

*2012 Gulf of Mexico
Red Snapper
Individual Fishing Quota
Annual Report*



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A Message from the Assistant Regional Administrator

The 2012 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.

In 2012, the number of accounts holding red snapper shares continued to gradually decrease, while the numbers of allocation holders, dealers, and vessels remained similar or increased slightly. Shareholders decreased by 3% from 2011. The percentage of shareholders not having a reef fish permit (29%) changed slightly, while the amount of shares held by these accounts increased 3%. The number of allocation holders without shares increased, with 27% of the accounts purchasing all of their allocation. This may be a reflection of changes in fishermen behavior as more fishermen seek allocation to land red snapper as bycatch rather than as a targeted species. Similar to the previous year, the number of share transfers remained low, while the number of allocation transfers increased. Most the share transfers were to new shareholders, with ~1.8% going to public participants. The median amount of allocation transferred was around 400 lb, a typical amount transferred for bycatch red snapper. There was a gradual increase in the percentage of accounts harvesting red snapper that did not own shares (43%) over the past three years. The number of accounts only trading allocation has increased, although most of these accounts belonged to holders who had both permits and shares.

The red snapper quota increased again in 2012 to 3.7 mp, with 98% of the quota harvested. In 2012, landings of >195,000 lb were reported for each month indicating a strong year-round fishing market. The pace of fishing for red snapper has changed since the RS-IFQ program, with vessels taking fewer but longer trips. The average number of pounds landed per trip has remained stable since the start of the RS-IFQ program, and 2012 average landings were ~900 lb/trip. The average pounds of red snapper per trip has increased for vessels in the western Gulf and the Florida panhandle, while remaining relatively unchanged in the Florida peninsula. Longline vessels decreased their red snapper pounds per trip, coinciding with fishermen targeting other species.

Despite ongoing problems with accurate reporting of prices, for all transactions there was an increase in the number of transactions used in price analysis. Share prices have continued to increase, and increased an additional \$6 in 2012 to approximately \$35/lb. Allocation and ex-vessel prices have remained similar over the past three years at ~\$3.00/lb (allocation) and ~\$4.40/lb (ex-vessel). Analysis of allocation price ratios indicated that fishermen have been successful at maximizing their profits and have an increased confidence in the program.

A five year review of the program was recently completed. The report concluded that the RS-IFQ program has been successful in meeting many of the goals, although work is still needed in a few key areas. Future efforts will be centered on modifying the program to address issues identified during the 5-year review. I encourage each of you to provide needed input on ways the program can be improved.

Sincerely,



Phil Steele

Assistant Regional Administrator for Sustainable Fisheries

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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) commercial reef fish



dealer permit or Gulf 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 reef fish vessel permit can legally harvest red snapper commercially.

There are three main account types in the RS-IFQ system: shareholder, vessel, and dealer accounts. All accounts from 2007-2011 were based on the unique entity (single or combination of individuals and/or business) that held either a Gulf dealer or Gulf reef fish permit. Prior to January 1, 2012, shareholder accounts that did not have a valid Gulf 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 associated Gulf reef fish permits 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) Freedom of Information Act's website: 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 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. 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 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 for their last trip. 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 2012, any RS-IFQ account may trade (increase or decrease holdings) red snapper shares and allocation, regardless of 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 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. 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 analyzes the ex-vessel revenue of the red snapper commercial sector through the collection of 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/ifqgt>. 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 2012, participation in the RS-IFQ program became eligible to the public. Before 2012, only participants who held a valid Gulf reef fish permit could open a RS-IFQ account and receive red snapper shares or allocation. Previously established accounts that no longer held a valid permit could still transfer out red snapper shares and allocation, but could not increase their holdings or harvest red snapper. After January 1, 2012, any public participant who is a U.S. citizen or permanent resident alien can open a RS-IFQ account. Public participants can transfer in and out shares and allocation, but cannot harvest red snapper. With the implementation of public participation, all RS-IFQ participants had to verify that they were either a U.S. citizen or permanent resident alien.

In addition, SERO staff made database and web-based changes in 2012 to the Gulf IFQ system, which houses both the RS-IFQ program and the Grouper-Tilefish IFQ (GT-IFQ) program. Due to the high number of missing or under-reported share transfer prices, NMFS now requires both the transferee and transferor to enter the total price paid. To aid in auditing landings, dealers must now select the associated landing confirmation number for that transaction. At the request of Gulf IFQ participants, NMFS created landing ledgers for dealers and shareholders. Landing ledgers display each landing transactions including the pounds, price per pound, total price, and cost recovery fee. Participants may view and print their landing ledger by year and quarter.

2012 Red Snapper IFQ Fishing Season

Program Participants

Shareholders

The number of accounts holding red snapper shares has decreased by 26% 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 reduction in accounts holding red snapper shares occurred within the first year of the program, while in the last few years there were smaller decreases (Table 1). Most of the reduction in accounts holding shares took place in those accounts holding small share percentages (< 0.01%). However, these accounts still comprise the vast majority of the accounts with red snapper shares.

Table 1: Accounts by shareholding size¹

Year	Small	Medium	Large	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

¹ Initial values were calculated on 1/1/2007, while 2007-2012 values were calculated on 12/31. Small accounts hold < 0.05%; medium accounts hold 0.05% - 1.4999%; and large accounts hold ≥ 1.5% 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 2012, approximately 6% of shares were transferred to new accounts. This was the greatest amount of shares to be transferred to new accounts since the start of the program. Further investigation into these accounts, de-

Table 2: New shareholder accounts

Year	Small	Medium	Large	Total	Total %
2007	8	2	0	10	0.57
2008	7	3	0	10	0.78
2009	5	1	0	6	0.42
2010	19	8	1	28	4.41
2011	14	8	0	22	1.51
2012	15	11	1	27	5.86

¹ IFQ accounts are established based on the name(s) of the Gulf 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.

terminated that the majority of these transfers were between related accounts, particularly those with permit name changes. Only five of these new accounts were considered ‘public participants’, that is, accounts that were opened after 2012 that do not have an associated Gulf reef fish permit.

Prior to 2012, a valid Gulf 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 reef fish permit. These accounts could not obtain more shares or allocation, nor harvest red snapper, but could transfer those shares or allocation to another shareholder. Starting in 2012, accounts without permits can now fully trade (transfer in or out) shares and allocation. The percentage of accounts that hold shares without holding a Gulf reef fish permit increased to 29%, nearly double the percentage in 2007 (Figure 1, Table 3). The amount of shares held by these accounts has also increased (Figure 1). The amount of shares

held by accounts without permits remained stable from 2007 through 2010, with percentages between 12-15% (Table 3). The amount of shares increased by 3% in 2011 (18%) and again by 3% in 2012 (21%).

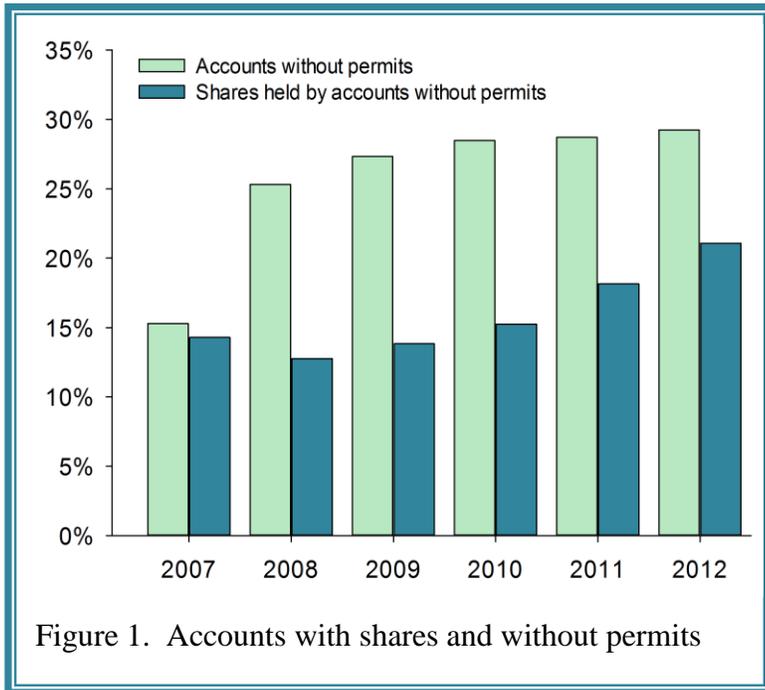


Table 3: Accounts with shares

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

Allocation Holders

In the RS-IFQ program, an account holder 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 reef fish permit and some accounts may only trade allocation. The number of accounts with allocation peaked in 2012, with 599 accounts holding allocation (Table 4). This value was similar to values in 2007, 2010, and 2011, but greater than those in 2008 and 2009. The accounts that obtain at least one pound of allocation through shares have decreased every year and are currently 20% less than the first year of the program (Table 4). The percentage of accounts that obtain all allocation from other accounts increased noticeably in 2010, from previous values of 7-11% to 23% in 2010, and has continued to increase incrementally since 2010. In 2012, 27% of the accounts with allocation had to obtain all their allocation from another shareholder. In the last three years, the increase in the number of accounts hold-

ing allocation, particularly those without shares, may be the result of quota increases, the GT-IFQ program, and/or indicative of the change in harvesting behavior among Gulf reef fish fishermen. The quota increases may allow allocation to be distributed among more participants. Discussions with industry representatives indicate that there appears to be 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. 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 2012, 93% of the vessels landing red snapper also landed at least one pound in the GT-IFQ program.

