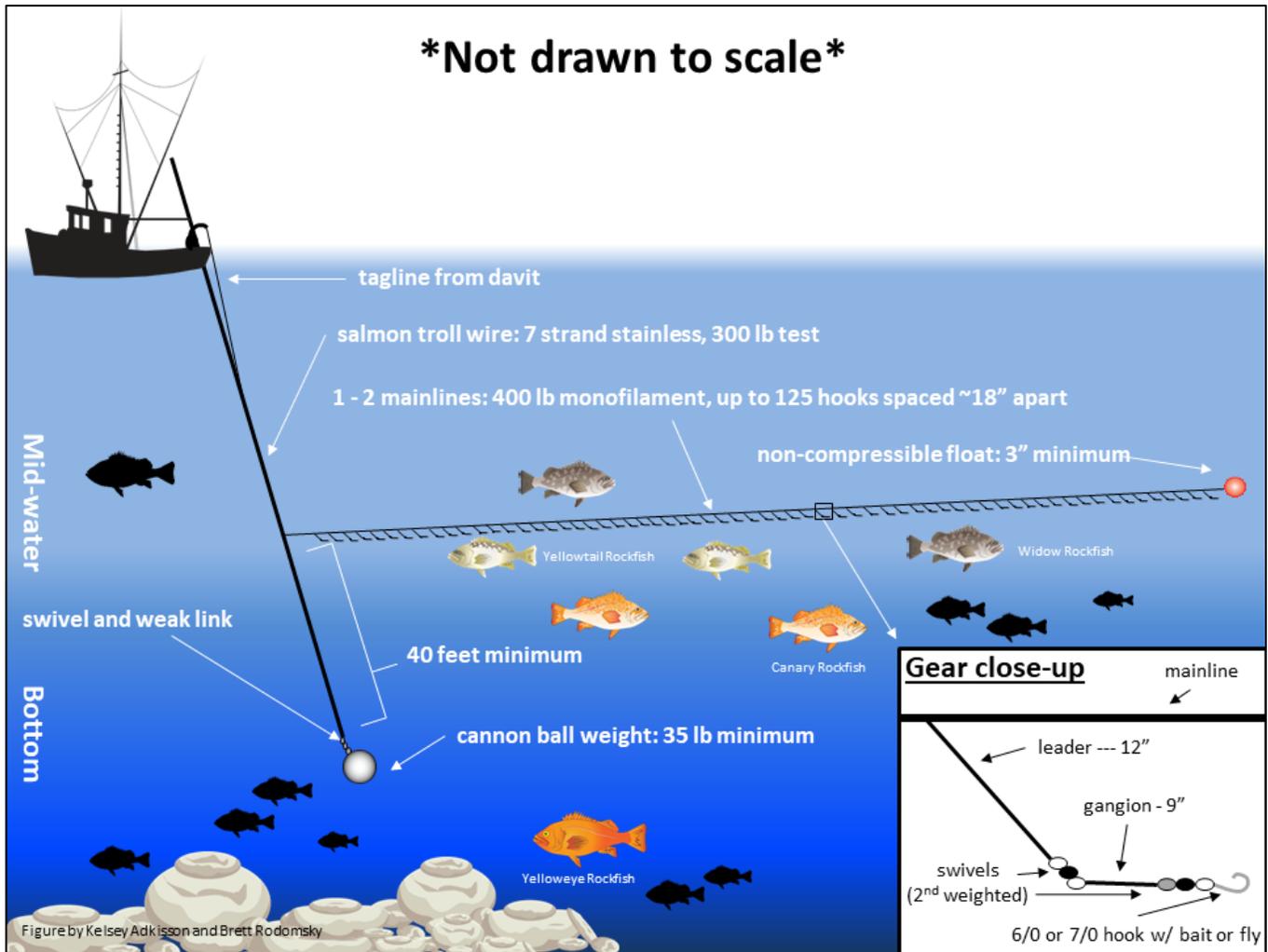


**Figure 1.** The proposed fishing area for this EFP: rocky reef habitat in the RCA off the Oregon coast; 30 – 100 fm.

Within the water column in the RCA, the proposed gear configuration will fish a minimum 30 feet off the bottom substrate. This specification is explicitly designed to minimize encounters with yelloweye rockfish while fishing at depths commonly inhabited by target midwater rockfish species. Specific mechanisms in the gear configuration ensure gear stays 30 feet above the bottom (see **Description of the Proposed Gear Configuration**).

## Description of the Proposed Gear Configuration

The proposed gear configuration is a “trolled longline” gear type (Figure 2). This configuration combines elements of pelagic longline and salmon troll gears. This gear was used in the 1990’s to target these midwater rockfish stocks by some of the EFP participants. This configuration is highly adjustable for deployment in the water column and is efficient for targeting midwater schools of fish without coming close to benthic substrates. Details of the proposed gear configuration are below.



**Figure 2.** Schematic of proposed trolled longline gear configuration. This depiction shows one mainline, but up to two mainlines are proposed to be fished simultaneously.

### Gear Specifications

The spread for each tack will consist of the following:

- 1) One or two steel salmon troll wires attached to the vessel’s gurdies.
- 2) Attached at the base of the troll wire, a weak link breakaway (line test to be determined).
- 3) Attached to the weak link breakaway will be a salmon troll cannonball at least 35 lbs.
- 4) Attached to the troll wire, at least 40 feet above the cannonball weight, one or two monofilament mainlines (400 lb. test). Fixing the mainline 40 feet above the cannonball allows for scope in the troll wire and is one built-in mechanism for keeping the gear at least 30 feet off the bottom.
- 5) Attached to the monofilament mainline, 25 – 125 leaders and gangions with weights, swivels, and 6/0 or 7/0 hooks with shrimp flies or bait.
- 6) Attached to the terminal posterior end of each mainline is a non-compressible float a minimum of 3" in

diameter, a second built-in mechanism for keeping the gear off the bottom.

### **Storage and Deployment**

Storage and deployment of the gear configuration is as follows:

- 1) Mainlines are coiled and stored in baskets, on portage reels or spooled on the boat's gurdies.
- 2) Hooks are placed on the basket rim, on the vessels "pinning rail", or stored on the portage reels.
- 3) For deployment, the weak link and weight are attached to the non-fixed end of the troll wire. The non-compressible float at the non-fixed end of the mainline is thrown over board and the hooks peel off the pinning rail, basket rim, or portage reel.
- 4) When deployed from a moving vessel, forward motion, in combination with the cannonball weight forces the mainline down into the water column. The terminal float keeps the mainline straight, taught, and angled upwards at depths no deeper than the attachment height to the salmon troll wire above the breakaway providing another mechanism to keep this gear off the bottom.
- 5) The combination of the weak link breakaway and terminal float ensures the gear will not get hung up on or sink to the bottom when fishing; rather the gear will rise to the surface if the weak link parts.

