2014

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 2014 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 program requirement. In addition, harvest specifications for the 2014 season are detailed. Because 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 to maintain individual confidentiality. 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 the commercial fish receiving ticket (hereafter, fish ticket).

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 in State of Oregon marine waters. Vessels use mostly hook & line 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 five State management groups: Black and Blue Rockfish, Other Nearshore Rockfish, Greenling, Cabezon, and Other Nearshore Species. The Oregon Fish and Wildlife Commission (Commission) has jurisdiction over all fish within state waters and adopts rules for this fishery at Commission meetings. Many but not all of the species in these groups are included in the federal Pacific Coast Groundfish Fishery Management Plan (GFMP) and are also 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. The Commission incorporates federal fisheries regulations as the basis for additional or more conservative rules.

Rules adopted by the Commission to regulate this fishery are implemented by the Oregon Department of Fish and Wildlife (Department) and are found on the Department website in Divisions 004 and 006 here. For 2014, these rules include annual commercial harvest caps, commercial landing caps, cumulative bimonthly period trip limits (hereafter, bimonthly limits), daily trip limits, incidental limits and fish length limits. A daily trip limit for commercial harvest of Black Rockfish of 300 lbs. is also in effect in specific geographic areas where extensive recreational harvest occurs.

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 Rockfish in amounts up the bimonthly limits set by the Commission for this State management group (Appendix A), while allowing for only incidental harvest of the daily trip limit of 15 lbs. 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 Rockfish, 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 (Table 1).

Fishers in this fishery primarily land Black Rockfish, Cabezon, Kelp Greenling, China Rockfish, Blue Rockfish, Vermilion Rockfish, Quillback Rockfish, and Copper Rockfish with Other Nearshore Species (Table 1) making up a very small portion of the catch. Each fishing "season" consists of the calendar year, with boats fishing year-round as weather and quotas allow. A small amount of nearshore species is harvested as incidental catch in fisheries targeting other species. These other fisheries often use troll or trawl gear. Fish caught in the commercial nearshore fishery supply both live and fresh (dead) fish markets. For many fishers the commercial nearshore fishery is one of several fisheries in which they participate, for other fishers it may be their only commercial fishing operation.

Fishery Management and Harvest Specifications

Fishery managers from the Department set specific management goals at the outset of 2014 to maintain a sustainable fishery from both a resources and a socio-economic perspective. The primary goal for 2014 was to provide fishing opportunities throughout the calendar year without exceeding State annual commercial landing caps, commercial harvest caps, and allowable impacts to prohibited species that have been declared overfished, primarily Yelloweye Rockfish.

The history of landing caps and harvest caps, including those for 2014, are listed in Table 2. All 2014 cap specifications were set at 2013 levels. Harvest and landing caps generally remain unchanged unless new information, such as a stock assessment, suggests harvest levels should be adjusted. Landing caps place hard limits on the biomass (metric tons, mt) of fish for any given species that may be landed in a calendar year. Harvest caps are hard limits that account for all landings plus the additional mortality associated discards. Discard mortality for this fishery was quantified by the West Coast Observer Program and is summarized in National Oceanic and Atmospheric Administration Fisheries annual reports.

The Department implemented six bimonthly periods (Table 3) that set maximum bimonthly limits for individual permit holders during each of these time periods (Table 4; Figures 1 - 4; Appendix A). Initial bimonthly limits for 2014 were set at initial 2013 levels. Bimonthly limits facilitate management of commercial take relative to landing caps and are intended to balance the tradeoff of early quota attainment (and fishery closure) before year's end with providing year-round fishery access.

Public input regarding bimonthly limit specifications for 2014 was sought both at the annual commercial nearshore fishery meetings held in August 2013 and at the December 2013 Commission meeting. Based on both that input and on recommendations from the Department, the Commission adopted annual harvest caps and landing caps, bimonthly limits, and other fishery regulations for 2014 at the December 2013 Commission meeting. The bimonthly limits put into effect at the outset of 2014 were intended to require few or no inseason changes and to provide predictable bimonthly limits, season length, and market supply. However, these bimonthly limits can be adjusted up or down, inseason, to allow greater opportunity for reaching the annual landing caps or to slow harvest to stay within caps. In 2014, bimonthly limits were raised inseason for Black and Blue Rockfish for periods 4 - 6 and for Cabezon in periods 5 - 6 to provide greater opportunities for attaining landing caps (Table 4). Other Nearshore Species (Table 1) is the one State management group for which no

bimonthly limits are set because these species are not currently targeted in this fishery. However, Other Nearshore Species are subject to the incidental daily trip limit for nearshore species. The incidental daily trip limit holds for open access fixed gear vessels lacking a limited entry Black and Blue Rockfish permit. Trawl and troll fisheries also have specific incidental limits for commercial nearshore species found in the OARs.

Fishery Landings Monitoring and Biological Data Collection

To understand the dynamics of the commercial nearshore fishery in 2014, the Department collected various types of data that document what resources were extracted by fishery activities. Landed fish were sorted to the species level (except for Greenling which was sorted to a general market category). From sorted categories, pounds landed were documented on fish tickets submitted to the Department by fish buyers. Port biologists and samplers collected biological data on the landed catch (Tables 5 - 6; Appendices B – D). Those data included species compositions of landings, fish lengths, fish weights, age structures (otoliths) and sexual maturity. Nearshore fishery managers collected information on fishing effort, harvest locations, harvest methods, and discards from the fishery through the commercial nearshore logbook program. Fleet-wide compliance with the nearshore logbook requirement is summarized in Table 7, and this table also includes trips landing lingcod which also require submission of a log. All of these data allow Department staff to evaluate the fishery for implementation of adaptive management actions. In addition, these data are necessary for the assessment of Oregon's nearshore stocks.

Black and Blue Rockfish Commercial Nearshore Limited Entry Permits

Black and Blue Rockfish permits renewed in 2014 are summarized in Figure 5. Permits are disaggregated by port group to show the numbers with and without nearshore endorsements. A home port was assigned to each permit based on which port group accounted for the most landing events (trips) for that permit. In total, 121 permits were renewed, 70 permits with nearshore endorsements and 51 without. This total is down one from 2013 as that one permit was not renewed. Of the renewed permits, 63 (88.6%) with nearshore endorsements and 44 without (86.3%) landed nearshore species in 2014. There were seven permits transferred to new owners in 2014; four with endorsements and three 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 group had the least number of permits.

Fishery Effort

Effort in the 2014 commercial nearshore fishery is summarized in Table 8 and Figure 6. For this summary, effort was quantified as the number of trips landing nearshore species during the calendar year. In 2014, commercial nearshore fishery effort totaled 2,355 trips. The average number of trips prior to 2014 was 2,626/yr. Anecdotal information suggests effort shifts to salmon fisheries likely contributed to the decrease in commercial nearshore fishery trips in 2014. Period 3 had the most effort while period 1 had the least. Fishers using primarily hook & line gear made 2,078 landings (88.2%), fishers using primarily longline gear made 155 landings (6.6%), and the remaining 122 landings (5.2%) were made by a combination of other gear types.

Total Landings: All Species Combined

Total landings of all species in this fishery in 2014 are summarized in Tables 8 - 9 and Figures 7 - 13. In total, 368,207 pounds were landed (Figure 7) for a total value of $962,840.38 (Figure 8). These totals were down 6.5% by weight and 14.1% in value from 2013 landings. Black and Blue Rockfish

landings for 2014 increased in both absolute and proportional volume relative to 2013. Although Black and Blue Rockfish landings were up, landings for all other species groups were down from 2013 levels. These decreases are noteworthy given bimonthly limits at the outset of 2014 were identical to 2013 outset levels and bimonthly limit increases for Black Rockfish and Greenling were implemented inseason. Live Other Nearshore Rockfish were the most valuable species landed on a per pound basis (Table 9). Hook & line gear was used to land 88.8% of the fish (by weight) in 2014 (Figure 9). Port Orford was where the most poundage was landed (45.1%; Figure 10). Period 4 had the most pounds landed (26.2%) and Period 6 the least (8.0%; Figure 11). Most fish were landed in live condition (65.8%; Figure 12). Figure 13 summarizes average landings per fish ticket for hook & line and longline gear landings by market condition. Average landings were similar across modes for all but longline fresh landings per ticket, the low outlier.

Black and Blue Rockfish Landings

Black and Blue Rockfish landings for 2014 are summarized in Tables 8 & 9 and Figures 14 - 20. By weight, annual landings of these species were at the highest levels since 2009, totaling 89.2% attainment of the landing cap (Table 8). Increased landings in this management group resulted from absolute and proportional increases in Black Rockfish landings relative to both Blue Rockfish landings in 2014 and Black Rockfish landings from 2010 - 2014 (Figure 14). Hook & line gear was used for the increased harvest in this group taking 93.3% of the fish by weight (Figure 15). As in past years, Port Orford was the port landing the most pounds of Black and Blue Rockfishes (39.9%; Figure 16). Period 4 had the most pounds landed and period 1 the least (Table 8; Figure 17). By weight, 58.5% of the fish were landed live; 41.5% landed fresh (Table 9 & Figure 18). Ex-vessel value of this group rose for the fourth consecutive year (Figure 19). Patterns in mean pounds landed per fish ticket by gear type and condition are depicted in Figure 20. Those 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. Live fish were 28.6 – 38.4% more valuable than fresh fish (Table 9).

Other Nearshore Rockfish Landings

Other Nearshore Rockfish landings from 2014 are summarized in Tables 8 & 9 and Figures 21 - 27. By weight, annual landings of these species were the lowest since 2010, even though bimonthly limits had remained unchanged since 2007 (Figure 2; Appendix A8). Decreases in landings resulted largely from a 37.4% decrease in China Rockfish and a 29.9% decrease in Quillback Rockfish landings (Figure 21). Landings from both hook & line and longline gears also declined in 2014, with the greatest absolute decrease coming from hook & line gear (Figure 22). As in years past, Port Orford was where the most pounds of Other Nearshore Rockfish were landed (62.4%). Landings in Port Orford and the Bandon group were down 37.3% and 79.9% respectively, while landings in Brookings and Gold Beach underwent lesser declines (18.9% & 12.6%) from last year (Figure 23). Period 4 had the most Other Nearshore Rockfish landed while period 2 had the least (Table 8; Figure 24). By weight, 77.7% of fishes were landed live; 22.3% landed fresh (Table 9 & Figure 25). Total ex-vessel value of this species group fell 33.6% from 2013 (Figure 26). Patterns in mean pounds landed per fish ticket by gear type and condition are depicted in Figure 27. In 2014, those using hook & line gear to land live fish averaged the most pounds per ticket, while those using hook & line gear for fresh fish landed the least fish by weight. Live Other Nearshore Rockfish were more valuable (3 - 8x) than fresh fish (Table 9).

Greenling Landings

Greenling landings from 2014 are summarized in Tables 8 & 9 and Figures 28 - 33. By weight, annual landings of these species were the lowest since 2006 even though bimonthly limits had been

higher since that year (except for 2007 closure; Figure 3; Appendix A8). Declines in landings came from both hook & line and longline gears (Figure 28). The largest decreases in landings of Greenling came from Port Orford and Gold Beach (Figure 29). Period 3 was when the most Greenling were landed while period 6 had the least (Table 8; Figure 30). By weight, 99.8% of fish were landed live; 0.2% landed fresh (Table 9 & Figure 31). Ex-vessel value for this group was at the lowest levels since 2006 down 31.5% from 2013 (Table 9; Figure 32). Patterns in mean pounds of Greenling landed per fish ticket by gear type and condition are depicted in Figure 33. In 2014, those using hook & line gear to land live fish averaged the most pounds per ticket, while those fishers using longline gear for fresh fish landed the least fish per ticket. Live Greenling were over 5 times more valuable than fresh fish (Table 9).

Cabezon Landings

Cabezon landings from 2014 are summarized in Tables 8 & 9 and Figures 34 - 39. By weight, 2014 landings of Cabezon were the lowest since formal management of the fishery began in 2004 (Figure 34), declining for the third straight year even though bimonthly limits had not been reduced since late 2012 (Figure 4; Appendix A3). Declines in harvest came from both hook & line and longline gear types. The largest decrease in landings of Cabezon came from Port Orford, however declines occurred in all ports (groups) except the Newport group (Figure 35). Period 3 was when the most Cabezon were landed while period 6 had the least (Table 8; Figure 36). By weight, 96.2% of fish were landed live; 3.8% landed fresh (Table 9; Figure 37). Ex-vessel value for Cabezon was at the lowest levels since formal management of the fishery began in 2004 (Table 9; Figure 38). Patterns in mean pounds of Cabezon landed per fish ticket by gear type and condition are depicted in Figure 39. In 2014, those fishers using longline gear to land live fish averaged the most pounds per ticket, while those using hook & line gear for fresh fish landed the least fish per ticket. Live fish were more valuable (~3x) than fresh fish (Table 9).

Other Nearshore Species Landings

Total landings of Other Nearshore Species from 2014 are summarized in Tables 8 & 9 and Figures 40 - 45. Vermilion Rockfish composed the bulk of these landings with a total of 5,012 lbs. landed and a total ex-vessel value of $8,566.90 (Table 9; Figure 40). Vermilion Rockfish were sold mainly to the fresh fish market (78.2%) which accounted for 67.8% of the total ex-vessel value for this species. Hook & line gear accounted for 61.1% of the catch of this species, while bottom longline and all other gear combined composed 38.0% and 0.9% of the pounds landed, respectively (Figure 41). Tiger Rockfish landings totaled 663 pounds for a total ex-vessel value of $2,358.95. The majority of tiger rockfish (62.0% by weight) went to the live fish market but accounted for 90.0% of the ex-vessel value. Tiger rockfish were landed with bottom longline (55.4%) and hook & line gear (44.6%). Of the other three species in this group, three pounds of red Irish lord and two pounds of buffalo sculpin were landed with hook & line gear.

Acknowledgements

We thank Troy Buell for review and thoughtful suggestions for improving this document. Robert Ireland summarized 2014 nearshore logbook compliance data. 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, a thank you also goes out to all the nearshore fishers for their efforts in the commercial nearshore fishery.

Tables

Table 1. Fish species in the commercial nearshore fishery.

State Management Group	Common Name	Scientific Name
Black and Blue Rockfish	Black Rockfish	*Sebastes melanops*
	Blue Rockfish	*Sebastes mystinus*
Nearshore Species		
Other Nearshore Rockfish	Kelp Rockfish	*Sebastes atrovirens*
	Brown Rockfish	*Sebastes auriculatus*
	Gopher Rockfish	*Sebastes carnatus*
	Copper Rockfish	*Sebastes caurinus*
	Black and Yellow Rockfish	*Sebastes chrysomelas*
	Calico Rockfish	*Sebastes dalli*
	Quillback Rockfish	*Sebastes maliger*
	China Rockfish	*Sebastes nebulosus*
	Grass Rockfish	*Sebastes rastrelliger*
	Olive Rockfish	*Sebastes serranoides*
	Treefish	*Sebastes serriceps*
Greenlings	Kelp Greenling	*Hexagrammos decagrammus*
	Rock Greenling	*Hexagrammos lagocephalus*
	Whitespotted Greenling	*Hexagrammos steleri*
	Painted Greenling	*Oxylebius pictus*
Cabezon	Cabezon	*Scorpaneichthys marmoratus*
Other Nearshore Species	Buffalo Sculpin	*Enophrys bison*
	Red Irish Lord	*Hemilepiodotus hemilepiotus*
	Brown Irish Lord	*Hemilepiodotus spinosus*
Federal Shelf Rockfish	Vermillion Rockfish	*Sebastes minatus*
	Tiger Rockfish	*Sebastes nigrocinctus*

Table 2. Annual landing caps (mt) and harvest guidelines (mt) for State management groups for 2004 - 2015.

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

[1] - values in parentheses are landing caps for Black Rockfish, alone.
[2] - includes Vermilion and Tiger Rockfishes
[3] - first year both harvest caps and landing caps were implemented; prior harvest cap equaled landing cap
[4] - harvest cap of 139.2 for Black Rockfish, alone
[5] - harvest cap of 30.8 mt
[6] - harvest cap of 30.2 mt

Table 3. Bimonthly cumulative period durations.

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

Table 4. Bimonthly trip limits for commercial nearshore State management groups at the outset of 2013 - 2014. 2013 & 2014 inseason management changes are also depicted in parentheses.

Species Complex	Limit Time Period	2013 (outset)	2013 (with in-season changes)	2014 (outset)	2014 (with in-season changes)
Black & Blue Rockfish	Jan. - Feb.	1,000	1,000	1,000	1,000
	Mar. - Apr.	1,200	1,200	1,200	1,200
	May - Jun.	1,700	1,700	1.700	1,700
	Jul. - Aug.	1,600	(1,800)	1.600	(2,100)
	Sep. - Oct.	1,200	(2,100)	1,200	(2,100)
	Nov. - Dec.	1,000	(1,800)	1,000	(1,800)
Other Nearshore Rockfish	Bimonthly	700	700	700	700
Greenling	Bimonthly*	300	300	300	300 (Periods 5 & 6 = 350)
Cabezon	Bimonthly*	1,500	1,500 (Periods 5 & 6 = 2,000)	1,500	1,500 (Periods 5 & 6 = 2,000)

* - bimonthly limits presented apply to each period throughout the year except when changes, in parentheses, were implemented.

Table 5. Summary of 2014 length samples (in) from the Oregon commercial nearshore fishery.

Species common name	Range	Mean Length	95% Confidence Interval (+/-)	Sample Size
Black Rockfish	9.8 – 23.2	15.5	< 0.1	6,883
Blue Rockfish	9.8 – 17.3	13.4	0.1	625
China Rockfish	11.0 – 19.3	13.8	< 0.1	520
Quillback Rockfish	11.0 – 20.1	15.9	0.2	190
Copper Rockfish	13.0 – 22.8	17.7	0.4	75
Grass Rockfish	14.2 – 19.3	17.1	1.0	9
Gopher Rockfish	13.8 – 15.0	14.4	0.7	3
Black & Yellow Rockfish	13.4 – 13.8	13.5	0.3	3
Brown Rockfish	15.0	15.0	-	1
Olive Rockfish	12.6	12.6	-	1
Kelp Greenling	11.0 – 17.3	14.0	< 0.1	1,904
Cabezon	12.6 – 30.3	20.1	0.2	678
Vermilion Rockfish	13.4 – 26.0	19.5	0.4	138
Tiger Rockfish	12.6 – 18.9	15.2	0.6	33

Table 6. Summary of 2014 weight samples (lbs) from the Oregon commercial nearshore fishery.

Species common name	Range	Mean weight	95% confidence interval (+/-)	Sample size
Black Rockfish	0.5 – 6.7	2.4	< 0.1	6,101
Blue Rockfish	0.5 – 3.6	1.6	< 0.1	574
China Rockfish	0.9 – 4.4	2.2	< 0.1	520
Quillback Rockfish	1.1 – 5.9	3.2	0.2	157
Copper Rockfish	1.7 – 9.1	4.5	0.3	75
Grass Rockfish	2.7 – 4.8	3.8	0.5	9
Gopher Rockfish	2.0 – 2.7	2.3	0.4	3
Black & Yellow Rockfish	2.0 – 2.4	2.1	0.3	3
Brown Rockfish	2.6	2.6	-	1
Olive Rockfish	1.1	1.1	-	1
Kelp Greenling	0.6 – 3.0	1.5	< 0.1	1,904
Cabezon	1.9 – 16.4	5.8	0.2	678
Vermilion Rockfish	1.6 – 10.0	5.4	0.3	138
Tiger Rockfish	1.4 – 5.6	2.6	0.3	33

Table 7. Summary of 2014 nearshore logbook compliance rates by port group (including open access lingcod trips).

Port	Number of Trips	Trips Without Logs	Compliance (%)
Brookings	247	6	97.6
Gold Beach	451	13	97.1
Port Orford	962	92	90.4
Bandon group	177	32	81.9
Newport group	169	11	93.5
Pacific City	262	26	90.1
Garibaldi group	228	9	96.1
Total	**2,497**	**194**	**92.2**

Table 8. Number of trips (landings) of nearshore species and pounds landed per bimonthly period and State management group in 2014. Periods with highest totals are in *italics*.

Period	Number of Trips	Black & Blue Rockfish	Black Rockfish	Other Nearshore Rockfish	Greenling	Cabezon	Other Nearshore Species
1	199	17,707	17,336	1,611	5,920	4,384	427
2	267	32,163	31,318	1,030	5,551	4,916	268
3	*592*	67,910	66,490	3,373	*9,183*	*9,774*	878
4	564	*78,074*	*76,653*	*4,349*	5,212	6,962	*1,705*
5	489	60,508	58,187	3,562	5,750	5,635	1,661
6	244	22,719	21,414	1,680	2,318	2,231	746
Total	**2,355**	**279,081**	**271,398**	**15,605**	**33,934**	**33,902**	**5,685**
% Attainment of Landing Cap		**89.2%**	**89.3%**	**49.5%**	**65.8%**	**51.3%**	**NA**

Table 9. Total pounds landed, total value, and average prices of live and fresh landings by species and State management group in 2014.

Species	Live lbs. (Fresh lbs.)	Live Value (Fresh Value)	Avg. Live Price / lb. (Fresh)*
Black & Blue Rockfish	163,137 (116,003)	$399,447.47 ($202,898.79)	$2.45 ($1.75)
Black	162,669 (108,788)	$398,605.47 ($192,766.39)	$2.45 ($1.77)
Blue	468 (7,215)	$842.00 ($10,132.40)	$1.80 ($1.40)
Other Nearshore Rockfish	12,120 (3,485)	$73,112.10 ($3,996.25)	$6.03 ($1.15)
China	8,027 (1,619)	$54,548.10 ($1,789.10)	$6.80 ($1.11)
Quillback	2,135 (1,257)	$10,276.50 ($1,397.65)	$4.81 ($1.11)
Copper	1,695 (579)	$6,703.00 ($826.25)	$3.95 ($1.33)
Grass	165 (0)	$1,101.00 ($0)	$6.67
Gopher	38 (25)	$181.25 ($34.50)	$4.77 ($1.38)
Black & Yellow	19 (2)	$107.50 ($3.50)	$5.66 ($1.75)
Brown	35 (2)	$166.25 ($1.20)	$4.75 ($.60)
Calico	-	-	-
Kelp	-	-	-
Olive	6 (1)	$28.50 ($1.05)	$4.75 ($1.05)
Treefish	-	-	-
Greenling	33,319 (615)	$153,212.50 ($539.87)	$4.60 ($0.88)
Cabezon	32,626 (1,276)	$117,083.35 ($1,613.70)	$3.59 ($1.26)
Other Nearshore Species	971 (4,714)	$4,789.00 ($6,147.35)	$4.93 ($1.30)
Vermilion Rockfish	557 (4,455)	$2,755.50 ($5,811.40)	$4.95 ($1.30)
Tiger Rockfish	411 (252)	$2,029.50 ($329.45)	$4.94 ($1.31)
Buffalo Scuplin	1 (3)	$2.00 ($1.00)	$1.00 ($0.67)
Red Irish Lord	2 (4)	$3.00 ($4.50)	$1.50 ($1.13)
Brown Irish Lord	-	-	-
Total	**242,173 (126,034)**	**$747,644.42 ($215,195.96)**	**$3.09 ($1.71)**

* - average prices per pound are weighted averages

Figures

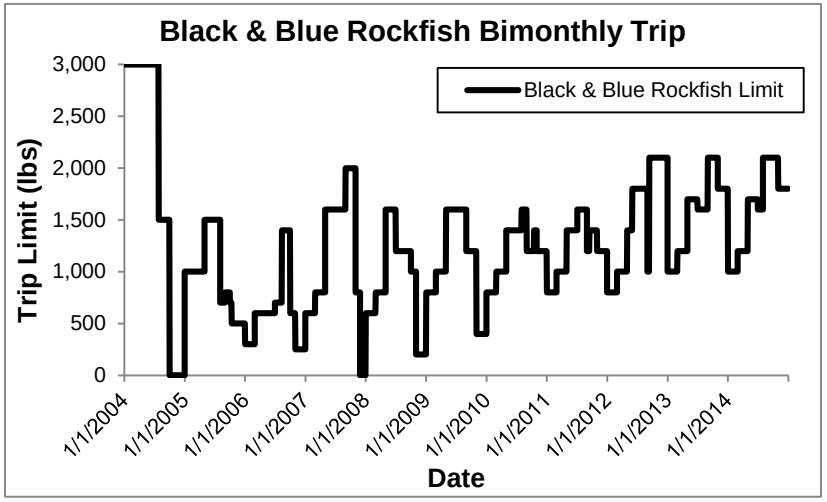


Figure 1. Black and Blue Rockfish bimonthly trip limit history.

