2011 Gulf of Mexico Grouper-Tilefish Individual Fishing Quota Annual Report

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November 06, 2012
SERO-LAPP-2012-09

A Message from the Assistant Regional Administrator

The 2011 Grouper-Tilefish Annual Report reflects the completion of the second fishing season of the Gulf of Mexico Grouper-Tilefish Individual Fishing Quota (GT-IFQ) program. Although this report is not intended to be a full comprehensive assessment of the GT-IFQ program, it does provide an overview of the data and information collected primarily through the IFQ online data collection system. This report provides fishermen, managers, and other constituents with data and information for assessing and evaluating program performance, including information on shares and allocation (e.g. distributions, transactions, prices, and balances), fishing activity (e.g. landings, ex-vessel values, and cost recovery fees), bycatch, and law enforcement activities.

During the second year of the program, quotas were decreased at the start of the year for gag and red grouper. A gag stock assessment indicated overfishing was occurring and the stock was overfished, requiring a reduction in quota to rebuild gag. Red grouper was not undergoing overfishing and was not overfished, but population abundance had declined slightly, resulting in a quota reduction. Both quotas were later increased during the 2011 fishing year. The number of shareholders, dealers, and vessels decreased in 2011, but the number of allocation holders increased. The number of shareholders without valid permits increased in 2011 by 2-4 times the number in 2010. Share prices increased in 2011, 1.5-3 times their 2010 values, but allocation prices remained similar or increased only slightly.

Landings increased in 2011, with 45-91% of the quota landed in each share category. In particular, red grouper landings nearly doubled in 2011 despite a quota decrease from 2010. Landings occurred year round, but in all share categories the most landings occurred in December as fishermen used their remaining allocation before it expired. Average ex-vessel price increased for the majority of species by $0.11/lb to $0.80/lb. Total ex-vessel price and the associated cost recovery increased in 2011, as more fish were landed.

Reef fish observer data indicated a higher proportion of gag were discarded in 2011 compared to previous years, whereas a lower proportion of red grouper were discarded in 2011. Most discards prior to 2011 were associated with the minimum size limit. However, in 2011 a much higher proportion of legal-sized gag were discarded as a result of the lower quota and less allocation. Most red grouper discards were due to the minimum size limit and few legal-sized red grouper were discarded. Observed post-release mortality (does not include delayed mortality) of discards ranged from 2-12% for gag and 11-24% for red grouper, depending on gear type and region. As quotas are modified, bycatch will need to be closely monitored for gag and red grouper.

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

Phil Steele
Assistant Regional Administrator for Sustainable Fisheries

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Grouper-Tilefish IFQ Program

History and Objectives

Development of the Grouper-Tilefish Individual Fishing Quota (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 of Mexico Fishery Management Council (GMFMC) developed Amendment 29 to the Reef Fish Fishery Management Plan, outlining the key components of the GT-IFQ program. In January 2009, the GMFMC approved Amendment 29 by a vote of 14 to 3. Amendment 29[1] 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.

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.

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 GMFMC in preventing overfishing and rebuilding GT-IFQ stocks through the stewardship aspects of the program.

In 2009, the GOM's Red Snapper IFQ (RS-IFQ) program's online system and database structure were modified to contain both the RS-IFQ and GT-IFQ programs. In 2010, the new system went live and since the implementation there have been additional improvements based on recommendations from users. The online IFQ system is designed to allow shareholders to transfer shares and allocation among IFQ shareholders and associated vessels. Dealers and fishermen complete landing transactions using the

[1] http://sero.nmfs.noaa.gov/sf/pdfs/Amendment%2029%20Final%20Rule.pdf

online system at the end of each fishing trip. Cost recovery payments, requests for adding landing locations, and landing notifications are also processed using the online IFQ system.

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 categories. 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 share issued for any share category was 0.000001%.

Program Overview and Regulations

Program Overview

The Grouper-Tilefish IFQ (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]), each with distinct shares and allocations (Table 1). 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.

Table 1: Species within each Grouper-Tilefish IFQ share category

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

[1] Includes a multi-use flexibility measure
[2] Removed from the GT-IFQ program in 2012

As of 2010, there are three main account roles in the GT-IFQ system: dealer, shareholder, and vessel accounts. All accounts are lifetime accounts and were assigned to users based on the unique entity (single or combination of individuals and/or corporations) that held either a GOM dealer or GOM reef fish permit. Shareholder accounts with valid GOM reef fish permits may purchase or sell both GT-IFQ shares and allocation, and land GT-IFQ species at an approved dealer. Shareholder accounts that do not have a valid GOM reef fish permit can only sell shares and allocation to other GT-IFQ shareholder ac-

counts. Shareholder accounts can be further classified as those that hold shares and allocation, and those that hold only allocation. Vessel accounts belong to shareholder accounts and are used to harvest GT-IFQ species. Shareholder accounts may have multiple vessel accounts. For a list of all current shareholders in the GT-IFQ program, go to: http://sero.nmfs.noaa.gov/foia/HTML/IFQShareholders.htm. Dealer accounts are assigned to a unique entity that has a valid GOM reef fish dealer permit, and are limited to accepting landing transactions and paying cost recovery fees.

Shares are a percentage of the commercial quota assigned to a GT-IFQ account, 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 percentage held by a GT-IFQ 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. Any 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 an GT-IFQ shareholder's GOM reef fish permit has been permanently revoked, at the beginning of the next fishing year the Regional Administrator for NMFS will redistribute the shares held by that shareholder proportionately among remaining eligible shareholders based upon the amount of shares each held just prior to the redistribution.

The GT-IFQ program has several built-in flexibility measures to accommodate the 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) can be found in both shallow- and deep-water, and flexibility measures allow for these species to be caught in either share category. Scamp may be landed with deep-water grouper allocation, when all of the shallow-water grouper allocation in an account has been harvested, while warsaw grouper and speckled hind can be landed with shallow-water grouper allocation, after the deep-water 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 cannot 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 Regulations

The Magnuson-Stevens Fishery Conservation and Management (MSFCM) 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 was set equal to the sum of the maximum allocations associated with the five grouper-tilefish share caps. The allocation cap is calculated based on the current fishing year quotas. In 2011, the allocation cap at the start of the fishing year was 422,967 lb and at the end of the fishing year was 470,172 lb. There are no fees associated with any share or allocation transfer.

Table 2: Share caps

IFQ Category	Share Cap %
Deep-water Grouper	14.704321
Gag	2.349938
Red Grouper	4.331882
Shallow-water Grouper	7.266147
Tilefish	12.212356

To harvest GT-IFQ species, vessels are required to have a valid GOM reef fish permit and make a vessel monitoring systems (VMS) hail-out before leaving port. While at sea, vessels are monitored using 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 fish 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. For current total GT-IFQ landings go to: https://ifq.sero.nmfs.noaa.gov/. All landings data are updated as landing transactions are processed, on a real-time basis.

NMFS analyzes the total value of the species 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 value of the landed fish, although this amount can be 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 622.20 (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/. GT-IFQ fishermen and dealers can log-in to their online accounts through the above website. 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.

2011 Grouper-Tilefish IFQ Fishing Season

Commercial Quota

Annual commercial quotas were established for each share category and may be adjusted annually or during the fishing year, based on stock assessments and as new information is obtained (Table 3). The GT-IFQ program tracks landings in pounds gutted weight; therefore, throughout this report landings are reported in pounds gutted weight. At the start of 2011, NMFS reduced the commercial quotas for gag and red grouper by more than 1,000,000 lb due to recent stock assessments (Table 3). Subsequently, the quota increased in both categories later that year (Table 3). The gag quota was increased by 330,000 lb on June 1, 2011, and the red grouper quota was increased by 910,000 lb on November 2, 2011. NMFS released only a portion of the gag quota at the start of 2011 through temporary regulations, until the GMFMC could determine more permanent regulations for rebuilding gag.

Table 3: Commercial quotas over time (lb gutted wt)

IFQ Category	EOY 2010	BOY 2011	EOY 2011
Deep-water grouper	1,020,000	1,020,000	1,020,000
Gag[1]	1,410,000	100,000	430,000
Red grouper[1]	5,750,000	4,320,000	5,230,000
Shallow-water grouper	410,000	410,000	410,000
Tilefishes	440,000	440,000	440,000

EOY = end of year and BOY = beginning of year
[1] Indicates a mid-year quota increase for 2011.

GT-IFQ Shares

The GT-IFQ program began in 2010 with 766 accounts holding shares in one or more share categories. The number of accounts decreased to 745 by the end of 2010, and 699 by the end of 2011, a 9% decrease since the start of the program. The overall decrease in shareholders was also seen within each share category (Table 4). In 2011, the tilefish share category had the fewest accounts (n = 260), while shallow-water grouper had the most accounts (n=674) (Table 4). Gag and red grouper have had the largest reduction in shareholders (12%) since the start of the program, while tilefish had the least reductions in shareholders (9%).

In this report, accounts were classified for each share category by shareholdings as: small (< 0.05%), medium ($0.05 \leq x < 1.0\%$), or large (≥1%) shareholders. For each share category, accounts with small shareholdings were predominant, followed by accounts with medium, and then large shareholdings (Table 4). Since the start of the program, the number of accounts with small or medium shareholdings has decreased, while accounts with large shareholding have increased or remained similar. The largest decreases occurred with medium shareholders (11-22% decrease) (Table 4). The number of large shareholding accounts has increased by 2 to 4 accounts per share category, with the exception of tilefish which has remained the same (Table 4).

Table 4: Number of initial (01/01/2010) and end of year (EOY) shareholders

Category	Year	Small < 0.05%	Medium 0.05 ≤ x < 1.0%	Large ≥ 1.0%	Total
DWG	Initial	299	157	24	480
	EOY 2010	300	136	25	461
	EOY 2011	275	130	26	431
GG	Initial	415	319	14	748
	EOY 2010	424	278	17	719
	EOY 2011	391	252	18	661
RG	Initial	435	238	19	692
	EOY 2010	421	221	23	665
	EOY 2011	377	212	21	610
SWG	Initial	467	274	11	752
	EOY 2010	460	249	12	721
	EOY 2011	421	240	13	674
TF	Initial	171	93	23	287
	EOY 2010	185	78	24	287
	EOY 2011	164	73	23	260

Each year, GT-IFQ shareholders could sell all their shares or acquire shares for the first time (new shareholders). New shareholders may result from the transfer of shares to a new GT-IFQ participant, to an existing GT-IFQ account that only held allocation previously, or from one account to another related account that has similar participants (e.g. from John Doe's account to John and Jane Doe's account). Accounts that sold all their shares may still be participating in the GT-IFQ program through the buying of annual allocation or through the transfer of allocation from a related account. At this time, the GT-IFQ system does not have a simple method to identify related accounts for analysis. The number of accounts selling all of their shares increased in 2011 for all share categories by 17 to 35 accounts per share category (Figure 1). In 2011, 38 to 80 accounts per share category sold all their shares, but the total share percentages sold was less than 10% per category (Table 5). No single account sold more than 1.3% shares for any one share category. In 2011, the number of accounts that acquired shares for the first time increased for all share categories except tilefish (Figure 1). There were between 13 to 25 new shareholders per share category in 2011, with total share percentages per share category between 2 to 3.5% (Table 5). The shallow-water grouper cat-

Table 5: Number of accounts that 1) sold all shares (sold all) or 2) newly acquired shares (new shareholders)

	Sold All		New shareholders	
Category	N	Shares	N	Shares
DWG	52	4.54	25	3.06
GG	80	9.11	25	2.81
RG	75	6.13	23	3.46
SWG	69	5.83	25	3.35
TF	38	2.68	13	2.03

egory had the greatest increase in new shareholders (+12), while the tilefish category had the largest decrease in shareholders (-5). No single account bought more than 1.2% shares/category.

Figure 1: Number of accounts that have sold all their shares and accounts that have first acquired shares that year by share category.

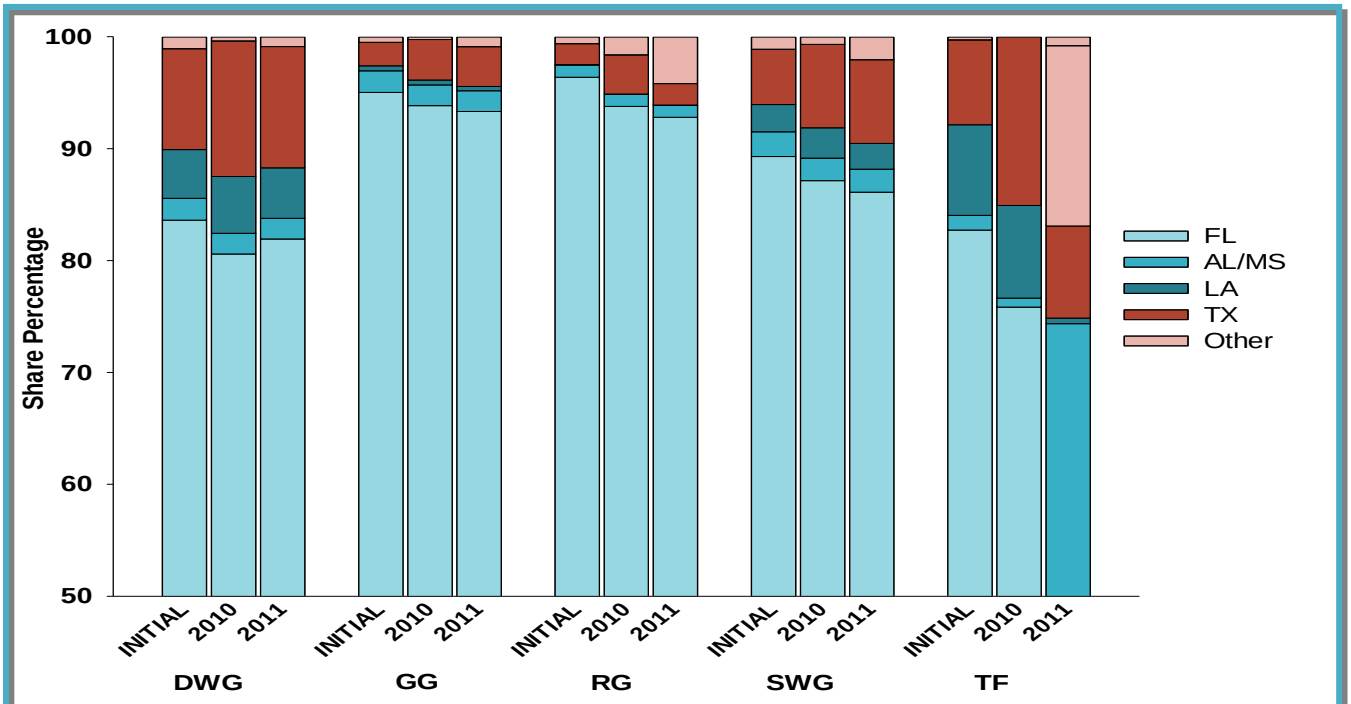

Figure 2: Initial (Jan 1, 2010) and end of year shareholdings by state of residency and share category.

