

Gulf of Mexico 2012 Grouper-Tilefish Individual Fishing Quota Annual Report



**National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701**

**IFQ customer support toll free number: 1-866-425-7627
St. Petersburg local number: 727-824-5305
Facsimile: 727-824-5308
<https://ifq.sero.nmfs.noaa.gov/>
E-mail: SERO-IFQ.Support@noaa.gov**

**November 15, 2013
SERO-LAPP-2013-8**



A Message from the Assistant Regional Administrator

The 2012 Grouper-Tilefish Individual Fishing Quota Report builds upon the information summarized in the past annual reports and is intended to provide an overview of data and information collected since program implementation. This report is not intended to be a full comprehensive assessment of the program.

Total shareholders have decreased since implementation of the program, with attrition occurring mainly in accounts with small shareholdings. The number of shareholders without reef fish permits increased although these accounts only holding 2.0-3.6% of the total shares per share category. The number of allocation holders has remained largely unchanged since the start of the program with most allocation holders holding shares in at least one share category. The number of vessels harvesting GT-IFQ species has decreased compared to pre-IFQ vessels. Share transfers continued to decrease, while allocation transfers continued to increase. The percentage of accounts with allocation that are harvesting GT-IFQ species increased. While most of these accounts also hold shares, there has been an increase in the number of accounts landing allocation without shares.

Quotas increased for all share categories in 2012. The red grouper quota increased at the start of the year, while the remaining quotas were increased during the year. In 2012, 59-97% of the quota was landed for each share category. Landings varied monthly, with greater gag and red grouper landings during the first portion of the year and greater deepwater grouper and tilefish landings in the later portion of the year. The number of trips increased for all share categories, and the number of days away increased for all share categories except red grouper. The number of trips for both red grouper and tilefish are approaching pre-GT-IFQ trips while deepwater grouper has exceeded pre-GT-IFQ trip levels. Trip length has decreased compared to pre-GT-IFQ lengths, but the pounds per trip has increased in all share categories except tilefish. The number of landed to discarded fish increased for gag and red grouper for both vertical line and longlines gears, as well as vessels fishing in Florida or the remaining Gulf areas, but is still below pre-IFQ averages.

Share prices increased for all except shallow-water grouper. Allocation prices increased for gag and red grouper, decreased for deepwater grouper and shallow water grouper, and remained similar tilefish. Ex-vessel prices increased marginally for deep-water grouper, shallow-water grouper, and gag, decreased slightly for tilefish, and remained similar for red grouper. Ex-vessel prices were highest for gag, yellowedge grouper, scamp, and black grouper, while Warsaw grouper, yellowedge grouper, and blueline tilefish have seen the greatest increases in ex-vessel prices since the start of the program.

The National Marine Fisheries Service (NMFS) is committed to the continual improvement of GT-IFQ management. We have received great feedback and suggestions on how to improve the GT-IFQ program and online system since it began. We would like to thank everyone for their input and I encourage you to continue to share your concerns and input with us.

Sincerely,



Phil Steele

Assistant Regional Administrator for Sustainable Fisheries

Table of Contents

PROGRAM OVERVIEW AND REGULATIONS	6
PROGRAM OVERVIEW	6
PROGRAM OBJECTIVES	7
PROGRAM REGULATIONS	7
PROGRAM UPDATES	8
2012 GROUPE-TILEFISH IFQ FISHING SEASON	9
PROGRAM PARTICIPANTS	9
<i>Shareholders</i>	9
<i>Allocation Holders</i>	11
<i>Dealers</i>	12
<i>Vessels</i>	12
PROGRAM ACTIVITY	13
<i>Share Transactions</i>	13
<i>Allocation Transactions</i>	14
<i>Allocation Activity</i>	14
COMMERCIAL QUOTA AND LANDINGS	17
<i>Quota</i>	17
<i>Remaining Allocation</i>	18
PRICE INFORMATION	24
<i>Share Transfer Prices</i>	24
<i>Allocation Transfer Prices</i>	26
<i>Ex-vessel Prices</i>	26
<i>Cost Recovery and Ex-vessel Value</i>	31
ENFORCEMENT AND ADMINISTRATIVE AUDITS	32
<i>Law Enforcement Activities</i>	32
<i>Administrative Audits</i>	33
SYNOPSIS	33
SUMMATION	33
APPENDICES	37
APPENDIX 1: PROGRAM HISTORY	37
APPENDIX 2: MONTHLY LANDINGS BY SHARE CATEGORY	38
APPENDIX 3: DEEPWATER HORIZON OIL SPILL CLOSURES	39
APPENDIX 4: COMMERCIAL MANAGEMENT HISTORIES	40
APPENDIX 5: PRICE ANALYSIS RATIONALE	45
GLOSSARY	47

List of Tables

Table 1: Species by share category.....	6
Table 2: Share caps.....	7
Table 3: Accounts by shareholding size.....	9
Table 4: New shareholder accounts.....	10
Table 5: Accounts with shares.....	10
Table 6: Accounts with allocation.....	11
Table 7: Dealer accounts and size.....	12
Table 8: Vessels harvesting GT-IFQ species.....	12
Table 9: Share transactions.....	13
Table 10: Allocation transactions.....	14
Table 11: Accounts with allocation.....	15
Table 12: Landings by share status.....	15
Table 13: Percentage of accounts only trading allocation.....	16
Table 14: IFQ commercial quota.....	17
Table 15: Annual Landings.....	17
Table 16: Monthly landings.....	18
Table 17: Remaining allocation.....	20
Table 18: Effort harvesting GT-IFQ species.....	21
Table 19: Reef fish observer trips.....	23
Table 20: Discard ratio.....	24
Table 21: Share transfer prices.....	25
Table 22: Allocation transfer prices.....	26
Table 23: Ex-vessel prices.....	27
Table 24: Species ex-vessel price.....	28
Table 25: Cost recovery fees by share category.....	31
Table 26: Cost recovery fees by quarter.....	31
Table 27: Ex-vessel value by share category.....	31
Table 28: IFQ seizures.....	32
Table 29: Notification-landings audit.....	33

List of Figures

Figure 1. Shares held by accounts without Gulf reef fish permits.....	11
Figure 2. Cluster analyses of share categories by vessel harvests.....	13
Figure 3. Monthly landings by share category	19
Figure 4. Catch composition by share category	22
Figure 5. Monthly inflation adjusted ex-vessel prices by species for IFQ years.....	29
Figure 6. Inflation adjusted annual ex-vessel prices by species since 1990.....	30

Program Overview and Regulations

Program Overview

The Grouper-Tilefish individual fishing quota (GT-IFQ) program is a multi-species program with five share categories: gag (GG), red grouper (RG), other shallow-water groupers (SWG), deep-water groupers (DWG), and tilefishes (TF) (Table 1). Each share category has distinct shares and associated allocations. Shares are a percentage of the commercial quota, while allocation refers to the 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 percentages held by a GT-IFQ shareholder account. Allocation can then be used to harvest GT-IFQ species or sold to another valid shareholder account. Adjustments in quota can occur if the status of a stock changes as a result of new assessments or through the reallocation of quota between fishing sectors. Adjustments in quota are distributed proportionately among shareholder accounts based on the percentage of shares each account holds at the time of the adjustment. If a GT-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.

Table 1: Species by share category

IFQ Category	Species ¹
Gag (GG)	Gag ²
Red Grouper (RG)	Red grouper ²
Deep-water Grouper (DWG)	Snowy grouper
	Speckled hind ²
	Warsaw grouper ²
Shallow-water Grouper (SWG)	Yellowedge grouper
	Black grouper
	Scamp ²
Tilefishes (TF)	Yellowfin grouper
	Yellowmouth grouper
	Blueline tilefish (Grey)
	Golden tilefish
	Goldface Tilefish

¹ The following species were removed in 2012: rock hind (SWG), red hind (SWG), misty grouper (DWG), anchor tilefish (TF), and black-line tilefish (TF).

² Includes a multi-use flexibility measure.

There are three main account roles in the Gulf IFQ system: shareholder, vessel, and dealer accounts. All accounts were assigned to users based on the unique entity (single or combination of individuals and/or business) that held either a Gulf of Mexico (Gulf) dealer or reef fish permit. Shareholder accounts with valid Gulf reef fish permits may transfer GT-IFQ shares and allocation to and from their accounts, as well as land GT-IFQ species at an approved dealer. Shareholder accounts that do not have a valid Gulf reef fish permit can only transfer shares and allocation to other accounts, and may not increase their holdings. 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. Vessel accounts, which belong to shareholder accounts, only hold allocation that is debited from the account through landing transactions. Shareholder accounts may have multiple vessel accounts. Dealer accounts were 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.

The GT-IFQ program has several built-in flexibility measures to accommodate the multi-species nature of the fishery and reduce bycatch. Two share categories, gag and red grouper, have a multi-use option that allows a portion of the red grouper to be harvested under the gag allocation, or vice versa. The three remaining categories (shallow-water grouper, deep-water grouper, and tilefish) are multiple-species categories, designed to capture species complexes that are commonly caught together (Table 1). Three grouper species (scamp, Warsaw grouper, and speckled hind) are found in both shallow and deepwater. Flexibility measures in the GT-IFQ program allow for these species to be landed under both share categories. Scamp are designated as a shallow-water grouper species and may be landed using deep-water grouper allocation once all shallow-water grouper allocation in an account has been harvested. Warsaw grouper and speckled hind are designated as deep-water grouper species and may be landed using shallow-water grouper allocation once all deep-water grouper allocation in an account has been harvested. A vessel may also land 10% more than the remaining allocation on that vessel once per year per share category. This overage is then deducted from the shareholder’s allocation at the start of the following fishing year. Because overages need to be deducted in the following year, GT-IFQ accounts without shares can not land an excess of their remaining allocation and GT-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 GT-IFQ program was implemented to reduce overcapacity of the fishing fleet, increase harvesting efficiency, and eliminate the race to fish. By rationalizing effort and reducing overcapacity, the GT-IFQ program was expected to prevent or mitigate derby fishing conditions and improve profitability of commercial grouper-tilefish fishermen. Anticipated benefits of the program include: increased market stability; elimination of quota closures; increased flexibility for fishing operations; cost-effective and enforceable management; improved safety at sea; and greater balance of social, economic, and biological benefits. Additionally, the program was intended to provide direct and indirect biological benefits to grouper-tilefish and other marine resources by reducing bycatch and associated bycatch mortality. These social, economic, and biological benefits collectively are intended to assist NMFS and Gulf of Mexico Fishery Management Council (Gulf Council) in preventing overfishing and rebuilding GT-IFQ stocks through the stewardship aspects of the program.

Program Regulations

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires fishery managers to ensure that no one GT-IFQ participant acquires an excessive share of the quota. The GT-IFQ program is monitored to prevent one or more participants from obtaining shares in excess of the established share cap for each category (Table 2). The share cap for each category was based on the maximum GT-IFQ share issued to a person, corporation, or other entity at the time of initial apportionment. An allocation cap is set

IFQ Category	Share Cap %
DWG	14.704321
GG	2.349938
RG	4.331882
SWG	7.266147
TF	12.212356

annually and equals the sum of the maximum allocations associated with the five share caps. In 2012, the final allocation cap at the end of the fishing year was 519,725 lb.

When harvesting GT-IFQ species, vessels are required to have a valid Gulf reef fish permit and hail-out before leaving port. While at-sea, vessels are monitored using Vessel Monitoring Systems (VMS). When returning to port, vessels landing GT-IFQ species must provide a landing notification indicating the time and location of landing, the intended dealer, and the estimated pounds landed by species. Landing may occur at any time, but IFQ species may only be offloaded between 6 a.m. and 6 p.m. A landing transaction report is completed by the GT-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 shareholder account, vessel, and dealer. All landings data are updated as landing transactions are processed, on a real-time basis. For current total GT-IFQ landings go to: <https://ifq.sero.nmfs.noaa.gov/>.

NMFS analyzes the ex-vessel revenue of the GT-IFQ commercial sector landed through the collection of ex-vessel prices. Ex-vessel prices are the prices paid 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 GT-IFQ fishermen are charged a cost recovery fee to recover a portion of the costs required to administer, manage, and enforce the GT-IFQ program. The cost recovery fee is 3% of the ex-vessel price of the landed fish, although this amount is re-evaluated and subject to change if costs of administering and enforcing the program are less than costs recovered. The cost recovery fee can never exceed 3%. GT-IFQ dealers are responsible for collecting the cost recovery fee from fisherman at the time of each sales transaction and submitting fees to NMFS on a quarterly basis.

Complete regulations governing the GT-IFQ program can be found at 50 CFR 622.22 (<http://ecfr.gpoaccess.gov>). The GT-IFQ program is managed with an online accounting system that can be accessed at: <https://ifq.sero.nmfs.noaa.gov>. Important information regarding the GT-IFQ program is available for download on the website and provides updated information regarding the program's components and regulations.

Program Updates

In 2012, SERO staff made database and web-based changes to the Gulf IFQ system, which houses both the GT-IFQ and Red Snapper IFQ (RS-IFQ) programs. 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 landing transactions, dealers must now select the associated landing confirmation number for that transaction. By the request of Gulf IFQ participants, NMFS created landing ledgers for dealers and shareholders. Landing ledgers display each landing transaction, including the pounds, price per pound, total price, and cost recovery fee. Participants may view and print their landing ledger by year and quarter. In 2012, the following five species were removed from the GT-IFQ program: red and rock hind from SWG, misty grouper from DWG, and anchor and blackline tilefish from TF. For a detailed history of the GT-IFQ program please refer to Appendix 1.

2012 Grouper-Tilefish IFQ Fishing Season

Program Participants

Shareholders

The total number of shareholders in the GT-IFQ program has decreased 13% since the start of the program. In 2012 there were 665 shareholders, 34 less than the previous year (Table 3). In 2012, shareholders per share category ranged from 246 (TF) to 629 (SWG) (Table 3). Shareholders may transfer all their 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. Accounts that transfer all their shares may still participate in the GT-IFQ program by obtaining allocation from another GT-IFQ account.

Table 3: Accounts by shareholding size

DWG	Small	Med.	Large	Total	GG	Small	Med.	Large	Total
Initial	299	169	12	480	Initial	415	330	3	748
2010	300	148	13	461	2010	424	290	5	719
2011	275	143	13	431	2011	391	263	7	661
2012	253	134	14	401	2012	355	249	8	612

RG	Small	Med.	Large	Total	SWG	Small	Med.	Large	Total
Initial	435	248	9	692	Initial	467	275	10	752
2010	421	237	7	665	2010	460	250	11	721
2011	377	227	6	610	2011	421	242	11	674
2012	349	212	8	569	2012	384	234	11	629

TF	Small	Med.	Large	Total	Total Shareholders	
Initial	171	100	16	287	Initial	766
2010	185	85	17	287	2010	743
2011	164	79	17	260	2011	699
2012	155	76	15	246	2012	665

¹ Small accounts hold < 0.05%; medium accounts hold 0.05% - 1.49999%; large accounts hold ≥ 1.5% shares.