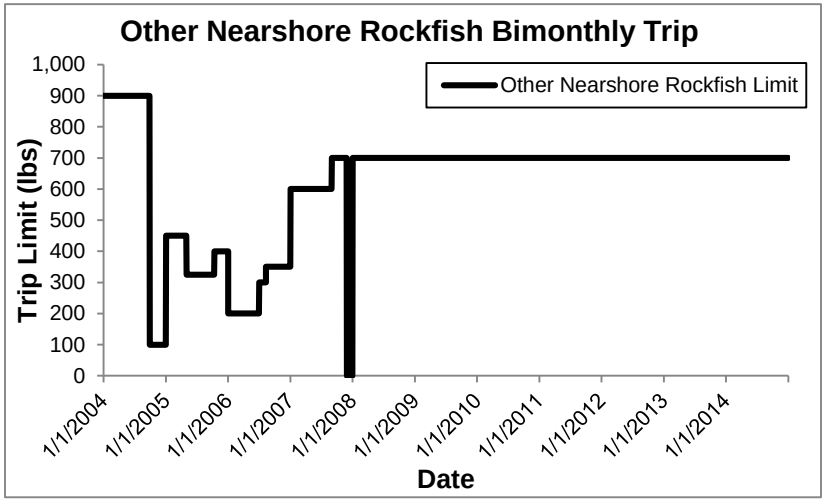


Figure 2. Other Nearshore Rockfish bimonthly trip limit history.

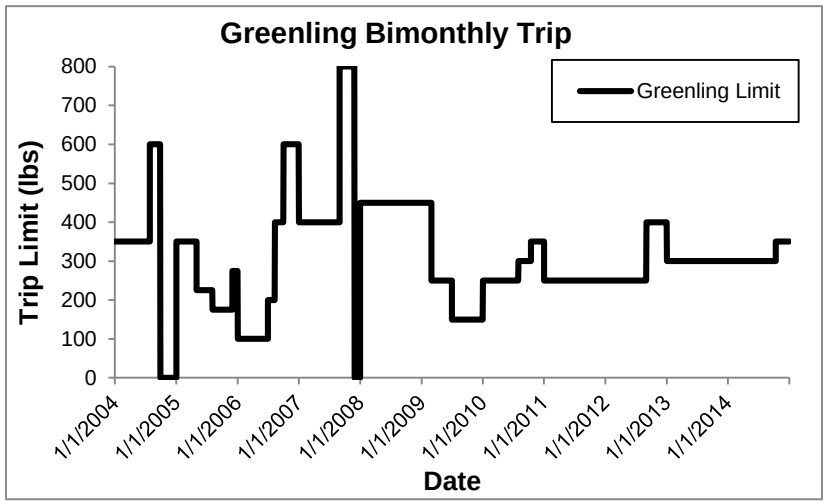


Figure 3. Greenling bimonthly trip limit history.

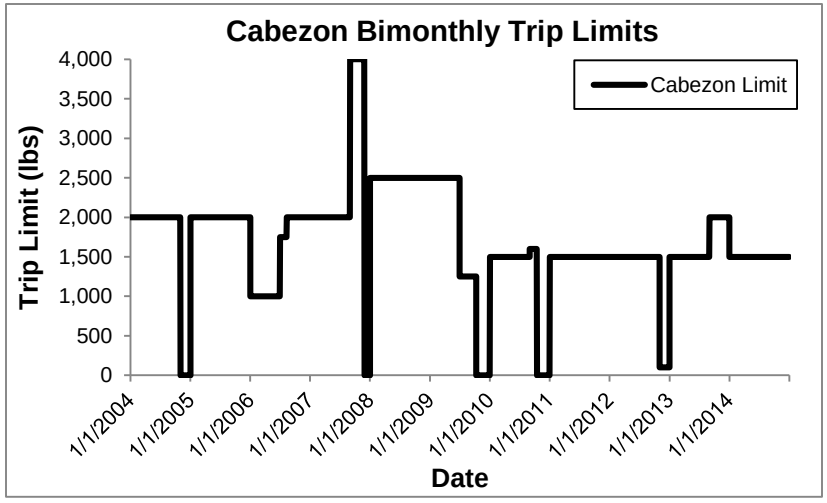


Figure 4. Cabezon bimonthly trip limit history.

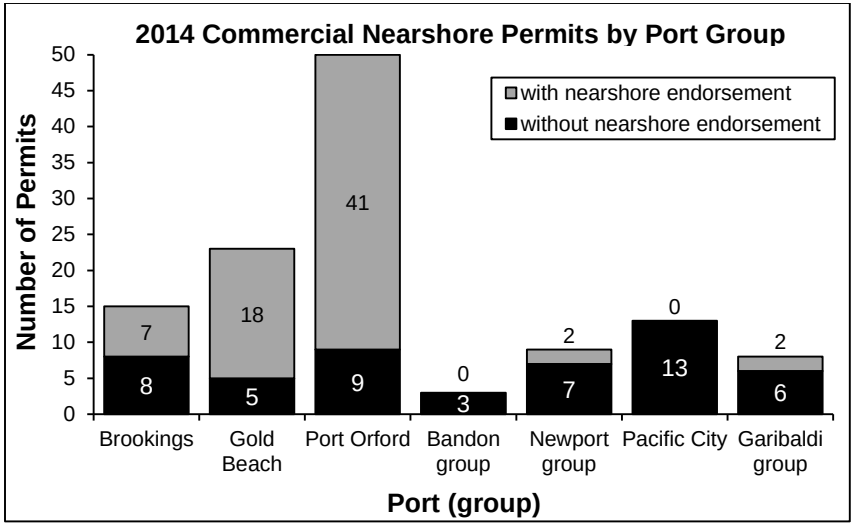


Figure 5. 2014 commercial nearshore Black and Blue Rockfish permits grouped by port group of the most landings per permit. Total permits per port are disaggregated by those with nearshore endorsements and those without.

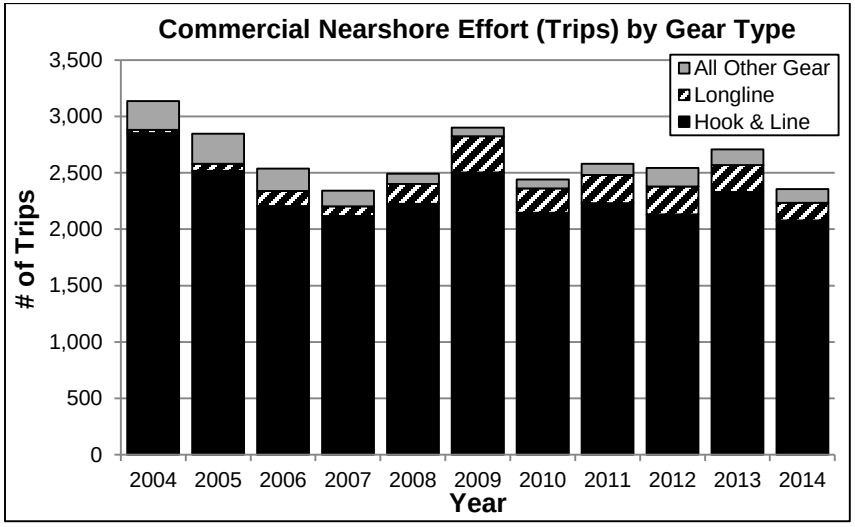


Figure 6. Commercial nearshore fishery effort (effort unit = day trip) by year and gear type.

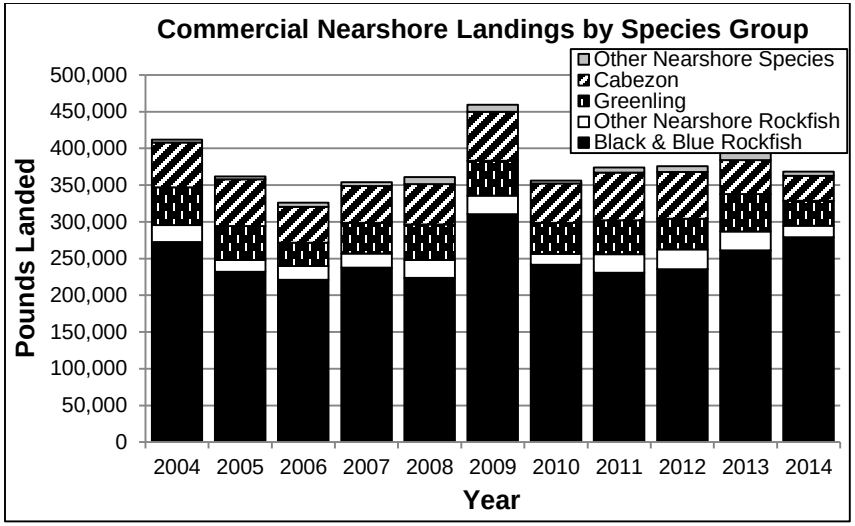


Figure 7. Commercial nearshore landings (lbs) by year and management group.

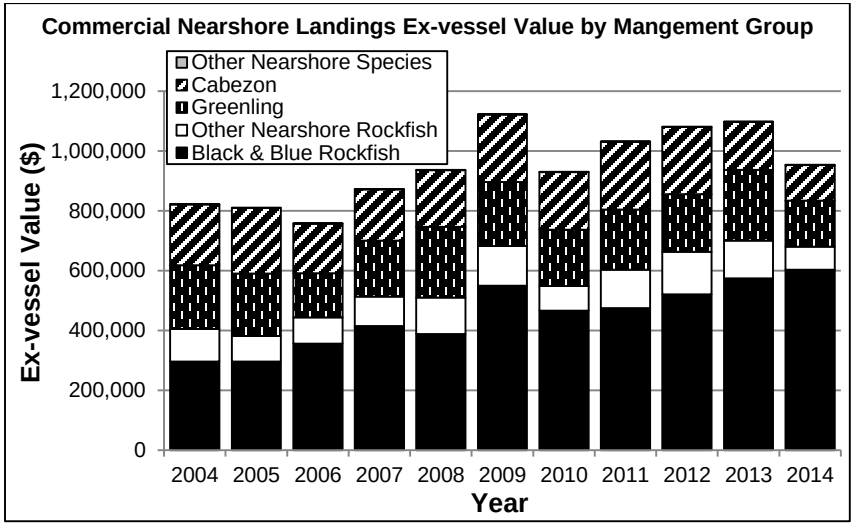


Figure 8. Commercial nearshore landings ex-vessel value ($) by year and management group.

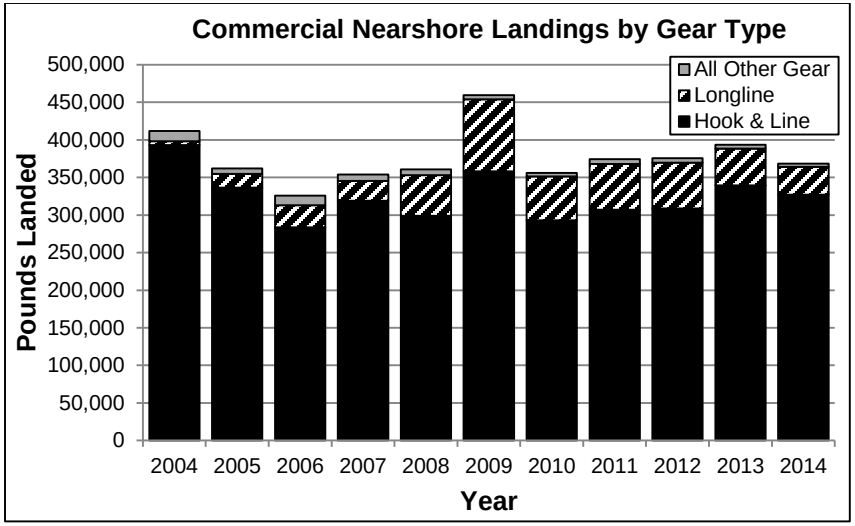


Figure 9. Commercial nearshore landings (lbs) by year and gear type.

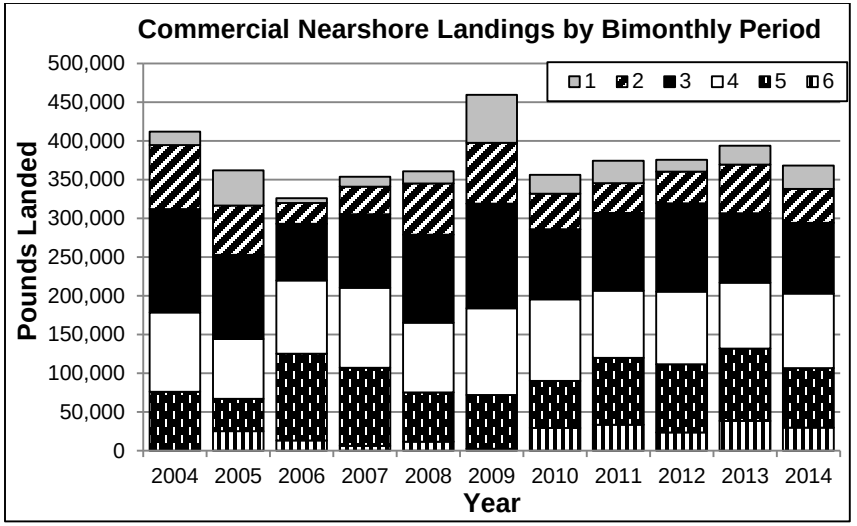


Figure 11. Commercial nearshore landings (lbs) by year and bimonthly period.

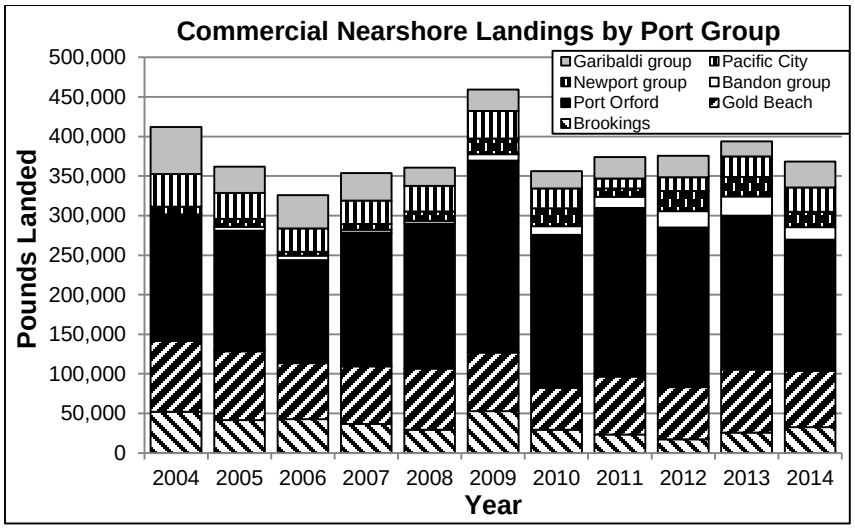


Figure 10. Commercial nearshore landings (lbs) by year and port group.

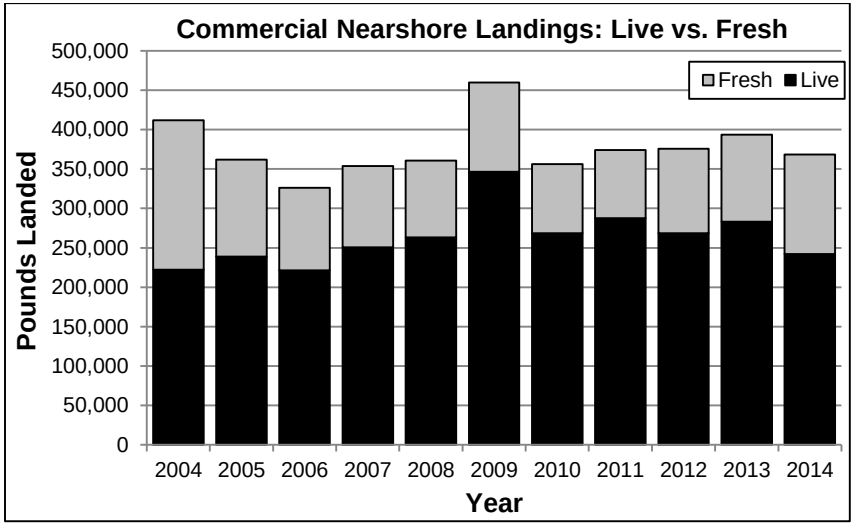


Figure 12. Commercial nearshore landings (lbs) by year and market condition for the commercial nearshore fishery.

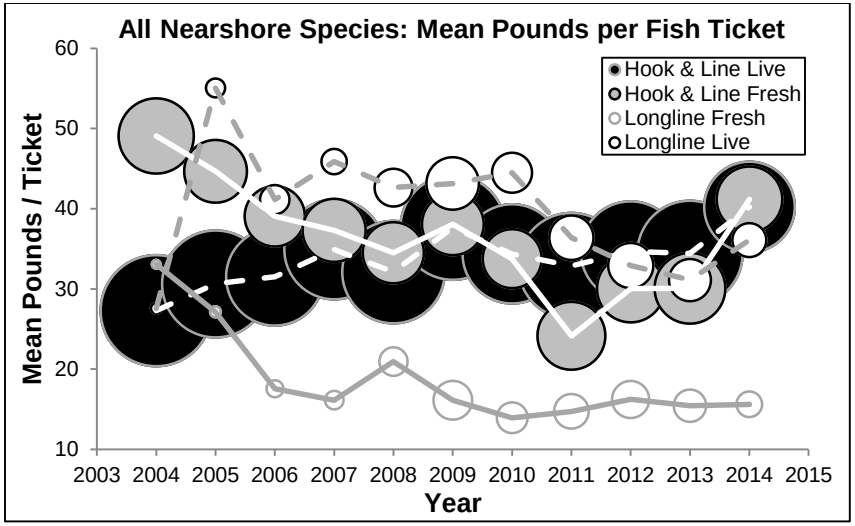


Figure 13. Mean pounds landed per fish ticket for all nearshore species combined by year, gear type and market condition. Area of each bubble is weighted by the number of fish tickets in each mean calculation.

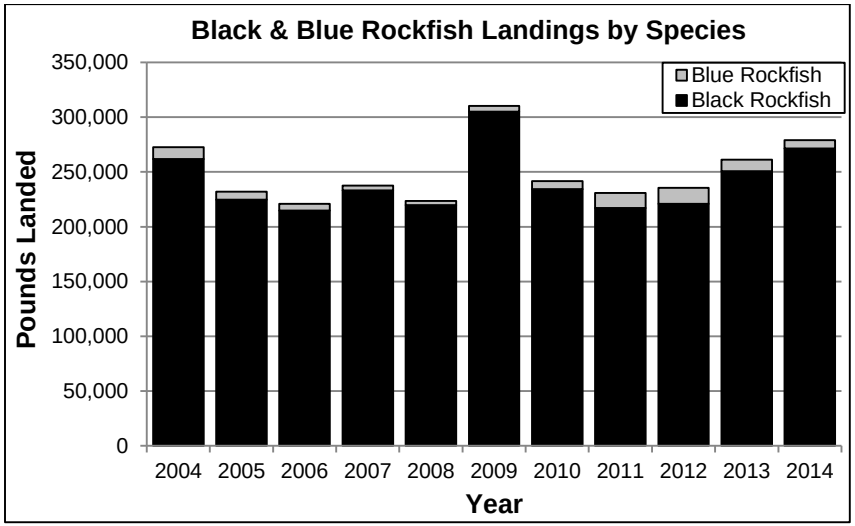


Figure 14. Black and Blue Rockfish landings (lbs) by year and species.

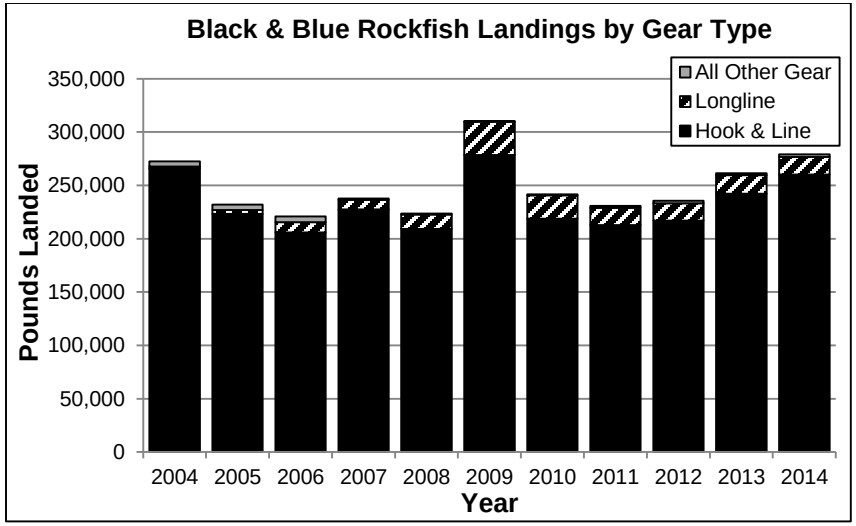


Figure 15. Black and Blue Rockfish landings (lbs) by year and gear type.

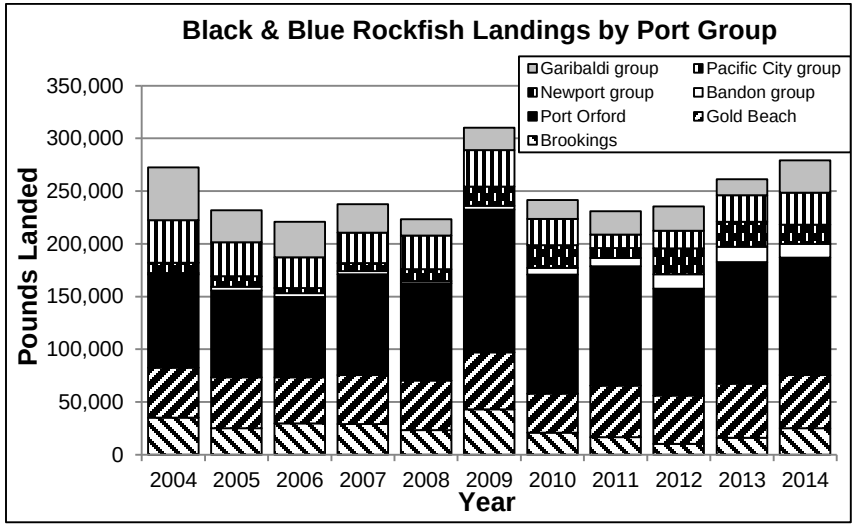


Figure 16. Black and Blue Rockfish landings (lbs) by year and port group.

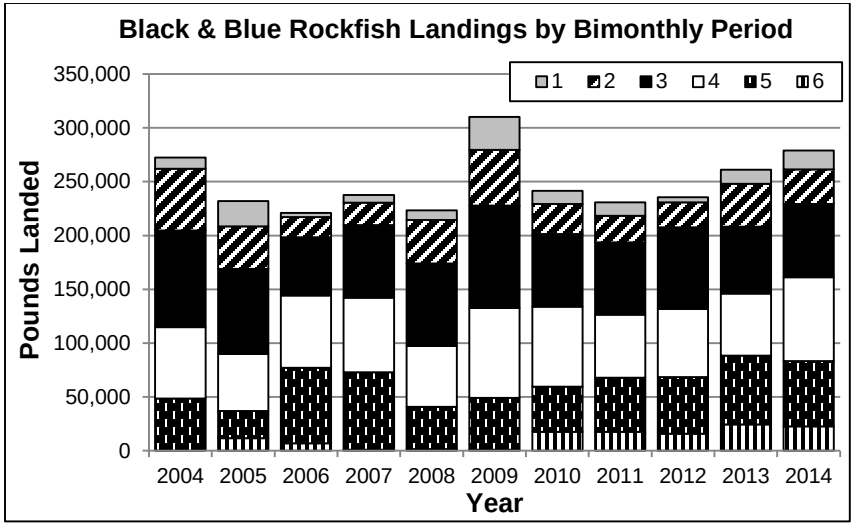


Figure 17. Black and Blue Rockfish landings (lbs) by year and bimonthly period.