In all share categories, shareholders residing in Florida held the majority of shares, although this has decreased since the start of the program. The remaining shareholders reside primarily in Texas and Loui-

siana, followed by Alabama, Mississippi, and other non-GOM states. In 2011, the number of non-GOM state residents with shares of red and shallow-water grouper increased considerably (Figure 2). Changes in shareholdings among the different states can be related to share transfers among accounts in different states or changes in residency for existing accounts.

In the GT-IFQ program, after an account acquires shares those shares remain with the account until sold, regardless of GOM reef fish permit status or harvest activity. From 2010 to 2011, the number of accounts that held shares without a valid GOM reef fish permit doubled to quadrupled within each share category (Figure 3). Gag and shallow-water grouper categories had the largest increase in accounts without a valid GOM reef fish permit (+53 per category), followed by red grouper (+49), deep-water grouper accounts (+27), and tilefish (+12). By 2011, the gag category had the highest percentage of non-permitted shareholder accounts (13%), followed by red and shallow-water grouper (12%), deep-water grouper (9%), and tilefish (8%). Despite the increase in non-permitted accounts, more than 96% of the shares remained with GOM reef fish permit holders within any share category (Figure 3).

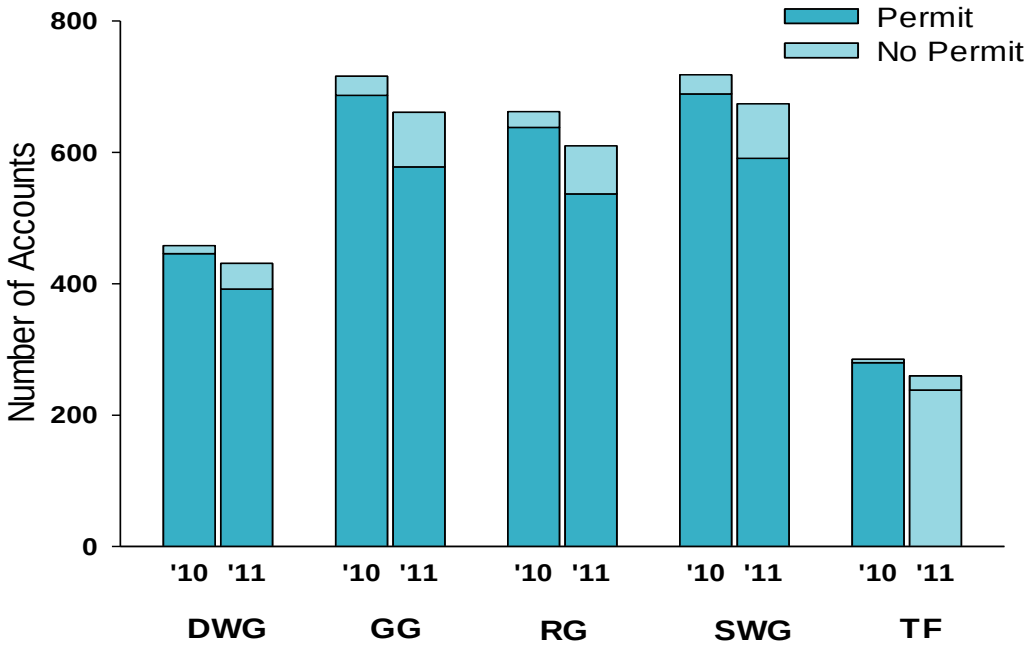

Figure 3: Accounts with and without GOM reef fish permits that also held shares.

Individual share transfers were tracked through the online system. The number of share transfers decreased by nearly half from 2010 (n=970) to 2011 (n = 564). The number of share transfers and the percentage of shares transferred also decreased in all share categories (Table 6). In 2011, 7-17% of the total shares per category were transferred. The highest number of share transfers occurred in red grouper (n = 168), while the highest amount of shares transferred occurred in tilefish (1.69%). There was a broad range of shares transferred in all share categories, with tilefish having the least (0.000002%) and greatest

(1.699%) amounts of shares transferred. Average share transfer percentages decreased in all share categories except gag, but median share transfer percentages were comparable in all share categories to 2010 values.

Table 6: Share transfer transactions statistics

Category	Year	N	Total %	Avg. %	Median %	Min. %	Max. %
DWG	2010	161	25.8	0.16	0.02	0.000001	5.95
	2011	96	7.0	0.07	0.02	0.000044	1.04
GG	2010	256	24.0	0.09	0.04	0.000031	1.03
	2011	137	17.3	0.13	0.04	0.000006	1.50
RG	2010	267	24.3	0.09	0.02	0.000004	2.04
	2011	168	13.5	0.08	0.01	0.000017	1.39
SWG	2010	195	25.6	0.13	0.02	0.000010	2.44
	2011	104	8.4	0.08	0.02	0.000080	1.18
TF	2010	91	31.6	0.35	0.03	0.000004	5.21
	2011	59	9.0	0.15	0.03	0.000002	1.69

Entry of share transfer prices was not required until mid-year 2010, when the minimum transfer price was set to $0.01. In 2011, 20% of all share transactions entered the minimum price, a slight increase compared to 2010 (Table 7). There were no differences in the number of minimum share transfer prices across share categories. For share transfer price analysis, transactions were examined on a price per 0.0001% share as well as a price per pound equivalent[2]. Because a share of 0.0001% does not equal the same pounds over time or across share categories (due to differences in quota), equivalent pounds are a more robust measure to compare share prices over time. The price data were limited to share transfers with price per pound equivalents that were greater than $0.01 and less than $100 for gag, and between $0.01 and $30 for all other categories. The total number of share transactions used in the price analysis was low in both 2010 (54%) and 2011 (57%) (Table 7). Transactions with low prices could be attributed to, but is not limited to, any of the following: entering a price per pound equivalent instead of total price; reluctance to enter price information; unrecorded bartering of GT-IFQ shares for RS-IFQ shares; transfers between related accounts; and/or transfer including package deals (e.g. with vessel and permit). Because all shares transfers are recorded as an individual transfer, there is no current method to record bartered trades. *Given the small number of transactions that can be used in the share price analysis, results should be viewed with caution.*

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

Table 7: Share price analysis

Category	Year	Transactions ≥ $0.01 N	Transactions ≥ $0.01 %	Transactions used in analysis[1] N	Transactions used in analysis[1] %	Price per 0.0001% Avg.	Price per 0.0001% Median	Price per 1 lb equivalent Avg.	Price per 1 lb equivalent Median
DWG	2010	122	76	83	52	4.99	3.07	4.89	3.01
	2011	77	80	61	64	7.84	8.90	7.69	8.72
GG	2010	199	78	132	52	9.32	6.95	6.61	4.93
	2011	111	81	86	63	4.53	3.14	21.48	16.68
RG	2010	213	80	139	52	20.67	20.12	3.59	3.50
	2011	135	80	92	55	23.28	24.92	5.13	5.50
SWG	2010	152	78	114	58	1.64	1.27	4.00	3.10
	2011	82	79	62	60	2.73	2.36	6.67	5.76
TF	2010	72	79	54	59	1.08	0.88	2.45	1.99
	2011	47	80	39	66	2.05	1.87	4.66	4.26
Total	2010	758	78	522	54	9.12	4.10	4.53	3.50
	2011	452	80	340	60	9.59	4.92	9.95	6.00

[1] Price analysis excludes transactions that did not report prices, total prices that were ≤ $0.01, and price per pound equivalents that were ≤ $0.01 or > $36. Price data has not been adjusted for inflation.

Average prices per 0.0001% increased in all categories except gag (Table 7). The decrease in the gag price was reflective of the large decrease in gag quota beginning in 2011 (Table 3). When the quota is reduced, a 0.0001% share is not equivalent to the same amount of pounds as when the quota was larger. For example in 2010, one pound of gag was equal to 0.00007%, while in the beginning of 2011, a pound of gag was equal to 0.00100%, and by the end of year in 2011, a pound of gag was equal to 0.00023%. A more appropriate indicator for share price analysis would be the cost per equivalent pound as this is comparable throughout time. Similar to 2010, the 2011 average price per 0.0001% of red grouper ($23.28) was considerably greater than the average price per 0.0001% in all other share categories (deep-water grouper ($7.84), gag ($4.19), shallow-water grouper ($2.73) and tilefish ($2.05)). *Caution should be used when comparing prices per 0.0001% across share categories, as the differences in quota result in different equivalent pounds per 0.0001%.*

For all share categories, the price per equivalent pound increased from 2010 to 2011. The largest increase in price per pound equivalent occurred in the gag category, which was three times the average 2010 price (Table 7). The prices in other share categories were 1.5-2 times greater than the 2010 prices per pound equivalent (Table 7). Median prices per equivalent pounds were also greater in 2011 than in 2010, with median prices generally less than or similar to average prices.

GT-IFQ Annual Allocation

Allocation is the actual poundage of fish that a GT-IFQ account can use to harvest, possess, and/or sell grouper-tilefish during a given calendar year. Allocation is distributed at the beginning of the year. Additional allocation may also be distributed during the year if the quota is increased. Allocation is distributed for each GT-IFQ shareholder account based on the percentage of shares held in each category at the time of the distribution. Allocation is annual and therefore expires on December 31 of each year. After the annual allocation is initially distributed, any GT-IFQ account with a valid GOM reef fish permit may purchase allocation from any other GT-IFQ account. Please note that allocation cannot be tracked as individual units in the system and therefore summary statistics in this report may include multiple transfers of the same allocation. Only allocation transfers between accounts were analyzed for this report.

In the GT-IFQ program, an account holder may obtain allocation from shares (distributed at the beginning of the year or during the year if the quota is increased) or from the purchase of allocation from another shareholder. The number of accounts holding GT allocation increased from 816 in 2010, to 833 in 2011. The total number of allocation holders by share category decreased for gag, red, and shallow-water grouper, but increased for deep-water grouper and tilefish. In 2011, more accounts held gag allocation than any other category (n = 767), followed by shallow-water grouper (n = 760), red grouper (n = 739), deep-water grouper (n = 521), and tilefish (n = 309) (Table 8). The majority of accounts that held allocation also held shares in both 2010 and 2011. Since 2010, the percentage of accounts obtaining allocation through shares has decreased slightly as the number of accounts purchasing allocation has in-

Table 8: Allocation activity by accounts

Category	Year	Total	From Shares[1]	From purchase	With permits	Inactive[2]	Initial[3]
DWG	2010	512	472 (92%)	40 (8%)	497 (97%)	169 (33%)	20 (4%)
	2011	521	445 (85%)	76 (15%)	467 (90%)	140 (27%)	20 (4%)
GG	2010	789	740 (94%)	49 (6%)	755 (96%)	244 (31%)	69 (9%)
	2011	767	694 (90%)	73 (10%)	676 (88%)	221 (29%)	59 (8%)
RG	2010	744	690 (93%)	54 (7%)	714 (96%)	222 (30%)	66 (9%)
	2011	739	675 (91%)	64 (9%)	647 (88%)	184 (25%)	66 (9%)
SWG	2010	762	725 (95%)	37 (5%)	730 (96%)	277 (36%)	64 (8%)
	2011	760	687 (90%)	73 (10%)	664 (87%)	261 (34%)	64 (8%)
TF	2010	299	271 (91%)	28 (9%)	292 (98%)	101 (34%)	9 (3%)
	2011	309	263 (85%)	46 (15%)	261 (91%)	77 (25%)	9 (3%)

[1] This is the total number of accounts that received allocation through shareholdings either at the start of the year or from a mid-year increase. This is not a year-end total number of accounts.

[2] Inactive accounts are accounts that possessed shares but did not land, buy, or sell allocation; this includes both accounts that have and have not been accessed in that year.

creased (Table 8). Not all accounts that hold allocation also hold a valid GOM reef fish permit, which can occur when an account with shares sells or terminates their GOM reef fish permit. There has been a slight decrease in the percentage of accounts with valid GOM reef fish permits that also hold allocation, although these accounts still comprise 87% or more of all accounts (Table 8).

Account activity can be determined through allocation transactions. An account was considered active if the account landed, sold, and/or bought allocation. Account activity status was determined each year based on the account's actions within that year. The number of inactive accounts for each category decreased in 2011, with inactive accounts consisting of 25-34% of all accounts with allocation (Table 8). Initial accounts, accounts that have never been accessed by the account owner(s), are a subset of inactive accounts and have remained similar over the past two years. All accounts were contacted by mail in January of 2012, and therefore we expect to see a further decrease in inactive accounts in the next year.