### **Effort**

Proposed fishing effort variables are summarized in Table 3. The ranges presented were informed by EFP participants who fished this gear in the RCA in the 1990s. The effort variables, in combination with fish ticket and species composition data, were used to estimate daily and annual catches from EFP fishing (see **Estimated Harvest Amounts and Request EFP Quotas**). At a rate of 10 – 15 tacks per day a total sample size of 200 – 450 tacks per year will be achieved depending on the number of fished vessel days

**Table 3.** Proposed fishing effort variable ranges for midwater rockfish EFP fishing.

<b>Effort Variable</b>	<b>Range Proposed</b>
Trip Length	1 - 3 days
Mainlines per Spread	1 - 2
Tacks per Day	10 - 15
Duration per Tack	0.5 - 1 hour
Total Time Gear Fishing per Day	6 - 12 hours
Hooks per Tack	25 - 125

### **Number of vessels covered under the EFP**

The goal of this EFP is to cover as much of applicable habitat in the RCA within waters off the Oregon coast as possible in search of target species and to simulate the activities of a fishery fleet. With this in mind, a total of 3 - 5 vessels from as many Oregon ports as possible will participate in this EFP. The participants plan to fish out of ports from Garibaldi in the north to Brookings in the south, covering areas of the RCA within this latitudinal extent. A total EFP fleet of 3 - 5 participating vessels balances the need to include as many vessels as possible to create a representative sample with the limitations imposed by resources necessary to cover the data collection and analysis efforts for this EFP.

### **Species to be impacted (target and incidental)**

The main fish species likely to be impacted by fishing under this EFP are listed in Table 4. The target midwater rockfish stocks include yellowtail, widow, and canary rockfishes. Additionally, various species will be incidentally caught. These species were identified through fish ticket and species composition data collected from landings from

this gear type in the 1990s. Most notable, minimal amounts of yelloweye rockfish and salmonids may be caught while fishing under this EFP. Observers will census all fish caught during each trip resulting in 100 percent accounting per species for all species impacted by this gear configuration.

**Table 4.** Target and incidental species likely to be impacted by EFP fishing listed below. Species were identified from fish ticket and species composition data collected from fishing with this gear type in the 1990s.

Species	Target or Incidental?	Overfished? Y/N	Depth Range (fm)
Yellowtail Rockfish <i>Sebastes flavidus</i>	Target	N	0 - 300
Widow Rockfish <i>S. entomales</i>	Target	N	0 - 300
Canary Rockfish <i>S. pinniger</i>	Target	N	0 - 232
Yelloweye Rockfish <i>S. ruberrimus</i>	Incidental	Y	8 - 300
Bocaccio <i>S. paucispinis</i>	Incidental	N	0 - 205
Splitnose Rockfish <i>S. diploproa</i>	Incidental	N	0 - 437
Redstripe Rockfish <i>S. proriger</i>	Incidental	N	7 - 232
Silvergray Rockfish <i>S. brevispinis</i>	Incidental	N	0 - 205
Shortbelly Rockfish <i>S. jordani</i>	Incidental	N	0 - 191
Redbanded Rockfish <i>S. babcocki</i>	Incidental	N	50 - 234
Yellowmouth Rockfish <i>S. reedi</i>	Incidental	N	75 - 200
Blue Rockfish <i>S. mystinus</i>	Incidental	N	0 - 300
Lingcod <i>Ophiodon elongatus</i>	Incidental	N	0 - 230
Chinook Salmon <i>Oncorhynchus tshawytscha</i>	Incidental	N	0 - 70
Coho Salmon <i>Oncorhynchus kisutch</i>	Incidental	N	0 - 70

### Species Descriptions

For descriptions of the groundfish species to be targeted and caught during fishing under this EFP proposal, their life histories, and geographical ranges see part 2 of Appendix B from the Pacific Coast Groundfish Fishery Management Plan here:

[http://www.pcouncil.org/wp-content/uploads/GF\\_FMP\\_App\\_B2.pdf](http://www.pcouncil.org/wp-content/uploads/GF_FMP_App_B2.pdf)

For recent information on abundance and harvest specifications for the groundfish species that will likely be impacted by fishing under this EFP, see Chapter 2 of Harvest Specifications and Management Measures for 2017-18 Final Environmental Impact Statement here:

<http://www.pcouncil.org/wp-content/uploads/2017/05/17-18-spex-final-ea-03062017.pdf>

### Estimated Harvest Amounts and Requested Set-Asides

Projected catch per unit effort per species (with standard deviations) was estimated on a daily basis for low and high catch scenarios: 680.4 kg (1,500 lbs), and 907.2 kg (2,000 lbs) (Table 5). This two daily catch estimates were taken from catch levels attained by EFP participants fishing this gear in the 1990's. Estimates of catch composition were derived from fish ticket data from 145 landings from this gear type from EFP participants in 1995 - 2000. For market categories consisting of catch not identified to the species level on fish tickets, six species composition samples collected from this gear type in 1994 – 95 were applied to undifferentiated fish ticket market categories to arrive at species-specific catch estimates. It should be noted that fishers were targeting yelloweye rockfish in the 1990s because there were no regulator or market reasons for avoiding or discarding this species with motivation to land them for high dollar per pound values. Therefore, landings on fish tickets from this time period reflect total catch, and the percentage of yelloweye rockfish caught under this EFP will likely be lower than estimates presented because the gear is modified to fish higher off the bottom as the mainline will be attached a minimum of 40 feet above the cannonball weight.

**Table 5:** Projected mean species composition ( $\pm 1$  standard error) of catch based on effort from one day with two daily total catch scenarios: low (680.4 kg) and high (907.2 kg). Projections were estimated from fish tickets from 145 landings from this gear type from 1995 – 2000 and 6 species composition samples collected from this gear type from 1994 – 95. Estimated daily catch scenarios were provided by fishers with experience in this fishery with this gear type.

Projected Daily Catch Scenario	Catch per Day (kg)	
	680.4	907.2
<b>Species Composition</b>		
Yellowtail Rockfish	222.1 (16.6)	296.2 (22.1)
Widow Rockfish	106.1 (11.0)	141.5 (14.6)
Canary Rockfish	188.5 (13.3)	251.3 (17.7)
Yelloweye Rockfish	6.4 (0.7)	8.5 (1.0)
Bocaccio	34.8 (4.1)	46.4 (5.4)
Yellowmouth Rockfish	8.0 (0.9)	10.7 (1.3)
Silvergray Rockfish	3.1 (0.4)	4.2 (0.5)
Redbanded Rockfish	3.1 (0.4)	4.2 (0.5)
Redstripe Rockfish	0.4 (0.1)	0.5 (0.1)
all other species	107.8 (6.6)	143.8 (8.7)

For estimates of annual harvest amounts per species under this EFP see table 6. Projections of catch were made for the low and high daily catch estimates from table 5 combined with 2 possible EFP vessel-day allocation scenarios: 20 days and 30 days per year. The West Coast Groundfish Observer Program (WCGOP) has committed to providing at least 20 vessel-days of observer coverage for this EFP. Twenty days of fishing at the low catch rate in bold in Table 6 represents the base proposal for harvest under this EFP. The 30 day scenario at the high catch rate is the preferred proposal harvest allocation scenario (in bold italics) but would only be possible if WCGOP were able to provide up to 30 days of observer coverage. For all species other than yelloweye rockfish requested impacts could be counted against the underutilized non-trawl allocations of these species or if the Council prefers allocated as EFP set-asides. For requested species specific set-asides see Appendix B.

