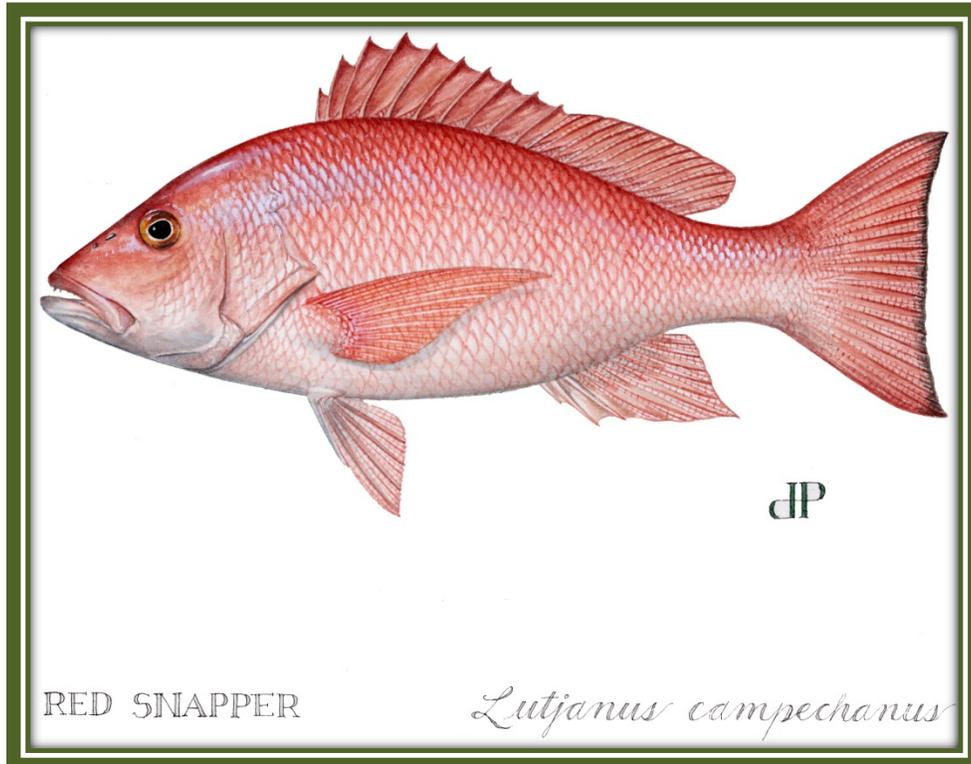


2013 Gulf of Mexico Red Snapper Individual Fishing Quota Annual Report



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Executive Summary

The 2013 Red Snapper Annual Report builds upon the information summarized in the past annual reports and is intended to provide an overview of data and information collected since the start of the IFQ program. This report is not intended to be a full comprehensive assessment of the program.

Consolidation of shareholders and vessels continued, although the total number of participants in the program has remained similar for the past four years. Accounts without shares increased to 30% and accounts without permits increased to 31%, both the greatest since the start of the program. The percentage of shares held by accounts without permits also increased to 24% of all shares. While the percentage of accounts landing allocation has remained the same for the past four years, the number of accounts landing red snapper but not holding shares increased to 39%. For accounts only trading allocation, the majority of accounts held both shares and permits. Fishing effort was similar to past years in days per trip, number of trips, and days away, although average pounds per trip has increased. Effort is still considerably different from pre-IFQ, which had on average 2 less days per trip and ~460 less pounds per trip. Discards were highest for longline vessels and vessels fishing off the Florida peninsula.

Price reporting improved for all price collections, although further improvement is still needed for share and allocation prices (51% and 39% reasonable prices). The inclusion of transfer reasons for share and allocation transactions helped to explain some of the low prices. Share and allocation prices remained similar to the previous year, with shares at \$36/lb and allocation at \$3/lb. Ex-vessel prices decreased slightly in 2013 to \$4.46/lb, and this decrease was influenced by the large quota increase in the last quarter of the year. The two quota increases in 2013, particularly the large increase late in the year had an impact on landings as well as allocation and ex-vessel prices, although not on the amount of quota landed. Allocation prices in November and December decreased by more than \$0.50/lb and were the lowest values for the year. In fact, the last month that had prices this low occurred in June of 2008. Ex-vessel prices decreased by \$1/lb from September to November/December. After adjusting for inflation, these were the lowest monthly ex-vessel prices since program inception. The timing and size of quota releases appears to have a considerable economic effect on the IFQ fishery.

Future efforts are ongoing to modify the program to address both administrative rule changes and issues identified during the 5-year review of the IFQ program. An administrative rule is currently in progress to allow more flexibility in certain regulations, while the Gulf of Mexico Fishery Management Council is beginning development of an amendment to address suggested changes to the IFQ program based on the 5-year review and public input.

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ABBREVIATIONS

Abbreviation	Description
DWH	Deepwater Horizon (oil spill)
Gulf Council	Gulf of Mexico Fishery Management Council
Gulf	Gulf of Mexico
GT-IFQ	Grouper-Tilefish Individual Fishing Quota
IFQ	Individual Fishing Quota
JEA	Joint enforcement agreement
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
NMFS	National Marine Fisheries Service
OLE	Office of Law Enforcement
RS-IFQ	Red snapper Individual Fishing Quota
SERO	Southeast Regional Office, NMFS
SEFSC	Southeast Fisheries Science Center, NMFS
TL	Total length
USCG	United States Coast Guard
VMS	Vessel Monitoring system

Red Snapper IFQ Program Overview and Regulations

Program Overview

A history of red snapper management and implementation of the Red Snapper Individual Fishing Quota (RS-IFQ) program is provided in Appendices 1-2. The RS-IFQ program is a single-species, single-share category program where participants use an online account for all transactions (share and allocation transfers, landings, and cost recovery fees). For the first five years of the program (2007-2011), anyone who possessed a valid Gulf of Mexico (Gulf) reef fish dealer permit or Gulf commercial reef fish permit was eligible to participate in the program. Beginning January 1, 2012, all U.S. citizens and permanent resident aliens were eligible to obtain a RS-IFQ account to purchase red snapper shares and allocation. Only accounts with allocation and a valid Gulf commercial reef fish vessel permit can legally harvest red snapper.

There are three main account types in the RS-IFQ system: shareholder, vessel, and dealer accounts. All accounts are based on a unique entity (single or combination of individuals and/or business) that held either a Gulf reef fish dealer or Gulf commercial reef fish permit. Prior to January 1, 2012, shareholder accounts that did not have a valid Gulf commercial reef fish permit could maintain or decrease their shares and allocation, but could not obtain additional shares or allocation nor harvest red snapper. After 2012, all accounts can both increase or decrease their share and allocation holdings, but only those with an associated Gulf commercial reef fish permit can harvest red snapper. Shareholder accounts may hold shares and allocation or just hold allocation. A list of all accounts that hold shares is available through the National Marine Fisheries Service (NMFS) Southeast Regional Office (SERO) website at: http://sero.nmfs.noaa.gov/operations_management_information_services/constituency_services_branch/freedom_of_information_act/common_foia/IFQShareholders.htm. Vessel accounts, which belong to shareholder accounts, only hold allocation that is debited from the account through landing transactions. There may be multiple vessels associated with one shareholder account. Dealer accounts are assigned to a unique entity that has a valid Gulf reef fish dealer permit, and functions are limited to completing landing transactions and paying cost recovery fees.

Shares are a percentage of the red snapper commercial quota, while allocation refers to the actual poundage that is possessed, landed, or sold during a given calendar year. The RS-IFQ program tracks landings in pounds of gutted weight; therefore, throughout this report allocation is in pounds of gutted weight (gw). Gutted pounds can be converted to whole pounds by multiplying by 1.11. At the beginning of each year, allocation is distributed based on the annual quota and the share percentage held by a RS-IFQ shareholder account. Allocation can then be used to harvest red snapper or transferred to another valid shareholder account. Adjustments in quota can occur as a result of new assessments or through the reallocation of quota between fishing sectors. Adjustments in a quota are then distributed proportionately among shareholder accounts based on the percentage of shares each account holds at the time of the adjustment. If a RS-IFQ shareholder's Gulf commercial reef fish permit has been permanently revoked, at the beginning of the next fishing year, the Regional Administrator for NMFS will redistribute the shares held by that shareholder proportionately among remaining eligible shareholders based upon the amount of shares each held just prior to the redistribution.

The RS-IFQ program has a built-in flexibility measure to allow a once-per-year allocation overage for any RS-IFQ account that owns shares. For these accounts, a vessel can land once during the year 10% more than their remaining allocation on the vessel. NMFS deducts this overage from the shareholder's allocation in the following fishing year. Because overages need to be deducted in the following year, RS-IFQ accounts without shares cannot land an excess of their remaining allocation and RS-IFQ accounts with shares are prohibited from selling shares that would reduce the account's shares fewer than the amount needed to repay the overage in the following year.

Program Objectives

The primary objectives of the program are to reduce overcapacity and mitigate derby fishing conditions. Anticipated benefits of the program include: increased market stability; elimination of fishing season closures; increased flexibility for fishing operations; cost-effective and enforceable management of the red snapper commercial sector; improved safety at sea; and balancing social, economic, and biological benefits from the red snapper commercial sector. Additionally, the program is intended to provide direct and indirect biological benefits to red snapper and other marine resources by eliminating quota overages and reducing bycatch and discard mortality. The social, economic, and biological benefits collectively are intended to assist NMFS and the Gulf of Mexico Fishery Management Council (Gulf Council) in preventing overfishing and rebuilding the Gulf red snapper population through the stewardship aspects of the RS-IFQ program.

Program Regulations

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires fishery managers to ensure that no one catch share participant acquires an excessive share of the quota. The RS-IFQ program is monitored to prevent an individual entity from obtaining shares in excess of the established share cap. The RS-IFQ program share cap is 6.0203%. The share cap was based on the maximum RS-IFQ share issued to a person, business, or other entity at the time of initial apportionment. There is no allocation cap for red snapper. As of January 1, 2012, any RS-IFQ account may trade (increase or decrease holdings) red snapper shares and allocation, regardless of commercial reef fish permit status. There are no fees associated with any share or allocation transfer.

When harvesting red snapper, vessels are required to have a Gulf commercial reef fish permit, and to hail out before leaving port. While at-sea, vessels are monitored using vessel monitoring systems (VMS). When returning to port, vessels landing red snapper must provide a landing notification indicating the time and location of landing, the intended dealer, and the estimated pounds landed. Sufficient allocation must be in the vessel account at the time of landing. Landing may occur at any time, but fish may not be offloaded between 6 p.m. and 6 a.m. A landing transaction report is completed by the IFQ dealer and validated by the fisherman. The landing transaction includes the date, time, and location of transaction; weight and actual ex-vessel value of fish landed and sold; and the identity of the shareholder account, vessel, and dealer. For a summary of in-season reported red snapper landings, go to: <https://ifq.sero.nmfs.noaa.gov>. All landings data are updated in a real-time basis as landing transactions are processed.

NMFS monitors the economic performance of the fleet by collecting share, allocation, and ex-vessel prices. Ex-vessel prices are the prices paid by a dealer per pound of fish before any deductions are made for transferred (leased) allocation and goods and/or services (e.g., bait, ice, fuel, repairs, machinery replacement, etc.). All RS-IFQ fishermen are charged a cost recovery fee to recover costs required to administer, manage, and enforce the RS-IFQ program. The cost recovery fee is 3% of the ex-vessel value of the landed fish, and may be re-evaluated and changed if costs of administering and enforcing the program are less than costs recovered. RS-IFQ dealers are responsible for collecting the cost recovery fee from fishermen at the time of each sales transaction and submitting fees to NMFS on a quarterly basis.

Complete regulations governing the RS-IFQ program can be found at 50 CFR 622.16 (<http://ecfr.gpoaccess.gov>). The RS-IFQ program can be accessed through the following website: <https://ifq.sero.nmfs.noaa.gov/>. Important information regarding the RS-IFQ program is available for download on the website and provides updated information regarding the program's components and regulations.

Program Updates

In 2013, there were only a few changes made to the IFQ program. Starting in January 2013, a transfer reason must be selected by the transferor ("seller") for all share and allocation transfers. There are seven transfer reasons that can be selected by the transferor: sale to another shareholder account, transfer to a related account, bartered for shares, bartered for allocation, gift, package deal, or no comment. Furthermore, 2013 marks the first full year where share transfer prices were collected for both the transferor and transferee ("buyer"). In addition, a Share Transfer Price Reporting survey was sent mid-year to shareholders. The survey resulted from an evaluation of past share transactions where information was incomplete or possibly incorrect. The survey asked both the transferor and transferee of the share transactions to provide a reason for the share transfer, indicate if the submitted price was correct, and submit a new price if the past price was incorrect. Results from the survey are currently being analyzed. Additional changes to the IFQ program included the ability to enter or update trip ticket numbers after a landing transaction has been processed and the creation of two allocation ledgers.