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%)

Dealers

In 2012, 82 Gulf reef fish dealers purchased red snapper, the same as in the preceding year; however, the number of dealers purchasing red snapper has increased during the last few years of the program (Table 5). The increase in dealers began in 2010 and was most likely influenced by both the start of the GT-IFQ program and the increased number of shareholders obtaining dealer permits. While linking a shareholder account to a dealer account is not currently possible in the system, especially as accounts may be held by different individuals and/or business, personal communication with industry representatives indicates that some shareholders were also obtaining dealer permits. Prior to 2010, the majority of dealers were medium-sized dealers who worked with 3-10 different shareholders. Starting in 2010, there was a shift towards more small-sized dealers, those who purchase from 1-2 shareholders (Table 5). In 2012, there were nearly equal numbers of dealers buying from small (1-2) and medium (3-10) numbers of shareholders.

Table 5: Dealer accounts and size

Year	Total	Small	Med.	Large
2007	75	34 (45%)	32 (43%)	9 (12%)
2008	67	26 (39%)	35 (52%)	6 (9%)
2009	66	25 (38%)	33 (50%)	8 (12%)
2010	77	36 (47%)	28 (36%)	13 (17%)
2011	82	42 (51%)	30 (37%)	10 (12%)
2012	82	35 (43%)	37 (45%)	10 (12%)

The number of different shareholder accounts that are landing with a dealer determines the dealer size. Shareholders may land with multiple dealers and therefore may be counted in more than one category. Small dealers work with 1-2 shareholders, medium with 3-10 shareholders, and large with 11 or more shareholders.

Vessels

The number of vessels participating in the RS-IFQ program decreased until 2010, when there was an increase that coincided with the start of the GT-IFQ program. The number of vessels increased slightly in 2012 relative to 2011 (+9 vessels) (Table 6). The slight increase in vessels may be attributed to more shareholders harvesting red snapper as a non-targeted species ('bycatch'). While, there has been an increase in the number of vessels since the start of the RS-IFQ program, the number of vessels is still considerably less than those harvesting red snapper pre-RS-IFQ (2002-2006 average = 485 vessels). Vessels harvesting red snapper predominantly land at Florida facilities (Table 6; ~300 vessels for the

Table 6: Vessels harvesting red snapper

Year	Total	FL	AL/ MS	LA	TX
2002 -06 average	485	-	-	-	-
2007	305	219	3	25	58
2008	297	216	12	24	45
2009	289	217	10	23	39
2010	384	306	12	20	46
2011	362	290	23	17	32
2012	371	304	21	19	27

last three years). In contrast the number of vessels landing red snapper at Texas facilities has declined by nearly half since the start of the program, while vessels landing in Alabama and Mississippi facilities has increased 7-fold since the start of the program. 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.

Program Activity

Share Transactions

The greatest number of share transfers and total amount transferred occurred at the start of the program (Table 7). In each year, there was a broad range of shares transferred. The number of share transfers per year has been similar since 2009, with approximately 75-80 transfers per year (Table 7). In 2012, there were 81 share transfers for a total of 7.5608% shares (Table 7). Just over 75% (5.857020%) of the total transferred shares went to new shareholder accounts, while the remainder was transferred to existing shareholder accounts. Five public participant accounts (see p. 11) received a total of 1.8% of the red snapper shares transferred, approximately 23% of all the shares transferred in 2012. Some of the public participation accounts had shares transferred from related accounts, which are determined as accounts that contained at least one similar entity or surname name.

Table 7: 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

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 and only allocation transfers between accounts are analyzed in this report. The RS-IFQ program tracks landings in pounds of gutted weight; therefore, throughout this report allocation and landings are expressed in terms of pounds of gutted weight. Gutted pounds can be converted to whole pounds by multiplying by 1.11. The total amount of allocation traded and the number of transactions have increased every year, with a considerable increase in 2010 (Table 8). The 2010 increase can be attributed to the start of the GT-IFQ program, quota increases, and the restructuring of the IFQ online system. The previous database system allowed for an under-representation of allocation transfers because a single vessel could land under multiple shareholder accounts, thereby bypassing an allocation transfer. This is no longer possible in the current system. In 2012, there were 2,251 allocation transactions that accounted for over 3.7 million pounds of allocation transferred (Table 8). Similar to 2011, in 2012 the amount

Table 8: 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	2,251	3,741,966	1,467	400	100.8%

of allocation transferred exceeded the quota for that year. Both the average and median amounts of allocation transferred decreased in 2012 (Table 8). 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 that trip.

Allocation Activity

Account activity can be determined through analyzing allocation transactions. Account status is determined each year based on an account's activity within that year. An account is considered active if the account landed, sold, and/or bought allocation. The number of inactive accounts has decreased since the start of the program from 29% of all accounts with allocation to just 16% in 2012 (Table 9). The decrease in the number of inactive accounts is due in part to outreach efforts of the IFQ Customer Support staff in both 2011 and 2012. Active participants can be divided into two broad categories: those who landed fish and those who only traded allocation. Note that those who land fish may also trade allocation. In 2012, 56% of the accounts with allocation also landed at least one pound of red snapper (Table 9, Landing RS). This has in-

Table 9: Accounts activity

Year	N w/ alloc.	N Inactive	N Landing	N Landing w/Shares
2007	596	173 (29%)	279 (47%)	243 (41%)
2008	547	168 (31%)	269 (49%)	230 (42%)
2009	530	137 (26%)	262 (49%)	213 (40%)
2010	598	122 (20%)	337 (56%)	216 (36%)
2011	589	102 (17%)	328 (56%)	198 (34%)
2012	599	94 (16%)	333 (56%)	191 (32%)

creased since the start of the program, when only 47% of the accounts landed red snapper.

Accounts landing red snapper can be further classified as those that do and do not hold shares. Each year there has been a decrease in the number of accounts that land red snapper and also hold shares. In 2012, only 57% of the accounts landing red snapper also held shares (Table 9, ‘N Landing w/Shares’ / ‘N Landing’). This is a 30% decrease from the start of the program, when 87% of the accounts landing red snapper also held shares. The percentage of landings landed by accounts with red snapper shares has also decreased over time (Table 10). At the start of the program, 91% of the landings came from accounts with shares, while in 2012 only 69% of the landings came from the accounts with shares. The decrease in both the number of accounts landing and the percentage of landings that came from accounts with shares may indicate an increasing disconnect between those that harvest red snapper and those that own RS-IFQ shares.

Table 10: Landings 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%

The active accounts that are not landing red snapper are instead *only* trading red snapper allocation. Accounts may only trade allocation for a variety of reasons: 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).

The percentage of accounts only trading allocation has increased slightly since the start of the program, from 24% to 29% in 2012 (N from Table 9 / N from Table 11). Accounts only trading allocation can be divided into subcategories: holding shares and a Gulf reef fish permit, holding shares without a Gulf reef fish permit, and not holding shares but holding a Gulf reef fish permit. For each year, the majority of the accounts only trading allocation held both shares and Gulf reef fish permits (Table 11). This percentage has decreased since the start of the program (81%), but has remained similar from 2008-2012 (54-59%). Therefore, the number of accounts that are only trading allocation cannot be correlated to an

Table 11: Accounts only trading allocation

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

increase in the number of accounts without Gulf reef fish permits. Interestingly, there is a small but increasing number of accounts that are only trading allocation but do *not* hold shares. Within the last three years, these accounts have comprised ~12% of the accounts that only trade allocation. These accounts may be acting as brokerage accounts, in that they obtain allocation solely in order to trade that allocation to other accounts.