**Table 6.** Estimates of annual harvest by species based on 20 or 30 fishing days and two different average daily catch rates derived from table 5. These species estimates are the starting point for the requested set-asides (category included; CW = coastwide) if needed in Appendix B. The base proposal (center bold) is based on getting observer coverage for 20 days. The preferred alternative scenario (bold italics) is presented in the event that 30 days of observer coverage is available.

Catch per Day Scenario		Low	High	
Proposed Vessel Days	Species	Projected Catch (mt)		Management Category
20	Total Catch	<b>11.73</b>	18.17	
	Yellowtail Rockfish	<b>4.4</b>	5.9	Yellowtail North
	Widow Rockfish	<b>2.1</b>	2.8	Widow CW
	Canary Rockfish	<b>3.8</b>	5.0	Canary CW
	<b>Yelloweye Rockfish</b>	<b>0.13</b>	<b>0.17</b>	<b>Yelloweye CW</b>
	Bocaccio	<b>0.7</b>	0.9	Shelf RF North
	Yellowmouth Rockfish	<b>0.1</b>	0.2	Slope RF North
	Silvergray Rockfish	<b>0.1</b>	0.1	Shelf RF North
	Redbanded Rockfish	<b>0.1</b>	0.1	Slope Rockfish North
	Redstripe Rockfish	<b>1.0</b>	0.1	Shelf Rockfish North
all other species	<b>2.2</b>	2.9		
30	Total Catch	18.17	<b>24.86</b>	
	Yellowtail Rockfish	5.9	<b>8.9</b>	Yellowtail North
	Widow Rockfish	2.8	<b>4.2</b>	Widow CW
	Canary Rockfish	5.0	<b>7.5</b>	Canary CW
	<b>Yelloweye Rockfish</b>	<b>0.17</b>	<b>0.26</b>	<b>Yelloweye CW</b>
	Bocaccio	0.9	<b>1.4</b>	Shelf RF North
	Yellowmouth Rockfish	0.2	<b>0.3</b>	Slope RF North
	Silvergray Rockfish	0.1	<b>0.1</b>	Shelf RF North
	Redbanded Rockfish	0.1	<b>0.1</b>	Slope Rockfish North
	Redstripe Rockfish	0.1	<b>0.1</b>	Shelf Rockfish North
all other species	2.9	<b>4.4</b>		

For the main target stocks, the base proposal expected harvest is 10.3 mt of yellowtail, widow, and canary rockfishes, combined. However, up to 10 mt of set-asides for each midwater rockfish species is requested (Appendix B) and is expected to provide sufficient amounts at either coverage level while at the same time maximizing the amount of non-trawl allocation utilized. Under the preferred alternative scenario for this EFP at a high catch rate for 30 days of fishing up to 10 mt of each of yellowtail, widow and canary rockfishes may be attainable. For yelloweye rockfish, we are requesting 0.26 mt as that would cover higher observer coverage and higher catch rates; however, 0.13 mt would be sufficient to cover the base proposal of 20 days at the low catch rate. We are cognoscente of yelloweye rockfish constraining all fisheries and again expect catch rates to be lower than expected due to gear modifications that keep the gear 30 feet off the bottom. We are also requesting 1.5 mt of shelf rockfish north complex and slope rockfish north complex 0.5 mt (Appendix B; both North of 40°10' N. lat.) as we could encounter those amounts if we have higher observer coverage and higher catch rates.

We also propose a set-aside of 0.5 mt of Oregon black rockfish and Nearshore Rockfish North of 40°10' N. lat. Complex (Appendix B). Although we do not expect to catch much of either, we are cognoscente of specifying set-aside caps as these are also high attainment stocks. If Oregon Blue/Deacon Rockfish is removed from the Nearshore Rockfish North of 40°10' N. lat. complex as proposed by the Oregon Department of Fish and Wildlife, the requested set-aside would decrease to 0.1 mt for the Nearshore Rockfish North of 40°10' N. lat. complex (as deacon most likely to be encountered). We would request that 0.4 mt be attribute to OR Blue/Deacon regardless of which complex it is attributed to (e.g. if joined with Oregon black rockfish, then the set-aside would be 0.5 for black rockfish plus 0.4 mt for Blue/Deacon).

For all other stocks that we do not expect to encounter but could, we have two alternatives for consideration. In alternative 1, any of the expected low impacts (<0.1 mt) would be attributed to the non-trawl allocation and not require specific set-aside amounts for this EFP. However, if the preference is to have set-asides for everything that could be potentially caught, then the full itemized list is included in the Appendix B.

We do not expect much if any Chinook salmon catch because: 1) other similar EFPs (i.e. OR sport yellowtail longleader and Emley/Platt) only caught 1 Chinook salmon, 2) we will troll at slower speeds than effective for catching salmon, and 3) because we will use shrimp flies that do not normally attract attacking Chinook salmon. We are cognoscente of the sensitivity regarding Chinook salmon bycatch, and would be willing to work with the National Marine Fisheries Service (NMFS) to implement salmon mitigation measures if desired (e.g., caps).

### **Disposition of Catch**

Target species and legal incidental catch will be retained for sale. Incidental catch that may not be legally retained will be released alive, if possible, with descending devices. If desired by the Council, dead incidental catch of protected species can be retained for research, biological samples and stock assessment data.