Shareholders decreased within each share category every year (Table 3). Most of the attrition occurred in those accounts holding small and medium share percentages, although the majority of shareholders still hold a small percentage of shares. The number of accounts with large shareholdings (≥1.5%) remained similar in all share categories except the gag share category, where the number of large shareholders nearly tripled since the start of the program from 3 shareholders to 8 in 2012 (Table 3). Note that increases in shareholdings may occur from related accounts holding all shares within one account, rather than holding shares in multiple accounts.

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 changes (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 shareholdings to one account for ease of management.

Despite a decreasing number of shareholders, each year there were new shareholders entering the IFQ program. New shareholders are classified by share category, and include any account that did not hold shares in that share category at the start of the year. A new shareholder in one category may have owned shares in another category, therefore the total number of new shareholders can not be summed across categories. New accounts may be established by someone entering the program, someone who had participated in the program previously as an allocation-only account, or someone who had a permit

Table 4: New shareholder accounts

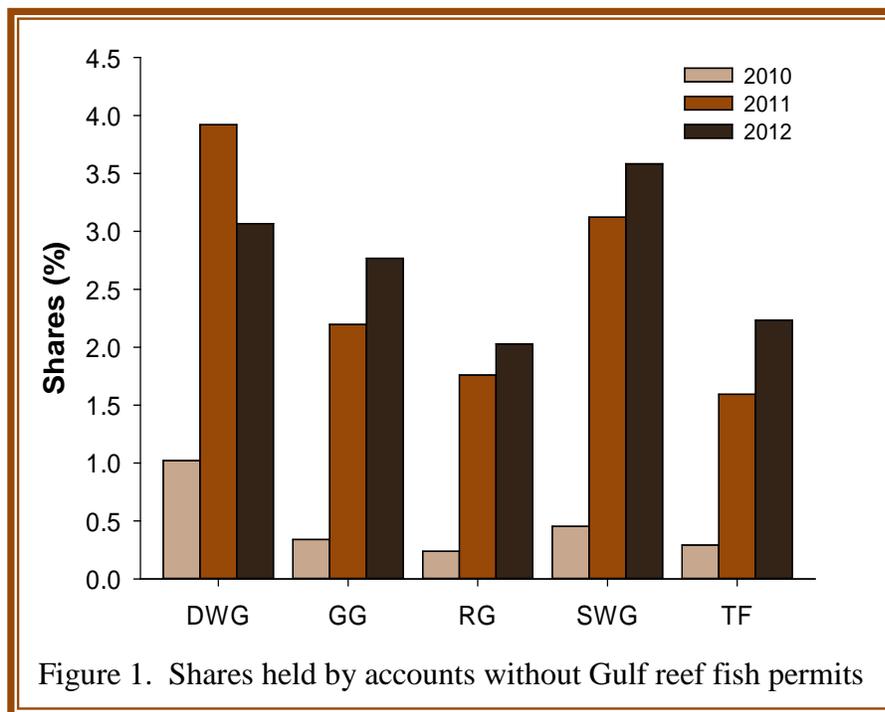
Cat.	Small	Med.	Large	Total	Total %
DWG	12	6	0	18	2.21%
GG	10	7	1	18	4.62%
RG	9	9	1	19	5.81%
SWG	9	8	0	17	2.06%
TF	8	6	0	14	0.94%

name change. There were 39 accounts that acquired shares in at least one of the share categories for the first time in 2012. The majority of new shareholders only acquired shares in one share category, while a handful acquired shares in three or more categories. Per share category, there were 14-19 new shareholders and total shares transferred to new shareholders by category were between 0.94% to 5.81% (Table 4).

For the first five years of the GT-IFQ program, a commercial reef fish permit is required to open a GT-IFQ account. After initial implementation of the GT-IFQ program, any shareholder can retain their shares, and the associated allocation generated from those shares, without maintaining a Gulf reef fish permit. Accounts without permits can not increase their shares or allocation, nor harvest red snapper, but can transfer shares and/or allocation to another shareholder. The number of accounts without permits and with shares has increased each year (Table 5). At the end of the first year, 34 accounts (5%) with shares no longer held a Gulf reef fish permit (Table 5). This increased to 87 accounts (12%) in 2011 and 109 accounts (16%) in 2012 (Table 5). By 2012, the number of accounts with shares but without permits increased for all share categories except TF, which remained the same. SWG had the greatest number of accounts that held shares without a permit (n= 102, 16%), while TF had the least (n = 22, 9%). The amount of shares held by accounts without permits increased in 2012 for the following share categories: GG, RG, SWG, and TF (Figure 1). For DWG the amount of shares held by accounts without a permit decreased in 2012, but was still greater than at the end of the first year of the program (Figure 1). In 2012, shares held by accounts without permits were between 2.0 -3.6% per share category (Figure 1).

Table 5: Accounts with shares

DWG	Permit	No Permit	GG	Permit	No Permit
2010	446	12	2010	687	29
2011	392	39	2011	578	83
2012	359	42	2012	513	99
RG	Permit	No Permit	SWG	Permit	No Permit
2010	638	24	2010	689	29
2011	537	73	2011	591	83
2012	479	90	2012	527	102
TF	Permit	No Permit	Total	Permit	No Permit
2010	280	5	2010	709	34
2011	238	22	2011	612	87
2012	224	22	2012	556	109



Allocation Holders

In the GT-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 not all accounts holding allocation also hold a Gulf reef fish permit and some accounts may only trade allocation. The number of accounts with allocation in each share category has decreased since the start of the program (Table 6). The accounts that obtained at least one pound of allocation through shares have also decreased (Table 6). The percentages of accounts that obtained all allocation through allocation transfers increased from 5-9% per share category in 2010, to 13-17% per share category in 2012 (Table 6). The increased percentage of accounts that obtained allocation through allocation transfers may be influenced by a variety of factors, such as, but not limited to the following: manag-

DWG				GG			
	N	Thru shares	Thru Purchase		N	Thru shares	Thru Purchase
2010	512	472	40 (8%)	2010	789	740	49 (6%)
2011	521	445	76 (15%)	2011	767	694	73 (10%)
2012	497	416	81 (16%)	2012	743	645	98 (13%)
RG				SWG			
	N	Thru shares	Thru Purchase		N	Thru shares	Thru Purchase
2010	744	690	54 (7%)	2010	762	725	37 (5%)
2011	739	675	64 (9%)	2011	760	687	73 (10%)
2012	715	605	110 (15%)	2012	737	644	93 (13%)
TF				ALL			
	N	Thru shares	Thru Purchase		N	Thru shares	Thru Purchase
2010	299	271	28 (9%)	2010	816	765	57 (7%)
2011	309	263	46 (15%)	2011	833	756	77 (9%)
2012	292	243	49 (17%)	2012	812	701	111 (14%)

ing shares in a related account², inability to buy shares (e.g., availability or price), change in harvesting behavior, and/or influences from the RS-IFQ program. The RS-IFQ and GT-IFQ programs have a large amount of overlap, with 77% of the vessels that landing at least one pound of GT-IFQ species also landing at least one pound of red snapper. This overlap and the multi-species nature of the reef fish complex may contribute to more allocation holders in some share categories as fishermen seek to reduce their by-catch and discards through the transfer of allocation.

Dealers

In 2012, 97 Gulf reef fish dealers purchased at least one pound of GT-IFQ species (Table 7). This is a slightly greater number than the previous years. The number of small-sized dealers has decreased slightly in favor of medium-sized dealers. The number of large-sized dealers has remained similar since the

Table 7: Dealer accounts and size

Year	Total	Small	Med.	Large
2010	85	39 (46%)	30 (35%)	16 (19%)
2011	94	43 (46%)	36 (38%)	15 (16%)
2012	97	40 (41%)	42 (43%)	15 (16%)

The number of shareholder accounts 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.

start of the program. Personal communication with industry representatives indicates that some shareholders are also obtaining a dealer permit, resulting in a greater number of small dealers, which is not apparent in the analysis. Currently, it is not possible to determine if a shareholder and dealer account are owned by the same entities, as accounts may be held by different combinations of individuals and/or businesses.

Vessels

The total number of vessels participating in the GT-IFQ program has remained similar since the start of the program, with 440-452 vessels landing at least one GT-IFQ species (Table 8). Across all share categories, the number of vessels has decreased compared to the average number of vessels pre-GT-IFQ (Table 8). In 2012, there was an increase in the number of vessels for all share categories, and there were more vessels for DWG, RG, SWG, and TF than in 2010 (Table 8). The RG share category had the greatest number of vessels (n = 398), followed closely by GG (n = 384) and SWG (n = 343). TF had the least num-

Table 8: Vessels harvesting GT-IFQ species

DWG	N	FL	Other Gulf	GG	N	FL	Other Gulf
Pre-IFQ	238			Pre-IFQ	493		
2010	187	139	48	2010	415	377	38
2011	192	144	48	2011	363	336	27
2012	206	163	43	2012	384	353	31
RG	N	FL	Other Gulf	SWG	N	FL	Other Gulf
Pre-IFQ	546			Pre-IFQ	489		
2010	393	383	10	2010	322	281	41
2011	383	375	8	2011	307	270	37
2012	398	386	12	2012	343	302	41
TF	N	FL	Other Gulf	ALL	N	FL	Other Gulf
Pre-IFQ	166			Pre-IFQ	630		
2010	79	63	16	2010	452	397	55
2011	75	56	19	2011	440	386	54
2012	97	77	20	2012	449	397	52

ber of vessels (n=97). The majority of vessels (n= 155) harvest species in three of the five share categories, while only a small number harvest within just one category (n = 39) or all five categories (n = 74). DWG and TF were the two share categories most commonly caught together in 2012, followed by GG and RG (Figure 2). SWG was more often caught with RG or GG than DWG or TF (Figure 2).

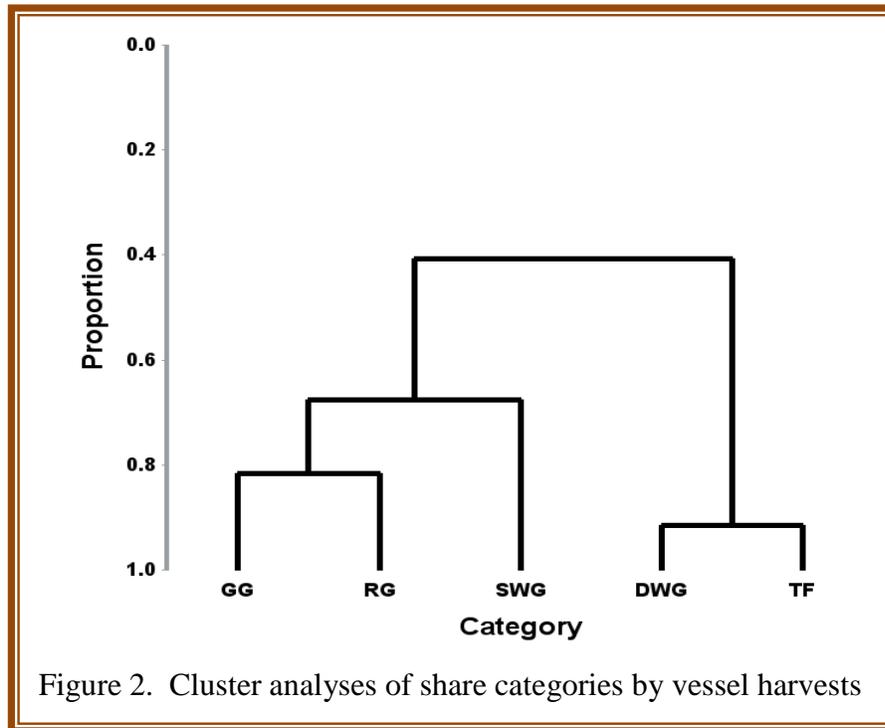


Figure 2. Cluster analyses of share categories by vessel harvests

Program Activity

Share Transactions

Across all share categories, the total number of share transfers decreased each year, while the total amount of shares transferred remained similar to 2011 values (Table 9). In 2012, there were 550 share transactions across all share categories, equaling 59.97% shares. In 2012, the number of share transfers decreased for all share categories except RG, which increased by 34 transactions (Table 9). The amount of shares transferred increased for DWG, RG and TF, but decreased for GG and SWG (Table 9). Average transferred shares remained similar to 2011 for GG, RG, and SWG, but increased for DWG and TF.

Table 9: Share transactions

DWG	N	%	Avg. %	GG	N	%	Avg. %
2010	161	25.8	0.16	2010	256	24.0	0.09
2011	96	7.0	0.07	2011	137	17.3	0.13
2012	78	9.3	0.12	2012	129	14.8	0.12
RG	N	%	Avg. %	SWG	N	%	Avg. %
2010	267	24.3	0.09	2010	195	25.6	0.13
2011	168	13.5	0.08	2011	104	8.4	0.08
2012	202	17.2	0.08	2012	97	6.9	0.07
TF	N	%	Avg. %	ALL	N	%	
2010	91	31.6	0.35	2010	970	131.30	
2011	59	9.0	0.15	2011	564	55.20	
2012	44	11.8	0.27	2012	550	59.97	

Allocation Transactions

Annual allocation is the actual poundage each IFQ account can use to possess, land, and/or sell GT-IFQ species during a given calendar year, and is distributed among share categories. Individual units of allocation can not be tracked in the system and only allocation transfers between accounts are analyzed in this report. Across all share categories, the number of allocation transactions and the total amount transferred increased each year (Table 10). In 2012, there were 5,700 allocation transfers that totaled 7.8 mp (Table 10). In 2012, the number of transfers increased within each share category (Table 10). The associated allocation transferred also increased except for TF (Table 10). Average allocation amounts transferred varied by share category. In 2012, both GG and SWG had similar averages as in the previous year, while the average amount transferred in the remaining share categories decreased (Table 10). The amount of allocation transferred exceeded the quota for both DWG (135%) and TF (118%) (Table 10) as allocation may be traded multiple times. The remaining share categories had transferred allocation totaling 72-89% of their respective quotas (Table 10).

