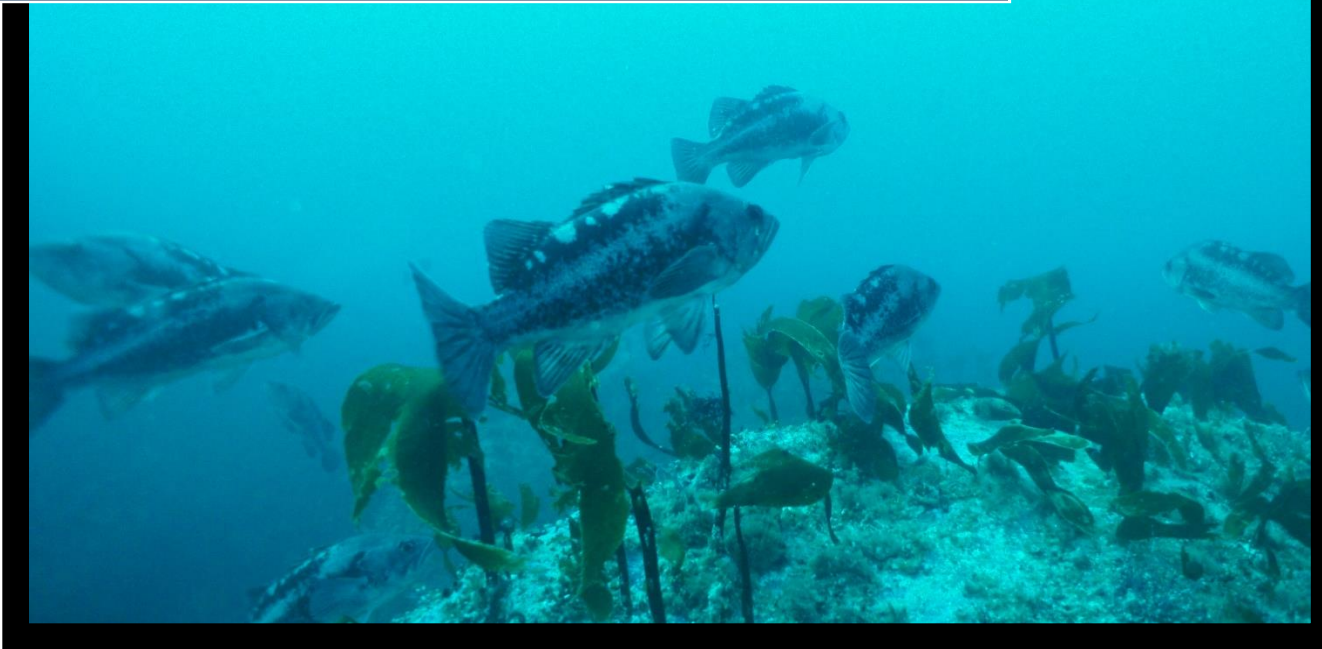


2016

# The Oregon Commercial Nearshore Fishery Summary



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## Introduction

Oregon's nearshore waters support a limited-entry commercial fishery that targets rocky reef associated groundfish species. This document summarizes the 2016 commercial nearshore fishery including management goals, harvest specifications, fishing effort, landed poundage, ex-vessel value, fishery-dependent biological data, and compliance with the commercial nearshore logbook requirement. In addition, a questionnaire survey of permit holders' preferences for future fishery management was conducted in 2016 and the results are here summarized. To maintain individual confidentiality as some ports have small numbers of participating vessels, data from Garibaldi and Astoria are combined and presented in the Garibaldi port group, data from Depoe Bay and Newport are combined in the Newport port group, and data from Winchester Bay, Charleston and Bandon are combined in the Bandon port group. Although fishers sometimes use more than one gear type during a trip, landings in this document are summarized by the primary gear used during the trip that is recorded on Oregon commercial fish receiving tickets (hereafter, fish tickets).

## Background

Oregon's commercial nearshore fishery first developed as an open access fishery in the early 1990's and transitioned to a State limited-entry permit system in 2004. The commercial nearshore fleet is composed of small vessels, averaging 25 ft., that target shallow (< 180 ft.) nearshore rocky reefs. Vessels use mostly hook & line jig or bottom longline fishing gear, but fish pots may also be utilized if a Developmental Fisheries Permit for nearshore species for this gear type was issued in 2003.

A variety of groundfish species are harvested and managed in this fishery including Black Rockfish, Blue Rockfish and the 21 "nearshore species" (Table 1) defined in Oregon Revised Statutes and Oregon Administrative Rules (OARs). These species are managed in six State management groups: Black Rockfish, Blue Rockfish, Other Nearshore Rockfish, Greenling, Cabezon, and Other Nearshore Species. Blue Rockfish became a State management group for the first time in 2015, consisting of Blue Rockfish (*Sebastes mystinus*) and the recently identified cryptic species Deacon Rockfish (*S. diaconus*; see 2015 annual report for more details). Hereafter, when referring to 'Blue Rockfish' the management group including both Blue and Deacon Rockfish is being referenced unless otherwise noted.

The Oregon Fish and Wildlife Commission (Commission) adopts rules for this fishery at Commission meetings. Many but not all of the species in these groups are also included in the federal Pacific Coast Groundfish Fishery Management Plan (GFMP) and are subject to federal fishery regulations. The Commission has the authority to adopt concurrent or more conservative rules, but not more liberal regulations for species included in the GFMP. In practice, federal regulations primarily set Annual Catch Limits (ACLs) for groundfish species or management groups, while the Commission adopts regulations intended to maintain total fishery mortality (harvest and discard) within the federal limits.

Rules adopted by the Commission are implemented by the Oregon Department of Fish and Wildlife (Department) and are found on the Department website in Divisions 004 and 006 at <http://dfw.state.or.us/OARs/oars.asp#Fish>. For 2016, these rules included annual harvest guidelines (Appendices A & B, cumulative bimonthly trip limits (hereafter, bimonthly limits; Appendix C), daily trip limits, incidental landing limits and fish minimum length limits. A daily trip

limit for commercial harvest of Black Rockfish of 300 pounds is also in effect in specific geographic areas where extensive recreational harvest occurs (Figure 1).

Two separate permit types exist for Oregon's limited-entry commercial nearshore fishery. These two permits allow access to different harvest allocations. The first permit type, the Black and Blue Rockfish permit, allows for the harvest of Black and Blue Rockfishes in amounts up to the bimonthly limits set by the Commission for those State management groups (Appendix C), while allowing for only incidental harvest of the daily trip limit of 15 pounds per day of all other nearshore fish species, combined. The second permit type, the Black and Blue Rockfish permit with a Nearshore Endorsement, allows for harvest up to the maximum bimonthly limits specified by the Commission for Black and Blue Rockfishes, Other Nearshore Rockfish, Greenling, and Cabezon. The nearshore endorsement is also required to catch the federal monthly landing limit of Tiger and Vermilion Rockfishes, both of which are on Oregon's nearshore species list.

Ordered from most to least pounds landed, fishers in this fishery harvest primarily Black Rockfish, Cabezon, Kelp Greenling, China Rockfish, Blue Rockfish, Vermilion Rockfish, Quillback Rockfish, and Copper Rockfish. The remaining nearshore species (Table 1) make up a very small portion of the catch. Lingcod (*Ophiodon elongatus*) is also frequently landed by vessels participating in this fishery and this species is included in the federal GFMP. However, Lingcod is not included on Oregon's nearshore species list, and is not managed under the State limited-entry permit system. Little information on commercial Lingcod harvest is included in this report.

Each fishing "season" consists of the calendar year with boats fishing year-round as weather and quotas allow. A small amount of nearshore species are harvested as incidental catch in other fisheries. These other fisheries use primarily troll or trawl gear. Fish caught in the commercial nearshore fishery supply both live and fresh (dead) fish markets, though the live fishery largely occurs on the southern Oregon coast. Oregon's commercial nearshore fishery has a diverse group of participants; many fishers participate in several fisheries, others solely participate in this fishery.

### **Fishery Management and Harvest Specifications**

Fishery managers from the Department set specific management goals at the outset of 2016 to maintain a sustainable fishery from both a natural resources and a socio-economic perspective. Commercial fishers and other interested parties have the opportunity to provide input on management goals at a series of public meetings held by the Department each fall, or can provide testimony directly to the Commission when regulations are adopted. Largely based on public input, the primary goal for 2016 was to provide fishing opportunities throughout the calendar year without exceeding State annual commercial harvest guidelines or allowable impacts to Yelloweye Rockfish (*Sebastes ruberrimus*), a stock which has been declared overfished.

For 2016, the State adopted harvest guidelines for Black Rockfish, Greenling, Cabezon and Other Nearshore/Blue Rockfish combined. Harvest guidelines are specified numerical harvest objectives that are not quotas. The attainment of the harvest guideline does not necessarily cap impacts of the fishery. This differs from harvest caps and landing caps in that attainment of a cap results in fishery shutdown. Harvest guidelines were first implemented in 2015 to provide flexibility in management under the reduced Minor Nearshore Rockfish ACL without exceeding the catch limit. See the 2015 fishery summary for more details on this change.

Commercial harvest guidelines for 2016 are listed in Table 2 while guidelines from 2015 are in Appendix B. No harvest guideline exists for Other Nearshore Species though daily trip limits apply. In general, harvest allocations remain unchanged unless new information, such as a stock assessment, suggests harvest levels should be adjusted. Discard mortality for this fishery was quantified by the Federal West Coast Groundfish Observer Program and summarized in National Oceanic and Atmospheric Administration Fisheries annual reports.

The Department implemented six bimonthly periods (Table 3) for which bimonthly limits for species management groups were set for individual vessels (Table 4; Figures 2 - 6; Appendix C). Bimonthly limits facilitate management of commercial harvest relative to harvest guidelines and are intended to balance the tradeoff of early attainment and fishery closure with providing year-round fishery access. Initial bimonthly limits for 2016 were set at initial 2015 levels for Black Rockfish and Cabezon. For Blue Rockfish, Greenling and Other Nearshore Rockfish initial bimonthly trip limits were increased from 2015 (Table 4; Appendix C) to encourage opportunity for attaining a larger percent of these harvest guidelines which were significantly under attainment in 2015.

Public input regarding bimonthly limits and other management measures for 2016 was sought both at the annual commercial nearshore fishery meetings held in October 2015 and at the January 2016 Commission meeting. Based on both meeting input and recommendations from the Department, the Commission adopted annual harvest guidelines, bimonthly limits, and other fishery regulations for 2016 at the January 2016 Commission meeting. The bimonthly limits put into effect at the outset of 2016 were intended to require few or no in-season changes and to provide predictable bimonthly limits, season lengths, and market supply.

Bimonthly limits can be adjusted up or down, in season, to allow greater opportunity for reaching harvest guidelines or to slow harvest to stay within harvest guidelines. In 2016, the bimonthly limits were raised in-season for all groups for period 4, except for Cabezon, and for all species groups for periods 5 & 6 (Table 4). No bimonthly limits exist for the Other Nearshore Species group although federal limits exist and the State incidental daily trip limit for nearshore species applies.

### **Fishery Landings Monitoring and Data Collection**

To understand the dynamics of harvest for this fishery in 2016, the Department collected various types of data to document impacted resources. These data allowed Department staff to adaptively manage the fishery throughout the year. In addition, these data are necessary for the assessment of Oregon's nearshore stocks. Landed fish were sorted and recorded on fish tickets to the species level for all species management groups except Greenling and Blue Rockfish. The Blue Rockfish group is not sorted by buyers and processors due to difficulties in differentiating the two cryptic species in this group, Blue Rockfish and Deacon Rockfish. For Greenling, almost all fish landed commercially were Kelp Greenling as determined from port biologists' species composition sampling. For groups that were sorted by industry, pounds landed were documented by species on fish tickets submitted to the Department.

Port biologists and samplers collected biological data on the landed catch. Those data included species and sex compositions of landings, fish lengths (Table 5, Appendices D - F), fish weights (Table 6, Appendices D - F), age structures (otoliths) and sexual maturity information. In 2016, port biologists and samplers began officially sampling nominal Blue Rockfish landings for species composition percentages of Blue Rockfish vs. Deacon Rockfish as part of the Department's formal

commercial fisheries sampling design, however, the Department has some of these data dating back to 2008.

Through the commercial nearshore logbook program, the Department also collected information on fishing effort, harvest locations, harvest methods, and discards from the fishery. Fleet-wide compliance with the nearshore logbook requirement was 93.0%. Number of days fished, number of days with no log submitted and compliance percentage by port is summarized in Table 7.

### **Black and Blue Rockfish Commercial Nearshore Limited Entry Permits**

In total, 117 permits were renewed in 2016; 69 permits with nearshore endorsements and 48 without. This total is down two permits from 2015 as those permits were not renewed. A home port was assigned to each permit based on which port group accounted for the most landing events (trips) for that permit, summarized in Figure 7. Permits were disaggregated by port group to show the numbers with and without nearshore endorsements. Of the renewed permits, 65 (94.2%) with nearshore endorsements and 41 without (85.4%) landed nearshore species. There were 15 permits transferred to new owners in 2016; nine with endorsements and six without. Port Orford was the home port with the most total permits, and the home port of the most permits with nearshore endorsements. Pacific City was the home port of the most permits without nearshore endorsements. The Bandon port group had the least number of total permits and permits without nearshore endorsements. Pacific City had the zero permits with nearshore endorsements.

### **Fishery Effort**

For this summary, effort was quantified as the number of trips landing nearshore species during the season. In 2016, commercial nearshore fishery effort totaled 2,040 trips, the lowest total in the 13 year history of limited entry management. 2016 effort is summarized by management group and period in Table 9 and by gear type in Figure 8. Data suggest commercial nearshore fishery effort shifted to targeting Lingcod due to increased trip limits in that fishery. Period 4 had the most effort while period 1 had the least. Fishers using primarily hook & line gear made 1,832 landings (89.8%), fishers using primarily longline gear made 104 landings (6.5%), and the remaining 69 landings (3.6%) were made by a combination of other gear types.

### **Total Landings: All Species Combined**

Landings of all species combined in the 2016 commercial nearshore fishery totaled 307,763 pounds (Figure 9) for a total ex-vessel value of \$786,759.90 (Figure 10). These totals were down 12.5% by weight and 12.7% in value from 2015 landings. Black Rockfish landings for 2016 decreased 13.5% in volume relative to 2015. Landings of Greenling and Cabezon were also down 34.9% and 2.0%, respectively, from 2015 levels. Other Nearshore Rockfish landings volume was up 3.1%, Blue Rockfish were up 60.7%, and Other Nearshore Species was up 26.4%. Live Other Nearshore Rockfish were the most valuable species landed on a per pound basis (Table 10). Hook & line gear was used to land 87.0% of the pounds landed (Figure 11). Period 4 had the highest total of pounds landed (28.1%) and period 1 the least (4.8%; Figure 12). Most fish were landed in live condition (60.5%; Figure 13). Port Orford landed 47.3% of the total pounds (Figure 14). Average landings per fish ticket were similar across modes of gear and market condition except for longline fresh landings, the low outlier (Figure 15).

### **Black Rockfish Landings**

Black Rockfish annual landings totaled 232,370 pounds or 76.4% attainment of the harvest guideline (Table 9). Hook & line gear landed the majority of the harvest taking 94.9% of the pounds landed (Figure 16). Hook & line landings were up 15.0% from 2015, and longline landings were up 38.8%. As in past years, Port Orford was the port landing the majority of the Black Rockfish at 41.1% (Figure 17). The most landings occurred in period 4 and the least during period 6 (Table 8; Figure 18). Live fish comprised 53.6% of the landings and 46.4% were landed fresh (Table 10 & Figure 19). Ex-vessel value of this group fell 13.1% from 2015, however, 2016 was the fifth most valuable year for the commercial resource (Figure 20). Fishing trips using hook & line gear for live fish landed the most pounds per ticket, while those fishers using longline gear for fresh fish landed the least fish per ticket (Figure 21). On a per pound basis, live fish were 47.4% more valuable than fresh fish (Table 10).

### **Blue Rockfish Landings**

Total landings for the Blue Rockfish group rose from record low levels in 2015, likely due to relaxed bimonthly trip limits. Hook & line landings increased 30.0% while bottom longline landings rose 694.6% (Figure 22). Hook & line gear was used to land 76.5% of Blue Rockfish by weight. Port Orford had the highest landings (66.5%) while the Bandon group had the lowest landings (0.5%; Figure 23). Period 5 was when the most Blue Rockfish were landed (43.1%) while period 1 had the lowest landings (4.1%; Table 8 & Figure 24). Nearly all landings of Blue Rockfish were fresh (96.7%; Figure 25). The total value of Blue Rockfish landings in 2016 rose 61.9% in conjunction with the increase in landed pounds (Figure 26). Fish landed live with bottom longline gear had the highest average pounds landed per ticket, however, hook & line fish caught fresh composed the bulk of landings (Figure 27).

### **Other Nearshore Rockfish Landings**

Landings of Other Nearshore Rockfish in 2016 were again low but rose 3.1%, up slightly from the 2015 all-time low (Figure 28). Landings of China Rockfish continued to decrease while landings of Quillback and Copper Rockfishes were up from 2015. Although the majority of landings continued to come from hook & line gear, landings from this gear type declined 30.9% while landings from bottom longline gear increased 323.7%, (Figure 29). As in years past, Port Orford was the port of landing for the majority of the catch, with 78.0%, of total pounds of Other Nearshore Rockfish (Figure 30). The most Other Nearshore Rockfish were landed during period 5 (34.0%) and lowest landings for the group occurred during period 1 (3.8%; Table 9; Figure 31). Live fishes composed 81.1% of the landings while 18.9% were landed fresh (Table 10; Figure 32). The proportion of live catch decreased 0.6% in 2016 from the prior year. Despite the increase in total landings, total ex-vessel value of this management group fell slightly from 2015 to the lowest level on record in the managed fishery. This was primarily due to less of the highly valued China Rockfish in the catch composition (Figure 33). Price per pound for live fish of this management group remained high, at 3 to 4.5 times greater than fresh fish prices per pound (Table 10). In 2016, bottom longline gear landing live fish averaged the most pounds per ticket, while those using hook & line gear for fresh fish landed the least fish (Figure 34).

## Greenling Landings

Greenling landings in 2016 were also a record low since management of the State limited-entry fishery began in 2004 (Figure 35). Declines in landings occurred in Port Orford and Gold Beach while landings into Brookings held steady (Figure 36). The lowest landings occurred in period 1 and greatest during period 5 (Figure 37). For landing condition, 95.7% of fish were live and 4.3% landed fresh (Figure 38). The record low landings of Greenling was echoed in the record low ex-vessel value for this fishery (Figure 39). Landings of live fish using hook & line gear had the greatest market share and average pounds per ticket, while those tickets landing live fish using longline gear had the least (Figure 40). Live Greenling were approximately 3.2 times more valuable per pound than fresh fish (Table 10).

## Cabazon Landings

Landings of Cabazon in 2016 totaled 35,176 pounds, a drop of 2.5% from the 2015 low (Figure 41). The decrease in harvest came primarily via hook & line gear as landings from bottom longline and other gear types increased relative to 2015. The largest decrease in landings of Cabazon came from Brookings, with notable increases in landings in Port Orford and Garibaldi (Figure 42). Cabazon were landed in the greatest amounts during period 5 and the least during period 1 (Figure 43). Like Greenling, the vast majority of Cabazon were landed live (92.6%); with only 7.4% of landings landed fresh (Figure 44). Ex-vessel value for Cabazon fell 4.3% from 2015 (Figure 45). In 2016, fishers using bottom longline gear to land live Cabazon averaged the most pounds per ticket, while those using hook & line gear for fresh fish landed the least fish per ticket (Figure 46). These differences are likely driven by live fish being 2.0 times more valuable than fresh fish per pound (Table 10).

## Other Nearshore Species Landings

For the Other Nearshore Species group, Vermilion Rockfish composed the bulk of the landings (88.3%, Figure 47). Vermilion Rockfish were sold mainly to the fresh fish market (80.0%) which accounted for 55.9% of the total ex-vessel value for this species (Table 10). Hook & line gear accounted for 51.6% of the catch of this species, while bottom longline and all other gear combined composed 47.1% of the pounds landed (Figure 48). The majority of pounds landed occurred in Port Orford at 75.4% (Figure 49). Landings of Other Nearshore Species occurred throughout the year during all bimonthly periods, however, the largest portion were landed during period 4 (Figure 50). Fresh fish landings composed 74.5% of the market for Other Nearshore Species (Figure 51). Ex-vessel value of Other Nearshore Species rose 26.4% in 2016 (Figure 52). Fishers using bottom longline gear to land fresh fish averaged the most pounds per fish trip and composed most of the landings (Figure 53).

## Notes on Landings Declines

The 2016 landings total was the lowest since limited entry management started in 2004, 5.7% lower than the next lowest total. Since 2013, total pounds of commercial nearshore species landed have declined annually (Figure 14). That same year corresponded to recent peak landings of Greenling which have declined since (Figure 35). Cabazon landings have been in decline since 2011 (Figure 41), Other Nearshore Rockfish (Figure 29) and Blue Rockfish (Figure 22) have been in decline since 2012, and Black Rockfish most recently peaked in 2014 (Figure 15). Other Nearshore Species landings, which compose a very small fraction of nearshore landings, recently peaked in 2013, then declined before increasing again in 2016 (Figure 47). While 2015 State harvest guideline reductions



to Blue and Other Nearshore Rockfishes reduced recent landings of these species, numerous other factors have coincided with this period of landings declines and are discussed below.

As noted above, commercial nearshore effort in 2016 was at an all-time low, 13% lower than the next lowest year after also peaking in 2013 (Figure 8). The relationship between annual effort in the fishery and total annual landings is predictable with low effort years producing low landings totals and high effort years producing high landings totals, as expected (Figure 54). 2016 landings fell just below the predicted landings and well within the 95% confidence interval suggesting the 2016 landings total was proportional to years past given the effort. Because the magnitude of annual effort in the fishery is significant in predicting total landings, understanding what drives overall effort in this fishery is important.

Per fishers' anecdotes, one factor that affects individual decisions to fish, and collectively annual fleet effort in the fishery, is ocean conditions. "Ocean conditions" is a catchall phrase that can include any number of measured variable ocean states such as wave height, wind speed, or water temperature to name a few. Measured variables can be combined and standardized into indices representing ocean conditions such as the Oceanic Nino Index (ONI), the Pacific Decadal Oscillation Index (PDO), or upwelling indices. These indices can be used to characterize conditions at various spatial and temporal scales.

In mid-2013, an anomalous warm water mass, termed "The Blob", formed in the Pacific Ocean offshore of North America. By 2014, this warm water moved onshore to Oregon marking a shift in ocean conditions in nearshore waters off the Oregon coast. The PDO shifted from a cold phase that had dominated since mid-2010 to a warm phase that persisted through 2016 (Northwest Fisheries Science Center, Figure 55). This shift in the PDO was contemporaneous to a switch to a warm phase of the ONI, and these large scale regime shifts were apparent in a series of positive sea surface temperature anomalies measured off the coast of Newport (Figure 55). Anecdotes from numerous Oregon nearshore fishers have consistently reported that weather conditions in recent years have been challenging for nearshore fishing, most notably poor in 2015 and 2016.

Given the anomalous ocean conditions of the last few years, environmental variables and oceanic indices were investigated to determine if significant correlations exist between these variables and commercial nearshore landings. To date the annual sum of monthly PDO values appears to be best correlated to landings of some species group. When correlating PDO with total annual landings of all nearshore species the trend is not significant ( $p = 0.23$ , Figure 56). However, it should be noted that landings appear to generally decrease with positive warm-water PDO events with this small sample size. Landings from each management groups were also examined for significant correlations with PDO. For Black Rockfish ( $p = 0.46$ ) and Blue/Deacon Rockfishes ( $p = 0.08$ ), the semi-pelagic nearshore species, the correlations with PDO were also non-significant with the general patterns heading in opposite directions. Black Rockfish landings appear to increase with positive PDO events and Blue Rockfish display a downward pattern with increasing PDO. For all demersal species the trends in landings are significant and decreasing with increasing PDO (Figure 56). These significant negative trends suggest warm PDO years may correspond to low landings totals for nearshore demersal species.

The mechanism(s) behind these significant correlations between PDO and demersal nearshore species remains a topic of investigation with a range of hypotheses under consideration. One hypothesis is that variability in PDO drives lower trophic level ecology and fish forage composition which in turn could potentially drive the rate of "the bite" and thus overall catch year to year.

Persistent warm or cold phases may be more conducive to catching certain species over others. If a species such as Black Rockfish is easier to catch during warm phases and the price is good, fishers may choose to "optimally forage" preferentially harvesting an easy to catch species over another. Another hypothesis is that extended periods of challenging weather are driven by large scale oceanic regimes such as PDO. These extended periods of unfavorable weather seem to negatively impact overall fleet effort and subsequently catch. In total, these hypotheses imply total annual nearshore landings of nearshore species may be dependent on complex interactions between oceanic conditions, ecology, species-specific susceptibility to gear and market demand.

Opportunities in other fisheries, such as lingcod, may also impact effort and landings totals of nearshore species. In 2015, annual federal limits for fixed gear caught Lingcod were substantially increased for all periods. These increased limits have since resulted in more Lingcod harvested by fixed gears, both in absolute volume and relative to landings from State nearshore management groups (Figure 57). Compared to Black Rockfish, Lingcod is a heavier, higher valued fish that is more sought out by local markets and restaurants for fish and chips. During the 2016 commercial nearshore public meetings, both fishers and buyers affirmed this hypothesis acknowledging that Lingcod is easy to catch in large volumes and desired more on the market. This interaction between fisheries is another factor potentially affecting total nearshore landings volumes.

Year to year shifts in gear type proportions used in the fishery may also affect landing volumes of management groups as susceptibility to gear type varies by species. From 2013 - 15, hook & line effort increased proportional to bottom longline effort (Figure 8). This time period corresponded to high landings of semi-pelagic Black Rockfish and smaller proportional catches of demersal species such as Cabezon and Other Nearshore Rockfish (Figure 9). 2016 saw a proportional uptick in bottom longline gear and increased landings of Cabezon and Other Nearshore Rockfish.

The most obvious explanation for a decrease in landings of these species is the stocks themselves could be depressed. Although this could be true, much of this summarized data and recent federal stock assessments suggest otherwise. For example, when examining landed pounds per trip for all nearshore species since 2013 combined by gear and landing condition, average pounds landed by all modes have been on the uptick (Figure 15). Hook & line caught Black Rockfish (Figure 21) and live bottom longline landings of Cabezon have been on the rise on a per trip basis (Figure 46). Landings of live bottom longline caught Other Nearshore Rockfish decreased substantially with the reduced 2015 harvest guideline, but 2014 and 2016 landings per trip are up (Figure 34). However, for Blue Rockfish (Figure 27) and Greenling (Figure 40) downward trends in landings per trip have persisted. While Blue (& Deacon) Rockfish will undergo a full stock assessment this summer, for (Kelp) Greenling the 2015 stock assessment estimated stock depletion at 80% (Berger et al. 2015). Likewise, for Black Rockfish estimated depletion was at 60% in 2015 (Cope et al. 2016) and for China Rockfish, the main component of Other Nearshore Rockfish, depletion in 2015 was at 73% (Dick et al. 2015). Depletion estimates for these assessed stocks are well above the target depletion of 40% suggesting such were healthy as recently as 2015. This leaves Cabezon as the main stock in need of an updated assessment given the most recent assessment was in 2009.

### **The 2016 Management Survey**

In 2016, the Department conducted a mailer questionnaire survey of permit holders to systematically gather data on fishers' opinions about current and future fishery management (Appendix G). Over time, Department staff have heard various ideas for improving the current fishery management system to work better for fishers and their business models. The purpose of this survey was to gauge

the overarching support among all permit holders for the current system and alternatives that have been proposed by fishers.

The survey was composed of 18 questions in various forms. The first section of the survey asked fishers to rank their priorities for fishery management while keeping in mind the tradeoffs necessary to implement priorities. The second section asked fishers to agree or disagree with statements on specific changes to fishery management. Agreement with each statement was rated on a 5 step Likert scale. The first of these questions asked fishers opinions on several less dramatic management changes, while the next two questions addressed more fundamental changes. The second question asked fishers opinions on specific changes to the tier structure in the fishery, and the third Likert scale question asked for feedback on transitioning the fishery to an Individual Fishing Quota (IFQ) system. In total 106 surveys were sent out, one survey to each unique permit holder (i.e., a person owning multiple permits only received one survey), or each unique group of permit holders in cases of shared ownership. After allowing 5 months to respond including a reminder card after 2.5 months, the survey was ended on December 31 and responses were tallied. In total, 28 responses to the survey were received; 14 from Black and Blue Rockfish only permit holders and 14 responses from nearshore endorsed permit holders. Not all respondents provided useable answers for all questions so response counts per question vary.

The inherent complexity of fishery management requires managers to implement regulations that often result in tradeoffs. The primary tradeoff decision in this fishery is whether to pursue tactics that either keep the fishery open all year but risk leaving fish unharvested or to promote harvest of all fish prior to years' end which risks closing the fishery until the next year. Eighteen (78%) of respondents indicated maintaining a year-round fishery was their top priority while 5 respondents (22%) indicated harvesting entire quotas was their priority (Figure 58). The Department has in years past managed the fishery to remain open year-round based on input received from fishers at public meetings. These data suggest the Department is managing the fishery in line with the top priority of permit holders.

Permit holders were also asked to rank specific priorities for structuring and managing bimonthly trip limits. Respondents indicated that high summer limits along with low winter limits was the highest priority while level limits and avoiding increases to trip limits were lowest priorities (Figure 59). Black Rockfish bimonthly limits are currently managed with higher summer limits and lower winter limits and these data support continuing that structure for this group. Further follow-up with fishers will be required to learn whether this bell-shaped limit structure should be applied to other species groups.