2013 Red Snapper IFQ Fishing Season

Program Participants

Shareholders

The number of accounts holding red snapper shares has decreased by 28% since the start of the program (Table 1). Red snapper shareholders may transfer all their red snapper shares for a variety of reasons: exiting the program, transferring to a new IFQ account due to a permit change¹, or managing related IFQ accounts from one account². The greatest consolidation of shares occurred within the first year of the program (Table 1). The greatest decrease has occurred in accounts holding small shares (< 0.05%), however, these accounts still comprise the vast majority of the accounts with red snapper shares. Despite an overall decrease in the number of shareholders, each year there were new red snapper shareholders. Similar to accounts transferring red snapper shares, new accounts may be opened for a variety of reasons: entering the program, transferring to a related account due to a permit name change, or managing related accounts from one account^{1,2}. New accounts opened in 2010 and 2011 were in part influenced by the start of the GT-IFQ program. Many fishermen participate in both the RS-IFQ and GT-IFQ programs and exchanges in shares or allocation between programs occur, although individual share transfers can only be tracked by share category. In 2013, 1.35% of shares were transferred to new accounts, which is less than the previous year. Further investigation into these accounts, determined that nine of the accounts received some or all their shares from related accounts. Three of these new accounts were considered ‘public participants’, that is, accounts that were opened after 2012 that do not have an associated Gulf commercial reef fish permit.

Table 1: Accounts by shareholding size¹

Year	Small <0.05%	Medium 0.05-1.4999%	Large ≥ 1.5%	Total
Initial	415	125	14	554
2007	368	112	17	497
2008	346	111	17	474
2009	313	108	18	439
2010	297	109	19	425
2011	284	116	18	418
2012	273	117	17	407
2013	261	120	18	399

¹ Except for “Initial” all numbers were based on the last day of the year. “Initial” numbers were at the start of the program (1/1/2007).

Table 2: New shareholder accounts¹

Year	Small <0.05%	Medium 0.05-1.4999%	Large ≥ 1.5%	Total	Total %
2007	8	2	0	10	0.5706
2008	7	3	0	10	0.7835
2009	5	1	0	6	0.4221
2010	19	8	1	28	4.4099
2011	14	8	0	22	1.5064
2012	15	11	1	27	5.8570
2013	12	7	0	19	1.3515

¹ New shareholder accounts are account that did not own shares at the start of the year, but obtained share within the year.

¹ IFQ accounts are established based on the name(s) of the Gulf commercial reef fish permit holder. If the name(s) of the permit holder change (e.g., adding/removing a spouse), a new IFQ account must be established to link to the permit.

² Some IFQ participants are associated with more than one IFQ account (e.g., John Smith vs. John and Jane Smith, incorporating each vessel under a different company name), and therefore may shift all their shareholding to one account for ease of management.

Prior to 2012, a valid Gulf commercial reef fish permit was initially required to open a RS-IFQ account, but the account could continue to hold shares and allocation without maintaining a Gulf commercial reef fish permit. These accounts could neither acquire more shares or allocation nor harvest red snapper, but could transfer those shares or allocation to another shareholder account. Starting in 2012, accounts without reef fish permits can now fully trade (transfer in or out) shares and allocation. The number of accounts holding shares without holding a Gulf commercial reef fish permit increased in 2013 to 126 (31% of all accounts holding shares) (Figure 1, Table 3). The amount of shares held by these accounts has increased to 24% at the end of 2013 (Figure 1).

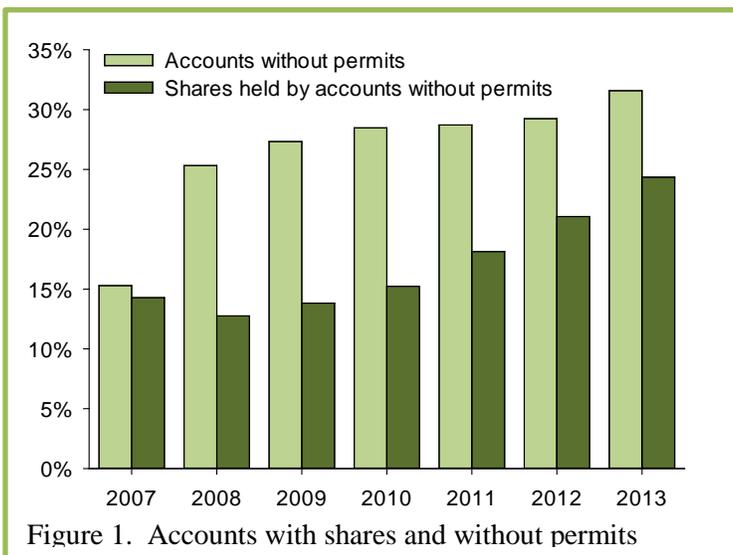


Table 3: Accounts with shares

Year	No Permit	Permit
2007	76	421
2008	120	354
2009	120	319
2010	121	304
2011	120	298
2012	119	288
2013	126	273

Allocation Holders

A RS-IFQ program accounts may obtain allocation through shares (distributed at the beginning of the year or from any in-season quota increase) or from the transfer of allocation from another account holder. Note, that the number of accounts holding allocation does not necessarily equal the number of accounts landing allocation, as accounts holding allocation may or may not hold a Gulf commercial reef fish permit and some accounts may only trade allocation. The total number of accounts with allocation remained the same in 2013 (Table 4). The proportion of accounts that acquired all their allocation through purchase/transfer increased in 2013 to 178, 30% of all accounts with allocation (Table 4). The continued increase in allocation holders without shares may result from participation in both the RS-IFQ and GT-IFQ programs, quota increases, changes in fishing behavior, and/or inability or lack of desire to purchase shares. The GT-IFQ program facilitates the exchange of allocation as both programs are housed in the same online system, allowing for ease of trades of allocation and/or shares between the two programs. In 2013, 91% of the vessels landing red snapper also landed at least one pound of grouper-tilefish. Quota increases may

Table 4: Accounts with allocation

Year	Total	Thru Shares	Thru Purchase
2007	596	554 (93%)	42 (7%)
2008	547	497 (91%)	50 (9%)
2009	530	474 (89%)	56 (11%)
2010	598	461 (77%)	137 (23%)
2011	589	439 (75%)	150 (25%)
2012	599	438 (73%)	161 (27%)
2013	599	421(70%)	178 (30%)

allow allocation to be distributed among more participants. Discussions with industry representatives indicate there is an increase in the number of fishermen that are catching red snapper as supplemental catch and not targeted catch. This would increase the number of accounts holding allocation, as fishermen seek to land rather than discard unintended red snapper catch. In addition, fishermen landing red snapper as supplemental catch may not wish to invest money in purchasing red snapper shares, especially as the share price has continued to increase.

Public participants

Public participant accounts are those accounts established after 2012 that do not have an associated Gulf commercial reef fish permit. Not all public participants obtained shares and/or allocation, and quite a few accounts were never accessed by the owners. In 2013, there were eight additional public participant accounts created, for a total of 27 public participant accounts (Table 5). Eight of these accounts held shares, while seven accounts held allocation. Eleven of the accounts had not been accessed by the owners. Public participant accounts held 2.2% of red snapper shares at the end of 2013 (Table 5).

Table 5: Public participation accounts

Accounts	2012	2013
Created	19	8
EOY	19	27
With shares	5	8
With allocation	3	7
Never accessed	5	11
EOY shares	1.8%	2.2%

Dealers

The number of dealers receiving and processing red snapper has remained similar since 2011 (Table 6). Since the start of the program, the majority of dealers only land a small portion of the total annual landings. In 2013, there were 81 dealers, 66 of which individually received and landed less than 1% of all landings (Table 6). Many of these small dealers may be fishermen who also have a Gulf of Mexico reef fish dealer permit. Currently it is not possible to link ownership of a shareholder account to ownership of a dealer account, as accounts may be held under different names (e.g., business vs individual, different businesses).

Table 6: Dealer accounts by size¹

Year	Total	Small <1%	Medium 1-3%	Large >3%
2007	75	56	8	11
2008	67	48	9	10
2009	66	44	11	11
2010	77	57	13	7
2011	82	64	10	8
2012	82	67	7	8
2013	81	66	7	8

¹ Dealer size is determined by percentage of annual red snapper landings landed with each dealer and may include multiple facilities.

Vessels

The number of vessels participating in the RS-IFQ decreased in 2013 to 368 vessels (Table 7). The decrease primarily occurred in vessels landing in Florida and Alabama/Mississippi, while the number of vessels increased in Louisiana and Texas. Vessels harvesting red snapper predominantly land at Florida facilities (Table 7; ~300 vessels for the last three years). Changes in the number of vessels landing in each state may be influenced by factors outside of the RS-IFQ program, such as changes in markets, fishing behavior, availability of facilities, etc.

Table 7: Vessels harvesting red snapper

Year	Total ¹	FL	AL/MS	LA	TX
2002 -06 ²	485	-	-	-	-
2007	309	224	8	42	60
2008	300	219	16	37	49
2009	294	221	14	27	40
2010	384	309	30	27	34
2011	362	292	27	20	31
2012	371	304	23	23	28
2013	368	295	20	27	35

¹ The total number of vessels is less than the sum of vessels across states because some vessels land in multiple states.

² Values for 2002-2006 are average values across this time period.

Program Activity

Share Transactions

The greatest number of share transfers and total amount transferred occurred at the start of the program (Table 8). In each year, there was a broad range of shares transferred. The number of share transfers and the amount transferred decreased in 2013, but was similar to 2011's transferred shares. There were 76 transactions that transferred 4.7401% shares (Table 8). Share transfers ranged from 0.0003% to 0.9217%. Twenty-nine percent of these shares went to new shareholder accounts, while the remainder was transferred to existing shareholder accounts. Three public participant accounts (see p. 12) received less than 1% of the red snapper shares transferred.

Table 8: Share transactions

Year	N	%	Avg. %
2007	108	10.7428	0.0995
2008	42	4.8150	0.1146
2009	75	6.0233	0.0803
2010	79	8.4748	0.1073
2011	78	5.0979	0.0654
2012	81	7.5608	0.0933
2013	76	4.7401	0.0624

Allocation Transactions

Annual RS-IFQ allocation is the actual poundage of red snapper each IFQ account can use to possess, land, and/or sell during a given calendar year. Individual units of allocation cannot be tracked in the system (e.g., the same pounds may be transferred multiple times) and all allocation transfers between accounts are analyzed in this report. The total number of allocation transfers increased again in 2013, for a total of 2,753 transfers (Table 9). Allocation transfers ranged from as a low

Table 9: Allocation transactions

Year	N	Lbs.	Avg. lbs.	Median lbs.	% Quota
2007	808	1,686,218	2,087	671	56.5%
2008	683	1,371,100	2,007	600	59.7%
2009	843	1,539,479	1,826	500	67.0%
2010	1,719	3,065,736	1,783	500	96.1%
2011	2,155	3,639,394	1,689	500	110.3%
2012	2,551	3,741,966	1,467	400	100.8%
2013	2,753	5,762,556	2,093	500	114.0%

as one pound to a maximum of 100,000 pounds per transaction. Even with a substantial increase in quota in 2013, the amount of allocation transferred exceeded the quota by 114%. Prior to 2010, allocation transfers were substantially smaller, in part due to the previous database system, which allowed for an under-representation of allocation transfers. In the previous system, a single vessel could land under multiple shareholder accounts, thereby bypassing an allocation transfer. This is no longer possible in the current system. As expected with the increase in quota, average pounds per transaction increased, although the median pounds per transaction was 500 lb, similar to previous years (Table 9). Input from industry representatives has indicated that ~500 lb of allocation is often transferred to vessels that do not target red snapper to allow for any incidental catches of red snapper on a trip.

Allocation Activity

Account activity can be determined through analyzing allocation transactions. An account is considered active if the account landed, sold, and/or bought allocation. Account status is determined each year based on an account’s activity within that year. In 2013, there were 599 accounts with red snapper allocation, of which 16% (96 accounts) were inactive (Table 10). The number of inactive accounts remained similar to last year, but less than at the start of the program. Just over half of the accounts with red snapper allocation (56%, 337 accounts) landed red snapper. This is similar to the past three years and a higher percentage than the first three years of the program (Table 10). Accounts landing red snapper can be further classified as those that do and do not hold shares. In 2013, 61% of the landings were landed by accounts holding red snapper shares (Table 11). This is an 8% decrease compared to 2012 and a 30% decrease since the start of the program in 2007 (Table 11). This continual decrease may indicate an increasing disconnect between those that harvest red snapper and those that own RS-IFQ shares and/or may be influenced by shareholders with related accounts in which one account holds all the shares and related accounts with shares harvest the fish.