Table 10: Allocation transactions

DWG	N	Lb.	Avg. lb.	% quota	GG	N	Lb.	Avg. lb.	% quota
2010	490	1,027,477	2,097	101%	2010	945	743,266	787	53%
2011	632	1,447,229	2,290	142%	2011	1,250	332,049	266	77%
2012	764	1,524,618	1,996	135%	2012	1,745	503,899	289	89%
RG	N	Lb.	Avg. lb.	% quota	SWG	N	Lb.	Avg. lb.	% quota
2010	1,065	3,217,048	3,021	56%	2010	616	315,042	511	77%
2011	1,550	4,260,483	2,749	81%	2011	568	272,816	480	67%
2012	1,906	4,736,612	2,485	88%	2012	900	365,563	406	72%
TF	N	Lb.	Avg. lb.	% quota	ALL	N	Lb.		
2010	268	489,585	1,827	111%	2010	3,384	5,792,418		
2011	328	765,586	2,334	174%	2011	4,328	7,078,163		
2012	385	685,980	1,782	118%	2012	5,700	7,816,672		

Allocation Activity

Account activity status was determined, each year, based on allocation transactions (e.g., transfers, landings). An inactive account did not land, sell, and/or buy allocation. The number of inactive accounts decreased each year and in 2012 comprised 16-30% of the accounts per share category (Table 11). 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. The number of accounts landing allocation increased each year for each share category (Table 11). Between 30-50% of the

accounts with allocation harvest GT-IFQ species each year (Tables 11). RG had the highest number of accounts landing allocation (n= 357; 50%), while TF had the least number of accounts landing allocation (n = 87; 30%) (Table 11). Accounts landing GT-IFQ species can be further classified as those that do and do not hold shares. The majority of accounts landing allocation also have shares (Table 11). The number of accounts with both landings and shares decreased in 2011 for all share categories, but increased slightly in 2012 for DWG, SWG, and TF (Table 11). In 2010, 90% or more of the accounts landing allocation also had shares, but by 2012 78% or fewer of the accounts landing allocation also had shares (Table 11, Landings/Landings w/shares). The number of pounds landed by accounts without shares increased each year (Table 12). In 2010, accounts without shares landed between 1% and 4% of all pounds within a share category, but in 2012 that increased to 13% to 22% (Table 12). The largest increase in pounds landed without shares occurred in TF (1% in 2010 to 22% in 2012), while the smallest increase occurred in RG (4% to 13%).

Table 11: Accounts with allocation

DWG	N	Inactive	Landings	Landings w/shares	GG	N	Inactive	Landings	Landings w/shares
2010	512	169 (33%)	161 (31%)	148 (29%)	2010	789	244 (31%)	362 (46%)	326 (41%)
2011	521	140 (27%)	169 (32%)	133 (26%)	2011	767	221 (29%)	323 (42%)	274 (36%)
2012	497	104 (21%)	185 (37%)	136 (27%)	2012	743	184 (25%)	344 (46%)	268 (36%)

RG	N	Inactive	Landings	Landings w/shares	SWG	N	Inactive	Landings	Landings w/shares
2010	744	222 (30%)	348 (47%)	312 (42%)	2010	762	277 (36%)	282 (37%)	262 (34%)
2011	739	184 (25%)	344 (47%)	298 (40%)	2011	760	261 (34%)	272 (36%)	228 (30%)
2012	715	167 (23%)	357 (50%)	268 (37%)	2012	737	220 (30%)	303 (41%)	232 (31%)

TF	N	Inactive	Landings	Landings w/shares
2010	299	101 (34%)	66 (22%)	62 (21%)
2011	309	77 (25%)	68 (22%)	55 (18%)
2012	292	59 (20%)	87 (30%)	61 (21%)

Table 12: Landings by share status

DWG	w/ shares		w/o shares		GG	w/ shares		w/o shares	
2010	602,749 lb	96%	22,013 lb	4%	2010	473,362 lb	96%	20,576 lb	4%
2011	701,273 lb	90%	78,246 lb	10%	2011	286,560 lb	90%	33,577 lb	10%
2012	806,041 lb	84%	157,794 lb	16%	2012	436,556 lb	83%	88,510 lb	17%

RG	w/ shares		w/o shares		SWG	w/ shares		w/o shares	
2010	2,800,064 lb	96%	113,794 lb	4%	2010	155,091 lb	98%	3,143 lb	2%
2011	4,397,093 lb	92%	385,101 lb	8%	2011	170,156 lb	91%	16,079 lb	9%
2012	4,513,535 lb	87%	703,670 lb	13%	2012	256,643 lb	85%	43,724 lb	15%

TF	w/ shares		w/o shares	
2010	246,987 lb	99%	2,721 lb	1%
2011	330,997 lb	86%	55,137 lb	14%
2012	350,670 lb	78%	100,451 lb	22%

Active accounts without landings were accounts that only traded GT-IFQ allocation. Accounts may trade allocation for a variety of reasons, including: unable to harvest allocation (e.g., no permit, vessel inoperative), transfer of the allocation to a related account, insufficient allocation to harvest (e.g., shares results in only a few pounds of allocation), and/or for profit (e.g., sell of allocation is greater than profit from harvest). Accounts with no shares but holding a Gulf reef fish permit may be considered to be acting as brokers, because they obtain allocation solely to trade to other accounts.

The percentage of accounts only trading allocation increased from 2010 to 2011, but remained similar in 2102 (Table 13). Accounts only trading allocation can be divided into subcategories based on share and permit status: 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. There were more accounts only trading allocation in 2012 than in 2010 (Table 13). In 2010, between 23-44% of the accounts with allocation only traded allocation, while in 2012 this increased to 27-50% (Table 13). In each year and in each share category, the majority of the accounts only trading allocation held both shares and Gulf reef fish permits (Table 13). In 2010, these accounts comprised 80-85% of the accounts only trading allocation, but that decreased to 70-73% in 2012. The remaining accounts that were only trading allocation were evenly split between those with shares and without a Gulf reef fish permit and those with a Gulf reef fish permit but no shares. The number of accounts with shares but without permits increased each year for each share category (Table 13). In 2010, only 2-8% of the accounts only trading allocation held shares without holding a Gulf reef fish permit, but this increased to 12-18% by 2012 (Table 13). Accounts without shares but holding a Gulf reef fish permit did not change considerably, as in 2010 there were 8-18% per share category and 10-16% per share category in 2012. These accounts may have a related account and are being used to temporarily hold allocation. Currently, there is no method to determine which accounts are related.

Table 13: Percentage of accounts only trading allocation

DWG	N	% Accts	Shares & permit	Shares, no permit	No shares, with permit	GG	N	% Accts	Shares & permit	Shares, no permit	No shares, with permit
2010	182	36%	148 (81%)	7 (4%)	27 (15%)	2010	183	23%	156 (85%)	14 (8%)	27 (15%)
2011	212	41%	142 (67%)	30 (14%)	40 (19%)	2011	223	29%	165 (74%)	34 (15%)	40 (18%)
2012	209	42%	147 (70%)	30 (14%)	32 (15%)	2012	215	29%	156 (73%)	37 (17%)	32 (15%)

RG	N	% Accts	Shares & permit	Shares, no permit	No shares, with permit	SWG	N	% Accts	Shares & permit	Shares, no permit	No shares, with permit
2010	174	23%	144 (83%)	12 (7%)	18 (10%)	2010	203	27%	172 (85%)	14 (7%)	17 (8%)
2011	211	29%	157 (74%)	36 (17%)	18 (9%)	2011	227	30%	162 (71%)	36 (16%)	29 (13%)
2012	191	27%	136 (71%)	34 (18%)	21 (11%)	2012	214	29%	155 (72%)	37 (17%)	22 (10%)

TF	N	% Accts	Shares & permit	Shares, no permit	No shares, with permit
2010	132	44%	105 (80%)	3 (2%)	24 (18%)
2011	164	53%	112 (68%)	19 (12%)	33 (20%)
2012	146	50%	105 (72%)	18 (12%)	23 (16%)

Commercial Quota and Landings

Quota

Each share category has a commercial quota that may be adjusted annually or during the fishing year, based on stock assessments and as new information is obtained. The GT-IFQ program tracks landings in pounds of gutted weight (gw) and landings are reported in this report as such. In 2012, four of the five GT-IFQ share categories received an in-season quota increase (Table 14). DWG, SWG, and TF in-season quota increases occurred on January 31, while the GG quota increase occurred on March 12. The RG quota was increased at the start of the fishing season on January 1. In 2012, quotas for all share categories were higher than in the previous year, although both GG and RG quotas remain lower than at the start of the program (Table 14).

Table 14: IFQ commercial quota (lb gw)

DWG	Jan 1	Quota Increase	Increase Date	Dec 31	GG	Jan 1	Quota Increase	Increase Date	Dec 31
2010	1,020,000			1,020,000	2010	1,410,000			1,410,000
2011	1,020,000			1,020,000	2011	100,000	330,000	6/1	430,000
2012	1,020,000	107,000	1/30	1,127,000	2012	430,000	137,000	3/12	567,000
RG	Jan 1	Quota Increase	Increase Date	Dec 31	SWG	Jan 1	Quota Increase	Increase Date	Dec 31
2010	5,750,000			5,750,000	2010	410,000			410,000
2011	4,320,000	910,000	11/2	5,230,000	2011	410,000			410,000
2012	5,370,000			5,370,000	2012	410,000	99,000	1/30	509,000
TF	Jan 1	Quota Increase	Increase Date	Dec 31					
2010	440,000			440,000					
2011	440,000			440,000					
2012	440,000	142,000	1/30	582,000					

Landings

Landings increased in 2012 with the highest percentages of the quota landed since the start of the program (Table 14 and 15). Both GG and RG had more than 90% of their quota landed, while DWG had 86%, TF had 78%, and SWG 59% (Table 15). The nature of this multi-species fishery can be seen by the different landing peaks both within and among share categories. GG and RG landings were greatest during the first half of the year (Table 16). In contrast, DWG and TF landings were greatest in the later portion of the year (Table 16). SWG landings

Table 15: Annual Landings (% of quota)

	2010	2011	2012
DWG	624,762 (61%)	779,519 (76%)	933,835 (86%)
GG	493,938 (35%)	320,137 (74%)	525,066 (93%)
RG	2,913,858 (51%)	4,782,194 (91%)	5,217,205 (97%)
SWG	158,234 (30%)	186,235 (45%)	300,367 (59%)
TF	249,708 (57%)	386,134 (88%)	451,121 (78%)

were consistent throughout the year, with only $\pm 13,000$ lb differences among the months (Table 16). All share categories generally had increased landings in December as commercial fishermen sought to harvest unused allocation before the end of the fishing season. The months of greatest landings differed in 2012 when compared to previous years (Figure 3; Appendix 2). The pattern of landings in 2010 was atypical due to the Deep-water Horizon (DWH) oil spill event and the subsequent closures (Appendix 3), while the 2011 patterns of landings may have been influenced by the considerable drop in GG (-980,000 lb) and RG (-1,430,000 lb until 11/2/2011) quotas (Table 14). Since this is a multi-species fishery these quota changes may have affected fishing behavior for all share categories.

Table 16: Monthly landings

	DWG	GG	RG	SWG	TF
Jan	34,848	60,119	421,337	19,805	18,918
Feb	42,385	47,387	470,532	22,302	29,397
Mar	57,181	84,824	630,864	30,298	31,960
Apr	66,874	48,400	509,247	20,776	30,920
May	72,627	54,861	609,515	26,444	24,966
Jun	78,863	25,247	281,429	18,799	24,185
Jul	78,803	44,672	533,947	28,985	22,632
Aug	109,564	23,116	333,414	28,351	34,894
Sept	92,812	29,441	337,003	21,451	52,189
Oct	118,894	24,270	355,110	28,290	86,750
Nov	89,764	32,495	299,272	23,001	21,861
Dec	121,212	50,224	435,535	31,856	72,449

Remaining Allocation

At the end of each year there may be unharvested allocation that remains in shareholders' accounts and goes unused. By share category, between 130 to 441 accounts had remaining allocation at the end of 2012 (Table 17), which equates to between 45-60% of accounts with allocation. The number and percentage of accounts with remaining allocation has decreased each year. The total pounds of allocation remaining in accounts at the end of the year decreased each year for all share categories except TF (Table 17). In 2012, SWG had the greatest percentage of its quota remaining unharvested (41%), followed by TF (22%), DWG (14%), GG (7%), and RG (3%). Remaining allocation can be subcategorized by account activity status (active vs. inactive). Inactive accounts are accounts that did not transfer (in or out) or harvest allocation during the year. The number of inactive accounts with remaining allocation has decreased each year, and in 2012 there were 59-220 inactive accounts with remaining allocation (Table 17), which equates to between 43-50% of accounts with remaining allocation. Despite this high number of inactive accounts, in 2012, the inactive accounts contained between 5,951 – 38,159 lb of allocation (Table 17), which equates to 5-26% of the pounds of remaining allocation. Therefore, the majority of remaining allocation belongs to active accounts that are either trading or landing allocation.

Accounts with shares may land in excess of their allocation once per year through the 10% overage flexibility measure. These overages are then deducted from the shareholder allocation in the next year. A small number of accounts in 2012 ($n = 2-29$) had overages that accounted for 69 – 1,715 lb per share category.