Ideas for lesser regulation changes were presented in question 4 to learn how much permit holders agreed with these ideas. Of the changes presented, the use of descending devices if discard credit was given to the fishery was most supported (71%, Figure 60). Results from the other proposed changes were split. Permit holders appear to lean towards disagreeing with the statements that the fishery has too few permits or needs more gear restrictions. Responses to questions on too many permits, allowing permit stacking and wanting separate fishery regulations on the north vs. the south coast were generally split in the responses implying a lack of consensus among fishers on implementation of these proposed changes.

Question 5 asked permit holders whether they want specific tiers of access added to the existing two tier system (Figure 61). The first statement asked whether permit holders prefer the current two tiered system to gauge whether permit holders want more levels of access. Of those that responded,

80% agreed that they prefer the current system, the remaining 20% were neutral with 0% of permit holders disagreeing that they preferred the current system. Given the strong support for the two tiered current system it is not surprising that little support existed for the scenarios for adding tiers of access to the fishery.

The final question on management changes to the fishery asked permit holders their opinions on the idea of shifting the fishery to an IFQ management system (Figure 62). The first question asked permit holders if they understand IFQ management. Seventy-one percent of respondents agreed they understood IFQ management and 80% disagreed that they favored an IFQ system of management in this fishery. The remaining three statements in this question were designed to help guide managers in shaping an IFQ system for this fishery if there was support for this management system. Given the lack of support for IFQ by permit holders the results of the final three IFQ statements are presented for reference for future management change discussions.

Overall, responses to the commercial nearshore management mailer survey were in clear support of current fishery management strategies and tactics. Respondents preferred management targeted at keeping the fishery open year-round with high summer and low winter limits. Changes to tiers of access were not favored, nor was shifting the fishery IFQ. The one change that showed evidence of support was for use of descending devices if the fishery were award appropriate discard mortality credit. The Department will continue to explore discard mortality credit for the fishery based of descending device use.

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We thank Troy Buell for review and thoughtful suggestions for improving this document. Nadine Hurtado ensured all fish ticket landings data were accurate and up-to-date. Port biologists and samplers spent long hours in the field collecting biological samples and logbook pages. In addition, appreciation goes out to all the nearshore fishers for their efforts in the commercial nearshore fishery, for providing quality logbook data, and for responding to the commercial nearshore management survey.

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## Tables

**Table 1.** Fish species on Oregon's nearshore species list, including the State management group under which each is managed.

State Management Group	Common Name	Scientific Name
Black Rockfish	Black Rockfish	<i>Sebastes melanops</i>
Blue Rockfish	Blue Rockfish	<i>Sebastes mystinus</i>
	Deacon Rockfish	<i>Sebastes diaconus</i>
Other Nearshore Rockfish	Kelp Rockfish	<i>Sebastes atrovirens</i>
	Brown Rockfish	<i>Sebastes auriculatus</i>
	Gopher Rockfish	<i>Sebastes carnatus</i>
	Copper Rockfish	<i>Sebastes caurinus</i>
	Black & Yellow Rockfish	<i>Sebastes chrysomelas</i>
	Calico Rockfish	<i>Sebastes dalli</i>
	Quillback Rockfish	<i>Sebastes maliger</i>
	China Rockfish	<i>Sebastes nebulosus</i>
	Grass Rockfish	<i>Sebastes rastrelliger</i>
	Olive Rockfish	<i>Sebastes serranooides</i>
Greenling	Treefish	<i>Sebastes serripes</i>
	Kelp Greenling	<i>Hexagrammos decagrammus</i>
	Rock Greenling	<i>Hexagrammos lagocephalus</i>
	Whitespotted Greenling	<i>Hexagrammos stelleri</i>
Cabezon	Painted Greenling	<i>Oxylebius pictus</i>
	Cabezon	<i>Scorpaenichthys marmoratus</i>
Other Nearshore Species	Buffalo Sculpin	<i>Enophrys bison</i>
	Red Irish Lord	<i>Hemilepidotus hemilepidotus</i>
	Brown Irish Lord	<i>Hemilepidotus spinosus</i>
Federal Shelf Rockfish	Vermilion Rockfish	<i>Sebastes minatus</i>
	Tiger Rockfish	<i>Sebastes nigrocinctus</i>

**Table 2.** Harvest guidelines (mt) for State management groups for 2016.

Black Rockfish	Blue & Other Nearshore Rockfish, combined	Cabezon	Greenling	Other Nearshore Species
39.2	10.4	30.0	23.4	N/A

**Table 3.** Bimonthly cumulative period durations.

Period	Duration
1	January - February
2	March - April
3	May - June
4	July - August
5	September - October
6	November - December

**Table 4.** Bimonthly trip limits from commercial nearshore State management groups at the outset of 2016. In-season management changes are depicted in *italics*.

Management Group	Period(s)	2016 Outset Limit - pounds ( <i>in season change</i> )
Black Rockfish	1	1,200
	2	1,400
	3	1,700
	4	1,600 ( <i>2,400</i> )
	5	1,400 ( <i>2,200</i> )
	6	1,000 ( <i>1,800</i> )
Blue Rockfish	1 - 3	30
	4	30 ( <i>50</i> )
	5 - 6	30 ( <i>150</i> )
Other Nearshore Rockfish	1 - 3	200
	4	200 ( <i>350</i> )
	5 - 6	200 ( <i>450</i> )
Greenling	1 - 3	400
	4	400 ( <i>600</i> )
	5 - 6	400 ( <i>800</i> )
Cabezon	1 - 4	1,500
	5 - 6	1,500 ( <i>2000</i> )

**Table 5.** Summary of 2016 length samples (inch) from the Oregon commercial nearshore fishery.

Species	Sample Size	Average Length (inch)	Range	95% C.I.
Black Rockfish	6,261	15.5	7.9 – 22.0	0.0
Blue Rockfish	68	14.2	11.0 – 17.3	0.3
Buffalo Sculpin	10	10.7	9.1 – 13.0	0.6
Cabazon	641	20.7	13.0 – 29.5	0.2
China Rockfish	470	13.8	11.0 – 17.3	0.1
Copper Rockfish	78	16.5	12.2 – 21.3	0.5
Deacon Rockfish	376	13.7	10.2 – 18.9	0.1
Gopher Rockfish	6	13.6	13.0 – 14.6	0.4
Grass Rockfish	1	18.5	18.5	NA
Kelp Greenling	1,232	14.1	10.2 – 17.3	0.1
Quillback Rockfish	77	16.0	11.8 – 18.1	0.4
Tiger Rockfish	21	16.2	13.8 – 18.1	0.6
Vermilion Rockfish	125	19.7	15.0 – 24.2	0.3

**Table 6.** Summary of 2016 weight samples (pounds) from the Oregon commercial nearshore fishery.

Species	Sample Size	Average Weight (pounds)	Range	95% C.I.
Black Rockfish	5,287	2.4	0.5 – 6.7	0.0
Blue Rockfish	68	2.1	1.0 – 3.5	0.1
Buffalo Sculpin	10	1.2	0.8 – 1.7	0.2
Cabazon	641	6.3	2.2 – 16.4	0.2
China Rockfish	470	2.3	1.0 – 4.3	0.1
Copper Rockfish	78	3.7	1.5 – 8.0	0.4
Deacon Rockfish	349	1.7	0.6 – 3.8	0.1
Gopher Rockfish	6	2.1	1.5 – 2.7	0.3
Grass Rockfish	1	3.0	3.0	NA
Kelp Greenling	1,232	1.6	0.4 – 3.0	0.0
Quillback Rockfish	72	3.3	1.1 – 5.5	0.2
Tiger Rockfish	21	3.1	1.9 – 4.4	0.3
Vermilion Rockfish	125	5.7	2.6 – 10.1	0.3

**Table 7.** 2016 logbook program compliance by port group including open access lingcod trip logs.

<b>Port</b>	<b>Days Fished</b>	<b>Days with no Log Submitted</b>	<b>Compliance</b>
Garibaldi group	182	0	100.0%
Pacific City	280	8	97.1%
Newport group	193	25	87.0%
Bandon group	156	25	84.0%
Port Orford	792	81	89.8%
Gold Beach	313	2	99.4%
Brookings	349	18	94.8%
Total	2,265	159	93.0%



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**Table 8.** Summary of commercial nearshore logbook reported retained (Ret.) and released (Rel.) fish (pounds) by species and period. Rockfish is abbreviated in species names as RF.

Species	Period 1		Period 2		Period 3		Period 4		Period 5		Period 6		Annual Totals	
	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.
Big Skate	0	0	0	0	18	0	111	0	0	0	0	0	129	0
Black RF	10,125	46	34,748	393	58,335	856	63,761	356	43,004	384	9,703	60	219,676	2,095
Black-and-Yellow RF	0	0	0	0	2	0	0	0	2	0	0	0	4	0
Blue RF	160	516	550	1,535	382	1,035	659	1,287	1,907	2,559	960	323	4,618	7,255
Bocaccio	0	0	0	0	197	0	0	0	0	0	0	0	197	0
Buffalo Sculpin	0	0	0	0	5	0	35	0	18	0	0	0	58	0
Cabazon	1,123	44	2,652	193	8,132	376	8,998	371	9,410	346	2,390	53	32,705	1,383
Calico RF	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Canary RF	0	14	0	52	2	164	0	218	0	140	0	12	2	600
China RF	366	72	381	98	1,139	131	2,375	233	2,356	270	525	37	7,142	841
Chinook Salmon	0	0	0	0	9	0	0	0	0	0	0	0	9	0
Coho Salmon	0	0	0	0	0	0	0	0	0	24	0	0	0	24
Copper RF	44	4	103	0	401	4	611	34	373	21	201	4	1,733	67
Giant Pacific Octopus	0	0	0	0	985	0	275	0	160	0	0	0	1,420	0
Gopher RF	0	0	4	0	26	0	12	1	45	4	6	0	93	5
Grass RF	0	0	4	0	31	0	34	0	22	0	2	0	93	0
Greenspotted RF	4	0	0	0	0	0	0	0	0	0	0	0	4	0
Kelp Greenling	912	124	2,630	132	3,960	261	4,105	186	4,946	199	1,102	31	17,655	933
Lingcod	3,016	5,708	8,490	6,624	52,114	8,913	40,188	4,225	30,773	2,864	4,518	3,940	139,099	32,274
Longnose Skate	0	0	0	0	0	0	97	0	0	0	0	0	97	0
Olive RF	0	0	0	0	0	0	4	0	0	0	0	0	4	0
Pacific Halibut	0	0	0	1	0	0	0	65	0	0	0	0	0	66
Petrale Sole	0	0	0	0	5	0	0	0	0	0	0	0	5	0
Quillback RF	26	5	120	12	375	21	662	30	464	17	141	7	1,788	92
Red Irish Lord	0	1	0	1	0	7	0	0	0	3	0	10	0	22
Rock Sole	0	0	0	0	4	0	0	0	0	0	0	0	4	0
RF (Other)	0	0	0	0	0	15	0	0	0	0	0	0	0	15

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Table 8. continued

Species	Period 1		Period 2		Period 3		Period 4		Period 5		Period 6		Annual Totals	
	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.	Ret.	Rel.
Sand Sole	0	0	0	0	0	0	2	0	1	0	0	0	3	0
Sculpins	0	1	0	0	0	15	0	0	0	0	0	0	0	16
Skates	0	0	0	0	0	0	7	0	80	0	120	0	207	0
Starry Flounder	0	0	0	0	0	0	6	0	0	0	0	0	6	0
Tiger RF	11	0	16	0	96	0	106	0	184	5	54	0	467	5
Unknown Species	0	0	0	0	0	0	25	0	0	0	0	0	25	0
Vermilion RF	140	0	320	30	843	10	1,435	5	913	16	223	0	3,874	61
Widow RF	1	0	6	0	6	0	0	0	0	4	3	0	16	4
Wolf-Eel	6	0	0	7	52	0	52	0	44	0	0	0	154	7
Yelloweye RF	0	0	0	21	0	136	0	45	0	32	0	3	0	237
Yellowtail RF	6	19	73	61	194	52	323	234	347	100	23	4	966	470
<b>Period Totals</b>	<b>15,940</b>	<b>6,554</b>	<b>50,097</b>	<b>9,160</b>	<b>127,313</b>	<b>11,996</b>	<b>123,883</b>	<b>7,290</b>	<b>95,049</b>	<b>6,990</b>	<b>19,971</b>	<b>4,484</b>	<b>432,253</b>	<b>46,474</b>

Table 9. Number of trips landing nearshore species, and landings in pounds for State management groups per bimonthly period in 2016.

Period	Trip Count	Black Rockfish	Blue Rockfish	Other Nearshore Rockfish	Greenling	Cabezon	Other Nearshore Species
1	112	11,625	182	419	969	1,165	158
2	283	36,356	388	640	2,658	2,712	391
3	541	60,049	328	2,179	4,105	8,315	1,158
4	561	66,240	630	4,098	4,141	9,922	1,770
5	415	48,079	1,902	3,712	5,438	10,445	1,217
6	128	10,060	988	925	1,199	2,617	345
<b>Total</b>	<b>2,040</b>	<b>23,2409</b>	<b>4,418</b>	<b>11,973</b>	<b>18,510</b>	<b>35,176</b>	<b>5,039</b>
<b>Attainment (%)</b>		<b>76.4</b>		<b>71.7</b>	<b>35.9</b>	<b>55.3</b>	<b>N/A</b>

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**Table 10.** Total pounds landed, total value, and average prices of live and fresh fish by species in 2016.

<b>Species</b>	<b>Live</b>	<b>Fresh</b>	<b>Live Value \$</b>	<b>Fresh Value \$</b>	<b>Avg. Live Price \$</b>	<b>Avg. Fresh Price \$</b>
Black Rockfish	124,652	107,754	317,470.40	186,389.57	2.55	1.73
Blue & Deacon Rockfish	137	4,281	401.50	6,109.34	2.93	1.43
Cabazon	32,563	2,608	114,995.75	4,523.86	3.53	1.73
Greenling	17,705	805	81,002.25	1,166.88	4.58	1.45
Other Nearshore Rockfish	9,704	2,269	59,083.14	3,261.87	6.09	1.44
Black & Yellow Rockfish	4	2	27.00	3.50	6.75	1.75
Brown Rockfish	1	17	3.00	28.40	3.00	1.67
China Rockfish	6,632	954	44,860.14	1,396.70	6.76	1.46
Copper Rockfish	1,512	520	6,610.00	790.17	4.37	1.52
Gopher Rockfish	90	3	429.25	4.00	4.77	1.33
Grass Rockfish	78	23	476.25	44.50	6.11	1.93
Olive Rockfish	4	2	19.00	0.00	4.75	0.00
Quillback Rockfish	1,383	748	6,658.50	994.60	4.81	1.33
Other Nearshore Species	1,286	3,753	6,188.75	5,546.05	4.81	1.48
Buffalo Sculpin	57	N/A	114.00	N/A	2.00	N/A
Red Irish Lord	4	N/A	18.00	N/A	4.50	N/A
Tiger Rockfish	363	165	1,882.25	254.63	5.19	1.54
Vermilion Rockfish	862	3,588	4,174.50	5,291.42	4.84	1.47

Figures

### Oregon Black Rockfish Management Areas

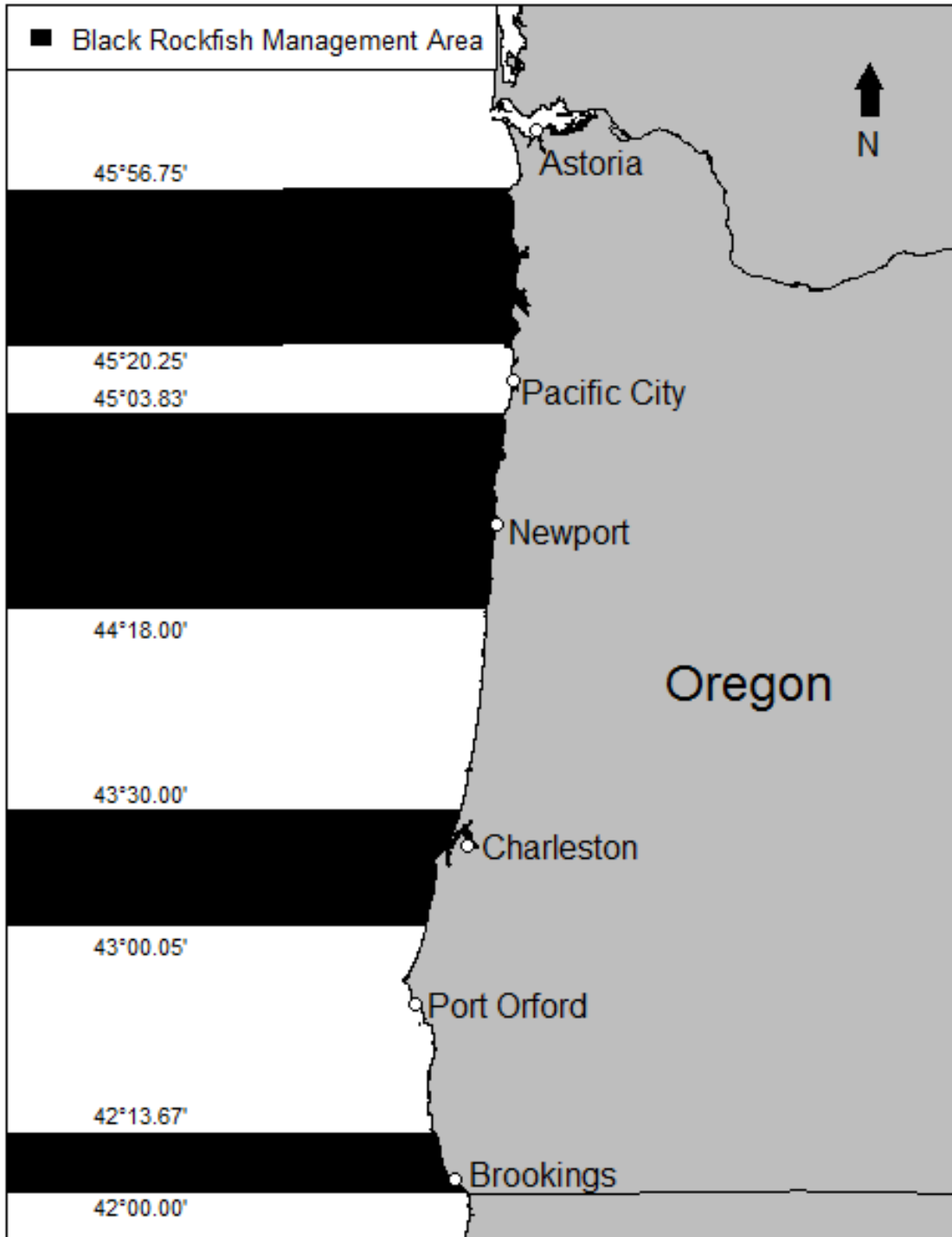


Figure 1. Black Rockfish Management Areas off Oregon.

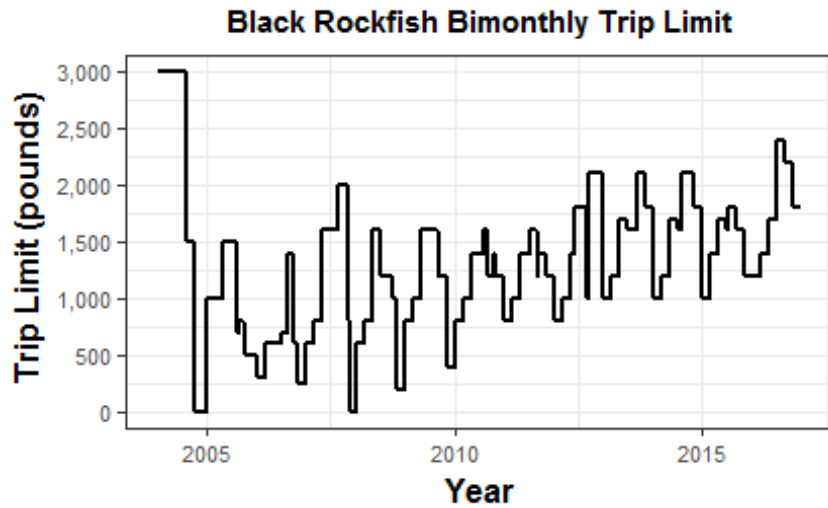


Figure 2. Black Rockfish bimonthly trip limit history.

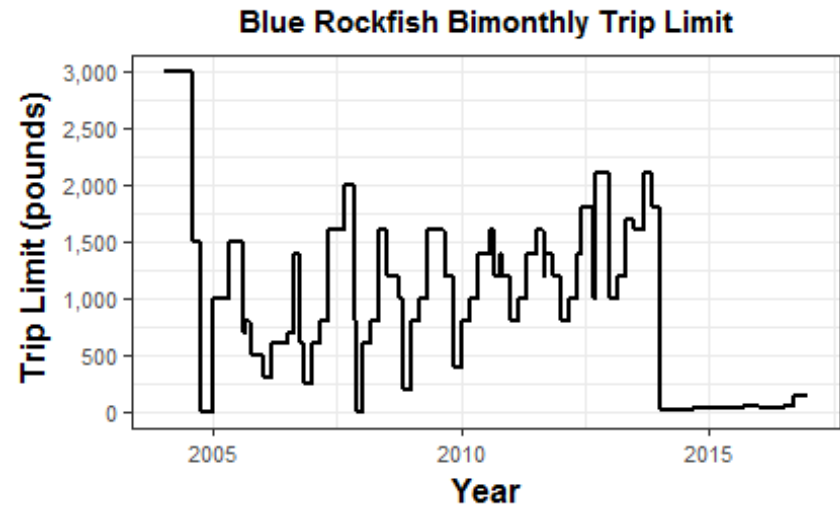


Figure 3. Blue Rockfish bimonthly trip limit history. Prior to 2015 this limit was combined with the Black Rockfish trip limit.

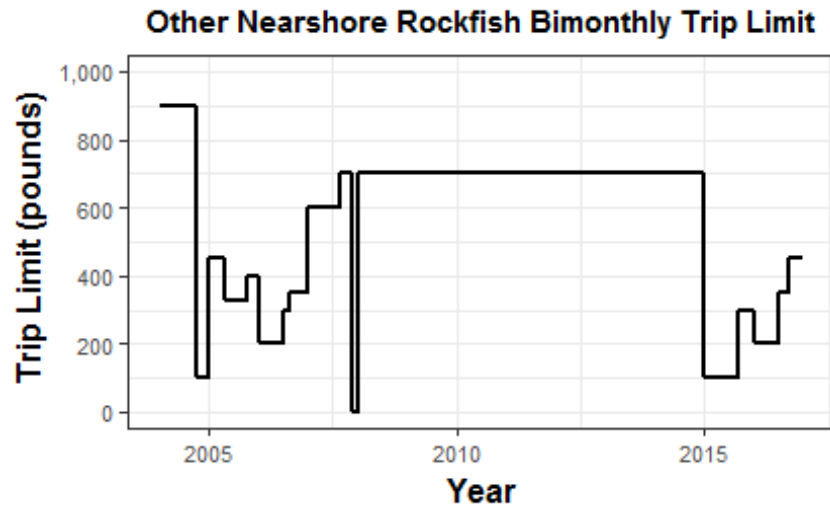


Figure 4. Other Nearshore Rockfish bimonthly trip limit history.

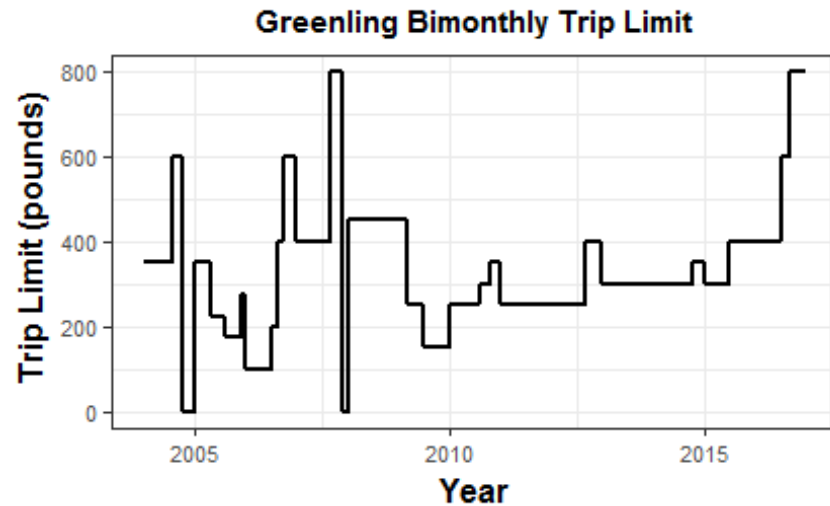


Figure 5. Greenling bimonthly trip limit history.

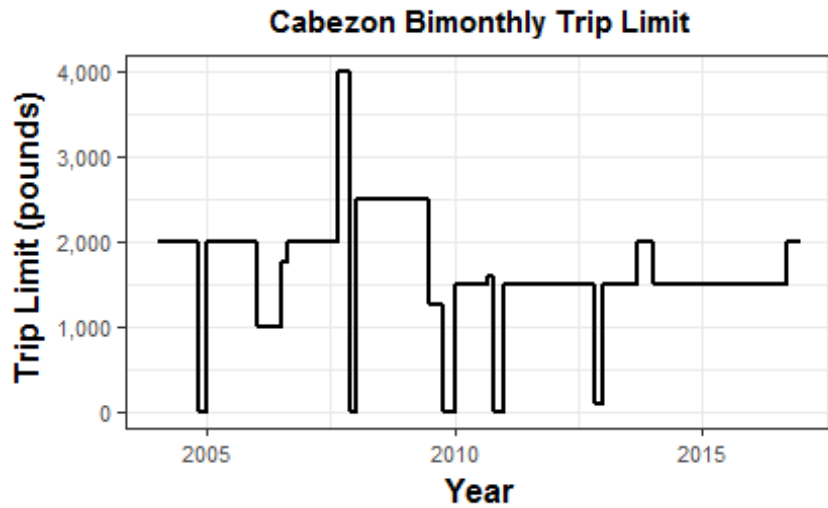


Figure 6. Cabezon bimonthly trip limit history.

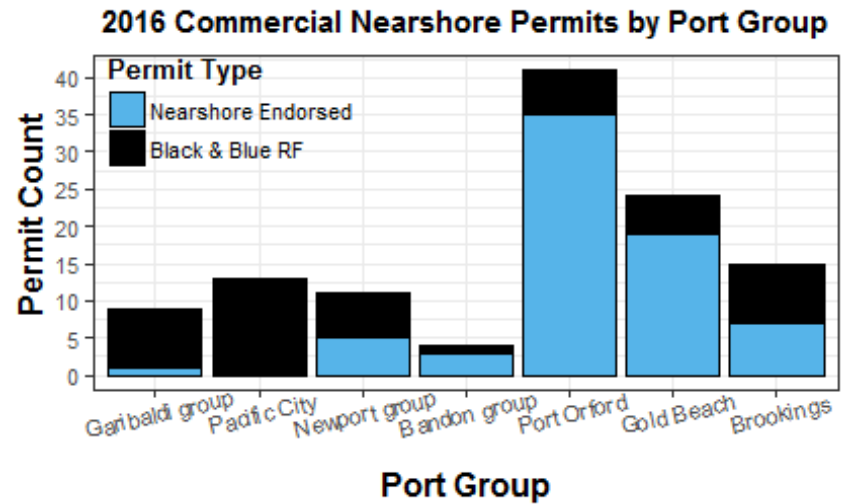


Figure 7. 2016 commercial nearshore Black and Blue Rockfish permits.

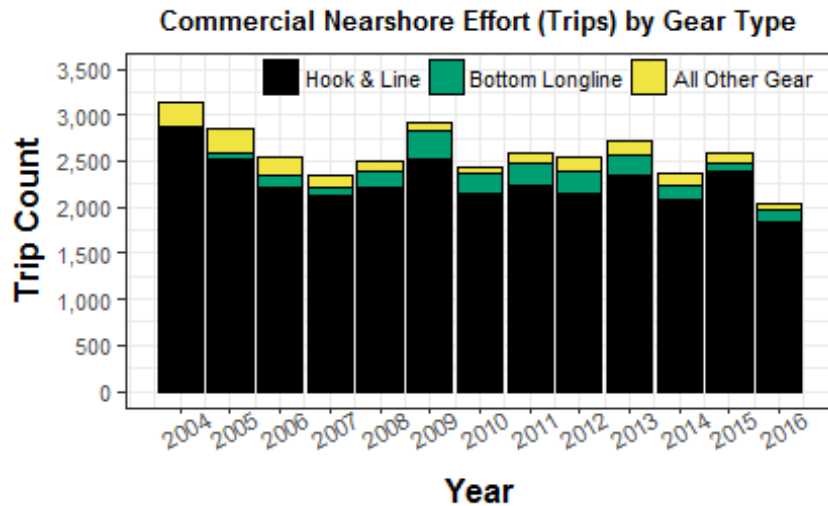


Figure 8. Commercial nearshore fishery effort (day trip) by year and gear type.