## **Catch Accounting and Compliance**

### **Precautionary Measures**

A number of measures were considered and will be implemented for fishing under this EFP to ensure accurate and precise catch estimates for all species impacted under EFP activities. In addition, these measures will facilitate safety and enforcement during EFP fishing. The proposed precautionary measures are:

- 1) **Observers and Electronic Monitoring:** Each trip will have an observer aboard who will sample all tacks resulting in 100 percent observer coverage for fishing activities under this EFP. WCGOP will provide at least 20 vessel days of observer coverage. We are also open to electronic monitoring.
- 2) **Harvest Caps:** Based on feedback from the Council and NMFS, each vessel will have annual harvest caps (e.g. table 5) for target species and yelloweye rockfish. If caps are attained based on catch accounting enumerated by the observer, fishing will cease.
- 3) **Catch Accounting and Trip Reports:** On a timeline specified by NMFS, cumulative catch reports will be provided after each trip (e.g. within 24 - 48 hours of the landing save weekends and holidays).
- 4) **Status and Evaluation Call before Each Trip:** Prior to each trip, participants will call ODFW to check that enough impacts remain under the EFP quotas for all species to allow for the planned trip. Also, a call to WCGOP will ensure each vessel has the necessary observer coverage for the trip.
- 5) **Vessel Monitoring System (VMS) and Vessel Marking:** Prior to departure each trip, vessels will call the West Coast Groundfish Declaration Line to report the vessels intent. Each vessel will also display a banner reading "EFP Fishing" in 2 foot high letters.
- 6) **Yelloweye Rockfish Released with Descending Devices:** When yelloweye rockfish are caught, this species will be released and returned to depth using a descending device to increase chances of survival.

## **Data Collection and Analysis Methodology**

### **Data Collection**

EFP data collection will be conducted by both WCGOP observers and ODFW port biologists. The following data will be collected for fishing under this EFP:

**Data collected by WCGOP observers from all trips and tacks:**

### **Gear Configuration Data**

- Mainline Material and Length
- Type, Size and Number of Hooks
- Distance between Hooks
- Weight Size
- Float Size and Material
- Distance between Cannonball Weight and Mainline
- \* Depth recorders can be attached if desired

### **Set and Haul Data**

- Start and End Tack GPS
- Start and End Tack Times
- Start and End Tack Bottom Depth

### **Catch Data**

- Tally Census by Species for all Fish (and other organisms) Caught
- Retained vs. Discarded Fish by Species
- Lengths and Weights from all Discarded Fish

### **Data collected by ODFW port biologists from selected landings:**

#### **Biological Data**

- Market Sample for Species Composition
- Subsample Lengths and Weights per Landing and Species (20 - 30)
- Subsample Otoliths per Landing and Species (20 - 30)

### **Data Analysis**

All data collected by observers during EFP fishing will be tabulated, summarized and analyzed by NMFS, WCGOP and/or ODFW staff. To keep EFP impacts within allocated quotas, data from each trip for target, incidental, and protected species, such as yelloweye rockfish, will be tabulated within 48 hours of each landing, prior to any additional trips, to ensure enough fish of each species is available to continue EFP fishing.

In addition, WCGOP and/or ODFW staff will work towards various summaries, analyses, and projections to characterize effort, impacts, and statistical conclusions from data collected from the proposed gear configuration. For example, WCGOP could provide raw data and trip catch summaries to ODFW who could analyze and report on the results of the EFP, if such meets confidentiality requirements. Total catch and yelloweye rockfish impact rates under this EFP will be summarized. Gear configuration and biological data collected will also be summarized and evaluated. Projections will be made to expand this data set to reflect possible impacts of an authorized commercial hook and line fishery.

### **Participation**

#### **Choosing Participants**

Currently, four captains and vessels are prepared to participate in this EFP, the applicant, Russ Otto (F/V Smejkal), Paul Metz (F/V Joanne), and Jack Kirk (F/V Dragonet). Additional participants will be chosen for this EFP by the applicant based on:

- 1) Ability to accommodate an observer (enough room in the life raft, current coast guard decal, a bunk for observers on multiple day trips, etc.).
- 2) Ability to fish the proposed gear type
- 3) An activated VMS onboard
- 4) Expressed interest in participating
- 5) Past experience fishing this gear configuration
- 6) No fishing violations in the last 3 – 5 years

**Planned EFP Fishing by Participants**

Fishing under this EFP will take place throughout the year in locations with rocky reef habitat and populations of target species. Specific days for fishing will be left to the discretion of individual participants as long EFP quota remains with total fishing days not to exceed the number specified in the EFP. Because of the need for favorable weather conditions, markets, coordination with observers among other variables, the intent for fishing under this EFP is to allow participants flexibility in determining fishing trip timing and locations as long as all requirements for the permit are met.

**Signature**

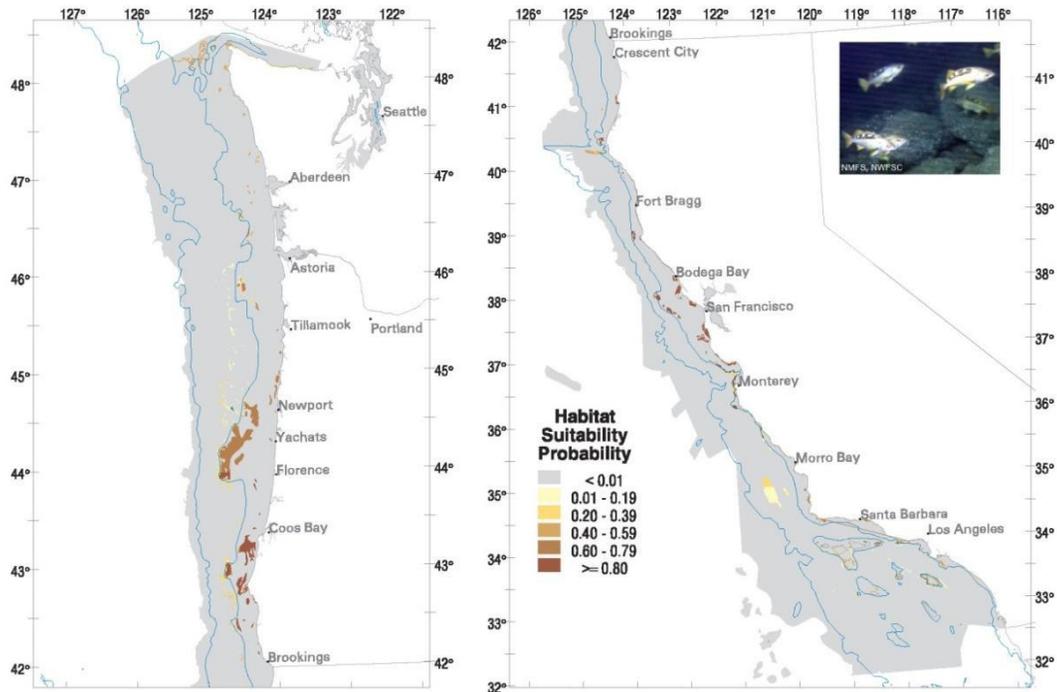
A handwritten signature in black ink, appearing to read "Scott Cook". The signature is written in a cursive, somewhat stylized font. The first name "Scott" is written in a larger, more prominent script, and "Cook" is written in a smaller, simpler script to the right.