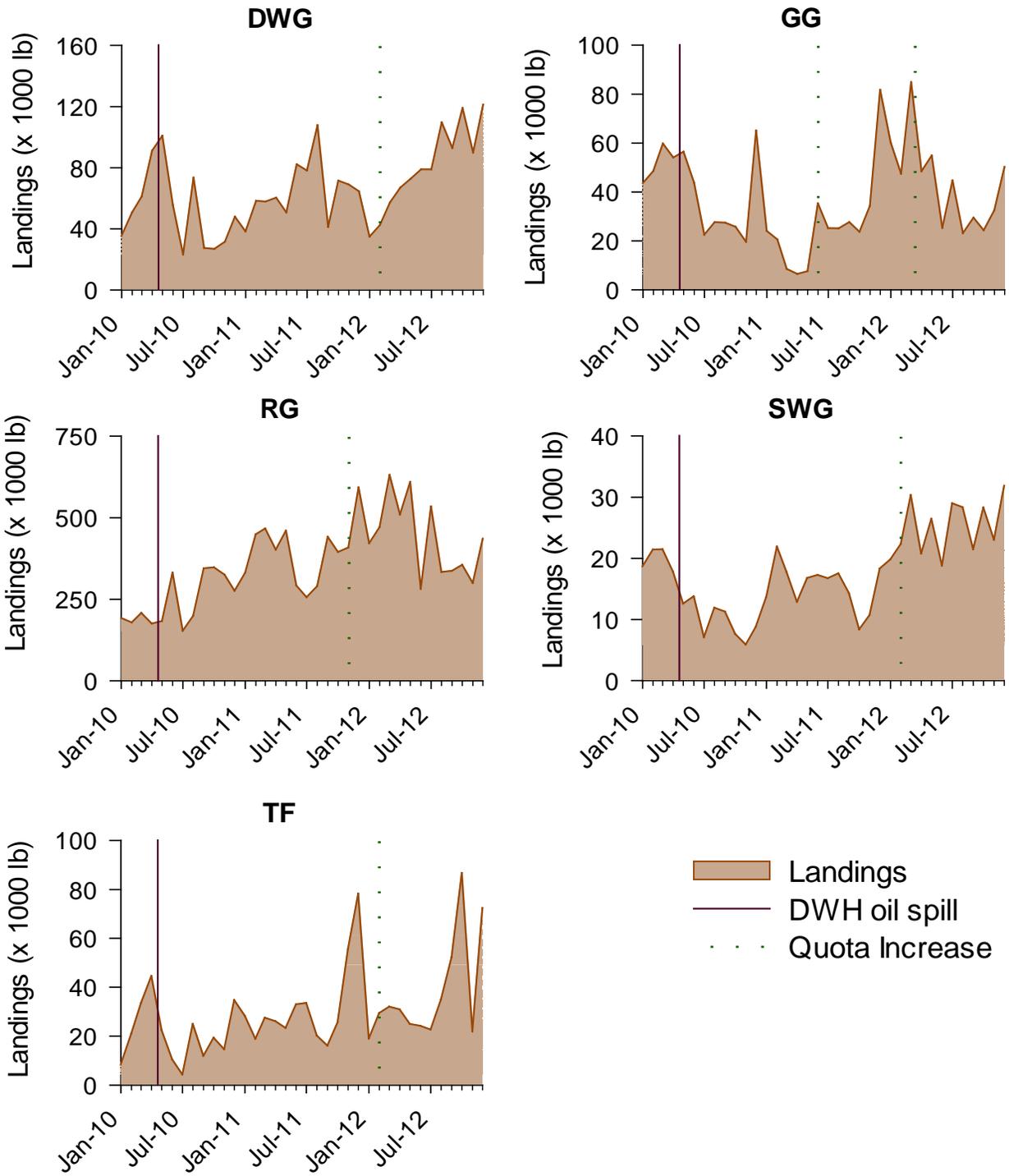


Figure 3. Monthly landings by share category

Table 17: Remaining allocation

DWG	Lb	Acct	% quota	Inact. lb	Inact. Acct	GG	Lb	Acct	% quota	Inact. lb	Inact. Acct
2010	395,615	390	39	64,601	169	2010	916,033	706	65	113,353	244
2011	240,553	283	24	15,731	140	2011	109,754	531	26	17,192	221
2012	163,038	235	14	11,177	103	2012	41,764	424	7	10,796	184

RG	Lb	Acct	% quota	Inact. lb	Inact. Acct	SWG	Lb	Acct	% quota	Inact. lb	Inact. Acct
2010	2,835,405	666	49	339,893	222	2010	251,503	630	61	33,961	277
2011	448,065	501	9	64,216	184	2011	223,732	513	55	22,514	261
2012	152,019	356	3	38,159	167	2012	208,398	441	41	22,711	220

TF	Lb	Acct	% quota	Inact. lb	Inact. Acct
2010	190,857	219	43	59,798	101
2011	53,905	142	12	5,343	77
2012	130,903	130	22	5,951	59

Effort and Bycatch

GT-IFQ effort was categorized by analyzing the number of trips that caught at least one pound of GT-IFQ species, as well as days away and the average landings on those trips. Note, that for all catch composition data, values were not adjusted for misidentified species (e.g., gag grouper as black grouper). Pre-GT-IFQ values are calculated from the SEFSC coastal logbook records for 2007-2009 accessed on 6/12/2013, and therefore may not contain all of the 2012 data. The average number of trips, days away, and days per trip for all share categories combined decreased compared to pre-GT-IFQ values, while the average pounds per trip, with the exception of 2010, increased (Table 18).

Within DWG, there are more trips per year than prior to the GT-IFQ program, and the number of trips has continued to increase each year (Table 18). The number of days away initially decreased in 2010, but increased each year thereafter and is currently greater than pre-GT-IFQ days away. The decreased value in 2010 may be reflective of the closures from the DWH oil spill. DWG trip length decreased at the start of the GT-IFQ program, but since then the average days per trip has remained around ~6 days/trips (Table 18). The average pounds per trip decreased considerably from pre-GT-IFQ (1,198 lb/trip). For the last three years the DWG average pounds per trip have been between 659-686 lb/trip (Table 18). Post-GT-IFQ there was a slight change in catch composition for species in the DWG share category. While yellowedge grouper remains the predominant catch by pounds, there has been an increase in the amount of pounds of snowy and Warsaw groupers (Figure 4).

GG trips and days away decreased after the start of the GT-IFQ program (Table 18). In 2012, GG trips and days away increased although the days per trip remained similar (Table 18). Average pounds of gag harvested per trip increased in 2012 to 157 lb/trip, but was still less than the pounds per trip pre-GT-IFQ (Table 18). Changes in effort for harvesting GG may be influenced not only by the GT-IFQ program but also by the substantial decrease in quota that occurred in 2011.

RG trips decreased in 2010, but subsequently increased each year thereafter (Table 18). The number of days away in 2012 remained similar to the previous year (Table 18). The average days per trip has decreased each year and is now ~1 day less than pre-GT-IFQ (Table 18). The average pounds of RG per trip increased considerably from 781 lb/trip pre-GT-IFQ to 1,131 lb/trip in 2012 (Table 18). The changes in days and landings per trip indicate that fishermen are harvesting more RG on shorter trips than prior to the GT-IFQ program.

SWG trips and days away decreased at the start of the GT-IFQ program, but subsequently increased each year thereafter (Table 18). The average days per trip have decreased slightly from 6.1 days/trip prior to the GT-IFQ program to 5.8 days/trip in 2012 (Table 18). Average pounds per trip also decreased in 2010 to 80 lb/trip, but increased in 2012 to 102 lb/trip (Table 18). Catch composition for vessels harvesting SWG changed post-GT-IFQ. In 2012, the percentage of scamp caught increased to 81%, black grouper decreased to 19%, and the percentage of remaining SWG species became negligible at less than 1% (Figure 4).

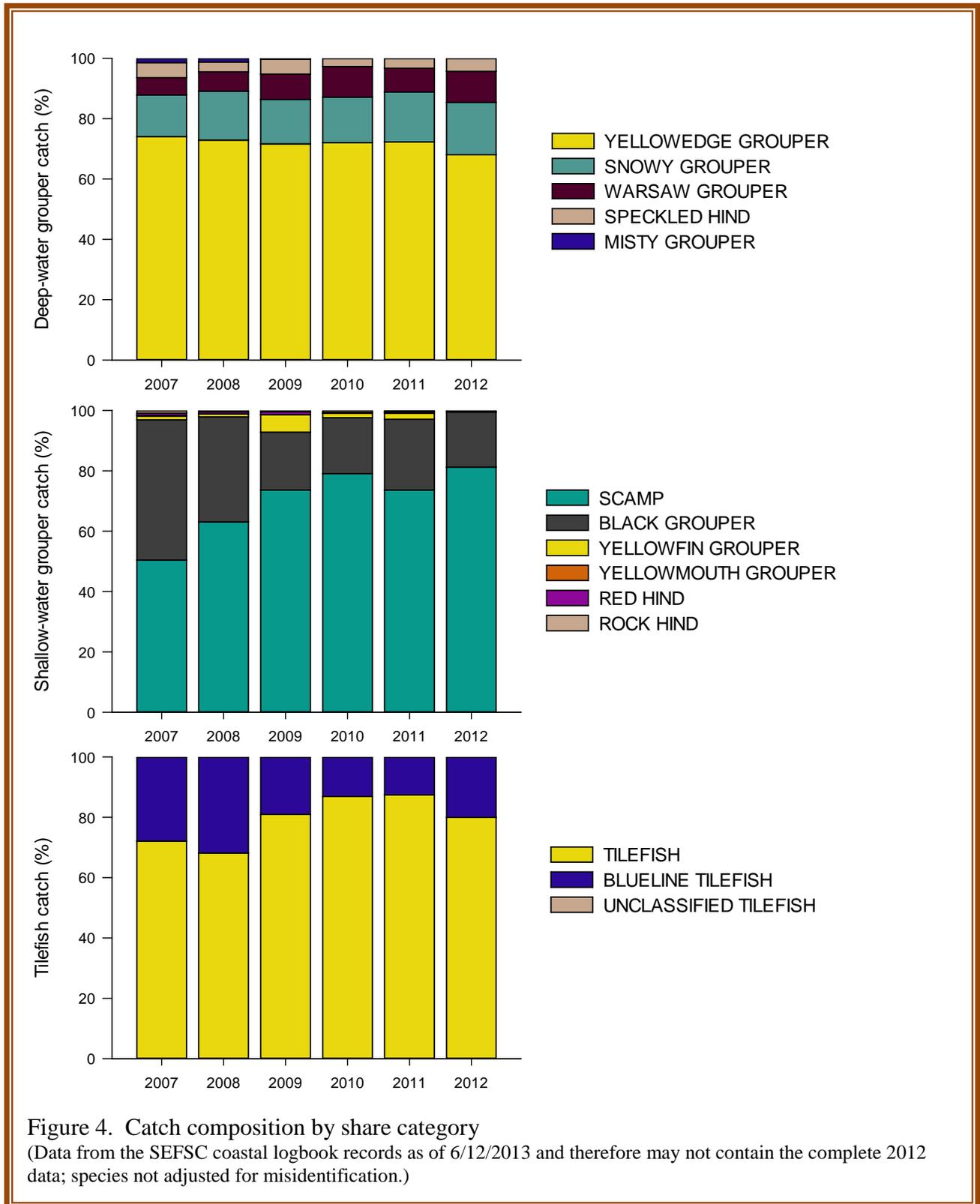
Table 18: Effort harvesting GT-IFQ species

DWG	Trips	Days away ¹	Avg. days/trip	Avg. lb/trip	GG	Trips	Days away ¹	Avg. days/trip	Avg. lb/trip
Pre-IFQ	918	7,248	7.9	1,198	Pre-IFQ	4,013	21,340	5.3	236
2010	948	5,795	6.1	659	2010	3,205	16,593	5.2	154
2011	1,159	6,849	5.9	673	2011	2,696	13,535	5.0	119
2012	1,406	8,548	6.1	686	2012	3,349	15,266	4.6	157
RG	Trips	Days away ¹	Avg. days/trip	Avg. landing per trip	SWG	Trips	Days away ¹	Avg. days/trip	Avg. landing per trip
Pre-IFQ	4,996	25,699	5.1	781	Pre-IFQ	3,324	20,177	6.1	131
2010	3,763	18,596	4.9	774	2010	1,984	13,140	6.6	80
2011	4,586	19,477	4.2	1,043	2011	2,449	14,865	6.1	76
2012	4,612	19,352	4.2	1,131	2012	2,952	17,068	5.8	102
TF	Trips	Days away ¹	Avg. days/trip	Avg. lb/trip	ALL	Trips	Days away ¹	Avg. days/trip	Avg. lb/trip
Pre-IFQ	490	4,113	8.4	970	Pre-IFQ	6,540	33,581	5.1	1,049
2010	329	2,459	7.5	759	2010	4,747	22,711	4.8	935
2011	378	3,074	8.1	1,022	2011	5,623	23,985	4.3	1,148
2012	489	3,740	7.6	923	2012	5,854	24,482	4.2	1,274

¹ All pre-IFQ data and post-IFQ days away are calculated from the SEFSC Coastal Logbook records as of 6/12/2013 and may not contain all 2012 data.

The number of TF trips and days away decreased in 2010, but subsequently increased in the following years (Table 18). In 2012, the number of trips was equivalent to pre-GT-IFQ values, although the number of days away remained lower (Table 18). The average days per trip in 2012 was ~1 days less than pre-GT-IFQ days per trip. Average landings per trip were highest in 2011 (1022 lb/trip) but decreased to 923 lb/trip in 2012. Catch composition has changed after implementation of the GT-IFQ program,

with the proportion of blueline tilefish to golden tilefish decreasing from 19-31% of the catch pre-GT-IFQ to 12-21% of the catch post-GT-IFQ (Figure 4).



Data from the Southeast Fisheries Science Center’s (SEFSC) reef fish observer program (RFOP) were used to evaluate changes in gag and red grouper discards. The RFOP began in mid-2006. RFOP data were categorized by gear: longline (LL) and vertical line (VL; handlines, bandit reels, and spear fishing). Longline trips primarily occurred off the Florida peninsula, while vertical line trips occurred throughout the entire Gulf. In 2009, RFOB coverage shifted effort towards vessels using LL gears (Table 19) and the total number of trips sampled increased from 2010 through 2012 (Table 19). 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 19). RFOP observers record disposition status as: landed/kept, discarded alive, discarded dead, and unknown. These disposition statuses were used to calculate discard ratios by gear and region. Discard ratios are the number of landed/kept fish to each fish discarded.

Table 19: Reef fish observer trips¹

Year	Trips			Gears		Regions ²	
	Total	w/gag	w/red grouper	LL trips	VL trips	FL peninsula trips	Other Gulf
2007 ³	84	47	51	9	75	42	44
2008	61	33	38	5	56	37	28
2009	79	51	56	33	46	56	29
2010	110	71	74	54	56	81	41
2011	190	138	148	81	109	131	61
2012	263	173	190	18	245	153	122

¹ Data from the Reef Fish Observer Program accessed as of 06/11/2013 and may not contain all 2012 data.

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

³ 2007 data is only from May 2 onward.

From 2007 through 2011, the minimum size limit for gag was 24” total length (TL). Starting in 2012, the minimum size limit was reduced to 22” TL (Appendix 4.1). Gag were caught on 54-73% of the observer trips (Table 19), and were predominantly caught on vessels using vertical lines and off the Florida peninsula. The discard ratio (number landed for each fish discarded) has been increasing for vertical lines, indicating that less fish are being discarded (Table 20). The decrease in the LL discard ratio in 2011 was most likely influenced by the reduction in quota for that year (Table 14). While the discard ratio improves in 2012 (Table 20), it is worth noting that only 18 LL trips were observed that year, compared to the higher number of trips observed in previous years (Table 19). Discard ratio for vessels fishing off the Florida peninsula, has remained similar both pre and post-GT-IFQ, with 1.5 gag landed for each gag discarded (Table 20). Again, the small discard ratio in 2011 was most likely influenced by the reduced quota. Discard ratio for vessels fishing the remaining Gulf waters was greatest in 2012, with 9 gag landed for each gag discarded (Table 20). Discard ratios may be influenced by the amount of allocation available to the vessels that are being observed. Discussions at several stock assessments have indicated that fishermen behavior, particularly with regards to discards, varies with the amount of allocation available during a trip and throughout the year.