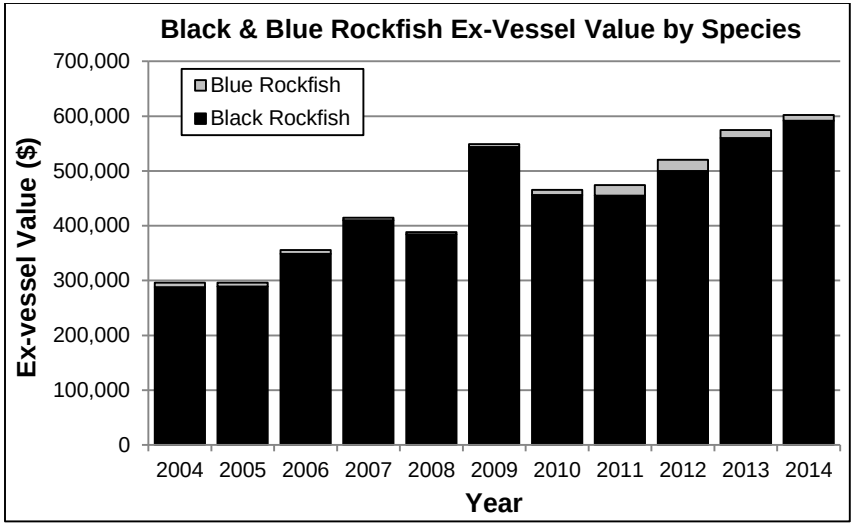


Figure 19. Ex-vessel value ($) of Black and Blue Rockfish by year and species.

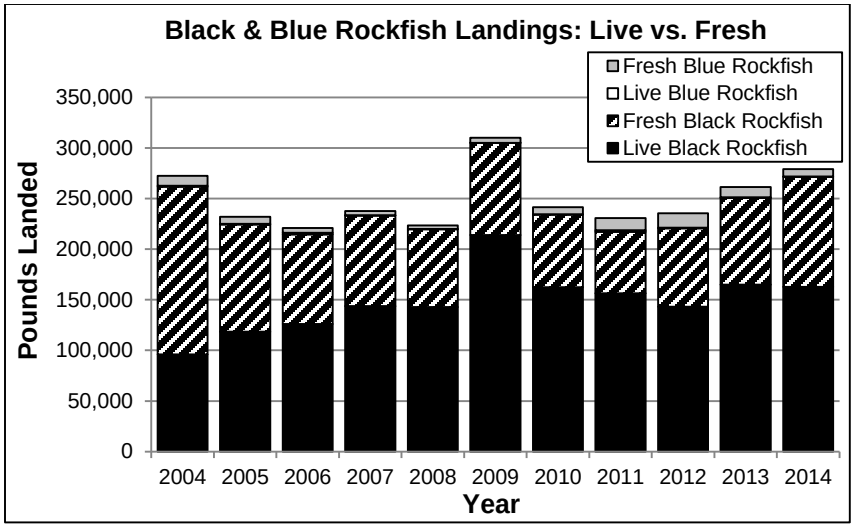


Figure 18. Black and Blue Rockfish landed by year, species and market condition.

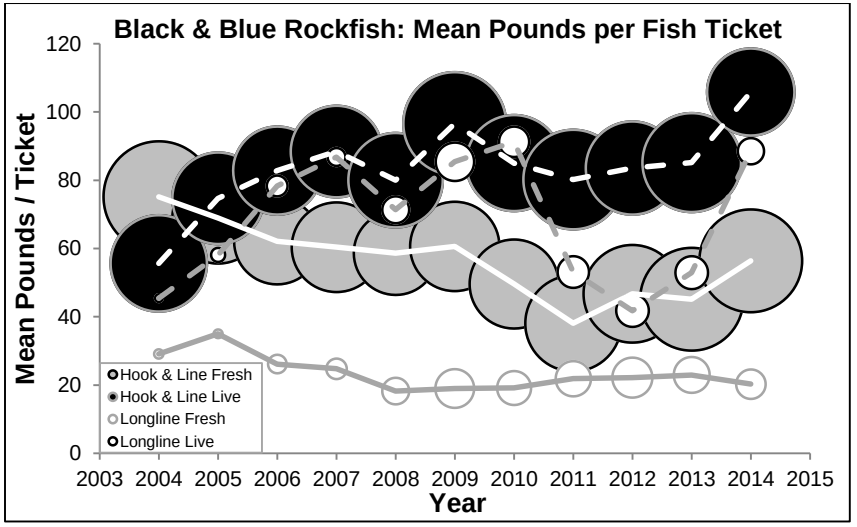


Figure 20. Mean pounds landed per fish ticket for Black and Blue Rockfish by year, gear type and market condition. Area of each bubble is weighted by the number of fish tickets in each mean calculation.

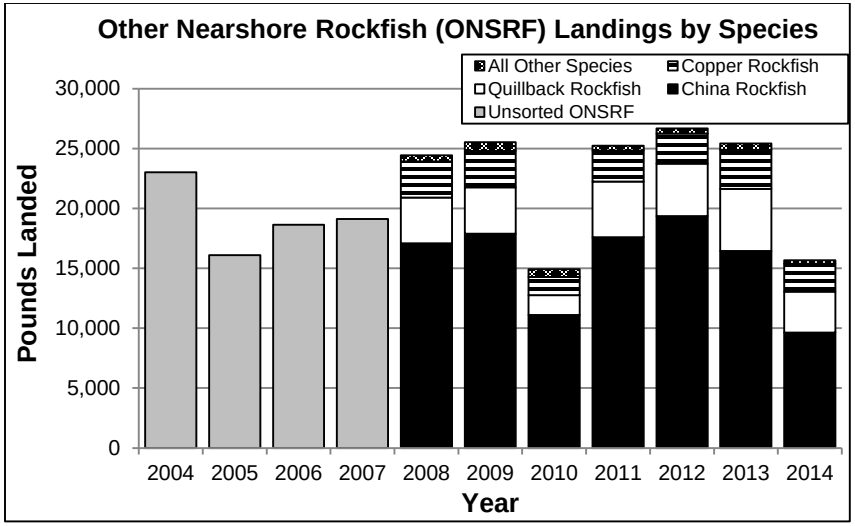


Figure 21. Other Nearshore Rockfish landings (lbs) by year and species.

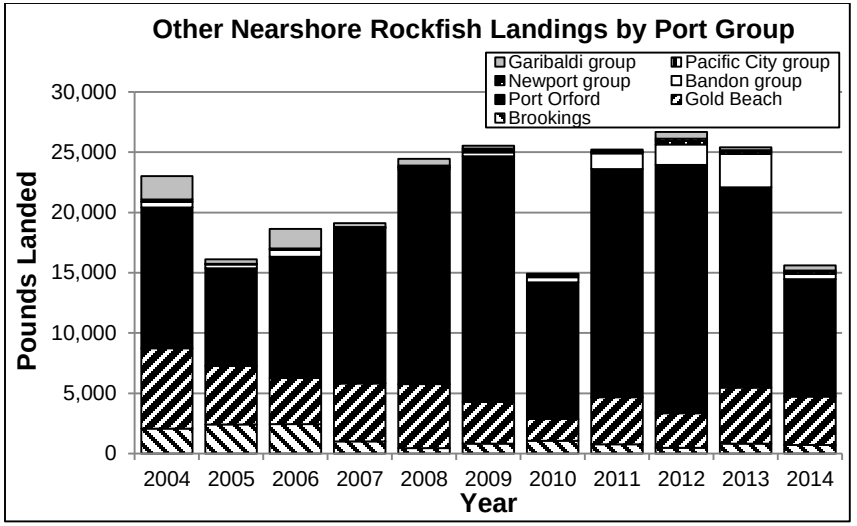


Figure 23. Other Nearshore Rockfish landings (lbs) by year and port group.

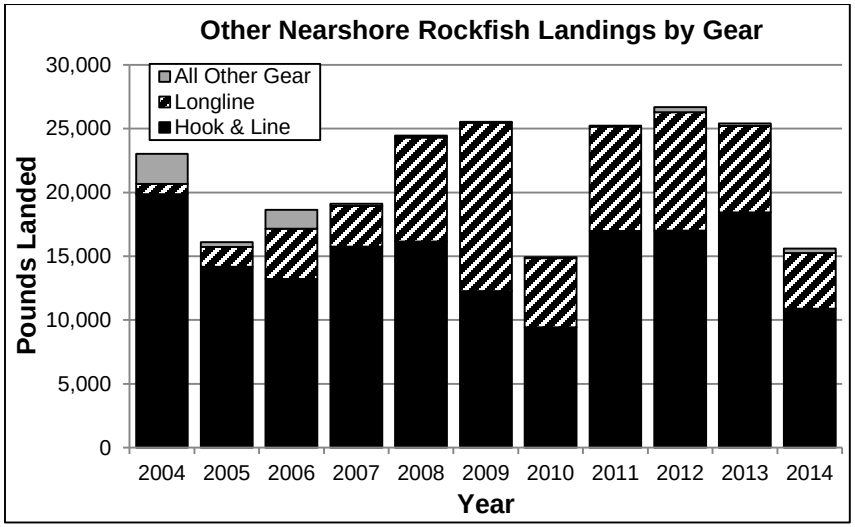


Figure 22. Other Nearshore Rockfish landings (lbs) by year and gear type.

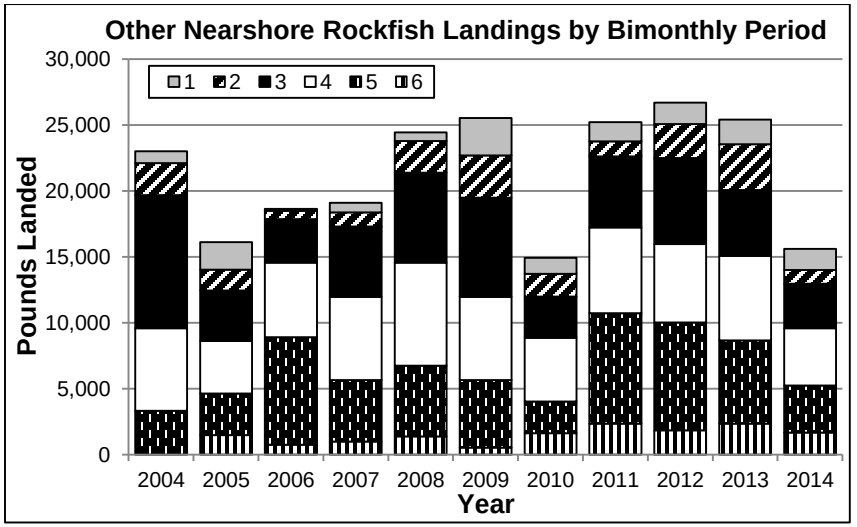


Figure 24. Other Nearshore Rockfish landings (lbs) by year and bimonthly period.

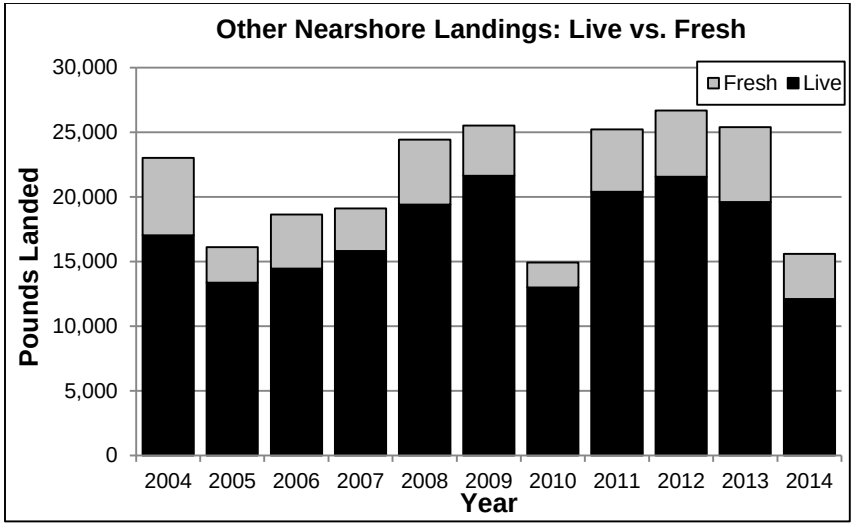


Figure 25. Other Nearshore Rockfish landings (lbs) by year and market condition.

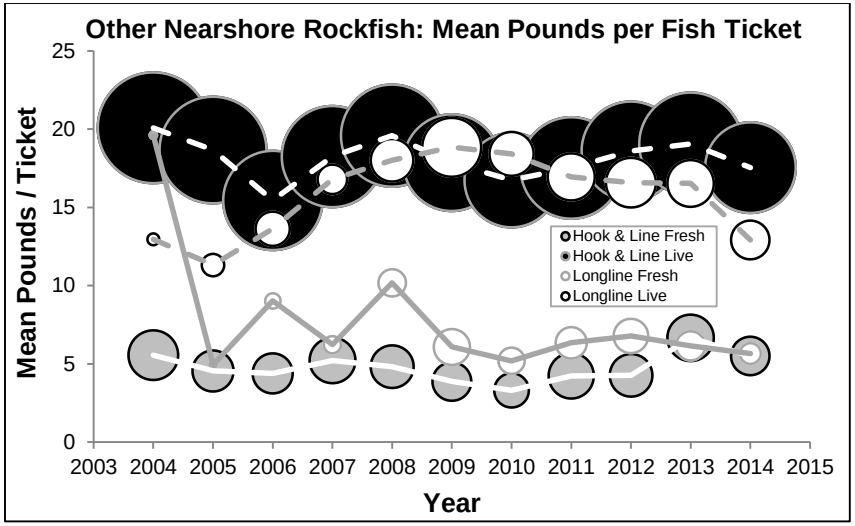


Figure 27. Mean pounds landed per fish ticket for Other Nearshore Rockfish by year, gear type and market condition. Area of each bubble is weighted by the number of fish tickets in each mean calculation.

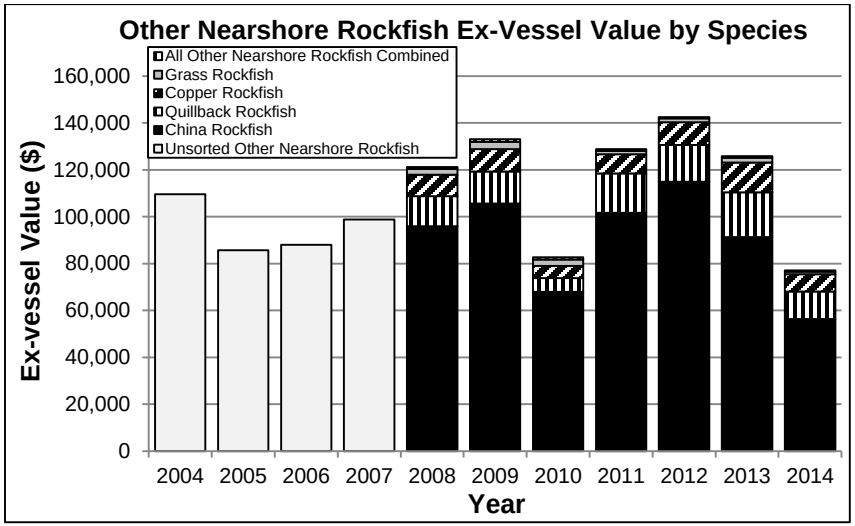


Figure 26. Other Nearshore Rockfish landings ex-vessel value ($) by year and species.

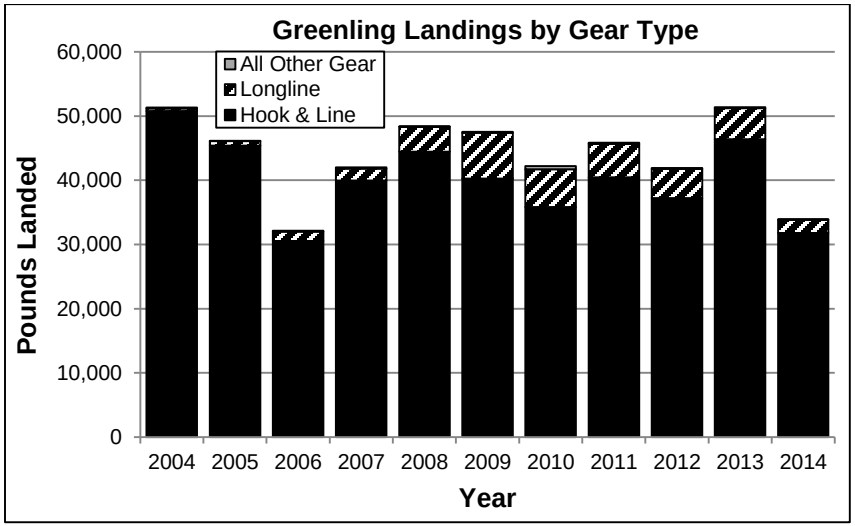


Figure 28. Greenling landings (lbs) by year and gear type.

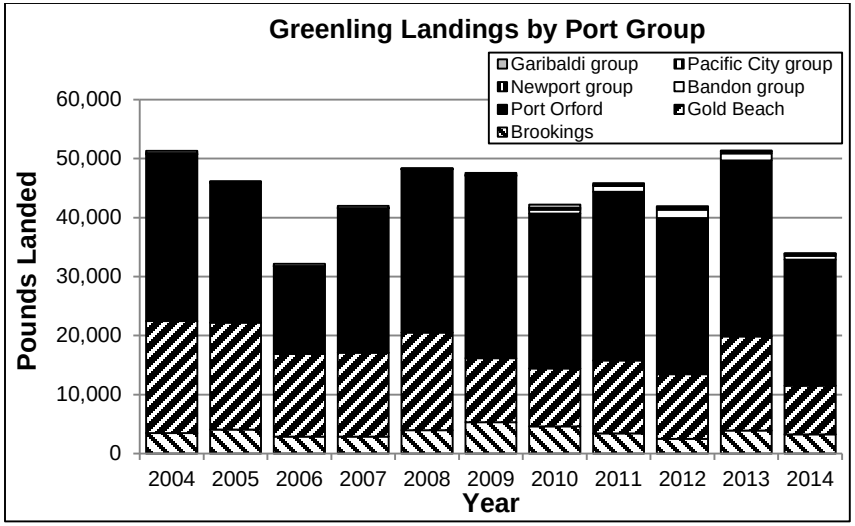


Figure 29. Greenling landings (lbs) by year and port group.

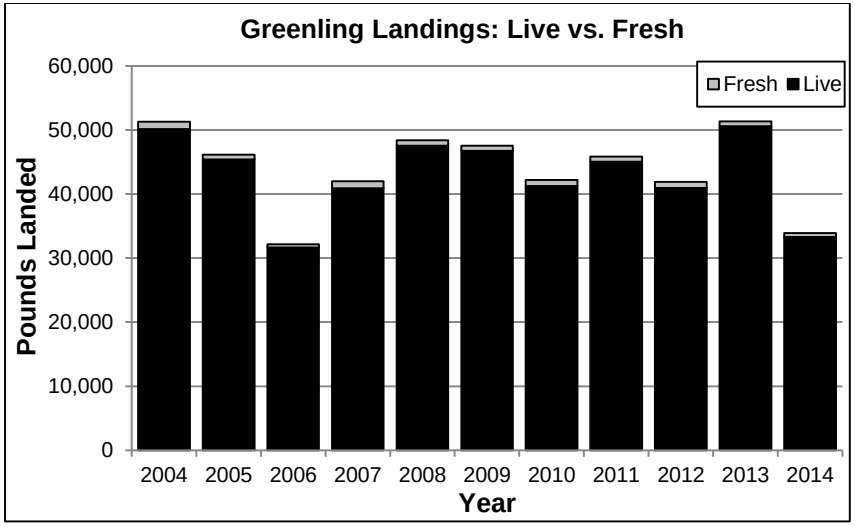


Figure 31. Greenling landings (lbs) by year and market condition.

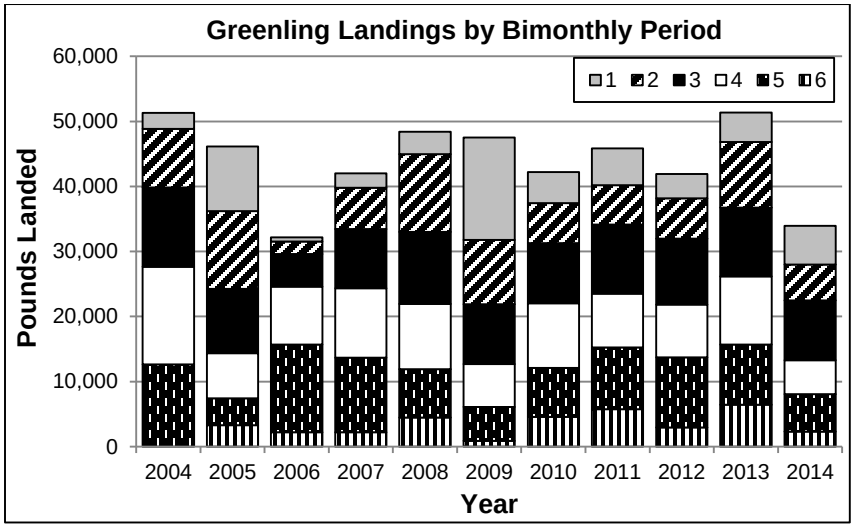


Figure 30. Greenling landings (lbs) by year and bimonthly period.

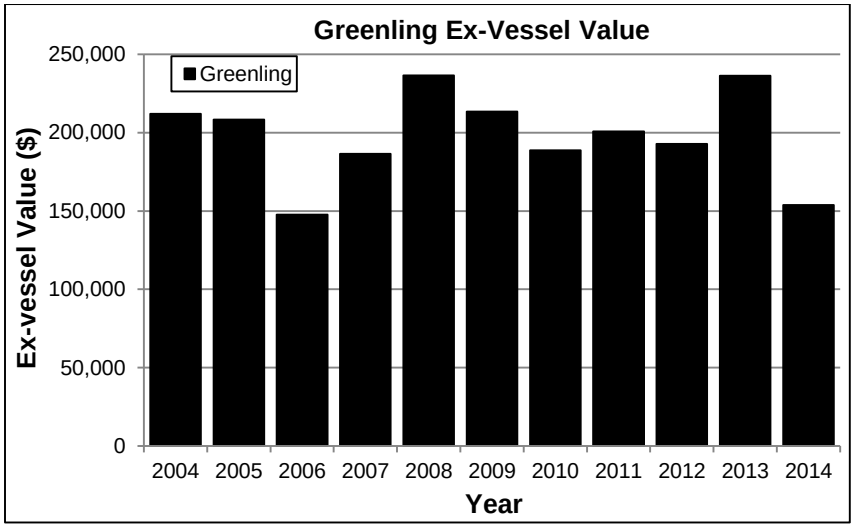


Figure 32. Greenling landings ex-vesssl value ($) by year.

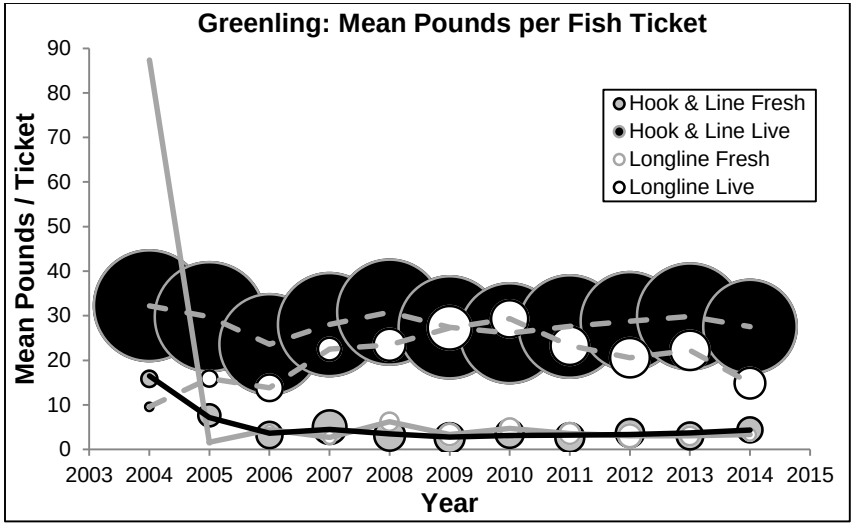


Figure 33. Mean pounds landed per fish ticket for Greenling by year, gear type and market condition. Area of each bubble is weighted by the number of fish tickets in each mean calculation.