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, and 2012. The commercial RS-IFQ quota increased each year since 2010 (Table 12), and in 2012 was nearly 1.5 million pounds gutted weight (mp gw) greater than at the start of the IFQ program. The 2012 quota increased from 3.3 to 3.7 mp gw in June of 2012. Despite the continual increases in quota from 2010 onward, the commercial quota in 2012 was still below the pre-RS-IFQ quota level of 4.19 mp gw.

Table 12: IFQ commercial quota (gutted weight)

Year	Jan 1	Quota Increase	Increase Date	Dec 31
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

Landings

Since the beginning of the RS-IFQ program, more than 95% of the quota has been landed annually. In 2012, RS-IFQ participants landed 98% of the quota (Table 13). Landings fluctuate monthly, ranging between 91,000 and 500,000 lb/month (Figure 2, Table 13). Monthly landings are generally greater in the first half of the year and in December as commercial fishermen seek to harvest unused allocation before the end of the fishing season. For all years of the program, just less than half of red snapper commercial landings occurred in Florida (Table 14). In 2012, Texas and Louisiana landings accounted for 28% and 20% of the harvest, respectively, while Alabama and Mississippi had the least landings (5%) (Table 14).

Table 13: Commercial landings by month and year

	<u>Gulf-wide Landings (lb gw)</u>					
	2007	2008	2009	2010	2011	2012
January	103,309	241,905	226,559	276,099	239,103	305,284
February	330,625	317,871	189,520	258,807	322,078	290,652
March	278,021	290,336	268,819	361,969	380,667	447,846
April	281,551	204,701	220,336	267,700	265,942	311,624
May	181,798	185,313	212,850	269,711	296,991	321,705
June	233,376	134,448	181,401	208,869	229,569	185,931
July	225,536	152,134	165,968	137,283	205,363	293,151
August	198,141	135,030	183,851	162,232	263,077	256,486
September	219,284	91,287	138,731	162,257	251,718	260,268
October	187,371	135,361	143,212	196,725	229,625	298,116
November	296,230	120,797	144,406	246,878	195,741	296,205
December	332,084	228,297	161,793	507,514	358,461	368,897
Annual	2,867,326	2,237,480	2,237,446	3,056,044	3,238,335	3,636,395
% Quota Landed	96.0%	97.4%	97.4%	95.8%	98.1%	97.9%

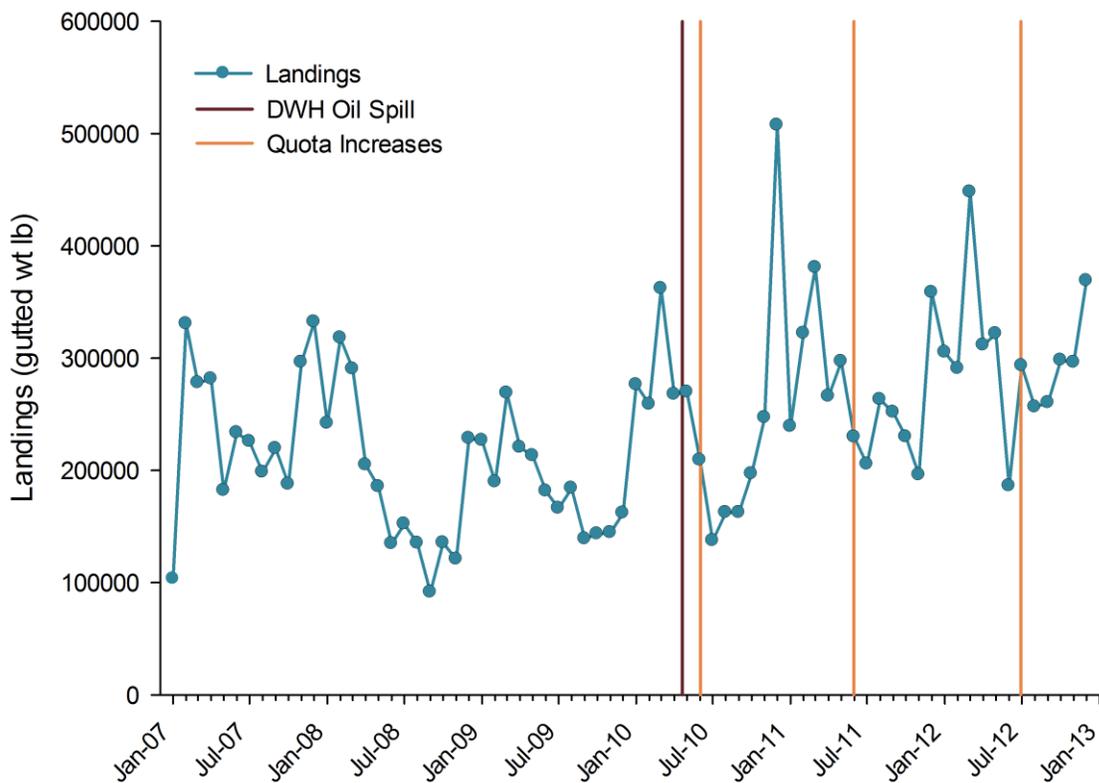


Figure 2. Total monthly landings

Table 14: 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%

Remaining Allocation

Allocation is annual; therefore, at the end of each year there may be unharvested allocation that remains in shareholders' accounts. There was at least one pound of red snapper allocation remaining in 36% of the accounts that held allocation in 2012 (Table 15). This was the least number of accounts with remaining allocation since the start of the program. Unharvested allocation occurred both in active and inactive accounts, although the number of inactive accounts has decreased each year (Table 15). In every year except 2010, the amount of pounds of remaining allocation was greater in inactive accounts than active accounts (Table 15). The anomaly in 2010 most likely occurred due to the fishery closed areas implemented following the Deepwater Horizon (DWH) oil spill event (Table 13; Appendix 2).

Table 15: Remaining allocation in active and inactive accounts.

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

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) have overages (Table 16). Overages are generally less than 0.20% of the quota. Overages in 2012 occurred in 29 accounts and totaled 1,715 lb. The 2012 median value for overages was 18 lb per shareholder, with a minimum of 1 lb and a maximum just less than 300 lb.

Table 16: 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

Effort and Bycatch

Red snapper effort was categorized by analyzing the number of trips that caught at least one pound of red snapper, as well as the days away and the average landings on those trips. In general, the pace of fishing changed with the start of the RS-IFQ program³. Both the number of trips and days away decreased at the start of the RS-IFQ program (Table 17). Subsequently, the number of days away began increasing in 2010, and is currently greater than the five-year average pre-RS-IFQ program. Since the RS-IFQ program, the average length of a trip (days/trip) has increased (Table 17, Figure 3). Fishermen catching red snapper are now taking fewer, but longer trips. 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. The majority of vessels in the RS-IFQ program land on average ≤ 500 lb/trip (Figure 4).

Table 17: Effort harvesting red snapper

Year	Trips	Days Away ¹	Avg. days per trip	Avg. RS landings per trip
2002 -06 average	4,709	12,856	2.64	1,417
2007	2,632	11,165	4.33	1,075
2008	2,343	9,646	4.24	937
2009	2,451	9,444	4.05	898
2010	3,220	13,207	4.45	949
2011	3,823	14,613	4.31	847
2012	3,893	14,230	4.37	934

¹ Days away are calculated from the SEFSC Coastal Logbook records as of 3/12/2013 and therefore may not contain the complete 2012 data.