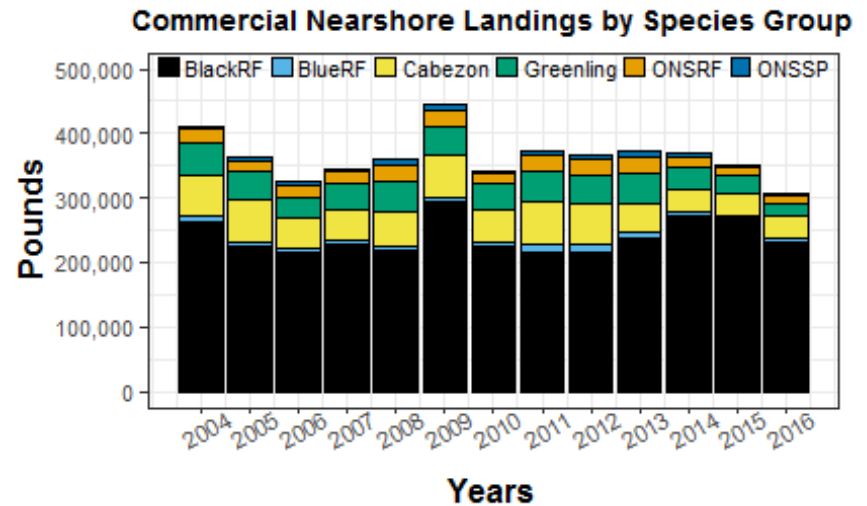
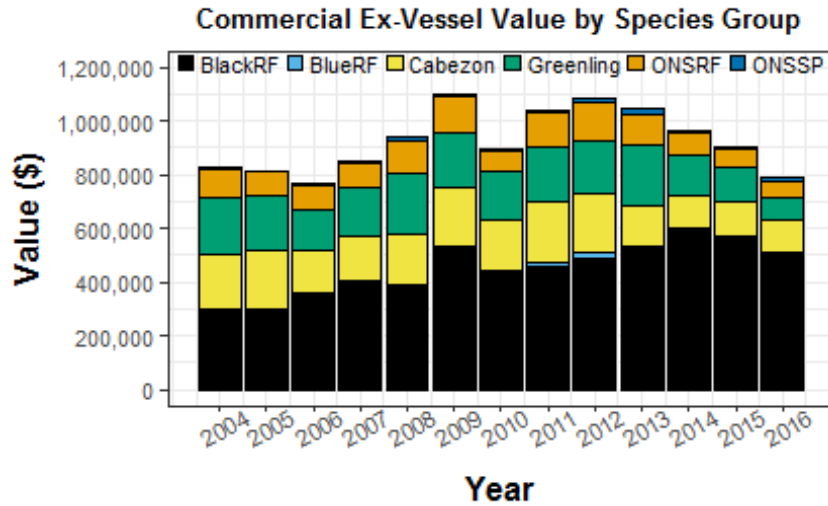
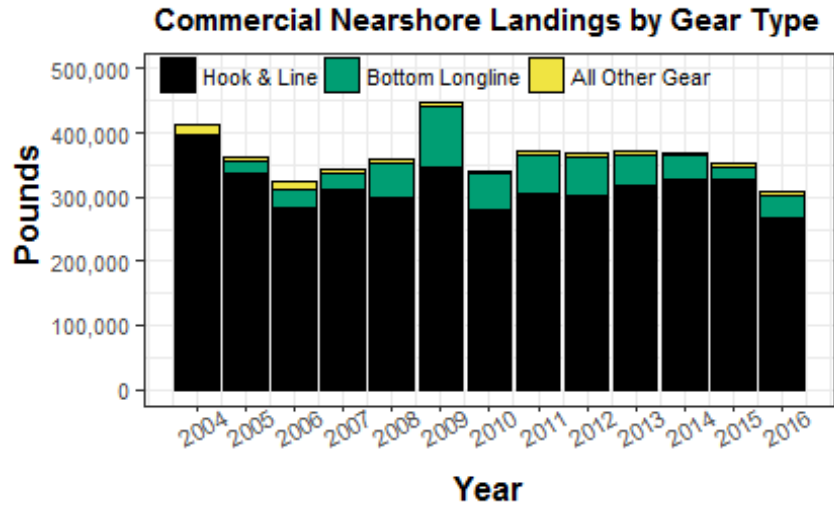


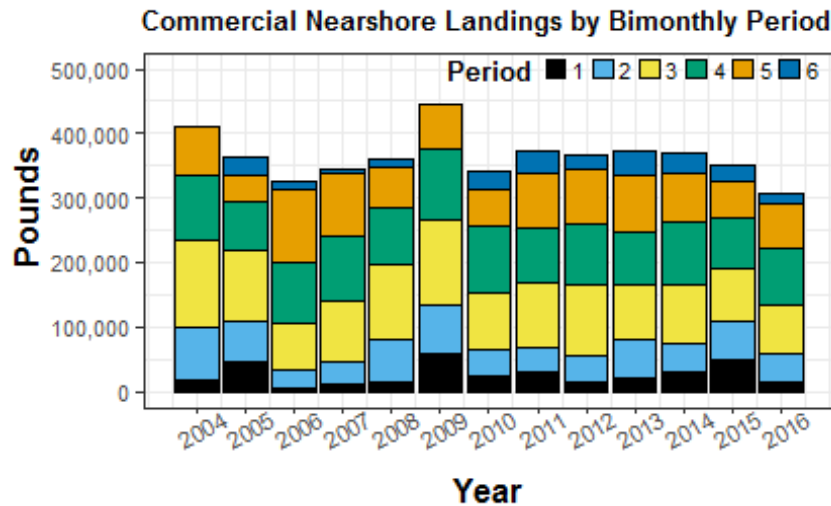
Figure 9. Commercial nearshore landings (pounds) by year and species management group.



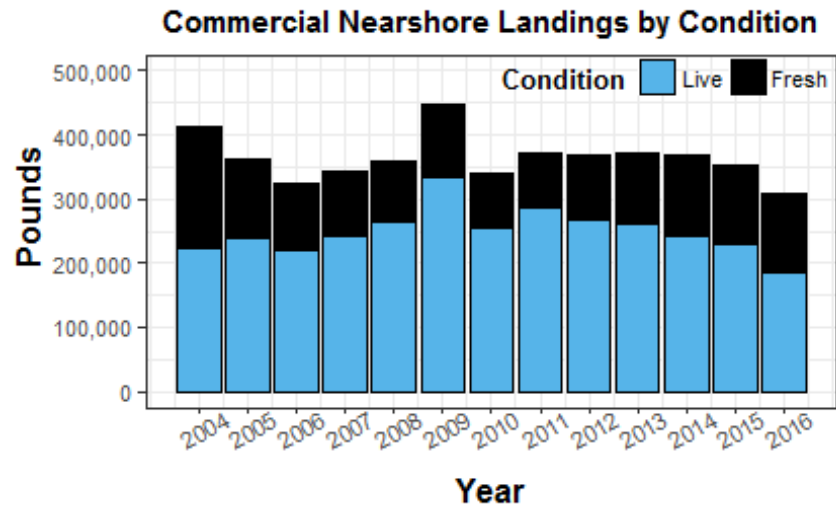
**Figure 10.** Commercial nearshore landings ex-vessel value (\$) by year and management group.



**Figure 11.** Commercial nearshore landings (pounds) by year and gear type.



**Figure 12.** Commercial nearshore landings (pounds) by year and bimonthly period.



**Figure 13.** Commercial nearshore landings (pounds) by year and market condition for the commercial nearshore fishery.

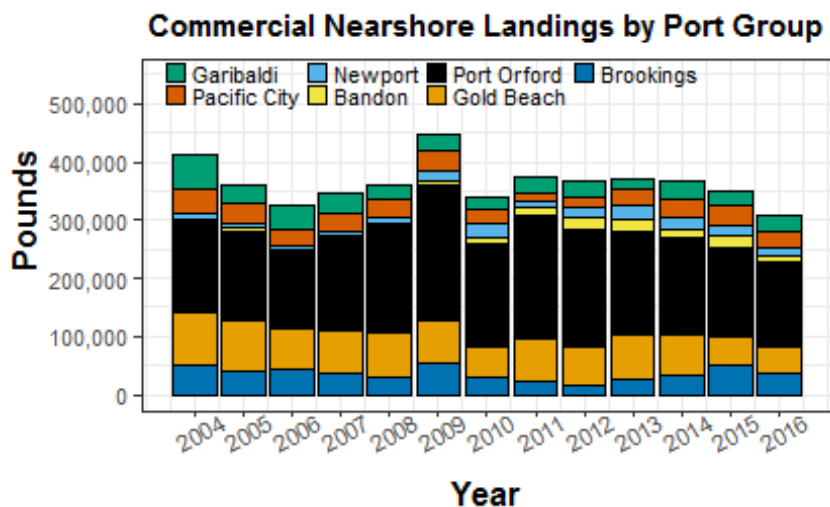


Figure 14. Commercial nearshore landings (pounds) by year and port group.

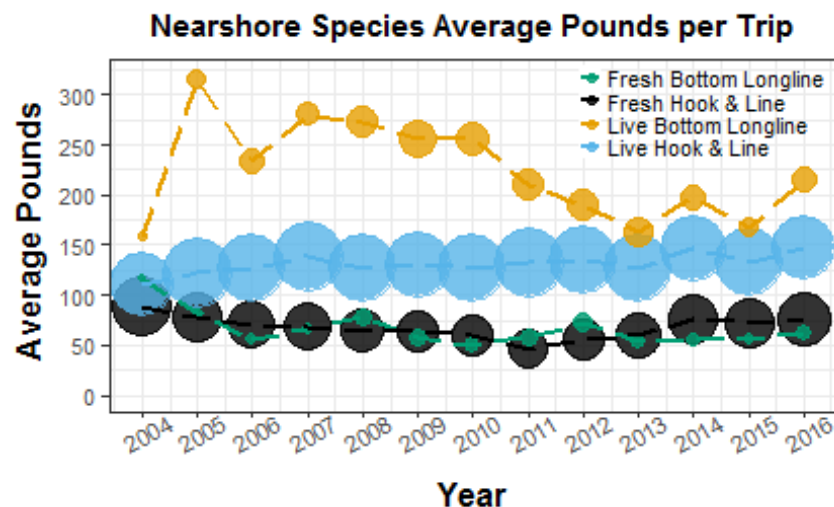


Figure 15. Average pounds landed per trip for all nearshore species combined by year, gear type and market condition. The area of each bubble is weighted by the percent of pounds landed by each sector.

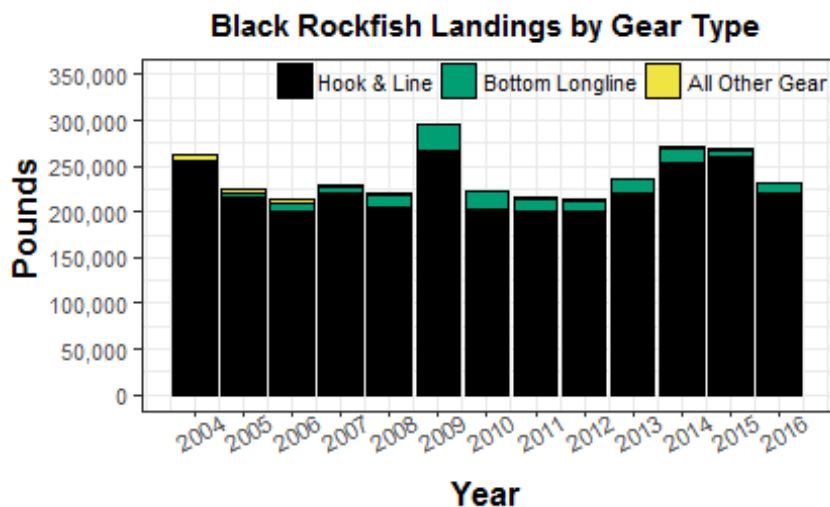


Figure 16. Black Rockfish landings (pounds) by year and gear type.

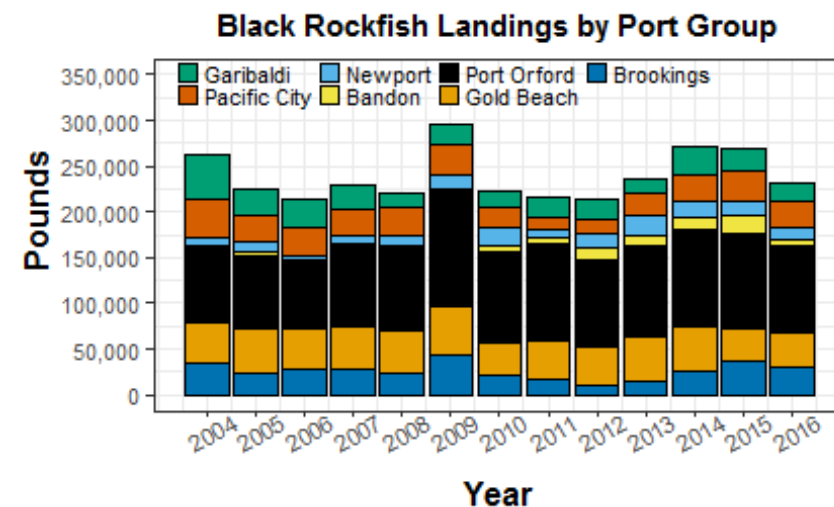


Figure 17. Black Rockfish landings (pounds) by year and port group.



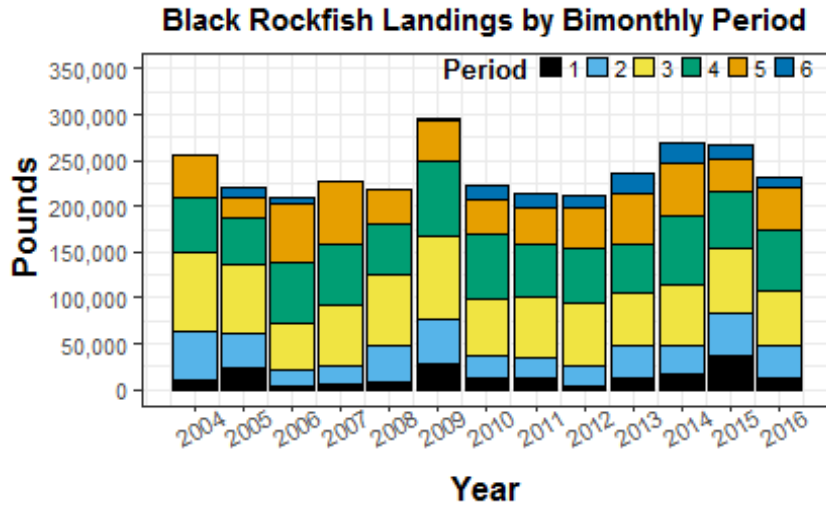


Figure 18. Black Rockfish landings (pounds) by year and bimonthly period.

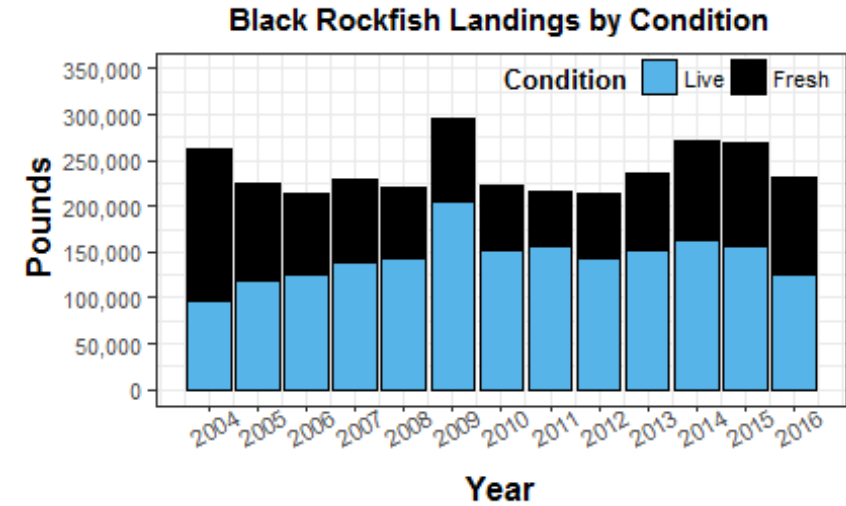


Figure 19. Black Rockfish landed by year, species and market condition.

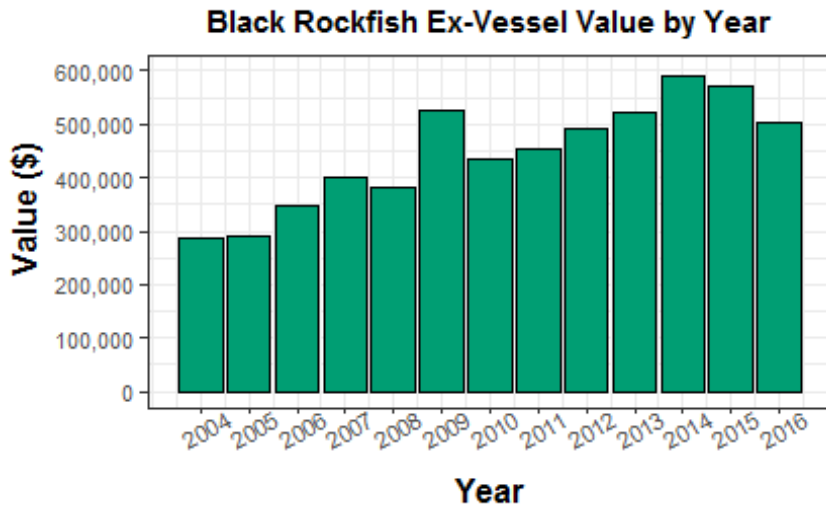


Figure 20. Ex-vessel value (\$) of Black Rockfish by year.

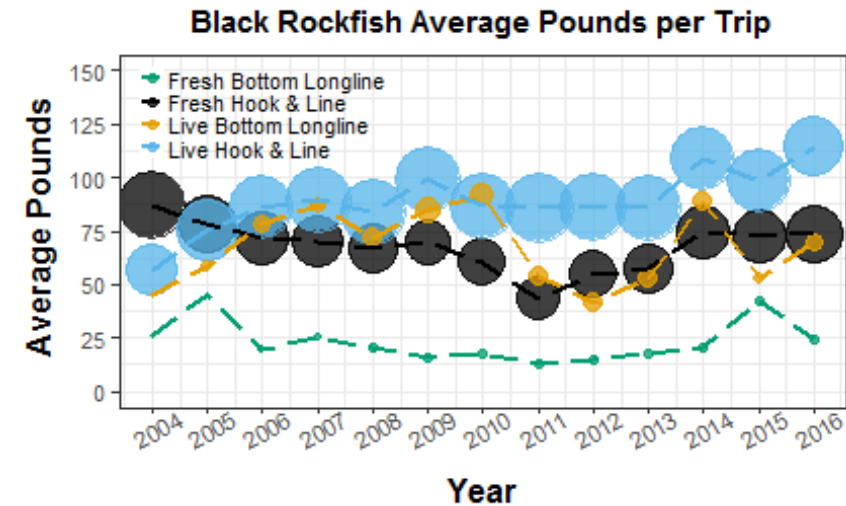


Figure 21. Average pounds landed per trip for Black Rockfish by year, gear type and market condition. The area of each bubble is weighted by the percent of pounds landed by each sector.

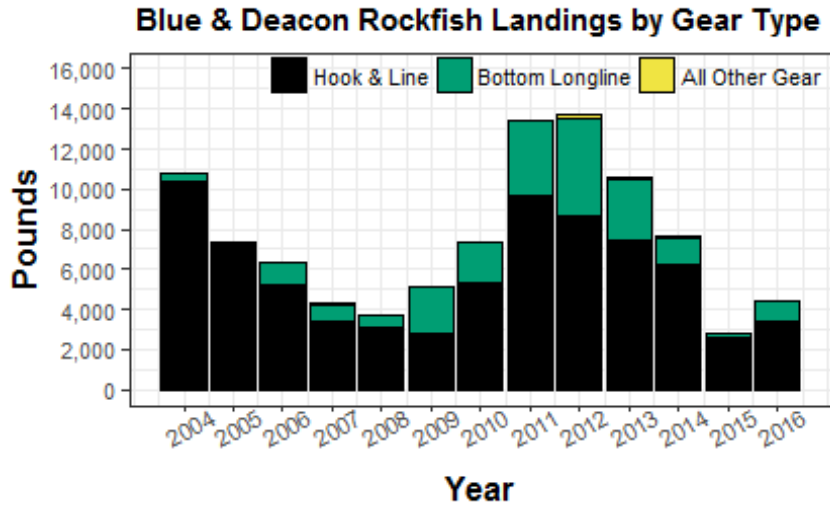


Figure 22. Blue and Deacon Rockfish landings (pounds) by year and gear type.

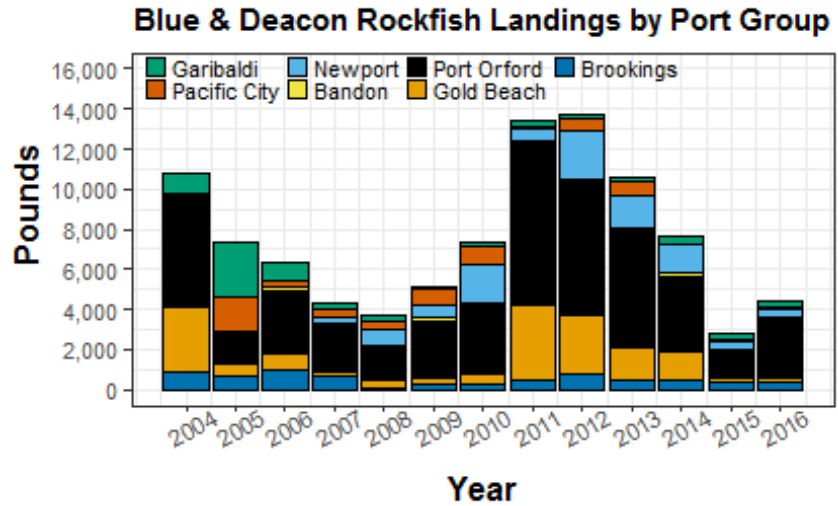


Figure 23. Blue and Deacon Rockfish landings (pounds) by year and port group.

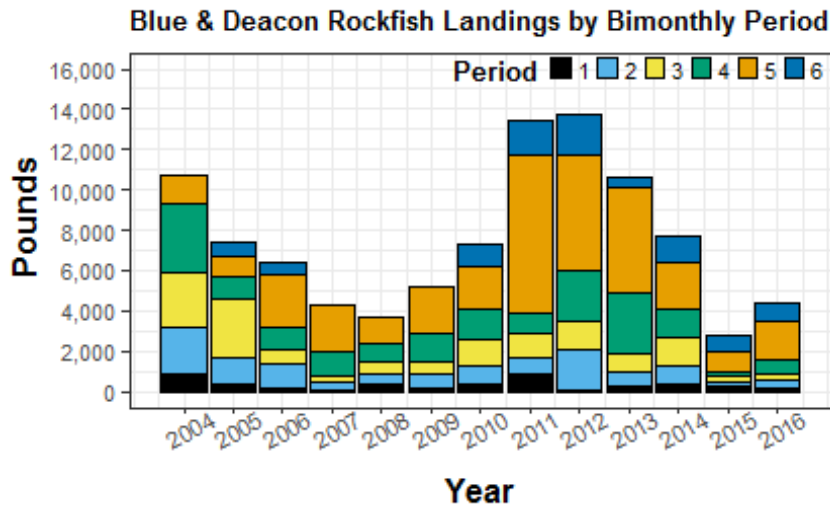


Figure 24. Blue and Deacon Rockfish landings (pounds) by year and bimonthly period.

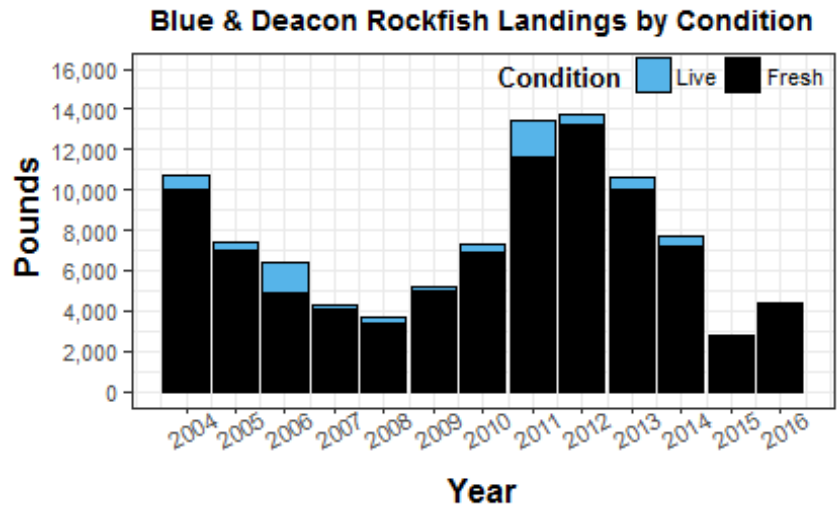


Figure 25. Blue and Deacon Rockfish landings by year and condition.

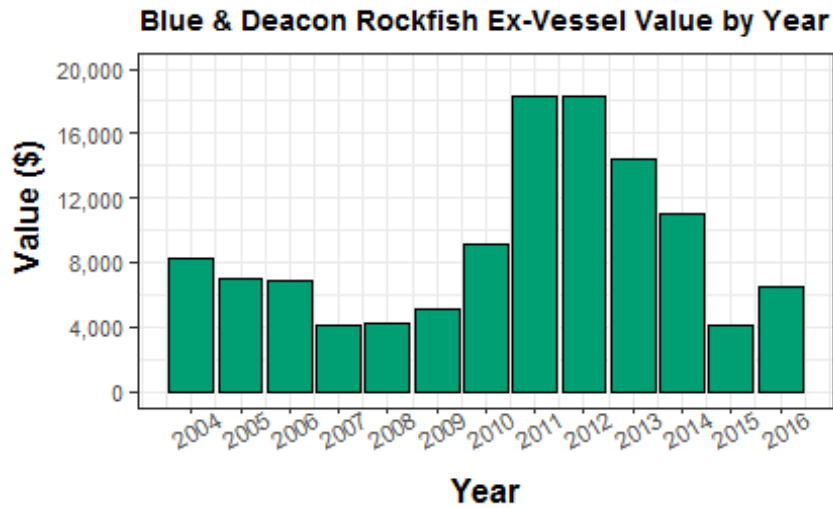


Figure 26. Blue & Deacon Rockfish ex-vessel value by year.

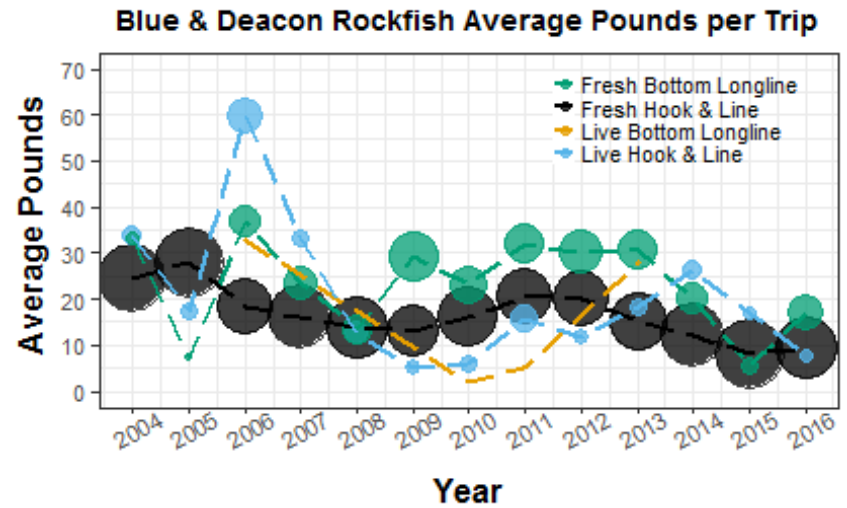


Figure 27. Average pounds landed per trip for Blue and Deacon Rockfish by year, gear type and market condition. The area of each bubble is weighted by the percent of pounds landed by each sector.

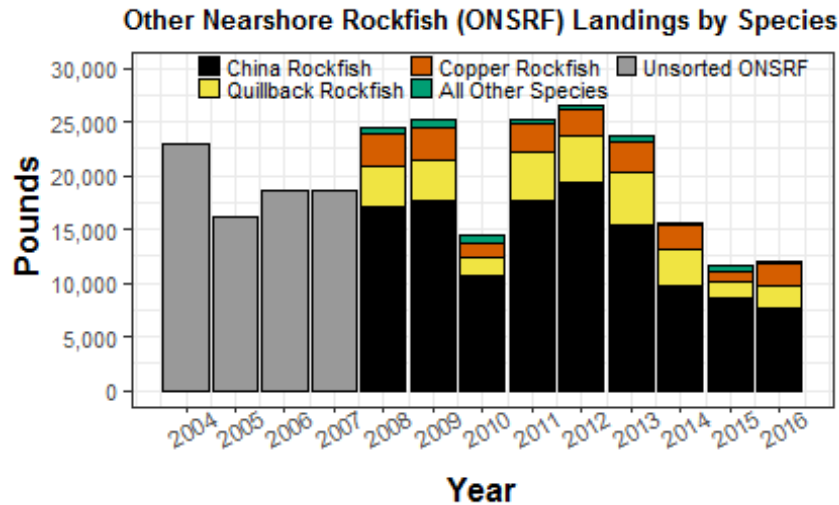


Figure 28. Other Nearshore Rockfish landings (pounds) by year and species. Fishes landed in this group prior to 2008 were unsorted.