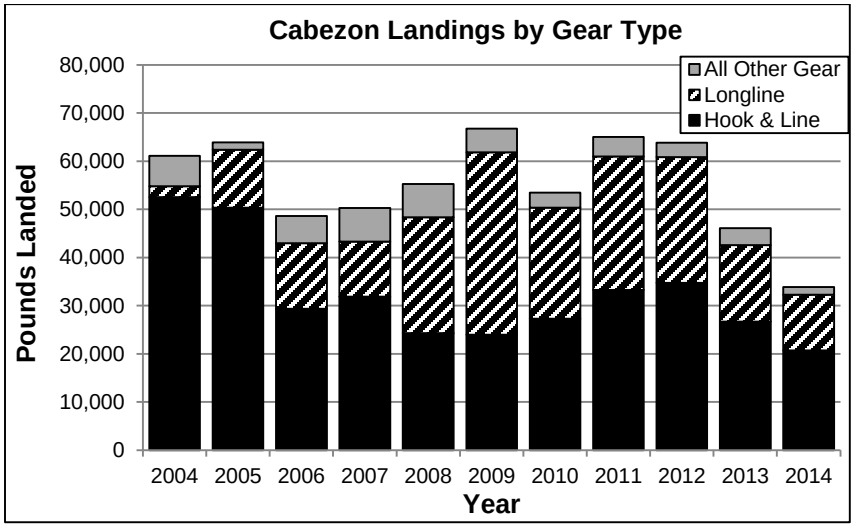


Figure 34. Cabezon landings ($) by year and gear type.

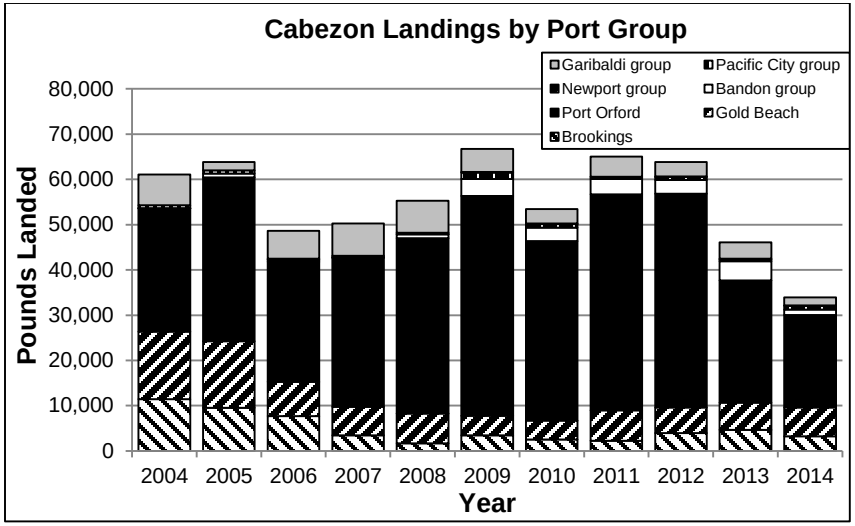


Figure 35. Cabezon landings (lbs) by year and port group.

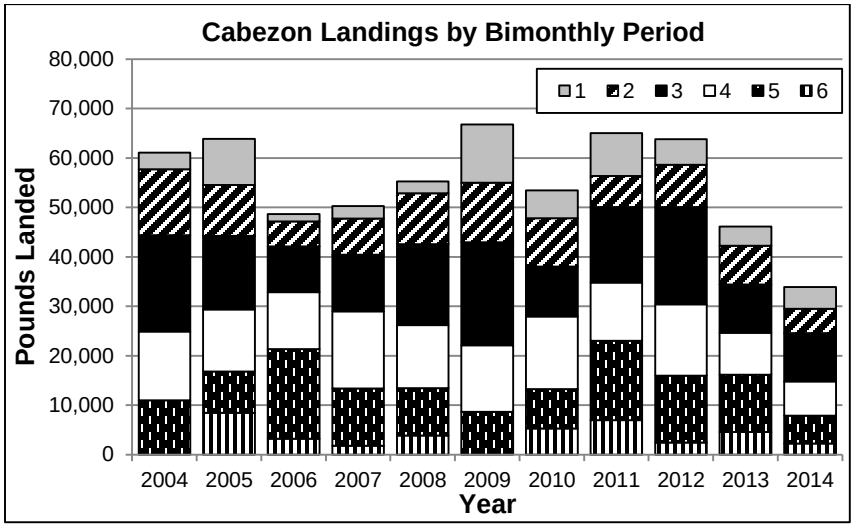


Figure 36. Cabezon landings (lbs) by year and bimonthly period.

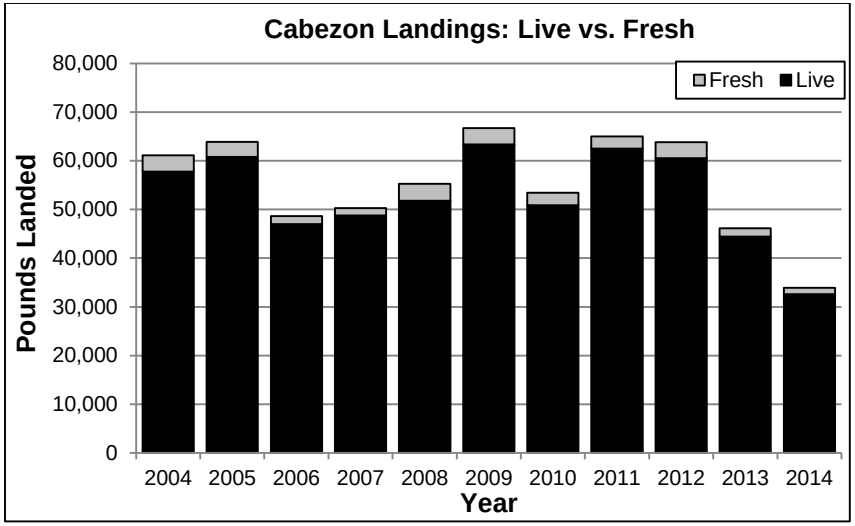


Figure 37. Cabezon landings (lbs) by year and condition.

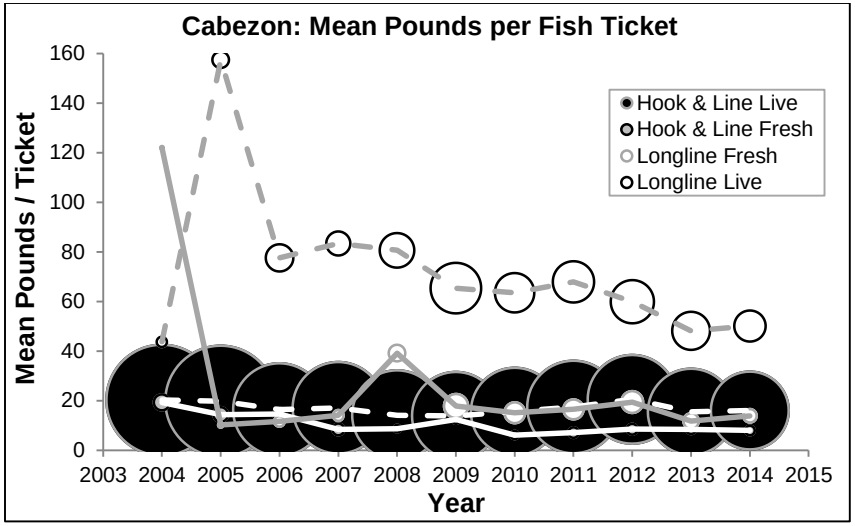


Figure 39. Mean pounds landed per fish ticket for Cabezon by year, gear type and market condition. Area of each bubble is weighted by the number of fish tickets in each mean calculation.

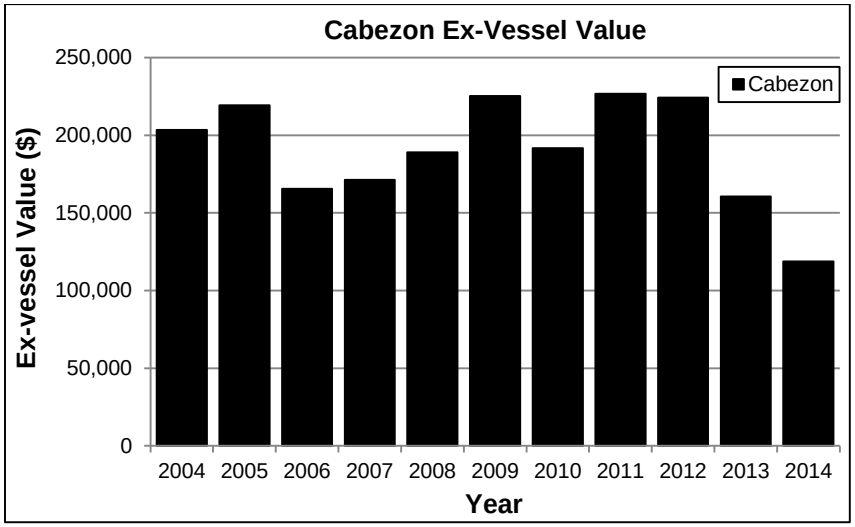


Figure 38. Cabezon landings ex-vesssl value ($) by year.

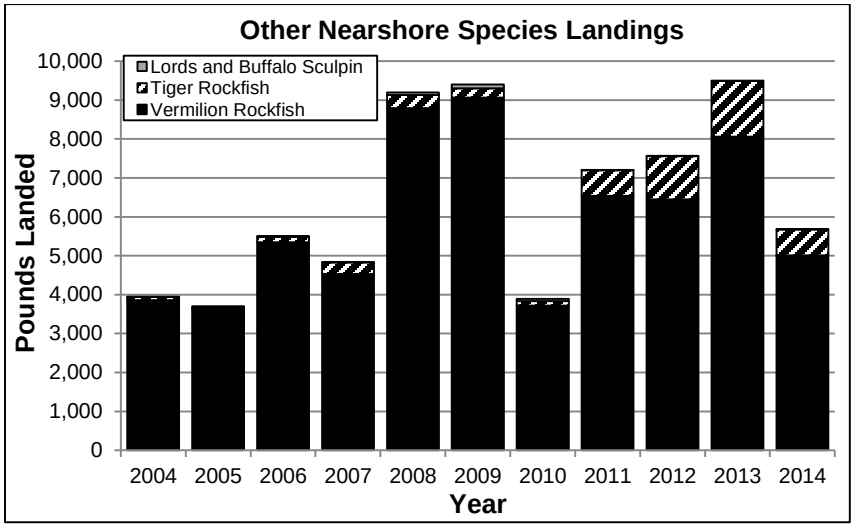


Figure 40. Other Nearshore Species landings (lbs) by year and species (group).

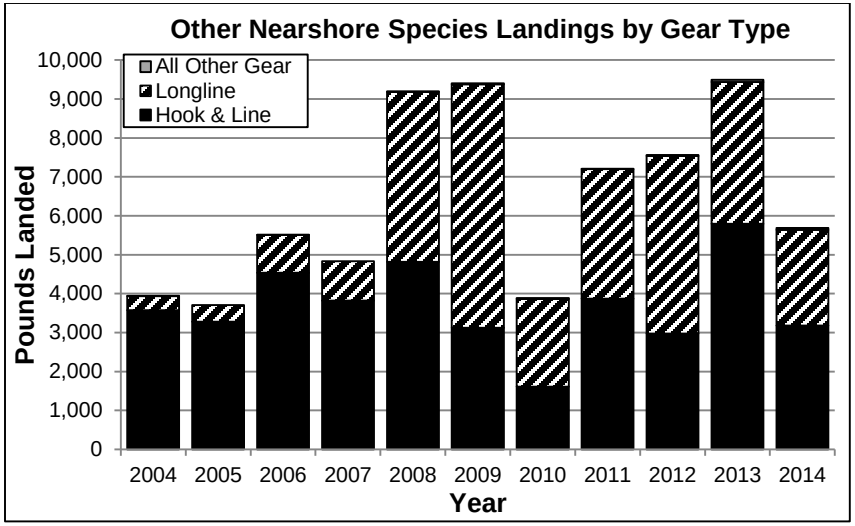


Figure 41. Other Nearshore Species landings (lbs) by year and gear type.

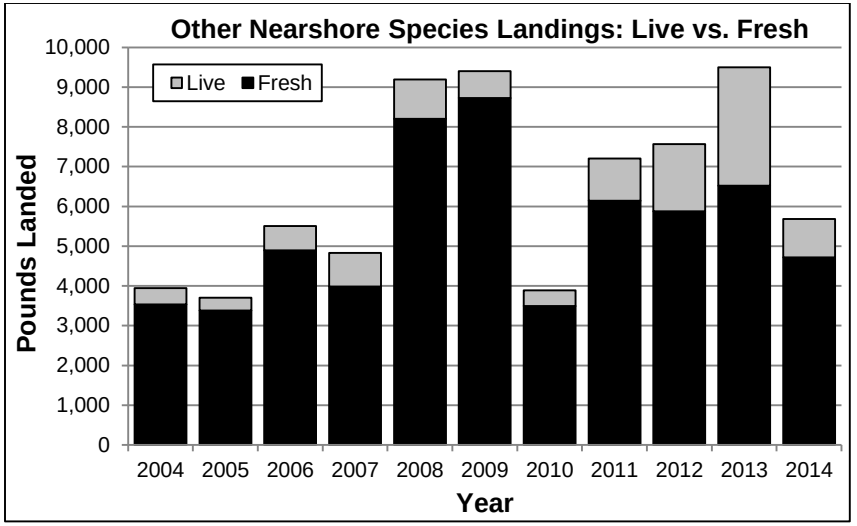


Figure 43. Other Nearshore Species landings (lbs) by year and condition.

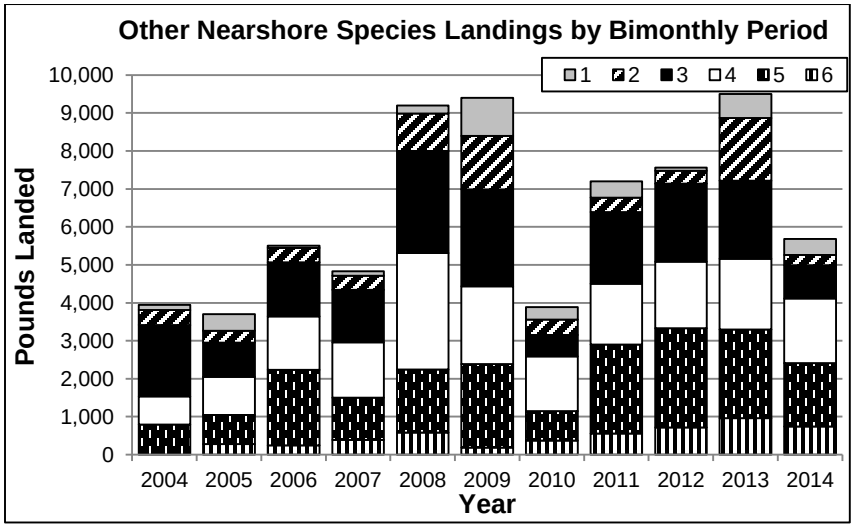


Figure 42. Other Nearshore Species landings (lbs) by year and bimonthly period.

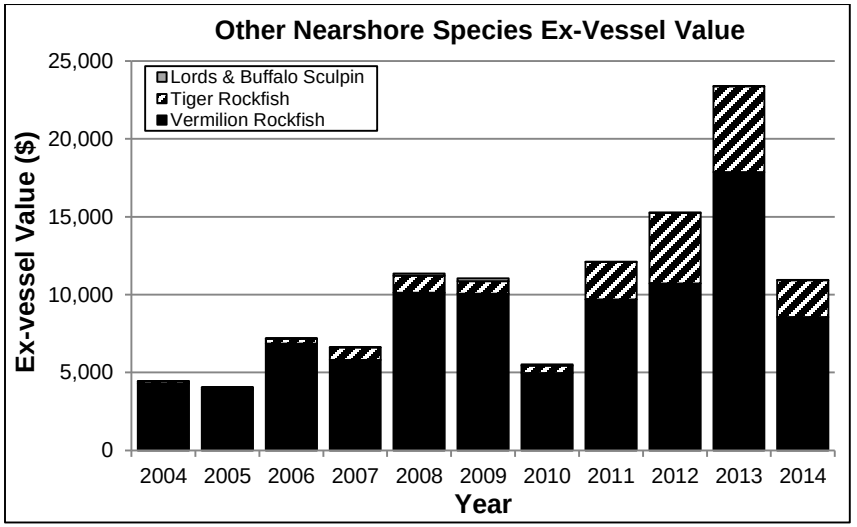


Figure 44. Other Nearshore Species landings ex-vessel value ($) by year and species.

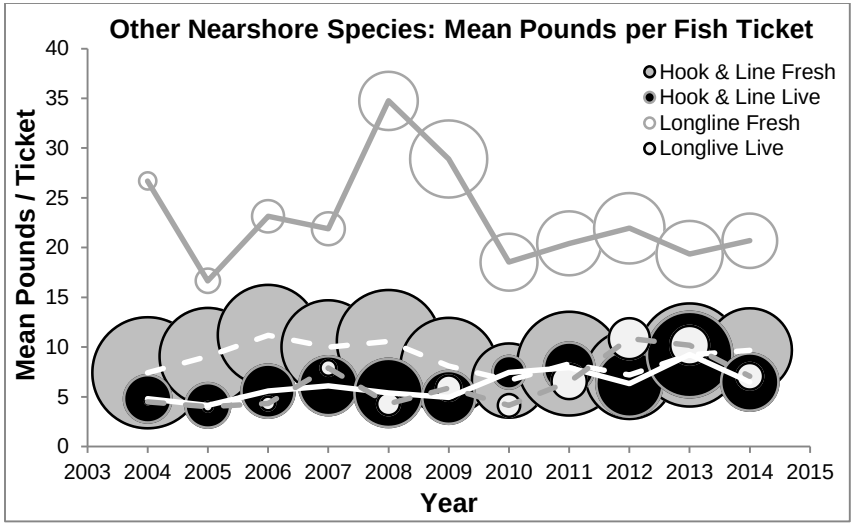


Figure 45. Mean pounds landed per fish ticket for Other Nearshore Species by year, gear type and market condition. Area of each bubble is weighted by the number of fish tickets in each mean calculation.

Appendices

Appendix A. History of cumulative bimonthly period trip limits (lbs) set by the Oregon Fish and Wildlife Commission and implemented by the Oregon Department of Fish and Wildlife for the commercial nearshore fishery. Initial limits set for each period are in normal text without parentheses. Inseason 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 A1. 2014 cumulative bimonthly period trip limits.

Period	Black & Blue RF	Other Nearshore RF	Cabezon	Greenling
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
Aug. 1st	(2,100)	-	-	-
Period 5	1,200	700	1,500	300
Sept. 1st	(2,100)	-	-	-
Oct. 13th	-	-	-	(350)
Period 6	1,000	700	1,500	300
Nov. 1st	(1,800)	-	-	(350)

Table A2. 2013 cumulative bimonthly period trip limits.

Period	Black & Blue RF	Other Nearshore RF	Cabezon	Greenling
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
Sept. 1st	(2,100)	-	(2,000)	-
Period 6	1,000	700	1,500	300
Nov. 1st	(1,800)	-	(2,000)	-

Table A3. 2012 cumulative bimonthly period trip limits.

Period	Black & Blue RF	Other Nearshore RF	Cabezon	Greenling
Period 1	800	700	1,500	250
Period 2	1,000	700	1,500	250
Period 3	1,400	700	1,500	250
June 1st	(1,800)	-	-	-
Period 4	1,400	700	1,500	250
July 1st	(1,800)	-	-	-
Period 5	1,000	700	1,500	250
Sept. 1st	-	-	-	(400)
Sept. 11th	(2,100)	-	-	-
Period 6	800	700	1,500	250
Nov. 1st	(2,100)	-	(100)	(400)

Table A4. 2011 cumulative bimonthly period trip limits.

Period	Black & Blue RF	Other Nearshore RF	Cabezon	Greenling
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
July 5th	(1,600)	-		-
Period 5	1,000	700	1,500	250
Sept. 1st	(1,200)	-		-
Sept. 15th	(1,400)	-	-	-
Period 6	800	700	1,500	250
Nov. 1st	(1,000)	-		-
Nov. 1st	(1,200)	-		-

Table A5. 2010 cumulative bimonthly period trip limits.

Period	Black & Blue RF	Other Nearshore RF	Cabezon	Greenling
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
Aug. 1st	(1,600)	-	-	(300)
Period 5	1,000	700	1,500	250
Sept. 1	(1,200)	-	(1,600)	(300)
Oct. 15th	(1,400)	-	(Closed)	(350)
Period 6	800	700	1,600	250
Nov. 1st	(1,200)	-	(Closed)	(350)

Table A6. 2009 cumulative bimonthly period trip limits.

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

Table A7. 2008 cumulative bimonthly period trip limits.

Period	Black & Blue RF	Other Nearshore RF	Cabezon	Greenling
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
Jul. 1st	(1,200)	-	-	-
Period 5	1,600	700	2,500	450
Oct. 1st	(1,000)	-	-	-
Oct. 2nd	(15 per day/1,000 per month)	-	-	-
Period 6	800	700	2,500	450
Nov. 1st	(15 per day/200 per month)	-	-	-

Table A8. 2007 cumulative bimonthly period trip limits.

Period	Black & Blue RF	Other Nearshore RF	Cabezon	Greenling
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
Sept. 1st	(2,000)	(700)	(4,000)	(800)
Period 6	800	600	2,000	400
Nov. 1st	(15 per day/800 per month)	(700)	(4,000)	(800)
Nov. 28th	(Closed)	(Closed)	(Closed)	(Closed)

Table A9. 2006 cumulative monthly period trip limits.

Period	Black & Blue RF	Other Nearshore RF*	Cabezon	Greenling
January	300	200	1,000	100
February	300	200	1,000	100
March	600	200	1,000	100
April	600	200	1,000	100
May	600	200	1,000	100
June	600	200	1,000	100
July	600	200	1,000	100
July 1st	(700)	(300)	(1,750)	(200)
August	600	200	1,000	100
Aug. 1st	(700)	(300)	(1,750)	(200)
Aug. 11th	(1,400)	(350)	(2,000)	(400)
September	300	200	1,000	100
Sept. 1st	-	(300)	(1,750)	(200)
Sept. 1st	(1,400)	(350)	(2,000)	(400)
October	300	200	1,000	100
Oct. 1st	-	(300)	(1,750)	(200)
	-	(350)	(2,000)	(400)
Oct. 1st	(600)	-	-	(600)
November	250	200	1,000	100
Nov. 1st	-	(350)	(2,000)	(600)
December	250	200	1,000	100
Dec. 1st	-	(350)	(2,000)	(600)

* - sub-limit of Black & Blue RF; included Vermilion and Tiger Rockfishes

Table A10. 2005 cumulative bimonthly period trip limits.

Period	Black & Blue RF	Other Nearshore RF*	Cabezon	Greenling
Period 1	1,000	450	2,000	350
Period 2	1,000	450	2,000	350
Period 3	1,500	450	2,000	350
May 1st	-	(325)	-	(225)
Period 4	1,500	450	2,000	350
Aug. 1st	-	(325)	-	(225)
Aug. 4th	(700)	-	-	(175)
Period 5	800	400	2,000	350
Oct. 1st	-	(325)	-	(225)
Oct. 1st	(700)	-	-	(175)
Oct. 11th	(500)	(400)	-	-
Period 6	500	450	2,000	350
Dec. 1st	-	(400)	-	(175)
Dec. 1st	-	-	-	(275)

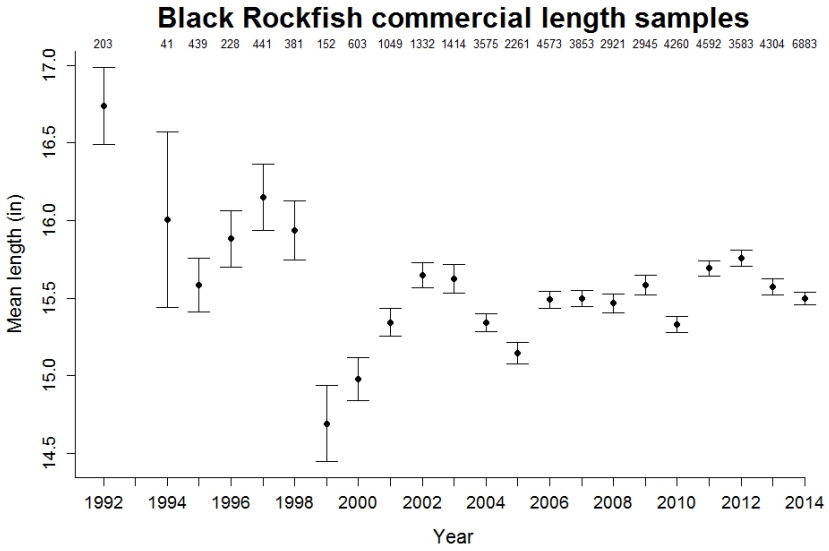
* - sub-limit of Black & Blue RF; included Vermilion and Tiger Rockfishes

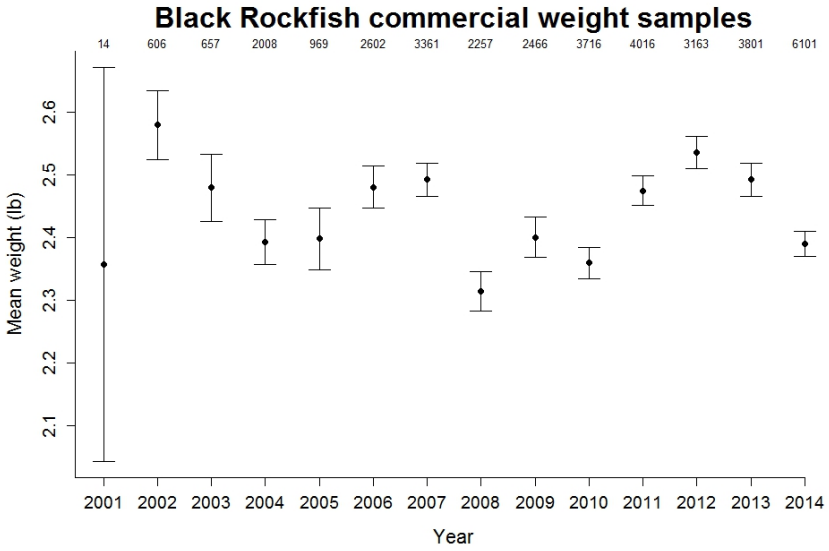
Table A11. 2004 cumulative bimonthly period trip limits.