In 2011, there was an increase in accounts that only traded allocation (Appendix 2) and for all share categories except gag, an increase in the amount of pounds from these accounts (Table 9). A subset of the accounts that only traded allocation are those that sold all of their allocation. For this subset, the number of accounts and the associated pounds also increased in 2011 for all share categories (Appendix 2, Table 9). As the majority of allocation accounts have GOM reef fish permits (Table 8), the number of accounts selling all of their allocation may be due more to accounts with low allocation rather than accounts without permits (not legally allowed to harvest GT-IFQ species). For the accounts that sold all their allocation, in 2011, greater than 70% of them held permits, while 37-74% of them had >500 lb of allocation. Between 22-47% of all accounts with allocation landed GT-IFQ species in 2011, which was similar to 2010 values (Appendix 2). The number of accounts that landed GT-IFQ species and held shares decreased in 2011 (Appendix 2), although the total poundage landed from accounts holding shares increased in all categories except gag (Table 9). The decrease in the number of accounts with shares landing GT-IFQ species may indicate of a shift in the program towards participants who land GT-

Table 9: Allocation activity in pounds

Category	Year	Only traded	Sold All	Landed	Landed w/shares
DWG	2010	397,399	124,758	624,762	602,749
	2011	636,461	523,702	779,519	701,273
GG	2010	307,659	80,834	493,938	473,362
	2011	134,439	96,877	320,137	286,560
RG	2010	1,162,512	216,688	2,913,858	2,800,064
	2011	2,302,324	1,850,094	4,782,194	4,397,093
SWG	2010	139,514	44,545	158,234	155,091
	2011	149,456	121,281	186,235	170,156
TF	2010	264,696	77,142	249,708	246,987
	2011	381,456	307,330	386,134	330,997

IFQ species, obtaining their allocation through purchase rather than shares. A subset of the accounts that landed GT-IFQ species are those that only land and do not trade allocation. This number has decreased since the start of the program, with only 5-9% of all accounts only landing their allocation (Appendix 2).

Allocation transfers were prolific in the GT-IFQ system, occurring daily and for some share categories the total amount of pounds transferred exceeded the quota. In 2011, there were 4,328 allocation transfers totaling > 7 million pounds compared to 3,384 transfers in 2010 totaling just less than 6 million pounds. The number of transfers increased in each share category except shallow-water grouper (Table 10). There were considerably more allocation transfers in 2011 for gag (n = 1,250) and red grouper (n = 1,150) than the other share categories, while the least number of transfers occurred in the tilefish category (n = 328) (Table 10). Red grouper and gag categories also had the largest increase in allocation transfers since 2010 (Table 10). In 2011, the total pounds transferred in deep-water grouper and tilefish share categories exceeded the annual quotas by 1.4 to 1.7 times. Total transferred pounds for the remaining share categories were 67% to 81% of their quotas. Individual transfers ranged between 1 to 100,000 lb, with the largest transfer occurring in DWG share category (Table 10). The number of deep-water grouper allocation transfers increased by 29% (n = 632), yet average transferred pounds only increased by 9% (2,290 lb), and median transferred pounds decreased by 26% (Table 10). Gag allocation transfers increased by 32% (n = 305), but both average and median pounds transferred decreased by more than 66% as a result of the lower gag quota(Table 10). The average and median pounds of gag allocation transferred were the least across all share categories, despite shallow-water and tilefish quotas being similar to gag. The number of red grouper allocation transactions increased 46%, while the average and median allocation pounds transferred remained similar to 2010 (Table 10). Shallow-water grouper was the only category where there was a decrease in allocation transfers (8% decrease to 568 transfers),

Table 10: Allocation transfer transactions statistics[1]

Category	Year	Pounds	N	Avg. lb	Median lb	Min. lb	Max. lb
DWG	2010	1,027,477	490	2,097	737	1	100,000
	2011	1,447,229	632	2,290	544	1	100,000
GG	2010	743,266	945	787	300	1	26,043
	2011	332,049	1,250	266	109	1	4,770
RG	2010	3,217,048	1,065	3,021	926	1	100,000
	2011	4,260,483	1,550	2,749	1,000	1	60,000
SWG	2010	315,042	616	511	186	1	10,000
	2011	272,816	568	480	200	1	9,939
TF	2010	489,585	268	1,827	445	1	39,457
	2011	765,586	328	2,334	518	1	53,734

[1] Allocation cannot be tracked as individual units in the system and therefore summary statistics in this report may include multiple transfers of the same allocation resulting in more allocation being traded than quota pounds.

while average and median allocation pounds remained similar (Table 10). Tilefish had a 22% increase in allocation transfers, with a 28% increase in average allocation pounds transferred (n = 2,334) and a 17% increase in median pounds transferred (n = 518) (Table 10).

Allocation transfer price information was collected through the online system, but was not a required field; therefore, nearly 70% of the transactions did not include a price in 2011. Within any given share category no more than 38% of the transactions had prices (Table 11). This was an increase from the previous year, where no share category had more than 24% of the transactions with associated prices (Table 11). Allocation transfer prices are recorded in the system as price per pound. For the allocation transfer price analysis, any prices greater the maximum ex-vessel price or less than $0.01 were excluded from analysis, as these were considered outliers. These exclusions reduced the number of usable transactions within each share category, with only 34% or less of the transactions available for price analysis. As with share transaction price information, given the large number of transactions with no or low reported price data, results should be viewed with caution.

The average and median price per pound of allocation was calculated for each share category. Except for gag, average allocation prices have not changed substantially since 2010 (Table 11). Median prices increased for most share categories, between $0.01 and $0.50 (Table 11). While deep-water grouper average and median values increased (+$0.09 and $0.50, respectively), the maximum amount paid decreased by greater than $2.00 (Table 11). Gag allocation prices had the greatest increase since 2010, with average values nearly $0.60 greater in 2011 (Table 11). Median values also increased by $0.50,

Table 11: Allocation price analysis

		Transactions with prices		Transactions used in analysis[1]		Transfer price per pound of allocation statistics			
Category	Year	N	%	N	%	Avg.	Median	Min.	Max.
DWG	2010	93	19%	75	15%	$1.19	$1.00	$0.10	$4.00
	2011	154	24%	122	19%	$1.28	$1.50	$0.10	$2.20
GG	2010	224	24%	140	15%	$1.05	$1.00	$0.10	$5.00
	2011	384	31%	248	20%	$1.64	$1.50	$0.10	$6.00
RG	2010	257	24%	182	17%	$0.73	$0.50	$0.10	$5.00
	2011	583	38%	521	34%	$0.73	$0.51	$0.05	$6.25
SWG	2010	112	18%	81	13%	$1.18	$1.00	$0.10	$5.00
	2011	157	28%	123	22%	$1.25	$1.25	$0.10	$6.00
TF	2010	44	16%	36	13%	$0.68	$0.50	$0.10	$3.00
	2011	80	24%	62	19%	$0.63	$0.60	$0.16	$1.00

[1] Price analysis excludes transactions that are not reporting prices, prices that were ≤ $0.01/lb or greater than that year's the maximum ex-vessel price. Prices have not been adjusted for inflation.

while maximum values increased in $1.00 (Table 11). Shallow-water allocation prices increased slightly by for average (+$0.07) and median prices (+$0.25), and more appreciably for maximum price (+$1.00) (Table 11). Average and median allocation prices for red grouper and tilefish categories were similar to the previous year, while maximum values increased for red grouper (+$1.25) and decreased for tilefish (-$2.00) (Table 11).

Year End Allocation Balances

Allocation is annual, therefore, there is often un-harvested allocation remaining in accounts at the end of the year. In each category, there was a large percentage of accounts with remaining allocation in 2011(Table 12). The total and per category remaining allocation balances decreased significantly compared to 2010 (Table 12). The larger remaining balances in 2010 were due in part to the Deepwater Horizon oil spill event, which curtailed fishing activity in many regions (Appendix 1), and new GT-IFQ participants learning how to best utilize their allocation throughout the year. Accounts with remaining allocation balances were separated into two distinct groups: active and inactive accounts. For all share categories, the majority of the remaining allocation was held in active accounts (Table 12). Total pounds of remaining allocation decreased in both active and inactive accounts compared to 2010. For initial accounts, a subset of the inactive accounts, remaining allocation balances either decreased or remained similar to the previous year (Table 12). *Caution should be used when comparing remaining allocation balances across years or share categories, as changes in the commercial quota may influence the amount of remaining allocation, especially in inactive accounts.*

For deep-water grouper, where the quota remained the same as in the previous year, the remaining allocation decreased by 15% from 395,615 lb in 2010 to 240,553 lb in 2011. Decreases occurred in both

Table 12: Year-end Allocation Balances

Category	Year	Accts	Total Pounds	% of Quota	Active Accts. Pounds	Inactive Accts. Pounds	Initial Accts. Pounds[1]
DWG	2010	390	395,615	39%	331,014	64,601	2,839
	2011	283	240,553	24%	224,822	15,731	2,840
GG	2010	706	916,033	65%	802,680	113,353	8,298
	2011	531	109,754	26%	92,562	17,192	2,521
RG	2010	666	2,835,405	49%	2,495,512	339,893	19,880
	2011	503	448,065	9%	383,849	64,216	18,085
SWG	2010	630	251,503	61%	217,542	33,961	3,831
	2011	513	223,732	55%	201,218	22,514	3,834
TF	2010	219	190,857	43%	131,059	59,798	1,261
	2011	142	53,905	12%	48,562	5,343	1,280

[1] The initial account pounds are included in the inactive accounts total pounds.

active and inactive accounts. The large decrease in gag quota in 2011 impacted the remaining allocation for that year. In 2011, only 26% of the quota remained in accounts at the end of the year compared to 65% in 2010 (Table 12). As in the previous year, most of the remaining gag allocation (92,562 lb) was held in active accounts. The red grouper quota also decreased in 2011 and the remaining allocation decreased from 49% of the quota in 2010 to 9% of the quota in 2011. As with gag, the greatest portion was in active accounts (Table 12). The remaining allocation for shallow-water grouper (55% of the quota) was slightly less than the previous year (61%). As there was no change in shallow-water grouper quota, this indicates that more accounts were active and landed more allocation. The amount of unused tilefish allocation decreased considerably from 43% in 2010 to 12% in 2011 (Table 12). This decrease resulted from active accounts using more allocation and inactive accounts becoming active.

Average remaining balances in 2011 accounts for any one share category were less than or similar to remaining balances in 2010 (Table 13). While maximum remaining balances in individual accounts were also less than the previous year, these values were still large, ranging between 5,028 to 36,400 lb per category (Table 13). In 2011, most of the remaining balances in the different share categories were less than 51 lbs (Table 13). In 2011, median remaining balances were less than 100 lbs for all share categories except red grouper. The median remaining allocation balances for gag and red grouper were considerably lower than the previous year's median balances (Table 13). Both share categories experienced a decrease in quota which may have influenced the amount of allocation remaining in the accounts.

There were a small number of accounts (n = 48) that had exceeded their allocation through the one-time 10% overage allowance in 2011 (Table 14). Only accounts that hold shares may use the 10% overage allowance (see Program Overview section for more details). The number of accounts with overages increased five-fold since 2010, when only 9 accounts had overages (Table 14). The total amount of

Table 13: Year-end Allocation Balance Statistics

		Pounds			Number of Accounts		
Category	Year	Avg.	Median	Max.	≤ 50 lb	51-500 lb	> 500 lb
DWG	2010	1,014	66	101,043	179	121	90
	2011	851	59	32,456	135	83	65
GG	2010	1,298	306	35,457	190	224	292
	2011	207	52	5,028	263	198	70
RG	2010	4,257	707	134,667	130	171	365
	2011	896	287	25,959	143	163	196
SWG	2010	399	62	30,697	300	224	106
	2011	436	72	36,400	231	190	92
TF	2010	871	36	18,259	118	58	43
	2011	380	34	8,101	77	36	29

pounds used in overages increased in every share category except gag, which had comparable totals in 2010 (Table 14). The average, median, and maximum overage pounds also increased in 2011 for all categories except gag (Table 14). *Caution should be used when comparing overages across years or share categories, as changes in the commercial quota or time of quota increase may influence the values.*

Table 14: Allowed 10% Allocation Overages

Category	Year	Accts	Total Pounds	Average Pounds	Median Pounds	Maximum Pounds
DWG	2010	2	31	16	16	26
	2011	8	260	33	22	72
GG	2010	5	372	74	49	241
	2011	20	206	10	3	68
RG	2010	2	52	26	26	27
	2011	13	1,139	88	31	644
SWG	2010	0	0	0	0	0
	2011	8	253	32	16	101
TF	2010	0	0	0	0	0
	2011	3	22	7	7	10
Total	2010	9	455	51	26	241
	2011	48	1,880	36	10	644

GT-IFQ Fishing Effort and Landings

Dealers

The number of dealers increased from 85 dealers in 2010 to 94 GT-IFQ dealers in 2011 (Table 15). The majority of dealers conduct business with less than 10 fishermen (Table 15). A small number of dealers conduct business with a large number of fishermen (11+), although the maximum number of fishermen per dealer decreased from 35 in 2010 to 27 in 2011 (Table 15).

While some dealers in the GT-IFQ program have multiple facilities at which to receive and process GT-IFQ species, most dealers (2011 = 86%) use a single facility (Table 16). The maximum number of facilities associated with a single dealer has increased from five in 2010 to seven in 2011 (Table 16). Because GOM dealer permits are federally issued, a dealer may operate facilities in more than one state. In 2011 there were only 3 dealers who landed GT-IFQ species through facilities in multiple states, which was one more than 2010 (Table 16).

Table 15: Dealer Information

	2010	2011
Total	85	94
Dealer size[1]		
Small	39 (46%)	43 (46%)
Medium	30 (35%)	36 (38%)
Large	16 (19%)	15 (16%)
Max. shareholders	35	27

[1]Dealer size is determined by the shareholders landing with that dealer: small (1-2 shareholders), medium (3-10 shareholders), and large (11+ shareholders). Shareholders may land with multiple dealers and therefore counted for multiple dealers.