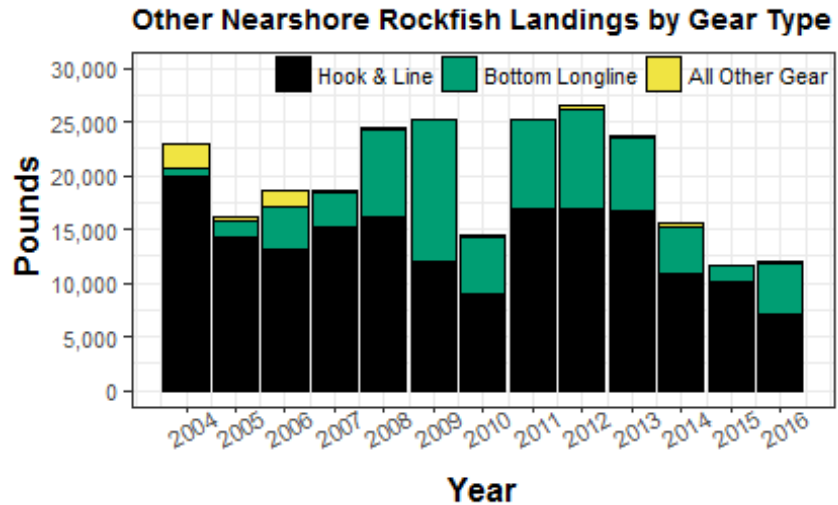
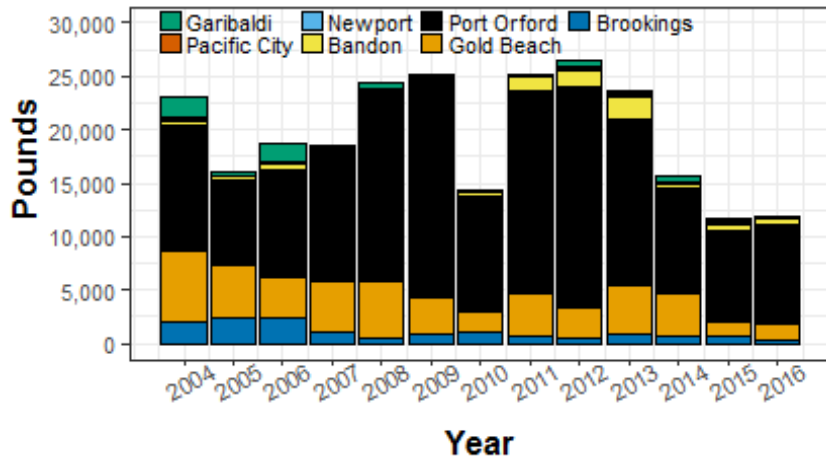


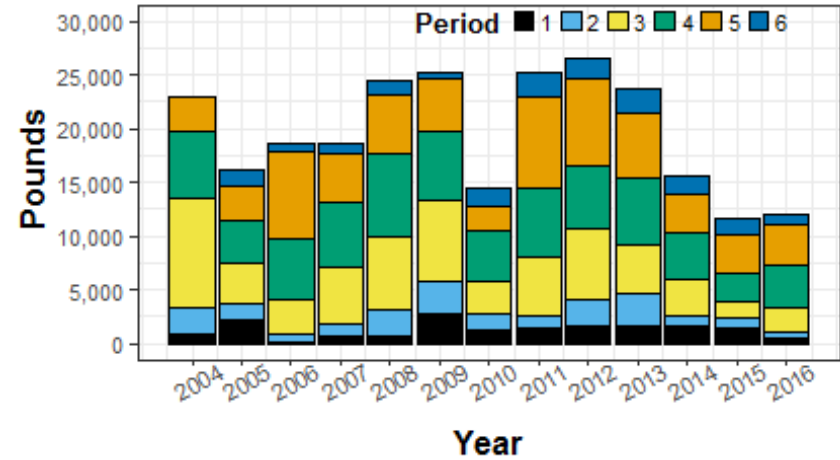
Figure 29. Other Nearshore Rockfish landings (pounds) by year and gear type.

**Other Nearshore Rockfish Landings by Port Group**



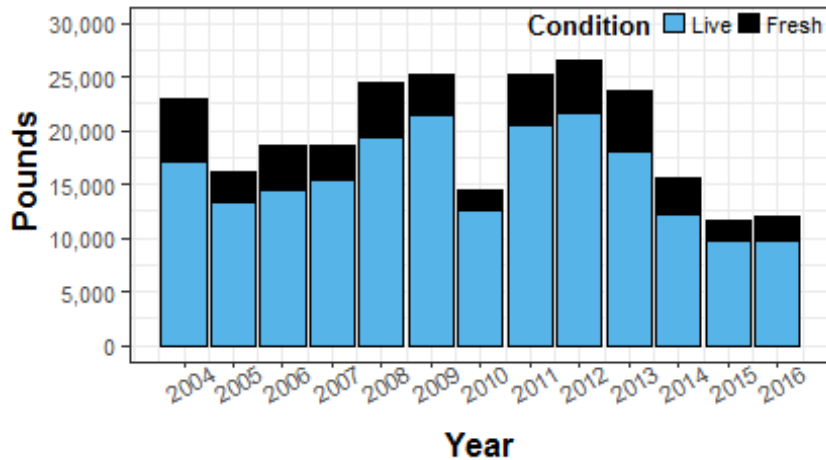
**Figure 30.** Other Nearshore Rockfish landings (pounds) by year and port group.

**Other Nearshore Rockfish Landings by Bimonthly Period**



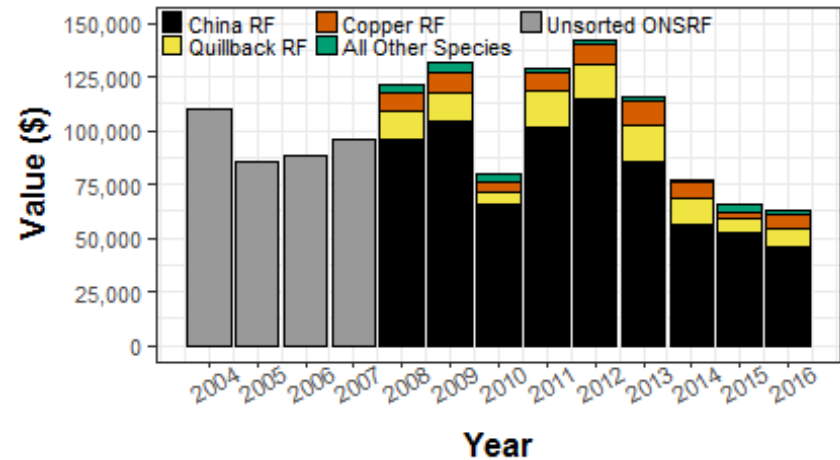
**Figure 31.** Other Nearshore Rockfish landings (pounds) by year and bimonthly period.

**Other Nearshore Rockfish Landings by Condition**



**Figure 32.** Other Nearshore Rockfish landings (pounds) by year and market condition.

**Other Nearshore Rockfish (ONSRF) Value by Species**



**Figure 33.** Other Nearshore Rockfish landings ex-vessel value (\$) by year and species. Fishes landed in this species group prior to 2008 were unsorted.

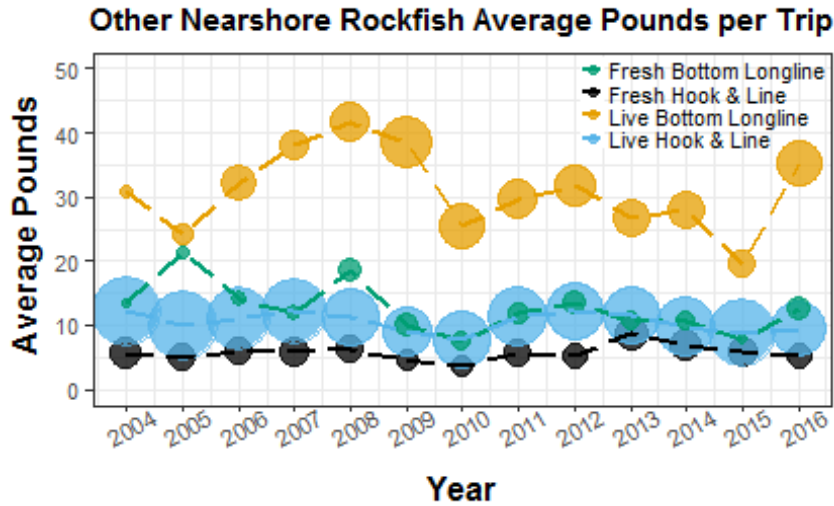


Figure 34. Average pounds landed per trip for Other Nearshore Rockfish by year, gear type and market condition. The area of each bubble is weighted by the percent of pounds landed by each sector.

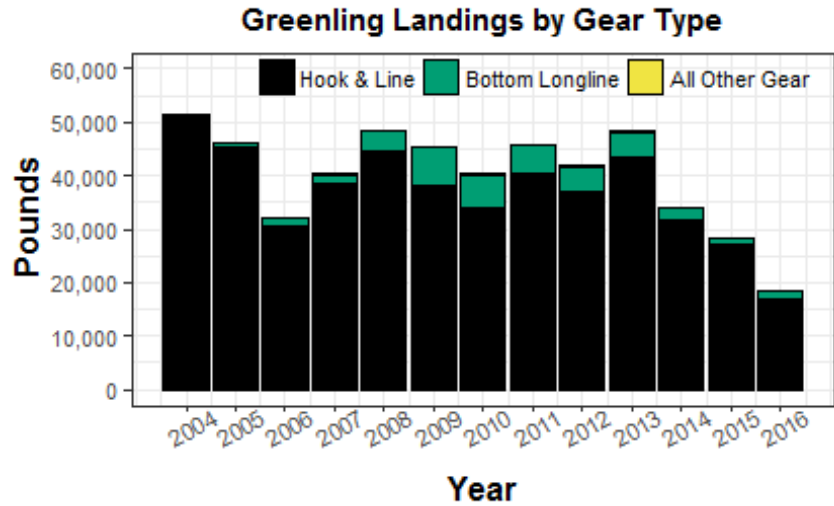


Figure 35. Greenling landings (pounds) by year and gear type.

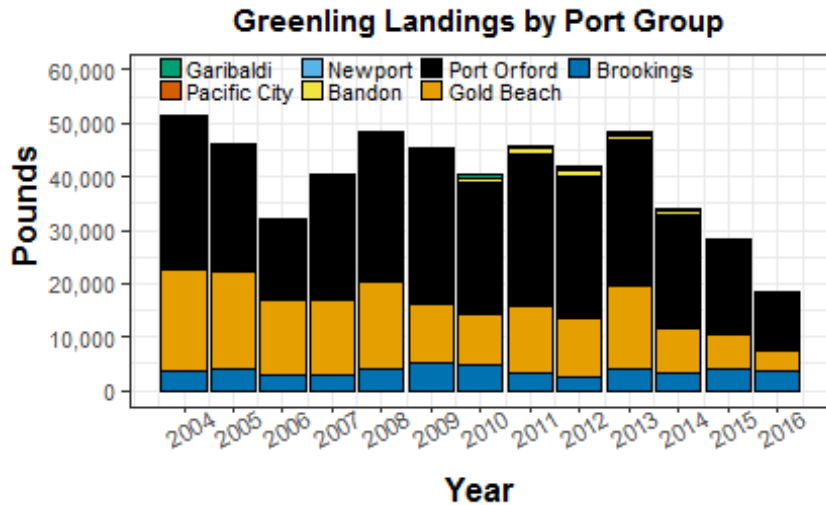


Figure 36. Greenling landings (pounds) by year and port group.

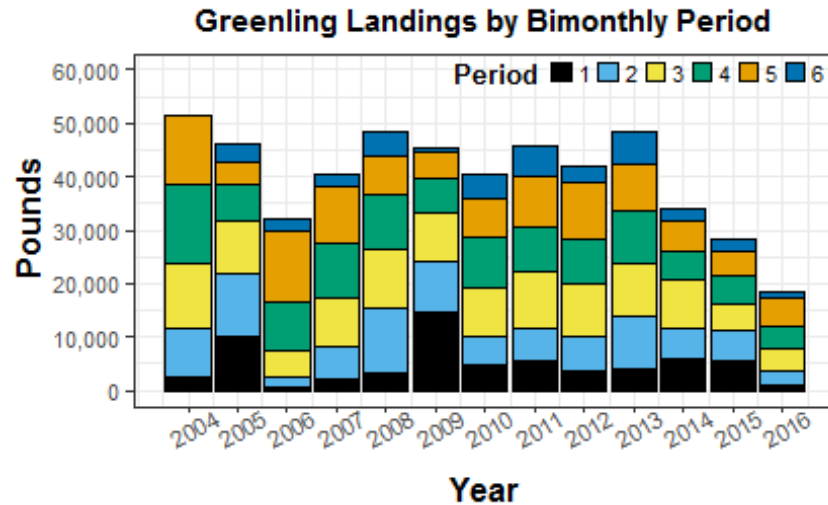


Figure 37. Greenling landings (pounds) by year and bimonthly period.

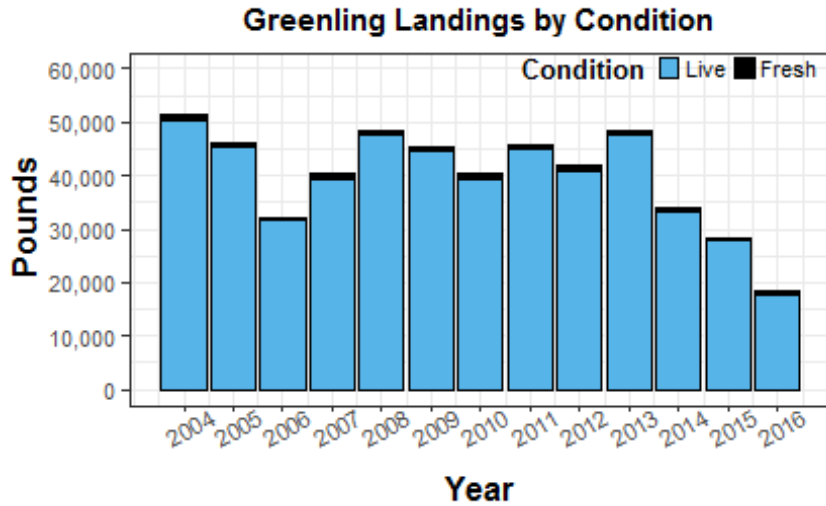


Figure 38. Greenling landings (pounds) by year and market condition.

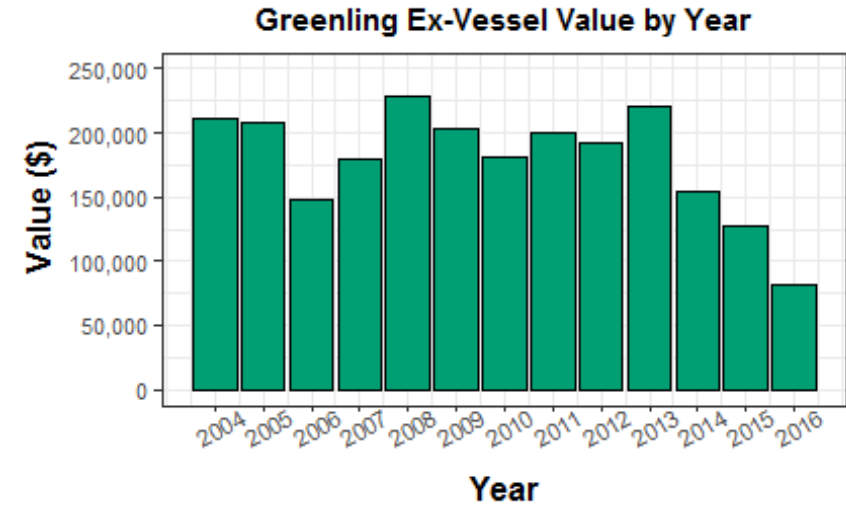


Figure 39. Greenling landings ex-vessel value (\$) by year.

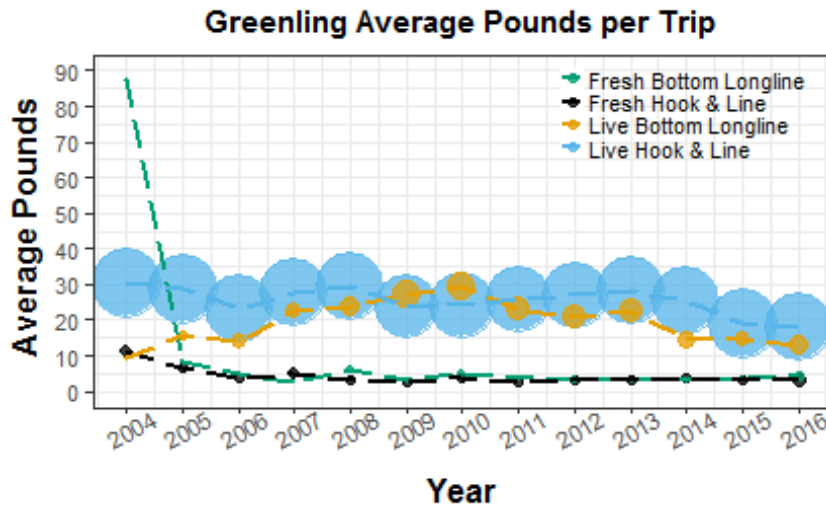


Figure 40. Average pounds landed per trip Greenling by year, gear type and market condition. The area of each bubble is weighted by the percent of pounds landed by each sector.

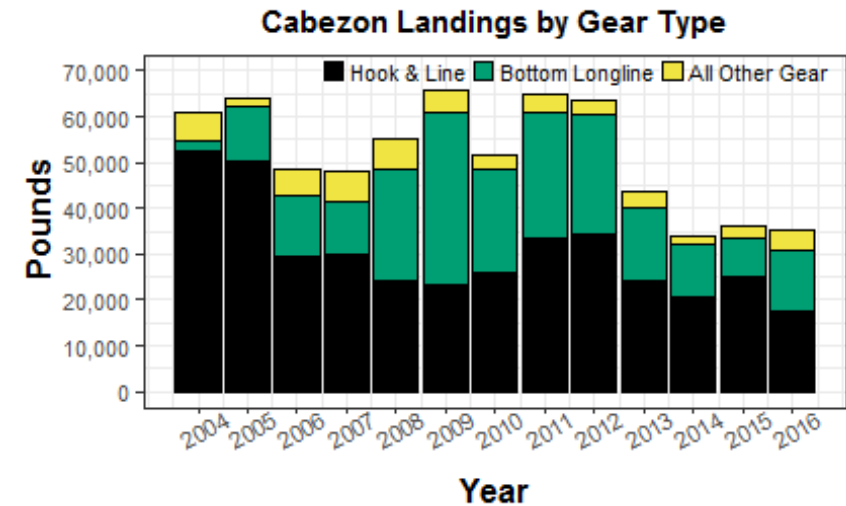


Figure 41. Cabezon landings (pounds) by year and gear type.

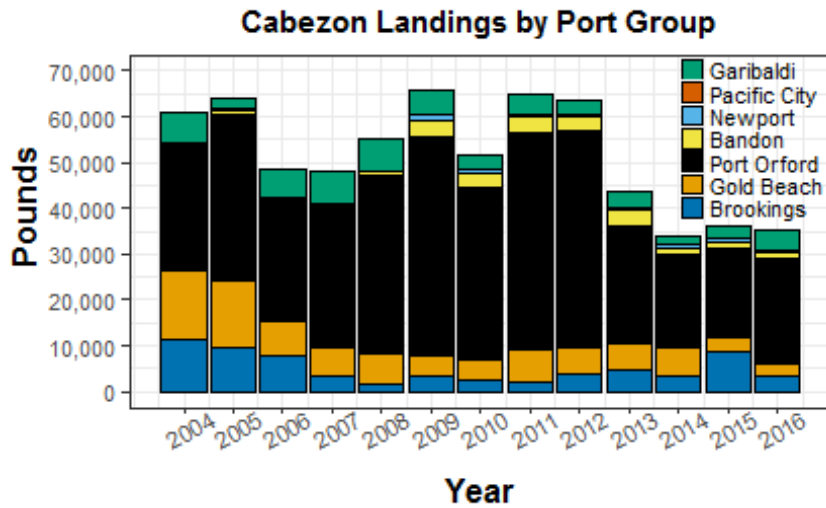


Figure 42. Cabezon landings (pounds) by year and port group.

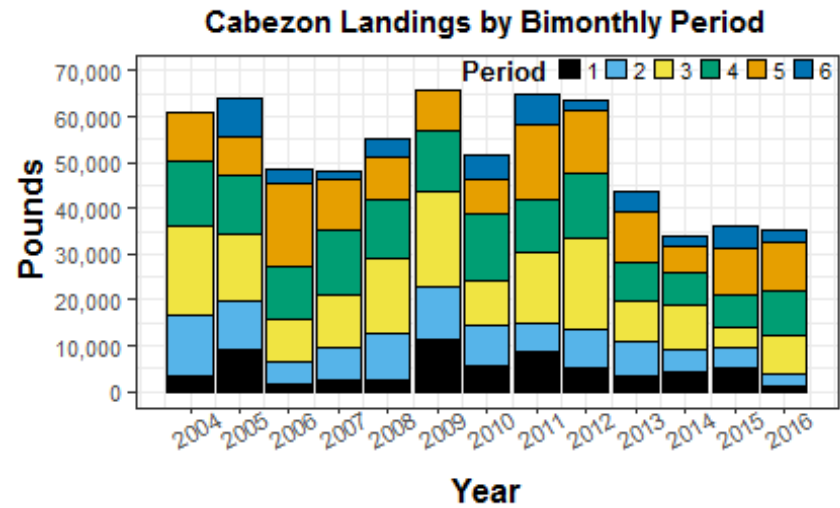


Figure 43. Cabezon landings (pounds) by year and bimonthly period.

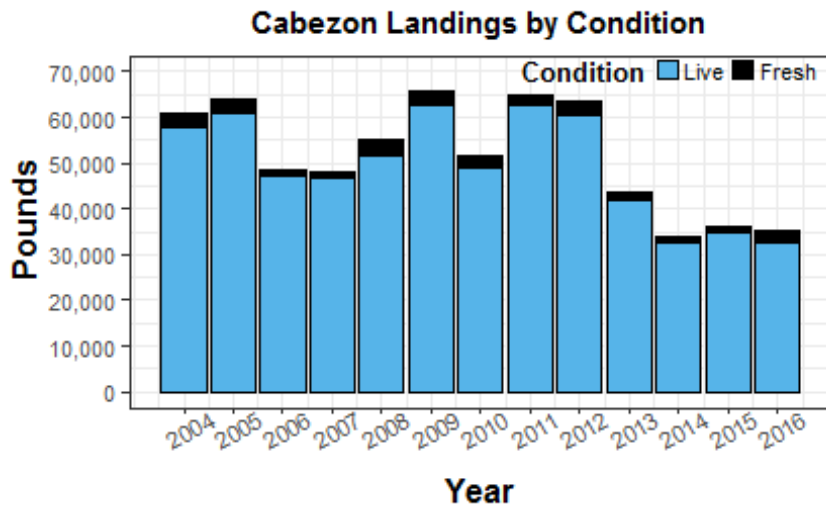


Figure 44. Cabezon landings (pounds) by year and condition.

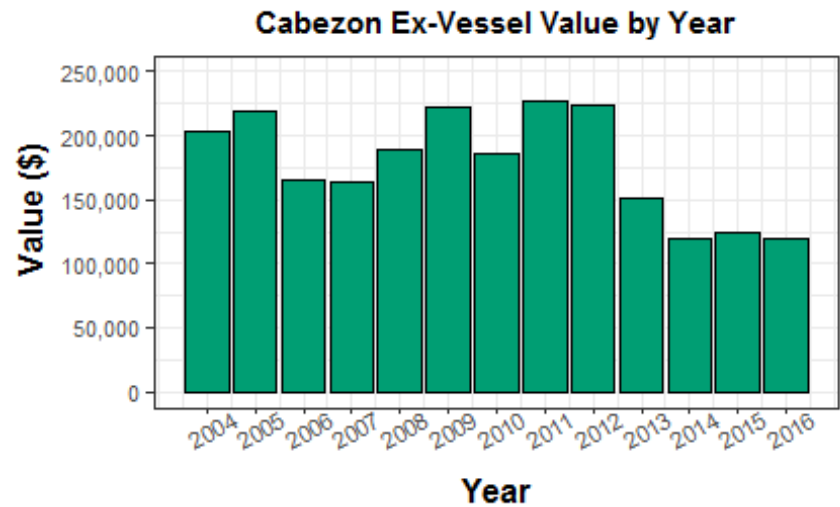
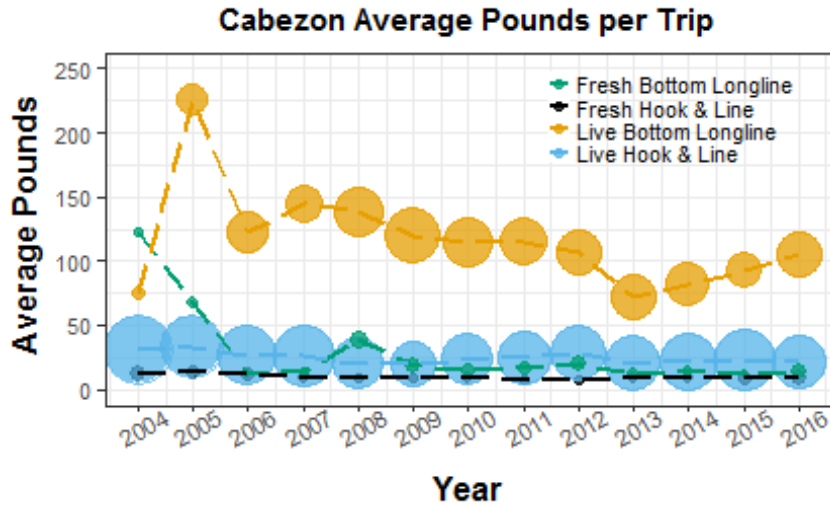
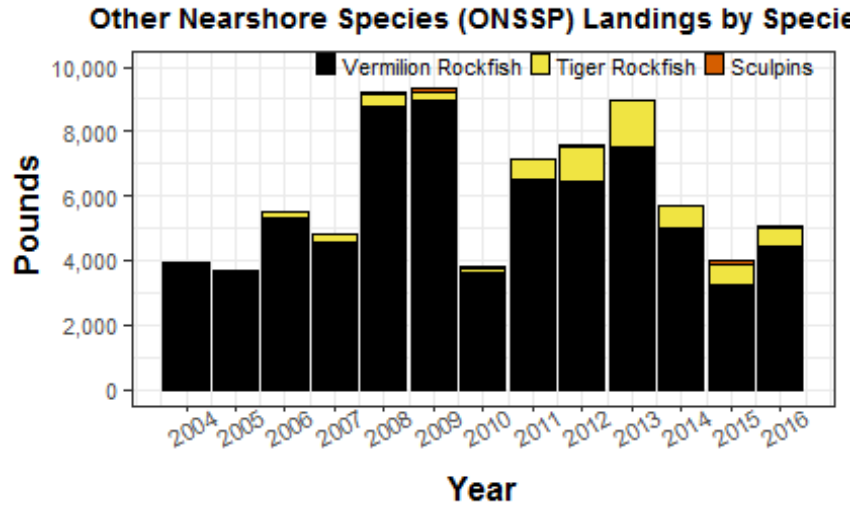


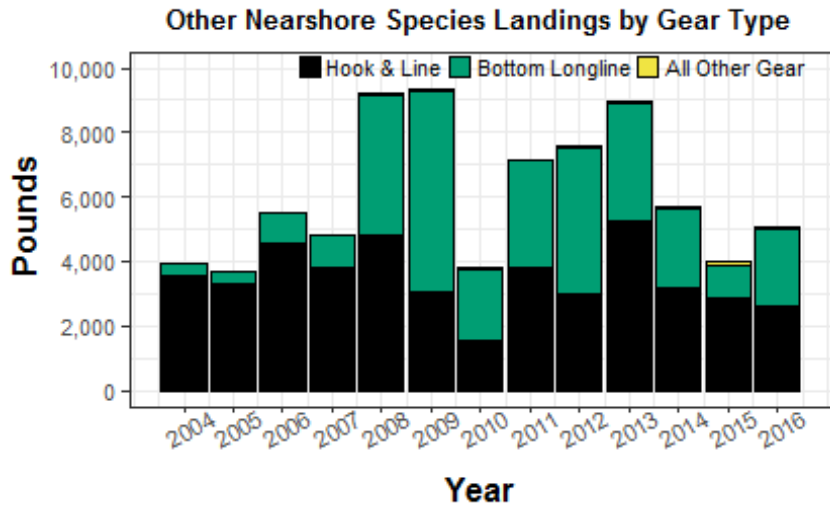
Figure 45. Cabezon landings ex-vessel value (\$) by year.



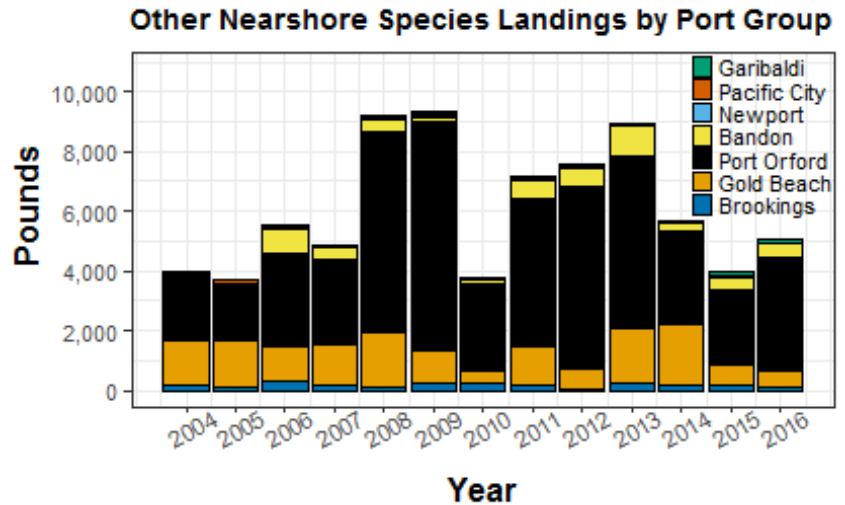
**Figure 46.** Average pounds landed per fish trip for Cabezon by year, gear type and market condition. The area of each bubble is weighted by the percent of pounds landed by each sector.