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**Scott Cook**

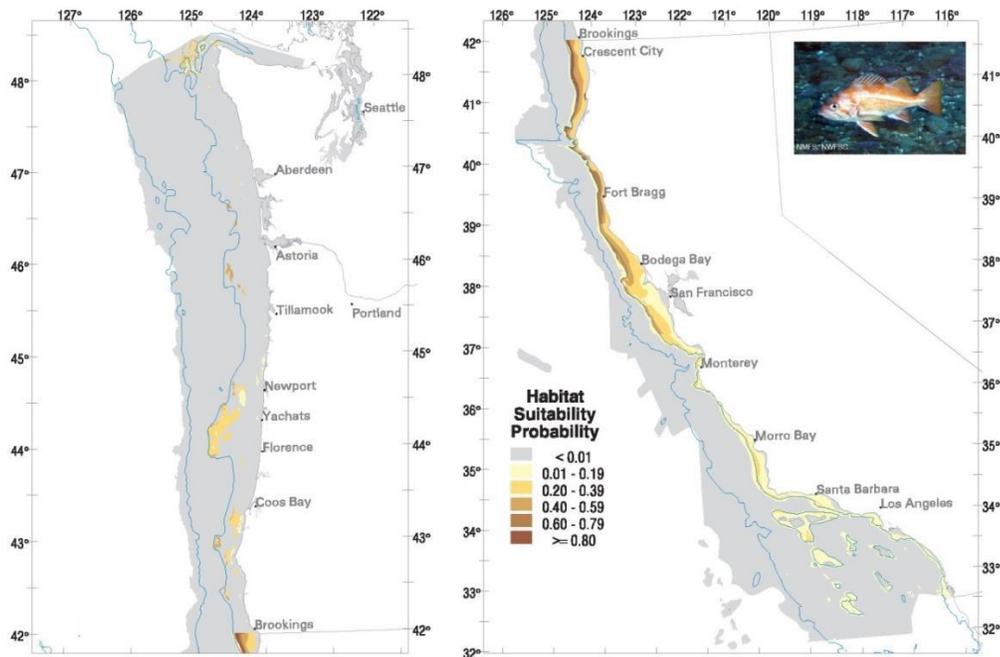
**Appendix A: Available habitat suitability maps for species potentially impacted by this EFP.**

**Yellowtail Rockfish - Adult**



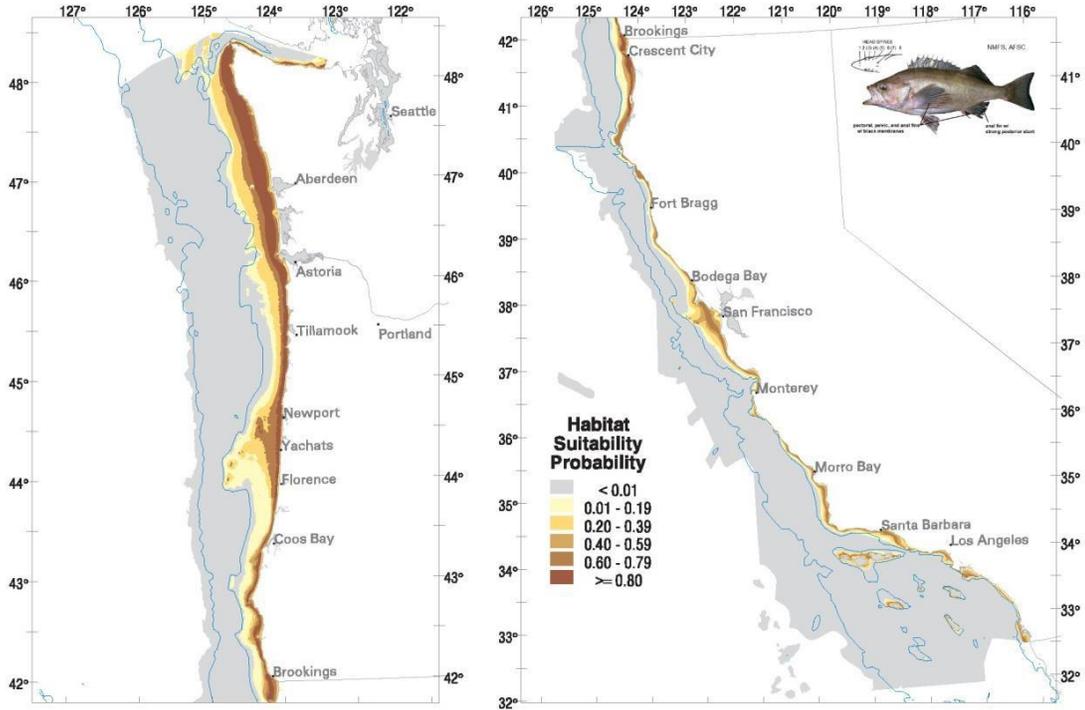
Habitat Suitability Probability data output from MRA/University of Reading EFH model. Cartography by Sound GIS, map date: November 01, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from HUD  
 Groundfish FMP Appendix B.4

**Canary Rockfish - Adult**



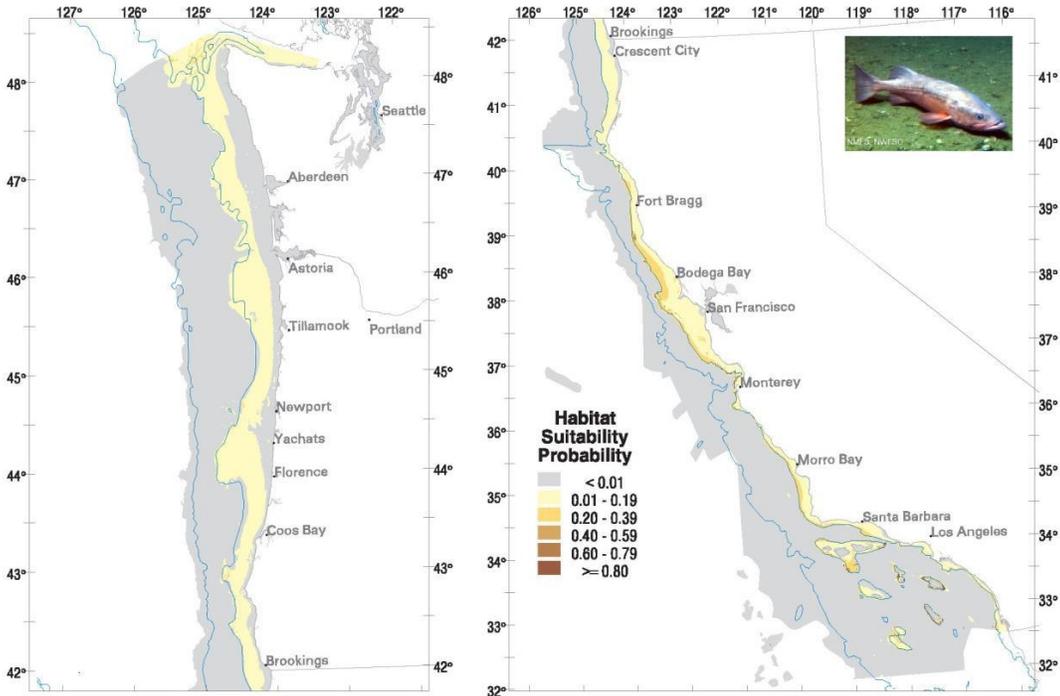
Habitat Suitability Probability data output from MRA/University of Reading EFH model. Cartography by Sound GIS, map date: October 16, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from Survey+  
 Groundfish FMP Appendix B.4