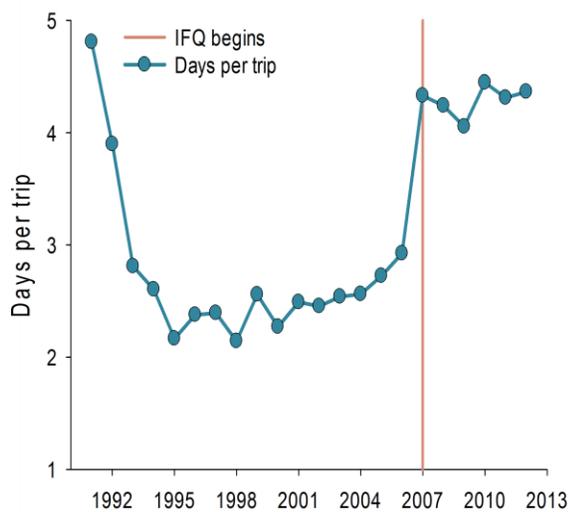


Figure 3. Days per trip for all vessels

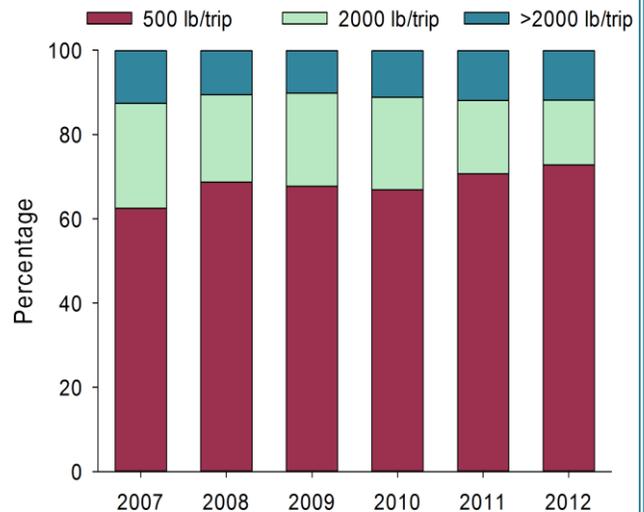
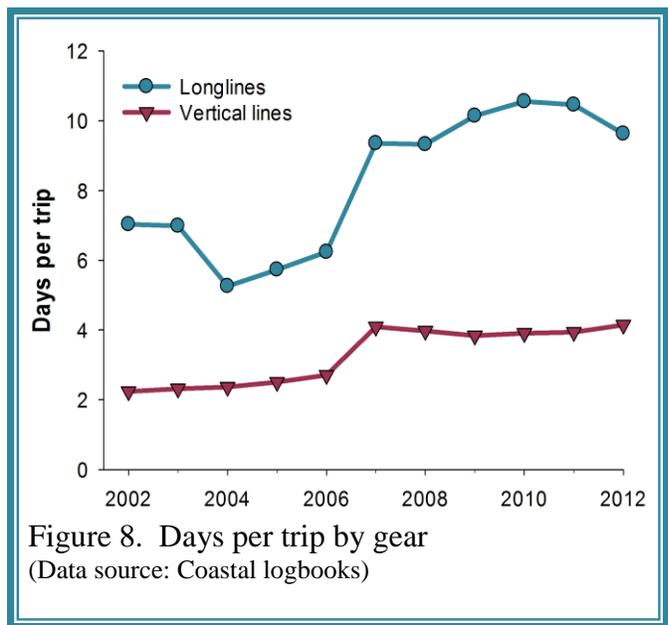
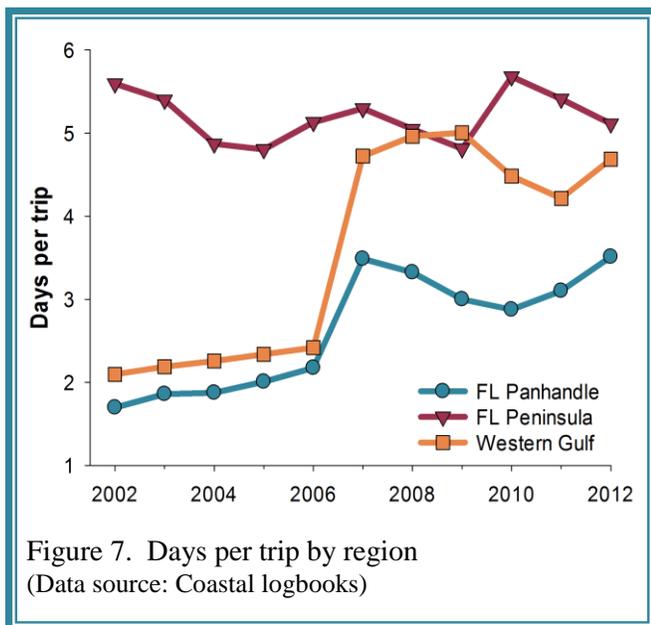
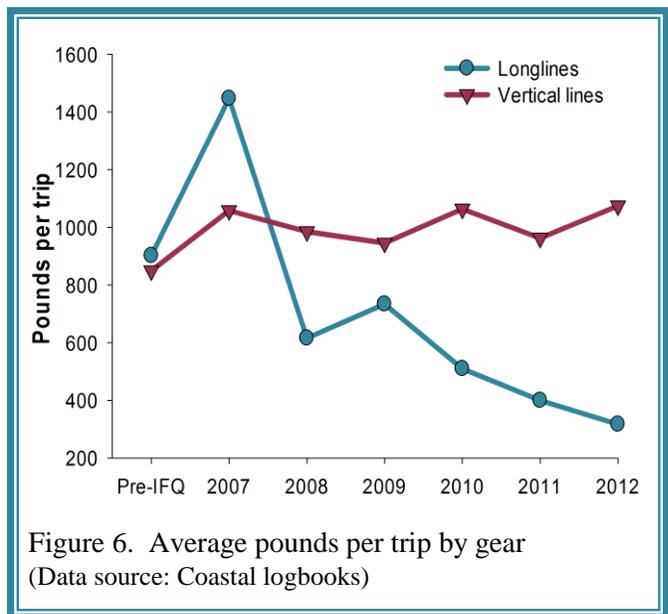
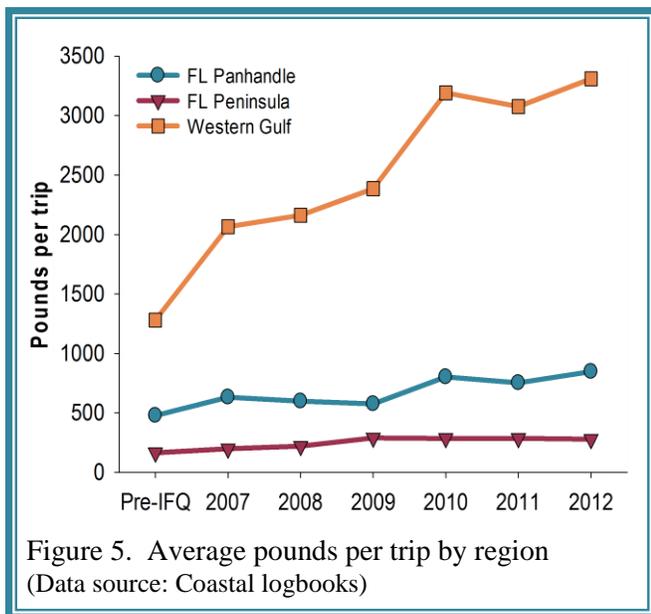


Figure 4. Vessels by average RS landings per trip

³ See the Red Snapper Individual Fishing Quota Program 5-year Review for more information.

The number of vessels with average landings ≤ 500 lb/trip has increased since the start of the program, and now is 73% of the fleet (270 vessels). These vessels may be considered as vessels that are catching red snapper as bycatch rather than a targeted species. The number of vessels that are primarily targeting red snapper (average of ≥ 2001 lb/trip) has remained similar over time, and comprises 12% of the fleet (Figure 4). The average pounds per trip has remained low in the Florida peninsula area and increased slightly in the Florida panhandle (Figure 5). In comparison, in the western Gulf, the average pounds per trip have increased considerably throughout the program (Figure 5). The average pounds per trip for vertical lines increased initially at the start of the RS-IFQ program, but have remained similar since (Figure 6). In contrast, the pounds of red snapper per trip for the longline vessels initially increased at the start of the program but then decreased (Figure 6). The decrease in red snapper pounds per trip is most likely due to a change in targeting behavior and catch composition. Red snapper are not the primary catch of many longline vessels, and this is evident in the reduced pounds of red snapper per trip.



Trip length (days per trip) remained similar pre- and post-RS-IFQ for vessels fishing off the Florida peninsula (Figure 7). There was a slight increase in days per trip in 2010, which may be in part due to the implementation of the GT-IFQ program. In contrast, the trip length increased for vessels fishing off the Florida panhandle or in the western Gulf after the start of the RS-IFQ program (Figure 7). Trips length increased for both longline and vertical line vessels at the start of the RS-IFQ program (Figure 8). Longline vessels increased from an average of 6 days pre-RS-IFQ to 10 days post-RS-IFQ, while vertical lines went from 2 days pre-RS-IFQ to 4 days post-RS-IFQ.

Data from the Southeast Fisheries Science Center (SEFSC) reef fish observer program 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. Reef fish observer (RFOB) program 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 reef fish observer program coverage shifted effort in 2009 towards vessels using longline gears (Table 18) and the total number of trips sampled increased from 2010 through 2012 (Table 18). In 2012, while the total number of trips increased considerably, almost all of these trips were onboard vertical line vessels and most trips occurred in the Florida peninsula region (Table 18). 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.