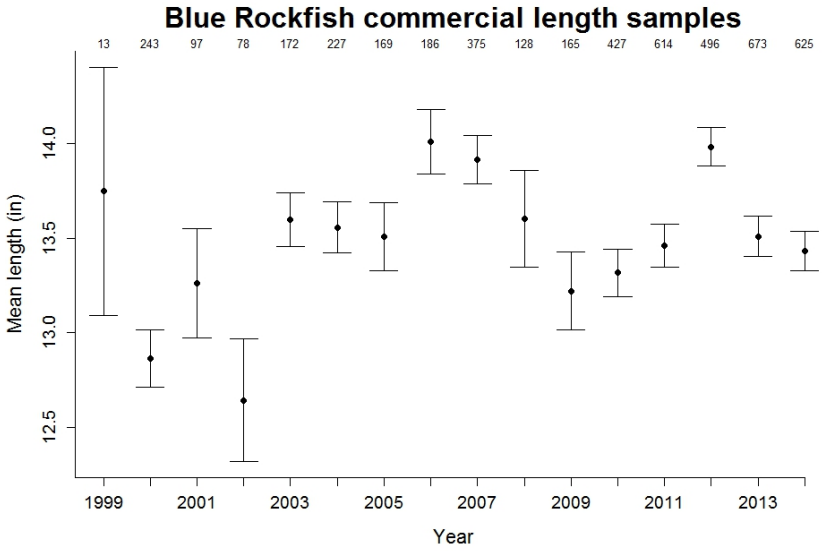
Period	Black & Blue RF	Other Nearshore RF*	Cabezon	Greenling
Period 1	3,000	900	2,000	350
Period 2	3,000	900	2,000	350
Period 3	3,000	900	2,000	350
Period 4	3,000	900	2,000	350
July 27th	(1,500)	-	-	(600)
Period 5	3,000	900	2,000	350
Sept. 1st	(1,500)	-	-	(600)
Sept. 27th	(Closed)	(100)	-	(Closed)
Period 6	3,000	900	2,000	350
Nov. 1st	(1,500)	(100)	(Closed)	(Closed)
Nov. 1st	(Closed)	-	-	-

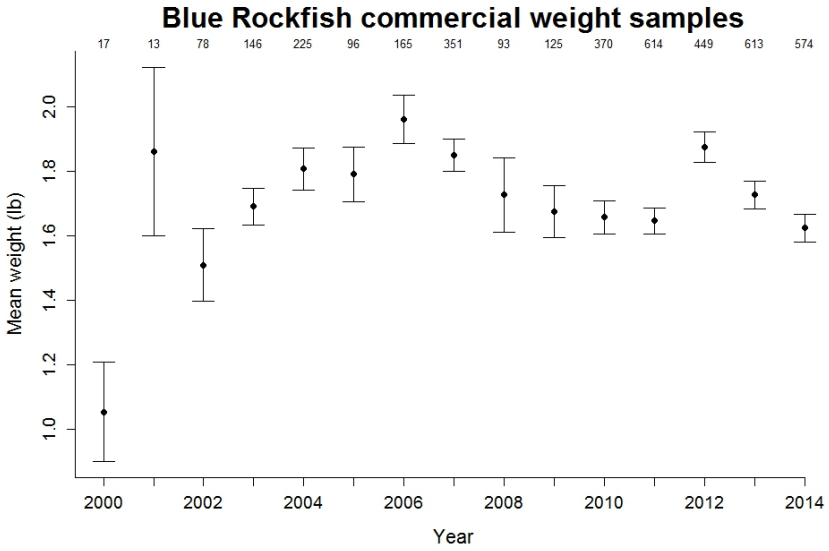
* - sub-limit of Black & Blue RF; included Vermilion and Tiger Rockfishes

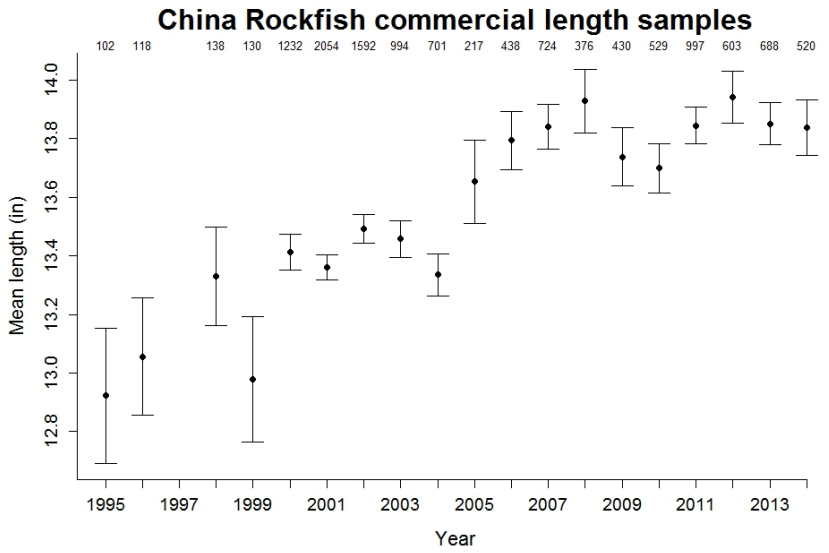
Appendix B. Nearshore species commercial length and weight sample means by year with sample sizes (top) and 95% confidence intervals.

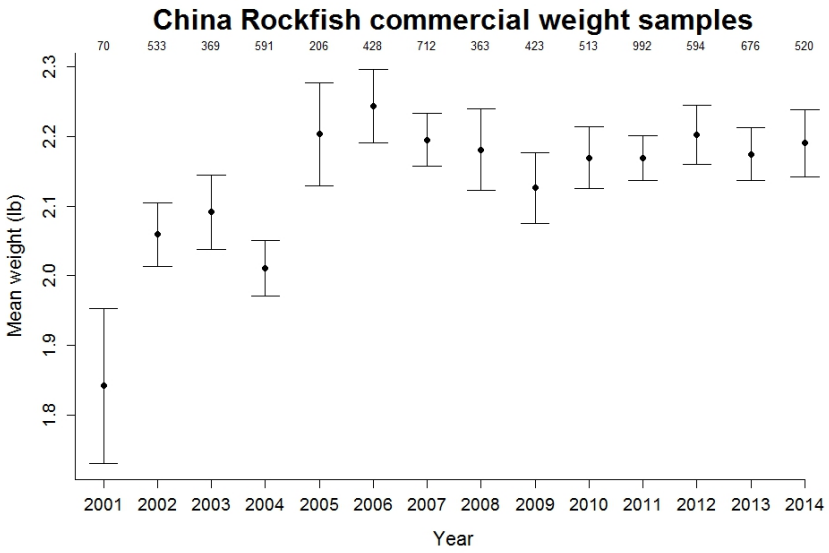


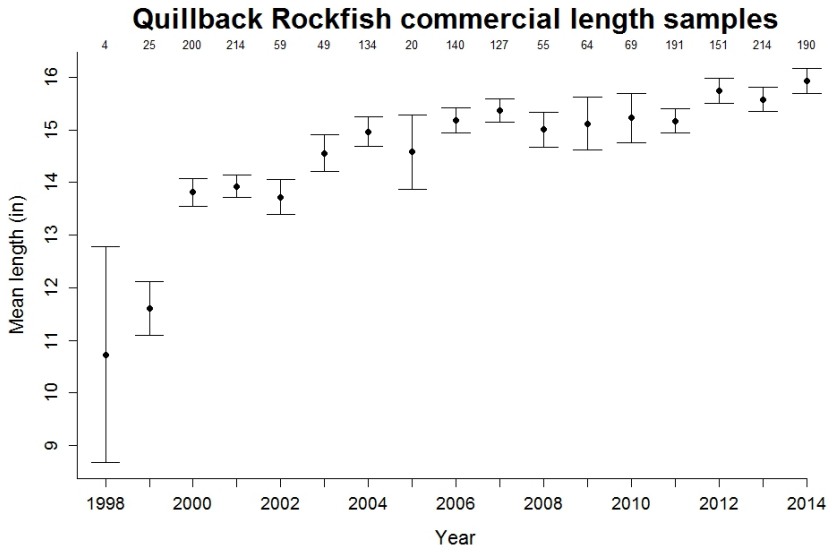


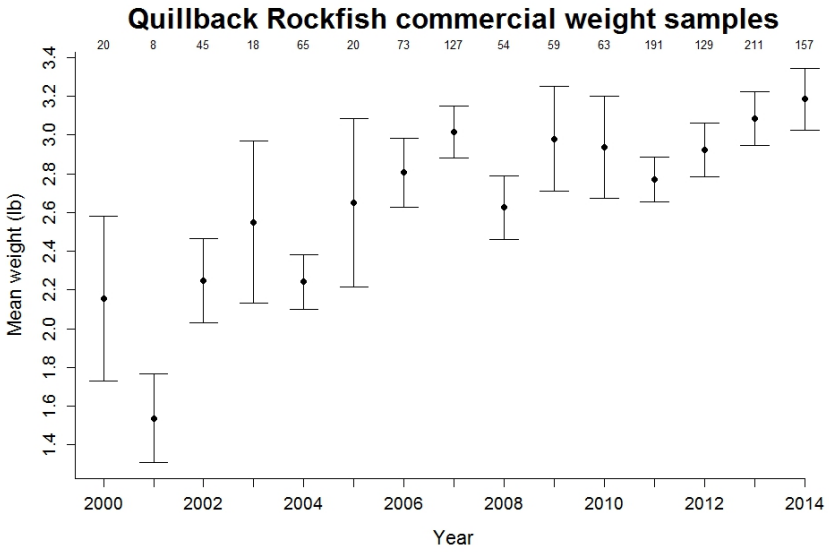


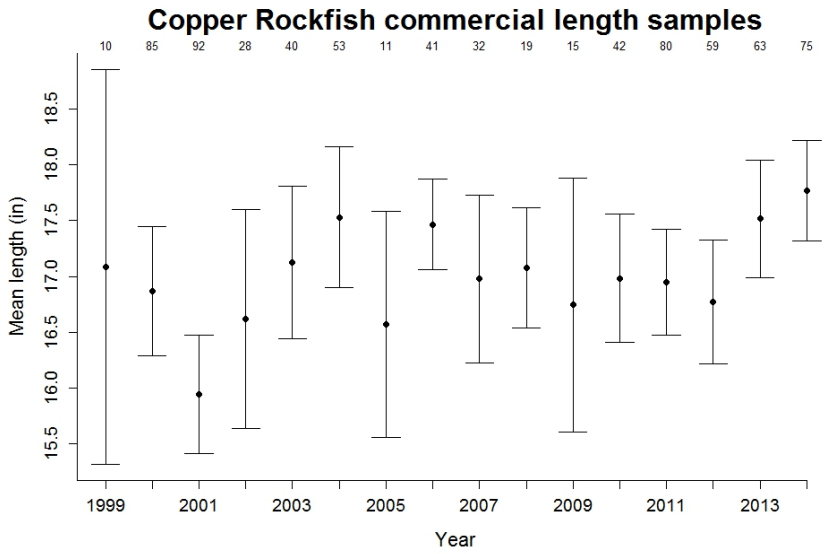


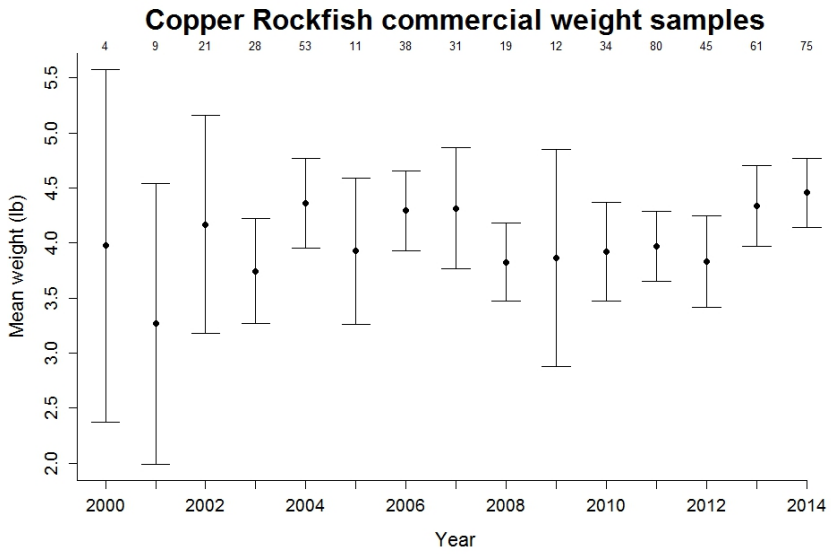

China Rockfish commercial length samples
102 118 138 130 1232 2054 1592 994 701 217 438 724 376 430 529 997 603 688 520
Mean length (in)
12.8 13.0 13.2 13.4 13.6 13.8 14.0
1995 1997 1999 2001 2003 2005 2007 2009 2011 2013
Year

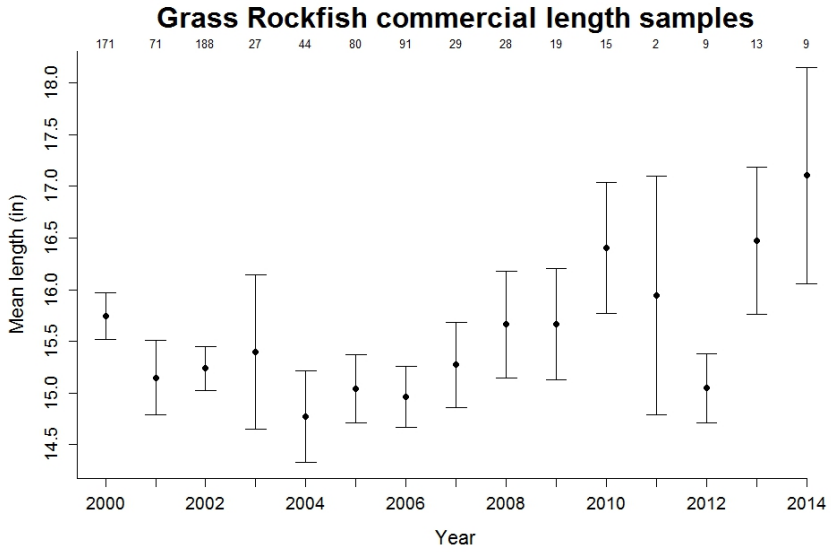

China Rockfish commercial weight samples
70 533 369 591 206 428 712 363 423 513 992 594 676 520
Mean weight (lb)
1.8 1.9 2.0 2.1 2.2 2.3
2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014
Year

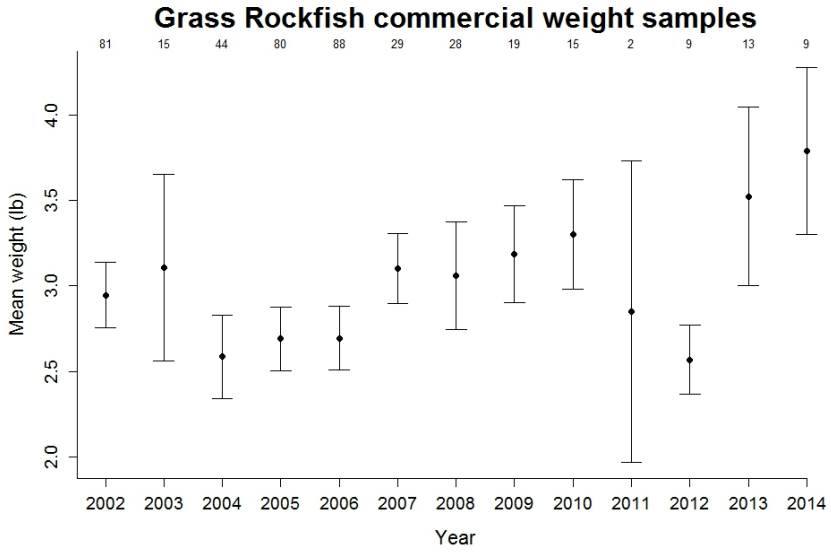

Quillback Rockfish commercial length samples
4 25 200 214 59 49 134 20 140 127 55 64 69 191 151 214 190
Mean length (in)
9 10 11 12 13 14 15 16
1998 2000 2002 2004 2006 2008 2010 2012 2014
Year

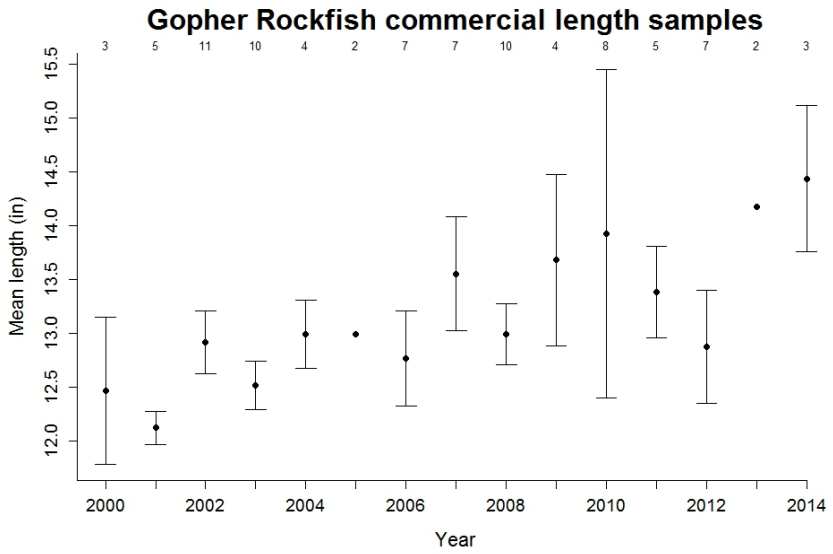

Quillback Rockfish commercial weight samples
20 8 45 18 65 20 73 127 54 59 63 191 129 211 157
Mean weight (lb)
1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4
2000 2002 2004 2006 2008 2010 2012 2014
Year

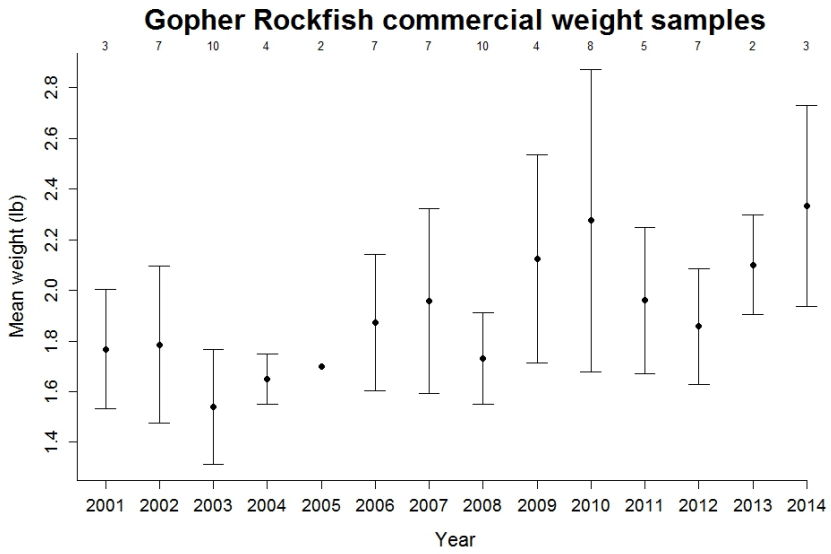

Copper Rockfish commercial length samples
10 85 92 28 40 53 11 41 32 19 15 42 80 59 63 75
Mean length (in)
15.5 16.0 16.5 17.0 17.5 18.0 18.5
1999 2001 2003 2005 2007 2009 2011 2013
Year

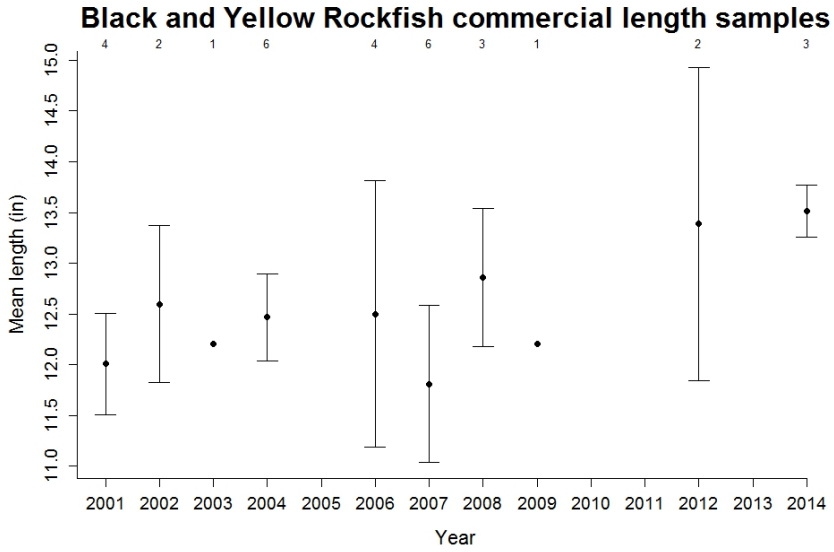

Copper Rockfish commercial weight samples
4 9 21 28 53 11 38 31 19 12 34 80 45 61 75
Mean weight (lb)
2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5
2000 2002 2004 2006 2008 2010 2012 2014
Year

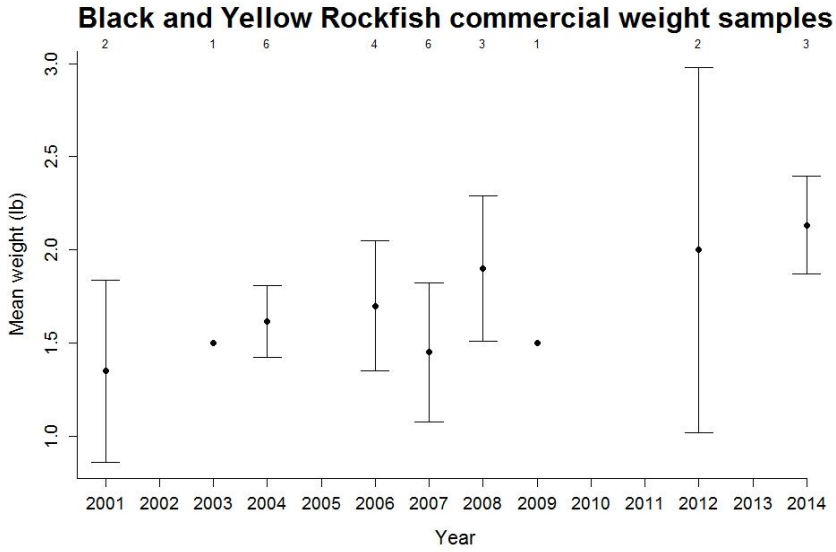

Grass Rockfish commercial length samples
171 71 188 27 44 80 91 29 28 19 15 2 9 13 9
Mean length (in)
14.5 15.0 15.5 16.0 16.5 17.0 17.5 18.0
2000 2002 2004 2006 2008 2010 2012 2014
Year