Table 16: Dealer Facilities

	2010	2011
Dealers with:		
Single facility	73 (86%)	81 (86%)
Multiple facility	12 (14%)	13 (14%)
Max. num. facilities	5	7
Dealers with facilities in:		
Single state	83	91
Multiple states	2	3

Vessels and Effort

In 2011, 440 vessels reported landing GT-IFQ program species, which were 12 less than in the previous year. The overall number of vessels decreased in every category except deep-water grouper (Table 17). More vessels landed gag, red, and shallow-water grouper than deep-water grouper or tilefish. Similar to 2010, the tilefish category had the least amount of vessels in 2011 (Table 17). The majority of vessels (89%) landed species in more than one GT-IFQ category, and 12% of the vessels landed species from all 5 GT-IFQ categories. Most of the vessels (82%) that landed GT-IFQ species also landed red snapper. Vessels that caught red grouper also commonly caught gag and shallow-water grouper, while vessels catching deep-water grouper often caught tilefish. The majority of vessels, across all share categories, landed grouper-tilefish species at Florida facilities (Figure 4).

The number of trips and days away increased or remained the same for all share categories except gag. Average landings per trip increased for deep-water grouper, red grouper, and tilefish, decreased for gag, and remained about the same for shallow-water grouper (Table 17). Vessels fishing deep-water grouper increased the number of trips and days away in 2011, but only had a slight increase in the average landings per trip (Table 17, Figure 4). In 2011, deep-water grouper average landings per trip were considerably greater outside of Florida waters (915 lb/trip) than in Florida waters (651 lb/trip) (Figure 4). Vessels fishing for gag had a decrease in the number of trips and days away, and smaller average landings per trip (Table 17, Figure 4). Similar to 2010, average landings per trip of gag in Florida were ~100 lb

greater than the average landings per trip for the remaining GOM states (Figure 4). Vessels fishing for red grouper had an additional 823 trips in 2011, although the days away remained similar to those in 2010 (Table 17, Figure). Average landings per trip for red grouper increased from 774 lb/trip to 1,043 lb/trip and nearly all landings were at Florida facilities (Table 17, Figure 4). The vessels fishing for shallow-water grouper increased their number of trips and days away, but average landings per trip decreased slightly (Table 17) and average landings per trip were larger at Florida facilities (Figure 4). There was little change in fishing effort for tilefish, as the number of vessels, trips, and days away were comparable between 2010 and 2011. There was an increase in the average tilefish landings per trip in 2011 from 759 lb/trip in 2010 to 1,022 lb/trip in 2011 (Table 17, Figure 4).

Table 17: Fishing effort[1]

Category	Year	Num. Vessels	Trips	Days Away[2]	Avg. Landings/Trip
DWG	2010	187	948	5,795	659
	2011	192	1,159	6,217	673
GG	2010	415	3,205	16,593	154
	2011	363	2,696	12,392	119
RG	2010	393	3,763	18,589	774
	2011	383	4,586	18,267	1,043
SWG	2010	322	1,984	14,286	80
	2011	307	2,449	15,106	76
TF	2010	79	329	2,459	759
	2011	75	378	2,847	1,022

[1] The number of vessels, trips, and average landings per trip were calculated using data from the GT-IFQ system.
[2] Days away from port were calculated from coastal logbook records as of April 12, 2012 (note numbers may change from previous reports due to logbook return lag).

Landings

The percentage of quota landed increased in 2011 for all share categories. The increased percentages may be attributed to the opening of previous closed areas due to the Deepwater Horizon oil spill event in 2010, decreased quota (gag and red grouper), and increased knowledge about the IFQ online system and requirements. Landings ranged between 45-91% of the quota (Table 18) and were distributed throughout the year (Table 19). Overall, the pattern of monthly landings in 2011 for all categories differed from 2010 (Figure 5). These differences may have been primarily due to the area closures throughout the year due to the Deepwater

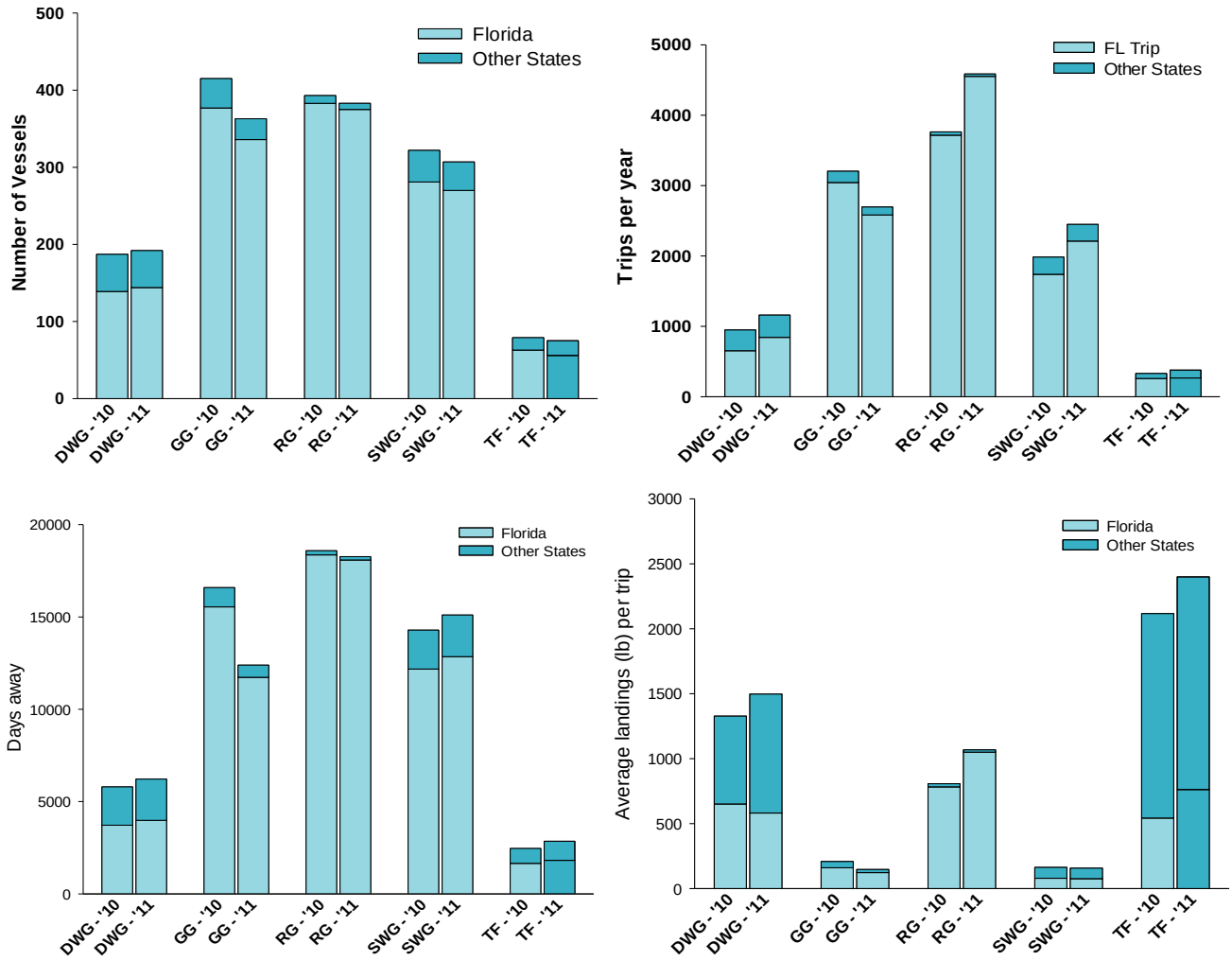

Figure 4: The number of vessels, trips, days away and average landings per trip for each share category and year.

Table 18: Landings by share category and year

	2010		2011	
Category	Landings	% Quota	Landings	% Quota
DWG	624,762	61%	779,519	76%
GG	493,938	35%	320,137	74%
RG	2,913,858	51%	4,782,194	91%
SWG	158,234	39%	186,235	45%
TF	249,708	57%	386,134	88%

Table 19: Reported Landings by month

Category		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual
DWG	Total	38,204	58,313	57,849	60,320	50,734	82,159	78,053	107,643	41,232	71,477	68,986	64,549	779,519
	% Quota	4%	6%	6%	6%	5%	8%	8%	11%	4%	7%	7%	6%	76%
	Cum. % quota	*4%*	*9%*	*15%*	*21%*	*26%*	*34%*	*42%*	*52%*	*56%*	*63%*	*70%*	*76%*	
GG	Total	24,071	20,557	8,535	6,470	7,542	35,315	25,211	25,077	27,614	23,666	34,324	81,755	320,137
	% Quota	6%	5%	2%	2%	2%	8%	6%	6%	6%	6%	8%	19%	74%
	Cum. % quota	*6%*	*10%*	*12%*	*14%*	*16%*	*24%*	*30%*	*36%*	*42%*	*47%*	*55%*	*74%*	
RG	Total	331,276	448,858	466,548	401,810	459,804	291,691	256,111	289,854	440,791	394,506	408,189	592,756	4,782,194
	% Quota	6%	9%	9%	8%	9%	6%	5%	6%	8%	8%	8%	11%	91%
	Cum. % quota	*6%*	*15%*	*24%*	*32%*	*40%*	*46%*	*51%*	*56%*	*65%*	*72%*	*80%*	*91%*	
SWG	Total	13,712	21,907	17,805	12,847	16,762	17,283	16,725	17,534	14,286	8,353	10,693	18,328	186,235
	% Quota	3%	5%	4%	3%	4%	4%	4%	4%	3%	2%	3%	4%	45%
	Cum. % quota	*3%*	*9%*	*13%*	*16%*	*20%*	*24%*	*29%*	*33%*	*36%*	*38%*	*41%*	*45%*	
TF	Total	28,302	18,835	27,464	26,043	23,297	32,987	33,504	20,209	16,098	25,582	55,566	78,247	386,134
	% Quota	6%	4%	6%	6%	5%	7%	8%	5%	4%	6%	13%	18%	88%
	Cum. % quota	*6%*	*11%*	*17%*	*23%*	*28%*	*36%*	*43%*	*48%*	*52%*	*57%*	*70%*	*88%*	

Horizon oil spill event (Appendix 1) and its subsequent effect on fishing activities. In 2011, 76% of the deep-water grouper quota was landed, with the peak landing season occurring between June and August (Table 19, Figure 5). In 2010, the peak landing season was earlier in the year, between March and May (Figure 5). Gag 2011 landings were 74% of the quota (Table 19), but overall total pounds landed decreased compared to 2010. This decrease in total pounds landed was related to the reduction in quota in 2011 (Table 3). In 2010, peak gag landing occurred from March through May, but in 2011, these were the months with the smallest landings. In 2011, the gag quota was increased by 330,000 lbs on June 1. Landings were greater after the quota increase and peaked in December (Table 19, Figure 5). Red grouper had the greatest percentage of the quota landed (91%) for the 2011 GT-IFQ share categories (Table 19). The 2011 landings (4,782,194 lb) were more than 1.5 times greater than the 2010 landings (2,916,734 lb), despite 2010 having a higher quota. The largest 2011 red grouper landings occurred in December, with other large landings occurring between February and May, and September through November (Table 19, Figure 5). The prohibition of longlines inside 35 fathoms during June-August is likely responsible for the reduction in landings during summer months. In 2010, landings were greatest in June and September through November (figure 5). Shallow-water grouper landings increased in 2011 to

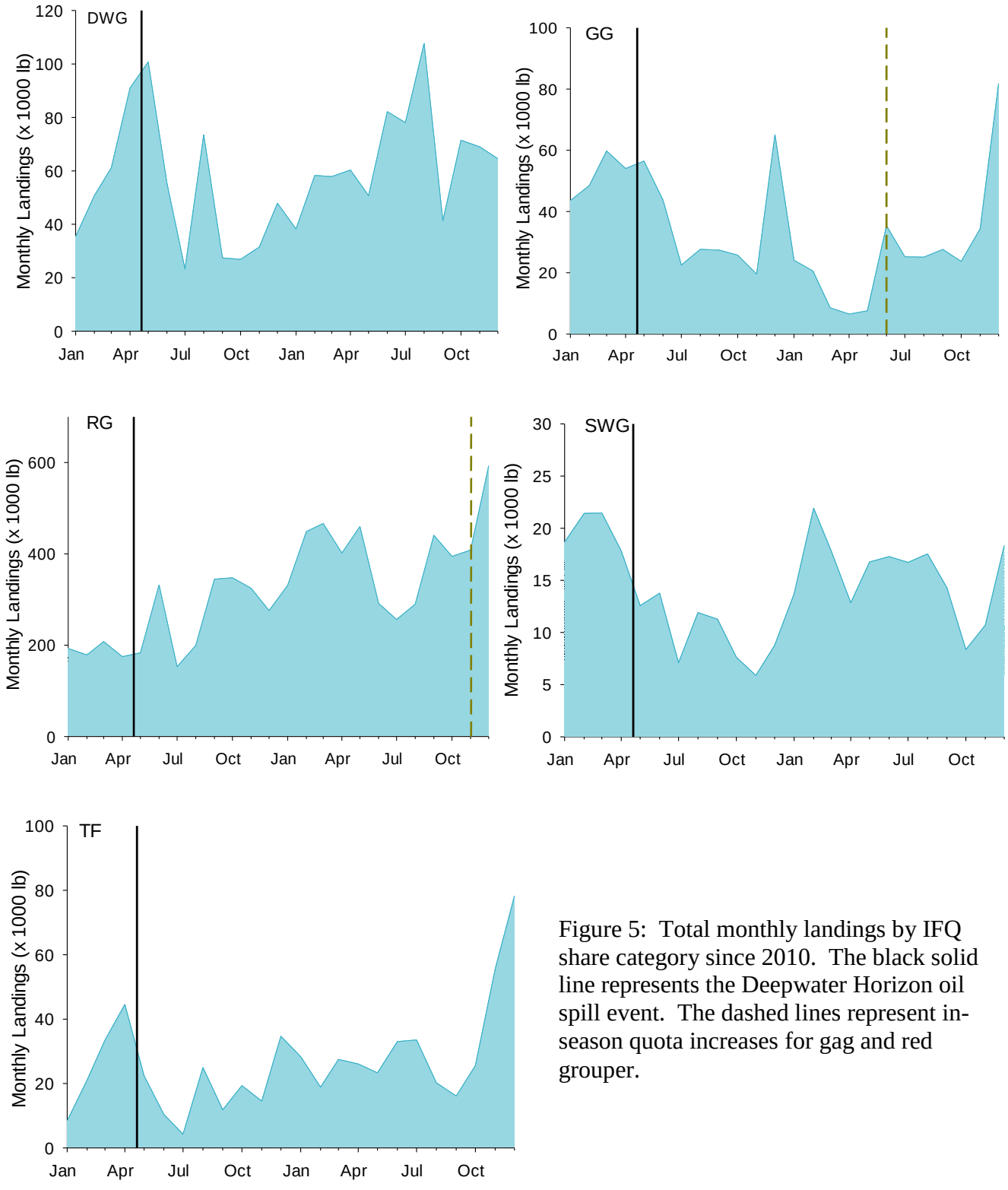

Figure 5: Total monthly landings by IFQ share category since 2010. The black solid line represents the Deepwater Horizon oil spill event. The dashed lines represent in-season quota increases for gag and red grouper.