Table 18. Reef fish observer trips ¹

Year	Total Trips	Trips w/red snapper	Gears		Regions ²		
			LL trips	VL trips	FL peninsula trips	FL panhandle – MS trips	LA – TX trips
2007 ³	84	76	9	75	42	26	18
2008	61	49	5	56	37	11	17
2009	79	63	33	46	56	18	11
2010	110	88	54	56	81	24	17
2011	190	162	81	109	131	48	13
2012	263	224	18	245	153	86	36

¹ Data from the Reef Fish Observer Program accessed as of 06/11/2013

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.

The discard ratio (number landed for each fish discarded) showed distinct differences between regions and gear types (Table 19). In all years except 2008 and 2010, there were more fish discarded per fish landed for vessels using longline gears (Table 19). In 2012, vessels using vertical lines landed nearly four fish for each fish discarded, while vessels using longlines landed less than one fish per discarded fish (Table 19). The high discard rate occurring on longline vessels may result from insufficient allocation available to land red snapper as a bycatch species.

By region, the lowest discarding occurred from the Florida panhandle through Texas (Table 19), with 5-6 fish landed for each fish discarded in 2012. For vessels fishing off the Florida peninsula, in 2012, there was approximately one fish discarded for each fish landed (Table 19). The high discarding that occurs in the Florida peninsula waters may have been due to the vessels in this region not having sufficient if any allocation to land red snapper, especially as the stock continues to expand along the west Florida shelf⁴.

Table 19: Red snapper discard ratio ¹

Year	Gears		Regions		
	LL	VL	FL peninsula	FL panhandle – 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	3.28	0.72	4.67	3.75
2012	0.36	3.66	1.06	5.48	6.04

¹ Data from the Reef Fish Observer Program accessed as of 06/11/2013.

² 2007 data is only from May 2 onward.

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 outcompete 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 is required of all share transfers. Nearly half or more of the share transactions each year are either missing price information or had under-reported price information (e.g., \$0.01/lb) (Table 20). Transactions that had low prices could 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 re-

⁴ The 2013 SEDAR 31 Red Snapper stock assessment notes the red snapper stocks have expanded along the west Florida shelf.

lated 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. For the share price analysis, the data were limited to share transfers with price per pound equivalents⁵ that were greater than \$9 and less than \$36 (2007-2009) or less than \$50 (2010-2012), and all values were weighted by the pounds instead of on a transactional basis (See Appendix 3: Price Analysis Rationale).

In 2012, there were 35 share transfers with prices that had an average of \$35.68/lb. Share prices continue to increase each year, and average share prices per equivalent pound are now nearly three times greater than in 2007, using inflation-adjusted prices (Table 20). The appreciating share prices suggest that fishermen have an increased confidence and security in the program and that they expect profits to continue to increase in the future.

Table 20: Share transfer prices

Year	N¹	% of all trans.	Avg. price/lb	Median price/lb	Inflation-adj. avg. price/lb²
2007	21	19%	\$11.04	\$12.51	\$11.99
2008	22	52%	\$11.56	\$10.50	\$12.28
2009	38	51%	\$20.64	\$20.00	\$21.74
2010	33	42%	\$19.58	\$21.50	\$20.36
2011	26	33%	\$28.87	\$27.00	\$29.39
2012	35	43%	\$35.68	\$35.00	\$35.68

¹ Number of share transactions that had prices greater than \$9/lb equivalent and less than \$36/lb equivalent.

² Inflation adjustments from: <http://www.bea.gov/> with 2012 as the base year using the GDP deflator.

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 21). 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. 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 on pounds and not on a transactional basis. In 2012, there were 781 allocation transfers with price information and the average allocation price was \$3.00/lb (Table 21). After adjusting for inflation, average prices increased the first

⁵ 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.

three years of the program but have remained similar for the past three years at \$3.00/lb (Table 21). Inflation adjusted allocation prices have increased by 40% since the start of the program.

Table 21: Allocation transfer 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	\$2.14
2008	152	22%	\$2.31	\$2.25	\$2.45
2009	283	34%	\$2.69	\$2.75	\$2.83
2010	344	20%	\$2.88	\$3.00	\$3.00
2011	476	22%	\$2.96	\$3.00	\$3.01
2012	781	31%	\$3.00	\$3.00	\$3.00

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 2012 as the base year using the GDP deflator.

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. By 2012, price reporting had improved with 84% of the transactions reporting reasonable prices (Table 22). For ex-vessel price analysis, the data were limited to landings with prices per pound that were greater than \$1.20/lb and less than \$5.00/lb (See Appendix 3: Price Analysis Rationale).

Current ex-vessel prices average \$4.44/lb, while median values are slightly greater at \$4.50/lb. Ex-vessel prices increased by \$0.10 from 2011 to 2012 (Figure 10; Table 22). Average ex-vessel prices, after excluding outlier values and adjusting for inflation, have increased 10% since the start of the program and 34% when compared to the five years prior to the RS-IFQ program (Figure 9; Table 22). Ex-vessel prices, adjusted for inflation, are now approaching ex-vessel prices from 1990 (Figure 3).

One goal of the RS-IFQ program was to create greater market stability. Red snapper ex-vessel prices have been variable since prior to the RS-IFQ program (Figure 10). While ex-vessel prices are still variable after the start of the RS-IFQ program, fluctuations in month to month prices are less (Figure 10; Table 23). Since the RS-IFQ program began, ex-vessel prices are generally low at the start of the year, but increase by April and May (Figure 10; Table 23). Ex-vessel prices decrease in December as fishermen seek to use the remaining allocation. In 2012, ex-vessel prices increased continuously from February through August, and then began a gradual decrease.

Table 22: Ex-vessel transfer prices (\$/lb)

Year	N ¹	% of all trans.	Avg.	Median	Inflation-adj. avg. ²
Pre-IFQ ³	-	-	\$2.80	\$2.81	\$3.32
2007	2,455	92%	\$3.74	\$3.75	\$4.06
2008	2,023	85%	\$4.06	\$4.25	\$4.31
2009	1,963	79%	\$4.13	\$4.25	\$4.35
2010	2,319	71%	\$4.17	\$4.25	\$4.34
2011	2,985	77%	\$4.26	\$4.25	\$4.34
2012	3,319	84%	\$4.44	\$4.50	\$4.44

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 2012 as the base year using the GDP deflator.

³ Pre-IFQ averages are from 2002-2006.

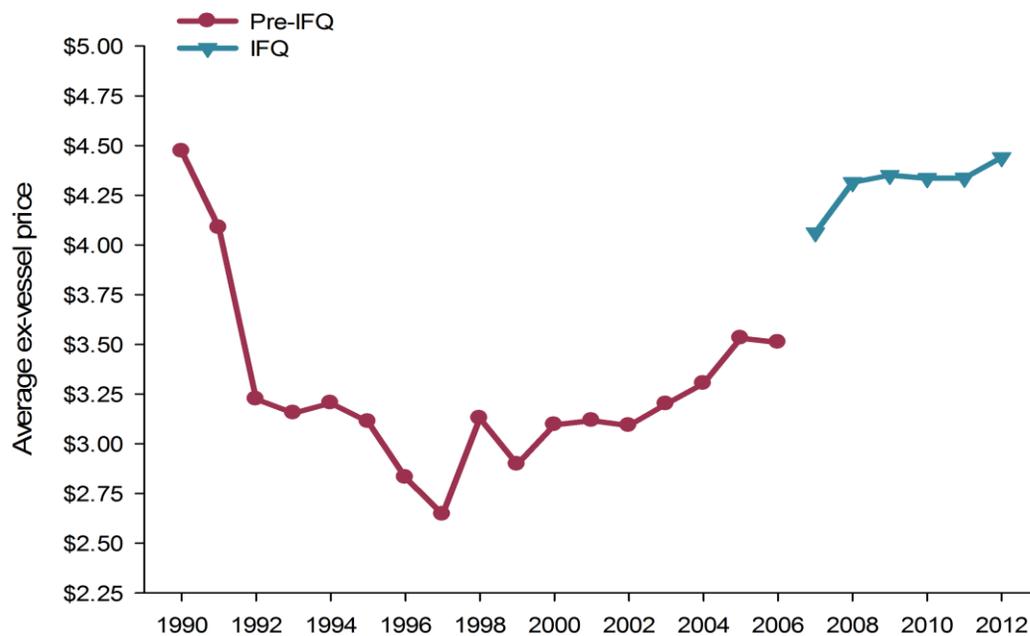


Figure 9. Average annual inflation adjusted ex-vessel price pre- and post-IFQ

Ex-vessel price may be influenced by the amount of quota, landings, and regional differences. In general, as landings increase ex-vessel prices decrease. This can be seen particularly during the Lenten season and the month of December. Prices also declined during the DWH oil spill (Tables 14 and 23; Figure 10). Regional differences can be examined by tracking ex-vessel prices by state. In 2012, Texas had the highest ex-vessel price, followed closely by Florida (Table 24). Texas had some of the highest ex-vessel prices, with values in some months just under \$5/lb.