Until 2008, the red grouper minimum size limit was 20” TL, in 2009 the minimum size limit decreased to 18” TL (Appendix 4.2). Red grouper were caught on 61-78% of the observer trips (Table 19), and were observed to be caught on both VL and LL gears. Similar to gag, red grouper were observed mostly on vessels off the Florida peninsula. Red grouper discard ratio increased in 2012 for VL, with 2.28 red grouper landed for each red grouper discarded (Table 20). Discard ratios for vessel using LL gears remained similar to 2011 values, with 1.23 fish landed for each discarded. Discard ratios also increased off the FL Peninsula and other areas of the Gulf. Along the Florida peninsula, discard ratios increased marginally from 1.18 fish landed per discard to 1.23 fish landed per discard (Table 20). Discard ratios in the remaining Gulf increased from 2.82 fish landed to 7.88 fish landed per discard (Table 20).

Table 20: Discard ratio (x landed: 1 discarded)

Gag	VL	LL	FL peninsula	Other Gulf	Red grouper	VL	LL	FL peninsula	Other Gulf
2008	3.46	10.00	2.76	10.38	2008	1.03	0.84	0.92	2.80
2009	0.69	11.93	1.16	3.65	2009	1.27	0.88	0.95	0.91
2010	0.61	10.37	1.57	4.94	2010	0.69	0.88	0.86	1.58
2011	0.86	0.48	0.60	1.07	2011	1.57	1.18	1.21	2.82
2012	2.05	2.69	1.49	9.09	2012	2.28	1.23	1.63	7.88

¹ Data from the Reef Fish Observer program accessed on 06/11/2013 and may not contain all 2012 data.

Price Information

Price information is an important component for evaluating the performance of a catch share program. Economic theory states that as fishermen no longer have to out-compete other fishermen for a share of the catch, the profits will increase as fishermen adjust the scale 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 until mid-2010, when a minimum transfer price of \$0.01 was required for all share transfers. Each year, more than half of the share transactions are either missing price information or have under-reported price information (e.g., \$0.01/lb) (Table 21). Transactions that had low prices could be due to, but not limited to, any of the following: entering a price per pound equiva-

lent³ instead of total price, reluctance to enter price information, gifts, transferring to a related accounts, part of a package deal (e.g., sale of shares with a permit, vessel, and/or other equipment), and/or unrecorded bartering of shares within the GT-IFQ program or with the RS-IFQ program. 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 share price analysis, the data were limited to share transfers with reasonable price per pound equivalents (see Appendix 5: Price Analysis Rationale). All values were weighted by the pounds instead of on a transactional basis.

Overall, the number of share transfers with no or low prices has decreased from 61% in 2011 to 55% in 2012 (Table 21). Improvements in price reporting were seen in every share category except TF (Table 21), which decreased from 42% of the transfers with prices in 2011 to 32% in 2012. Improvements in share price reporting may in part be a result of IFQ support staff's effort to reach out and clarify the importance of price information.

From 2011 to 2012, the share price per pound increased for GG, RG, and TF share categories, remained similar for DWG, and decreased for SWG (Table 21). The share price per pound has increased for all share categories since 2010 (Table 21). SWG increased the least (+6%) since the start of the program from \$7.16/lb in 2010 to \$7.56/lb in 2012. DWG increased 35% since the start of the program (\$8.15/lb to \$11.00/lb). GG, RG, and TF more than doubled the share price per pound since the start of the program. The GG 2012 price per pound (\$25.35) is nearly 5 times greater than the 2010 price per pound (\$5.37) (Table 21). The reduced GG quota mostly likely influenced the share price, as supply decreased (smaller quota), the price for a percentage of that supply increased. The gradually increasing share prices in RG and TF, and the relatively stable prices for DWG and SWG suggest that fishermen have confidence in the GT-IFQ program and expect profits from the program to continue to increase in the future.

Table 21: Share transfer prices (\$/lb)

DWG	N	%	Avg.	Median	Inf.-adj. avg	GG	N	%	Avg.	Median	Inf.-adj. avg
2010	47	29%	\$7.84	\$8.50	\$8.15	2010	95	37%	\$5.37	\$6.00	\$5.58
2011	43	45%	\$11.34	\$12.02	\$11.54	2011	40	29%	\$23.25	\$24.99	\$23.67
2012	31	40%	\$11.00	\$12.00	\$11.00	2012	60	47%	\$25.35	\$28.00	\$25.35
RG	N	%	Avg.	Median	Inf.-adj. avg	SWG	N	%	Avg.	Median	Inf.-adj. avg
2010	106	40%	\$3.78	\$3.50	\$3.93	2010	68	35%	\$6.89	\$6.50	\$7.16
2011	73	43%	\$6.26	\$5.97	\$6.37	2011	41	39%	\$9.94	\$11.99	\$10.12
2012	106	52%	\$8.45	\$9.00	\$8.45	2012	36	37%	\$7.56	\$7.02	\$7.56
TF	N	%	Avg.	Median	Inf.-adj. avg	ALL	N	%			
2010	36	40%	\$3.12	\$2.15	\$3.24	2010	352	36%			
2011	25	42%	\$5.76	\$5.14	\$5.86	2011	222	39%			
2012	14	32%	\$8.22	\$9.00	\$8.22	2012	247	45%			

³ 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.

Allocation Transfer Prices

Allocation transfer prices are collected on a per pound basis, but are not required in order to complete a transfer. Sixty-seven percent or more of the allocation transactions each year are either missing or have under-reported price information (e.g., \$0.01/lb) (Table 22). Transactions that had low or no price information may be due to, but not limited to, any of the following: reluctance to enter price information, gift, transferring to a related accounts, part of a package deal, or bartering for shares and/or allocation within the GT-IFQ program or with the RS-IFQ program. For allocation price analysis, the data were limited to allocation transfers with reasonable prices per pound (See Appendix 5: Price Analysis Rationale). All statistics were weighted by pounds rather than on a transactional basis.

Overall, the percentage of allocation transfers with no or low prices has decreased from 86% in 2010 to 66% in 2012. For all share categories the percentage of transactions with reasonable prices increased each year (Table 22). The average allocation price in 2012 decreased for DWG (-\$0.17) and SWG (-\$0.10) (Table 22). RG average allocation price increased in 2012 to \$0.79/lb, but remains less than the 2010 price of \$0.92/lb (Table 22). GG average allocation price increased in 2012 to \$2.27/lb, \$0.53/lb greater than 2011 and \$1.09/lb greater than 2010 (Table 22). Average allocation prices for TF have remained similar since the start of the program (~\$0.68/lb).

Table 22: Allocation transfer prices (\$/lb)

DWG	N	%	Avg.	Median	Inf.-adj. avg	GG	N	%	Avg.	Median	Inf.-adj. avg
2010	68	14%	\$1.32	\$1.50	\$1.37	2010	150	16%	\$1.18	\$1.00	\$1.22
2011	116	18%	\$1.36	\$1.40	\$1.38	2011	303	24%	\$1.74	\$1.50	\$1.77
2012	211	28%	\$1.19	\$1.25	\$1.19	2012	631	36%	\$2.27	\$2.25	\$2.27
RG	N	%	Avg.	Median	Inf.-adj. avg	SWG	N	%	Avg.	Median	Inf.-adj. avg
2010	153	14%	\$0.92	\$1.00	\$0.95	2010	75	12%	\$1.15	\$1.00	\$1.19
2011	482	31%	\$0.54	\$0.50	\$0.55	2011	117	21%	\$1.25	\$1.40	\$1.28
2012	743	39%	\$0.79	\$0.75	\$0.79	2012	279	31%	\$1.15	\$1.00	\$1.15
TF	N	%	Avg.	Median	Inf.-adj. avg	ALL	N	%			
2010	35	13%	\$0.65	\$0.50	\$0.68	2010	481	14%			
2011	62	19%	\$0.67	\$0.07	\$0.68	2011	1080	25%			
2012	93	24%	\$0.66	\$0.65	\$0.66	2012	1957	34%			

Ex-vessel Prices

While ex-vessel prices are required to complete a landing transaction, prices have been variable. Ex-vessel prices may differ depending on species, location, and season. Ex-vessel prices 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, or deductions for transferred allocation, goods and/or ser-

vices. In June of 2011, regulations modified the definition for ex-vessel price and explicitly prohibited the deduction of allocation costs, goods, and/or services. For ex-vessel price analysis, the data were limited to landings with reasonable prices per pound (See Appendix 5: Price Analysis Rationale). All statistics were weighted by pounds rather than on a transactional basis. Share category ex-vessel prices are the average of all species landed under that share category; including species landed under flexibility measures (e.g., scamp landed under the flexibility measure for DWG is part of the DWG average. Between 94 to 100% of all transactions had reasonable ex-vessel prices (Table 23). Ex-vessel prices increased in 2012 for DWG, GG and SWG categories (Table 23). The largest increase in ex-vessel price occurred in DWG which increased from \$3.87/lb in 2011 to \$4.06/lb in 2012 (Table 23).

Table 23: Ex-vessel prices (\$/lb)

DWG	N	%	Avg.	Median	Inf.-adj. avg	GG	N	%	Avg.	Median	Inf.-adj. avg
2010	1,529	94%	\$3.61	\$3.70	\$3.75	2010	3,230	99%	\$4.27	\$4.25	\$4.44
2011	1,961	96%	\$3.80	\$3.75	\$3.87	2011	2,839	99%	\$4.58	\$4.75	\$4.66
2012	2,484	98%	\$4.06	\$4.00	\$4.06	2012	3,569	98%	\$4.68	\$4.75	\$4.68

RG	N	%	Avg.	Median	Inf.-adj. avg	SWG	N	%	Avg.	Median	Inf.-adj. avg
2010	3,803	99%	\$3.05	\$3.00	\$3.17	2010	2,282	98%	\$4.06	\$4.10	\$4.22
2011	4,563	99%	\$3.15	\$3.24	\$3.21	2011	2,782	97%	\$4.14	\$4.00	\$4.21
2012	4,587	99%	\$3.21	\$3.25	\$3.21	2012	3,349	99%	\$4.29	\$4.25	\$4.29

TF	N	%	Avg.	Median	Inf.-adj. avg
2010	357	100%	\$2.07	\$2.11	\$2.15
2011	411	100%	\$2.31	\$2.40	\$2.35
2012	530	99%	\$2.27	\$2.25	\$2.27

Note that prices are based on the category under which a species was landed, therefore with flexibility measures when a species is landed under its secondary category the price is captured for that category (e.g., red grouper landed under gag multi is counted in the GG price per pound.)

Ex-vessel prices were analyzed by species, as not all species in a share category have similar ex-vessel prices. Similar to previous years, gag had the highest ex-vessel price at \$4.68/lb, followed by yellowedge grouper (\$4.36/lb), scamp (\$4.35/lb), and black grouper (\$4.35/lb) (Table 24). Since the start of the program, the species with the largest increases in ex-vessel price were Warsaw grouper (+\$0.41/lb), yellowedge grouper (+\$0.37/lb), and blueline tilefish (+\$0.34/lb) (Table 24). Within the DWG share category, yellowedge grouper's ex-vessel price (\$4.36/lb) was approximately \$1/lb greater than the ex-vessel price for the other species in this category (Table 24). Within the SWG share category, the two more commonly caught species, black grouper and scamp, had similar ex-vessel prices. Yellowmouth grouper was ~\$0.10/lb greater and yellowfin grouper was ~\$0.75/lb less than black grouper and scamp (Table 24). Within the TF share category, golden tilefish had the greatest ex-vessel price, followed by goldface tilefish which was ~\$0.50/lb less, and blueline tilefish which was more than \$1.00/lb less (Table 24).

Table 24: Species ex-vessel price

Cat.	Species	2010	2011	2012
DWG	Snowy grouper	\$3.27	\$3.52	\$3.45
	Speckled hind	\$3.16	\$3.24	\$3.26
	Warsaw grouper	\$2.70	\$2.75	\$3.11
	Yellowedge grouper	\$3.99	\$4.08	\$4.36
GG	Gag	\$4.45	\$4.66	\$4.69
RG	Red grouper	\$3.16	\$3.21	\$3.21
SWG	Black grouper	\$4.14	\$4.24	\$4.34
	Scamp	\$4.26	\$4.27	\$4.35
	Yellowfin grouper	\$3.54	\$3.21	\$3.59
	Yellowmouth grouper	\$4.09	\$3.95	\$4.43
TF	Blueline tilefish	\$0.98	\$1.15	\$1.32
	Golden tilefish	\$2.26	\$2.55	\$2.50
	Goldface tilefish	\$2.35	\$2.16	\$2.08