45% of the quota compared to 39% of the quota in 2010 (Tables 18-19). Despite this increase, shallow-water grouper had the lowest percentage of quota landed in 2011 (Table 19). Shallow-water grouper landings were evenly distributed throughout the year, with monthly landings comprising between 2-5% of the quota (Table 19, Figure 5). In comparison, 2010 landings were greatest in the beginning of the year and decreased throughout the year (Figure 5). Tilefish 2011 landings were 88% of the quota, an increase of 31% since the previous year (Tables 18-19). Landings were highest in November and December, with another small peak in landing during the summer (June-July) (Table 19, Figure 5). The November and December landings were the largest tilefish landings since the start of the program (Figure 5). In the previous year, the tilefish landings peaked between March and April, with a secondary peak towards the end of the year. For all share categories, the increased landings at the end of the year are most likely the result of fishermen seeking to harvest unused allocation before the end of the fishing season.

Ex-vessel Prices

Ex-vessel prices were variable due to differences in species, retail markets, landing season, reporting practices among dealers, and compliance with ex-vessel price regulations. Extremely low prices have been attributed to dealers reporting ex-vessel prices after deducting for allocation transfers, goods (e.g. bait, ice, fuel) and/or services (e.g. repairs, machinery replacement). The definition of actual ex-vessel value was changed through regulations in June 2011 and prohibited the deduction of allocation transfers, goods, and/or services from ex-vessel prices. Despite these regulations, in 2011 there were still some transactions with low ex-vessel prices. Ex-vessel prices were considered low if the price was less than 2 standard deviations from the average value for that year. Low ex-vessel prices occurred in 10 GT-IFQ species (Table 20). Both gag and scamp had over 100 transactions with low ex-vessel prices (Table 20). There were also a large number of transactions for red grouper (n = 89) and snowy grouper (n = 49) with low ex-vessel prices (Table 20). The species with the largest amount of pounds at low ex-vessel prices were gag (13,900 lb), red grouper (12,401 lb), warsaw grouper (7,268 lb), scamp (7,174 lb), and snowy grouper (5,019 lb) (Table 20). For all species with low ex-vessel prices, the total pounds landed at low ex-vessel prices were a small proportion (≤ 12%) of the total pounds landed (Table 20). Warsaw grouper had the greatest percentage of low ex-vessel priced pounds landed (12%), followed by scamp (5%), black grouper (4%), snowy grouper (4%), and gag (4%) (Table 20).

Table 20: Low price per pound transactions

Category	Species	Value[1]	Low prices		Annual	
			Pounds	Trans.	Pounds	% Low
DWG	Snowy grouper	$2.02	5,019	49	132,971	4%
	Speckled hind	$2.17	108	19	24,925	<1%
	Warsaw grouper	$1.56	7,268	23	61,661	12%
	Yellowedge grouper	$2.16	1,367	10	558,908	<1%
GG	Gag	$3.27	13,900	186	318,663	4%
RG	Red grouper	$2.25	12,401	89	4,783,668	<1%
SWG	Black grouper	$2.70	1,498	19	34,970	4%
	Scamp	$2.84	7,174	133	149,286	5%
TF	Blueline tilefish	$0.72	124	13	44,841	<1%
	Golden tilefish	$1.18	527	4	311,848	<1%

[1] The low price value was selected as 2 standard deviations from the average 2011 values, except for blueline tilefish which is set to 1 standard deviation due to the variations in price per pound and its lower average value.

Table 21: Price per pound landed by species and year[1]

Category	Species	2010		2011	
		Average	Median	Average	Median
DWG	Snowy grouper	$ 3.02	$ 3.15	$ 3.40	$ 3.30
	Speckled hind	$ 2.94	$ 3.00	$ 3.17	$ 3.15
	Warsaw grouper	$ 2.59	$ 3.00	$ 2.70	$ 3.00
	Yellow-edge grouper	$ 3.75	$ 4.00	$ 4.01	$ 3.80
GG	Gag	$ 4.27	$ 4.25	$ 4.58	$ 4.63
RG	Red grouper	$ 3.04	$ 3.20	$ 3.15	$ 3.25
SWG	Black grouper	$ 3.96	$ 4.00	$ 4.08	$ 4.00
	Red hind	$ 2.49	$ 2.80	$ 3.29	$ 3.00
	Rock hind	$ 3.12	$ 3.00	$ 3.01	$ 3.00
	Scamp	$ 4.06	$ 4.20	$ 4.17	$ 4.25
TF	Blueline tilefish	$ 0.94	$ 1.00	$ 1.13	$ 1.20
	Golden tilefish	$ 2.17	$ 2.13	$ 2.50	$ 2.50
	Goldface tilefish	$ 2.26	$ 2.00	$ 2.13	$ 1.75

[1] Weighted averages were calculated from individually entered prices per pound. Prices per pound that were ≥ $10 were excluded from the analysis.

Average ex-vessel prices increased in 2011 for all GT-IFQ species except goldface tilefish and rock hind, with prices increasing by $0.11 to $0.80/pound dependent upon the species (Table 21). Within the multispecies GT-IFQ share categories, prices varied by species. In deep-water grouper, 2011 average ex-vessel prices differed by $1.31/lb. Yellowedge grouper had the highest average ex-vessel price ($4.01/lb), followed by snowy grouper ($3.40/lb), speckled hind ($3.17/lb) and warsaw grouper ($2.70) (Table 21). Shallow-water grouper average ex-vessel prices differed by $1.16/lb (Table 21). Scamp had the highest average ex-vessel price ($4.17/lb), followed by black grouper ($4.08/lb), red hind ($3.29/lb), and rock hind ($3.01/lb) (Table 21). For the tilefishes, average ex-vessel prices differed by $1.37/lb, with golden tilefish having the highest ex-vessel price ($2.50/lb), followed by goldface tilefish ($2.13/lb), and blueline tilefish ($1.13/lb). Within the entire GT-IFQ program, the species with the largest average ex-vessel prices were gag, scamp, black grouper, and yellowedge grouper (Table 21). The species with the largest change since 2010 were snowy grouper (+$0.38/lb), golden tilefish (+$0.33/lb), and gag (+$0.31/lb) (Table 21).

Ex-vessel prices varied monthly, and for some species the variations in ex-vessel price were large. In 2011, the greatest ex-vessel price variability occurred in golden tilefish, followed by blueline tilefish, black grouper, and yellowedge grouper (Figure 6, Appendix 3). Red grouper, scamp, and gag had the lowest variability in prices throughout 2011 (Figure 6, Appendix 3). Overall, the ex-vessel prices of the deep-water grouper species remained relatively stable in 2011, with the lowest values seen in the early part of the year. These relatively stable values were noticeably different from the fluctuating values that occurred in 2010 (Figure 6). This was not unexpected as the program was just implemented and the Deepwater Horizon oil spill event closed many fishing grounds during the year. Black grouper and scamp ex-vessel prices were lower in the beginning of 2011 and increased throughout the year (Figure 6, Appendix 3). Gag ex-vessel prices remained relatively stable throughout the year, with the lowest price occurring in the beginning of the year, and more stable prices later in the year (Figure 6). Red grouper ex-vessel prices were relatively stable throughout the year with lower ex-vessel prices occurring earlier in the year (Figure 6). Golden tilefish ex-vessel prices began increasing steadily in June of 2011 and were greater than the previous year's ex-vessel values (Figure 6, Appendix 3). Blueline tilefish ex-vessel prices were variable at the start of the year, with the lowest ex-vessel price (May 2011) following the month with the highest ex-vessel price (April 2011). Ex-vessel prices began to stabilize around June of 2011, and then decreased from October through December (Figure 6). In 2010, blueline tilefish ex-vessel prices were also variable, but with greater variability towards the end of the year rather than the beginning (Figure 6).

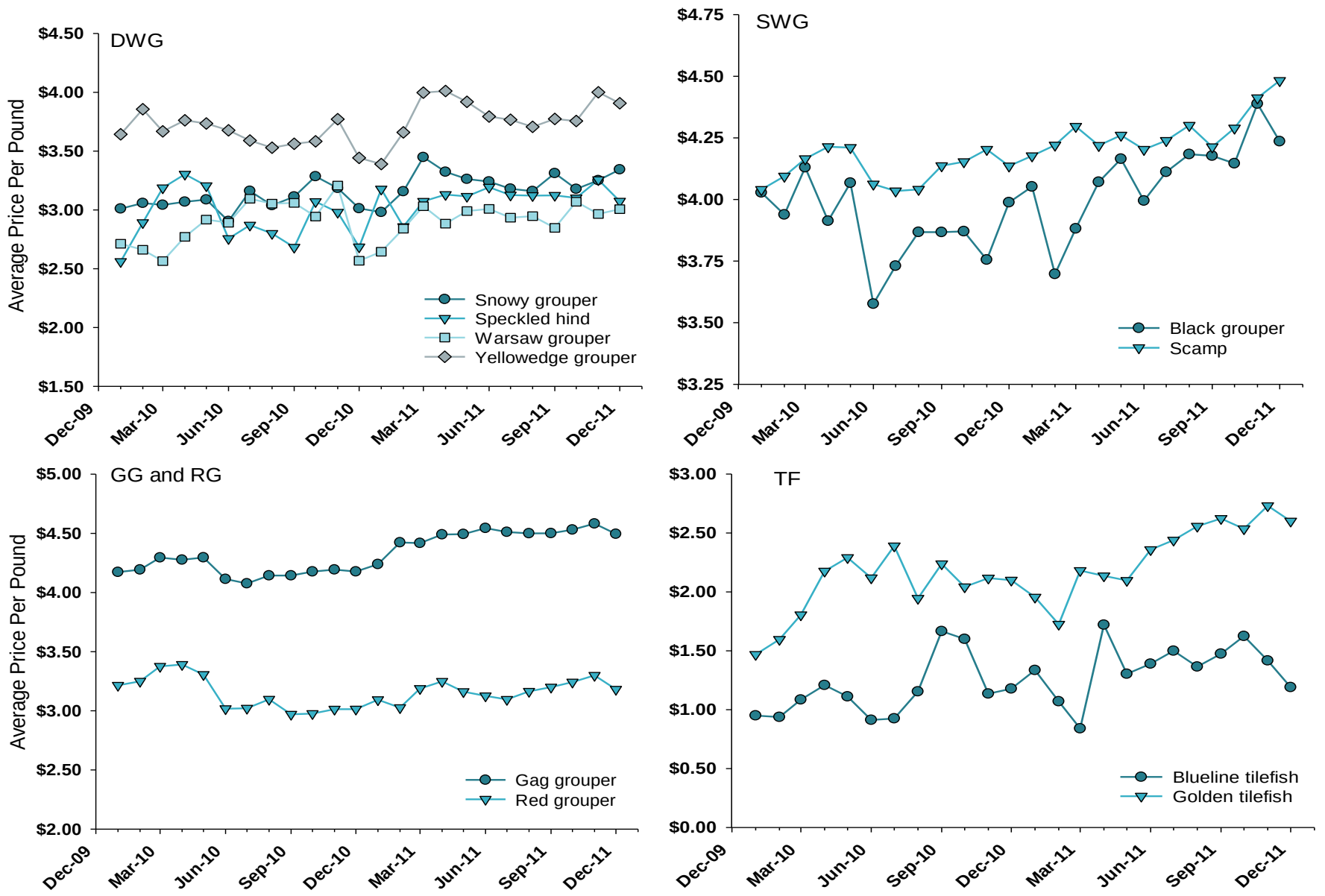

Figure 6: Average monthly ex-vessel price per pound landed.