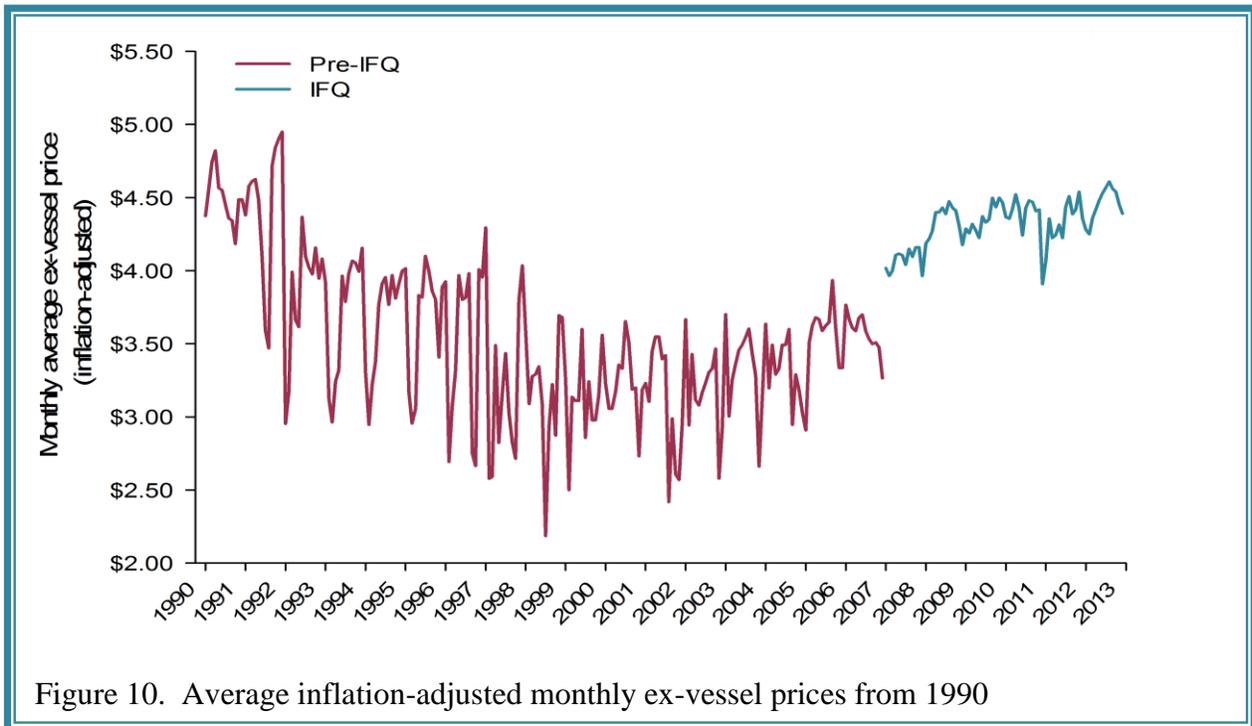


Figure 10. Average inflation-adjusted monthly ex-vessel prices from 1990

Table 24: Average ex-vessel prices (inflation-adjusted)

Month	Pre-IFQ	2007	2008	2009	2010	2011	2012
January	\$3.54	\$4.02	\$4.19	\$4.29	\$4.37	\$4.07	\$4.28
February	\$3.26	\$3.96	\$4.22	\$4.26	\$4.36	\$4.36	\$4.25
March	\$3.48	\$4.00	\$4.27	\$4.32	\$4.42	\$4.22	\$4.36
April	\$3.41	\$4.11	\$4.40	\$4.28	\$4.52	\$4.24	\$4.42
May	\$3.44	\$4.12	\$4.40	\$4.22	\$4.43	\$4.32	\$4.48
June	\$3.49	\$4.11	\$4.43	\$4.37	\$4.24	\$4.22	\$4.53
July	\$3.50	\$4.04	\$4.39	\$4.33	\$4.43	\$4.44	\$4.57
August	\$3.54	\$4.15	\$4.47	\$4.35	\$4.48	\$4.51	\$4.61
September	\$3.43	\$4.10	\$4.43	\$4.50	\$4.47	\$4.39	\$4.56
October	\$3.43	\$4.16	\$4.41	\$4.44	\$4.41	\$4.42	\$4.54
November	\$3.05	\$4.16	\$4.30	\$4.50	\$4.42	\$4.54	\$4.45
December	\$3.13	\$3.96	\$4.18	\$4.47	\$3.91	\$4.36	\$4.39
Annual Average	\$3.33	\$4.06	\$4.31	\$4.35	\$4.34	\$4.34	\$4.44

In contrast, Florida ex-vessel prices were closer to \$4.50/lb throughout the year. In most of the previous years, Florida had the greatest ex-vessel price, although in 2009 the Alabama/Mississippi area had the highest price at \$4.35/lb (Figure 11). The changes in regional values over time may be indicative of community level impacts, such as changes in local market conditions or availability of fishermen. Despite these differences, variability in ex-vessel prices by state/region since the start of the RS-IFQ program has decreased, with only \$0.22/lb difference in 2012 between the highest and lowest average annual ex-vessel price across states (Figure 11). This is a \$0.44/lb decrease compared to 2007 average ex-

vessel prices. Therefore, while the overall average ex-vessel price has continued to increase Gulf wide, a similar trend is not as obvious when viewed at the regional level (Figure 11).

Table 24: Average 2012 ex-vessel prices by state

Month	FL	AL/MS	LA	TX
January	\$4.38	\$4.07	\$4.46	\$4.07
February	\$4.31	\$4.12	\$4.61	\$4.11
March	\$4.49	\$4.09	\$4.64	\$4.02
April	\$4.43	\$4.11	\$4.40	\$4.42
May	\$4.43	\$4.47	\$4.35	\$4.58
June	\$4.34	\$4.30	\$4.22	\$4.85
July	\$4.45	\$4.40	\$4.36	\$4.88
August	\$4.43	\$4.38	\$4.40	\$4.94
September	\$4.45	\$4.42	\$4.28	\$4.90
October	\$4.54	\$4.40	\$4.05	\$4.80
November	\$4.50	\$4.27	\$4.03	\$4.70
December	\$4.46	\$4.27	\$4.13	\$4.47
Annual	\$4.44	\$4.29	\$4.30	\$4.51

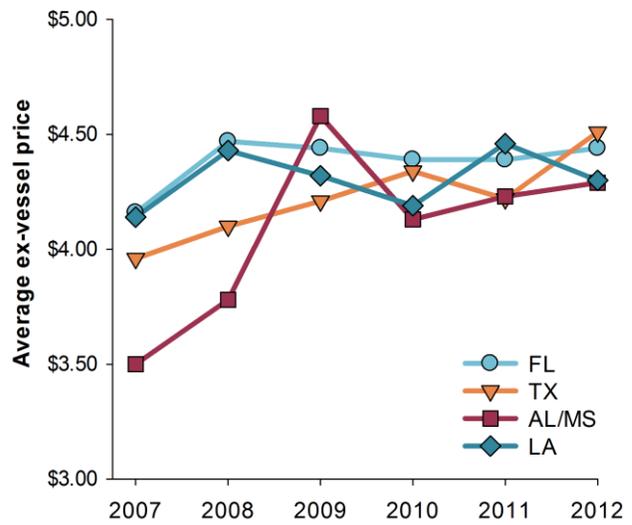


Figure 11. Average annual ex-vessel price by region

Price Ratios

The 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 2012 (Table 25). 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 68% in 2012 (Table 25). 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 25: Allocation ratios

Average \$/lb ¹	2007	2008	2009	2010	2011	2012
Allocation	\$2.14	\$2.45	\$2.83	\$3.00	\$3.01	\$3.00
Shares	\$11.99	\$12.28	\$21.74	\$20.36	\$29.39	\$35.68
Ex-vessel	\$4.06	\$4.31	\$4.35	\$4.34	\$4.34	\$4.44
Ratios to allocation						
Shares	18%	20%	13%	15%	10%	8%
Ex-vessel	53%	57%	65%	69%	69%	68%

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 GOM 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.