**Figure 47.** Other Nearshore Species landings (pounds) by year and species or species group.

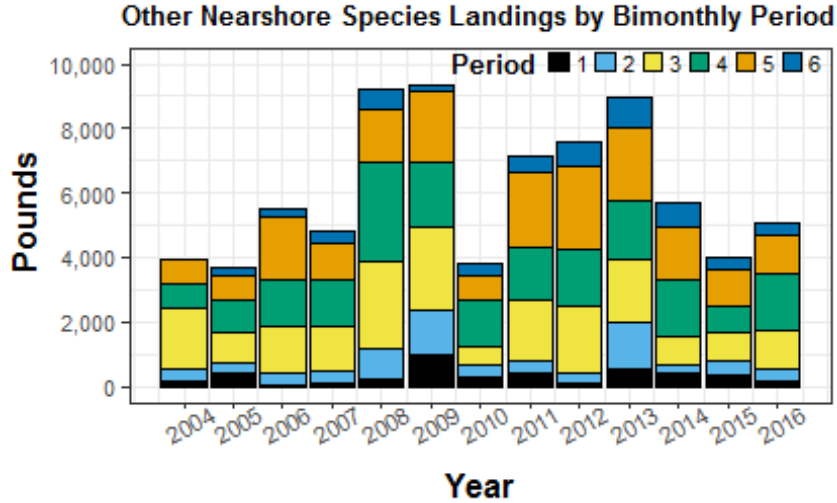


**Figure 48.** Other Nearshore Species landings (pounds) by year and gear type.

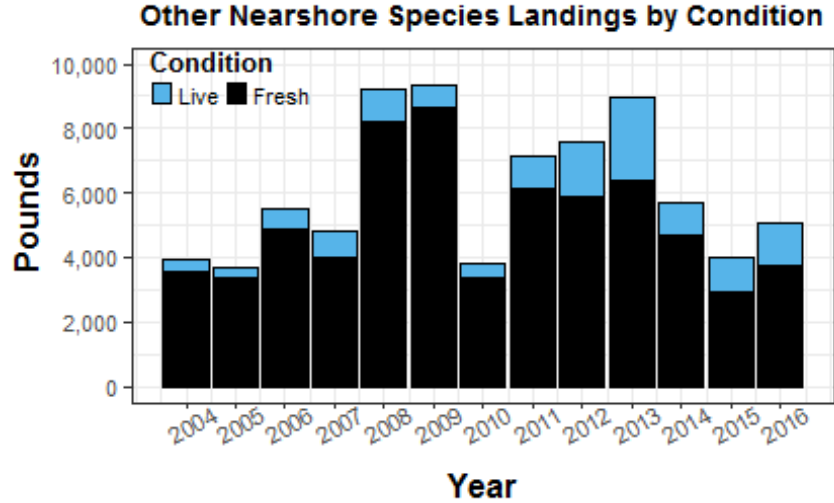


**Figure 49.** Other Nearshore Species landings by port group.

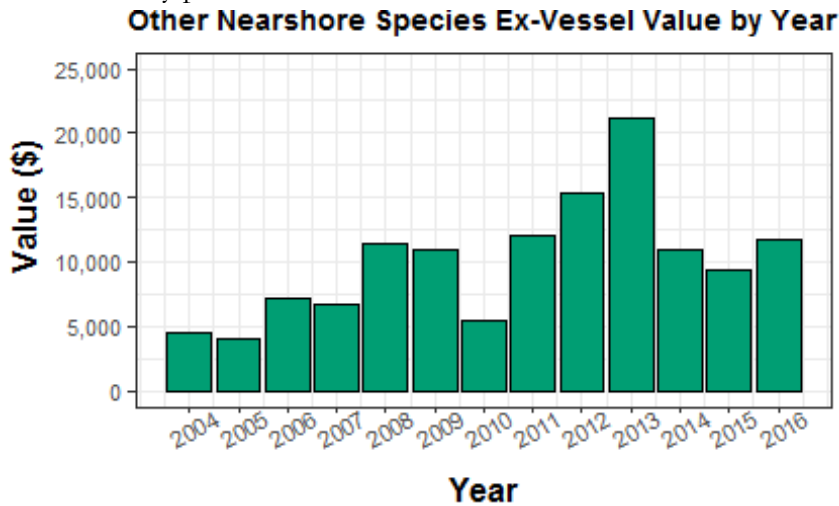




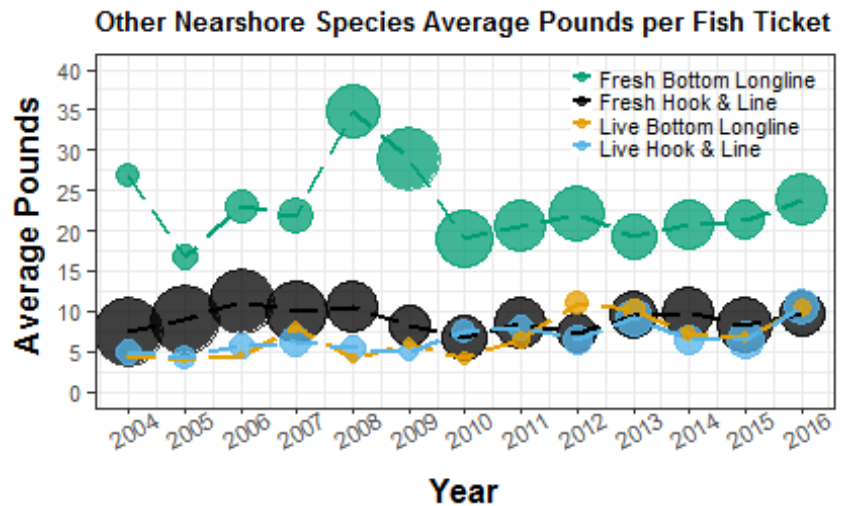
**Figure 50.** Other Nearshore Species landings (pounds) by year and bimonthly period.



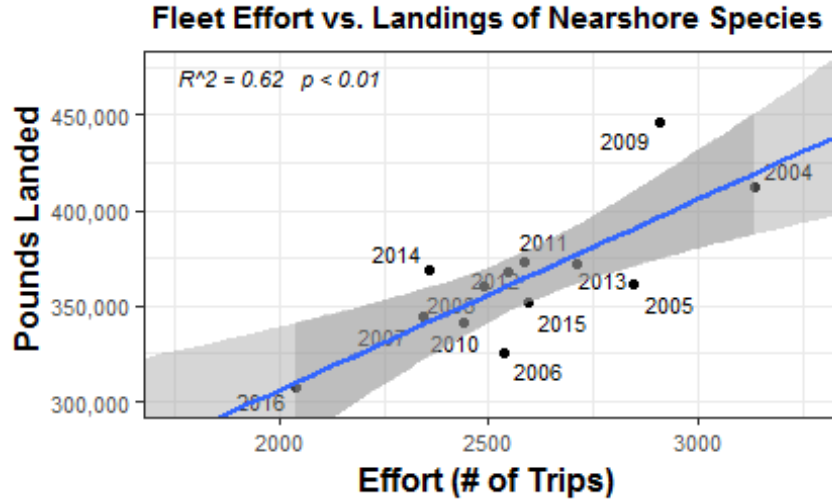
**Figure 51.** Other Nearshore Species landings (pounds) by year and condition.



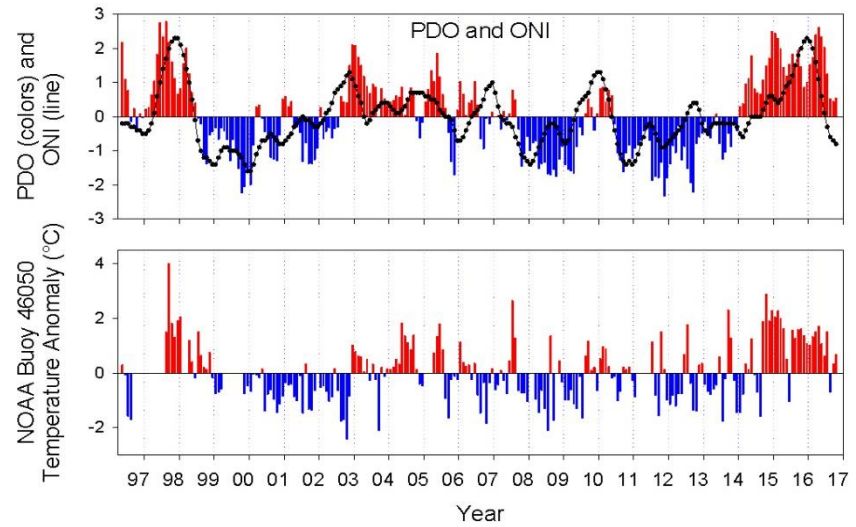
**Figure 52.** Ex-vessel value of Other Nearshore Species.



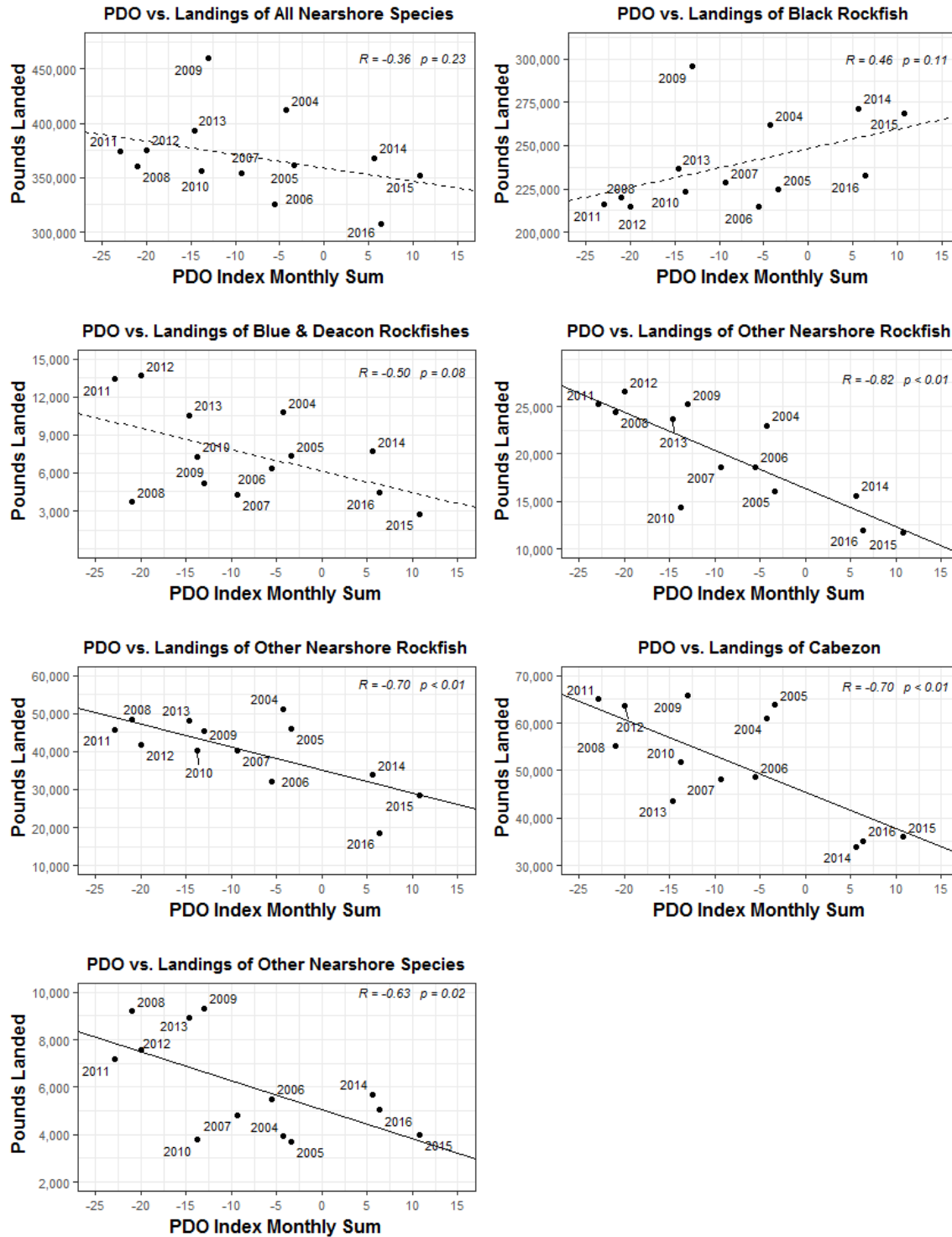
**Figure 53.** Average pounds landed per trip for Other Nearshore Species by year, gear type and market condition. The area of each bubble is weighted by the percent of pounds landed by each sector.



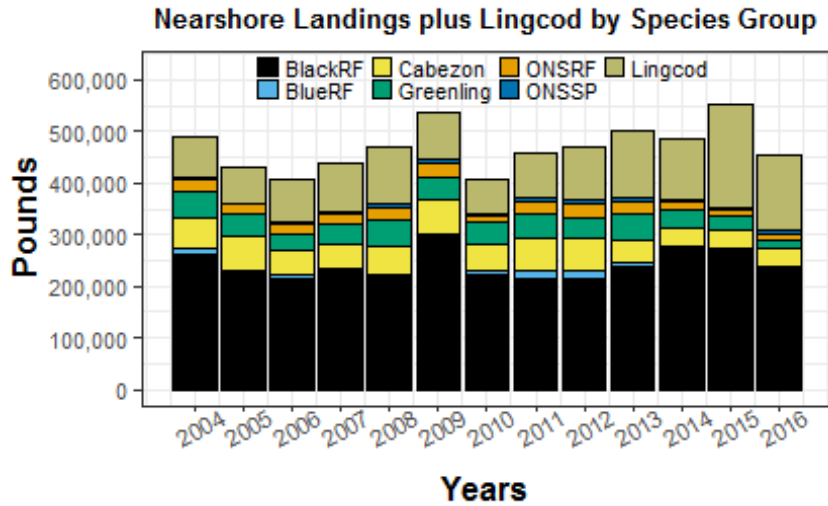
**Figure 54.** Effort predicting total pounds landed of nearshore species from 2004 - 2016 with 95% confidence interval (CI). Dark gray is the estimated CI, light gray is the projected CI.



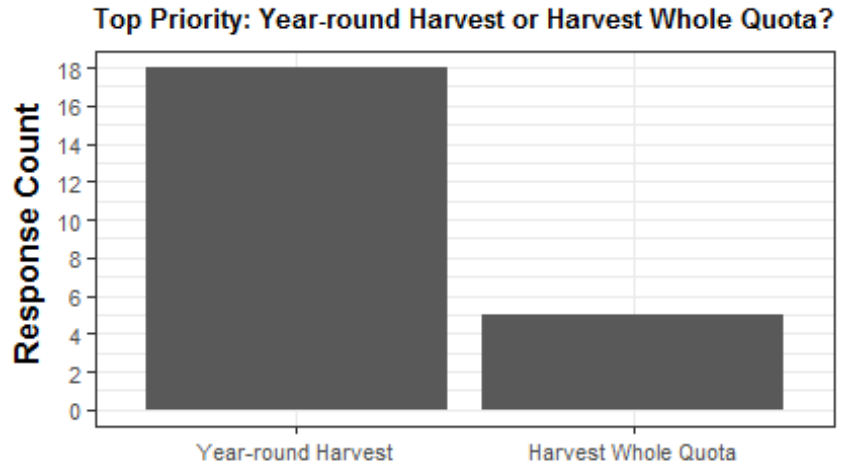
**Figure 55.** The Pacific Decadal Oscillation, the Oceanic Nino Index and water temperature anomalies at NOAA buoy 46050 offshore of Newport, OR (NWFSC 2017)



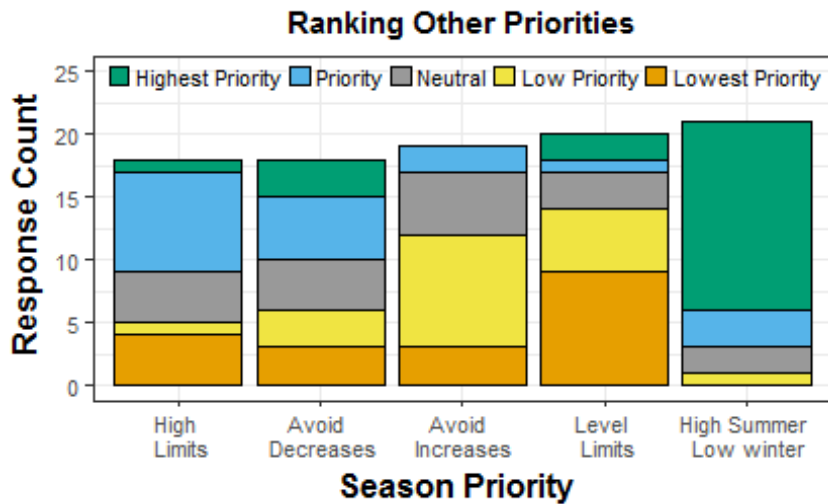
**Figure 56.** The Pacific Decadal Oscillation in relation to both landings of all nearshore species combined and landings of species management groups. Note the position of sequential years in relation to regime shifts depicted in Figure 55.



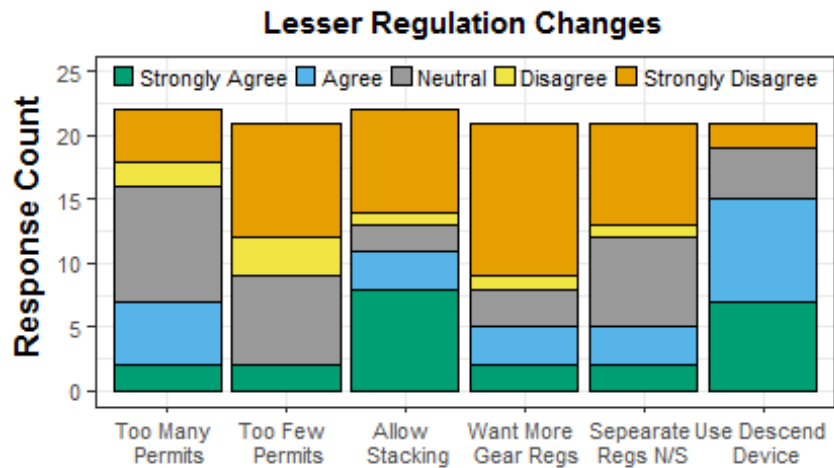
**Figure 57.** Commercial Nearshore Landings plus nearshore fixed gear Lingcod landings.



**Figure 58.** Count of permit holders' responses when asked whether year-round harvest or harvesting whole quota was their top management priority.



**Figure 59.** Counts of ranks of other management priorities



**Figure 60.** Counts of agreement with lesser regulation changes.

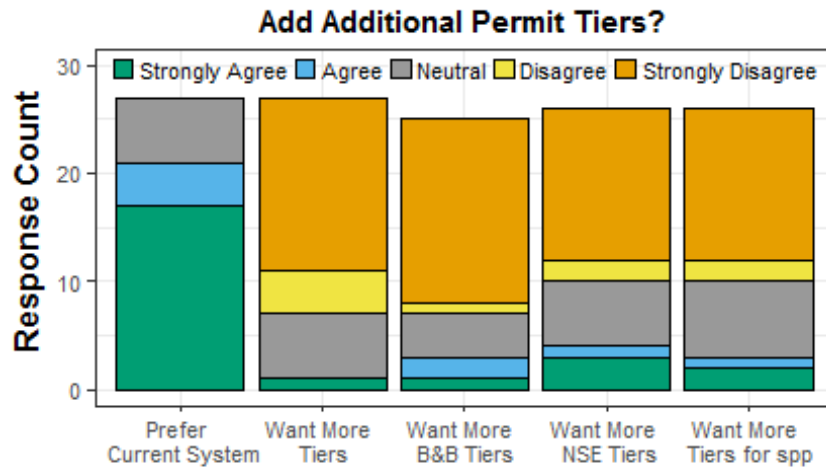


Figure 61. Counts of agreement with ideas for adding more tiers.

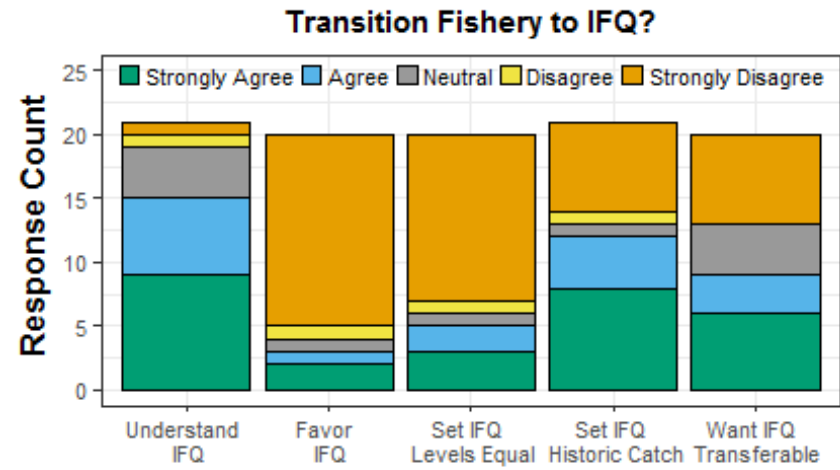


Figure 62. Counts of agreement with the idea of transitioning the fishery to IFQ.

## Appendices

**Appendix A.** Annual landing caps in metric tons (mt) for State management groups for 2004 - 2014. Where applicable, harvest caps are indicated in footnotes.

Year	Black & Blue Rockfish	Other Nearshore Rockfish	Cabezon	Greenling
2004	111.9 (108.0) <sup>1</sup>	16.0 <sup>2</sup>	31.3	23.4
2005	108.7 (104.8) <sup>1</sup>	13.5 <sup>2</sup>	31.3	23.4
2006	106.5 (102.5) <sup>1</sup>	13.5 <sup>2</sup>	31.3	23.4
2007	104.6 (100.6) <sup>1</sup>	12.0	31.3	23.4
2008 <sup>3</sup>	104.6 (100.6) <sup>1</sup>	12.0	31.3	23.4
2009	141.9 (137.9) <sup>1,4</sup>	14.3	31.3	23.4
2010	141.9 (137.9) <sup>1,4</sup>	14.3	31.3	23.4
2011	141.9 (137.9) <sup>1,4</sup>	14.3	31.3	23.4
2012	141.9 (137.9) <sup>1,4</sup>	14.3	30.5 <sup>5</sup>	23.4
2013	141.9 (137.9) <sup>1,4</sup>	14.3	30.0 <sup>6</sup>	23.4
2014	141.9 (137.9) <sup>1,4</sup>	14.3	30.0 <sup>6</sup>	23.4

<sup>1</sup>values in parentheses are landing caps for Black Rockfish, alone.

<sup>2</sup>includes Vermilion and Tiger Rockfishes.

<sup>3</sup>first year both harvest caps were implemented; prior harvest cap equaled landing cap.

<sup>4</sup>harvest cap of 139.2 mt for Black Rockfish, alone.

<sup>5</sup>harvest cap of 30.8 mt.

<sup>6</sup>harvest cap of 30.2 mt.

**Appendix B.** Harvest guidelines (mt) for State management groups for 2015.

Year	Black Rockfish	Blue & Other Nearshore Rockfish, combined	Cabezon	Greenling	Other Nearshore Species
2015	139.2	10.4	30.0	23.4	N/A

**Appendix C.** History of cumulative bimonthly period trip limits (pounds) set by the Oregon Fish and Wildlife Commission and implemented by the Oregon Department of Fish and Wildlife for the commercial nearshore fishery. Season outset limits set for each period are in normal text without parentheses. In-season changes effective for each period are dated with amended limits in parentheses. Dates with multiple increases listed on a single day indicate the bimonthly limit was increased multiple times throughout the year with the same effective date. A dash indicates no change. RF = Rockfish.

**Table C1.** 2015 cumulative bimonthly period trip limits (pounds). Blue Rockfish had a separate trip limit beginning this year (see the Fishery Management and Harvest Specifications section).

<b>Period</b>	<b>Black RF</b>	<b>Blue RF</b>	<b>Other Nearshore RF</b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	1,200	15	100	1,500	300
Period 2	1,400	15	100	1,500	300
Period 3	1,700	15	100	1,500	300
Period 4	1,600	15	100	1,500	300
<i>July 5</i>	(1,800)	-	-	-	(400)
Period 5	1,400	15	100	1,500	300
<i>Sept 1</i>	(1,600)	(50)	(300)	-	(400)
Period 6	1,000	15	100	1,500	300
<i>Nov 1</i>	(1,200)	(50)	(300)	-	(400)

**Table C2.** 2014 cumulative bimonthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF</b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	1,000	700	1,500	300
Period 2	1,400	100	1,500	300
Period 3	1,700	100	1,500	300
Period 4	1,600	100	1,500	300
Period 5	1,400	100	1,500	300
<i>Oct 13</i>	(1,600)	(300)	-	(350)
Period 6	1,000	100	1,500	300
<i>Nov 1</i>	(1,200)	(300)	-	(350)

**Table C3.** 2013 cumulative bimonthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF</b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	1,000	700	1,500	300
Period 2	1,200	700	1,500	300
Period 3	1,700	700	1,500	300
Period 4	1,600	700	1,500	300
Period 5	1,200	700	1,500	300
<i>Sept 1</i>	(2,100)	-	(2,000)	-
Period 6	1,000	700	1,500	300
<i>Nov 1</i>	(1,800)	-	(2,000)	-

**Table C4.** 2012 cumulative bimonthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF</b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	800	700	1,500	250
Period 2	1,000	700	1,500	250
Period 3	1,400	700	1,500	300
<i>June 1</i>	(1,800)	-	-	-
Period 4	1,400	700	1,500	250
<i>July 1</i>	(1,800)	-	-	-
Period 5	1,000	700	1,500	250
<i>Sept 1</i>	-	-	-	(400)
<i>Sept 11</i>	(2,100)	-	-	-
Period 6	800	700	1,500	250
<i>Nov 1</i>	(2,100)	-	(100)	(400)

**Table C5.** 2011 cumulative bimonthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF</b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	800	700	1,500	250
Period 2	1,000	700	1,500	250
Period 3	1,400	700	1,500	250
Period 4	1,400	700	1,500	250
<i>July 5</i>	(1,600)	-	-	-
Period 5	1,000	700	1,500	250
<i>Sept 1</i>	(1,200)	-	-	-
<i>Sept 15</i>	(1,400)	-	-	-
Period 6	800	700	1,500	250
<i>Nov 1</i>	(1,000)	-	-	-
<i>Nov 11</i>	(1,200)	-	-	-



**Table C6.** 2010 cumulative bimonthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF</b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	800	700	1,500	250
Period 2	1,000	700	1,500	250
Period 3	1,400	700	1,500	250
Period 4	1,400	700	1,500	250
<i>Aug 1</i>	(1,600)	-	-	(300)
Period 5	1,000	700	1,500	250
<i>Sept 1</i>	(1,200)	-	(1,600)	(300)
<i>Oct 15</i>	(1,400)	-	(Closed)	(350)
Period 6	800	700	1,500	250
<i>Nov 1</i>	-	-	(1,600)	-
<i>Nov 1</i>	(1,200)	-	(100)	(350)

**Table C7.** 2009 cumulative bimonthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF</b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	800	700	1,500	250
Period 2	1,000	700	1,500	250
<i>Mar 1</i>	-	-	-	(250)
Period 3	1,600	700	2,500	450
<i>May 1</i>	-	-	-	(250)
Period 4	1,600	700	2,500	450
<i>July 1</i>	-	-	-	(250)
<i>July 1</i>	-	-	(1,250)	(150)
Period 5	1,200	700	2,500	450
<i>Oct 1</i>	-	-	(1,250)	(250)
<i>Oct 10</i>	(15 per day/1,200 per month)	-	(Closed)	(150)
Period 6	1,000	700	2,500	450
<i>Nov 1</i>	-	-	-	(250)
<i>Nov 1</i>	(15 per day/400 per month)	-	(Closed)	(150)

**Table C8.** 2008 cumulative bimonthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF</b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	600	700	2,500	450
Period 2	800	700	2,500	450
Period 3	1,600	700	2,500	450
Period 4	1,600	700	2,500	450
<i>July 1</i>	(1,200)	-	-	-
Period 5	1,600	700	2,500	450
<i>Oct 1</i>	(1,000)	-	-	-
<i>Oct 2</i>	(15 per day/1,200 per month)	-	-	-
Period 6	800	700	2,500	450
<i>Nov 1</i>	(15 per day/400 per month)	-	-	-

**Table C9.** 2007 cumulative bimonthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF</b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	600	600	2,000	400
Period 2	800	600	2,000	400
Period 3	1,600	600	2,000	400
Period 4	1,600	600	2,000	400
Period 5	1,600	600	2,000	400
<i>Sept 1</i>	(2,000)	(700)	(4,000)	(800)
Period 6	800	600	2,000	400
<i>Nov 1</i>	(15 per day/400 per month)	(700)	(4,000)	(800)
<i>Nov 28</i>	(Closed)	(Closed)	(Closed)	(Closed)

**Table C10.** 2006 cumulative monthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF<sup>1</sup></b>	<b>Cabezon</b>	<b>Greenling</b>
January	600	600	2,000	400
February	800	600	2,000	400
March	1,600	600	2,000	400
April	1,600	600	2,000	400
May	1,600	600	2,000	400
June	(2,000)	(700)	(4,000)	(800)
July	800	600	2,000	400
<i>Nov 1</i>	(15 per day/400 per month)	(700)	(4,000)	(800)
August	(Closed)	(Closed)	(Closed)	(Closed)
<i>Aug 1</i>	(15 per day/400 per month)	(700)	(4,000)	(800)
<i>Aug 11</i>	(15 per day/400 per month)	(700)	(4,000)	(800)
Sept	1,600	600	2,000	400
<i>Sept 1</i>	1,600	600	2,000	400
<i>Sept 1</i>	1,600	600	2,000	400
October	1,600	600	2,000	400
<i>Oct 1</i>	1,600	600	2,000	400
<i>Oct 1</i>	1,600	600	2,000	400
November	1,600	600	2,000	400
<i>Nov 1</i>	1,600	600	2,000	400
December	1,600	600	2,000	400
<i>Dec 1</i>	1,600	600	2,000	400

<sup>1</sup> - sub-limit of Black & Blue RF; included Vermilion and Tiger RF

**Table C11.** 2005 cumulative bimonthly period trip limits (pounds).

<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF<sup>1</sup></b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	1,000	700	1,500	250
Period 2	1,000	700	1,500	250
Period 3	1,500	700	2,500	450
<i>May 1</i>	-	-	-	(250)
Period 4	1,500	700	2,500	450
<i>Aug 1</i>	-	-	-	(250)
<i>Aug 4</i>	(700)	-	(1,250)	(150)
Period 5	800	700	2,500	450
<i>Oct 1</i>	-	(325)	-	(225)
<i>Oct 1</i>	(700)	-	-	(175)
<i>Oct 11</i>	(500)	(400)	-	-
Period 6	500	450	2,000	350
<i>Dec 1</i>	-	(400)	-	(175)
<i>Dec 1</i>	-	-	-	(275)