Table 10: Allocation accounts activity

Year	N w/ alloc.	N Inactive	N Landing
2007	596	173 (29%)	279 (47%)
2008	547	168 (31%)	269 (49%)
2009	530	137 (26%)	262 (49%)
2010	598	122 (20%)	337 (56%)
2011	589	102 (17%)	328 (56%)
2012	599	94 (16%)	333 (56%)
2013	599	96 (16%)	337 (56%)

Table 11: Landings (lb. gw) by share status

Year	Shares		No Shares	
2007	2,598,649	91%	265,738	9%
2008	1,958,999	88%	276,420	12%
2009	1,735,818	78%	498,196	22%
2010	2,220,185	73%	835,859	27%
2011	2,060,719	64%	1,177,616	36%
2012	2,522,817	69%	1,113,578	31%
2013	2,972,769	61%	1,935,829	39%

Active accounts can be divided into type of activity: those who landed fish and those who *only* traded allocation. Note that those who land fish may also trade allocation. There are a variety of reasons why an account may only trade allocation: cannot harvest allocation (e.g., no permit, vessel inoperative), transfer of the allocation to a related account, insufficient allocation to harvest (e.g., shares result in only a few pounds of allocation), and/or for profit (e.g., sell of allocation is greater than profit from harvest).

Accounts without a Gulf commercial reef fish permit may not land allocation, and therefore can only trade allocation. Prior to 2012, accounts without permits could only sell (transfer out) allocation and could not buy (transfer in) allocation. Since the start of the program, accounts only trading allocation have represented nearly one quarter of all accounts with allocation (20-29%). There were 166 accounts (28% of accounts with allocation) that

only traded allocation in 2013 (Table 12). The majority of the accounts that are only trading allocation belong to accounts that have both shares and permits (Table 12). Since 2008, these accounts have comprised just over half of all accounts that were only trading allocation. In 2013, 54% of accounts only trading allocation had both shares and permits, while 31% had shares but not permits (Table 12). A small percentage (15%) of accounts only trading allocation held no shares (Table 12). In 2013, for the first time there were accounts without shares or permits that were only trading allocation (Table 12). This only became possible in 2012 with the start of public participation. Accounts without shares that are only trading allocation, particularly those without a permit, may be acting as brokerage accounts, in that they obtain allocation solely in order to trade that allocation to other accounts.

Table 12: Accounts only trading allocation

Year	N	Shares		No Shares	
		Permit	No Permit	Permit	No Permit
2007	144	117 (81%)	21 (15%)	6 (4%)	N/A
2008	110	63 (57%)	36 (33%)	11 (10%)	N/A
2009	131	75 (57%)	49 (37%)	7 (5%)	N/A
2010	139	75 (54%)	48 (35%)	16 (12%)	N/A
2011	159	93 (58%)	46 (29%)	20 (13%)	N/A
2012	172	101 (59%)	52 (30%)	19 (11%)	0 (0%)
2013	166	89 (54%)	52 (31%)	22 (13%)	3 (2%)

Commercial Quota and Landings

Quota

After the 2005 red snapper stock assessment concluded that the stock was overfished and experiencing overfishing, the Gulf Council revised the red snapper rebuilding plan in 2007 by reducing commercial and recreational quotas, lowering the commercial size limit, specifying shrimp trawl bycatch reduction targets, and reducing the recreational bag limit. The 2009 and 2013 red snapper stock assessments revealed that spawning stock biomass increased as lower fishing mortality rates allowed more fish to survive to older ages. Increases in the spawning stock biomass allowed the Gulf Council to increase annual catch limits for red snapper in 2010, 2011, 2012, and 2013. In 2013, the commercial quota increased twice: a modest increase in May and a larger increase in Septem-

Table 13: IFQ commercial quota (gutted weight)

Year	Jan 1	Quota Increase	Increase Date	Dec 31
Pre-IFQ	4,189,189	N/A	N/A	4,189,189
2007	2,297,297	689,189	June 1	2,986,486
2008	2,297,297	N/A	N/A	2,297,297
2009	2,297,297	N/A	N/A	2,297,297
2010	2,297,297	893,694	June 2	3,190,991
2011	3,190,991	109,910	May 31	3,300,901
2012	3,300,901	411,712	June 29	3,712,613
2013	3,712,613	174,774	May 29	5,054,054
		1,166,667	Sept 30	

ber (Table 13). The 2013 quota is nearly double the quota at the start of the program and is now greater than the pre-IFQ quota of 4.19 mp gw.

Landings

Since the beginning of the RS-IFQ program, more than 95% of the quota has been landed annually. In 2013, 97.1% of the quota was landed (Table 14). Landings fluctuated monthly, based on fishing behavior and available quota. In 2013, monthly landings were greatest in the last quarter of the year (October–December) due to the September 30th quota increase (Table 14, Figure 2). During the last quarter 36% of the quota was landed. Landings in December were considerably higher than any other month to date, with ~800,000 lb landed. Larger landings also occurred in March, coinciding with the 2013 Lenten season.

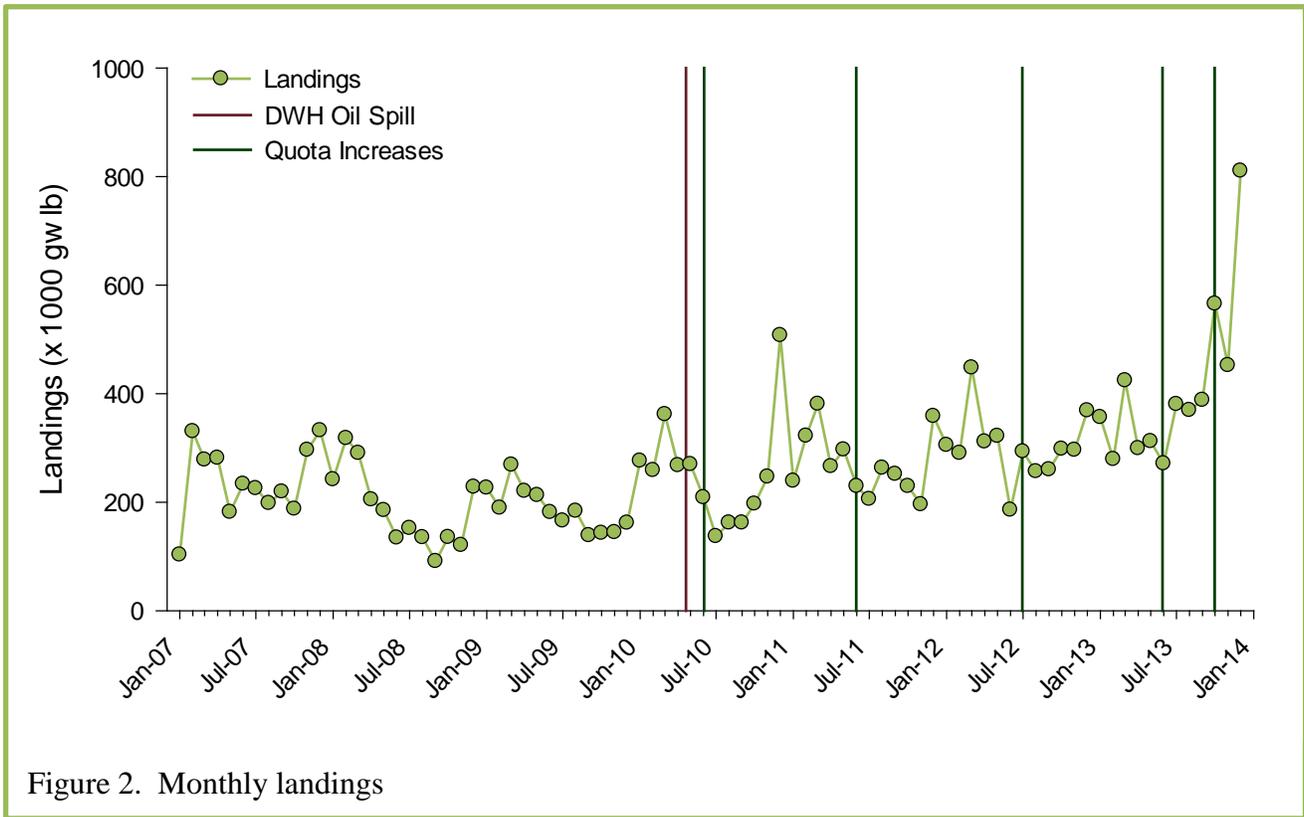
Table 14: Gulf-wide commercial landings by month and year

	2007	2008	2009	2010	2011	2012	2013
Jan	103,309	241,905	226,559	276,099	239,103	305,284	356,544
Feb	330,625	317,871	189,520	258,807	322,078	290,652	279,295
Mar	278,021	290,336	268,819	361,969	380,667	447,846	424,268
Apr	281,551	204,701	220,336	267,700	265,942	311,624	299,044
May	181,798	185,313	212,850	269,711	296,991	321,705	312,069
Jun	233,376	134,448	181,401	208,869	229,569	185,931	271,257
Jul	225,536	152,134	165,968	137,283	205,363	293,151	380,482
Aug	198,141	135,030	183,851	162,232	263,077	256,486	369,519
Sept	219,284	91,287	138,731	162,257	251,718	260,268	388,064
Oct	187,371	135,361	143,212	196,725	229,625	298,116	565,583
Nov	296,230	120,797	144,406	246,878	195,741	296,205	452,067
Dec	332,084	228,297	161,793	507,514	358,461	368,897	810,406
Annual	2,867,326	2,237,480	2,237,446	3,056,044	3,238,335	3,636,395	4,908,598
<i>% Landed</i>	<i>96.0</i>	<i>97.4</i>	<i>97.4</i>	<i>95.8</i>	<i>98.1</i>	<i>97.9</i>	<i>97.1</i>

Table 15: Landings by state

Year	FL		AL/MS		LA		TX	
2007	1,122,379	39%	80,288	3%	447,055	16%	1,217,604	42%
2008	921,927	41%	88,058	4%	381,075	17%	846,420	38%
2009	930,630	42%	78,536	4%	415,203	19%	813,077	36%
2010	1,378,733	45%	81,641	3%	571,449	19%	1,024,221	34%
2011	1,594,317	49%	134,980	4%	606,804	19%	902,234	28%
2012	1,725,555	47%	166,429	5%	711,339	20%	1,033,072	28%
2013	2,001,334	41%	244,697	5%	1,060,017	22%	1,602,550	33%

Similar to previous years, the majority of landings occurred in Florida, followed closely by Texas, and Louisiana (Table 15). In 2013, Florida had a decreased percentage of landings, while Texas and Louisiana percentages increased (Table 15).



Remaining Allocation

At the end of each year, there may be unharvested annual allocation that remains in shareholders' accounts. There was at least one pound of red snapper allocation remaining in 43% of the accounts that held allocation in 2013 (Table 16). This is an increase in the number of accounts and percentage of accounts with remaining allocation compared to previous years. This may be in part due to the late year release of 1.16 mp gw of red snapper quota. Other years with higher amounts of remaining allocation coincided with the start of the program (2007) and the Deepwater Horizon (DWH) oil spill event (2010) that closed large portions of the Gulf to fishing (Appendix 2).

Accounts with remaining allocation can be classified as active (those that traded and/or landed allocation) or inactive. In 2013, there were more active accounts with remaining allocation than inactive account, although inactive accounts held a greater amount of remaining allocation (Table 16). The overall percentage of inactive to all accounts with remaining allocation has decreased to 37%. Previous percentages ranged between 40-58%.

Table 16: Accounts with remaining allocation by account status (active or inactive)

Year	Accounts	Lb.	% Quota	Active Acct	Active lb	Inactive Acct	Inactive lb
2007	327 (55%)	122,311	4.1%	154	43,768	173	78,543
2008	292 (53%)	59,515	2.7%	124	9,177	168	50,338
2009	242 (46%)	61,318	2.8%	105	19,638	137	41,680
2010	306 (51%)	132,450	4.2%	184	79,299	122	53,151
2011	236 (40%)	62,147	1.9%	134	11,404	102	50,743
2012	216 (36%)	75,626	2.0%	122	20,352	94	55,274
2013	258 (43%)	148,867	2.95%	162	69,057	96	79,810

In contrast to remaining allocation, accounts that hold shares can land in excess of their allocation once per year through the 10% overage flexibility measure. These overages are then deducted from the shareholder’s allocation in the next year. Each year only a small fraction of accounts (≤ 40 accounts) has overages (Table 17). Overages are generally less than 0.15% of the quota. The number of overages increased in 2013 to 36 accounts (6% of all accounts with allocation) (Table 17). In terms of allocation, 2013 had the highest amount of overages, but this is most likely due to the increased quota compared to other years. In 2013, the average overage pounds was 132 lb and the median overage pounds was 26 lb; both of which were higher than previous years.