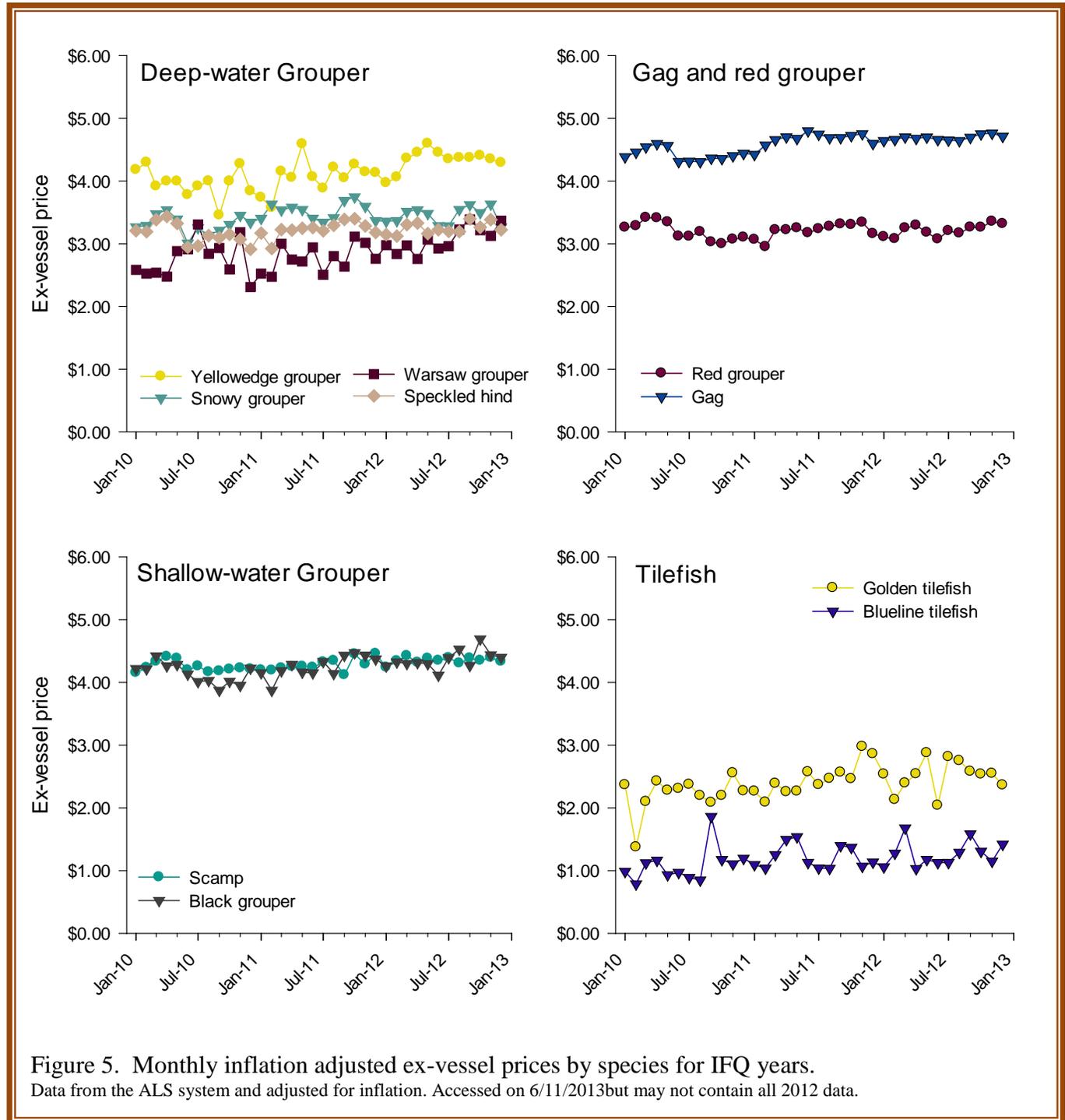
¹ From the IFQ online system and adjusted for inflation.

Some species had high monthly variability in ex-vessel prices, while other species had little monthly variance. Gag, red grouper, speckled hind, and scamp had relatively stable prices from month to month, and between years (Figure 5). In 2012, yellowedge grouper prices peaked in May, and stabilized out for the remaining months in the year (Figure 5). Yellowedge grouper's ex-vessel prices in general were more stable in 2012, with the largest increase in price occurring in March (+\$0.30/lb), whereas in previous years monthly differences were as great as \pm \$0.50/lb. Warsaw grouper ex-vessel prices were variable, with average monthly difference near \pm \$0.25/lb. In 2012, Warsaw grouper ex-vessel prices were slightly less variable than the preceding years (Figure 5). Snowy grouper ex-vessel prices generally increased or decreased gradually month to month. Peak ex-vessel prices occurred two times per year, around early spring (March-May) and late fall (September-November) (Figure 5). Golden tilefish ex-vessel prices were more variable in 2012, then in previous years (Figure 5). Monthly differences were as great as -\$0.88/lb and + \$0.77/lb. By the end of 2012, monthly variations in golden tilefish ex-vessel prices were more stable and centered near \$2.55/lb. Higher blueline tilefish ex-vessel prices occur randomly since the start of the program and may be driven by other factors or through landings in certain regions.

Yearly average ex-vessel prices from the Southeast Fisheries Science Center's (SEFSC) accumulated landings system (ALS) and the GT-IFQ system were calculated and adjusted for inflation based on the Gross Domestic Product (GDP) deflator⁴. The GDP deflator was chosen as the measure of inflation because it was broader than other methods and includes prices for all domestically produced goods and services. Nearly all species have seen an increase in the inflation-adjusted ex-vessel price since the start

⁴ <http://www.bea.gov/national/index.htm#gdp>

of the GT-IFQ program (Figure 6). Gag, scamp, and black grouper's ex-vessel prices were increasing from 2005-2007, but then remained level until increasing again from 2010-2012 (Figure 6). Red grouper, snowy grouper, speckled hind, golden tilefish, and blueline tilefish all had decreasing ex-vessel prices in the three years preceding the GT-IFQ program, but subsequently increased in the years after the GT-IFQ program began (Figure 6). For many of the species, the ex-vessel price in the last two years is the greatest it has been over the last decade. The following species had some of the largest increases from 2009 to 2012: yellowedge grouper, golden tilefish, snowy grouper, gag, and speckled hind.



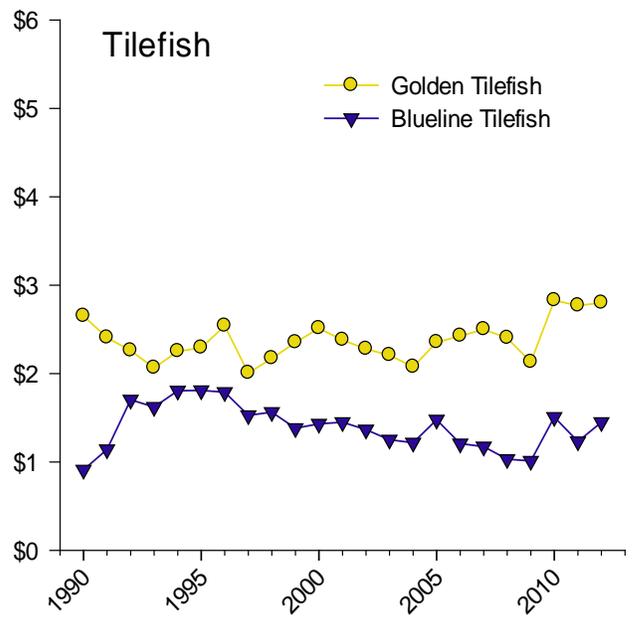
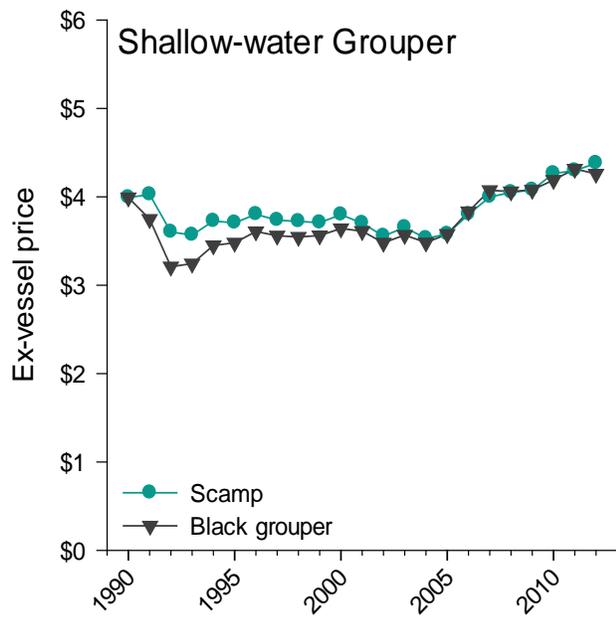
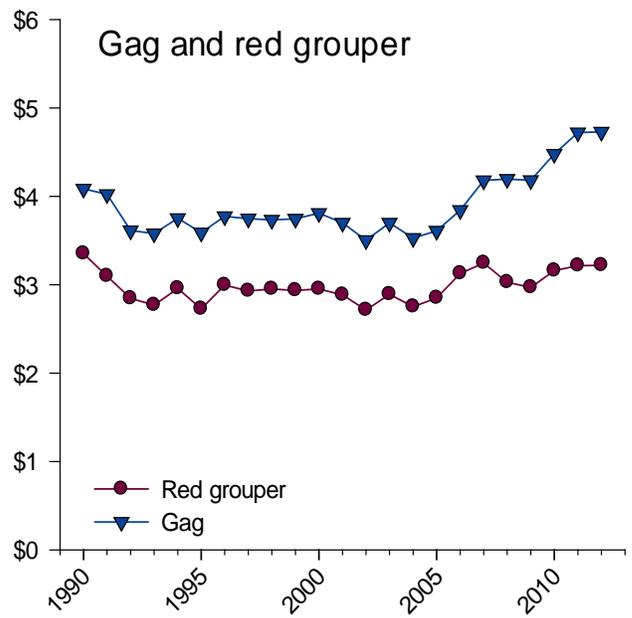
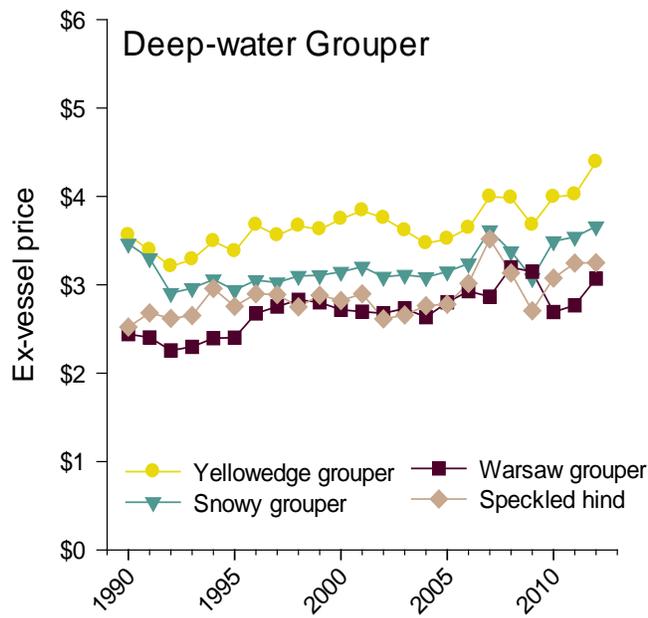


Figure 6. Inflation adjusted annual ex-vessel prices by species since 1990. Data from the ALS system and adjusted for inflation. Accessed on 6/11/2013, but may not contain all 2012 data.

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 GT-IFQ program. The cost recovery fee established for the GT-IFQ program is currently 3% of the actual ex-vessel value of species in the GT-IFQ program. GT-IFQ allocation holders who complete a landing transaction with a dealer are responsible for payment of the fee. The dealer who receives the species 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 GT-IFQ program, and scientific research.

Cost recovery fees are calculated directly from the reported ex-vessel value. Total cost recovery values increased in 2012 by \$128,844 (Table 25) while ex-vessel value increased by \$4,289,145 (Table 27). Red grouper comprised 66% of the total ex-vessel value and related cost recovery fees. The first quarter generated the most cost recovery fees (\$200,795), closely followed by the second quarter (\$193,166) (Table 26). This was a change in the pattern seen in the previous year, when the last quarter had the greatest cost recovery fees due in part to an end of year red grouper quota increase.

Table 25: Cost recovery fees by share category

Year	DWG	GG	RG	SWG	TF	Total
2010	\$66,184	\$63,156	\$266,258	\$19,115	\$15,531	\$430,244
2011	\$88,479	\$43,899	\$451,488	\$22,958	\$26,809	\$633,633
2012	\$117,288	\$73,722	\$502,202	\$38,555	\$30,711	\$762,477

Table 26: Cost recovery fees by quarter

Year	Jan – Mar	Apr – June	Jul- Sept	Oct - Dec	Total
2010	\$102,448	\$121,876	\$90,329	\$115,592	\$430,244
2011	\$148,158	\$149,079	\$142,120	\$194,275	\$633,633
2012	\$200,795	\$193,166	\$182,086	\$186,430	\$762,477

Table 27: Ex-vessel value by share category

Year	DWG	GG	RG	SWG	TF	Total
2010	\$2,206,106	\$2,105,130	\$8,875,215	\$637,127	\$517,706	\$14,341,283
2011	\$2,949,252	\$1,463,237	\$15,049,541	\$765,236	\$893,616	\$21,120,882
2012	\$3,903,900	\$2,457,339	\$16,739,987	\$1,285,110	\$1,023,692	\$25,410,027

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 grouper-tilefish species have a valid IFQ account. During patrol OLE agents correct problems identified and educate fishermen on the use of technology used to monitor the program. In other instances, OLE agents take 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 program 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 number of GT-IFQ seizures for GT-IFQ species decreased in 2012. The 2012 cases resulted in the issuance of verbal warnings, written warnings and violations, including four seizures totaling 4,894 lb of illegally harvested or landed GT-IFQ species with a corresponding value \$19,988 (Tables 28). Seized species included black grouper, gag, red grouper, and scamp.

Table 28: IFQ seizures

Year	Total IFQ cases	GT-IFQ Cases	Total Pounds	Total Value
2010	9	2	3,011	\$9,347
2011	10	7	19,059	\$63,570
2012	6	4	4,893	\$19,988

Administrative Audits

IFQ administrative staff regularly audit 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 calls made to dealers who were specified in a landing notification but did not have corresponding landing transactions. 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 143 phone calls made regarding 161 outstanding landing transactions, of which 93 were resolved and 53 were referred to OLE agents (Table 29). By the end of 2012, the IFQ online system was modified so that the dealer could select the landing notification confirmation number when completing a

Table 29: Notification-landings audit

Year	Audit transactions	Letters & Calls	Resolved	Referred to OLE
2011	96	73	63	19
2012	161	143	93	53

landing transaction. This increased the ability to detect unmatched landing notifications and landing transactions. Dealers are also able to view any unmatched landing notifications when logged into their dealer account.

Synopsis

Summation

In the third year of the GT-IFQ program, there has been progress towards meeting the programs objectives: reducing overcapacity, increasing harvesting efficiency, and mitigating derby fishing conditions. As anticipated, there has been continued consolidation of shareholders and allocation holders. In 2012, there were 13% less shareholder accounts than at the start of the program. The reduction in shareholders mainly occurred with accounts holding small and medium share percentages. Despite these reductions, the majority of shareholder accounts hold only small (<0.05%) shares. Shareholders with large shareholding ($\geq 1.5\%$) increased for DWG, GG, and RG. There are now nearly three times more large GG shareholders than at the start of the program. The number of allocation holders, which increased in 2011, decreased in 2012 and were slightly below initial values. The number of vessels harvesting GT-IFQ species increased slightly in 2012, but is still considerably lower than the average number of vessels fishing during the three year immediately preceding the program. This indicates that the program is moving towards reducing overcapacity, although further reductions are likely still needed.