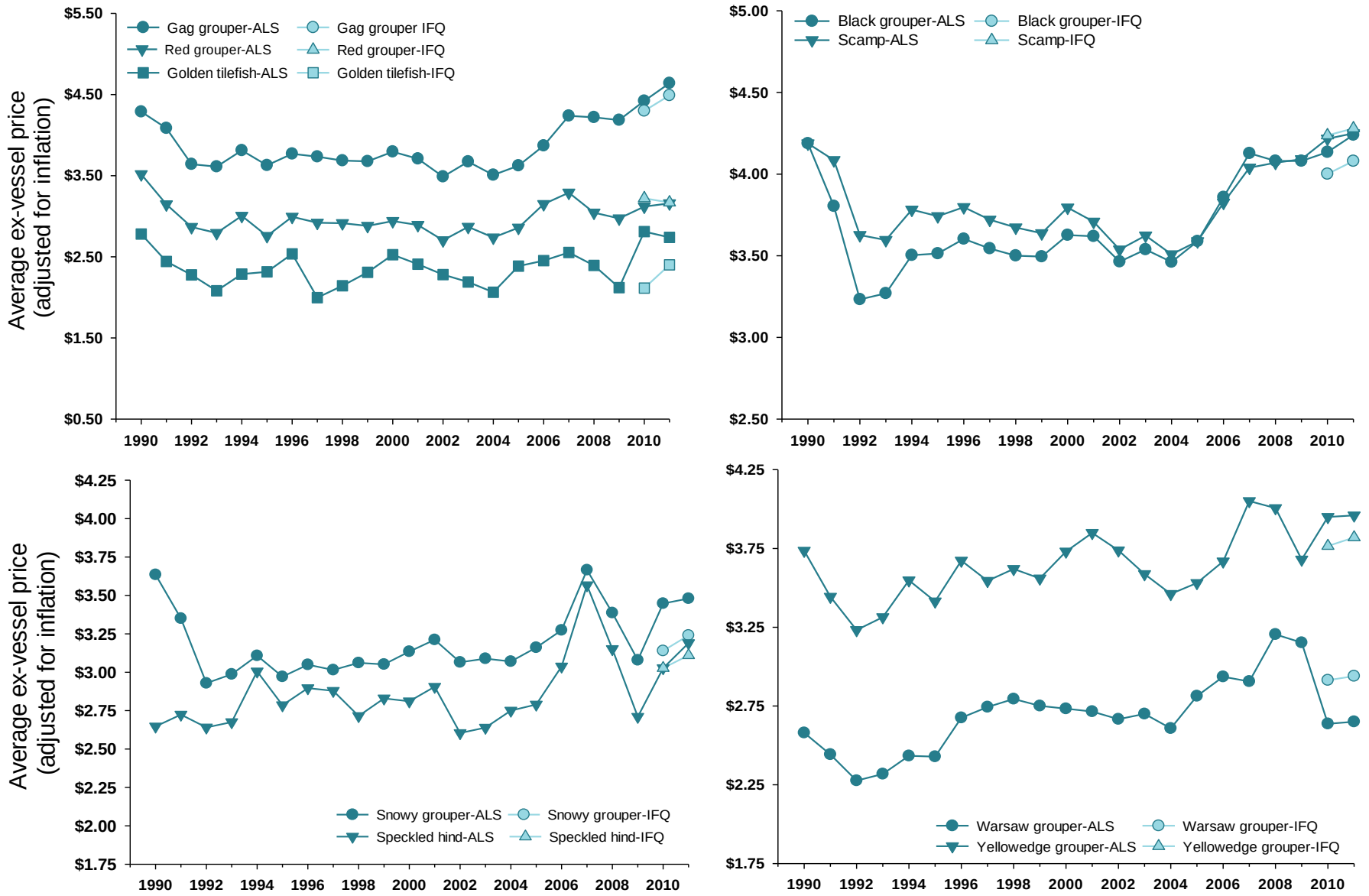

Figure 7: Average yearly ex-vessel prices.

Average prices were from the Accumulated Landings System (ALS) and GT-IFQ system. Prices were adjusted for inflation using the GDP Deflator index values last updated on 6/28/2012.

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 then adjusted for inflation based on the Gross Domestic Product (GDP) deflator[3]. 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. For most species, there was a decline in average ex-vessel price starting in the early 1990s, with prices increasing or remaining stable through the early 2000s before rising in the mid- to late 2000s (Figure 7). For many species there was an increase in ex-vessel price in 2007, the year the RS-IFQ program began. Since the start of the GT-IFQ program, there has been a slight increase in ex-vessel prices for gag, black grouper, scamp, snowy grouper, golden tilefish, and speckled hind (Figure 7). Red grouper and yellowedge grouper ex-vessel prices have remained similar to pre-GT-IFQ program prices, while warsaw grouper ex-vessel prices have dropped to values equivalent to those from the mid-1990s to the early 2000s (Figure 7).

Cost Recovery Fees

The Magnuson-Stevens Fishery Conservation and Management Act requires the Secretary to adopt regulations implementing a cost recovery program to recover the actual cost 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 GT-IFQ species. GT-IFQ allocation holders who complete a landing transaction with a dealer are responsible for payment of the fee. The dealer who receives the fish is responsible for collecting and submitting the fee on a quarterly basis. Monies collected were used for administration of the program, maintenance and upkeep of the online system and software, and scientific research.

In 2011, the total ex-vessel value for the GT-IFQ program was $21,120,882, nearly $7 million greater than the previous year (Table 22). Red grouper ex-vessel value was 71% of the total, followed by deepwater grouper, gag, tilefish, and finally shallow-water grouper (Table 22). Total GT-IFQ ex-vessel values were similar in the first three quarters of 2011, at ~ $4.9 million, but then increased in the last quarter to $6.4 million. This pattern was similar within each GT-IFQ category except shallow-water grouper where the greatest ex-vessel value occurred in the first quarter. Cost recovery fees in 2011 totaled $633,633 (Table 22). Due to the linkage to ex-vessel value, the greatest cost recovery fees were from red grouper landings.

[3] http://www.bea.gov/national/index.htm#gdp

Table 22: Ex-vessel value and associated cost recovery fees

		Ex-vessel value		Cost Recovery Fee	
Category	**Quarter**	**2010**	**2011**	**2010**	**2011**
DWG	Jan-Mar	$ 528,830	$ 550,596	$ 15,865	$ 16,518
	Apr-Jun	$ 884,214	$ 743,581	$ 26,527	$ 22,308
	Jul-Sep	$ 423,109	$ 854,653	$ 12,693	$ 25,640
	Oct-Dec	$ 369,952	$ 800,422	$ 11,099	$ 24,013
	Total	*$ 2,206,106*	*$ 2,949,252*	*$ 66,184*	*$ 88,479*
GG	Jan-Mar	$ 652,576	$ 235,281	$ 19,578	$ 7,059
	Apr-Jun	$ 667,977	$ 230,694	$ 20,040	$ 6,921
	Jul-Sep	$ 319,252	$ 359,153	$ 9,578	$ 10,775
	Oct-Dec	$ 465,324	$ 638,109	$ 13,960	$ 19,144
	Total	*$ 2,105,130*	*$ 1,463,237*	*$ 63,156*	*$ 43,899*
RG	Jan-Mar	$ 1,861,720	$ 3,776,540	$ 55,852	$ 113,297
	Apr-Jun	$ 2,157,953	$ 3,632,337	$ 64,739	$ 108,971
	Jul-Sep	$ 2,073,131	$ 3,179,299	$ 62,194	$ 95,380
	Oct-Dec	$ 2,784,057	$ 4,461,364	$ 83,522	$ 133,841
	Total	*$ 8,862,106*	*$ 15,049,541*	*$ 266,308*	*$451,488*
SWG	Jan-Mar	$ 247,310	$ 217,314	$ 7,420	$ 6,520
	Apr-Jun	$ 181,582	$ 190,561	$ 5,448	$ 5,717
	Jul-Sep	$ 119,613	$ 198,766	$ 3,589	$ 5,963
	Oct-Dec	$ 88,622	$ 158,594	$ 2,659	$ 4,758
	Total	*$ 637,127*	*$ 765,236*	*$ 19,115*	*$ 22,958*
TF	Jan-Mar	$133,771	$ 158,837	$ 4,013	$ 4,765
	Apr-Jun	$163,045	$ 172,082	$ 4,891	$ 5,163
	Jul-Sep	$75,822	$ 145,403	$ 2,275	$ 4,362
	Oct-Dec	$145,068	$ 417,294	$ 4,352	$ 12,519
	Total	*$517,706*	*$ 893,616*	*$ 15,531*	*$ 26,809*
GT-IFQ	***TOTAL***	***$ 14,333,583***	***$ 21,120,882***	***$ 430,013***	***$ 633,633***

Grouper-Tilefish Bycatch

Reef Fish Observer Program (RFOP) data for gag and red grouper was used to evaluate changes in bycatch associated with pre- and post-GT-IFQ implementation. From 2009 through 2011 the minimum size limit for gag was 24" TL. At the start of 2009, red grouper's minimum size limit was 20" TL but on May 18, 2009, it decreased to 18" TL. The RFOP program has more than doubled the number of observer trips since 2009 (Table 23). RFOP trips can be subdivided by gear (hook and line [HL] or longline [LL]) and area (southwestern Florida [SWFL] vs. the remaining GOM [OGOM] waters). On

each observer trip, the fate of gag and red grouper were recorded as: discarded – alive, discarded –dead, kept (landed or used as bait), or unknown. These fates, excluding unknowns, were used to calculate discard ratios (the number of fish landed for each one fish discarded) and the immediate discard mortality percentage. Immediate release mortality is the percentage of discarded fish that were considered dead immediately, and does not include any delayed mortality events. In 2010, there was a concentration on longline gear and trips off of southwestern Florida waters. In 2011, the trips were more equably distributed among both gear and areas (Table 23). Due to the fluctuation in gear and area concentration across years, interpretations of changes in bycatch data should be taken with caution.

For gag, the total number fish per trip remained similar from 2009 through 2011, with an average of 21-22 fish per trip (Table 23). Differences over time were observed for gag in both gear type and area. There was an increase in the number of fish per trip for longline trips (2009 = 15 fish/trip vs. 2011 = 24 fish/trip) and trips in southwestern Florida waters (2009 = 12 fish/trip vs. 2011 = 20 fish/trip) (Table 23). In contrast, the number of fish per trip decreased for hook and lines (2009 = 28 fish vs. 2011 = 19 fish) and trips in other GOM waters (2009 = 29 fish/trip vs. 2011 = 22 fish/trip).

Table 23: Observed gag and red grouper trips[1]

	Gag			Red Grouper		
	2009	**2010**	**2011**	**2009**	**2010**	**2011**
Observed Trips	**52**	**96**	**130**	**60**	**114**	**136**
HL gear	27	30	62	34	34	68
LL gear	25	66	68	26	80	68
SWFL waters	23	59	68	28	81	78
OGOM waters	29	37	62	32	33	58
Observed Fish	**1,118**	**2,075**	**2,767**	**17,020**	**52,307**	**101,595**
HL gear	753	1,129	1,166	3,541	5,173	12,699
LL gear	365	946	1,601	13,479	47,134	88,896
SWFL waters	273	854	1,381	12,710	44,825	81,604
OGOM waters	845	1,221	1,386	4,310	7,482	19,991
Avg. Fish/Trip	22	22	21	284	459	747
HL gear	28	38	19	104	152	187
LL gear	15	14	24	518	589	1,307
SWFL waters	12	14	20	454	553	1,046
OGOM waters	29	33	22	135	227	345

[1]SWFL region included statzones 1-5 (Florida Keys to Tampa), while the remaining trips in other regions of the GOM (OGOM) included statzones 6 -21 (north of Tampa to Texas). HL = hook and line gear; LL = longline gear.

The percentage of gag discarded increased from 38% in 2010 to 60% in 2011 (Table 24). The increased discard ratio is likely due to the large decrease in gag quota in 2011, which decreased by 0.98 mp (Table 3). Despite the high discard ratio, the majority of discarded gag observed were discarded alive, with no immediate release mortality (Table 24). Discard ratios increased in the hook and line fishery compared to 2010, with 0.88 fish landed for each fish discarded (Table 24). The greatest change in the overall discard ratio was due to the change in longline discards. In previous years 10-12 gag were landed for each gag discarded, but in 2011 this ratio was reversed with approximately 1 gag landed for every 2 gag discarded (Table 24). Because the southwestern Florida area primarily contains longline trips, there was also significant change in discard ratios for gag caught in this area. Discard ratios went from 8-11 gag landed for each discarded in 2009-2010 to just over 1 gag landed for every 2 gag discarded in 2011.

Table 24: Observed gag and red grouper fate[1]

	Gag			Red Grouper		
	2009	2010	2011	2009	2010	2011
Fish Fate (N, %)						
Discarded – Alive	466 42%	766 37%	1,545 56%	6,758 40%	20,312 39%	35,055 35%
Discarded – Dead	7 <1%	18 <1%	123 4%	1,939 11%	7431 14%	10,219 10%
Landed/Kept	644 58%	1,289 62%	1,049 38%	8,278 49%	23,889 46%	55,039 54%
Unknown	1 <1%	2 <1%	50 2%	45 <1%	675 1%	1,282 1%
Discard ratio (x landed: 1 discarded)	1.36	1.64	0.63	0.95	0.86	1.22
HL gear	0.69	0.61	0.88	1.27	0.69	1.55
LL gear	12.00	10.25	0.48	0.88	0.88	1.17
SWFL waters	8.41	10.68	0.67	0.88	0.88	1.11
OGOM waters	0.90	0.72	0.59	1.21	0.75	1.79
Observed Post-release Mortality						
HL gear	<1%	1%	2%	15%	11%	11%
LL gear	21%	13%	11%	24%	29%	24%
SWFL waters	10%	15%	12%	24%	29%	23%
OGOM waters	1%	1%	3%	17%	16%	21%

[1]SWFL region included statzones 1-5, while the remaining trips in other regions of the GOM (OGOM) included statzones 6 -21. HL = hook and line gear; LL = longline gear.

Discard ratios for both longline trips and trips in the southwestern Florida area may be strongly influenced by a lack of allocation, especially with the considerable decrease in gag quota in 2011 (Table 3). Observed post-release mortality rate in 2011 was low with between 2-12% of the discarded fish experiencing immediate release mortality. The proportion of gag discarded dead decreased slightly from the previous year in both the longline and southwestern Florida area, while observed post-release mortality remained similar for hook and line and the other GOM areas.