Table 17: Overages

Year	Acct.	Lb.
2007	35	2,939
2008	41	2,061
2009	40	3,432
2010	14	655
2011	29	3,262
2012	29	1,715
2013	36	4,741

Effort and Bycatch

Red snapper effort in terms of days away and the average landings per trip were analyzed based on trips that caught at least one pound of red snapper. The pace of fishing pre- to post-IFQ changed dramatically with increases in days per trip, which resulted from less but longer trips (Table 18). This change in the pace of fishing may be influenced by factors both directly and indirectly related to the RS-IFQ program, such as elimination of trip limits and short fishing seasons, implementation of the GT-IFQ program, increases in quota, changes in targeting behavior, and regulations on other reef fish species. In 2013, fishing effort for red snapper remained similar to the previous two years for trips, days away and days per trip, although the average pounds per trip increased (Table 18). The majority of vessels in the RS-IFQ program land on average ≤ 500 lb/trip both pre and post RS-IFQ (Figure 3). In 2013, 59% of all vessels landed ≤ 500 lb of red snapper per trip. This slight decrease from previous years is most likely due to the increase in the available quota for the year, which may have resulted in greater average pounds per trip.

Table 18: Effort harvesting red snapper

Year	Trips	Days Away	Avg. days/trip	Avg. RS lb/trip
2002 -06 average	4,872	12,856	2.6	848
2007	2,578	11,165	4.3	1,072
2008	2,274	9,646	4.2	951
2009	2,329	9,444	4.1	929
2010	2,970	13,207	4.4	990
2011	3,389	14,613	4.3	907
2012	3,454	15,009	4.3	1,006
2013	3,234	14,829	4.6	1,308

¹ Data from the SEFSC Coastal Logbook records as of 4/28/2014 and therefore may not contain the complete 2013 data.

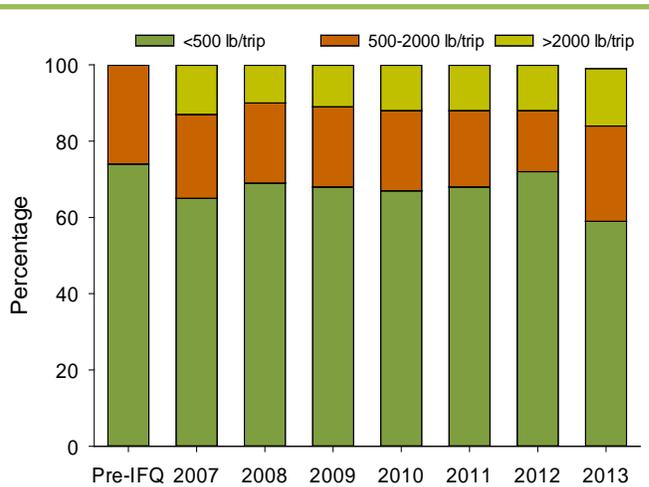


Figure 3. Vessels by average RS landings per trip
Source: SEFSC Coastal Logbook records as of 4/28/2014

Vessels harvesting ≤ 500 lb of red snapper per trip may be small shareholder or vessels that do not primarily target red snapper, but rather use it to supplement harvest when targeting other reef fishes or as the retention of incidentally caught red snapper. The vessels that primarily target red snapper (>2000 lb/trip) comprise only 15% of the vessels harvesting red snapper, which has shown very little change since the start of the RS-IFQ program (Figure 3).

There are both regional and gear differences in trip lengths (days per trip) and subsequently pounds per trip. Trips taken in the Florida panhandle through Mississippi are approximately 2 days shorter than trips taken in the rest of the Gulf (Figure 4). Trip lengths off the Florida peninsula and in the Western Gulf increased by nearly one full day in 2013 (Figure 4). Trips utilizing longline gears had longer trips than trips with vertical line gears, and longline trip lengths increased by nearly a full day in 2013 (Figure 5). Trips in the Western Gulf had considerably greater average pounds per trip than in the remaining areas (Figure 6). In 2013, trips in the Western Gulf increased the average pounds per trip by $\sim 1,000$

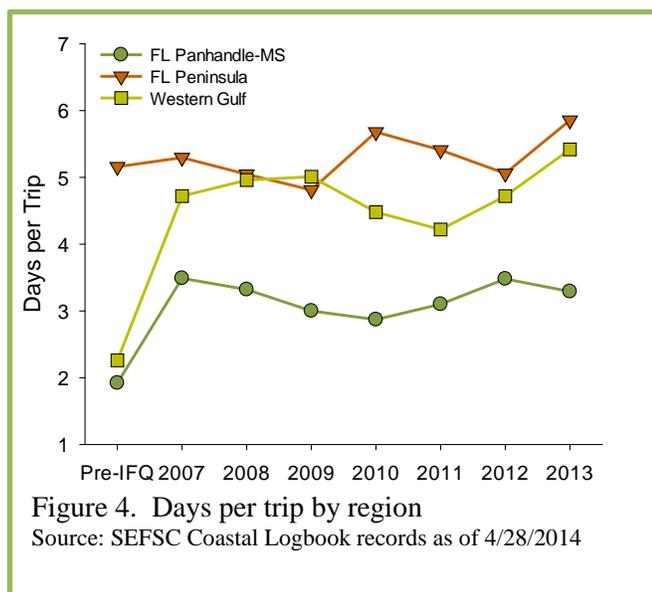


Figure 4. Days per trip by region
Source: SEFSC Coastal Logbook records as of 4/28/2014

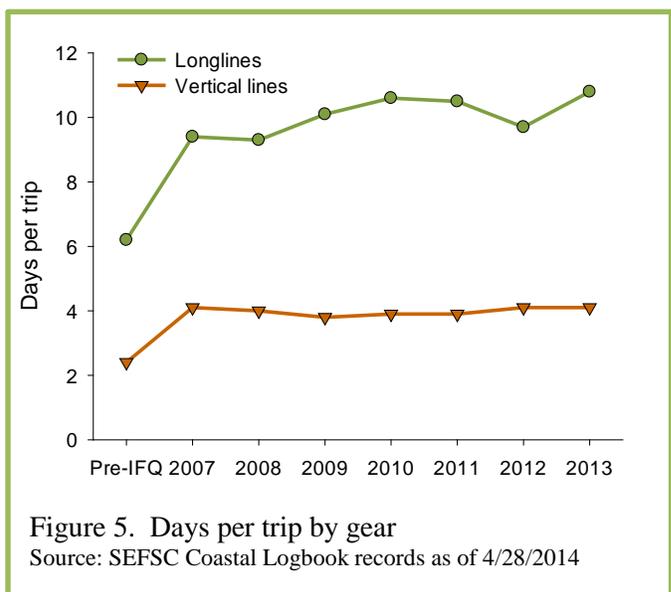
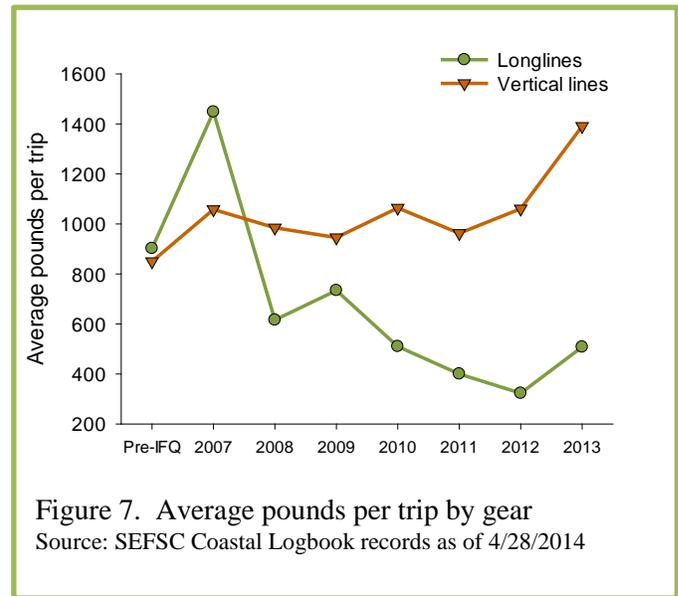
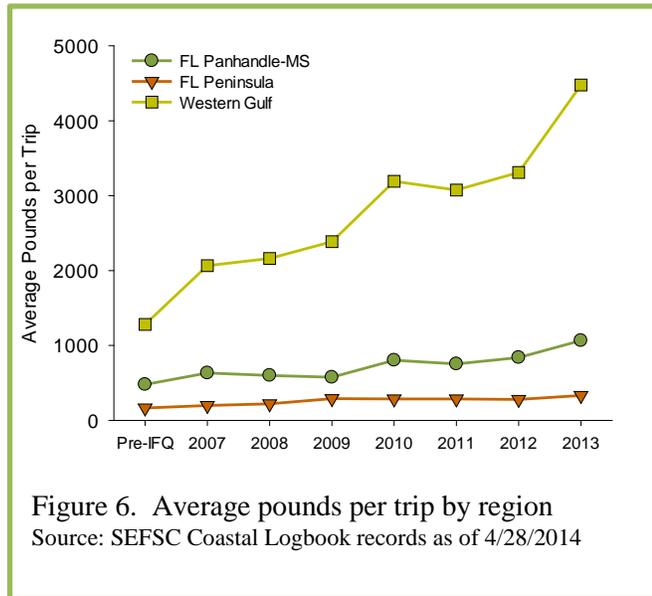


Figure 5. Days per trip by gear
Source: SEFSC Coastal Logbook records as of 4/28/2014

lb/trip (Figure 6), while only small increases in pounds per trip were observed in the rest of the Gulf. The average pounds per longline trip decreased from a peak in 2007 through 2012 (Figure 7). In 2013, the average pounds per longline trip increased by ~200 lb/trip. Red snapper are not the primary catch of many longline vessels, and therefore vertical line vessel's average pounds per trip may be more indicative of trends in the red snapper fishery. Average pounds per vertical line trip remained similar since the start of the IFQ program until 2013 (Figure 7). In 2013, the average pounds per vertical line trip increased by ~400 lb/trip.



Data from the Southeast Fisheries Science Center's (SEFSC) reef fish observer program (RFOB) were used to evaluate changes in red snapper discards. The reef fish observer program began in mid-2006, limiting the data available prior to the RS-IFQ program. On May 2, 2007, the red snapper minimum size limit changed from 15" TL to 13" TL, and therefore, the 2007 season is split accordingly. RFOB red snapper landings were categorized by gear: longline (LL) and vertical lines (VL: hand lines, bandit reels, or spear fishing). Longline trips primarily occurred off the Florida peninsula, while vertical line trips occurred throughout the entire Gulf. In addition, the RFOB coverage shifted effort in 2009 towards vessels using longline gears (Table 19) and the total number of trips sampled increased from 2010 through 2012, but decreased in 2013 (Table 19).

In 2013, there were 174 trips with observer coverage, with 74% of the trips (n = 129) catching red snapper (Table 19). As in previous years, more of the observed trips fished with vertical line gears than longline gears. This was also true for trips that caught red snapper (Table 19). Observed red snapper trips primarily occurred from Florida through Mississippi, with slightly more trips observed along the Florida peninsula (Table 19).

Reef fish observers record disposition status as: landed/kept, discarded alive, discarded dead, or unknown. These disposition statuses were used to calculate discard ratios by gear and region. The landed: discard ratio (number of fish landed for each fish discarded) showed distinct differences between regions and gear types (Table 20). Observed vessels using longline gears discarded more fish than they landed,

Table 19. Reef fish observer trips and trips catching red snapper ¹

Year	Gears						Regions ²					
	Trips		LL		VL		FL pen.		FL pan. – MS		LA – TX	
	Total	RS	Total	RS	Total	RS	Total	RS	Total	RS	Total	RS
2007 ³	84	76	9	7	75	69	42	37	26	25	18	15
2008	61	49	5	4	56	45	37	25	11	10	17	17
2009	79	63	33	26	46	37	56	43	18	15	11	9
2010	110	88	54	43	56	45	81	64	24	18	13	10
2011	187	162	81	75	106	87	129	110	47	41	18	16
2012	274	233	19	17	255	216	160	123	89	86	37	35
2013	174	129	61	51	113	78	111	73	59	51	15	11

¹ Data from the Reef Fish Observer Program accessed as of 03/18/2014.

² One trip may include multiple regions, and therefore the sum of regions is greater than the total trips.

³ 2007 data is only from May 2 onward.

while observed vessels using vertical lines landed more fish than they discarded (Table 20). Landed:discard ratios in observed vessels using longline gears were generally less than one and in 2013 decreased to 0.28 (Table 20). Landed:discard ratios for observed vessels using vertical line gears increased in 2013, with 6.48 fish landed for every one fish discarded (Table 20). The increased ratio could be the result of increased quota and the amount of allocation held by vessels using vertical line gears. As more allocation is available less fish are discarded. In contrast, the low landed:discard ratio that occurred on longline vessels may have resulted from insufficient allocation available to land red snapper as a bycatch species. Many of the longline vessels fish off the Florida peninsula for grouper-tilefish and may not have any or enough red snapper allocation available to them. As the red snapper stock continues to expand to the waters along the west Florida shelf³, discards will occur unless vessels obtain additional allocation. Landed:discard ratios were lowest from the Florida peninsula (Table 20), with less than one fish landed per fish discarded in 2013 (Table 20). In 2013, landed:discard ratios were the same from the Florida panhandle through Texas, with 5.53 fish landed per fish discarded (Table 20). As with the longline vessels, the low discard ratio that occurred in the Florida peninsula may have been due to the vessels in this region not having sufficient, if any, allocation to land red snapper.