As participants adjust to the program, there have been changes in how participants interact with the program and other participants. Changes in participation include the percentages of shareholders without reef fish permits, number of accounts without shares (but with allocation), and allocation traders. Similar to what is seen in the RS-IFQ, the number of shareholders without reef fish permits has increased

each year. By the end of 2012, there were 109 or 16% of all shareholders without associated reef fish permits, although the amount of shares held by these accounts remains below 4%. The highest percentages of shareholders without reef fish permits occurred in GG, RG, and SWG categories. The percentage of shares held by accounts without reef fish permits increased for all share categories except DWG. The percentage of allocation-only accounts (i.e., do not own shares) increased each year. In 2012, 13-17% of the allocation holders did not own shares compared to 5-9% in 2010.

There were 550 share transactions and 5,700 allocation transactions in 2012. In the DWG and TF share categories the amount of allocation exceeded the quota, while allocation traded in the remaining share categories was equal to 72-89% of the quotas. Despite the high number of allocation holders, only 30-50% of these accounts also have associated landings. This may be due, in part, to the accounts that hold allocation but land allocation through a related account. Between 70-78% of the accounts landing allocation also have shares. Those accounts with shares also have the majority of pounds landed (78-87%). Since the start of the program, there have been accounts that only traded allocation (no landings) and the percentage of these accounts increased for all categories. The percentages of accounts in 2012 that only traded allocation (27-50%) remained similar to those in 2011 (29-53%). Some of these accounts are likely to be related accounts associated with another account that has a reef fish permit and lands fish. The majority of these accounts also own both shares and permits. Accounts may only trade allocation because they are acting as brokers rather than landing allocation, have a small amount of allocation through shares, or transfer allocation to a related account for harvesting.

Quotas increased for each share category in 2012. The greatest landings since the start of the program occurred in 2012, with GG and RG harvesting more than 90% of the quota. SWG landings were only 59% of the quota, showing that this share category is under-utilized with respect to the current quota level, despite having the largest landings to date for SWG in the GT-IFQ program. The majority of the remaining allocation for all share categories resided in active accounts. Landings varied monthly by species, with some notable patterns in 2012: GG and RG had greater landings in the first half of the year, and DWG and TF species had greater landings in the later part of the year. Since most vessels harvest in at least three of the five share categories, more investigation is needed to understand how quotas and allocation affect fishing behavior across the different GT-IFQ categories.

In general the number of trips and days away increased for all share categories, while trip length (days/trip) decreased. Days per trip have decreased by 1-2 days in all share categories, and most trip lengths are between 4-7 days. While average pounds per trip increased in 2012 for all share categories, averages were still less than pre-GT-IFQ levels for all share categories except RG. The discard ratios from the RFOP indicate that there are more gag and red grouper being landed for each fish discarded in 2012, regardless of gear or location, compared to previous years. This may be influenced by the increase in quota for these two share categories, as well as the change in the gag size limit, which allowed more fish to be landed. Discard ratios are still considerably lower than pre-GT-IFQ values for gag caught on LL gears. Since the 2010 discard ratio is similar, this is probably driven by the decreased quota for gag in 2011 and 2012. In contrast, discard ratios for red grouper improved compared to pre-GT-IFQ values for red grouper caught on either VL or LL.

While there has been an improvement in submitted price data for 2012, there were still numerous submitted share and allocation prices that were either a zero value or under-reported. In contrast, most ex-vessel prices were within a reasonable price range. Share prices increased for all share categories except SWG. GG had the greatest share price (\$25/lb), which was 5 times greater than the 2010 share price (\$5/lb). Both RG and TF share prices increased from 2010 by ~\$4.50-\$5.00/lb, while DWG increased from 2010 by \$2.85/lb. The increased share prices indicate that the fishermen have confidence in the future of the program. Allocation prices have been relatively stable since the start of the program, with the exception of GG. GG allocation prices increased by \$1.05/lb from 2010 to 2012. The remaining allocation prices decreased slightly, with changes less than \$0.20/lb. Ex-vessel prices increased in 2012 for all share categories except RG (remained the same) and TG (-\$0.08/lb). The following species ex-vessel prices have increased by more than \$0.25/lb since 2010: Warsaw grouper, yellowedge grouper, yellowmouth grouper, blueline tilefish, gag, and golden tilefish. Only one species, goldface tilefish, decreased in ex-vessel price since the start of the program. Ex-vessel price for most species increased compared to pre-GT-IFQ values, and for many species the 2012 ex-vessel price is greater than it has been in the last decade.

Looking Ahead

The Gulf gag benchmark stock assessment is in progress, with the completion expected at the beginning of 2014. This assessment will provide the most up-to-date information on the status of the gag stock. Gag is currently overfished and experiencing overfishing. A red grouper benchmark stock assessment is scheduled for 2014 and should be completed by the end of that year. Quotas were increased in 2013 for GG, SWG, and RG, and additional quota increases are expected for GG and RG in 2014.

In order to better understand and utilize price data, SERO staff mailed out a Share Transfer Price Reporting survey in 2013 to all participants who had submitted incomplete or possibly incorrect share prices during 2010-2012. The updated price information will allow NMFS to better review the performance of the IFQ programs. 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 a no comment. If you have a suggestion on how the online system can be further improved please call or e-mail IFQ customer support.

In order to reduce the number of inactive accounts, all accounts that were not logged into since 1/1/2010 were designated on the webpage detailing a listing of all Gulf IFQ accounts. This website is accessed through the Gulf IFQ homepage's Additional Documents option as IFQ Gulf Reef Fish Accounts (FOIA).

Lastly, NMFS is developing a proposed rule that would make administrative changes to IFQ reporting requirements. This rule was reviewed, approved, and deemed by the Gulf Council at their August meeting. NMFS will publish a proposed rule this fall 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: Program history

Development of the GT-IFQ program began in 2008 when a majority of eligible voters, Gulf of Mexico (GOM) reef fish permit holders having annual average grouper and tilefish landings of at least 8,000 lb during 1999-2004, supported the formation of the GT-IFQ program through referendum. During 2008, the Gulf Council developed Amendment 29 to the Reef Fish Fishery Management Plan, outlining the key components of the GT-IFQ program. In January 2009, the Gulf Council approved Amendment 29 by a vote of 14 to 3. Amendment 29⁵ was approved by NOAA's National Marine Fisheries Service (NMFS) in July 2009. Implementation of the program began in fall 2009 and the first fishing year of the program began on January 1, 2010. For the first five years of the program, shares and allocation can only be sold to and fished by an entity that owns a valid commercial GOM reef fish permit and has an active GT-IFQ online account. After January 1, 2015, all U.S. citizens and permanent resident aliens will be eligible to purchase GT-IFQ shares and allocation, although a valid GOM reef fish permit will still be required to harvest, possess, and land any allocation.

Prior to implementation of the GT-IFQ program, commercial grouper-tilefish species were managed with limited access fishing permits, trip limits, size limits, closed seasons, and quotas. This resulted in overcapitalization of the commercial grouper-tilefish segment of the reef fish fishery. The collective harvesting capacity of fishing vessels was in excess of that required to harvest the commercial grouper-tilefish quotas, resulting in quota overages and early closures. In 2004 and 2005, the shallow-water grouper fishing season was shortened by 6-10 weeks, and between 2003 and 2009, the deep-water grouper and tilefish seasons were shortened by more than 50%. It was anticipated that under the prevailing management regime incentives for derby fishing would persist.

Initial shares were issued based on the amount of grouper-tilefish logbook landings reported under each entity's qualifying permit during 1999 through 2004, with an allowance for dropping one year of data. Initial shares were issued in five different IFQ categories: deep-water grouper, gag, red grouper, other shallow-water grouper, and tilefish (Table 1). There were 766 GT-IFQ shareholder accounts created based on the number of entities (unique individual(s) and/or corporations) that qualified for initial shares in one or more share category. Initial quota shares issued to an account ranged from 2.35 to 14.7% depending on the share category (Table 2). The minimum amount of shares issued for any share category was 0.000001%.

⁵ <http://sero.nmfs.noaa.gov/sf/pdfs/Amendment%2029%20Final%20Rule.pdf>

Appendix 2: Monthly landings by share category

DWG	2010	2011	2012	GG	2010	2011	2012
Jan	35,392	38,204	34,848	Jan	43,562	24,071	60,119
Feb	50,751	58,313	42,385	Feb	48,530	20,557	47,387
Mar	61,150	57,849	57,181	Mar	59,766	8,535	84,824
Apr	91,009	60,320	66,874	Apr	54,033	6,470	48,400
May	100,750	50,734	72,627	May	56,455	7,542	54,861
Jun	55,413	82,159	78,863	Jun	43,773	35,315	25,247
Jul	23,210	78,053	78,803	Jul	22,486	25,211	44,672
Aug	73,442	107,643	109,564	Aug	27,624	25,077	23,116
Sept	27,411	41,232	92,812	Sept	27,371	27,614	29,441
Oct	26,855	71,477	118,894	Oct	25,727	23,666	24,270
Nov	31,500	68,986	89,764	Nov	19,537	34,324	32,495
Dec	47,879	64,549	121,212	Dec	65,074	81,755	50,224

RG	2010	2011	2012	SWG	2010	2011	2012
Jan	192,597	331,276	421,337	Jan	18,664	13,712	19,805
Feb	178,559	448,858	470,532	Feb	21,420	21,907	22,302
Mar	207,862	466,548	630,864	Mar	21,456	17,805	30,298
Apr	174,968	401,810	509,247	Apr	17,821	12,847	20,776
May	183,095	459,804	609,515	May	12,579	16,762	26,444
Jun	331,751	291,691	281,429	Jun	13,769	17,283	18,799
Jul	152,992	256,111	533,947	Jul	7,091	16,725	28,985
Aug	199,203	289,854	333,414	Aug	11,915	17,534	28,351
Sept	344,546	440,791	337,003	Sept	11,266	14,286	21,451
Oct	347,699	394,506	355,110	Oct	7,618	8,353	28,290
Nov	324,820	408,189	299,272	Nov	5,880	10,693	23,001
Dec	275,766	592,756	435,535	Dec	8,755	18,328	31,856

TF	2010	2011	2012
Jan	8,394	28,302	18,918
Feb	21,028	18,835	29,397
Mar	33,462	27,464	31,960
Apr	44,533	26,043	30,920
May	22,382	23,297	24,966
Jun	10,397	32,987	24,185
Jul	4,229	33,504	22,632
Aug	24,940	20,209	34,894
Sept	11,826	16,098	52,189
Oct	19,335	25,582	86,750
Nov	14,521	55,566	21,861
Dec	34,661	78,247	72,449

Appendix 3: Deepwater Horizon oil spill closures

Closure Date	Area (sq mi)	Area (sq km)	% Coverage of Gulf EEZ	% Change in Coverage
2-May	6,817	17,648	2.8	N/A
7-May	10,807	27,989	4.5	58.5
11-May	16,027	41,511	6.6	48.3
12-May	17,651	45,717	7.3	10.1
14-May	19,377	50,187	8.0	9.8
17-May	24,241	62,784	10.0	25.1
18-May	45,728	118,435	18.9	88.6
21-May	48,005	124,333	19.8	5.0
25-May	54,096	140,109	22.4	12.7
28-May	60,683	157,169	25.1	12.2
31-May	61,854	160,200	25.6	1.9
1-Jun	75,920	196,633	31.4	22.7
2-Jun	88,522	229,270	36.6	16.6
4-Jun	78,182	202,491	32.3	-11.7
5-Jun	78,603	203,582	32.5	0.5
7-Jun	78,264	202,703	32.3	-0.4
16-Jun	80,806	209,286	33.4	3.2
21-Jun	86,985	225,290	35.9	7.6
23-Jun	78,597	203,564	32.5	-9.6
28-Jun	80,228	207,790	33.2	2.1
4-Jul	81,181	210,259	33.5	1.2
12-Jul	84,101	217,821	34.8	3.6
13-Jul	83,927	217,371	34.7	-0.2
22-Jul	57,539	149,026	23.8	-31.4
10-Aug	52,395	135,703	21.7	-8.9
27-Aug	48,114	124,614	19.9	-8.2
2-Sep	43,000	111,369	17.8	-10.6
3-Sep	39,885	103,303	16.5	-7.2
21-Sep	31,915	82,659	13.2	-20.0
1-Oct	26,287	68,083	10.9	-17.6
5-Oct	23,360	60,502	9.7	-11.1
15-Oct	16,481	42,686	6.8	-29.4
22-Oct	9,444	24,461	3.9	-42.7
15-Nov	1,041	2,697	0.4	-89.0

Appendix 4: Commercial Management Histories

Appendix 4.1 Gag commercial management history

Year	Days Open	Size Limit (" TL)	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	311	20	7.8 SWG	0.79	20" TL minimum size limit SWG season: Jan 1 – Nov 7 (Amend. 1) Created deep-water and shallow-water aggregates (Amend. 1) 11 mp ww commercial quota for all groupers: 1.8 mp ww for DWG (Amend. 1) Established commercial reef fish permit (Amend. 1) Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL (Amend. 1)
1991	365	20	7.8 SWG	0.93	
1992	366	20	8.2 SWG	1.24	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4)
1993	365	20	8.2 SWG	1.48	
1994	365	20	8.2 SWG	1.28	Extends reef fish permit moratorium through 1995
1995	365	20	8.2 SWG	1.34	
1996	366	20	8.2 SWG	1.27	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	20	8.2 SWG	1.4	
1998	365	20	8.2 SWG	2.25	
1999	320	24	8.2 SWG	1.74	Increased commercial size limit to 24" TL Prohibited sale of gag from Feb 15 – Mar 15 (peak gag spawning season) Established two marine reserves
2000	320	24	8.2 SWG	1.91	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	320	24	8.2 SWG	2.78	
2002	320	24	8.2 SWG	2.66	
2003	320	24	8.2 SWG	2.29	
2004	275	24	8.8 SWG	2.88	Secretarial amendment 1 reduced the SWG quota to 8.8 mp gw
2005	320	24	8.8 SWG	2.47	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw
2006	320	24	8.8 SWG	1.37	Required commercially permitted reef fish vessels to be equipped with VMS
2007	320	24	8.8 SWG	1.26	
2008	320	24	8.8 SWG	1.32	
2009	320	24	1.32	0.75	Defined maximum stock size threshold and optimum yield for gag Set gag and red grouper allocations between recreational and commercial sectors Reduced SWG quota from 8.80 mp to 7.8 mp Set gag quota at 1.32 mp gw (Amend 30B) Repealed the commercial closed season (Feb 15-Mar 15) Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act
2010	365	24	1.41	0.496	Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31) Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31)
2011	365	24	0.430	0.318	Quota set at 0.10 mp gw Mid-year quota increase of 0.33 mp gw
2012	366	22	0.567	0.523	Mid-year quota increase of 0.137 mp gw Set ACLs and ACTs for gag (Amend. 32) Established rebuilding plan for gag (Amend. 32) Adjust multi-use IFQ shares in the GT-IFQ program (Amend. 32) Reduced gag commercial size limit to 22" TL (Amend. 32)

¹ Prior to 2009, gag was included in the shallow-water groupers (SWG) quota. During this time, SWG included: black grouper, gag, red grouper, yellowfin grouper, yellowmouth grouper, rock hind, red hind, speckled hind, and scamp.

