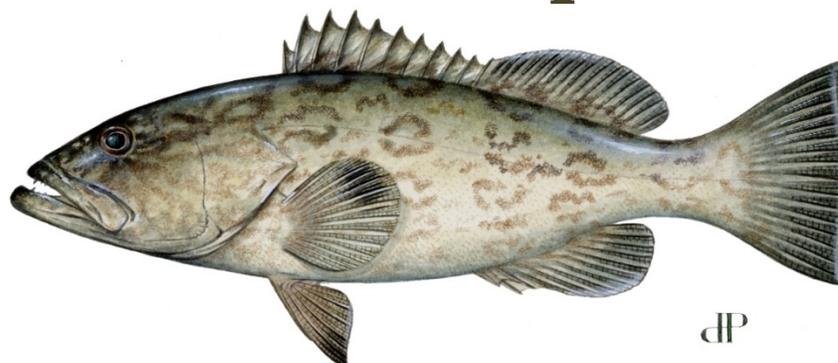


Gulf of Mexico 2015 Grouper-Tilefish Individual Fishing Quota Annual Report



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Executive Summary

The Grouper-Tilefish (GT) individual fishing quota (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). The 2015 GT-IFQ report builds upon the information summarized in previous reports and provides an overview of data and information collected since program implementation. This report is not intended to be a full comprehensive assessment of the program.

The number of participants in the GT-IFQ program, shareholders, allocation holders, dealers, and vessels, all increased in 2015. This was the first year where the number of shareholders increased for the entire program, although within share categories the number of shareholders either remained the same or decreased. This decrease within share categories was due to more accounts holding shares in a smaller number of categories (1-2), while previously more accounts held shares in a larger number of categories (4-5). The number of new shareholders doubled that of any previous year, which may be a direct result of the first year of public participation (do not hold a Gulf of Mexico commercial reef fish permit). These accounts may hold and transfer shares and allocation, but cannot harvest GT-IFQ species. The proportion of shareholders without Gulf of Mexico commercial reef fish permits, and the amount of shares held within these accounts, continued to increase in 2015, and these accounts now account for 32% of all accounts and hold 11-20% of shares.

Quotas increased slightly for GG, RG, and SWG categories, while they decreased in DWG. The TF quota remained the same as the previous year. For the entire GT-IFQ program, 80% of the quota was landed. Within share categories, 54%-92% of the quota was landed. Landings occurred year-round, with the greatest landings for the entire program occurring in the spring and summer months (March through June), and at the end of the year (December). Increased landings in December were observed in all share categories as commercial fishermen sought to harvest unused allocation before the end of the fishing season. Effort decreased for the entire program with fewer trips taken, less days at sea, and smaller average pounds landed per trip.

Activity within the GT-IFQ program increased in 2015, with an increased number and volume of share and allocation transfers. There were 606 share transfers with 22-38% of the shares transferred per share category and 6,813 allocation transfers totaling 15 million pounds. The proportion of accounts with allocation that were inactive (22%-30%) remained similar to the previous years, as did the proportion of accounts landing GT-IFQ species (28%-48%) and those that only transferred allocation (28%-44%). Within accounts only transferring allocation, the majority of accounts and pounds transferred belonged to accounts that held shares. Reporting of representative prices still remains a problem for both share and allocation transfers with only 62% of shares and 47% of allocation transfers reporting representative prices. The average share prices decreased for DWG, GG, RG, and SWG. GG share price decreased considerably from \$30.50/pound (lb) to \$22/lb. Allocation prices change slightly, with decreases for GG and SWG, increases for RG, and similar prices for DWG and TF. Reporting of representative ex-vessel prices was high (96-98%) within each share category and ex-vessel, prices increased for all share categories.

The National Marine Fisheries Service (NMFS) is committed to the continual improvement of GT-IFQ management. Stakeholders have provided feedback and suggestions on how to improve the GT-IFQ program and online system. This information has been helpful for improving the program since it began. NMFS thanks everyone for their input and encourages them to continue to share their concerns and ideas.