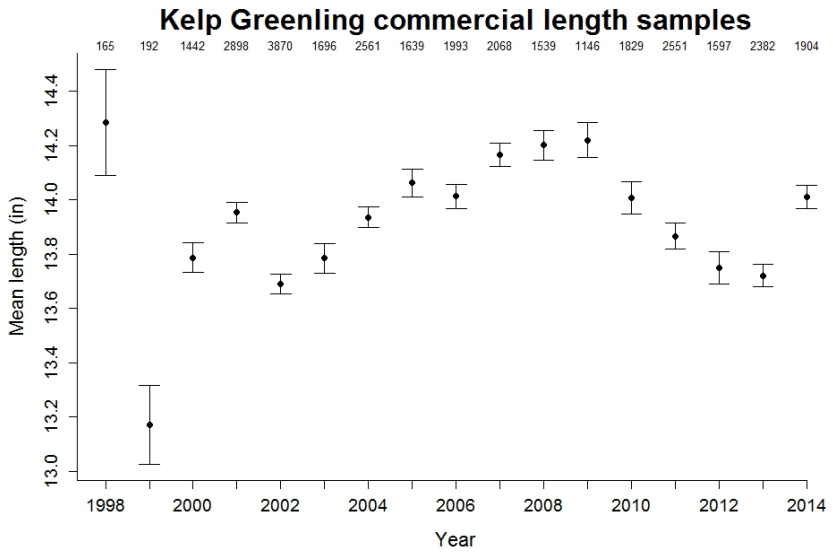

Grass Rockfish commercial weight samples
81 15 44 80 88 29 28 19 15 2 9 13 9
Mean weight (lb)
2.0 2.5 3.0 3.5 4.0
2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014
Year

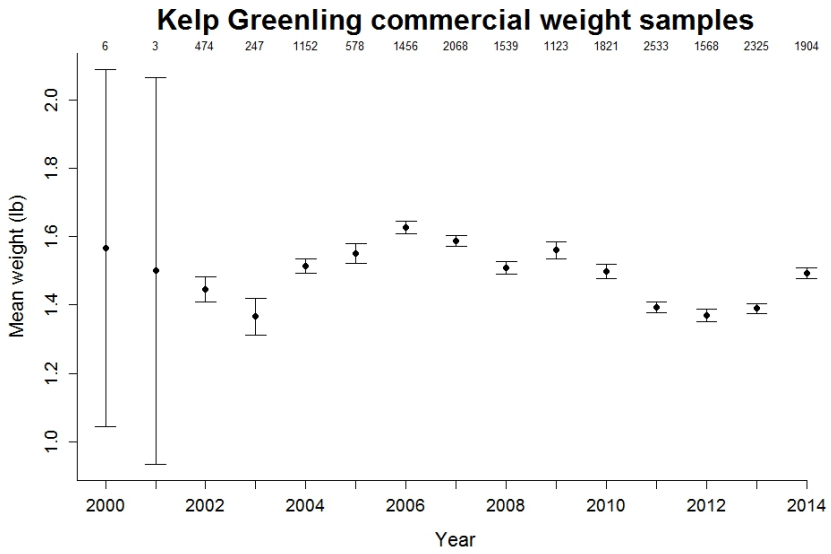

Gopher Rockfish commercial length samples
Mean length (in)
Year

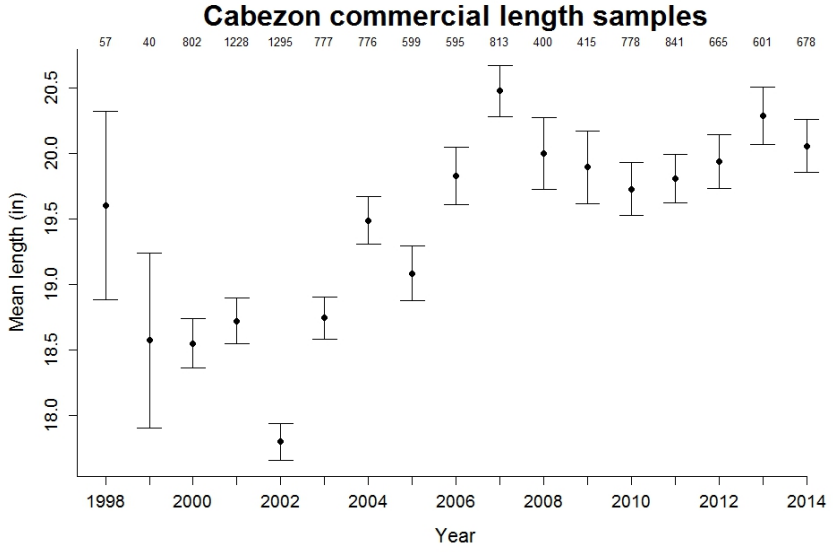

Gopher Rockfish commercial weight samples
Mean weight (lb)
Year

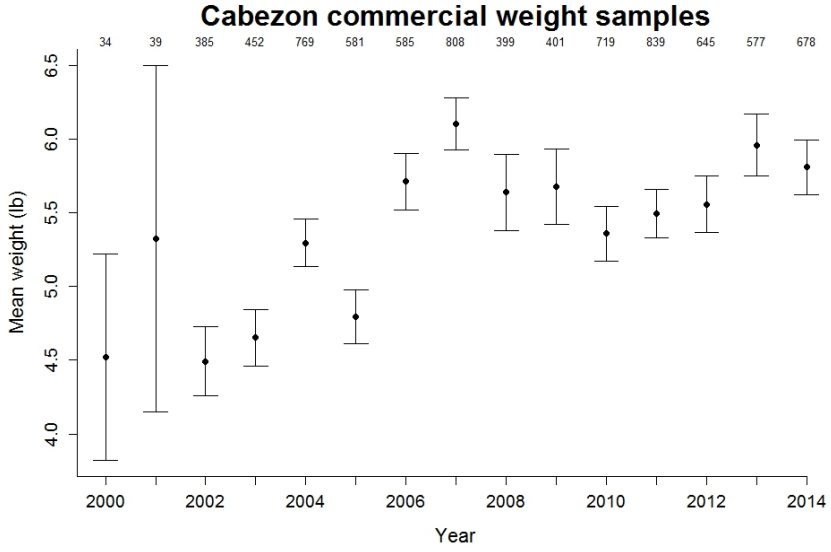

Black and Yellow Rockfish commercial length samples
Mean length (in)
Year

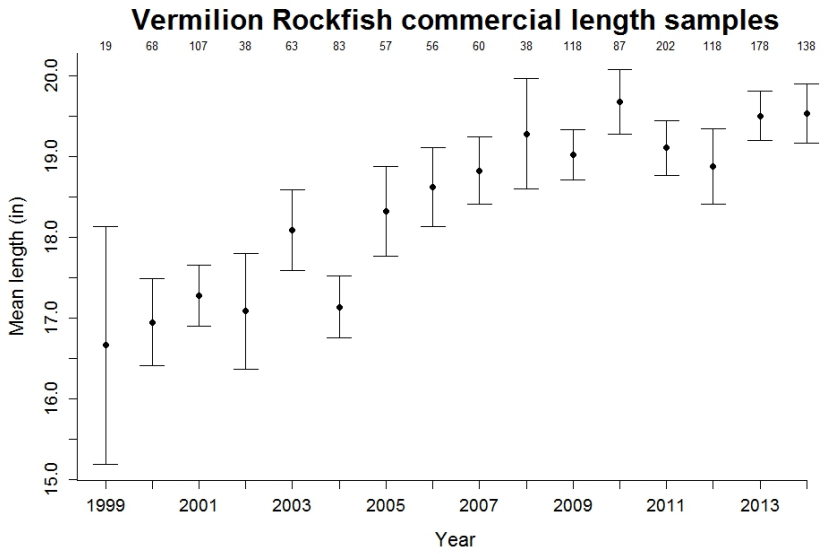

Black and Yellow Rockfish commercial weight samples
Mean weight (lb)
Year

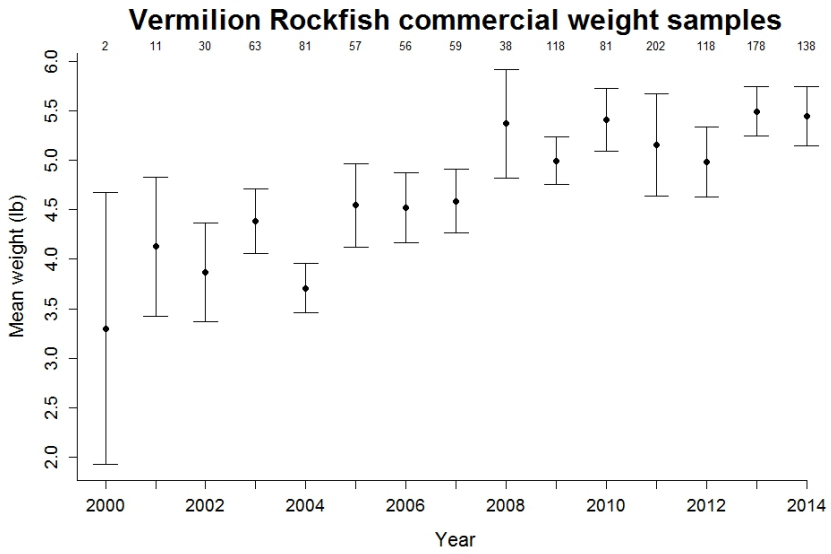

Kelp Greenling commercial length samples
165 192 1442 2898 3870 1696 2561 1639 1993 2068 1539 1146 1829 2551 1597 2382 1904
Mean length (in)
13.0 13.2 13.4 13.6 13.8 14.0 14.2 14.4
1998 2000 2002 2004 2006 2008 2010 2012 2014
Year

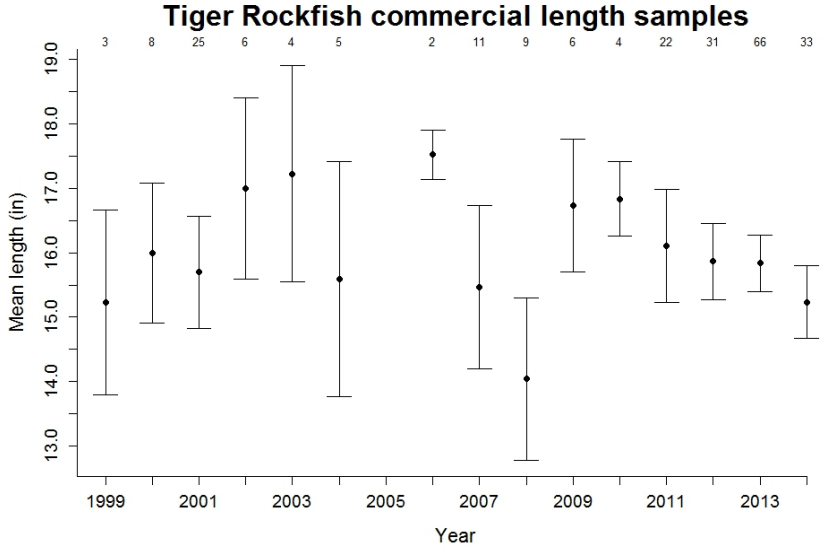

Kelp Greenling commercial weight samples
6 3 474 247 1152 578 1456 2068 1539 1123 1821 2533 1568 2325 1904
Mean weight (lb)
1.0 1.2 1.4 1.6 1.8 2.0
2000 2002 2004 2006 2008 2010 2012 2014
Year

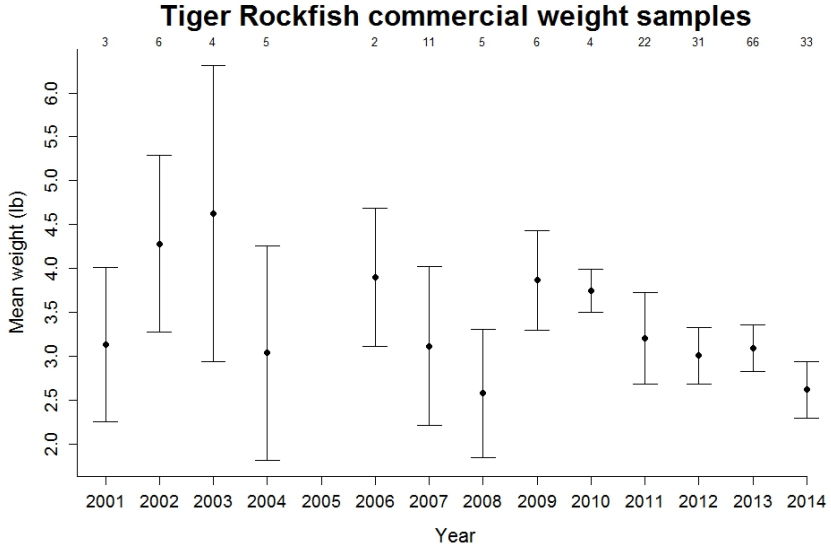

Cabezon commercial length samples
57 40 802 1228 1295 777 776 599 595 813 400 415 778 841 665 601 678
Mean length (in)
18.0 18.5 19.0 19.5 20.0 20.5
1998 2000 2002 2004 2006 2008 2010 2012 2014
Year


Cabezon commercial weight samples
34 39 385 452 769 581 585 808 399 401 719 839 645 577 678
Mean weight (lb)
4.0 4.5 5.0 5.5 6.0 6.5
2000 2002 2004 2006 2008 2010 2012 2014
Year

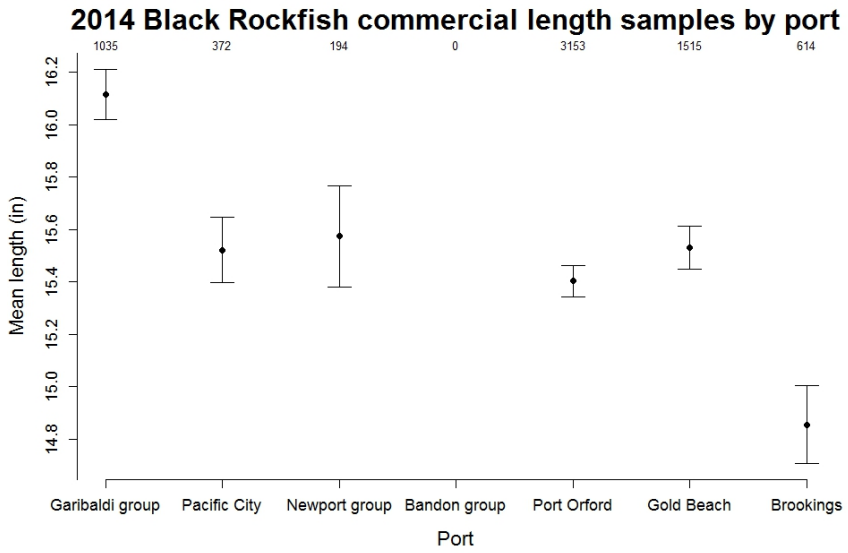

Vermilion Rockfish commercial length samples
19 68 107 38 63 83 57 56 60 38 118 87 202 118 178 138
Mean length (in)
15.0 16.0 17.0 18.0 19.0 20.0
1999 2001 2003 2005 2007 2009 2011 2013
Year

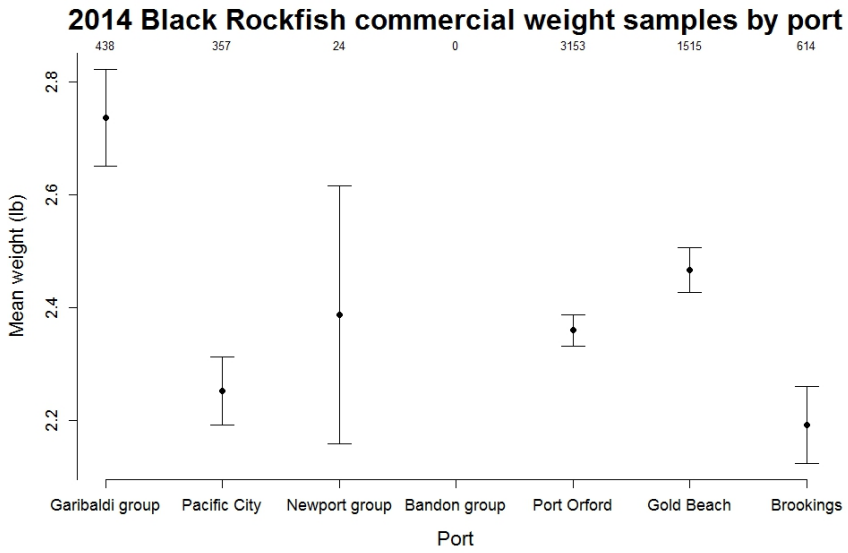

Vermilion Rockfish commercial weight samples
2 11 30 63 81 57 56 59 38 118 81 202 118 178 138
Mean weight (lb)
2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0
2000 2002 2004 2006 2008 2010 2012 2014
Year

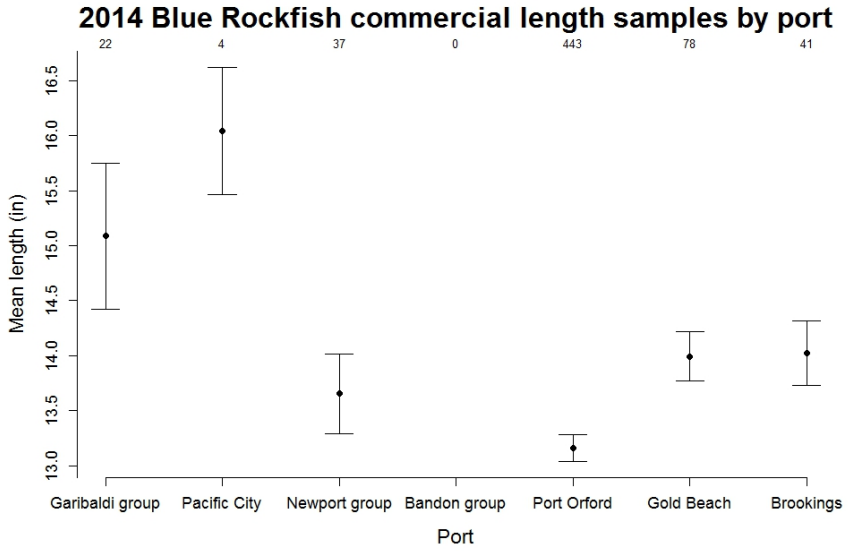

Tiger Rockfish commercial length samples
3 8 25 6 4 5 2 11 9 6 4 22 31 66 33
Mean length (in)
13.0 14.0 15.0 16.0 17.0 18.0 19.0
1999 2001 2003 2005 2007 2009 2011 2013
Year

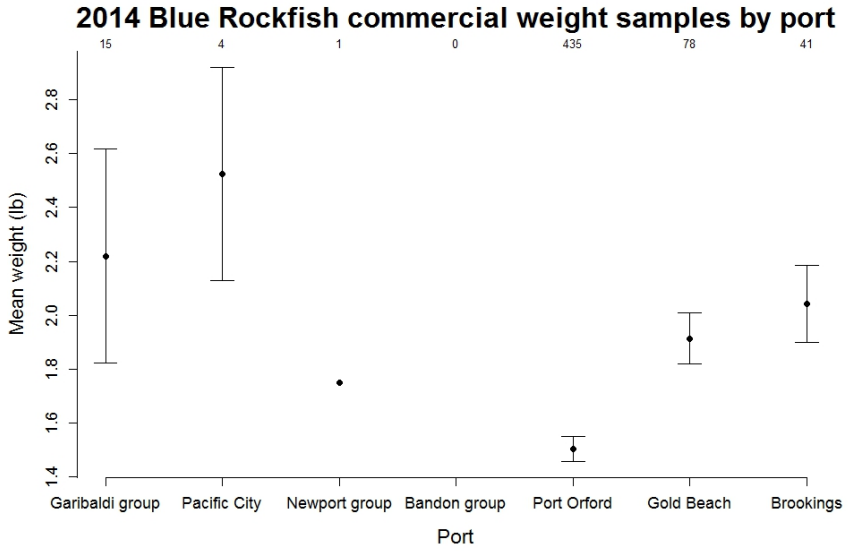

Tiger Rockfish commercial weight samples
3 6 4 5 2 11 5 6 4 22 31 66 33
Mean weight (lb)
2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0
2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014
Year

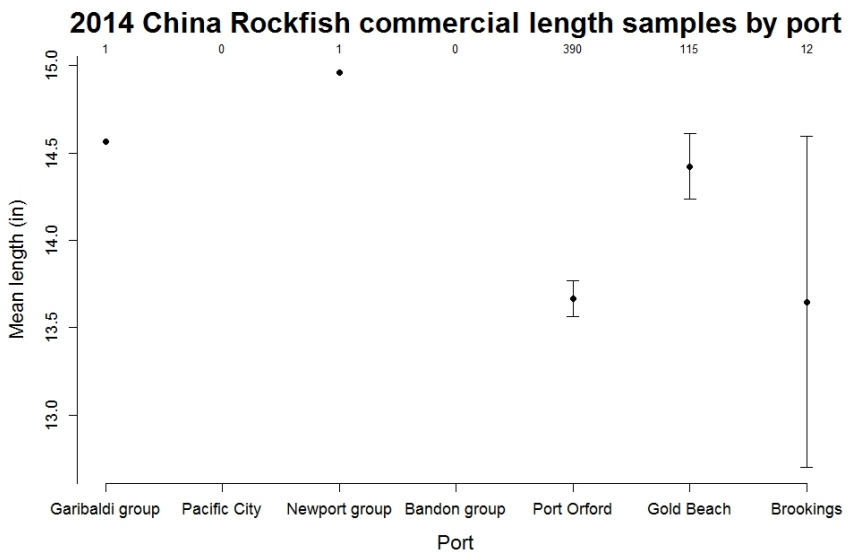
Appendix C. 2014 nearshore species commercial length and weight sample means by port with sample sizes (top) and 95% confidence intervals.