Harvest from 1990-2009 taken from the SEFSC ALS database; harvest from 2010 to current from IFQ database.

Appendix 4.2: Red grouper commercial management history

Year	Days Open	Size Limit (" TL)	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	311	20	7.8 SWG	4.74	SWG season: Jan 1 – Nov 7 (Amend. 1) Created deep-water and shallow-water aggregates (Amend. 1) 11 mp ww commercial quota for all groupers: 1.8 mp ww for DWG (Amend. 1) Established commercial reef fish permit (Amend. 1) Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL (Amend. 1)
1991	365	20	7.8 SWG	5.07	
1992	366	20	8.2 SWG	4.46	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4)
1993	365	20	8.2 SWG	6.36	
1994	365	20	8.2 SWG	4.89	Extends reef fish permit moratorium through 1995
1995	365	20	8.2 SWG	4.65	
1996	366	20	8.2 SWG	4.34	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	20	8.2 SWG	4.67	
1998	365	20	8.2 SWG	3.70	
1999	320	20	8.2 SWG	5.80	Prohibited sale of red grouper from Feb 15 – Mar 15 (peak gag spawning season) Established two marine reserves
2000	320	20	8.2 SWG	5.70	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	320	20	8.2 SWG	5.80	
2002	320	20	8.2 SWG	5.79	
2003	320	20	8.2 SWG	4.83	
2004	319	20	5.31	5.64	
2005	282	20	5.31	5.38	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw Secretarial Amendment 1 to the Reef Fish FMP set red grouper quota at 5.31 mp gw
2006	365	20	5.31	5.10	
2007	365	20	5.31	3.64	
2008	366	20	5.31	4.75	
2009	365	18	5.75	3.70	Set gag and red grouper allocations between recreational and commercial sectors Reduced SWG quota from 8.90 mp to 7.8 mp Increased red grouper quota from 5.31 to 5.75 mp Repealed the commercial closed season (Feb 15-Mar 15) Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act
2010	365	18	5.75	2.91	Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31) Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31) Set red grouper TAC at 5.68 mp gw for 2011 (76% commercial = 4.32 mp gw)
2011	365	18	5.23	4.78	Mid-year quota increase of 0.91 mp gw Regulatory amendment allows red grouper TAC to increase until 2015, as long as TAC not exceeded in previous years
2012	366	18	5.37	5.22	Set ACLs and ACTs for red grouper (Amend. 32) Adjust multi-use IFQ shares in the GT-IFQ program (Amend. 32)

¹ Prior to 2004, red grouper was included in the shallow-water groupers (SWG) quota. During this time, SWG included: black grouper, gag, red grouper, yellowfin grouper, yellowmouth grouper, rock hind, red hind, speckled hind, and scamp.

Harvest from 1990-2009 taken from the SEFSC ALS database; harvest from 2010 to current from IFQ database.

Appendix 4.3: SWG commercial management history

Year	Days Open	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	311	7.8	6.94	SWG season: Jan 1 – Nov 7 (Amend. 1) Created deep-water and shallow-water aggregates (Amend. 1) 11 mp ww commercial quota for all groupers: 1.8 mp ww for DWG (Amend. 1) Established commercial reef fish permit (Amend. 1) Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL (Amend. 1) Minimum size limit: Nassua grouper, yellowfin grouper, and black grouper = 20" TL
1991	365	7.8	7.07	Speckled hind moved from shallow-water grouper to deep-water grouper (Amend. 3)
1992	366	8.2	6.58	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4) Scamp is shallow-water until closed, then deep-water Conversion from ww to gw modified to 1.05 for DWG and SWG
1993	365	8.2	8.61	
1994	365	8.2	6.80	Extends reef fish permit moratorium through 1995
1995	365	8.2	6.50	
1996	366	8.2	6.12	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	8.2	6.53	Prohibited the harvest of Nassau grouper (Amend 14).
1998	365	8.2	6.38	
1999	320	8.2	8.11	Established two marine reserves
2000	320	8.2	8.18	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	320	8.2	9.19	
2002	320	8.2	9.05	
2003	320	8.2	7.77	
2004	319	8.88	8.88	
2005	282	8.88	8.18	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw
2006	365	8.88	6.74	
2007	365	8.88	5.19	
2008	366	8.88	6.35	
2009	365	7.48	4.70	Reduced SWG quota from 8.90 mp to 7.8 mp Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act
2010	365	0.41	0.18	Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31) Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31) Reduced SWG quota to 0.41 mp Multi-use flexibility allows Warsaw grouper and speckled hind to be landed with SWG allocation
2011	365	0.41	0.19	
2012	366	0.51	0.30	Increased TAC to 0.51 mp Minimum size limits: black grouper = 24" TL; yellowfin grouper = 20" TL; Scamp = 16" TL

¹ In 1990-1996, shallow-water grouper included: black grouper, gag, red grouper, yellowfin grouper, yellowmouth grouper, rock hind, red hind, scamp, speckled hind, and Nassau grouper. In 1991, speckled hind was moved to deep-water grouper. In 1997, Nassau grouper was removed from shallow-water grouper and harvest was prohibited. From 2004-2010, while red grouper had its own quota, it was also part of the aggregate SWG quota. In 2009, both gag and red grouper had their own quota which was also part of the aggregate SWG quota. Beginning in 2010, gag and red grouper quotas were removed. In 2012, red hind and rock hind were removed.

Harvest from 1990-2009 taken from the SEFSC ALS database; harvest from 2010 to current from IFQ database.

Appendix 4.4: DWG commercial management history

Year	Days Open	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	365	1.52	1.03	Created deep-water and shallow-water aggregates (Amend. 1) 11 mp ww commercial quota for all groupers: 1.8 mp ww for DWG (Amend. 1) Established commercial reef fish permit (Amend. 1) Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL (Amend. 1)
1991	365	1.52	1.00	Speckled hind moved from shallow-water grouper to deep-water grouper (Amend. 3)
1992	366	1.6	1.28	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4) Scamp is shallow-water until closed then deep-water Conversion from ww to gw modified to 1.05 for DWG and SWG
1993	365	1.6	0.95	
1994	365	1.6	1.27	Extends reef fish permit moratorium through 1995
1995	365	1.6	0.97	
1996	366	1.6	0.63	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	1.6	0.90	
1998	365	1.6	0.77	
1999	365	1.6	1.20	Established two marine reserves
2000	366	1.6	1.39	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	365	1.6	1.04	
2002	365	1.6	1.07	
2003	365	1.6	1.54	
2004	177	1.02	1.25	Reduced commercial quota for DWG (Secretarial Amend. 1)
2005	130	1.02	1.14	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw Closed on June 23, 2005
2006	152	1.02	1.07	Closed on June 27, 2006
2007	173	1.02	1.16	Closed on June 2, 2007
2008	142	1.02	1.11	Closed on May 10, 2008; re-opened DWG Nov 1-10, 2008
2009	196	1.02	1.13	Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act
2010	365	1.02	0.61	Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31) Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31) Reduced DWG quota to 1.02 mp Multi-use flexibility allows scamp to be landed with DWG allocation
2011	365	1.02	0.78	
2012	366	1.13	0.97	Increased TAC to 1.13 mp

¹ Deep-water grouper in 1990 included: misty grouper, snowy grouper, yellowedge grouper, and warsaw grouper. In 1991, speckled hind was moved from shallow-water grouper to deep-water grouper and scamp were included as deep-water grouper once the shallow-water grouper quota was filled. In 2010, the IFQ system was established and included: misty grouper, snowy grouper, yellowedge grouper, warsaw grouper, and speckled hind. While scamp may be landed with deep-water allocation, it is not included in the quota. In 2012, misty grouper was removed from the deep-water grouper.

Harvest from 1990-2009 taken from the SEFSC ALS database; harvest from 2010 to current from IFQ database.

Appendix 4.5: TF commercial management history

Year	Days Open	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	365	NA	0.39	Established commercial reef fish permit Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL Added golden tilefish, goldface tilefish, blackline teilfish, anchor tilefish, and blue line tilefish to the FMP (Amend. 1).
1991	365	NA	0.33	
1992	366	NA	0.40	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4)
1993	365	NA	0.37	
1994	365	NA	0.49	Extends reef fish permit moratorium through 1995
1995	365	NA	0.49	
1996	366	NA	0.23	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	NA	0.44	
1998	365	NA	0.36	
1999	365	NA	0.42	Established two marine reserves
2000	366	NA	0.55	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	365	NA	0.53	
2002	365	NA	0.55	
2003	365	NA	0.48	
2004	366	0.44	0.61	Secretarial Amendment 1: established a commercial quota of 0.44 mp gw for all tilefish (equal to average annual harvest from 1996-2000)
2005	324	0.44	0.63	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw
2006	202	0.44	0.42	
2007	107	0.44	0.42	
2008	130	0.44	0.50	
2009	134	0.44	0.55	Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31)
2010	365	0.44	0.25	Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31)
2011	365	0.44	0.39	
2012	366	0.58	0.45	Increased TAC to 0.58 mp

¹ Tielfish included: Goldern tilefish, blue line tilefish, goldface tilefish, anchor tilefish, and blackline tilefish. In 2012, anchor and blackline tilefish were removed from the GT-IFQ program.

Harvest from 1990-2009 taken from the SEFSC ALS database; harvest from 2010 to current from IFQ database.

Appendix 5: 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. 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 specify a total value of \$0.01. Allocation transfer prices are currently not required by the online system (e.g., a zero value may be entered). Ex-vessel prices have varied since the start of the GT-IFQ program. 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 some instances continue to be under-reported in the Gulf IFQ online system.

An expected range of reasonable prices was calculated for each price variable by investigating the frequency of each price within a given year(s). Any price value outside the given range was excluded from analysis. All price information decisions were ground-truthed against averages submitted by industry representatives.

Share prices were analyzed by years and generally resulted in right skewed distributions. Maximum share prices were selected to exclude unusually high and infrequent share prices. Minimum values were selected based on low value outliers. Allocation prices were analyzed on a yearly basis. Allocation prices generally had a bimodal distribution that depicted a subset of transactions with low price information. The minimum allocation price was set to the valley between the bi-model distributions. The maximum allocation prices were selected to exclude unusually high and infrequent allocation prices, including all prices in excess of the maximum ex-vessel value reported. Share and allocation prices included in the analyses were equal to or greater than the minimum value selected and equal to or less than the maximum value selected (see table below).

Cat.	Year	Share		Allocation	
		Min.	Max.	Min.	Max.
DWG	2010	\$2	\$30	\$0.50	\$3.00
	2011	\$2	\$30	\$0.50	\$3.00
	2012	\$2	\$30	\$0.50	\$3.00
GG	2010	\$2	\$40	\$0.50	\$5.00
	2011	\$4	\$40	\$0.50	\$5.00
	2012	\$4	\$40	\$0.50	\$5.00
RG	2010	\$2	\$15	\$0.30	\$4.00
	2011	\$3	\$15	\$0.30	\$4.00
	2012	\$5	\$15	\$0.50	\$4.00
SWG	2010	\$2	\$30	\$0.30	\$5.00
	2011	\$2	\$30	\$0.30	\$5.00
	2012	\$3	\$30	\$0.30	\$5.00
TF	2010	\$1	\$20	\$0.10	\$2.00
	2011	\$1	\$20	\$0.10	\$2.00
	2012	\$1	\$20	\$0.10	\$2.00

Ex-vessel prices were analyzed on a yearly basis. Ex-vessel prices distributions were left skewed, with infrequent but unusually low prices for many of the species. Minimum prices were selected to exclude these unusually low and infrequent ex-vessel prices. It is thought that these prices reflect an additional deduction as stated above. The maximum value was selected as <\$10. \$10 is the maximum amount allowed to be entered into the system. Any values of \$10 were excluded, as they most likely resulted from typographical errors when entering the value. The table below shows the minimum price that was included in the ex-vessel price analyses.

Ex-vessel minimum price:

Cat	Species	Minimum Price		
		2010	2011	2012
DWG	Snowy grouper	\$2.20	\$2.20	\$2.20
	Speckled hind	\$2.00	\$2.00	\$2.00
	Warsaw grouper	\$1.20	\$1.20	\$1.20
	Yellowedge grouper	\$2.20	\$2.20	\$2.20
GG	Gag	\$2.30	\$2.30	\$2.30
RG	Red grouper	\$2.00	\$2.00	\$2.00
SWG	Black grouper	\$2.80	\$2.80	\$2.80
	Scamp	\$2.50	\$2.50	\$2.50
	Yellowfin grouper	\$2.00	\$2.00	\$2.00
	Yellowmouth grouper	\$2.80	\$2.80	\$2.80
TF	Blueline tilefish	\$0.20	\$0.20	\$0.20
	Golden tilefish	\$0.50	\$1.00	\$1.00
	Goldface tilefish	\$0.50	\$0.50	\$0.50

Glossary

10% Overage – A provision in the IFQ program that allows accounts that hold shares to land 10% over their remaining allocation on the last fishing trip of the year within each share category. 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 grouper-tilefish by which an IFQ shareholder account 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 allocation is determined by the shareholder's IFQ share percentages and the amount of the annual commercial grouper-tilefish quota for each share category.

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, 2015, grouper-tilefish allocation can be transferred only to an entity that holds a valid Gulf reef fish permit.

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

Gulf Reef Fish Permit Holder – An entity (individual(s)/business) that possesses a commercial Gulf reef fish permit and therefore, is eligible to be exempt from bag limits, to fish under a quota, or to sell Gulf reef fish in or from the Gulf Exclusive Economic Zone.

IFQ Dealer Endorsement – The IFQ dealer endorsement is a document that a dealer must possess in order to receive Gulf of Mexico grouper-tilefish. 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 has 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 value of grouper-tilefish 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 a unique

PIN 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.

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.

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, corporation, or other entity. The share cap prevents one or more IFQ shareholders from purchasing an excessive amount of IFQ shares and monopolizing the grouper-tilefish 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/>. Until January 1, 2015, shares can be transferred only to an entity that holds a valid Gulf reef fish permit.

Shareholder – An account that holds a percentage of the commercial grouper-tile quota.