**Widow Rockfish - Juvenile**



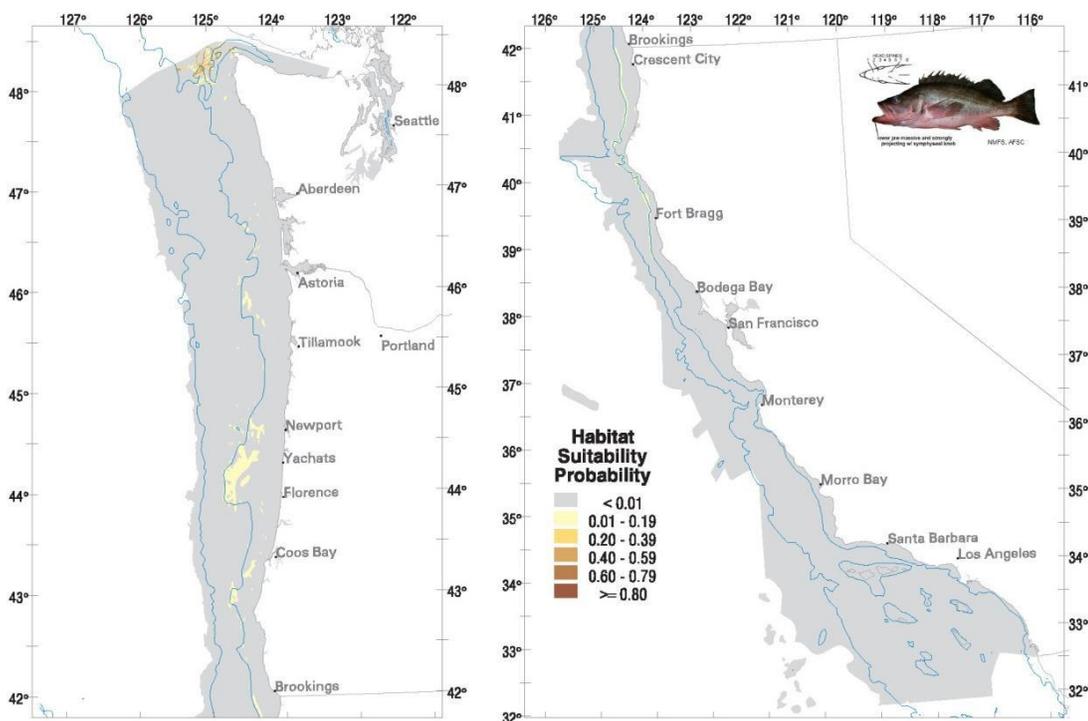
Habitat Suitability Probability data output from MRA/University of Reading EFH model. Cartography by Sound GIS, map date: November 01, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from: HUD  
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**Bocaccio - Adult**



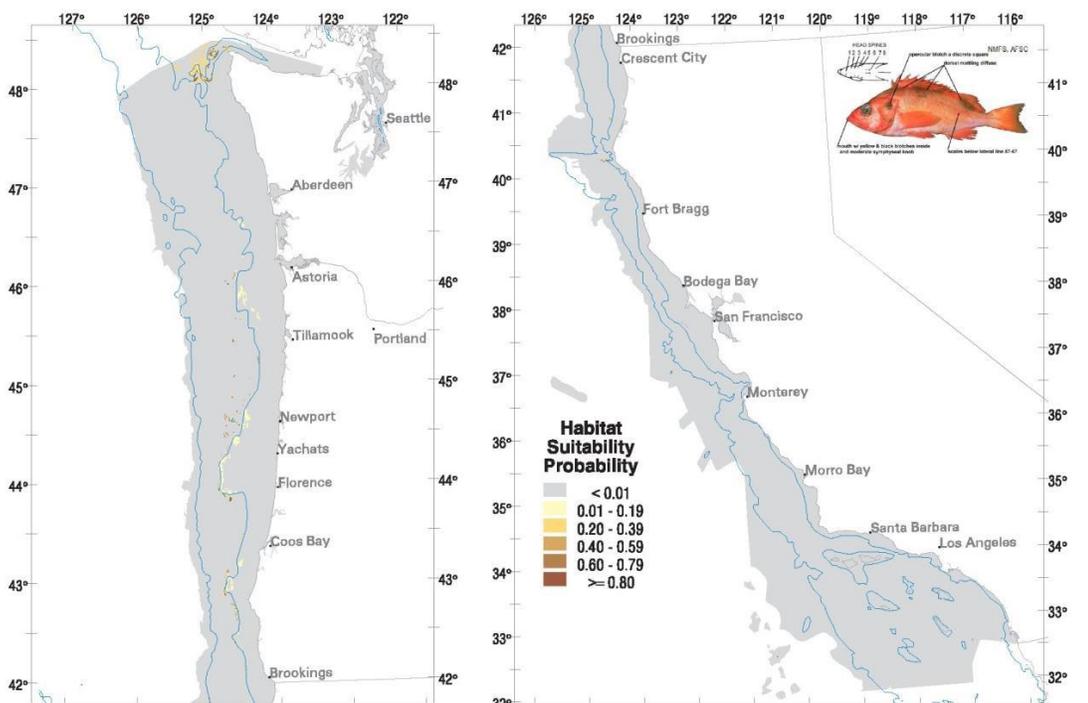
Habitat Suitability Probability data output from MRA/University of Reading EFH model. Cartography by Sound GIS, map date: October 16, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from: Survey+  
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### Silvergray Rockfish - Adult