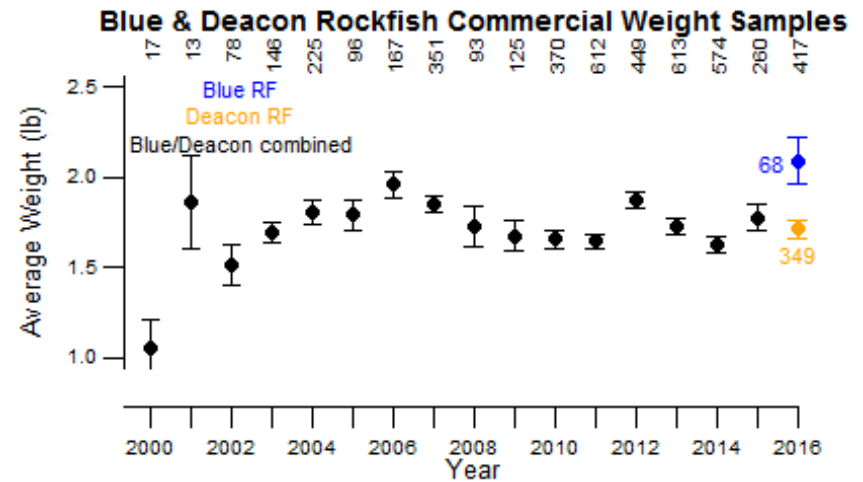
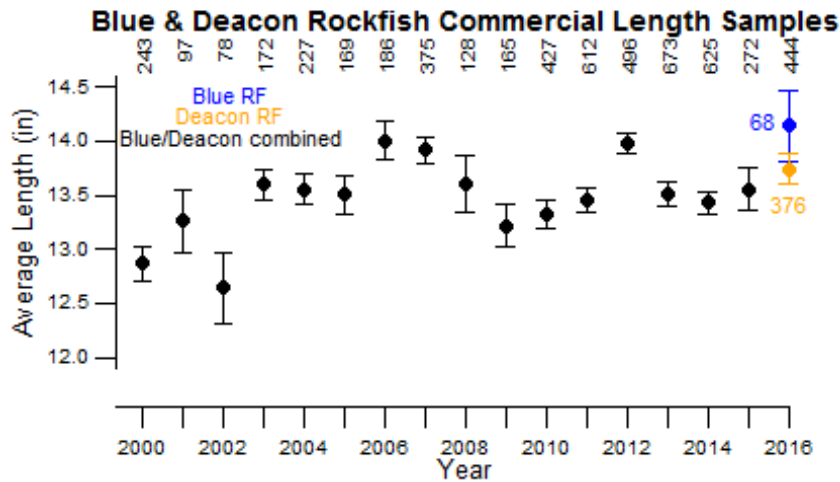
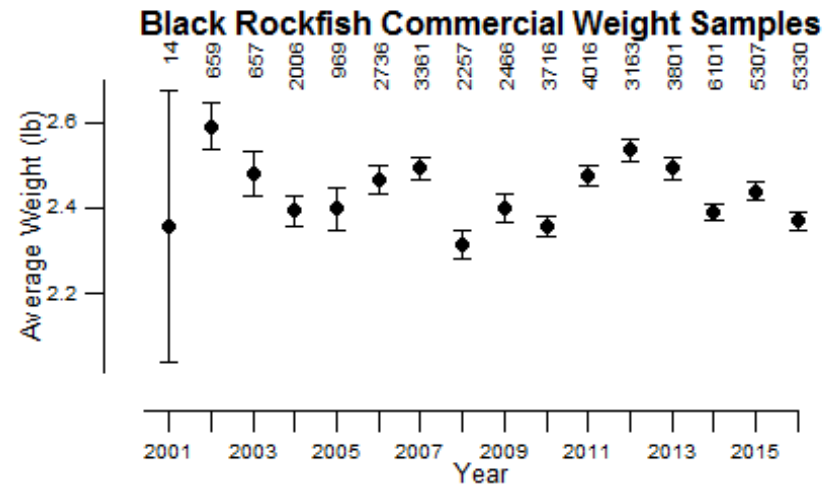
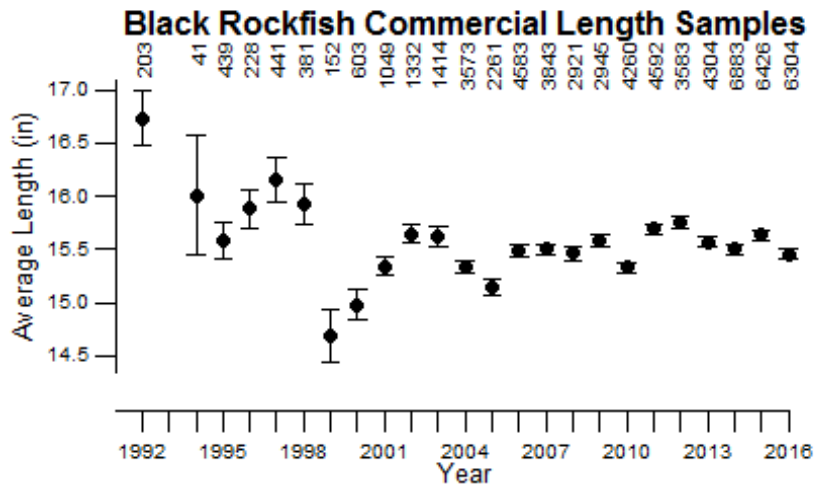
<sup>1</sup> - sub-limit of Black & Blue RF; included Vermilion and Tiger RF

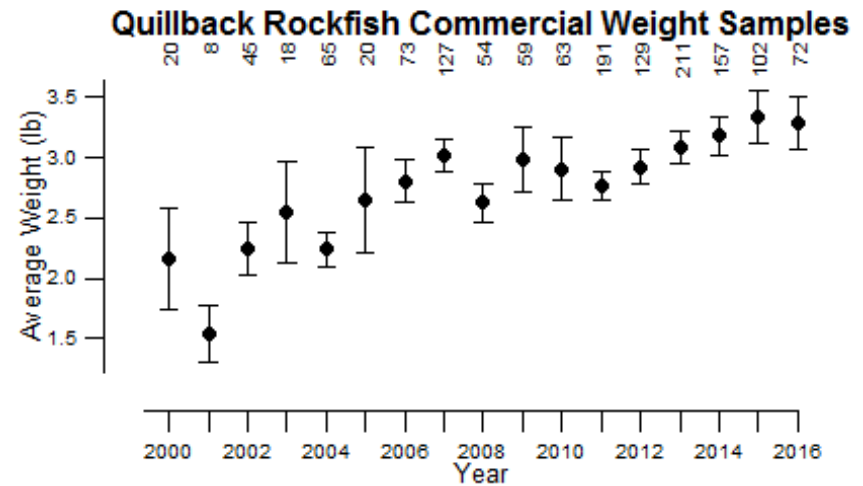
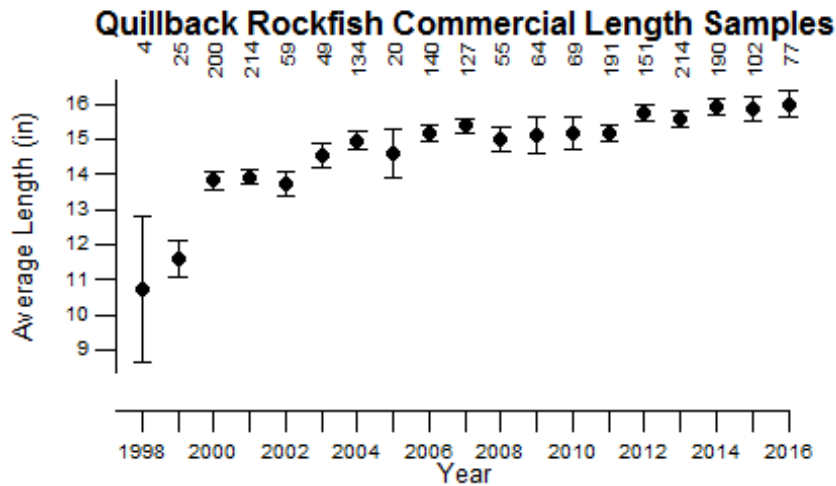
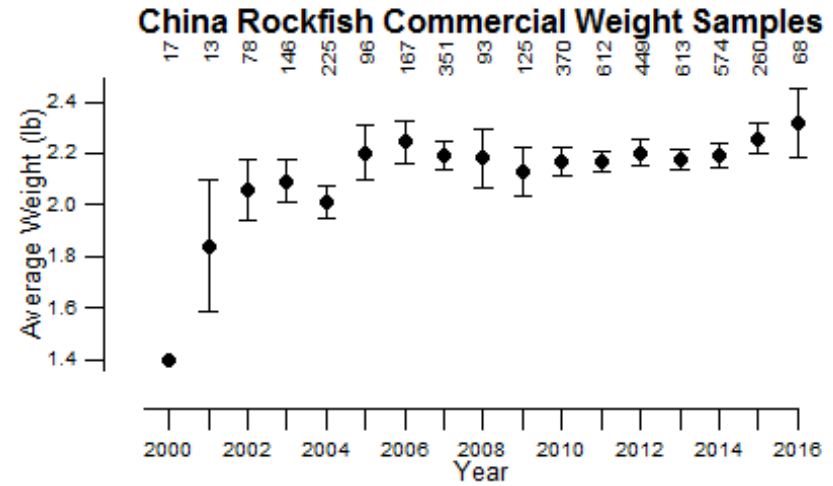
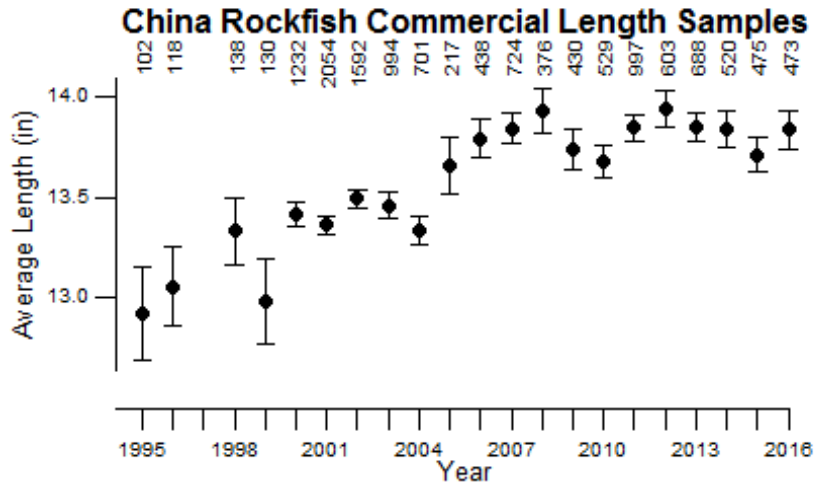
**Table C12.** 2004 cumulative bimonthly period trip limits (pounds).

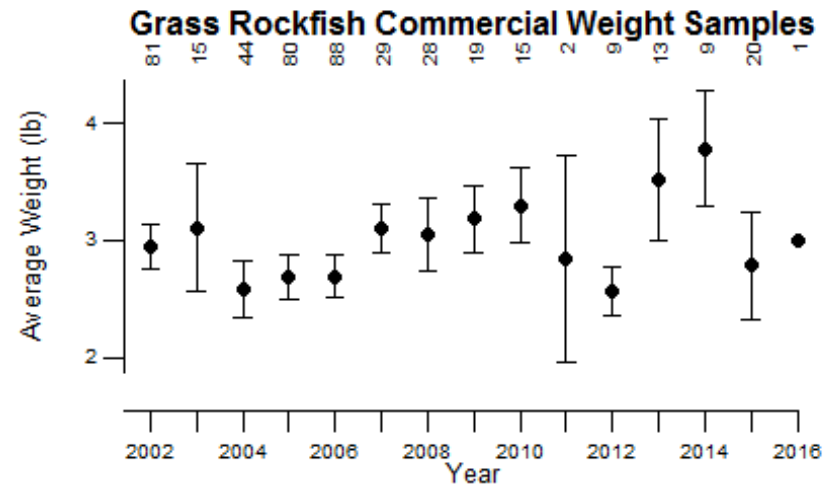
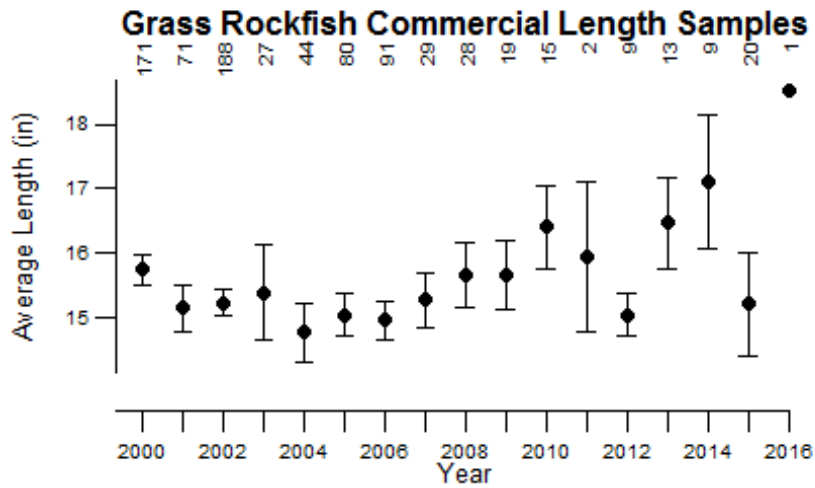
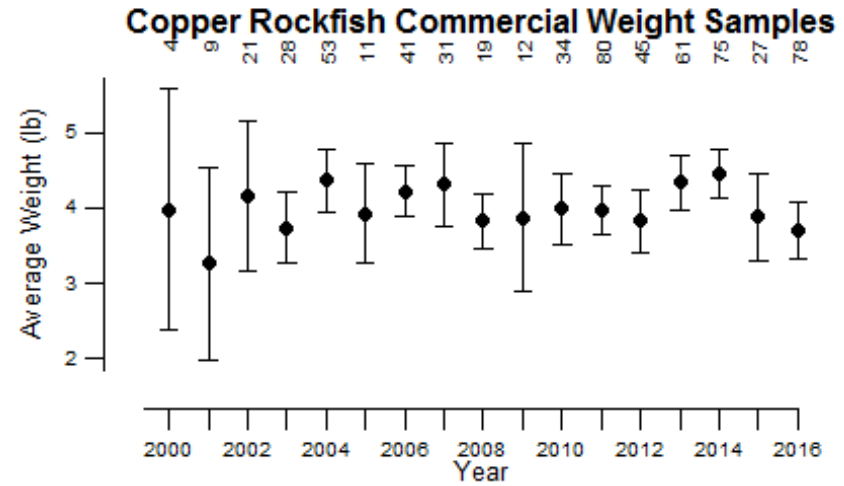
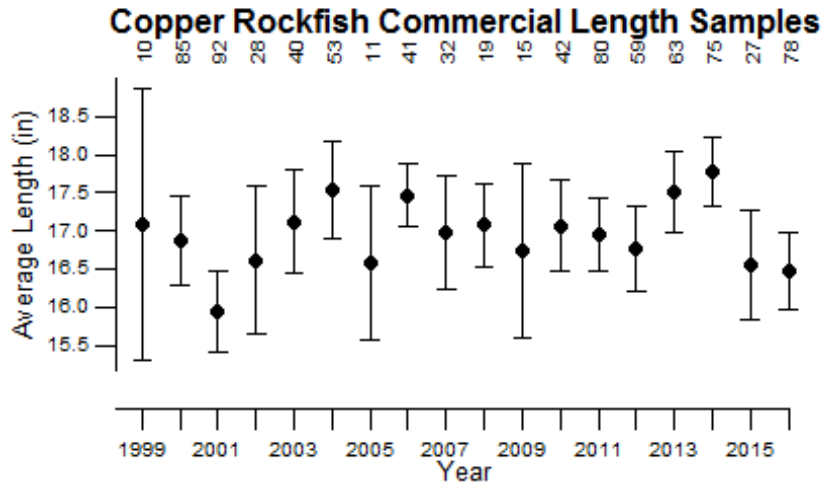
<b>Period</b>	<b>Black &amp; Blue RF</b>	<b>Other Nearshore RF<sup>1</sup></b>	<b>Cabezon</b>	<b>Greenling</b>
Period 1	800	700	1,500	250
Period 2	1,000	700	1,500	250
Period 3	1,400	700	1,500	250
Period 4	1,400	700	1,500	250
<i>July 5</i>	(1,600)	-	-	-
Period 5	1,000	700	1,500	250
<i>Sept 1</i>	(1,200)	-	-	-
<i>Sept 15</i>	(1,400)	-	-	-
Period 6	800	700	1,500	250
<i>Nov 1</i>	(1,000)	-	-	-
<i>Nov 11</i>	(1,200)	-	-	-

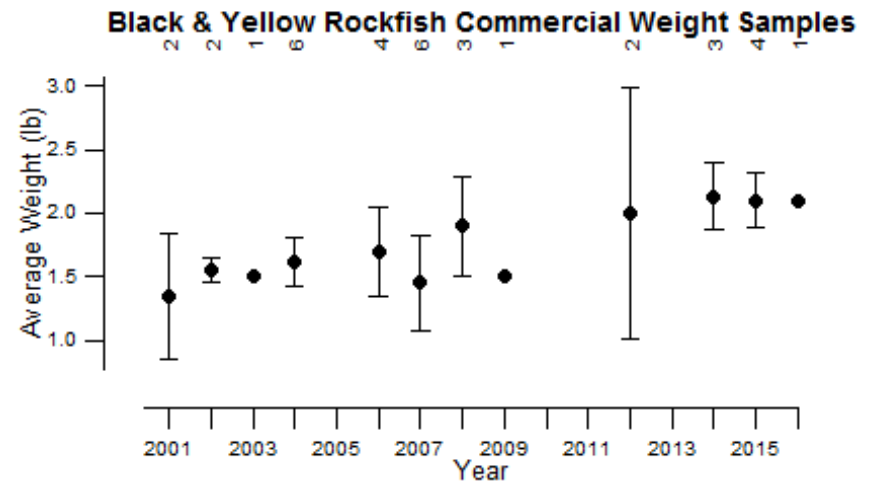
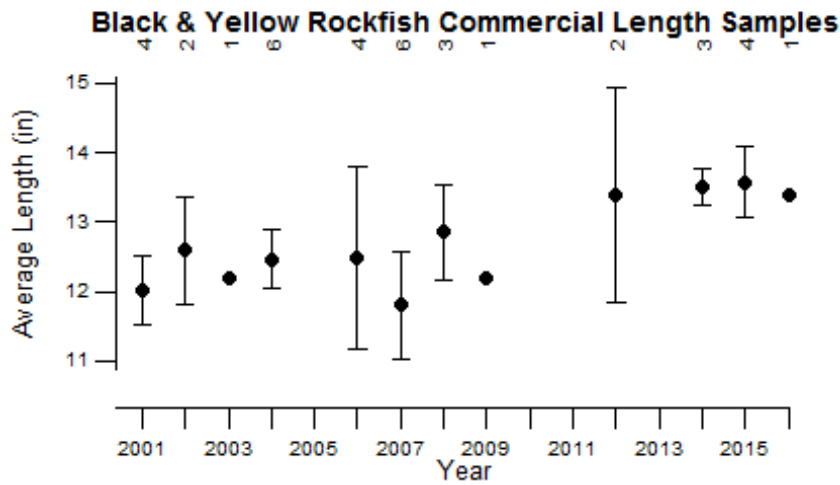
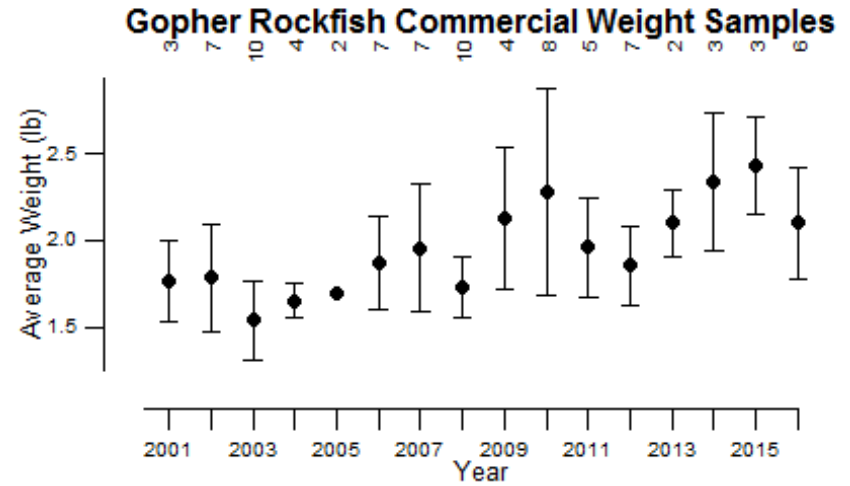
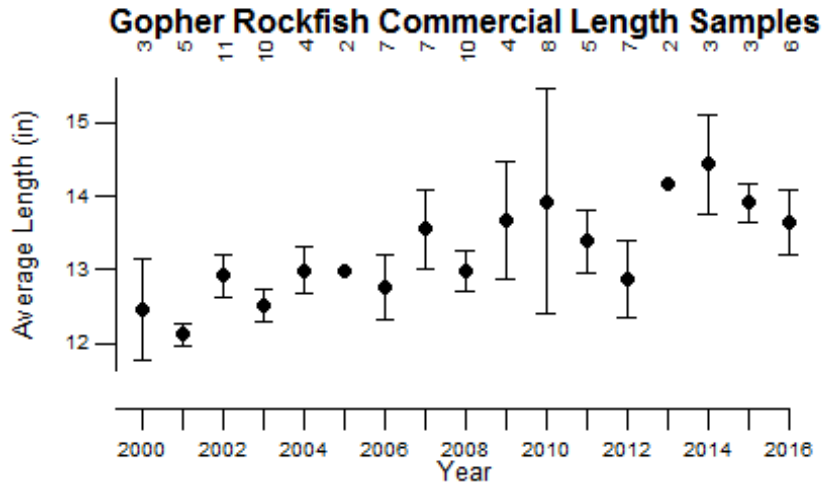
<sup>1</sup> - sub-limit of Black & Blue RF; included Vermilion and Tiger RF

**Appendix D.** Nearshore species commercial length and weight sample averages by year with sample sizes (top) and 95% confidence intervals.

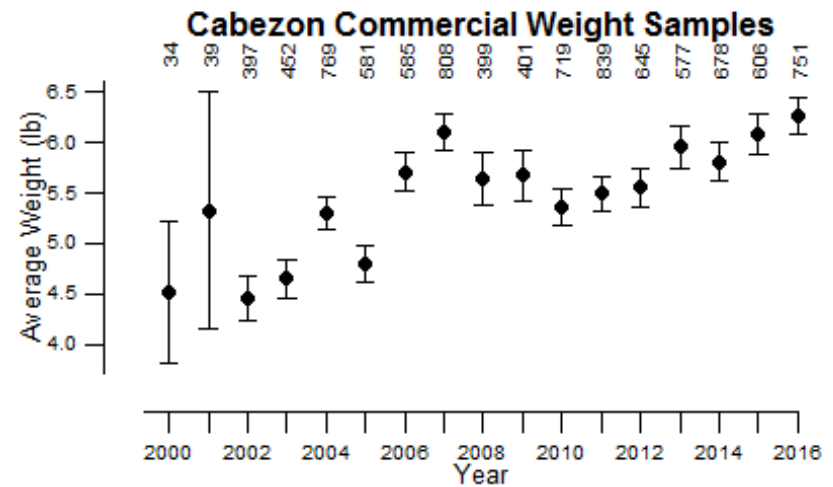
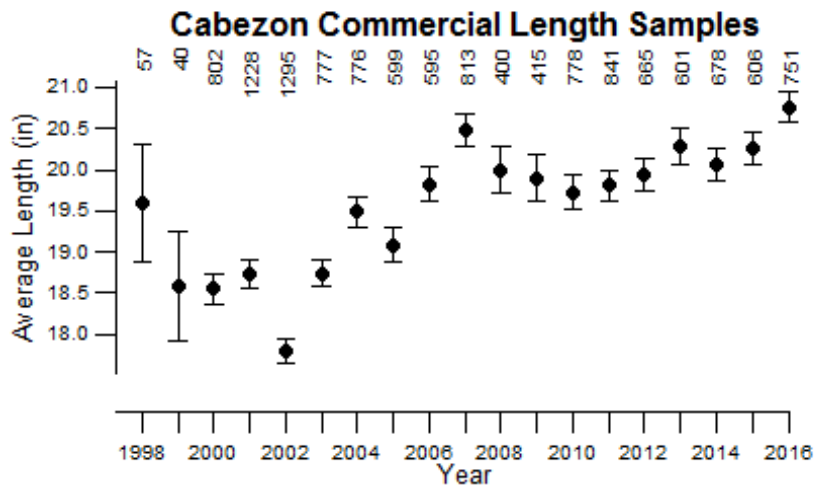
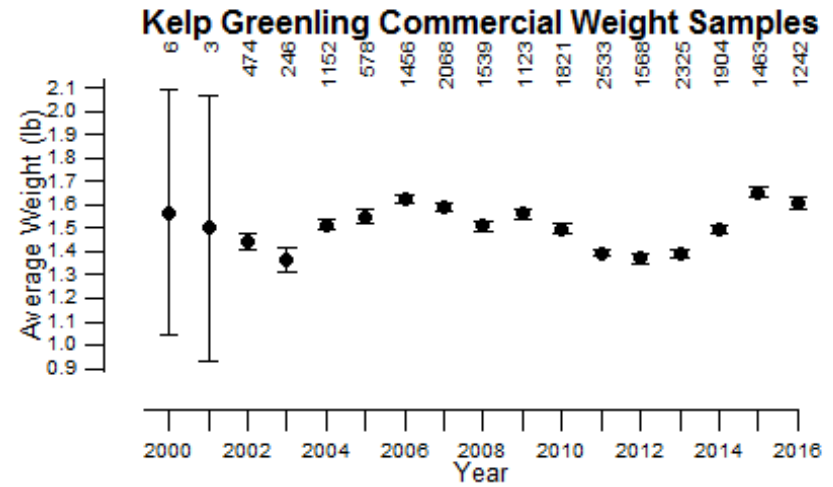
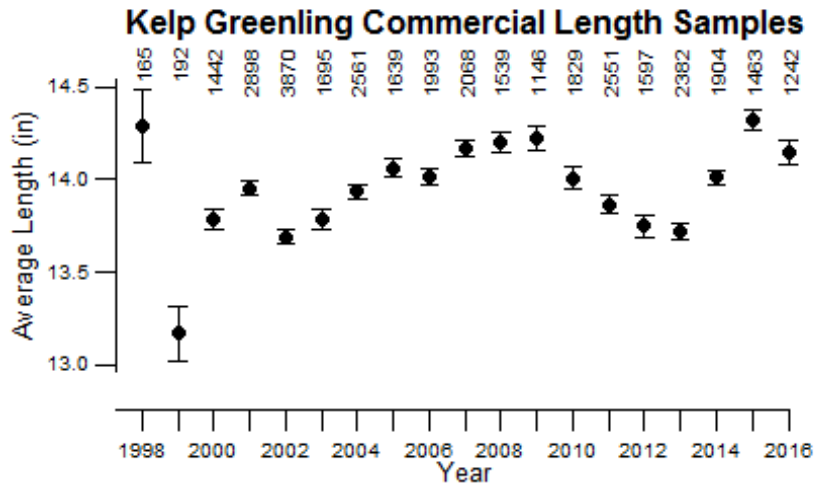