Table 20: Red snapper landed:discard ratio ¹

Year	Gears			Regions	
	LL	VL	FL pen.	FL pan. – MS	LA - TX
2007 ²	0.07	3.48	0.73	6.41	2.75
2008	1.40	3.46	0.51	4.71	4.56
2009	0.53	1.32	0.12	0.70	15.57
2010	1.00	2.56	0.81	7.02	4.21
2011	0.50	3.27	0.72	4.67	3.75
2012	0.30	3.78	1.04	5.33	6.04
2013	0.28	6.48	0.81	5.53	5.53

¹ Data from the Reef Fish Observer Program accessed as of 03/18/2014.

² 2007 data is only from May 2 onward.

³ The 2013 SEDAR 31 Red Snapper stock assessment notes the red snapper stocks have expanded along the west Florida shelf.

Price Information

Price information is an important component for evaluating the performance of a catch share program. Economic theory states that as fishermen no longer have to out-compete other fishermen for a share of the catch, the profits will increase as fishermen adjust the scale and scope of their operations to take advantage of market conditions. This results in increased market stability and value for shares and allocations, as more efficient fishermen are willing to pay higher prices to purchase additional shares and/or allocation from less efficient operators. Theoretically, allocation prices should reflect the expected annual net profit from harvesting one unit of quota, whereas share prices should reflect the present value of the flow of expected net returns from harvesting one unit of quota. Dockside or ex-vessel prices are anticipated to increase as well, as fishermen no longer have to race to fish, which would reduce market gluts and provide fresher products.

Share Transfer Prices

Share transfer prices were not required from 2007-2009, but since mid-2010 a minimum transfer price of \$0.01 has been required of all share transfers. In 2013, the percentage of share transactions with valid share prices increased to 51%, an 8% increase from the previous year (Table 21). Transactions with low prices may be due to, but not limited to, any of the following: entering a price per pound equivalent instead of total price, reluctance to enter price information, gifts, transferring to a related account, part of a package deal (e.g., sale of shares with a permit, vessel, or other equipment), and/or unrecorded bartering of RS-IFQ shares for GT-IFQ shares. It was not possible to identify bartered trades as all share transfers are recorded as an individual transfer from one account to another account. Starting in 2013, one of seven share transfer reasons was selected by the transferor (“seller”) for each share transfer. Share transfer reasons were as follows: sale to another account (“Sale”), transfer to a related account (“Related”), bartered for shares, bartered for allocation, gift, package deal, or no comment.

In 2013, the majority of share transfers were listed as a Sale (n = 42), followed by Related (n = 14), no comment (n = 12), gifts (n = 6), and package deals (n = 2). No share transfers had the bartered for shares or allocation reason selected. Transfer with a gift reason had the greatest total shares (1.92%),

Table 21: Share transfer prices

Year	N ¹	% of all trans.	Avg. price/lb ¹	Median price/lb ¹	Inflation-adj. avg. price/lb ²
2007	21	19%	\$11.04	\$12.51	\$12.09
2008	22	52%	\$11.56	\$10.50	\$12.42
2009	38	51%	\$20.64	\$20.00	\$22.00
2010	33	42%	\$19.58	\$21.50	\$20.62
2011	26	33%	\$28.87	\$27.00	\$29.82
2012	35	43%	\$35.68	\$35.00	\$36.22
2013	39	51%	\$36.24	\$40.00	\$36.24

¹ Only used share transactions between \$9 and \$36/lb equivalent from 2007-2011 and \$9 - \$50/lb equivalent from 2012-2013.

² Inflation adjustments from: <http://www.bea.gov/> with 2013 as the base year using the GDP deflator.

followed closely by Related (1.37%) and Sale (1.05%). For all transfer reasons except package deal, the minimum price per equivalent pound was less than \$0.01/lb. Maximum price per equivalent pound values were near \$50/lb for transfers with “No comment” or “Sale” reasons, followed by \$42/lb for transfer among related accounts, and near \$35/lb for transfers that were gifts or package deals. Both transferor (‘seller’) and transferee (‘buyer’) prices were collected for share transfers in 2013. There was a 76% price agreement among the transferor and transferee. Prices that were in disagreement generally fell into the following categories: one account had entered price per pound instead of total price, one account had entered a non-valid total price (e.g., \$0.01 or \$1.00), or one party had entered typographical mistakes when entering the price (e.g., adding or deleting a zero to the total price).

For the share price analysis, the data were limited to share transfers with price per pound equivalents⁴ that were greater than \$9 and less than \$36 (2007-2011) or less than \$50 (2012-2013), and all values were weighted by the pounds instead of on a transactional basis (See Appendix 3: Price Analysis Rationale). In 2013, there were 39 share transfers with valid prices (Table 21). Average share prices were at \$36/lb while median prices were slightly greater at \$40/lb (Table 21). As in previous years, share prices continued to increase, although this was the smallest increase in price since the start of the program once the prices were adjusted for inflation.

Allocation Transfer Prices

Allocation transfer prices are collected on a per pound basis but are not required in order to complete a transfer. Nearly two-thirds or more of the allocation transactions each year are either missing price information or have under-reported price information (e.g., \$0.01/lb) (Table 22). Transactions that had low or no price information may be due to, but not limited to, any of the following: reluctance to enter price information, gift, transferring to a related account, part of package deal, or bartering for shares and/or allocation in the GT-IFQ program. Starting in 2013, one of seven allocation transfer reasons was selected by the transferor (“seller”) for each allocation transfer. Allocation transfer reasons were as fol-

Table 22: Allocation transfers and prices

Year	N ¹	% of all trans.	Avg. price/lb	Median price/lb	Inflation-adj. avg. price/lb ²
2007	155	19%	\$1.97	\$2.00	\$2.16
2008	152	22%	\$2.31	\$2.25	\$2.48
2009	283	34%	\$2.69	\$2.75	\$2.87
2010	344	20%	\$2.88	\$3.00	\$3.04
2011	476	22%	\$2.96	\$3.00	\$3.05
2012	781	31%	\$3.00	\$3.00	\$3.04
2013	1,068	39%	\$2.98	\$3.00	\$2.98

¹ Number of allocation transactions that had prices greater than \$1.20/lb and less than \$5.00/lb.

² Inflation adjustments from: <http://www.bea.gov/> with 2013 as the base year using the GDP deflator.

⁴ A price per pound equivalent is the share percentage that would equal one pound for that particular period. The exact share percentage that is equivalent to one pound depends on the total commercial quota and will change as the quota changes from year to year or within a year for any quota increases.

lows: sale to another account (“Sale”), transfer to a related account (“Related”), bartered for shares, bartered for allocation, gift, package deal, or no comment. In 2013, the majority of allocation transfers were listed as a No Comment (n = 1,375), followed by Sale (n = 878) and Related Account (n= 411). The greatest amount of pounds were transferred under the No Comment reason (49% of allocation transactions), followed by Sale (26%), and Related (22%).

For the allocation price analysis, the data were limited to allocation transfers with prices per pound that were greater than \$1.20/lb and less than \$5.00/lb (See Appendix 3: Price Analysis Rationale). All statistics were computed by weighting pounds transferred and not on a transactional basis. In 2013, there was a marginal increase in the percentage of transactions with valid prices, of the 2,753 transactions 1,068 (39%) of them had valid prices (Table 22). The average price remained similar to recent years and was just below \$3.00/lb, while median price remained the same as the past three years (Table 22). After adjusting for inflation, the average price has decreased slightly by \$0.04 in 2013. The slight decrease in allocation could be due to the large quota release at the end of September. Average monthly allocation prices decreased in November and December, whereas in other years they had similar or higher prices than the previous months (Table 23).

Table 23: Average monthly allocation prices adjusted for inflation

Month	2007	2008	2009	2010	2011	2012	2013
January	\$1.92	\$2.29	\$2.90	\$3.06	\$3.05	\$3.01	\$3.08
February	\$2.11	\$2.54	\$2.90	\$3.42	\$3.00	\$3.13	\$3.24
March	\$1.84	\$2.50	\$2.81	\$3.22	\$3.12	\$3.00	\$3.06
April	\$1.97	\$2.45	\$2.76	\$3.16	\$3.09	\$3.00	\$3.14
May	\$2.22	\$2.50	\$2.88	\$3.21	\$3.03	\$3.12	\$3.06
June	\$2.16	\$2.44	\$3.02	\$3.04	\$3.08	\$2.96	\$3.15
July	\$2.07	\$2.69	\$3.15	\$2.88	\$3.05	\$3.18	\$3.17
August	\$2.23	\$2.66	\$2.83	\$2.97	\$2.95	\$2.95	\$2.97
September	\$2.37	\$2.59	\$2.89	\$2.94	\$3.08	\$3.18	\$3.16
October	\$2.19	\$2.63	\$2.70	\$2.94	\$3.03	\$2.75	\$3.02
November	\$2.34	\$2.80	\$2.95	\$3.13	\$3.10	\$3.10	\$2.48
December	\$2.40	\$2.51	\$2.54	\$2.52	\$3.08	\$3.12	\$2.34

Ex-vessel Prices

While ex-vessel prices are required to complete a landing transaction, prices have been variable, with prices as low as \$0.01/lb reported. Ex-vessels prices may differ depending on location and season. They may also be under-reported for a variety of reasons: to minimize cost recovery fees and/or capital gains, contractual arrangements between dealers and shareholders, and deductions for transferred allocation, goods (e.g., bait, ice, fuel), and/or services (e.g., repairs, machinery replacement). In June of 2011, regulations modified the definition for ex-vessel price and explicitly prohibited the deduction of allocation, goods, and/or services. For ex-vessel price analysis, the data were limited to landings with prices per pound that were greater than \$2.60/lb and less than \$10.00/lb (See Appendix 3: Price Analysis Rationale). In 2013, ex-vessel price reporting improved again, to where 90% of the transactions could be used in analyses (Table 24). In 2013, average ex-vessel prices were \$4.46/lb, with a median value of

\$4.75/lb (Table 24). After adjusting for inflation, ex-vessel prices decreased slightly (1%) in 2013 (Table 24). This lower ex-vessel price may be in part due to low ex-vessel prices at the end of the year after the 1.17 mp quota increase at the end of September flooded the market with red snapper. When compared to the years immediately preceding the RS-IFQ program, and adjusting for inflation, ex-vessel prices have increased by more than \$1.00/lb. Ex-vessel prices are now equal to the inflation-adjusted prices for 1990 (Figure 8).

Table 24: Ex-vessel transfer prices (\$/lb)

Year	N ¹	% of all trans.	Avg.	Median	Inflation-adj. avg. ²
Pre-IFQ ³	-	-	\$2.80	\$2.81	\$3.34
2007	2,455	92%	\$3.74	\$3.75	\$4.10
2008	2,023	85%	\$4.06	\$4.25	\$4.36
2009	1,963	79%	\$4.13	\$4.25	\$4.40
2010	2,319	71%	\$4.17	\$4.25	\$4.39
2011	2,985	77%	\$4.26	\$4.25	\$4.40
2012	3,319	84%	\$4.44	\$4.50	\$4.51
2013	3,716	90%	\$4.46	\$4.75	\$4.46

¹ Number of allocation transactions that had prices greater or equal to \$2.60/lb and less than \$10.00/lb.

² Inflation adjustments from: <http://www.bea.gov/> with 2013 as the base year using the GDP deflator.

³ Pre-IFQ averages are from 2002-2006.