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ABBREVIATIONS

Abbreviation	Description
ALS	Accumulated landings system
BFT	Bluefin Tuna Individual Bycatch Quota program
DWG	Deep-water grouper share category
FOIA	Freedom of information act
GDP	Gross domestic product
GSAD	Gulf and South Atlantic Dealer permit
GG	Gag share category
GGM	Gag multi-use
GT-IFQ	Grouper-Tilefish Individual Fishing Quota
Gulf Council	Gulf of Mexico Fishery Management Council
Gulf	Gulf of Mexico
gw	Gutted weight
HBC	Headboat Collaborative pilot program
HMS	Highly migratory species
IFQ	Individual Fishing Quota
JEA	Joint enforcement agreement
lb	Pounds
LL	Longline gear
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
mp	Million pounds
NMFS	National Marine Fisheries Service
OLE	Office of Law Enforcement
RA	Regional Administrator
Reef Fish FMP	Reef Fish Fishery Management Plan
Reef fish permit	Gulf of Mexico commercial reef fish harvesting permit
RFOB	Reef fish observer program
RG	Red grouper share category
RGM	Red grouper multi-use
RS-IFQ	Red snapper Individual Fishing Quota
SEFSC	Southeast Fisheries Science Center, NMFS
SERO	Southeast Regional Office, NMFS
SWG	Other shallow-water grouper share category
TF	Tilefish share category
TL	Total length
USCG	United States Coast Guard
VL	Vertical line gear
VMS	Vessel Monitoring system

Program Overview and Regulations

Program Overview

The Grouper-Tilefish individual fishing quota (GT-IFQ) program includes five share categories: gag (GG), red grouper (RG), other shallow-water groupers (SWG), deep-water groupers (DWG), and tilefishes (TF; Table 1). Participants in the GT-IFQ program use an online account for all transactions (shares and allocation transfers, landings, and cost recovery fee payment). For the first five years of the program (2010-2015), anyone who possess a valid Gulf of Mexico (Gulf) reef fish dealer permit or Gulf commercial reef fish permit (reef fish permit) was eligible to obtain a GT-IFQ shareholder account and obtain shares and/or allocation. Only accounts with allocation and a valid Gulf reef fish permit could legally harvest GT-IFQ species. Appendices 1 and 2 contain a history of the management for GT-IFQ species and implementation of the GT-IFQ program.

Each GT-IFQ share category has distinct shares and associated allocations. Shares are a percentage of the commercial quota, while allocation refers to the poundage that is possessed, landed, or sold during a given calendar year. At the beginning of each year, allocation is distributed to GT-IFQ shareholder account. The amount allocated to an account is based on the share percentages of the annual quota held by a GT-IFQ shareholder. 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. An in-season increase in quota is distributed proportionately among shareholder accounts based on the percentage of shares each account holds at the time of the adjustment. All units of allocation and landings are in pounds (lb) gutted weight (gw). If a GT-IFQ shareholder’s reef fish permit has been permanently revoked, at the beginning of the next fishing year, the Regional Administrator (RA) for the National Marine Fisheries Service (NMFS) Southeast Regional Office (SERO) 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.

There are three main account types in the GT-IFQ system: shareholder, vessel, and dealer accounts. Each account is composed of a unique set of entities (single or combination of individuals and/or business) and no two accounts are composed of the same set of entities. Shareholder accounts may hold shares and allocation or just hold allocation. Shares are a percentage of the commercial quota, while allocation refers to the actual poundage that is possessed, landed, or sold during a given calendar year.

Table 1: Species by share category

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

¹ The following species were removed in 2012: rock hind (SWG), red hind (SWG), misty grouper (DWG), anchor tilefish (TF), and blackline tilefish (TF).
² Includes a multi-use flexibility measure.

A list of all shareholder accounts and the amount of shares held by each account is available through the NMFS SERO Website at:

http://sero.nmfs.noaa.gov/operations_management_information_services/constituency_services_branch/freedom_of_information_act/common_foia/IFQShareholders.htm.