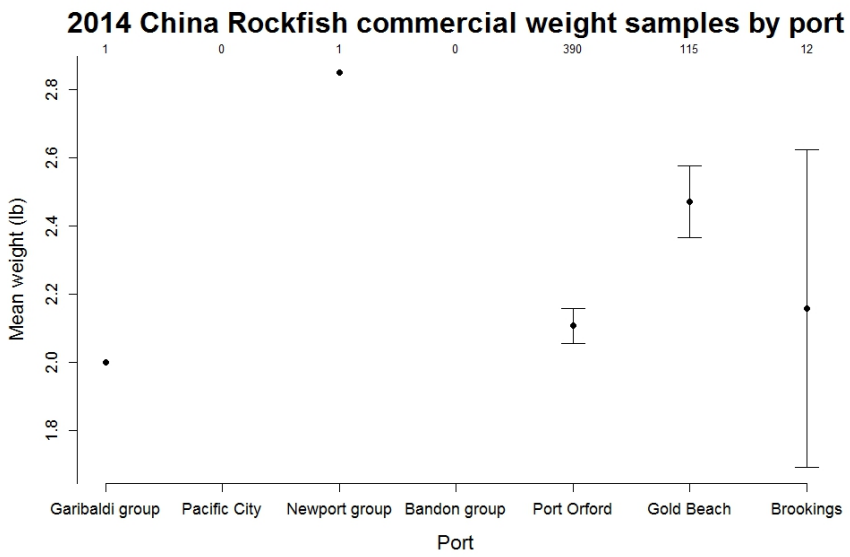


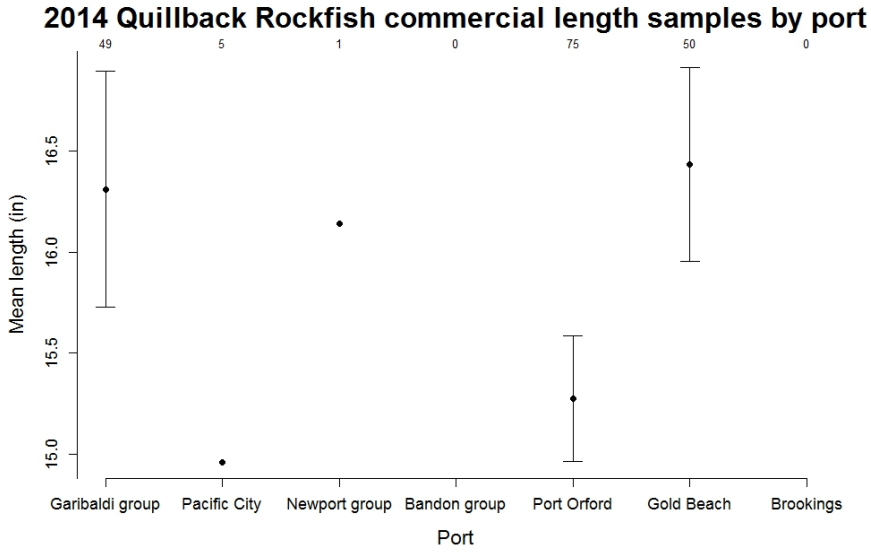


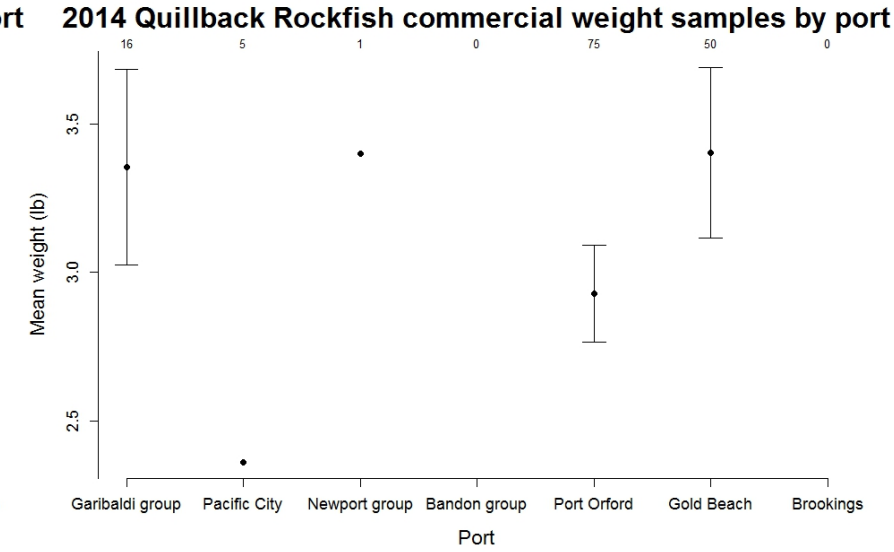


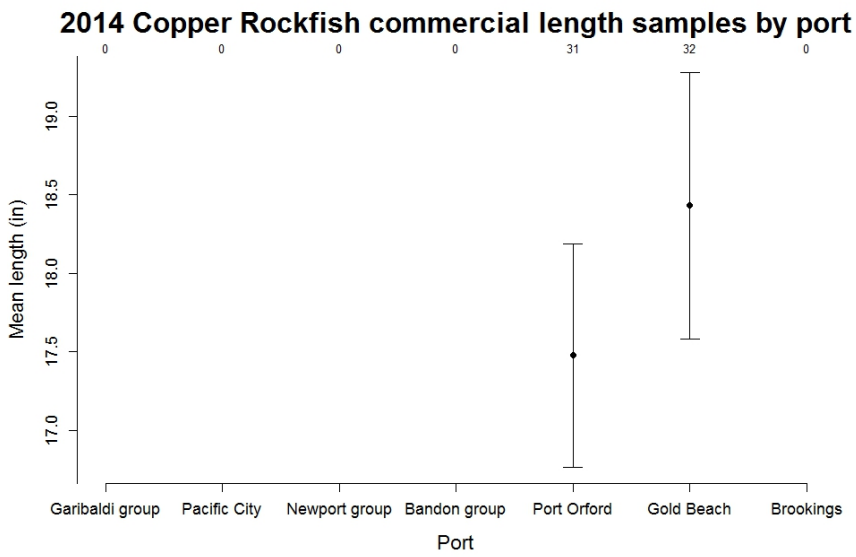


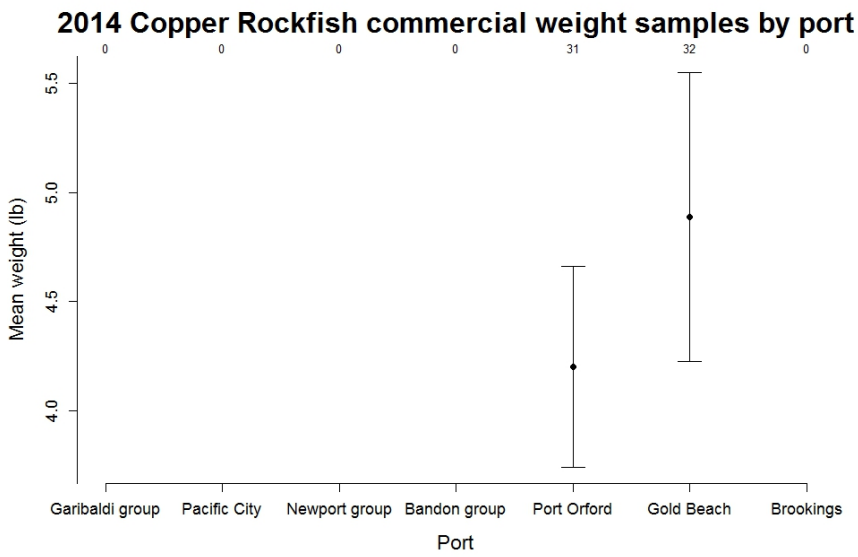

2014 China Rockfish commercial length samples by port
1
0
1
0
390
115
12
Mean length (in)
15.0
14.5
14.0
13.5
13.0
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

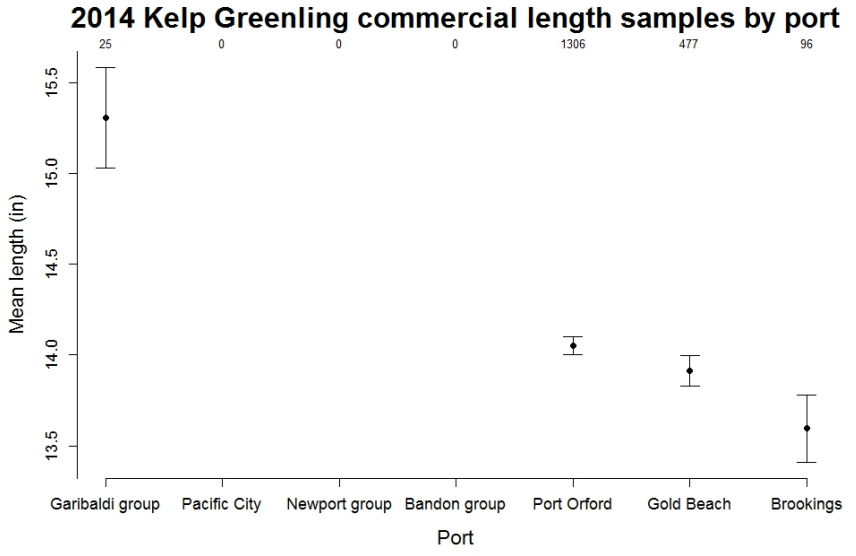

2014 China Rockfish commercial weight samples by port
1
0
1
0
390
115
12
Mean weight (lb)
2.8
2.6
2.4
2.2
2.0
1.8
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

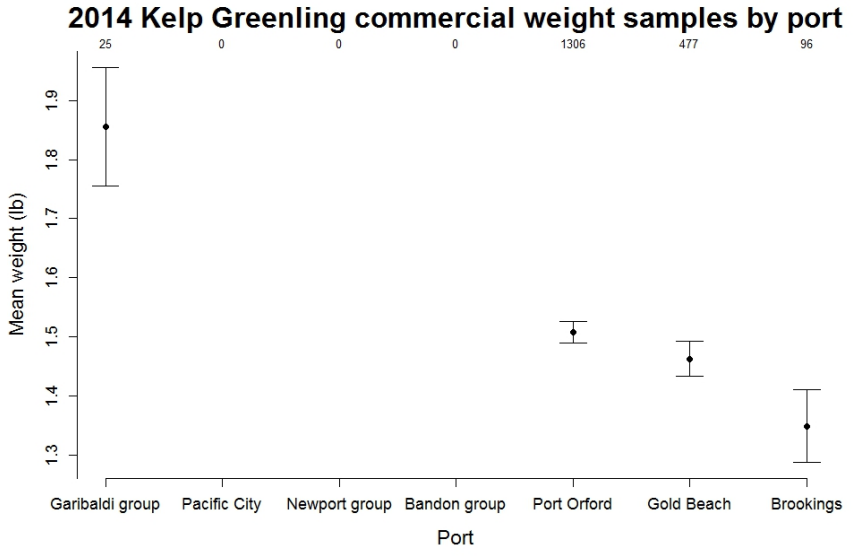

2014 Quillback Rockfish commercial length samples by port
49
5
1
0
75
50
0
Mean length (in)
16.5
16.0
15.5
15.0
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

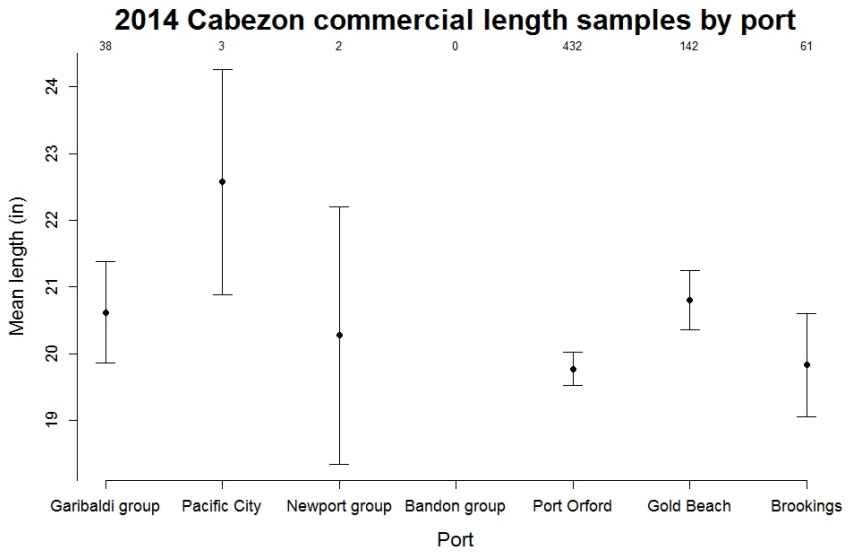

2014 Quillback Rockfish commercial weight samples by port
16
5
1
0
75
50
0
Mean weight (lb)
3.5
3.0
2.5
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

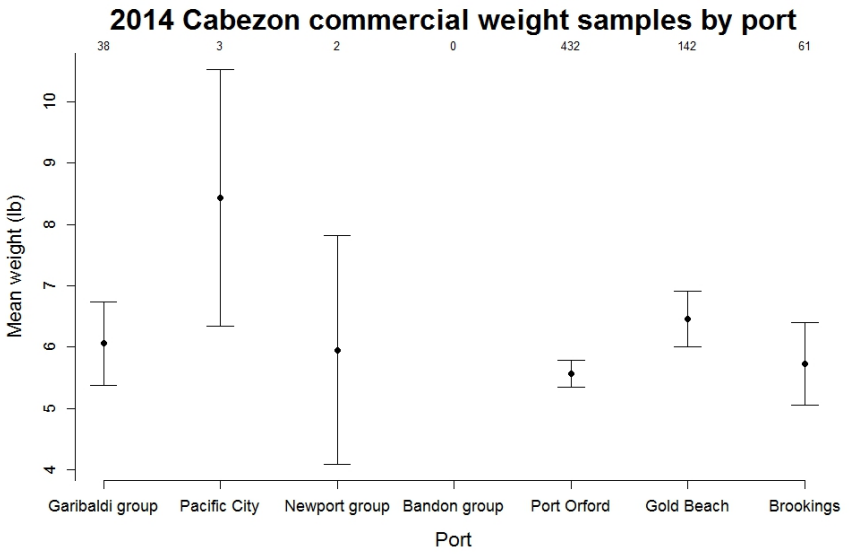

2014 Copper Rockfish commercial length samples by port
0 0 0 0 31 32 0
Mean length (in)
17.0 17.5 18.0 18.5 19.0
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

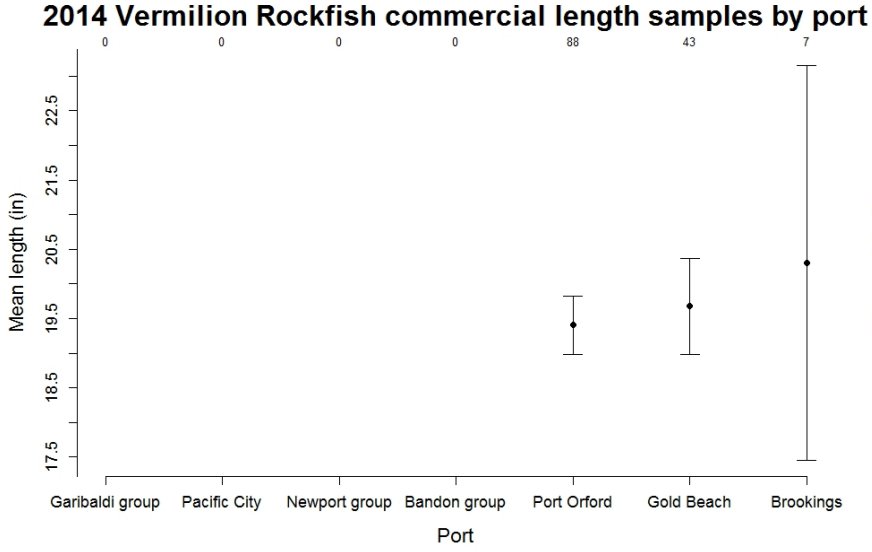

2014 Copper Rockfish commercial weight samples by port
0 0 0 0 31 32 0
Mean weight (lb)
4.0 4.5 5.0 5.5
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

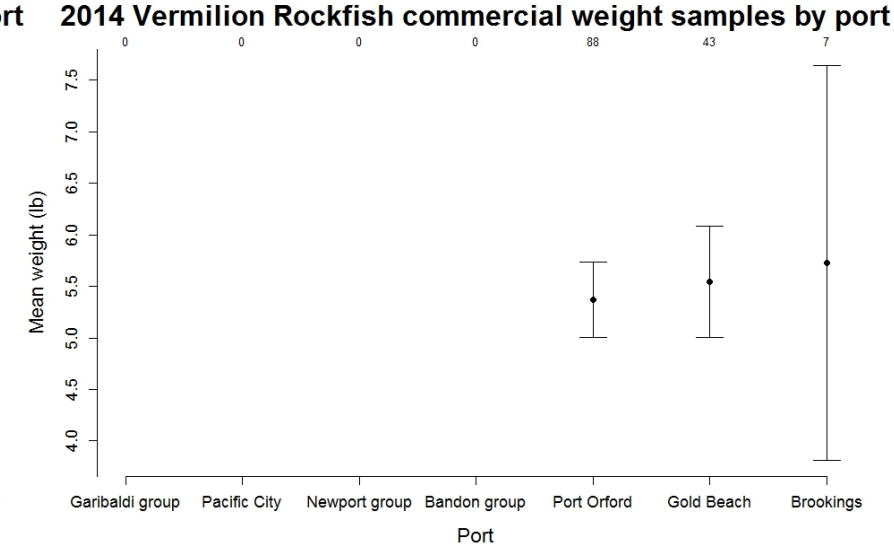

2014 Kelp Greenling commercial length samples by port
25 0 0 0 1306 477 96
Mean length (in)
13.5 14.0 14.5 15.0 15.5
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

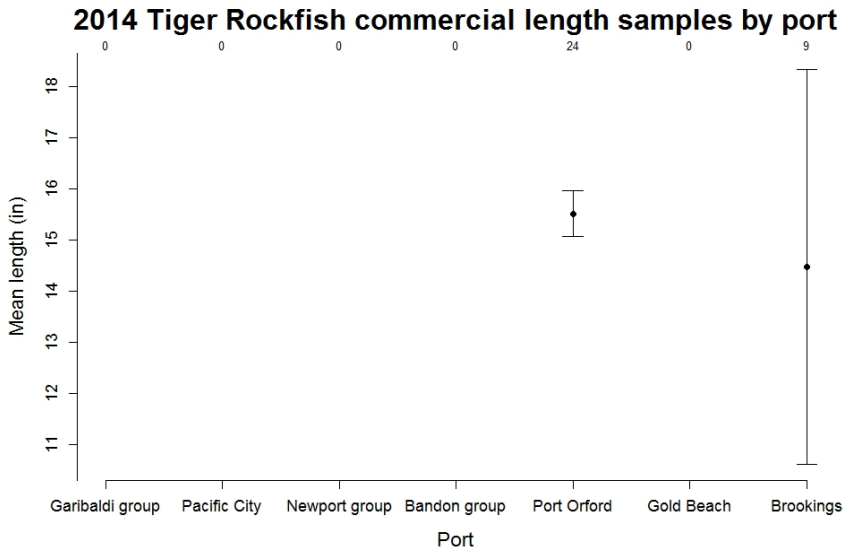

2014 Kelp Greenling commercial weight samples by port
25 0 0 0 1306 477 96
Mean weight (lb)
1.3 1.4 1.5 1.6 1.7 1.8 1.9
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

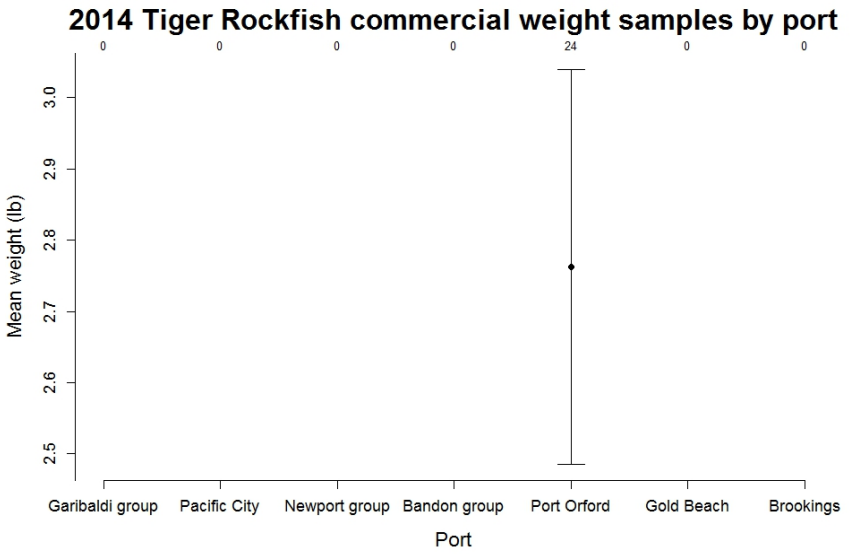

2014 Cabezon commercial length samples by port
38
3
2
0
432
142
61
Mean length (in)
19
20
21
22
23
24
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port


2014 Cabezon commercial weight samples by port
38
3
2
0
432
142
61
Mean weight (lb)
4
5
6
7
8
9
10
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

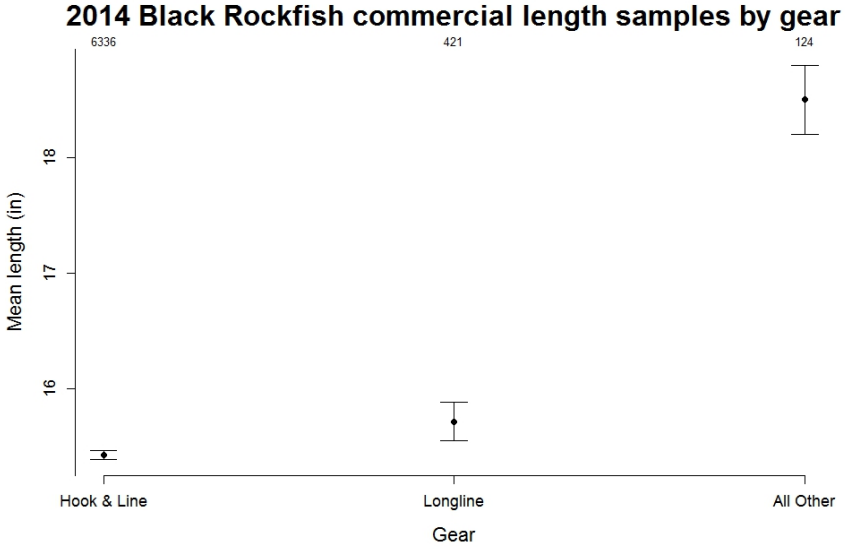

2014 Vermilion Rockfish commercial length samples by port
0
0
0
0
88
43
7
Mean length (in)
17.5
18.5
19.5
20.5
21.5
22.5
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

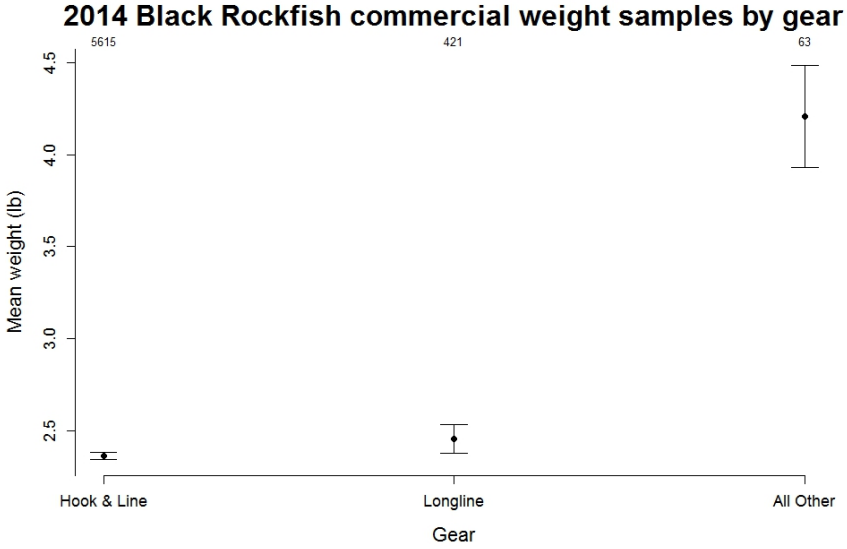

2014 Vermilion Rockfish commercial weight samples by port
0
0
0
0
88
43
7
Mean weight (lb)
4.0
4.5
5.0
5.5
6.0
6.5
7.0
7.5
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

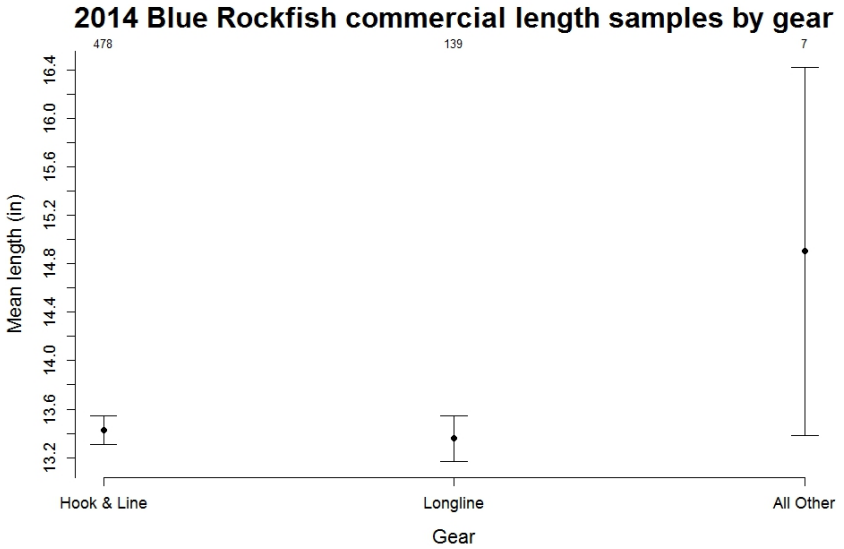

2014 Tiger Rockfish commercial length samples by port
0
0
0
0
24
0
9
Mean length (in)
11
12
13
14
15
16
17
18
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

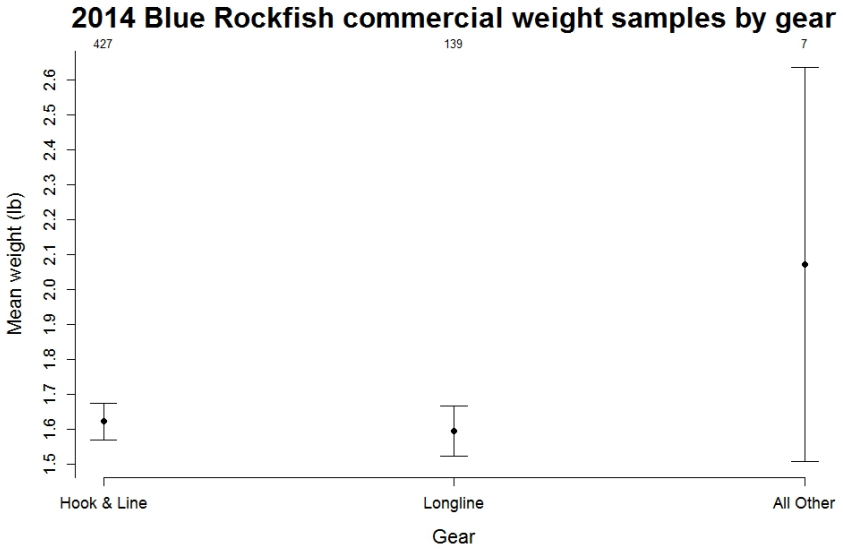

2014 Tiger Rockfish commercial weight samples by port
0
0
0
0
24
0
0
Mean weight (lb)
2.5
2.6
2.7
2.8
2.9
3.0
Garibaldi group
Pacific City
Newport group
Bandon group
Port Orford
Gold Beach
Brookings
Port

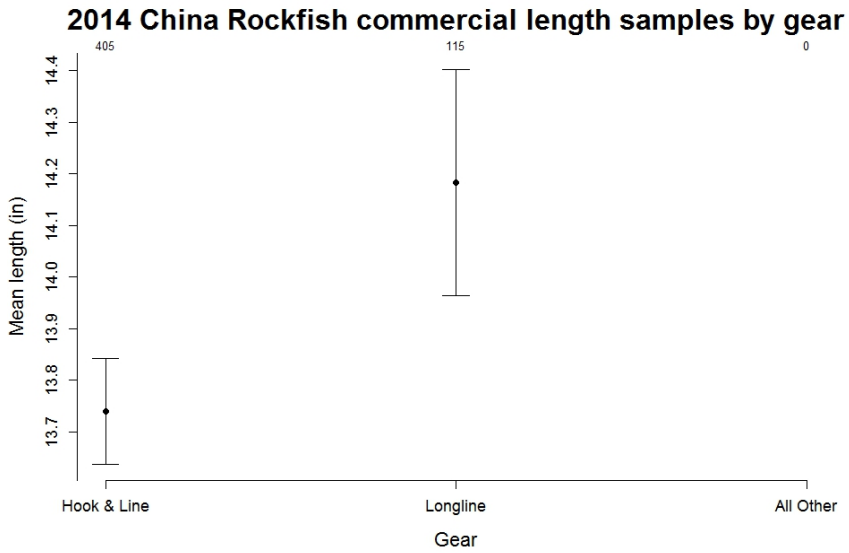
Appendix D. 2014 nearshore species commercial length and weight sample means by gear type with sample sizes (top) and 95% confidence intervals.