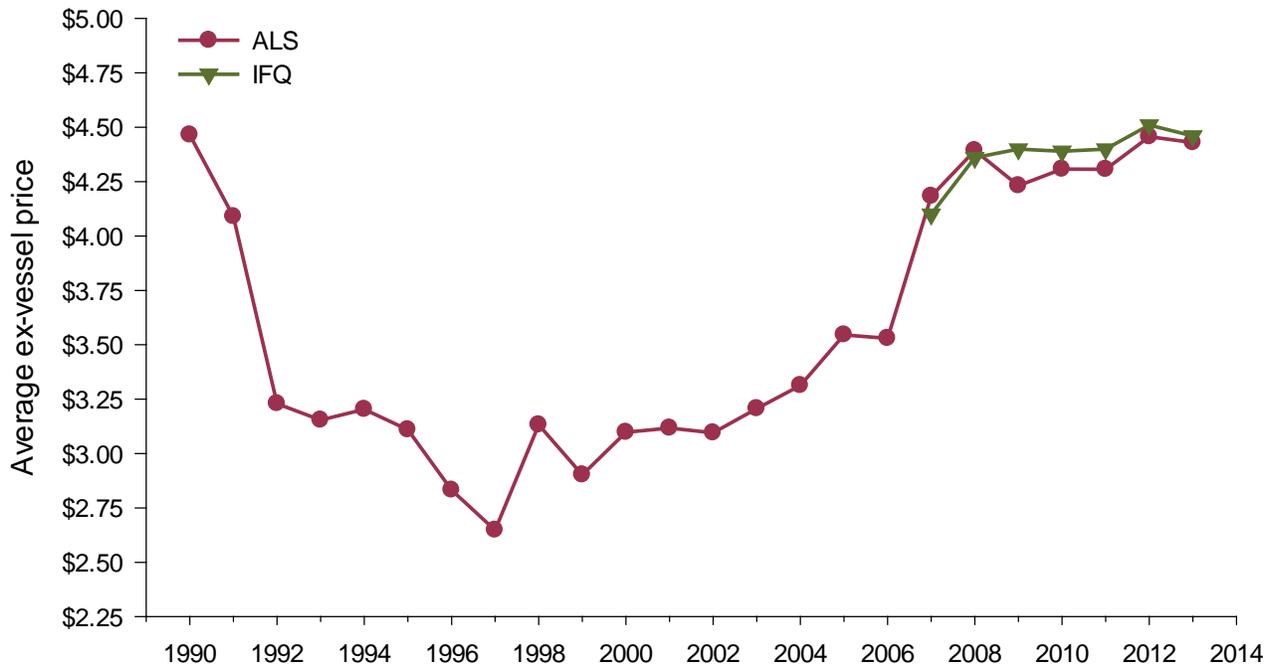


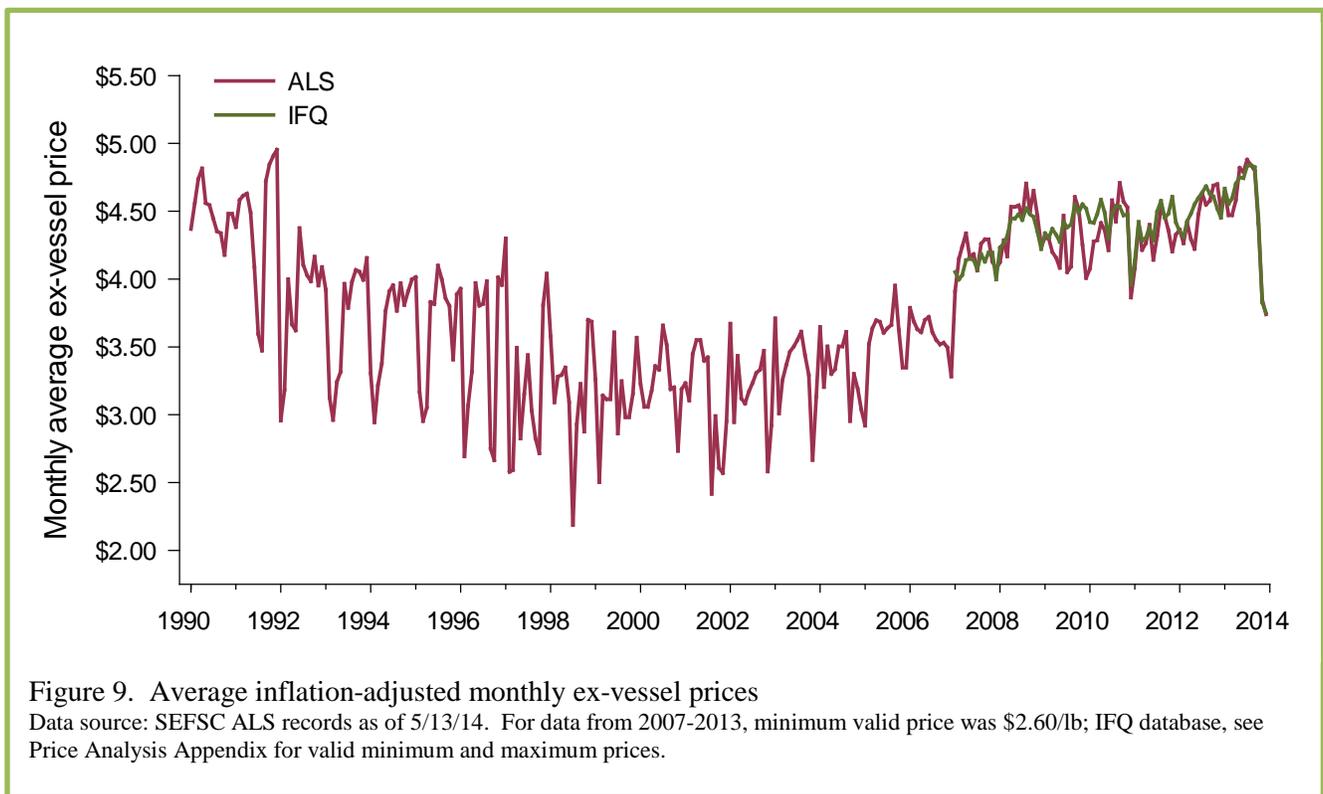
Figure 8. Average annual inflation adjusted ex-vessel price

Data source: SEFSC ALS records as of 5/13/14. For data from 2007-2013, minimum valid price was \$2.60/lb; IFQ database, see Price Analysis Appendix for valid minimum and maximum prices.

One goal of the RS-IFQ program was to create greater market stability. Ex-vessel price may be influenced by the amount of quota, demand, landings, and regional differences. In general, as landings increase ex-vessel prices decrease. Red snapper ex-vessel prices have been variable prior to the RS-IFQ program, with monthly values differing by \$0.40/lb to \$1.26/lb per year (Figure 9). Ex-vessel price fluct-

tuations since the start of the program, generally were smaller with differences of \$0.18/lb to \$0.59/lb, except in 2013 where ex-vessel prices differed by \$1.09/lb (Figure 9). In general, since the start of the RS-IFQ program red snapper ex-vessel prices are smaller at the start of the year, but increase from March through May, which coincides with the Lenten season (Figure 9). Ex-vessel prices typically decrease in December when fishermen seek to use the remaining allocation.

In 2013, monthly ex-vessel prices rose to a high of \$4.84/lb by summer, the greatest average ex-vessel price since the start of the program (Table 25, Figure 10). This was followed by the lowest ex-vessel prices since the start of the program in November and December (Table 25, Figure 10). These low ex-vessel prices were most likely correlated to the influx of landings due to the release of 1.17 mp of allocation on September 30th. Ex-vessel prices immediately began to decrease in October by ~\$0.40/lb and then decreased by ~\$0.60/lb in November, with a final decrease in December of ~\$0.10/lb. This resulted in the largest range of monthly ex-vessel prices since 1998 (\$1.09/lb).



Ex-vessel prices may also be influenced by regional differences. In 2013, the Alabama/Mississippi region had the lowest average annual ex-vessel (\$4.26/lb), followed by Florida (\$4.42/lb), Louisiana (\$4.50/lb) and Texas (\$4.50/lb) (Table 25). The greatest range in monthly ex-vessel prices occurred in Florida, while prices were more consistent in Alabama/Mississippi (Table 25). For all regions, ex-vessel prices decreased in the last few months of the years coinciding with the increase in quota and the need to use quota before it expires at the end of the year.

Table 25: Average 2013 ex-vessel prices by month

Month	FL	AL/MS	LA	TX	All
Jan	\$4.62	\$4.50	\$5.13	\$4.49	\$4.67
Feb	\$4.62	N/A	\$4.87	\$4.22	\$4.55
Mar	\$4.57	\$4.46	\$4.88	\$4.35	\$4.59
Apr	\$4.65	\$4.50	\$4.77	\$4.74	\$4.70
May	\$4.65	\$4.51	\$4.91	\$4.88	\$4.75
Jun	\$4.77	\$4.62	\$4.60	\$4.77	\$4.74
Jul	\$4.71	\$4.88	\$4.93	\$4.86	\$4.83
Aug	\$4.71	\$4.63	\$4.96	\$4.94	\$4.84
Sept	\$4.75	\$4.60	\$4.83	\$4.90	\$4.82
Oct	\$4.61	\$4.45	\$4.37	\$4.34	\$4.45
Nov	\$3.84	\$3.50	\$3.41	\$4.10	\$3.83
Dec	\$3.73	\$3.63	\$3.49	\$4.01	\$3.75
Annual	\$4.42	\$4.26	\$4.46	\$4.50	\$4.46

Table 26: Average annual ex-vessel prices by region¹

Year	FL	AL/MS	LA	TX
2007	\$4.19	\$3.53	\$4.17	\$4.00
2008	\$4.52	\$3.82	\$4.48	\$4.15
2009	\$4.49	\$4.64	\$4.37	\$4.26
2010	\$4.44	\$4.18	\$4.24	\$4.39
2011	\$4.45	\$4.30	\$4.52	\$4.29
2012	\$4.51	\$4.35	\$4.37	\$4.58
2013	\$4.42	\$4.26	\$4.46	\$4.50

¹Inflation adjustments from: <http://www.bea.gov/> with 2013 as the base year using the GDP deflator.

Price Ratios

Allocation price to share price and allocation price to ex-vessel price ratios are commonly used as an indicator of economic performance. The allocation to share price ratio has decreased since the start of the program from 18% in 2007 to 8% in 2013 (Table 27). The decreasing discount rates indicate that fishermen have longer planning and investment horizons as the perceived uncertainty about the future of the program lessens. This suggests that fishermen are feeling more secure about the RS-IFQ program. The allocation to ex-vessel price ratio has increased since the start of the program, from 53% in 2007 to 67% in 2013 (Table 27). These appreciating ratios suggest that fishermen have been successful at maximizing profits from the commercial red snapper quota and have an increased confidence in the program.

Table 27: Allocation ratios

Average \$/lb ¹	2007	2008	2009	2010	2011	2012	2013
Allocation	\$2.16	\$2.48	\$2.87	\$3.04	\$3.05	\$3.04	\$3.00
Shares	\$12.09	\$12.42	\$22.00	\$20.62	\$29.82	\$36.22	\$36.24
Ex-vessel	\$4.10	\$4.36	\$4.40	\$4.39	\$4.40	\$4.51	\$4.46
Ratios to allocation							
Shares	18%	20%	13%	15%	10%	8%	8%
Ex-vessel	53%	57%	65%	69%	69%	67%	67%

¹Averages are adjusted for inflation, and shares are based on the equivalent pound.

Cost Recovery and Ex-vessel Value

The Magnuson-Stevens Act requires the Secretary to adopt regulations implementing a cost recovery program to recover the actual costs of managing and enforcing the RS-IFQ program. The cost recovery fee established for the RS-IFQ program is currently 3% of the actual ex-vessel value of Gulf red snapper. RS-IFQ allocation holders who complete a landing transaction with a dealer are responsible for payment of the fee. The dealer who receives the red snapper is responsible for collecting and submitting the fee on a quarterly basis. Monies collected are used for administration of the program, maintenance, and upkeep of the online system and software, enforcement of the RS-IFQ program, and scientific research.

Total ex-vessel value increased each year since 2009. In 2013, total ex-vessel value was \$21,108,505, which was due mainly from an increase total landings (+1,272,203 lb more than 2012) (Table 14), as the average annual ex-vessel price was slightly lower than the previous year (Table 24). Cost recovery fees are calculated directly from the reported ex-vessel value. With increases in quota and increases in ex-vessel prices, ex-vessel values, and therefore, cost recovery fees, have increased within the last four years (Tables 28 and 29). In 2013, \$633,231 was collected in cost recovery fees.