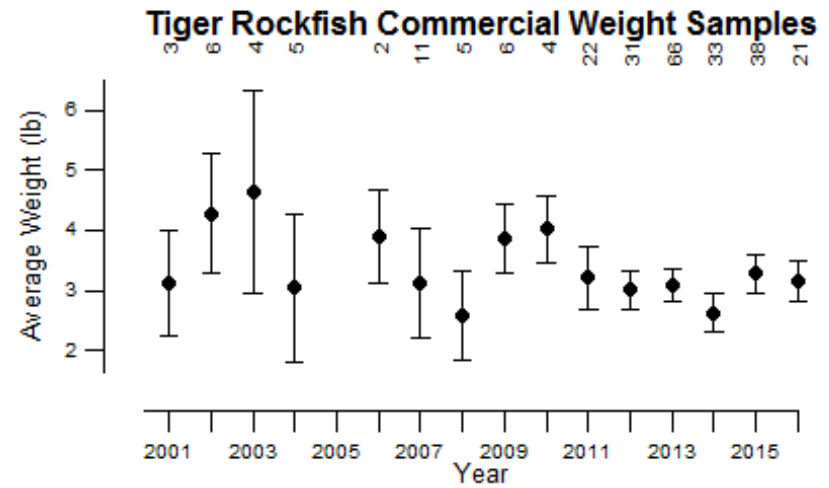
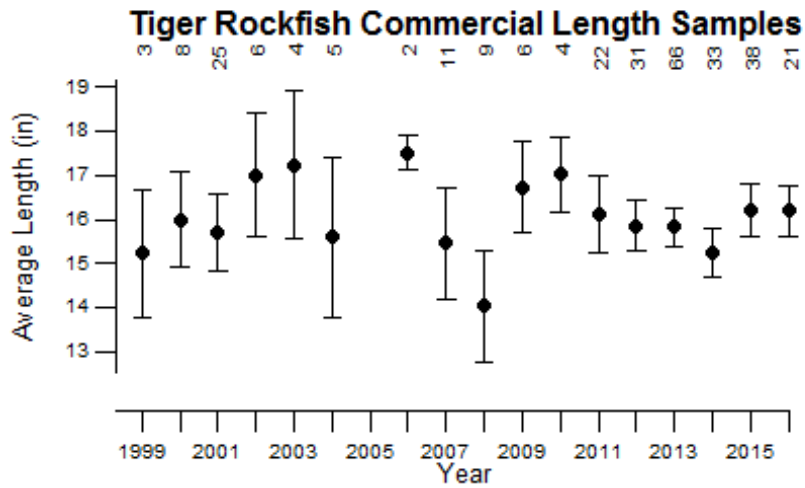
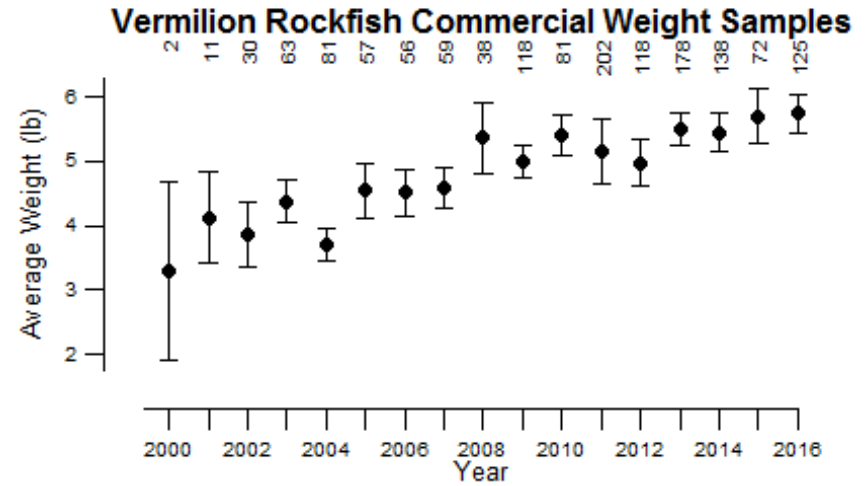
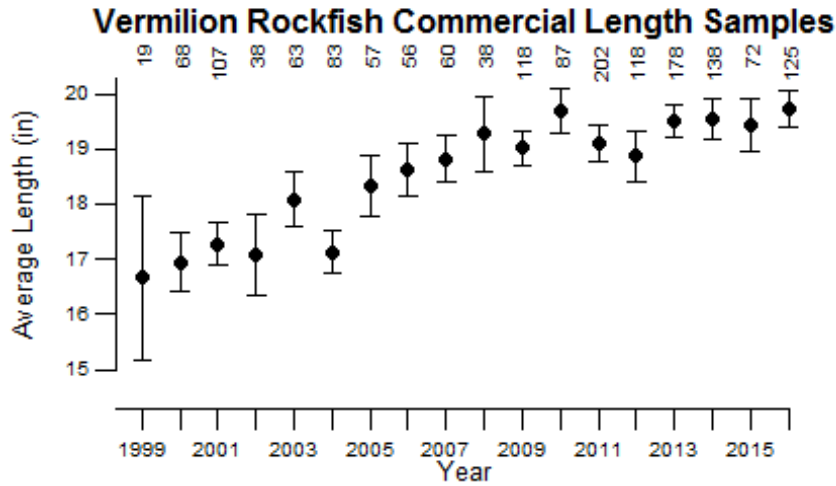




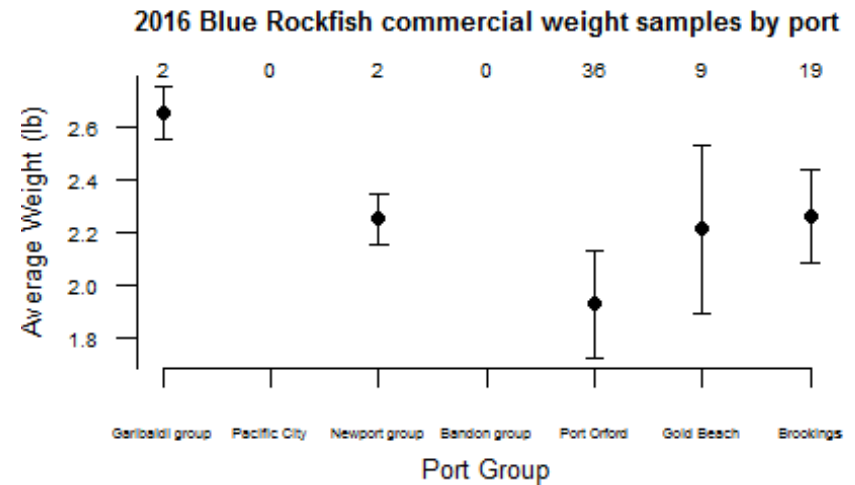
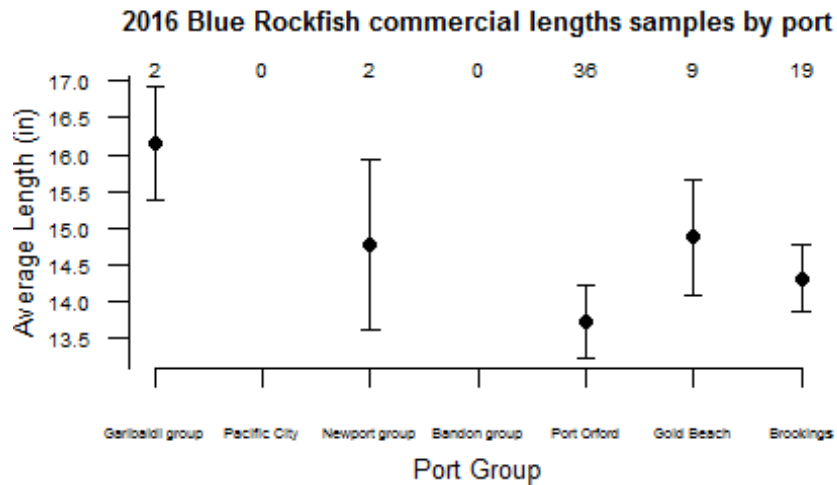
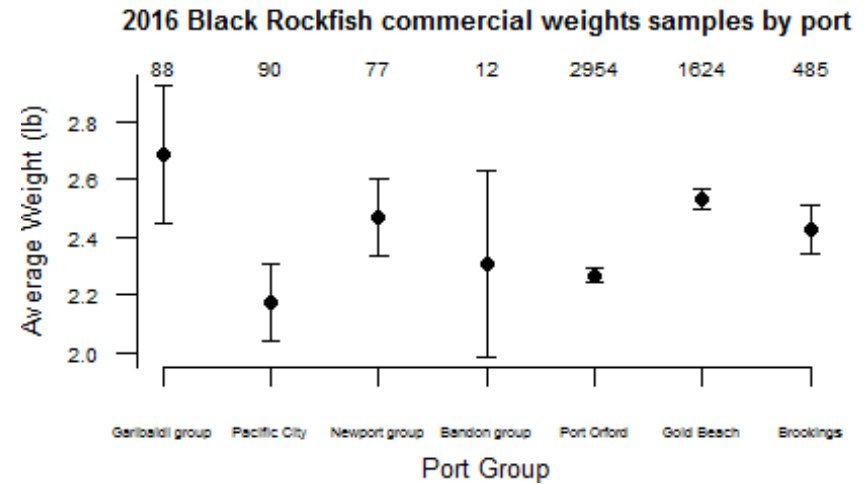
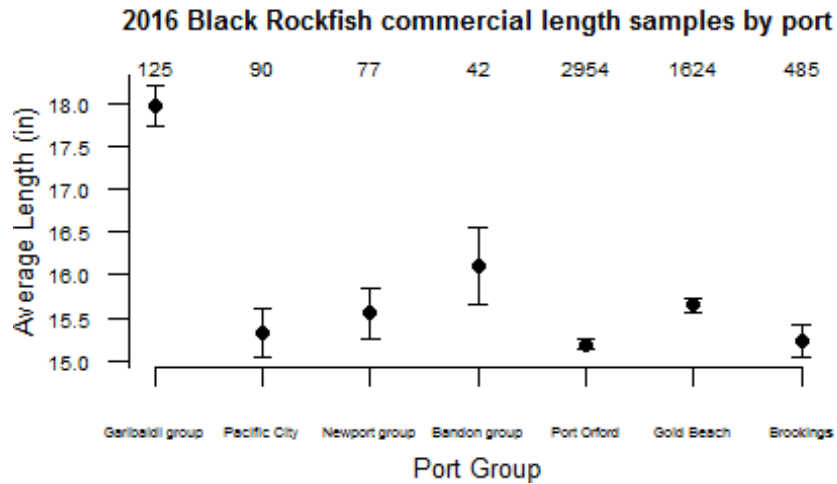




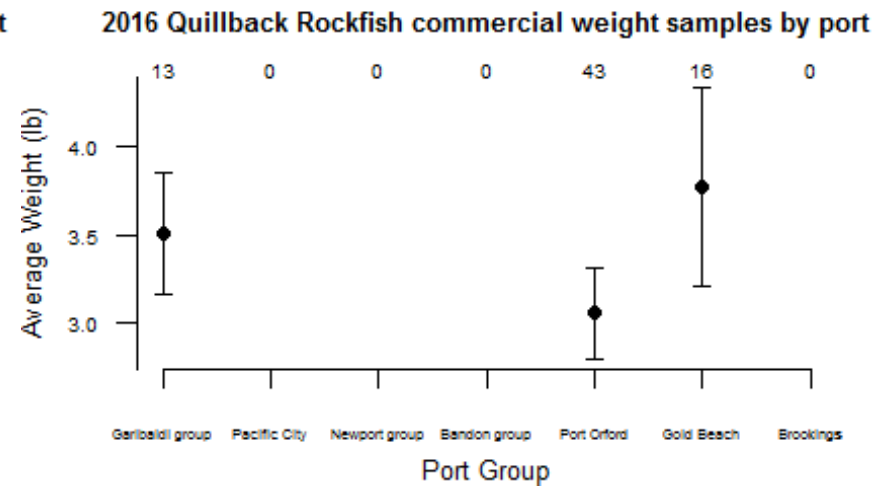
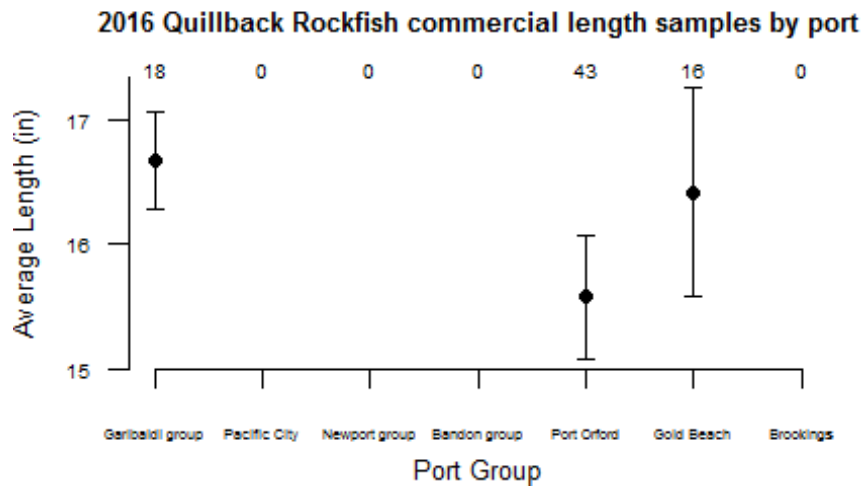
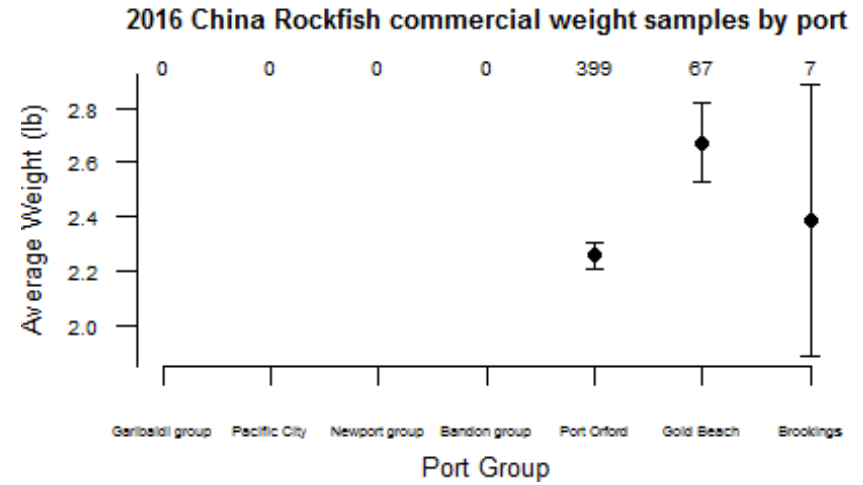
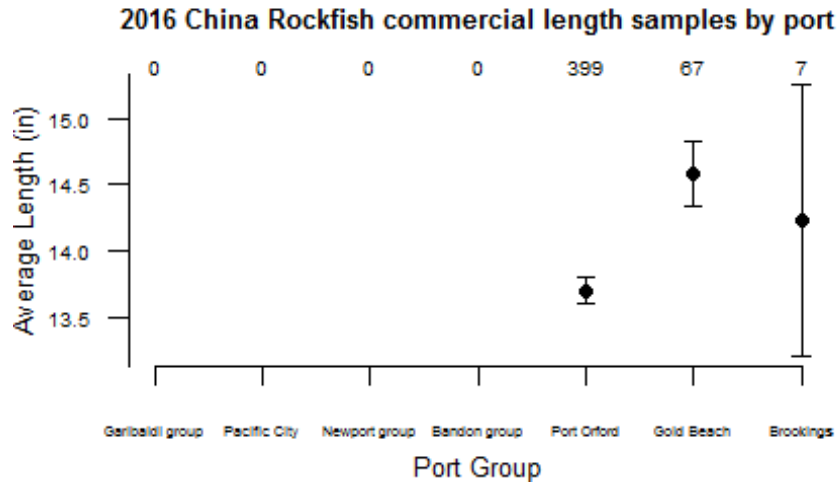


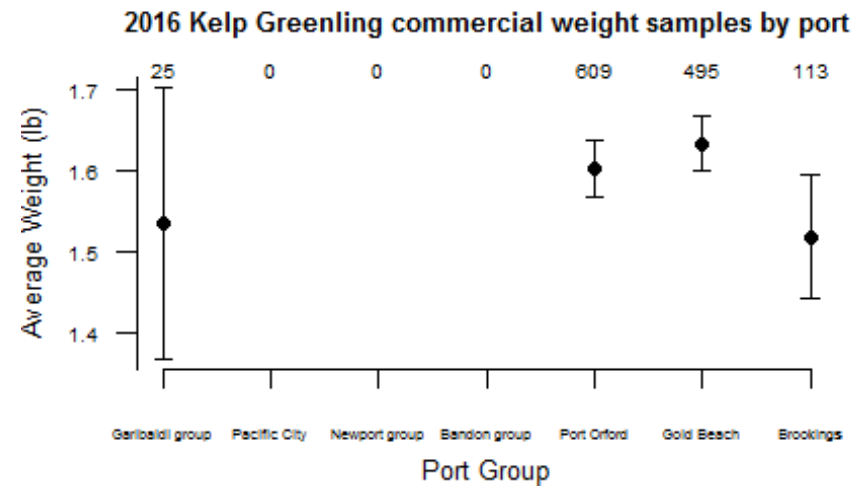
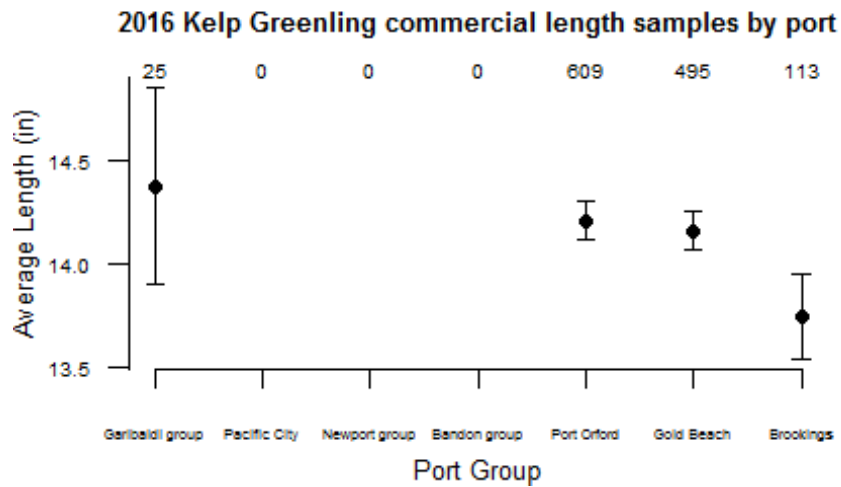
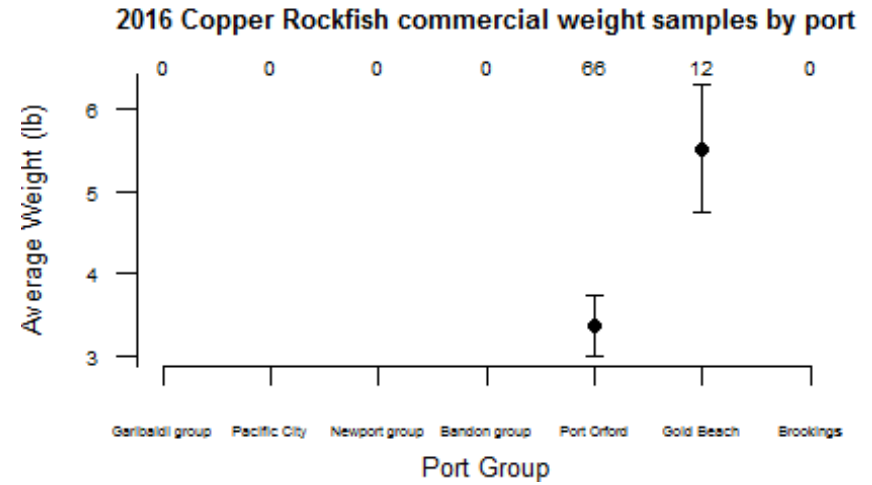
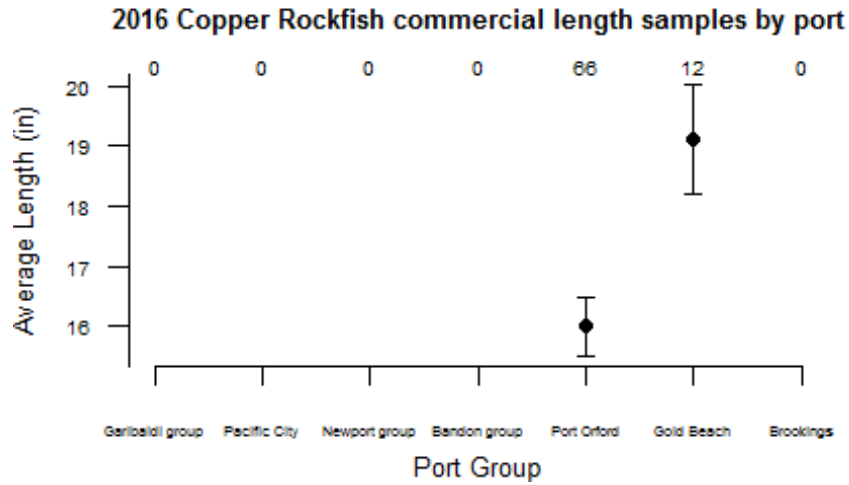


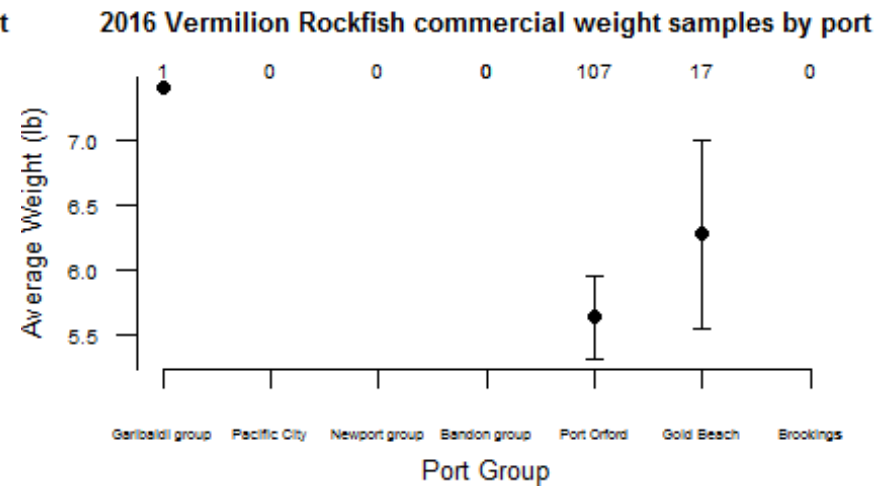
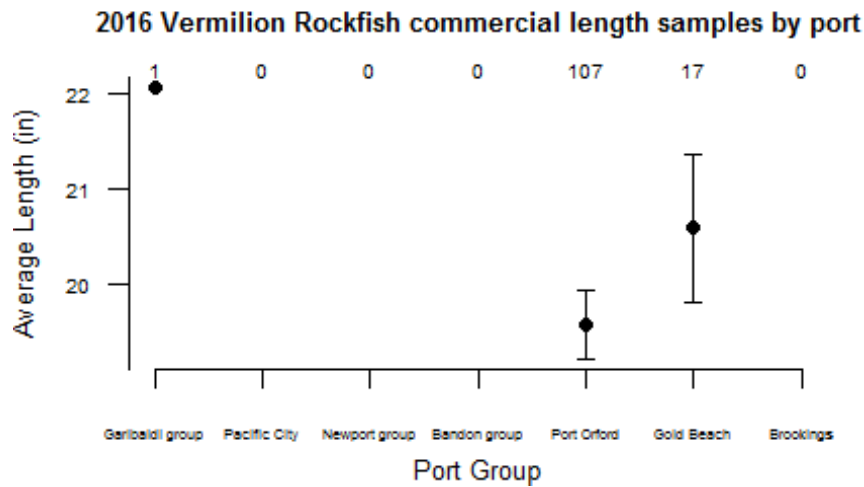
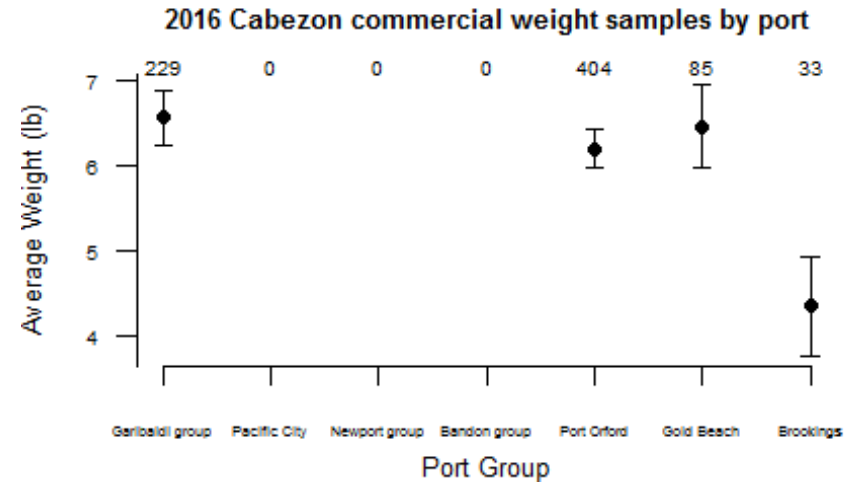
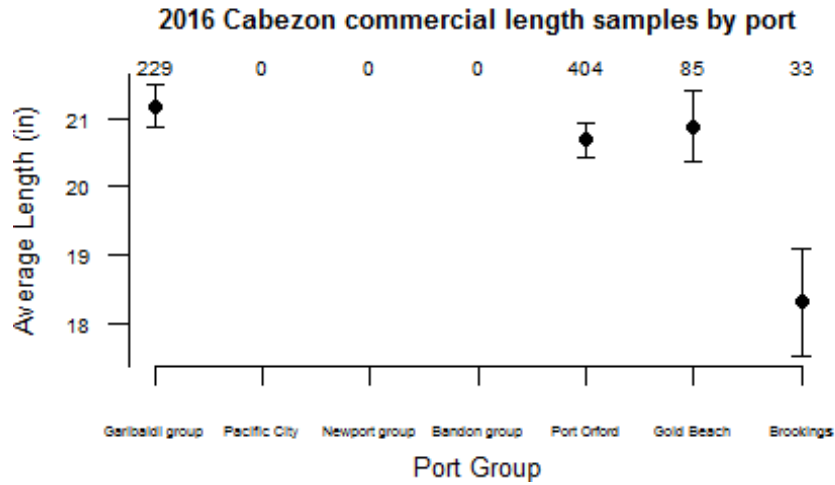
**Appendix E.** 2016 nearshore species commercial length and weight sample averages by port with sample sizes and 95% confidence intervals.

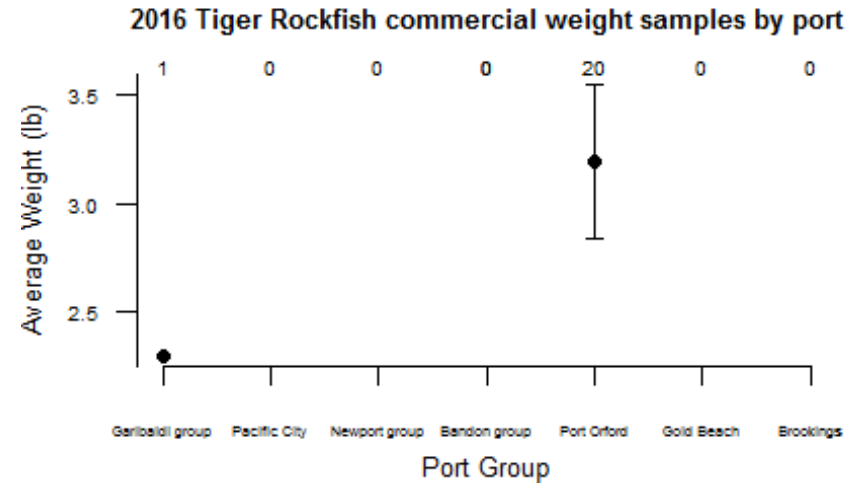
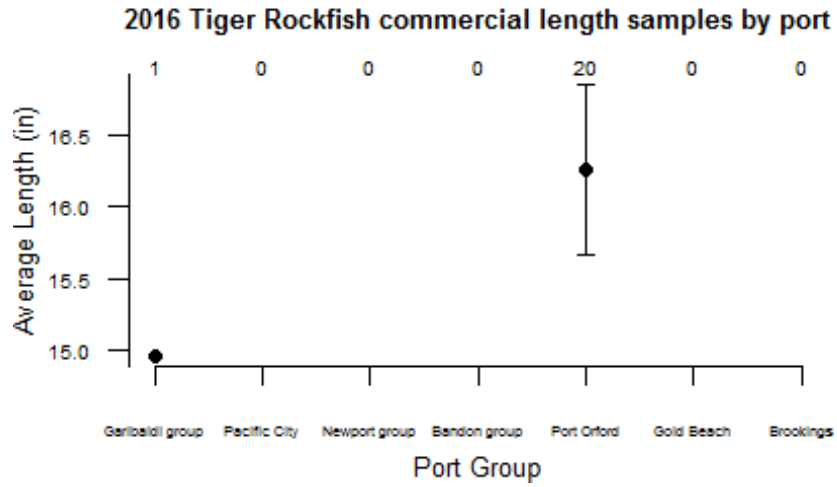


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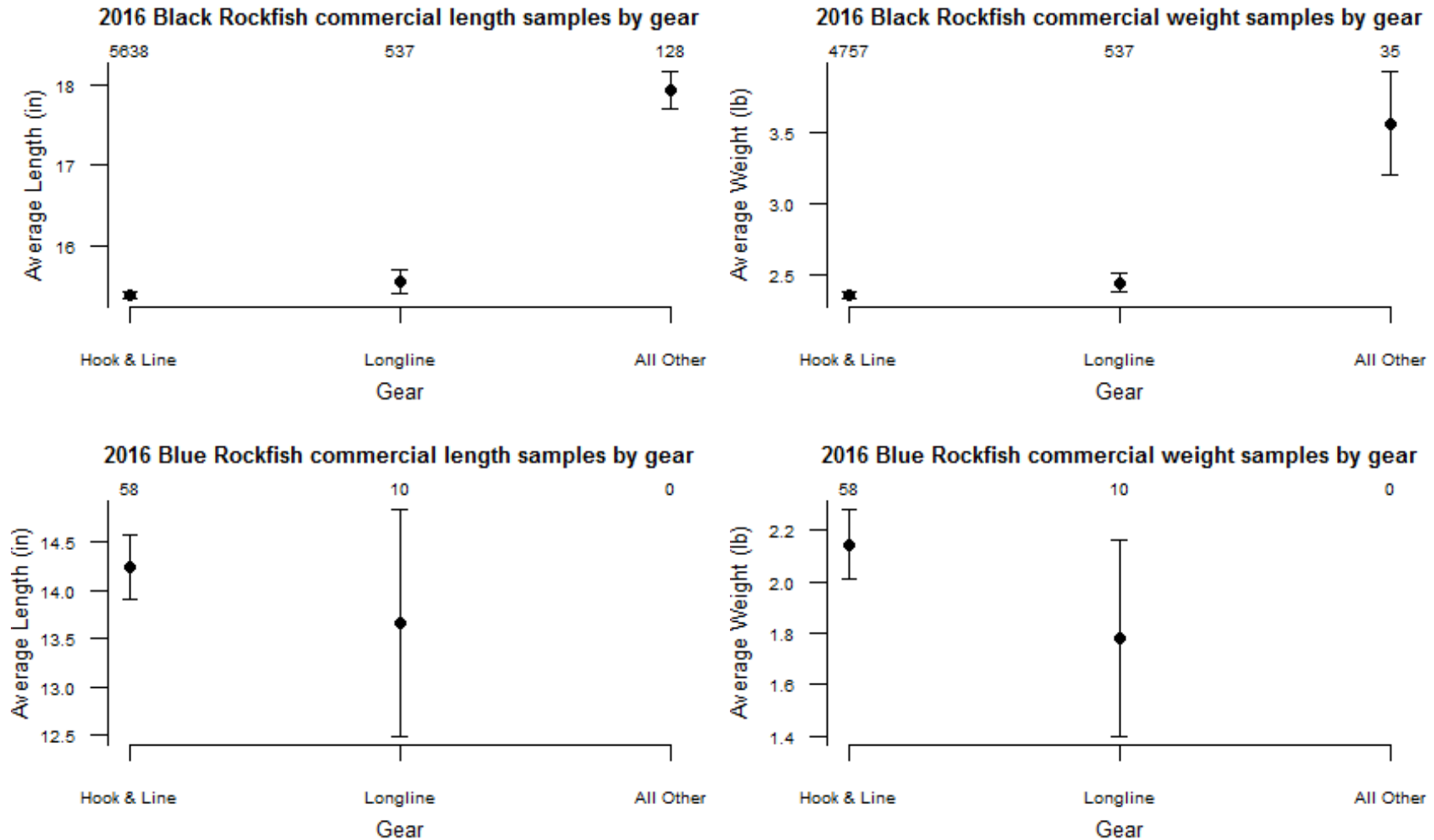