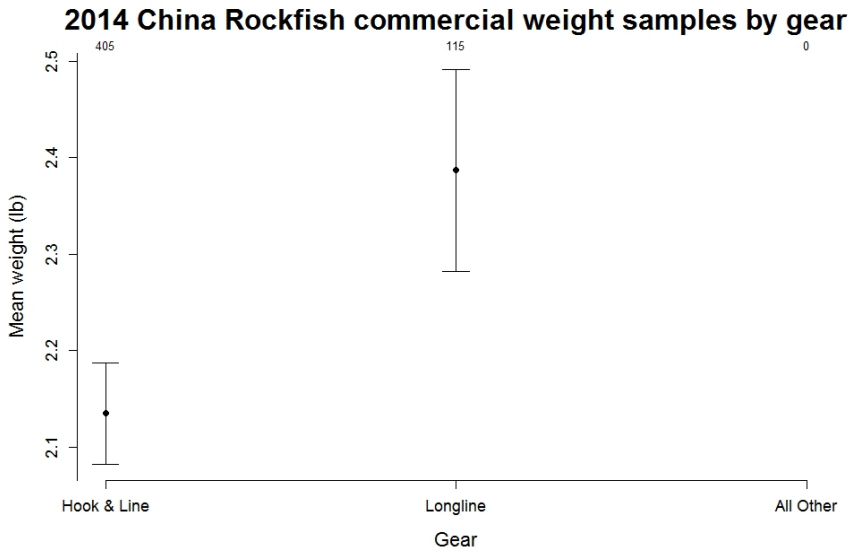


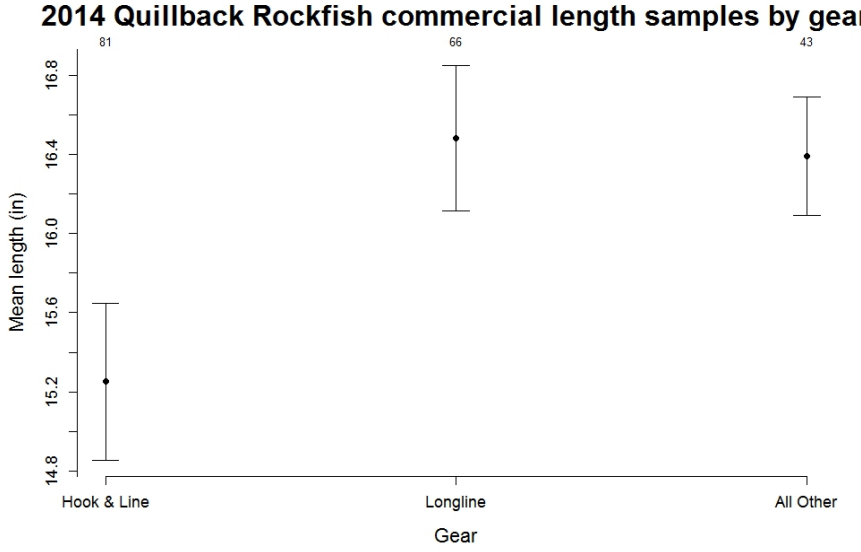


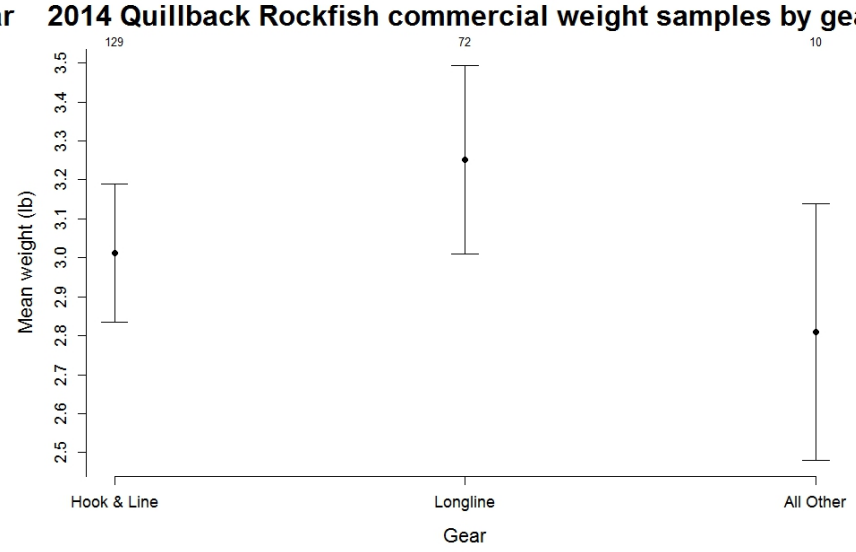


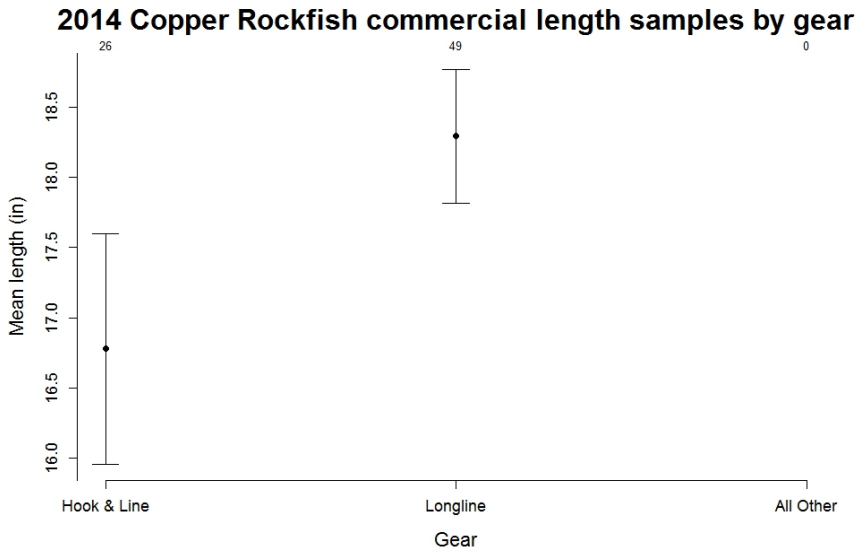


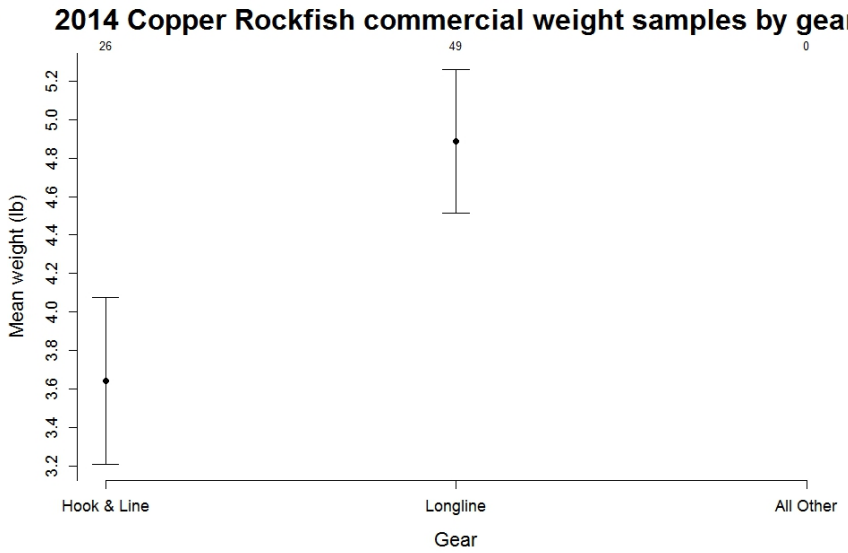

2014 China Rockfish commercial length samples by gear
405
115
0
Mean length (in)
13.7
13.8
13.9
14.0
14.1
14.2
14.3
14.4
Hook & Line
Longline
All Other
Gear

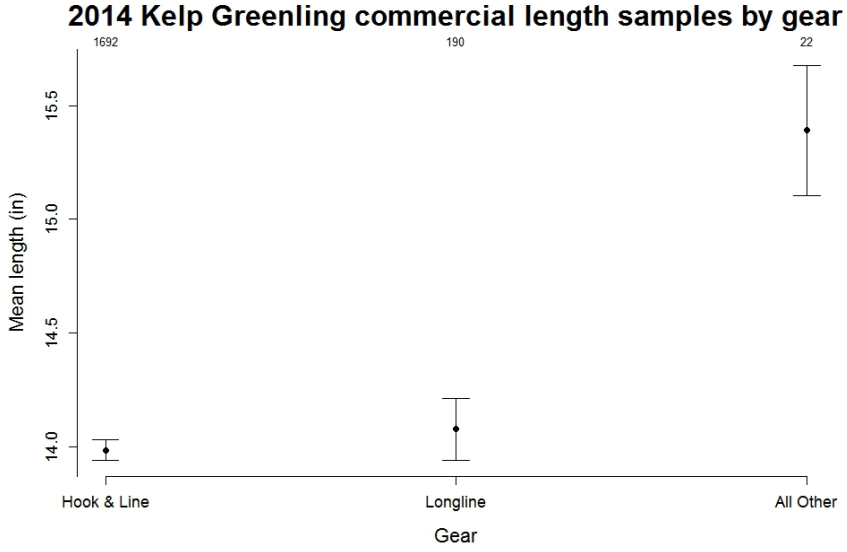

2014 China Rockfish commercial weight samples by gear
405
115
0
Mean weight (lb)
2.1
2.2
2.3
2.4
2.5
Hook & Line
Longline
All Other
Gear

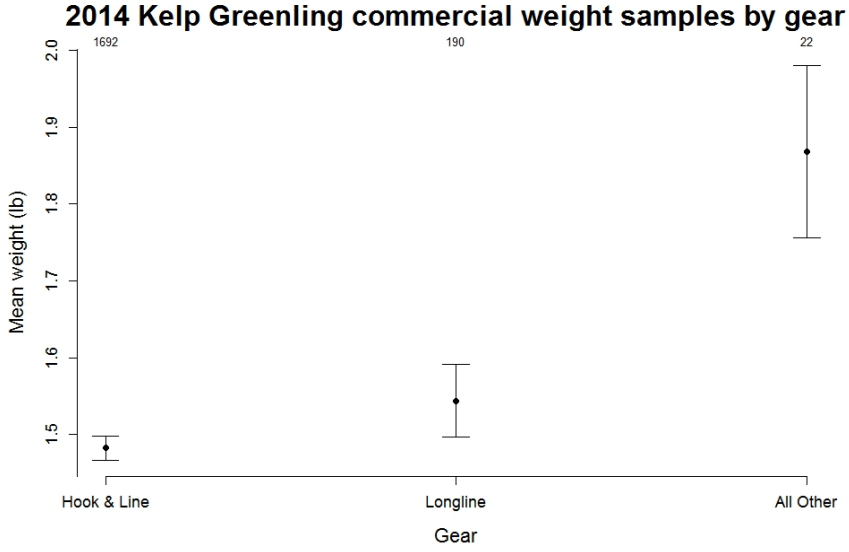

2014 Quillback Rockfish commercial length samples by gear
81
66
43
Mean length (in)
14.8
15.2
15.6
16.0
16.4
16.8
Hook & Line
Longline
All Other
Gear

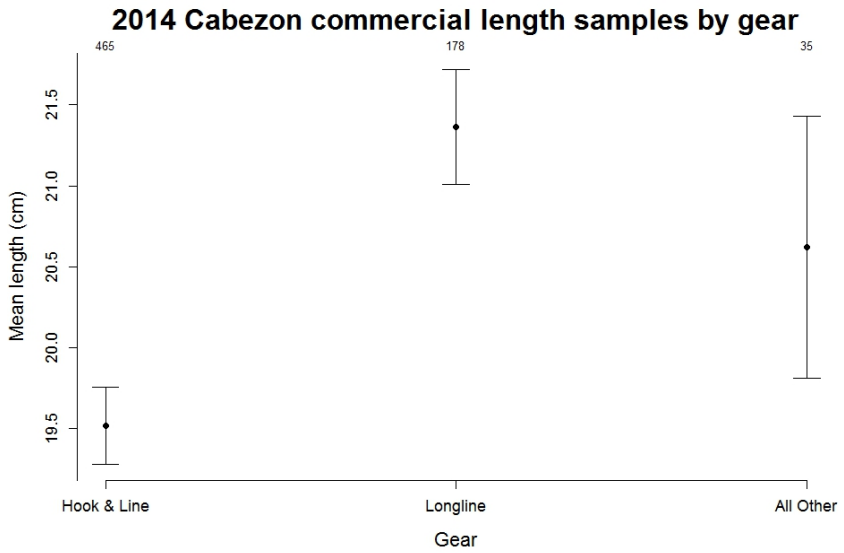

2014 Quillback Rockfish commercial weight samples by gear
129
72
10
Mean weight (lb)
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
Hook & Line
Longline
All Other
Gear

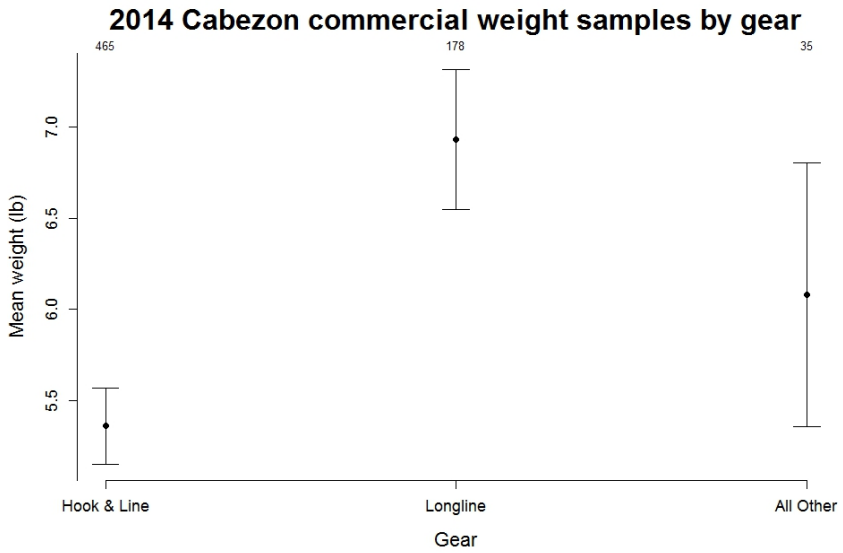

2014 Copper Rockfish commercial length samples by gear
26
49
0
Mean length (in)
16.0
16.5
17.0
17.5
18.0
18.5
Hook & Line
Longline
All Other
Gear

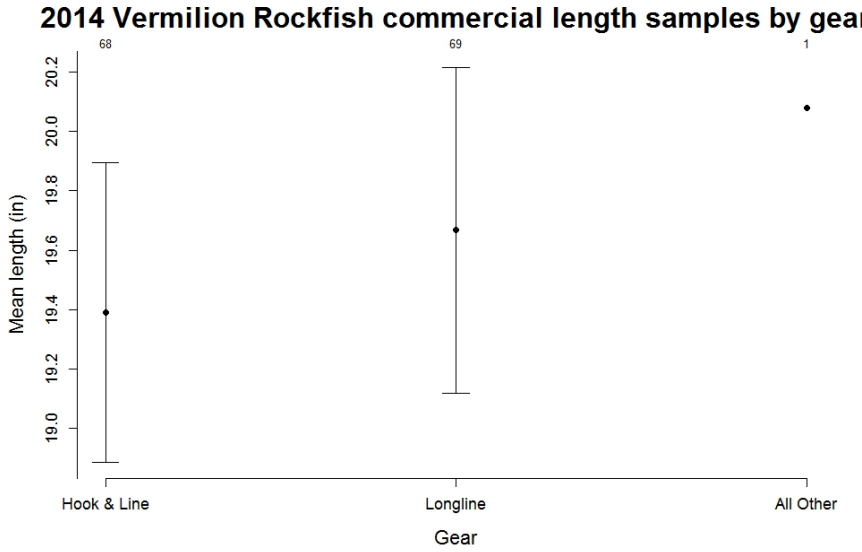

2014 Copper Rockfish commercial weight samples by gear
26
49
0
Mean weight (lb)
3.2
3.4
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
Hook & Line
Longline
All Other
Gear

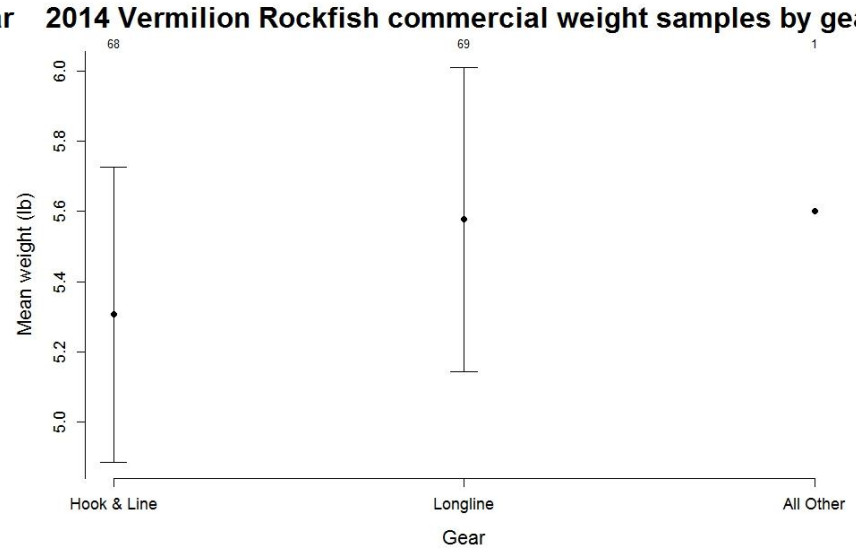

2014 Kelp Greenling commercial length samples by gear
1692
190
22
Mean length (in)
14.0
14.5
15.0
15.5
Hook & Line
Longline
All Other
Gear

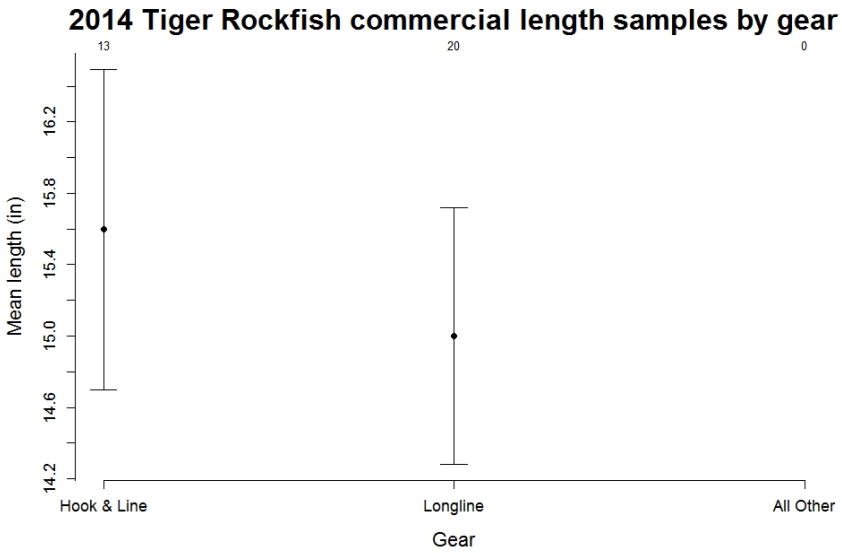

2014 Kelp Greenling commercial weight samples by gear
1692
190
22
Mean weight (lb)
1.5
1.6
1.7
1.8
1.9
2.0
Hook & Line
Longline
All Other
Gear

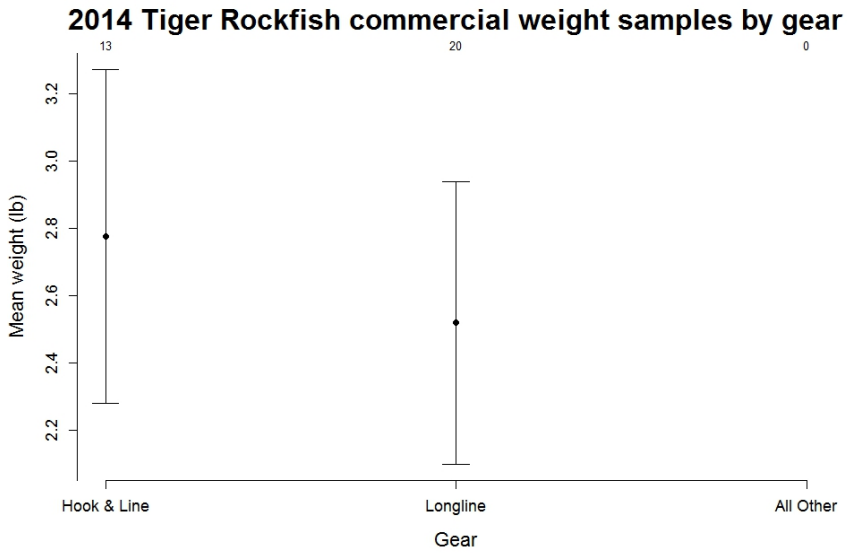

2014 Cabezon commercial length samples by gear
465
178
35
Mean length (cm)
19.5
20.0
20.5
21.0
21.5
Hook & Line
Longline
All Other
Gear


2014 Cabezon commercial weight samples by gear
465
178
35
Mean weight (lb)
5.5
6.0
6.5
7.0
Hook & Line
Longline
All Other
Gear


2014 Vermilion Rockfish commercial length samples by gear
68
69
1
Mean length (in)
19.0
19.2
19.4
19.6
19.8
20.0
20.2
Hook & Line
Longline
All Other
Gear


2014 Vermilion Rockfish commercial weight samples by gear
68
69
1
Mean weight (lb)
5.0
5.2
5.4
5.6
5.8
6.0
Hook & Line
Longline
All Other
Gear


2014 Tiger Rockfish commercial length samples by gear
13
20
0
Mean length (in)
14.2
14.6
15.0
15.4
15.8
16.2
Hook & Line
Longline
All Other
Gear


2014 Tiger Rockfish commercial weight samples by gear
13
20
0
Mean weight (lb)
2.2
2.4
2.6
2.8
3.0
3.2
Hook & Line
Longline
All Other
Gear