Table 28: Cost recovery fees by quarter

Year	Jan – Mar	Apr – Jun	Jul- Sept	Oct –Dec	Total
2007	\$77,223	\$77,310	\$66,248	\$83,261	\$304,043
2008	\$91,890	\$59,884	\$42,643	\$53,308	\$247,815
2009	\$72,386	\$66,383	\$50,587	\$50,801	\$240,157
2010	\$93,262	\$79,566	\$46,729	\$88,718	\$308,276
2011	\$94,357	\$84,836	\$78,382	\$89,302	\$346,877
2012	\$118,032	\$99,245	\$93,977	\$114,164	\$425,417
2013	\$141,688	\$121,105	\$159,720	\$210,717	\$633,231

Table 29: Reported ex-vessel values by quarter

Year	Jan – Mar	Apr – Jun	Jul- Sept	Oct –Dec	Total
2007	\$2,576,222	\$2,577,170	\$2,208,242	\$2,775,369	\$10,137,003
2008	\$3,065,980	\$1,996,123	\$1,421,440	\$1,776,917	\$8,260,461
2009	\$2,412,869	\$2,212,748	\$1,686,223	\$1,693,520	\$8,005,360
2010	\$3,108,724	\$2,652,196	\$1,557,619	\$2,957,294	\$10,275,834
2011	\$3,145,225	\$2,827,857	\$2,612,696	\$2,976,700	\$11,562,478
2012	\$3,934,030	\$3,308,138	\$3,132,546	\$3,805,450	\$14,180,164
2013	\$4,722,933	\$4,036,831	\$5,323,864	\$4,024,876	\$21,108,505

Enforcement and Administrative Audits

Law Enforcement Activities

Law enforcement is a crucial component of the IFQ programs. Agents and officers from NOAA/NMFS Office of Law Enforcement (OLE) Southeast Division, the U.S. Coast Guard (USCG) and participating Joint Enforcement Agreement (JEA) states enforce the regulated activities mandated under the Gulf IFQ programs. State wildlife officers and game wardens routinely contribute to the enforcement of the IFQ programs under the auspices of the Cooperative Enforcement Agreement, by patrolling the waterfront, meeting vessels upon landing, and monitoring offloads. OLE Special Agents conduct random monitoring of vessels, assist state wildlife officers and game wardens with violations requiring further investigation and conduct independent investigations, primarily those involving the undocumented landing and sale of IFQ species and the trafficking of illegally harvested red snapper and grouper-tilefish entered into interstate commerce. During offshore boardings, the USCG and JEA partners with long range capabilities ensure that vessels harvesting red snapper have valid RS-IFQ accounts.

During patrol, action is taken by OLE agents to correct problems identified and educate fishermen on program requirements and regulations. In other instances, OLE agents took enforcement action by way of warnings (verbal and written), citations, and follow-up investigation by NOAA's Special Agents.

Major violations since implementation of the IFQ programs include the false reporting of species harvested and under reporting of total weights landed. Typical violations include landing prior to the three-hour minimum landing notice, landing at a unspecified or unapproved location, insufficient allocation, transporting IFQ species without an approval code, completing a landing transaction without a landing notification, and offloading after approved hours. Typical dealer violations include misreporting IFQ species, failure to provide a current dealer permit and/or IFQ dealer endorsement, and failure to enter IFQ species landed.

Table 30: Federal IFQ law enforcement action

Year	Total IFQ cases	RS Cases	RS Pounds Seized	RS Seized value
2007	20	7	7,678	\$33,270
2008	17	6	1,622	\$6,525
2009	20	2	250	\$910
2010	9	4	538	\$2,170
2011	10	6	6,683	\$26,619
2012	6	5	5,855	\$27,482
2013	6	3	1,706	\$9,206

NOAA Agents working with Florida Fish and Wildlife Conservation Commission and Alabama Marine Resources Division investigators and officers recently completed an undercover investigation leading to the criminal indictments of eight individuals involved in the illegal commercial harvest, sale and filing of false landing reports for IFQ species in the Florida panhandle and Alabama. In 2013, JEA partners dedicated approximately 4,051 hours to the enforcement of the Gulf of Mexico IFQ programs (RS-IFQ and GT-IFQ). NOAA OLE agents and officers conducted approximately 90 patrols, offload monitorings, and investigations involving IFQ program regulations, including the seizure of IFQ regulated species. The 2013 cases resulted in the issuance of verbal warnings, written warnings and violations, in-

cluding three seizures totaling 1,706 lb of illegally harvested or landed red snapper with a corresponding value of \$9,206 (Table 30).

Administrative Audits

IFQ administrative staff regularly audits landing notifications and transactions. Phone and/or audit letters may be sent to dealers and fishermen notifying them of outstanding transactions. If transactions are not completed or are considerably late, they are referred to NOAA OLE for further investigation. In 2013, IFQ staff resolved 93 unmatched landing notifications. No unresolved notifications were forwarded to law enforcement.

Synopsis Summation

In the seventh year of the Red Snapper IFQ program, the program has shown continued progress in its main objectives of reducing overcapacity and mitigating the derby fishing conditions; increased market stability; fishing flexibility; and balancing social, economic, and biological benefits. As anticipated, there has been continued share consolidation in the RS-IFQ program (399 accounts with shares), while the total number of accounts participating in the program has remained similar for the past four years (~599 accounts). The number of vessels harvesting red snapper decreased slightly in 2013, and still remains considerably lower than the average number of vessels in the five years preceding the program, indicating moderate success at reducing overcapacity, although further reduction may still be necessary.

As participants adjust to the program, there have been changes in how participants interact with the RS-IFQ program. Changes in participation include changes in the percentage of accounts without shares and/or permits, public participants, and allocation traders. Although the number of participants have remained the same, accounts without shares increased to 30% and accounts without permits increased to 31%, both the greatest since the start of the program. The percentage of shares held by accounts without permits also increased in 2013 to 24% of all shares. There are now 27 public participant accounts created since 2012, although only eight of those accounts hold shares and seven accounts hold allocation. The public participant accounts hold a small percentage (2.2%) of shares, although this has increased slightly since 2012. New public participation accounts appear to have had a minimal impact in 2013, but should be closely monitored in conjunction with accounts that no longer hold permits. The composition of the allocation holders has continued to change over time, although the percentage of accounts landing allocation has remained the same for the past four years. The number of accounts landing red snapper but not holding shares increased to 39% , up 8% since the previous year. The percentage of accounts only trading allocation has remained similar to previous years at 28%. While the percentage was low (2%), 2013 was the first year in which there were accounts without share or permits that were only trading allocation. The slight increase in accounts without permits only trading allocation should be monitored closely to analyze the economic impacts of allocation brokers, those who primary goal is trading allocation rather than harvesting red snapper.

Fishing effort was similar to past years in days per trip, number of trips, and days away, although average pounds per trip has increased. Effort is still considerably different than pre-IFQ which had on average 2 less days per trip and ~460 less pounds per trip. The behavior of fishermen has changed since the start of the RS-IFQ program, which may be influenced both directly and indirectly by the RS-IFQ program. Some factors may include: effects from the GT-IFQ program, red snapper quota increases, changes in quota or regulations for other Gulf reef species, market demand, and changes in targeting behavior. Not all RS-IFQ accounts that land red snapper fish in the same manner, as some may target red snapper as their primary catch, while others use red snapper allocation to supplement other catch, and still others may use their allocation for incidental bycatch of red snapper. The majority of the vessels land around 500 lb/trip, indicating that many participants are not directly targeting red snapper but instead using their allocation for supplement catch or incidental catch. There is still a high amount of fish being discarded on both longline vessels and vessels fishing off the Florida peninsula. These discards are more likely due to insufficient allocation, rather than the minimum size limit, particularly as the red snapper stock has expanded along the Florida peninsula. Future options should look into ways to minimize the discard of red snapper in these areas and/or gears.

Price information (share, allocation, and ex-vessel price) can be an indicator of the successfulness of an IFQ program and indicates a stable year-round market for red snapper. Price reporting improved for all price collections, although further improvement is still needed for share and allocation prices (51% and 39% reasonable prices). The inclusion of transfer reasons for share and allocation transactions helped to explain some of the low prices. Share and allocation prices remained similar to the previous year, with shares at \$36/lb and allocation at \$3/lb. Ex-vessel prices decreased slightly in 2013 to \$4.46/lb, and this decrease was most likely influenced by the large quota increase in the last quarter of the year.

The two quota increases in 2013, particularly the large increase late in the year had an impact on landings as well as allocation and ex-vessel prices. Despite the late in the year quota increase, 97% of the quota was landed by the end of the year, similar to the previous years. The greatest landings occurred in the last quarter of the year and not during Lenten season as in previous years due to the large increase in quota on September 30th. The September 30th quota increase also affected allocation and ex-vessel share prices. Allocation prices in November and December decreased by more \$0.50/lb and were the lowest values for the year. In fact the last month that had prices this low occurred in June of 2008. Ex-vessel prices decreased by \$1/lb from September to November/December. After adjusting for inflation, these were the lowest monthly ex-vessel prices in the history of the IFQ program. Future analysis should be focused on whether the decrease in allocation and ex-vessel prices were solely due to the large quota increase late in the year or just related to an increased amount of quota available. Timing and size of quota releases appear to have a considerable effect on economic impacts within the IFQ fisheries.

Looking Ahead

The RS-IFQ five-year review was completed in 2013 and the Gulf Council has since created a Red Snapper Ad Hoc Advisory panel to discuss possible changes to the program. The Advisory panel has already met once and their recommendations, as well as those stemming from the review, are being used to develop Reef Fish Amendment 36. Work on the amendment is expected to continue through 2014 and there will be numerous opportunities for public input and involvement on the amendment.

NMFS has developed a proposed rule for administrative changes to IFQ reporting requirements. The Gulf Council approved and deemed the rule in 2013. NMFS published the proposed rule in spring 2014 seeking public comment on the proposed regulatory modifications. A final rule making administrative modifications to the program is expected in summer 2014.

In late 2014, a new assessment for Gulf red snapper will begin. The assessment will be completed by early 2015 and results will be reviewed by the Gulf Council's Scientific and Statistical Committee and presented at a future Gulf Council meeting.

If you have a suggestion on how the online system can be further improved please call or e-mail SERO Catch Share customer support.

Appendices

Appendix 1. History of the red snapper IFQ program

An IFQ program for red snapper was first proposed in Amendment 8 to the Fishery Management Plan for Reef Fish Resources of the Gulf and approved by the NMFS in 1995. The program was not implemented due to Congressional action that placed a moratorium on the development and implementation of new Individual Transferable Quota programs until October 1, 2000. Despite this moratorium, red snapper commercial fishermen and the Gulf Council remained interested in developing an IFQ program, and in 2004 initiated the development of the current RS-IFQ program (Figure A1). A majority of eligible voters (based on a weighted majority of votes of red snapper Class 1 license holders) supported, through referendum, development of the RS-IFQ program. Persons eligible to vote in the referendum included red snapper Class 1 license holders, vessel captains harvesting red snapper during 1993-1996, and certain lessees of Class 1 licenses. NMFS issued 157 referendum ballots, 145 of which were filed with the agency. The weighted vote resulted in 72% of respondents (representing 81% of the weighted votes) supporting the Gulf Council's development of an IFQ program. During 2004 and 2005, the Gulf Council, in collaboration with their Ad Hoc Red Snapper Advisory Panel, developed Amendment 26 to the Reef Fish FMP. This amendment outlined the key components of the RS-IFQ program. In 2006, a second referendum determined that a majority of eligible voters supported the submission of Amendment 26 to the Secretary of Commerce for approval. On January 17, 2006, NMFS issued 167 referendum ballots, 140 of which were filed with the agency; the weighted vote demonstrated 76% of respondents (representing 87% of the weighted vote) favored implementation of an IFQ program. The amendment was approved by the Gulf Council in March 2006 and implemented by the Secretary of Commerce on January 1, 2007.

Initial shares were issued to Gulf reef fish permit holders with valid Class 1 or Class 2 red snapper licenses on November 22, 2006, based on the amount of red snapper landings reported under each entity's qualifying license during the qualifying time period. For Class 1 license holders, RS-IFQ shares were based on the best ten consecutive years from 1990-2004. For Class 1 historical captain license holders, RS-IFQ shares were based on seven years of landings from 1998-2004. For Class 2 license holders, RS-IFQ shares were based on the best five years of landings from 1998-2004. Initial share distribution was based on landings history; therefore, Class 1 license holders received a majority of the RS-IFQ shares (91%) and corresponding allocation. Class 2 license holders and fishermen along the west Florida shelf received smaller amounts of shares and corresponding allocation, as red snapper were less plentiful there during the qualifying years of the RS-IFQ program.

In 2010, there were significant changes made to the RS-IFQ database and online system (Figure A1) to align it with the GT-IFQ program and enhance law enforcement. In 2010, the structure switched from a fisherman-assignee based system to a fisherman-vessel based system. In the old system, a unique entity could have multiple accounts (one for each vessel owned), but the new system switched to one account per unique entity and allowed multiple vessels per shareholder account. Additional changes to the pro-

gram included submission of share transfers electronically, estimation of gutted fish weights for landing notifications, requiring preapproval of landing locations, and the elimination of vessel endorsements.

On June 1, 2011 (Figure A1), actual ex-vessel price was redefined to ensure equivalent reporting among dealers. The definition now states that “actual ex-vessel price” represents the price paid per pound of fish before any deductions are made for transferred (leased) allocation (i.e., pounds of fish) and goods and/or services (e.g., bait, ice, fuel, repairs, machinery replacement).

On January 1, 2012, the RS-IFQ program opened to the general public. Prior to January 1, 2012, accounts could only be established in the RS-IFQ program if the account holder also held a Gulf commercial reef fish permit. After January 1, 2012, any U.S. citizen or permanent resident alien could establish a RS-IFQ account. Accounts established after January 1, 2012, which do not have an associated Gulf commercial reef fish permit, are considered public participants. These accounts can trade shares and allocation, but cannot harvest red snapper.