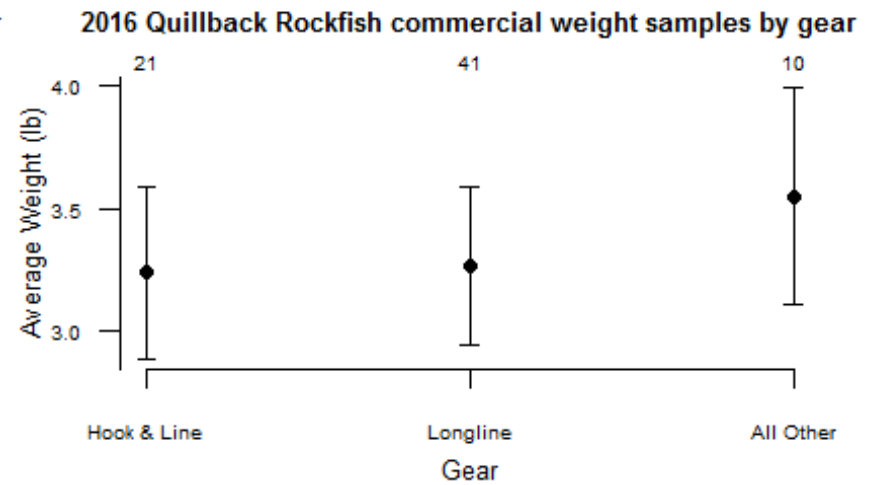
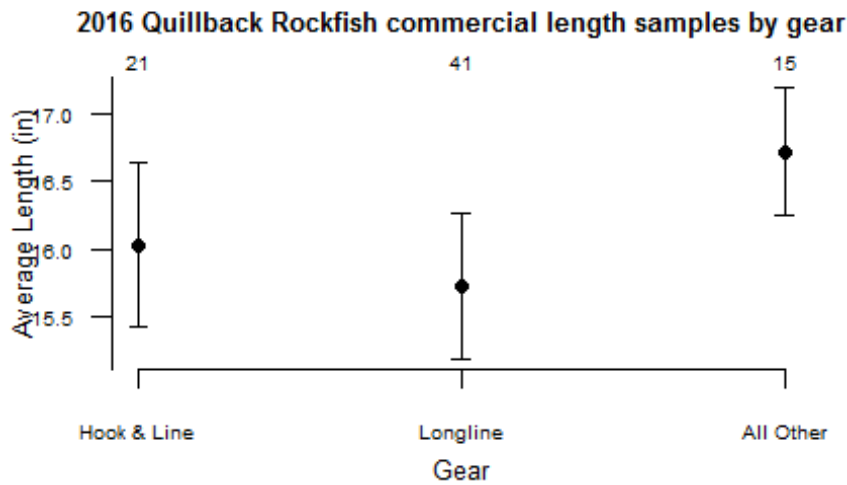
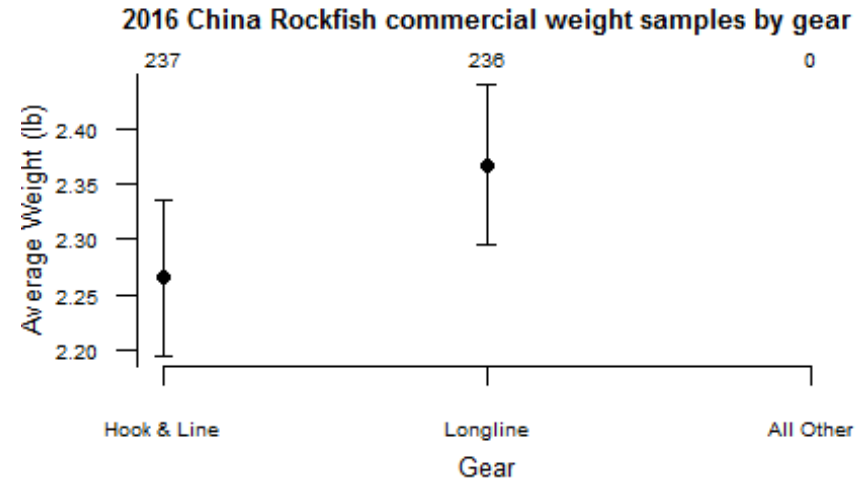
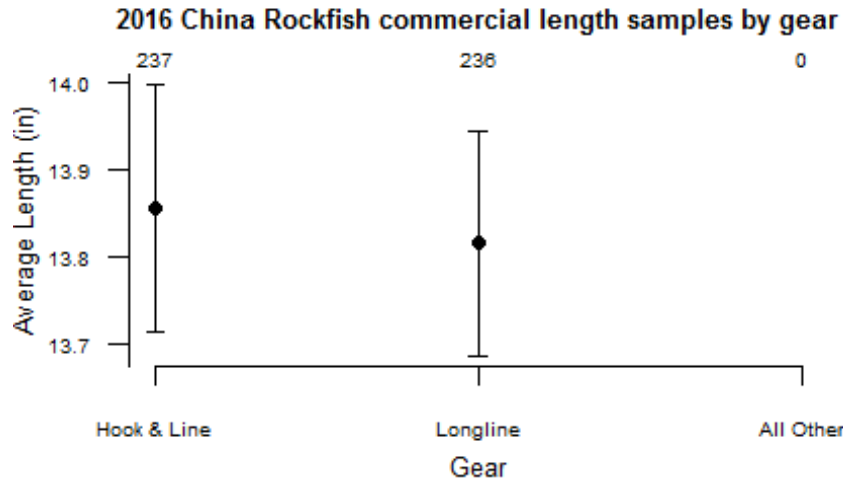




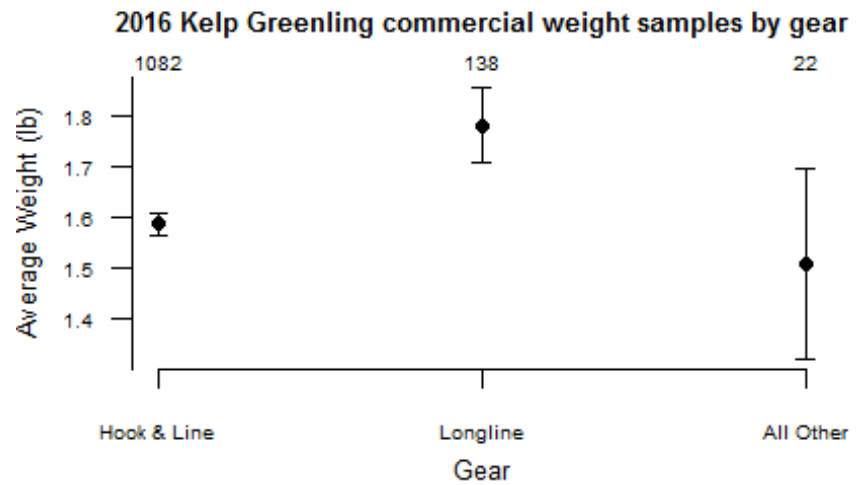
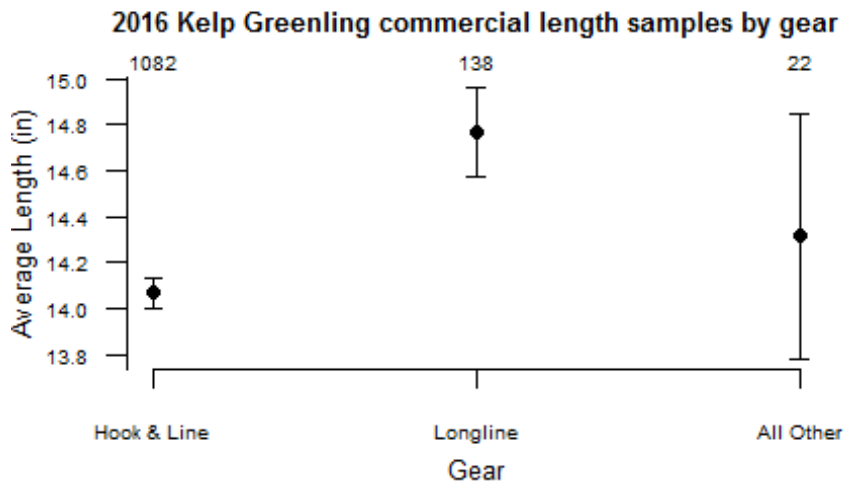
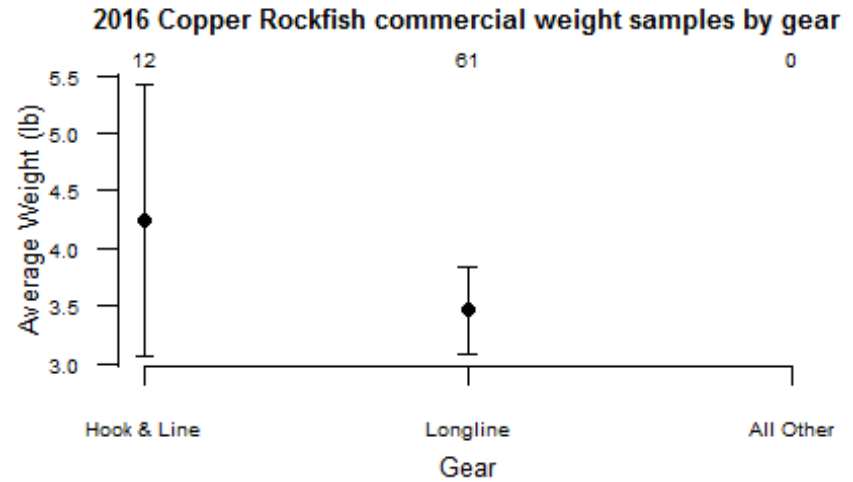
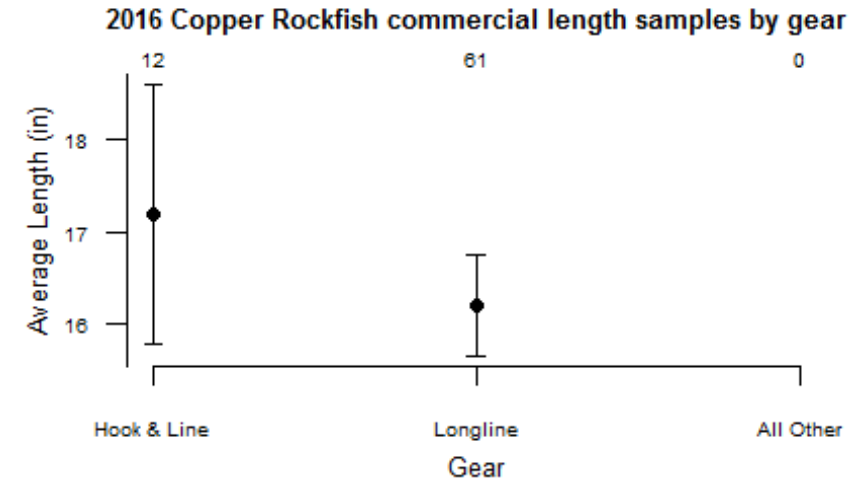
**Appendix F.** 2016 nearshore species commercial length and weight sample averages by gear type with sample sizes (top) and 95% confidence intervals.

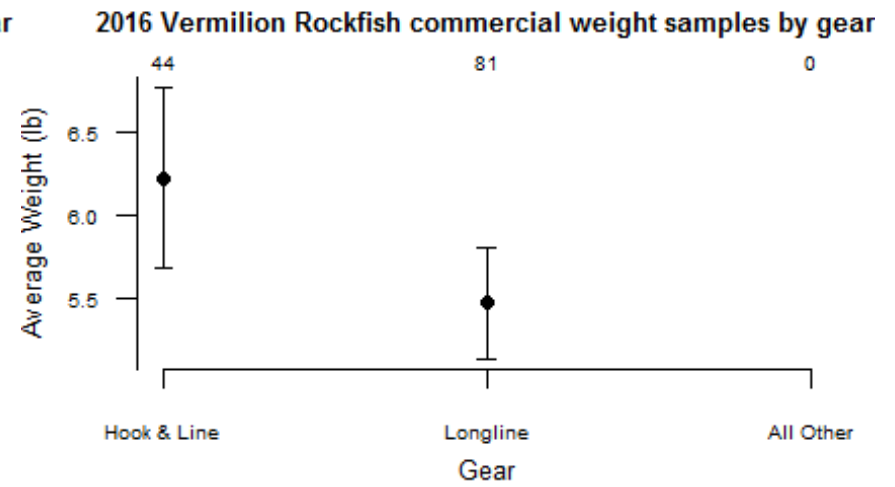
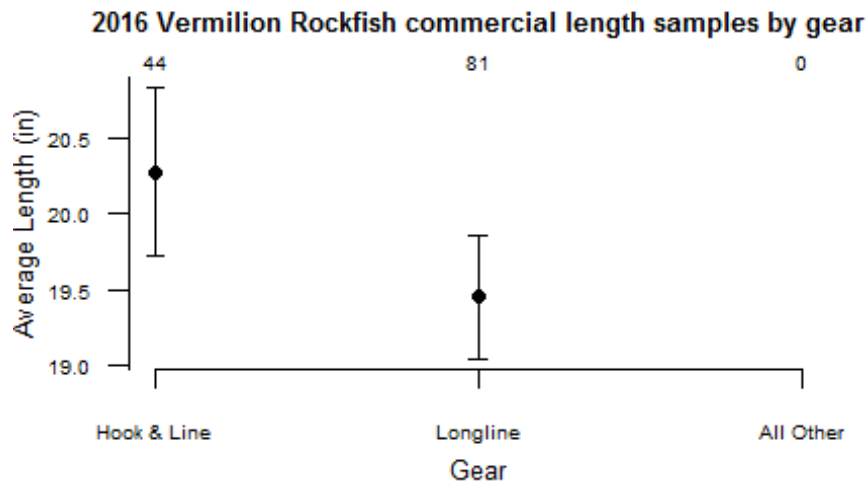
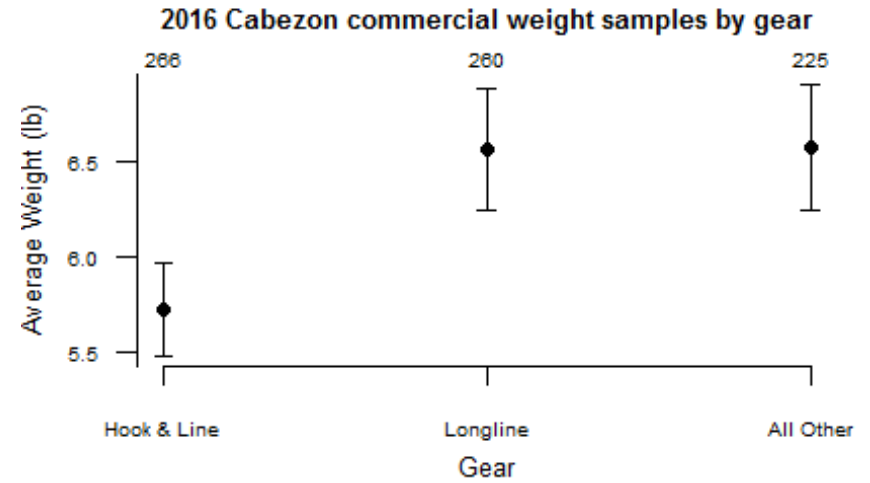
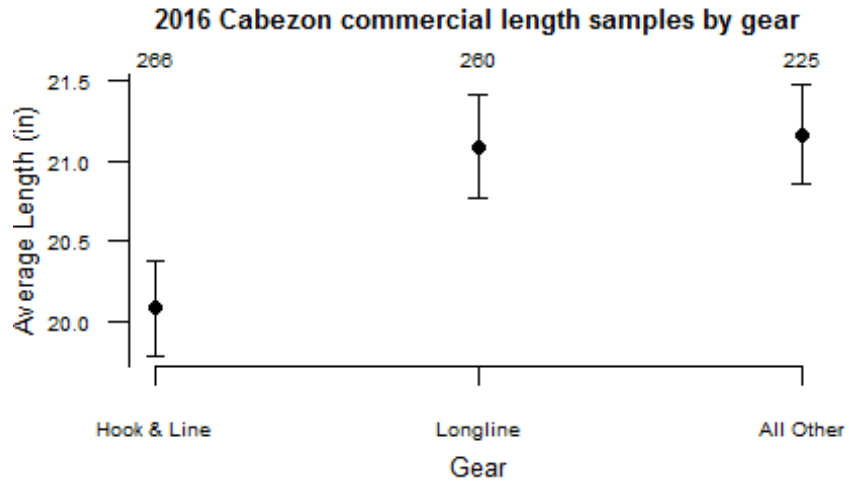


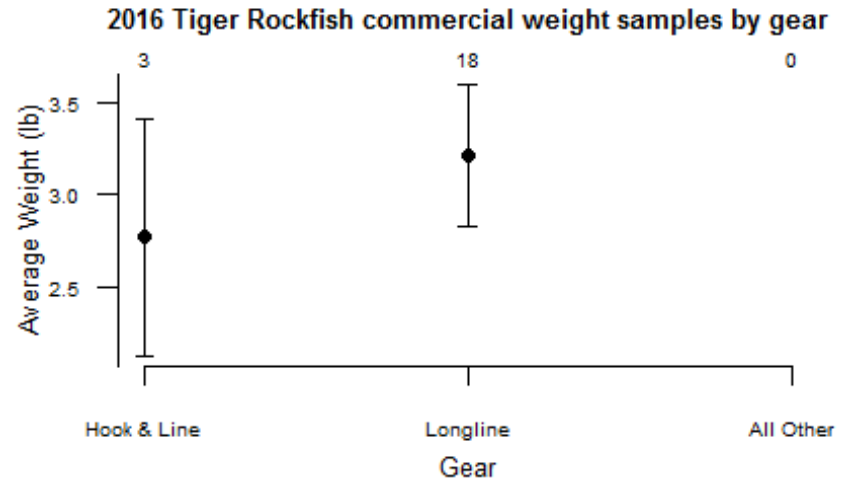
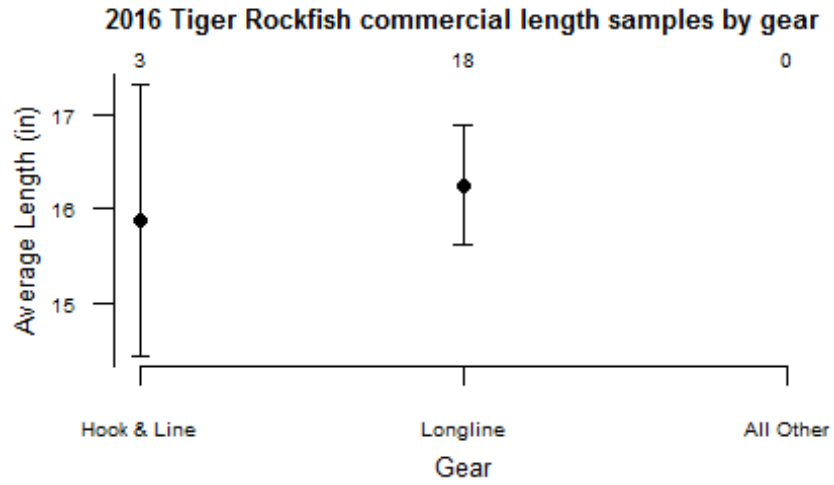




The Oregon Commercial Nearshore Fishery Summary: 2016







Appendix G. The 2016 Commercial Nearshore Management Survey.



# Commercial Nearshore Fishery Management Survey

An opportunity to contribute ideas about current and future fishery management



This survey will take about 20 minutes. Responses are confidential, not anonymous. Your time to provide answers is appreciated.

## Section 1: Management Priorities and Trade-offs

1. Priorities and trade-offs must be balanced to manage and sustain Oregon's commercial nearshore fishery. Priorities are integrated into both regulations and management strategy to sustain the resource and provide opportunity to fishers. The current management system for this fishery can be left as is or modified to be more consistent with fishers' priorities. However, there will be trade-offs if changes are made. For example, management strategies such as setting high bi-monthly limits that ensure the commercial fishery allocations are entirely taken may lead to reductions or closures later in the year. With tradeoffs in mind, **please circle only one management priority below that is most important to you.**

- a. Maintain a year-round season for the commercial nearshore fishery.
- b. Harvest the entire Oregon commercial allocations of nearshore species.

2. Below are 5 tools or strategies for achieving fishers' priorities for Oregon's commercial nearshore fishery. **Rank these statements based on your priorities for the fishery by writing one number from 1 (highest priority) to 5 (lowest priority) in the blanks beside each statement. Use each rank only once for this question.**

- High bi-monthly trip limits \_\_\_\_\_
- Avoid in-season **decreases** in bi-monthly trip limits \_\_\_\_\_
- Avoid in-season **increases** in bi-monthly trip limits \_\_\_\_\_
- Even or level trip limits for all periods throughout the year \_\_\_\_\_
- Higher trip limits in the summer; lower trip limits in the winter \_\_\_\_\_

3. Other priorities not mentioned above? Please rank the relative importance of your suggestion(s): \_\_\_\_\_

## **Section 2: Ideas for Changing Existing Fishery Management**

The Department has received suggestions from some fishers that, if implemented, would change current commercial nearshore fishery management and regulations. These ideas include: (a) changing the number of permits in the fishery, (b) allowing permit stacking on single vessels, (c) adding additional gear restrictions to the fishery, (d) implementing area-specific fishery regulations (e.g. North coast vs. South coast regulations), and (e) receiving discard mortality credits for use of descending devices on discarded fish. Any change implemented will likely be accompanied by tradeoffs. For example, implementing area-specific regulations may secure quota allocations for ports or port groups, but may also increase chances of leaving unharvested fish in the water while making regulations more complex. In addition, certain aspects of this fishery were made State law in 2003 by Oregon House Bill 3108<sup>4</sup>. Changing management structure outlined in this bill takes legislative action, and this survey does not consider changes that require legislative action.

### **Definition**

**Permit stacking:** Registering and landing quota from two or more permits on a single vessel during the same season. Currently this practice is prohibited in regulation. The current system assigns bi-monthly trip limits to an individual vessel rather than to the permit itself. If permit stacking were implemented, bi-monthly trip limits would apply to individual permits rather than a vessel.

4. The table below contains 5 statements on current fishery management issues. With tradeoffs in mind, please **rate your level of agreement** with these statements by selecting only one score for each statement. A score of **1 indicates you strongly DISAGREE** with the statement, a score of **3 indicates you are NEUTRAL** on the statement, while a score of **5 indicates you strongly AGREE** with the presented statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>Too many</b> permits in the fishery.	1	2	3	4	5
<b>Too few</b> permits in the fishery.	1	2	3	4	5
Stacking multiple permits on a single vessel <b>should be allowed</b> .	1	2	3	4	5
I <b>favor</b> additional gear restriction regulations in this fishery.	1	2	3	4	5
I <b>want</b> separate commercial regulations by area along the coast	1	2	3	4	5
I <b>would use descending devices</b> to recompress discarded fish if the fishery were credited with less discard mortality	1	2	3	4	5

Do you have other comments you would like to make concerning question #4?

---

### **Section 3: Adding Additional Tiers to Fishery Permits**

Adding permit tiers to this fishery is one change fishers have proposed for the current two-permit management system, which consists of two permits, or tiers, of access to harvest nearshore fish: 1.) Black and Blue Rockfish permits **without** a nearshore endorsement, and 2.) Black and Blue Rockfish permits **with** a nearshore endorsement. Permit tiers for this fishery could be shaped to accommodate any of a range of possible harvest rights. One end of the spectrum would be to continue the current two-tiered system of resource access. On the other end of the spectrum, permit tiers could be assigned to provide exclusive access to quota associated with a permit tier. Permit tiers could be added to either of two permits types, to both, or to specific species management groups.

**Example:** Imagine a situation where harvest access is divided into additional tiers, and each permit is assigned to either tier one or tier two based on harvest history of the permit. For example, a tier one permit may have a bi-monthly trip limit of 2,000 pounds while a tier two permit has a bi-monthly landing limit of 1,000 pounds. If there is a need to modify harvest rates due to a change in the commercial fishery quota or early attainment of the quota, bi-monthly tier trip limits could be adjusted accordingly. For example, bi-monthly trip limits for tier one permits might be reduced from 2,000 pounds to 1,000 pounds and tier two permits from 1,000 pounds to 500 pounds.

5. The table below contains 5 statements on the permit tier structure for this fishery. With tradeoffs in mind, please **rate your level of agreement** with these ideas by **selecting only one score for each statement**. A score of **1 indicates you strongly DISAGREE** with the statement, a score of **3 indicates you are NEUTRAL** on the statement, while a score of **5 indicates you strongly AGREE** with the presented statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I prefer the current 2 permit tier management system.	1	2	3	4	5
I want more than 2 permit tiers in this fishery.	1	2	3	4	5
I want more tiers for black and blue rockfish permits <b>without</b> a nearshore endorsement.	1	2	3	4	5
I want more tiers for black and blue rockfish permits <b>with</b> a nearshore endorsement.	1	2	3	4	5
I want more tiers of access for specific nearshore species management groups	1	2	3	4	5

6. If you suggested changing the current system, how many permit tiers would you support for this fishery and for what species groups?

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**Section 4: Individual Fishing Quota Management System**

Transitioning this fishery to an Individual Fishing Quota (IFQ) system is another management approach that has been proposed by fishers. IFQ systems are used to manage some commercial fisheries in Oregon and other parts of the world. IFQ management divides a fishery allocation for a species management group into smaller quotas that are assigned to individual fishers or entities for exclusive harvest access. IFQs may be designed to be tradeable (i.e. able to buy, sell and lease quota), or permanently assigned to a permit or vessel. IFQs can be divided in many ways. For example, IFQs have been allocated to participants in other fisheries by awarding quota to individuals based on their historic catch. However, other methods, such as equal allocation to all permits, could be designed based on fishers’ input.

**Example:** If fishers prefer transitioning this fishery to an IFQ system that splits Oregon black rockfish available for annual commercial harvest (currently ~304,000 pounds) into equal IFQs among all ~120 black and blue rockfish permits, each annual IFQ portion of black rockfish available for harvest by each permit would be:

$$\sim 304,000 \text{ pounds} / 120 \text{ permits} = \mathbf{2,533 \text{ pounds of black rockfish per permit per year}}$$

**Definition**

**Individual Fishing Quota (IFQ):** a permit under a limited fishery access system to harvest a quantity of fish, generally a percentage of the fishery’s total annual allocation, held for exclusive use by an individual or entity.

7. Please rate your level of agreement, on a scale of 1 to 5, with the statements below by selecting one score for each question. A score of **1 indicates you STRONGLY DISAGREE** with the statement, a score of **3 indicates you are NEUTRAL** on the idea, while a score of **5 indicates you STRONGLY AGREE** with the presented statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>I understand</b> IFQ management systems.	1	2	3	4	5
<b>I favor</b> transitioning this commercial nearshore fishery to an IFQ system.	1	2	3	4	5
If implemented, <b>I favor</b> setting IFQ levels for participants at equal levels for all current permit holders.	1	2	3	4	5
If implemented, <b>I favor</b> setting IFQ levels for participants based on historic catch records of current permit holders	1	2	3	4	5
<b>I favor tradeable quotas</b> if IFQ is implemented	1	2	3	4	5

Do you have other comments you would like to make concerning question #7?

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**Final Section: Survey Interpretation**

8. How many years have you commercially fished in total (including participation in any commercial fishery)? \_\_\_\_\_ years

9. In what other fisheries do you currently participate (in any state/province)?  
 \_\_\_\_\_  
 \_\_\_\_\_

10. How many years have you participated in Oregon’s commercial nearshore fishery? \_\_\_\_\_ years

11. I primarily (circle only one):

- a. fish my permit myself.
- b. hire a captain to fish my permit.
- c. lease my permit.

12. About what percentage (%) of your household income comes from Oregon’s commercial nearshore fishery? \_\_\_\_\_%

13. About what percentage (%) of your household income comes from commercial fishing? \_\_\_\_\_%

13b. Please indicate your age category by **circling one option below**.

- a. 18 to 24 years
- b. 25 to 34 years
- c. 35 to 44 years
- d. 45 to 54 years
- e. 55 to 64 years
- f. 65 years and older

14. What generation commercial fisher are you (e.g. first, second, third, etc)? \_\_\_\_\_ generation

15. Do your children fish commercially or plan to fish commercially? Yes / No

16. Please rate your overall satisfaction with Oregon’s commercial nearshore fishery management by **circling one choice below**.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am satisfied with commercial nearshore fishery management	1	2	3	4	5

17. Do you have other comments you would like to make concerning question #16  
 \_\_\_\_\_  
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## The Oregon Commercial Nearshore Fishery Summary: 2016

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Please make any additional comments related to changes you would like to see to Oregon Commercial Nearshore Fishery management.

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