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 three years (Table 26 and 27). In 2012, \$425,417 were collected in cost recovery fees. Due to the under-reporting of ex-vessel prices, an estimated ex-vessel value was calculated that adjusts for under-reporting of ex-vessel prices. Estimated ex-vessel values were calculated by replacing any outlier ex-vessel price ($\leq \$2.60/\text{lb}$ and $\geq \$10.00/\text{lb}$) with an imputed ex-vessel price that is based on year, quarter, and state of landing. The difference between the reported and expected ex-vessel price has continued to increase each year until 2010 (Table 28), due to the increase in misreported prices (Table 22) and the increase in pounds landed due to increased quotas. The difference in reported versus expected ex-vessel price decreased in 2011 and 2012 due to the defining of ex-vessel price and considerable effort by IFQ Customer Support staff to contact those reporting low ex-vessel prices. In 2012, the difference between reported and expected ex-vessel value was over \$1.5 million, almost 11% of the reported ex-vessel value.

Table 26: Cost recovery fees by quarter

Year	Jan – Mar	Apr – Jun	Jul- Sept	Oct –Dec	Total
2007	\$76,997	\$77,310	\$66,248	\$83,261	\$303,816
2008	\$91,897	\$59,785	\$42,818	\$53,315	\$247,815
2009	\$72,386	\$66,176	\$50,794	\$50,801	\$240,157
2010	\$93,262	\$79,566	\$46,729	\$88,718	\$308,275
2011	\$94,357	\$84,836	\$78,382	\$89,302	\$346,877
2012	\$118,032	\$99,245	\$93,977	\$114,164	\$425,417

Table 27: 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	\$3,065,981	\$1,996,123	\$1,421,440	\$1,776,917	\$8,260,461
2009	\$2,412,661	\$2,212,748	\$1,686,223	\$1,693,520	\$8,005,152
2010	\$3,108,724	\$2,652,196	\$1,557,619	\$2,957,294	\$10,275,833
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

Table 28: Reported vs. expected ex-vessel values

Year	Reported	Expected	Difference
2007	\$10,137,003	\$10,554,638	\$417,635
2008	\$8,260,461	\$8,866,679	\$606,218
2009	\$8,005,152	\$8,761,798	\$756,646
2010	\$10,275,833	\$12,425,662	\$2,149,829
2011	\$11,562,478	\$13,506,167	\$1,943,689
2012	\$14,180,164	\$15,741,220	\$1,561,056

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 GOM IFQ programs. State wildlife officers and game wardens 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 there was action taken by OLE agents to correct the problems identified and educate fishermen on the use of the technology used to monitor the program. In other in-

stances, 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, under reporting of total weights landed, and selling to an unlicensed dealer. Typical violations include landing prior to the three-hour minimum landing notice, landing at a unspecified or unapproved location, insufficient allocation, transporting an 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.

In 2012, JEA partners dedicated approximately 11,836 hours to the enforcement of the Gulf of Mexico IFQ programs (RS-IFQ and GT-IFQ). NOAA OLE agents and officers responded to approximately 70 incidents involving IFQ program regulations and/or cases involving the seizure of IFQ regulated species. The 2012 cases resulted in the issuance of verbal warnings, written warnings and violations, including five seizures totaling 5,855 lb of illegally harvested or landed red snapper with a corresponding value of \$27,482 (Table 29).

Table 29: Federal IFQ law enforcement action

Year	Total IFQ cases	RS Cases	Pounds Seized	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

Administrative Audits

IFQ administrative staff regularly audits landing notifications and transactions. Audit letters are 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. Beginning in 2011, letters were sent or phone

Table 30: Notification-landings audit

Year	Letters & Calls	Resolved	Referred to OLE
2011	67	46	18
2012	132	93	39

calls made to dealers who were specified in a landing notification but did not have corresponding landing transactions. In 2012, there were an increased number of outstanding landing transactions from the previous year (Table 30). In 2012, IFQ staff switched from mailed letters to direct phone calls to inquire about outstanding landing transactions or landing notifications. In 2012, there were 132 phone calls made regarding outstanding landing transactions, of which 93 were resolved and 39 were referred to OLE agents. By the end of 2012, the IFQ online system was modified so that the dealer could enter the landing notification confirmation number when completing a landing transaction. This increased the ability to detect unmatched landing notifications and landing transactions. Dealers are also able to know see any unmatched landing notifications when logged into their dealer account.

Synopsis

Summation

In the sixth 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, while the total number of accounts participating in the program has remained similar for the past three years. The number of vessels harvesting red snapper, has increased slightly in 2012, but is still considerably lower than the average number of vessels in the five years preceding the program. This indicates the program has had 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 permit-less accounts holders, share-less account holders, fishermen becoming dealers, allocation traders, and public participants. While the number of permit-less shareholders has remained consistent since 2008 (~120 accounts), as the number of accounts with shares decreases, the percentage of permit-less accounts has increase from 15% at the end of 2007 to 29% at the end of 2012. The amount of shares held by these accounts has also increase from 14% to 21%. The total number of accounts that hold allocation (through shares and/or through purchase), despite a decrease in 2008 and 2009, has been near 2007 starting values (596-599 accounts). Yet, the composition of the allocation holders has continued to change over time, with an increased percentage of accounts not receiving allocation through shareholdings (share-less accounts). In 2007, only 7% of the allocation holders did not hold shares, while in 2012 that number has increased to 27%. Of the accounts that are landing red snapper, there has been a continual decrease in the number of accounts that hold shares. In 2012, 57% of the accounts that landed red snapper had shares, while in 2007 87% held shares. The number of dealers has been gradually increasing and many fishermen are now obtaining a Gulf reef fish dealer permit. Since 2010, there has been an increased number of dealers working with only 1-2 shareholder accounts, indicating close ties between those accounts.

In recent years, there has also been an increase in the number of accounts that are only trading allocation (not harvesting red snapper). These trading only accounts have increased from 144 in 2007 to 172 in 2012, and are primarily comprised of accounts that own both shares and permits. This creates an allocation trader type of role, where a subgroup of participants' primary goal is trading allocation rather than harvesting red snapper. In 2012, we saw the addition of public participants, those accounts established after 2012 that did not own a permit, but could now trade both shares and allocation. By the end of 2012, there were 19 public participant accounts created, but only five of those accounts bought shares (total shares = 1.8%) and only three accounts bought allocation. Therefore, public participation appears to have a minimal impact in 2012, but should be monitored closely in the following years to see if any trends develop in relation to public participation.

Once again, the RS-IFQ program has been successful in eliminating quota overages, which is consistent with achieving optimum yield, a main objective of the program. Landings were 98% of the quota in

2012, and the number of inactive accounts with shares has decreased. Furthermore, fishermen are able to harvest year round, which has eliminated the race to fish harvesting practices. The behavior of fishermen has changed since the start of the RS-IFQ program. The number of fishing trips initially decreased with the start of the RS-IFQ program, but subsequently has increased in 2011 and 2012 to ~3800 trips, still well below the average trips pre-RS-IFQ. While the number of trips has decreased the number of days away has increased to greater than pre-RS-IFQ values, with the average days per trip now at 3.6 days. Furthermore, the average days per trip is variable among the different regions in the Gulf. This change in the pace of fishing, as noted in the Red Snapper IFQ 5-year review, 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. Possible changes in market demand can be seen when looking at the size of fish discarded, particularly in the Florida peninsula region. In this region, in both 2011 and 2012, there were a low number of 'plate-sized' red snapper discarded, while there were increased numbers of larger red snapper discarded. This may be attributed to dealers/consumers demand for a plate-sized fish. Industry representatives have confirmed that some dealers pay a better ex-vessel price for plate size fish, while other indicate that they are working towards changing the demand for plate-size fish. 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 participants land around 500 lb/trip, and the average amount of allocation traded in 2012 was 400 lb/trip. This indicates that many participants are not directly targeting red snapper but instead using their allocation for supplement catch or incidental catch.