Table 25: Observed trips by gear and region

		2009		2010		2011	
		HL	LL	HL	LL	HL	LL
Gag	**SWFL**	7	16	10	49	15	53
	OGOM	20	9	20	17	47	15
Red grouper	**SWFL**	8	20	16	65	20	58
	OGOM	26	6	18	15	48	10

[1]SWFL region included statzones 1-5 (Florida Keys to Tampa), while the remaining trips in other regions of the GOM (OGOM) included statzones 6 -21 (north of Tampa to Texas). HL = hook and line gear; LL = longline gear.

Discard status was analyzed by length for both gear types. For both gear types, there was an increase in discarded fish that were above the minimum size length (24" TL) in 2011 (Figure 8). In previous years, there were very few fish discarded above the minimum size limit. For the longline gear, the majority of fish caught were above the minimum size limit, and more than half of the fish were discarded (Figure 8). This could be indicative of a lack of allocation resulting in discarding gag.

For red grouper, the total number fish per trip has increased by more than 1.5x each year since 2009 (fish per trip = 284), with 747 fish caught per trip in 2011 (Table 23). From 2010 to 2011, the fish per trip caught using longline gear or in southwestern Florida waters nearly doubled (LL 2010 = 589; LL 2011 = 1,307; SWFL 2010 = 553; SWFL 2011 = 1,046), while the trips using hook and line gear or in the other GOM waters increased by less than one half (Table 23). As with gag, the majority of the southwestern Florida trips consisted of longline gear, so similarities will be seen between longline gear values and southwestern Florida water values. The percentage of discarded red grouper has decreased since 2009 (Table 24), with 45% of the red grouper discarded in 2011. Each year the majority of the discarded fish were considered alive releases (Table 24). Discard ratio has increased slightly since 2009, but remains near a 1:1 ratio for landed to discarded fish. There has been an increase in discard ratios for longline trips and southwestern Florida trips, with an increase from 0.88 fish landed per fish discarded (2009 and 2010) to 1.11-1.17 fish landed per discarded fish in 2011 (Table 24). Discard ratios were slightly higher in 2011 for hook and line gear and trips in other GOM waters (1.55 and 1.79, respectively). Discard mortality has remained similar but relatively low since 2009 (Table 24).

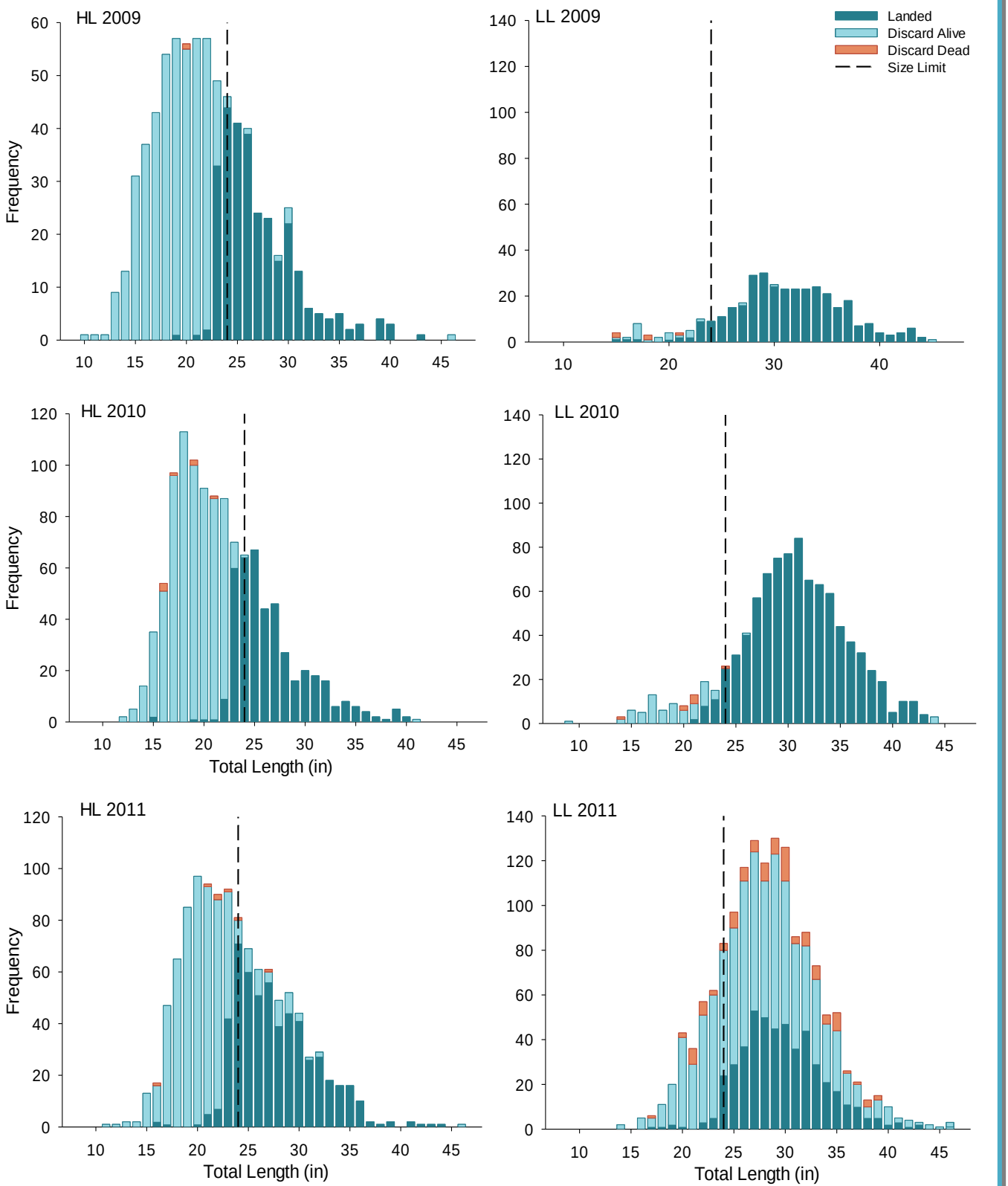

Figure 8: Size frequency distribution of gag by gear and disposition status. A small number of discards were reported as unknown and were not included here. Landed fish are shown in dark teal, discarded alive fish in light blue, and discarded dead fish in orange. The dashed line indicates the minimum size limit. HL = hook and line, LL = longline. Data are from the SEFSC Reef fish observer program, accessed on 4/16/2012.

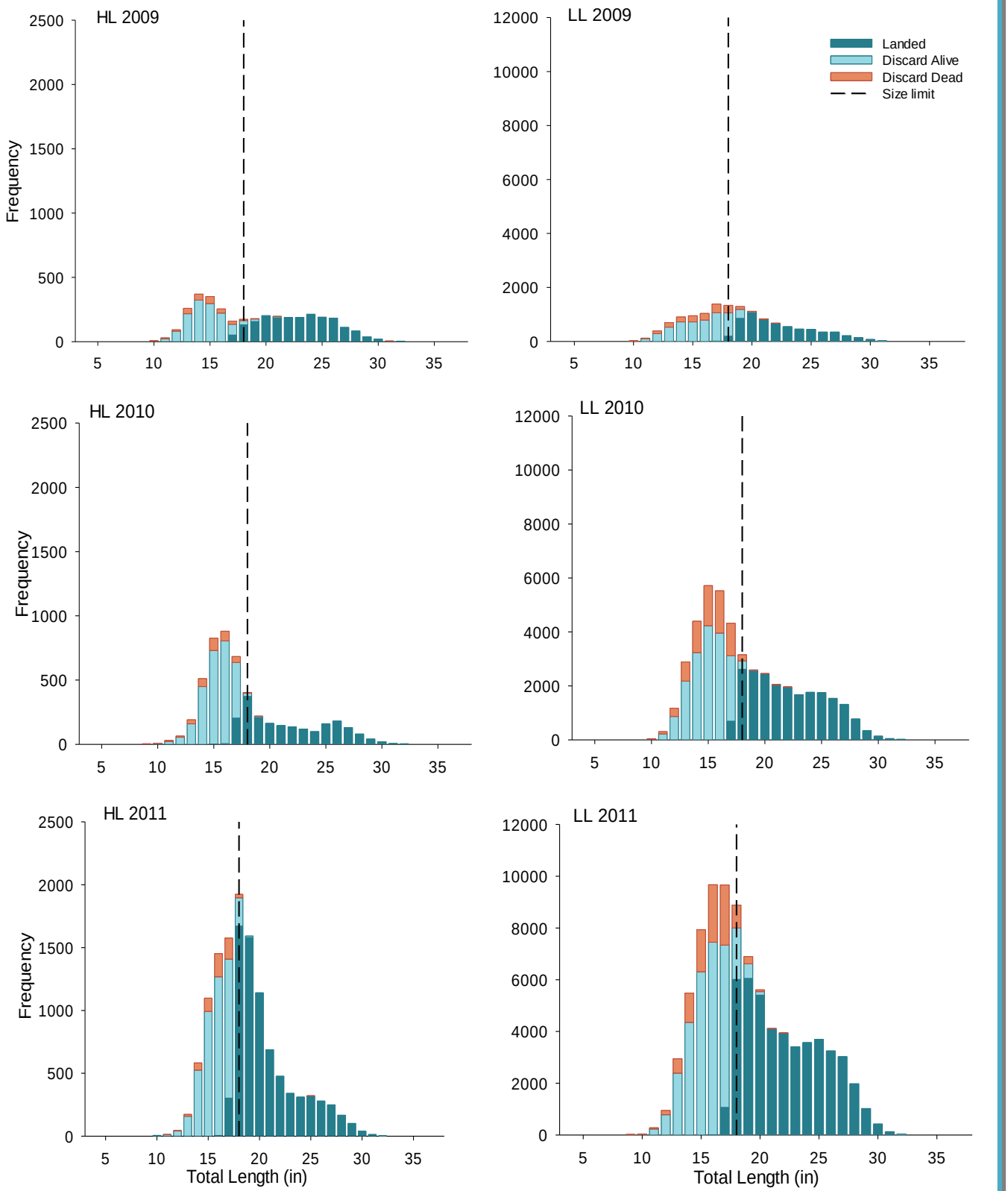

Figure 9: Size frequency distribution of red grouper by gear and disposition status. A small number of discards were reported as unknown and were not included here. Landed fish are shown in dark teal, discarded alive fish in light blue, and discarded dead fish in orange. The dashed line indicates the minimum size limit. HL = hook and line, LL = longline. Data are from the SEFSC Reef fish observer program, accessed on 4/16/2012.

In 2011, observed post-release mortality was below 25% for all gear and areas. Hook and line gear had the lowest observed post-release mortality rate at 11%. In 2011, for both gear types, the majority of discarded fish were below the minimum size limit (18" TL) (Figure 9). This pattern has been the same as seen in previous years, indicating that size and not allocation was the primary driver for discarding red grouper.

Law Enforcement Activities

Law enforcement is a crucial component of the IFQ program. Agents and officers from NOAA/NMFS Office of Law Enforcement (OLE) Southeast Division, the U.S. Coast Guard and participating Joint Enforcement Agreement (JEA) states enforce the regulated activities mandated under the GT-IFQ program. State wildlife officers and game wardens contribute to the enforcement of the IFQ program 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 U.S. Coast Guard and JEA partners with long range capabilities ensure that vessels harvesting red snapper and grouper-tilefish are eligible entities in the IFQ programs. Major violations since implementation of the IFQ programs include the false reporting of species harvested and under reporting of total weights landed. Typical violations include landing prior to the three-hour minimum landing notice, landing at a location other than specified in the landing notification, transporting an IFQ species without an approval code, completing a landing transaction without a landing notification, and offloading after approved hours.

The number of reported seizures for GT-IFQ species has increased since the start of the program. In 2010, there were 2 seizures that totaled ~3,000 lb of grouper with a value of $9,347. The species seized in 2010 were red grouper, yellowedge grouper, and snowy grouper. In 2011, there were seven reported seizures, for a total of ~19,000 lb of grouper with a value of $63,570. The species for the 2011 seizures consisted of red grouper, scamp, gag, and black grouper.

The percentage of notifications without transactions has decreased considerably since the start of the program, as has the percentage of transactions without notifications (Table 26). In 2011, IFQ staff began regularly contacting dealers about missing notifications or landings, which resulted in a much lower percentage of orphan notifications or landings than in previous years despite a greater number of transactions. Within each category, notifications without matching transactions consisted of 0.7 to 1.7% of all landings notifications, while transactions without notifications were between 0.3 – 1% of all landing transactions.

Table 26: Landing notification-transaction audit

Category	Quarter	2010	2011
DWG	Landing Notifications	862	1,054
	Landing Transactions	941	1,159
	% of notifications without transactions	4.2%	1.7%
	% of transactions without notifications	6.5%	0.5%
GG	Landing Notifications	3,196	2,777
	Landing Transactions	3,098	2,695
	% of notifications without transactions	4.1%	0.9%
	% of transactions without notifications	7.3%	1.0%
RG	Landing Notifications	3,659	4,177
	Landing Transactions	3,594	4,585
	% of notifications without transactions	4.4%	1.4%
	% of transactions without notifications	8.5%	0.9%
SWG	Landing Notifications	1,986	2,424
	Landing Transactions	2,001	2,448
	% of notifications without transactions	3.9%	0.7%
	% of transactions without notifications	7.1%	0.9%
TF	Landing Notifications	286	316
	Landing Transactions	328	378
	% of notifications without transactions	4.2%	1.6%
	% of transactions without notifications	5.8%	0.3%

Summary

This report represents the second year of Grouper-Tilefish IFQ management. The intent of this report is to provide fishermen, managers, and other constituents with data and information to evaluate program performance. The report is not intended to represent a comprehensive review of the Grouper-Tilefish IFQ program, but does provide data and information for evaluating some components of program performance.