In 2012-2013, a five-year review of the RS-IFQ program was conducted to evaluate the progress - towards achieving the stated goals of reducing overcapacity and eliminating the problems associated with derby fishing. To analyze the program’s progress data was obtained from a variety of sources: RS-IFQ database, Southeast Fisheries Science Center’s coastal logbooks, accumulated landings system, and reef fish observer program, the National Institute of Occupational Safety and Health, and surveys of the RS-IFQ participants. In general, the review found that the program has been moderately to highly successful in achieving its stated goals, although there is still room for further achievement, particularly with respect to overcapacity, discard mortality, price reporting, and social and community analyses.

In 2013, transfer reasons were added to both share and allocation transfers in order to capture more information about the types of transfer that occur and the reasons for the transfers, especially as how they related to price. One of seven share transfer reasons must be selected: sale to another account (“Sale”), transfer to a related account (“Related”), bartered for shares, bartered for allocation, gift, package deal, or no comment.

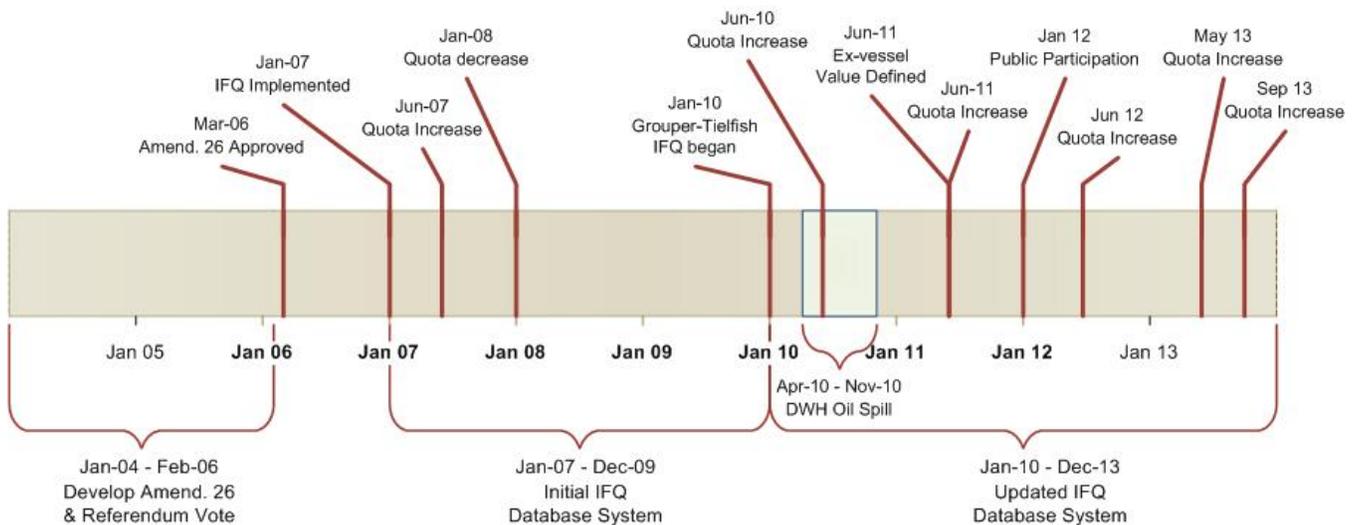


Figure A1: Red Snapper IFQ Timeline

Appendix 2: Red snapper management history

Year	Days open	Quota (mp gw)	Harvest (mp gw)	Size Limit	Commercial Management Action
1990	365	2.79	2.39	13	
1991	236	1.84	1.99	13	
1992	95	1.84	2.80	13	<ul style="list-style-type: none"> Emergency rule: Apr 3- May 14 1,000 lb trip limit Moratorium on new reef fish permits 2,000 lb and 200 lb endorsements Closed fishery Dec 1
1993	94	2.76	3.04	13	<ul style="list-style-type: none"> Opened Feb 10 One trip limit per day Extended endorsements
1994	77	2.76	2.90	14	<ul style="list-style-type: none"> Raised minimum size over next 5 years Extended reef fish permit moratorium
1995	52	2.76	2.64	15	<ul style="list-style-type: none"> Opened Feb 28
1996	87	4.19	3.89	15	<ul style="list-style-type: none"> Split quota into spring and fall seasons Extended endorsement
1997	73	4.19	4.33	15	<ul style="list-style-type: none"> Fall season started Sept 2 for 1st 15 days/month till quota met
1998	72	4.19	4.22	15	<ul style="list-style-type: none"> Established Class 1 and Class 2 license Allocated 2/3 quota to spring, starts Feb 1 Fall season started Sept 1, 1st 10 days /month
1999	70	4.19	4.39	15	<ul style="list-style-type: none"> Spring season reduced from 15 to 10 days/month
2000	66	4.19	4.36	15	<ul style="list-style-type: none"> Extended permit moratorium for 5 more years
2001	79	4.19	4.17	15	
2002	91	4.19	4.31	15	
2003	94	4.19	3.97	15	
2004	105	4.19	4.19	15	
2005	131	4.19	3.69	15	<ul style="list-style-type: none"> Extended reef fish permit moratorium indefinitely
2006	126	4.19	4.19	15	
2007	365	2.99	2.87	13	<ul style="list-style-type: none"> Implemented commercial red snapper IFQ program Reduced quota from 2006 level Mid-year quota increase Reduced size limit
2008	366	2.30	2.24	13	
2009	365	2.30	2.24	13	
2010	365	3.19	3.06	13	<ul style="list-style-type: none"> Mid-year quota increase in June; Area closures due to Deep-water Horizon oil spill event
2011	365	3.30	3.24	13	<ul style="list-style-type: none"> Mid-year quota increase in May
2012	366	3.71	3.64	13	<ul style="list-style-type: none"> Mid-year quota increase in June
2013	365	5.05	4.91	13	<ul style="list-style-type: none"> Mid-year quota increases in May and September

All weights are in million pounds gutted weight; all lengths are in inches total length; all days are calendar days. Green shading indicates IFQ years. Data collected from Gulf of Mexico Fishery Management Plans and Amendments, stock assessments, and IFQ program. Landings through 2006 were from the SEFSC ACL dataset accessed 7/3/2012; landings 2007 onward were from the IFQ system.

Appendix 3: Price Analysis Rationale

Price information is a crucial portion of the economic evaluation of the program, and yet the program continues to have price collection or reporting issues with respect to share transfers, allocation transfers, and ex-vessel prices. Share prices were not required from 2007-2009, but since mid-year 2010, a minimum transfer price of \$0.01 has been required for all share transfers. Despite requiring participants to enter a total price for share transfers, many share transactions had the default total value of \$0.01. Allocation transfer prices are currently not required by the online system (e.g., a zero value may be entered). Ex-vessel prices have varied considerably since the start of the RS-IFQ program, with values ranging widely. Extremely low prices have been attributed to dealers reporting ex-vessel prices after deducting for transferred or leased allocation, goods (e.g., bait, ice, fuel) and/or services (e.g., repairs, machinery replacement). The definition of actual ex-vessel price was changed through regulations in June 2011 and prohibits the cost of allocation transfers, goods, and /or services from being deducted from ex-vessel prices. Despite the new regulation in 2011, ex-vessel prices in many instances continue to be under-reported the RS-IFQ online system.

An expected range of reasonable prices was calculated for each price variable but investigating the frequency of each price within a given year(s). Any price value outside the given range was excluded from analysis. Share prices were analyzed over multiple years, as any one given year had small number of prices with transactions. Allocation and ex-vessel prices were analyzed on a yearly basis. Both allocation and ex-vessel prices had bi-modal distributions that clearly displayed a subset of transactions with low price information. The minimum value was set as the valley between the bi-modal distributions. Share price ranges were set between \$9-\$36/lb for the first 5 years, and then adjusted upward to \$50/lb in 2012, as the price of shares continued to increase. Allocation prices were set to \$1.20/lb to \$5/lb. Ex-vessel prices were set to \$2.60 to <\$10/lb. The online system precludes entering a price higher than \$10/lb and defaults to \$10/lb when a higher price is entered. Any prices at \$10/lb were assumed to be a data entry error and not included in analysis. This method for limiting price ranges was demonstrated to and endorsed by the Socioeconomic Scientific and Statistical Committee of the Gulf Council in 2013.

Appendix 4: Glossary

10% Overage – A provision in the IFQ program that allows IFQ accounts that hold shares to land 10% over their remaining allocation on the last fishing trip of the year. Any overage will be deducted from the shareholder's allocation for the next fishing year and the shareholder is restricted from selling shares that would prohibit this take back action.

Active Account – An account, in which the allocation holder has landed, bought, and/or sold allocation within that year. Accounts activity status changes yearly based on the actions taken by the account.

Allocation – Allocation is the actual poundage of red snapper by which a account holder is ensured the opportunity to possess, land, or sell, during a given calendar year. IFQ allocation will be distributed to each IFQ shareholder at the beginning of each calendar year, and expire at the end of each calendar year. Annual IFQ allocation is determined by the amount of the shareholder's IFQ share and the amount of the annual commercial red snapper quota. Dealer accounts may not possess allocation.

Allocation Transfer – A transfer of allocation (pounds) from one shareholder account to another shareholder account. Through January 1, 2012, allocation can be transferred only to an entity that holds a valid Gulf commercial reef fish permit.

Entity – An individual, business, or association participating in the IFQ program. Each IFQ account is owned by a unique entity.

Gulf of Mexico Commercial Reef Fish Permit Holder – An entity that possesses a valid Gulf commercial reef fish permit and therefore, is eligible to be exempt from bag limits, to fish under a quota, or to sell Gulf reef fish in or from the Gulf Exclusive Economic Zone. There is an eligibility requirement and an annual fee associated with the permit.

IFQ Dealer Endorsement – The IFQ dealer endorsement is a document that a dealer must possess in order to receive Gulf of Mexico red snapper. The dealer endorsement can be downloaded free of charge from the IFQ dealer's online account.

Inactive Account – An account, in which the allocation holder has neither landed, bought, nor sold allocation within that year, including those who never logged into their account. Accounts activity status changes yearly based on the actions taken by the account.

Initial Account - An account which was never logged into by the account's owner(s).

Landing Notification - A required 3-12 hour advanced landing notification stating the vessel identification, approved landing location, dealer's business name, time of arrival, and estimated pounds to be landed in each IFQ share category. Landing notifications can be submitted using either a vessel's VMS unit, through an IFQ entity's on-line account, or through the IFQ call service. The landing notification is intended to provide law enforcement officers the opportunity to be present at the point of landing so they can monitor and enforce IFQ requirements dockside. For the purpose of these regulations, the term landing means to arrive at the dock, berth, beach, seawall, or ramp.

Landing Transaction – A landing transaction report that is completed by an IFQ dealer using the online IFQ system. This report includes the date, time, and location of transaction; weight and actual ex-vessel price of red snapper fish landed and sold; and information necessary to identify the fisherman, vessel, and dealer involved in the transaction. The fisherman landing IFQ species must validate the dealer transaction report by entering his unique vessel's personal identification number when the transaction report is submitted. After the dealer

submits the report and the information has been verified, the website will send a transaction approval code to the dealer and the allocation holder.

Median - The middle value in a statistical distribution, above and below which lie an equal number of values.

Participant - An individual or corporation that is part of an IFQ entity. For example, John Smith the participant may belong to multiple entities such as John Smith, John and Jane Smith, and ABC Company. Share and allocation caps are tracked at the IFQ participant level and not the IFQ entity level.

Pound Equivalent – The share percentage that would equal one pound of the quota. The exact share percentage that is equivalent to one pound depends on the total commercial quota at that point in time. This value will change as the quota changes either among or within years.

Public Participant – A shareholder account that was opened after January 1, 2012, that does not have a permit associated with the account. Public participants may own and trade shares and allocation, but can not harvest red snapper.

Share – A share is the percentage of the commercial quota assigned to a shareholder account that results in allocation (pounds) equivalent to the share percentage of the quota. Shares are permanent until subsequently transferred. Dealer accounts may not possess shares.

Share Cap – The maximum share allowed to be held by a person, business, or other entity. The share cap prevents one or more IFQ shareholders from purchasing an excessive amount of IFQ shares and monopolizing the red snapper commercial sector.

Share Transfer – A transfer of shares from one shareholder account to another account. A shareholder must initiate the share transfer and the receiver must accept the transfer by using the online IFQ. Through January 1, 2012, shares can be transferred only to an entity that holds a valid Gulf commercial reef fish permit.

Shareholder – An account that holds a percentage of the commercial red snapper quota.

Shareholder Account – A type of IFQ account that may hold shares and/or allocation. This includes accounts that only hold allocation.