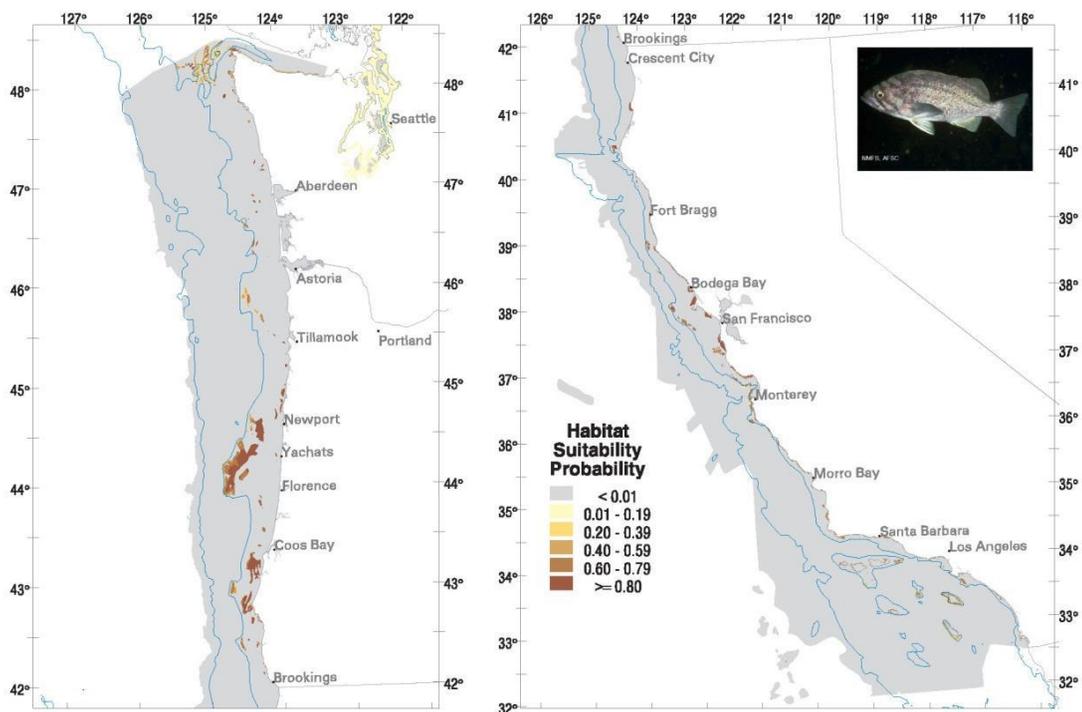
Habitat Suitability Probability data output from MRAG/University of Reading EFH model. Cartography by Sound GIS, map date: October 16, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from: Survey  
 Groundfish FMP Appendix B.4

### Yellowmouth Rockfish - Adult



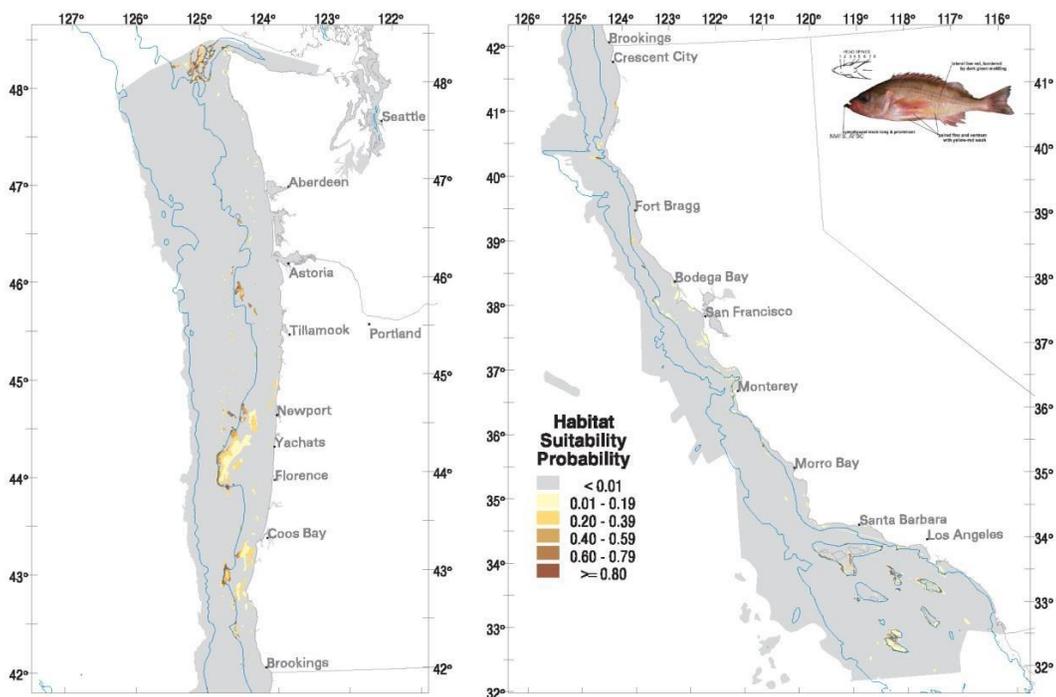
Habitat Suitability Probability data output from MRAG/University of Reading EFH model. Cartography by Sound GIS, map date: November 01, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from: HUD  
 Groundfish FMP Appendix B.4

### Blue Rockfish - Adult



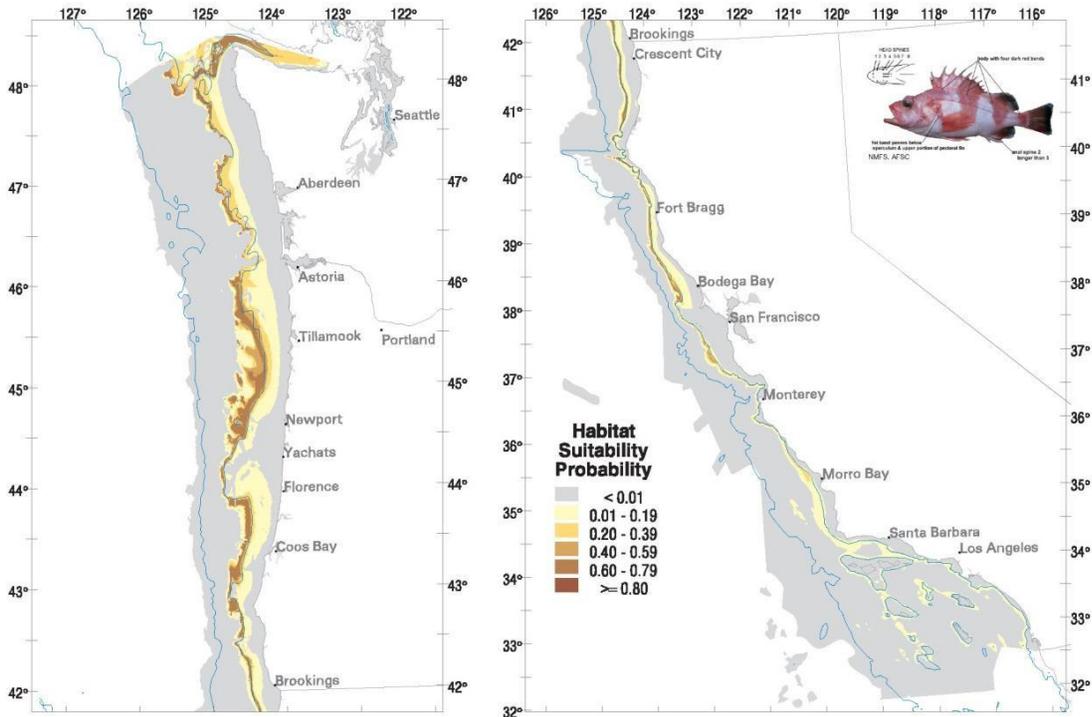
Habitat Suitability Probability data output from MRA G/University of Reading EFH model. Cartography by Sound GIS, map date: October 16, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from: HUD  
 Groundfish FMP Appendix B.4