The second year of the GT-IFQ program began with quota decreases of greater than 1,000,000 lb gw for both gag and red grouper. These quota decreases were the result of updated stock assessments, which indicated gag was depleted and undergoing overfishing. Although red grouper was neither overfished, nor undergoing overfishing, population abundance had declined resulting in the lower quota. Both share categories later had quota increases: on June 1, the gag quota increased by 330,000 lb, and on November 2, the red grouper quota increased by 910,000 lb. The red grouper increase was the result of updated quota projections that took into account reduced red grouper landings in 2010. The gag quota was set initially at 100,000 lb to allow for incidental harvest of gag. It was later increased based on updated projections from SEFSC and SERO, as the gag rebuilding plan continued to be updated and improved.

By the end of 2011, the consolidation of shares through share transfers resulted in a 9% reduction in shareholders since the start of the program. The number of shareholders varied among the different share categories, with the least number of shareholders in the tilefish share category and the most in the shallow-water grouper category. Although the overall number of shareholders decreased, more new shareholder accounts established in 2011 than in 2010. In 2011, there were also more shareholders who sold all their shares than in 2010. In 2011, there as a 2-4 fold increase in the number of accounts that held shares but did not have a valid reef fish permit. These shareholders comprise 8-13% of the shareholders per share category. Currently, all non-permitted shareholders must have had at one time a valid reef fish permit. While the amount of shares varied within each account, the majority of shareholders held less than 0.05% of shares per share category. Despite this, there was a small increase in 2011 for shareholders holding greater than 1% shares per share category.

There number of share transfers decreased by half from 2010 to 2011 and likewise, the total amount of shares transferred also decreased for each share category. Despite a decrease in share transfers, there was an increase in the share price per equivalent pound in all share categories. Share prices per equivalent pound were 1.5 to 3 times greater than prices in 2010. Red grouper had the greatest number of transfers, while gag had the greatest increase in average share price per equivalent pound in 2011.

The IFQ program contains both entities that own shares as well as those that need to buy annual allocation in order to participate in the program. The number of total allocation holders increased in 2011 to 833 accounts. Of those accounts, within each share category 9-15% did not own shares. This was an increase from the previous year where 5-9% did not own shares. Further, the number of allocation hold-

ers with permits decreased from 96-98% per category to 87-91% per category. In 2011, there was a decrease in the number of inactive accounts, with 25-34% of accounts with allocation remaining inactive. A small portion of these accounts were considered initial accounts, in which the account holder never logged into the IFQ program. Within the active accounts, there was an increase in the number of accounts that were just trading allocation (no associated landings). Accounts that only traded allocation comprised between 29-53% of the accounts holding allocation. The greatest number of accounts that only traded allocation existed in the tilefish share category, where more than half of the accounts with allocation were not landing tilefish. Accounts that sold all allocation or only sold allocation may have done so due to one or more of the following factors: no permit to harvest, low allocation, or lack of a working vessel (e.g. mechanical or crew problems). The majority of accounts that landed fish had shares, although this percentage has decreased from 90-94% in 2010 to 79-87% in 2011, indicating more fishermen without shares are leasing allocation.

Allocation transfers occurred daily in the GT-IFQ program and in fact exceeded the quota for the deep-water grouper and tilefish share categories due to multiple transfers of the same allocation. Unlike share transfers, the number of allocation transfers and the total pounds transferred increased in 2011 for all share categories. The number of transactions that included price data that could be used in analysis improved, but still remained low. Average allocation prices differed slightly from the previous year. The largest increase occurred in gag where average prices went from $0.95/lb to $1.51/lb and in the deep-water grouper category where the median price went from $1.00/lb to $1.50/lb. The number of accounts with remaining allocation balances decreased from 2010 and the majority belonged to active accounts. Most of the accounts had less than 501 lb of unused allocation remaining per share category at the end of the year. The number of accounts that used the 10% overage flexibility measure increased in 2011, but still remained low.

The number of dealers in the GT-IFQ program increased in 2011, and most worked with just one or two account holders, while the largest dealer worked with 27 different account holders. The majority of the dealers operated out of just one facility in one state, but some dealers owned multiple facilities that could be in multiple states. There were 12 less vessels operating in the GT-IFQ program in 2011 than there were in 2010. These vessels still primarily landed at Florida facilities and 82% of them also landed red snapper through the sister RS-IFQ program. Many vessels landed species from multiple share categories, with gag, red grouper, and shallow-water grouper often landed by the same vessels. The number of trips, days away, and average landings/trip increased for most share categories. For gag, the trips, days away, and average landings all decreased considerably due to the lower quota being implemented and less allocation being distributed.

There was an increase in the percentage of quota landed for each share category, although due to a difference in quota this was not necessarily an increase in pounds. Between 45-91% of the quota was landed, depending on share category. The largest increase in total pounds occurred in red grouper where the landings nearly doubled. In the early to mid part of the year, there were increased landings for red grouper and deep-water grouper. Towards the end of the year landings increased for gag and tilefish.

Harvest of shallow-water grouper was relatively constant throughout the year. In December, landings increased for nearly all share categories as fishermen harvested their remaining allocation.

Average ex-vessel prices for the majority of species in the GT-IFQ program increased in 2011. The increases ranged between $0.11/lb and $0.80/lb. Ex-vessel prices were variable by month for many species. Black grouper, scamp, and blueline tilefish ex-vessel prices increased throughout the year, while the remaining species prices were more constant. Gag and red grouper prices were very consistent throughout the year, with the smallest prices changes month to month. When compared to previous years, and adjusted for inflation, ex-vessel prices since the start of the GT-IFQ program have increased slightly for gag, black grouper, scamp, snowy grouper, golden tilefish, and speckled hind. The 2011 total ex-vessel value, encompassing all five share categories, was $21,120,882, an increase of $6,787,239 from the previous year. The increase in ex-vessel value can be attributed to one or more of the following: increased landings, increased ex-vessel price, and/or inflation. The cost recovery fees collected in 2011 totaled $633,633.

Bycatch observations trips increased in 2011 and were more evenly distributed among gear and areas than in previous years. In 2011, the substantial decrease in gag quota strongly affected the number of observed discards and observed post-release mortality rates in the longline sector. The gag discard ratio strongly reversed in the longline sector from 10 fish kept per discarded fish to less than one fish kept per discarded fish. In 2011, there were more fish above the minimum size limit discarded than in previous years, indicating a lack of allocation as a primary cause for discarding. The observed post-release mortality rate for gag was low (2-11%). For red grouper, discard rates improved. In 2010, less than one red grouper was landed for every discard. In 2011, more than one red grouper was landed for every discard. Most red grouper discards were associated with the minimum size limit and not due to a lack of allocation. Observed post-release mortality rates ranged from 11-24% for red grouper depending on gear type and area.

Looking Ahead

Beginning January 1, 2012, new regulations required any U.S. citizen or permanent resident alien applying for participation, or any person previously issued an IFQ online account, to submit an IFQ Online Account Application to obtain or maintain an IFQ online account. All participants in both the Grouper-Tilefish and Red Snapper IFQ programs are now required to submit the application every two years to keep an active account. Should an IFQ participant no longer have a GOM reef fish permit associated with their IFQ account, they will still be required to submit the IFQ Online Account Application every two years in order to keep the account active. This has resulted in NMFS staff contacting all IFQ account holders, which has resulted in a decrease in the number of inactive accounts. In addition, NMFS staff is working to develop procedures to close accounts by the request of the account holder.

On January 1, 2012, the red grouper quota was increased from 5.23 to 5.37 mp gw. Later that month, on January 30, 2012, quota increases were implemented for tilefish, deep-water grouper, and shallow-water grouper. The quota increases were associated with newly implemented regulations associated with the Gulf Council's Comprehensive Annual Catch Limit Amendment. The tilefish quota was set at 582,000 lbs gw, the deepwater grouper quota was set at 1.127 mp gw, and the shallow-water grouper quota was set at 509,000 lb gw. On March 12, 2012, the gag quota was also increased from 430,000 to 567,000 lb gw. Small increases in the shallow-water grouper and red grouper quotas are expected in 2013, while there will be a small reduction in the deepwater grouper quota. The gag quota is projected to increase by an additional 141,000 lbs gw and the red grouper quota is projected to increase by an additional 160,000 lbs gw. No change in the tilefish quota is expected for 2013.

Shareholders and dealers can also expect to see continued improvements to the online IFQ system. The online system has been under development since its implementation in 2010 and improvements will continue to be made to make the system easier to use. If you have a suggestion on how the online system can be improved please call or e-mail IFQ customer support. Upcoming adjustments to the system include improved ledgers for allocation, shares, and landings with printable options; improved linking of landing notifications to landing transactions; and improved methods for verifying price data. Price data has become an increasingly important aspect to the IFQ system, as it is used to measure the economic value of the commercial sector for evaluating allocation among sectors. Therefore, a main goal in the upcoming year will be to improve the collection of price data and related information for shares transfers, allocation transfers, and ex-vessel prices. Constituent workshops will be held throughout the GOM during summer and fall 2012 to discuss administrative and regulatory improvements that can be made to the IFQ program.

Appendices

Appendix 1: Size and percent coverage of fishing area closures due to Deepwater Horizon oil spill in 2010.

Date of Closure	Area (sq mi)	Area (sq km)	Percent Coverage of Gulf EEZ	Percent 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 2: Allocation activity[1]

Category	Year	Only traded	Sold All	Landed	Landed w/shares	Only Landed
DWG	2010	182 (36%)	82 (16%)	161 (31%)	148 (29%)	46 (9%)
	2011	212 (41%)	175 (34%)	169 (32%)	133 (26%)	31 (6%)
GG	2010	183 (23%)	53 (7%)	362 (46%)	326 (41%)	138 (17%)
	2011	223 (29%)	145 (19%)	323 (42%)	274 (36%)	54 (7%)
RG	2010	174 (23%)	56 (8%)	348 (47%)	312 (42%)	94 (13%)
	2011	211 (29%)	147 (20%)	344 (47%)	298 (40%)	42 (6%)
SWG	2010	203 (27%)	87 (11%)	282 (37%)	262 (34%)	114 (15%)
	2011	227 (30%)	182 (24%)	272 (30%)	228 (30%)	70 (9%)
TF	2010	132 (44%)	61 (20%)	66 (22%)	62 (21%)	24 (8%)
	2011	164 (53%)	145 (47%)	68 (22%)	55 (18%)	15 (5%)

[1] Percentages are based on the total number of accounts with allocation for each share category (Table 10).

Appendix 3: Average monthly price per pound landed[1]

		DWG				SWG		GG	RG	TF	
Year	Mon.	Snowy Grouper	Speckled hind	Warsaw grouper	Yellowedge grouper	Black grouper	Scamp	Gag	Red grouper	Blueline tilefish	Golden tilefish
2010	Jan	3.01	2.56	2.71	3.64	4.03	4.04	4.17	3.22	0.95	1.47
	Feb	3.06	2.89	2.66	3.86	3.94	4.09	4.19	3.25	0.94	1.60
	Mar	3.04	3.19	2.56	3.67	4.13	4.17	4.30	3.38	1.09	1.81
	Apr	3.07	3.30	2.77	3.76	3.91	4.21	4.28	3.39	1.21	2.18
	May	3.09	3.21	2.92	3.73	4.07	4.21	4.30	3.31	1.11	2.29
	Jun	2.90	2.76	2.89	3.68	3.58	4.06	4.11	3.02	0.91	2.12
	Jul	3.16	2.87	3.10	3.59	3.73	4.03	4.08	3.02	0.93	2.39
	Aug	3.04	2.80	3.05	3.53	3.87	4.04	4.14	3.10	1.15	1.95
	Sept	3.11	2.68	3.06	3.56	3.87	4.14	4.14	2.97	1.67	2.24
	Oct	3.29	3.07	2.94	3.58	3.87	4.15	4.18	2.98	1.60	2.04
	Nov	3.19	2.98	3.21	3.77	3.76	4.20	4.19	3.01	1.14	2.12
	Dec	3.01	2.69	2.57	3.44	3.99	4.14	4.18	3.01	1.18	2.10
2011	Jan	2.98	3.18	2.64	3.39	4.05	4.18	4.24	3.09	1.34	1.96
	Feb	3.16	2.86	2.84	3.66	3.70	4.22	4.42	3.03	1.07	1.73
	Mar	3.45	3.07	3.03	4.00	3.88	4.30	4.42	3.19	0.84	2.18
	Apr	3.32	3.13	2.88	4.01	4.07	4.22	4.49	3.25	1.72	2.14
	May	3.26	3.12	2.99	3.92	4.16	4.26	4.49	3.16	1.30	2.10
	Jun	3.24	3.19	3.01	3.79	4.00	4.20	4.54	3.13	1.39	2.36
	Jul	3.18	3.13	2.93	3.77	4.11	4.24	4.51	3.10	1.50	2.44
	Aug	3.16	3.12	2.95	3.71	4.18	4.30	4.50	3.16	1.37	2.56
	Sept	3.31	3.12	2.85	3.77	4.18	4.21	4.50	3.20	1.48	2.62
	Oct	3.18	3.10	3.07	3.76	4.15	4.29	4.53	3.24	1.63	2.54
	Nov	3.25	3.26	2.97	4.00	4.39	4.41	4.58	3.30	1.42	2.73
	Dec	3.34	3.07	3.01	3.91	4.24	4.48	4.50	3.18	1.19	2.60

[1] Prices greater than $10/lb were excluded from analysis.

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 GOM reef fish permit.

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

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

IFQ Dealer Endorsement – The IFQ dealer endorsement is a document that a dealer must possess in order to receive Gulf of Mexico 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 was never logged into by the account's owner(s).

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

Landing Transaction – A landing transaction report that is completed by an IFQ dealer using the online IFQ system. This report includes the date, time, and location of transaction; weight and actual ex-vessel 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 his unique personal identification number when the transaction report is submitted. After the dealer submits the report and the information has been verified, the website will send a transaction approval code to the dealer and the allocation holder.

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

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

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

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/. Through January 1, 2012, shares can be transferred only to an entity that holds a valid Gulf of Mexico reef fish permit.

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

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