The amount of red snapper discarded has decreased in the primary red snapper fishing areas between the Florida panhandle and Texas. Additionally, red snapper discards have decreased for vessels using vertical lines. Increased red snapper discards occurred in the longline fleet, as well as along the Florida peninsula. These discards are more likely due to insufficient allocation, rather than a minimum size limit, particularly as the red snapper stock has expanded along the Florida peninsula. Due to market demands, fishermen discard behavior needs to be further investigated to determine if the amount of allocation available at the time of harvest influences how a fishermen targets red snapper and the degree of discarding.

Price information (share, allocation, and ex-vessel price) can be one indicator of the successfulness of an IFQ program and indicates a stable year-round market for red snapper. Share prices in the RS-IFQ program have continued to increase each year, and in 2012 were valued at \$35/lb, three times greater than the 2007's \$12/lb. Allocation prices increased initially, but since 2010 have remained stable at around \$3/lb. Ex-vessel prices have been near \$4.35/lb since 2009, but increased slightly in 2012 to \$4.44/lb. All of these prices indicate market stability, and the increase in share price indicates that fishermen are feeling secure in the RS-IFQ program and its future. The appreciating prices also suggest that fishermen have been successful at maximizing profits from the commercial red snapper quota and have confidence in the program. There continues to be a need to improve data collection and reporting issues, especially with regards to all prices in the RS-IFQ program. Industry representatives mentioned that reasons for misreporting or not reporting prices come from a variety of reasons such as: privacy concerns, trading to

related accounts, bartering, package deals, and misunderstanding of the price field or its use. SERO staff is working towards resolving price information through a variety of methods including: public meetings, mail outs, transfer reasons added to the online IFQ system, and warning pop-up boxes within the online system. In 2012, there was a slight improvement in price reporting for shares and allocation transfers, as well as ex-vessel prices (Table 21, 22, and 23), and this is expected to increase again in 2013.

Looking Ahead

The Gulf red snapper benchmark stock assessment was completed in May 2013. The assessment determined red snapper was not undergoing overfishing, but was still overfished. The Gulf Council's Scientific and Statistical Committee met in late May 2013 and recommended an acceptable biological catch for 2013 of 13.5 mp whole weight for the commercial and recreational sectors combined. The Gulf Council will specify annual catch limits this summer and the commercial quota for 2013 is expected to be increased sometime this fall.

The RS-IFQ five-year review was also completed in 2013. Recommendations from the 5-year review will be included in Reef Fish Amendment 36. This amendment is in the initial phases of development. Work on the amendment is expected to continue into 2014 and there will be numerous opportunities for public input and involvement on the amendment. The Gulf Council is also establishing an advisory panel to review and provide input on the 5-year review recommendations.

In order to better understand and utilize price data, SERO staff mailed out a Share Transfer Price Reporting survey to all participants who had submitted incomplete or possibly incorrect share prices during 2007-2012. The updated price information will allow NMFS to better review the performance of the IFQ program. Changes will also be made to the online system to enhance price collection information. For both allocation and share transfers, a drop down box was added to the transfer pages so that IFQ participants may select a reason for a transfer: sale to another shareholder, transfer to a related account, bartered for shares, bartered for allocation, gift, package deal, or no comment. If you have a suggestion on how the online system can be further improved please call or e-mail IFQ customer support.

Lastly, NMFS is developing a proposed rule that would make administrative changes to IFQ reporting requirements. This rule will be reviewed by the Gulf Council at their August meeting. If the Gulf Council approves and deems the rule, NMFS will publish a proposed rule seeking public input and comment on the proposed regulatory modifications. The proposed rule proposes requirements for how to weigh and report IFQ landings, extends the advance notice of landing reporting window, specifies procedures for closing an IFQ account, alters the requirements for submitting an advanced notice of landing, requires landing transactions to be completed on the day of offload, clarifies that all IFQ landings must be sold and reported by a federally permitted dealer, allows for allocation to be held in either a vessel account or the vessel account's linked shareholder account at the time of landing notification, removes a landing notification requirement for completing a landing transaction, authorizes vessels to land early if authorized by a law enforcement officer, and clarifies that IFQ species must be landed at an approved landing location and reported via the IFQ online Web site.

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. As initial share distribution was based on landings history, Class 1 license holders receiving 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 Jan. 1, 2012, accounts could only be established in the RS-IFQ program if the account holder also held a Gulf reef fish permit. After Jan 1, 2012, any U.S. citizen or permanent resident alien could establish a RS-IFQ account. Accounts established after Jan. 1, 2012 that do not have an associated Gulf reef fish permit are considered public participants. These accounts can trade shares and allocation, but cannot harvest red snapper.

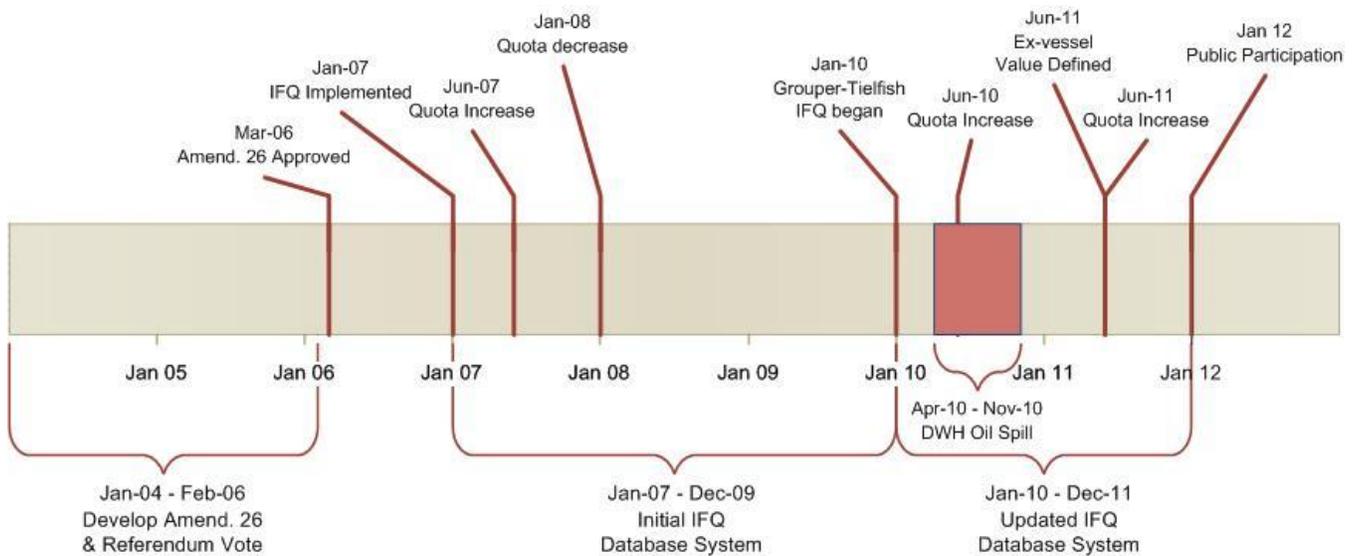


Figure A1: Red Snapper IFQ Timeline

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: April 3- May 14 1,000 lb trip limit Moratorium on new reef fish permits 2,000 lb and 200 lb endorsements Closed fishery December 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; Area closures due to Deepwater Horizon oil spill event
2011	365	3.30	3.24	13	<ul style="list-style-type: none"> Mid-year quota increase
2012	365	3.71	3.64	13	<ul style="list-style-type: none"> Mid-year quota increase

All weights are in million pounds gutted weight; all lengths are in inches total length; all days are calendar days. Blue 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 carried 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 \$2.6 to <\$10/lb. The online system, precludes entering a price higher \$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.

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 – IFQ allocation is the actual poundage of red snapper by which each IFQ shareholder or IFQ allocation 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 will 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.

Allocation Transfer – A transfer of allocation (pounds) from one shareholder account to another shareholder account. The online IFQ website provides a transaction approval code to the transferor and transferee confirming each allocation transfer. Allocation transfers are accomplished by using the online IFQ Website at <http://ifq.sero.nmfs.noaa.gov/>. Through January 1, 2012, allocation can be transferred only to an entity that holds a valid GOM reef fish permit.

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

GOM Reef Fish Permit Holder – An entity that possesses a commercial Gulf of Mexico reef fish permit and therefore, is eligible to be exempt from bag limits, to fish under a quota, or to sell Gulf of Mexico 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 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 – An 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.

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 website at <http://ifq.sero.nmfs.noaa.gov/>. Through January 1, 2012, shares can be transferred only to an entity that holds a valid Gulf of Mexico reef fish permit. Website

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

Photo credits

Gulf of Mexico Reef Fish Shareholders' Alliance
Louisiana Sea Grant College Program