### Redstripe Rockfish - Adult



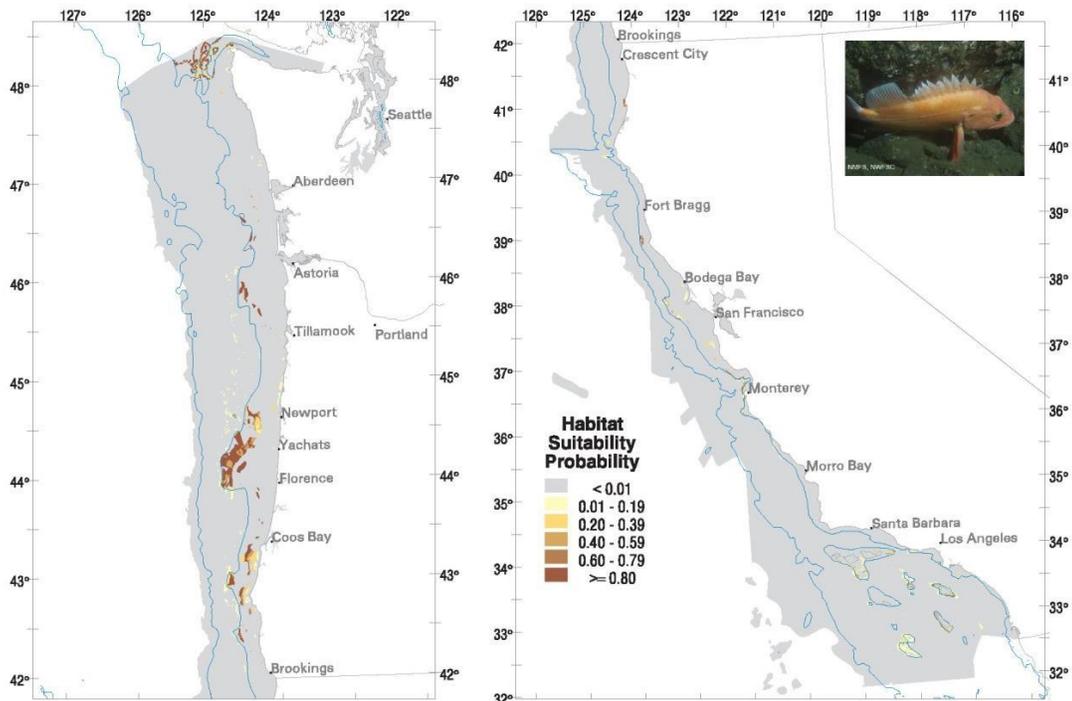
Habitat Suitability Probability data output from MRA G/University of Reading EFH model. Cartography by Sound GIS, map date: October 16, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from: HUD  
 Groundfish FMP Appendix B.4

### Redbanded Rockfish - Adult



Habitat Suitability Probability data output from MRAG/University of Reading EFH model. Cartography by Sound GIS, map date: October 16, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from: Survey  
 Groundfish FMP Appendix B.4

### Yelloweye Rockfish - Adult



Habitat Suitability Probability data output from MRAG/University of Reading EFH model. Cartography by Sound GIS, map date: November 01, 2005  
 Species/habitat association for benthic substrate derived from NMFS Habitat Use Database (HUD). Depth and latitude association derived from: HUD  
 Groundfish FMP Appendix B.4

**Appendix B.** Proposed set-asides for this EFP. Grey shading indicates custom requests based upon expected catches with a 0.1 mt catch-all for everything else that is not expected to be encountered but could be. Note we also propose that not having the 0.1 mt catch-alls set-aside for the EFP but rather attributed to the non-trawl allocation is preferable.

Stock or Complex	Area	Set-asides	
		Base (20 days; low catch rates)	High (30 trips, high catch rates)
Arrowtooth flounder	Coastwide	0.1	0.1
Big skate	Coastwide	0.1	0.1
Black (WA)	Washington	0	0
Black (OR)	Oregon	0.5	0.5
Black (CA)	California	0	0
Bocaccio	S of 40°10' N. lat.	0	0
Cabazon (OR)	46°16' to 42° N. lat.	0.1	0.1
Cabazon (CA)	S of 42° N. lat.	0	0
California scorpionfish	S of 34°27' N. lat.	0	0
Canary rockfish	Coastwide	10	10
Chilipepper	S of 40°10' N. lat.	0	0
Cowcod	S of 40°10' N. lat.	0	0
Darkblotched Rockfish	Coastwide	0.1	0.1
Dover sole	Coastwide	0.1	0.1
English sole	Coastwide	0.1	0.1
Lingcod	N of 40°10' N. lat.	0.1	0.1
Lingcod	S of 40°10' N. lat.	0	0
Longnose skate	Coastwide	0.1	0.1
Longspine thornyhead	N of 34°27' N. lat.	0.1	0.1
Longspine thornyhead	S of 34°27' N. lat.	0	0
Nearshore rockfish north	N of 40°10' N. lat.	0.5	0.5
Nearshore rockfish south	S of 40°10' N. lat.	0	0
Shelf rockfish north	N of 40°10' N. lat.	1.4	1.5
Shelf rockfish south	S of 40°10' N. lat.	0	0
Slope rockfish north	N of 40°10' N. lat.	0.3	0.5
Slope rockfish south	S of 40°10' N. lat.	0	0
Other Fish	Coastwide	0.1	0.1
Other flatfish	Coastwide	0.1	0.1
Pacific cod	Coastwide	0.1	0.1
Pacific whiting	Coastwide	0.1	0.1
Petrals Sole	Coastwide	0.1	0.1
Pacific Ocean Perch	N of 40°10' N. lat.	0.1	0.1
Sablefish	N of 36° N. lat.	0.1	0.1
Sablefish	S of 36° N. lat.	0	0
Shortbelly	Coastwide	0.1	0.1
Shortspine thornyhead	N of 34°27' N. lat.	0.1	0.1
Shortspine thornyhead	S of 34°27' N. lat.	0	0
Spiny Dogfish	Coastwide	0.1	0.1
Splitnose	S of 40°10' N. lat.	0	0
Starry flounder	Coastwide	0.1	0.1
Widow rockfish	Coastwide	10	10
Yelloweye rockfish	Coastwide	0.13	0.26
Yellowtail rockfish	N of 40°10' N. lat.	10	10