Vessel accounts belong to shareholder accounts and may hold allocation. There may be multiple vessel accounts associated with one shareholder account. Sufficient allocation must be in the vessel account prior to the landing transaction. Upon completion of a landing transaction, the system deducts the allocation from the vessel account. Dealer accounts are associated with federal dealer permit holders. Prior to August 7, 2014, the federal dealer permit was the Gulf reef fish dealer permit; afterwards the federal permit became the Gulf and South Atlantic Dealer (GSAD) permit. Dealers are limited to completing landing transactions and paying the allocation holder's cost recovery fees. All GT-IFQ dealers are required to have a Gulf IFQ endorsement, which may be printed through their IFQ account. A printed copy of the IFQ dealer endorsement must accompany vehicles used to transport IFQ species on land. Endorsements are valid when a dealer's permit is active and they do not have any outstanding cost recovery fees. The GT-IFQ program and the Red Snapper Individual Fishing Quota (RS-IFQ) program are contained within the same system and are jointly referred to as the Gulf reef fish IFQ programs.

The GT-IFQ program has several built-in flexibility measures to accommodate the multi-species nature of the commercial reef fish fishery and to reduce bycatch. Two share categories, GG and RG, have a multi-use provision that allows a portion of the red grouper quota to be harvested under the gag allocation, or vice versa. The three remaining categories (SWG, DWG, and TF) are multiple-species categories, designed to capture species complexes that are commonly caught together (Table 1). Three grouper species (scamp, warsaw grouper, and speckled hind) are found in both the shallow and deep-water complexes. Flexibility measures in the GT-IFQ program allow these species to be landed under both share categories. Scamp are designated as a SWG species, but may be landed using DWG allocation once all SWG allocation in an account has been harvested. Warsaw grouper and speckled hind are designated as DWG species and may be landed using SWG allocation after all DWG allocation in an account has been harvested. The GT-IFQ program has a built-in 10% overage measure to allow a once-per-year allocation overage per share category for any GT-IFQ account that holds shares in that share category. For shareholder accounts with shares, a vessel can land once during the year 10% more than their remaining allocation on the vessel. NMFS deducts this overage from the shareholder's allocation in the following fishing year. Because overages need to be deducted in the following year, GT-IFQ accounts without shares cannot land an excess of their remaining allocation in that share category and GT-IFQ accounts with shares are prohibited from selling shares that would reduce the account's shares to less than the amount needed to repay the overage in the following year.

Program Objectives

The GT-IFQ program as defined in Amendment 29 to the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico (Reef Fish FMP) was implemented to reduce overcapacity of the grouper-tilefish 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 balancing 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 the Gulf of Mexico Fishery Management Council (Gulf Council) in preventing overfishing and/or rebuilding GT-IFQ stocks through the stewardship aspects of the program.

Program Regulations

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires fishery managers to ensure that no one GT-IFQ participant acquires an excessive share of the quota. The GT-IFQ program is monitored to prevent one or more participants from obtaining shares in excess of the established share cap for each species or category (Table 2). The share cap for each category was based on the maximum GT-IFQ shares issued to a person, corporation, or other entity at the time of initial apportionment. An allocation cap is set annually and equals the sum of the maximum allocations associated with the five share category caps. In 2015, the final allocation cap for the GT-IFQ program after all quota adjustments was 540,967 lb.

When harvesting GT-IFQ species, vessels are required to have a reef fish permit and hail-out before leaving port. While at sea, vessels are monitored using Vessel Monitoring Systems (VMS). When returning to port, vessels landing GT-IFQ species must provide a landing notification indicating the time and location of landing, the intended dealer, and the estimated pounds landed by species. Landing may occur at any time, but IFQ species may only be offloaded between 6 a.m. and 6 p.m. local time. 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 the shareholder account, vessel, and dealer. All landings data are updated as landing transactions are processed, on a real-time basis. Current GT-IFQ landings can be accessed at the SERO Catch Share Website: <https://portal.southeast.fisheries.noaa.gov/cs>.

Table 2: Share caps

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

NMFS monitors the economic performance of the fleet by collecting share, allocation, and ex-vessel prices. Both the transferor and transferee submit total share prices, while just the transferor submits the

allocation price per pound. Ex-vessel prices are the prices paid by a dealer per pound of fish before any deductions are made for transferred (leased) allocation and goods and/or services (bait, ice, fuel, repairs, machinery replacement, etc.). The Magnuson-Stevens Act, in section 304(d)(2)(A)(i), requires a fee to recover the actual costs required to directly administer, manage, and enforce the GT-IFQ program. This fee may not exceed 3% of the actual ex-vessel value. The current cost recovery fee is set at 3%. The RA may review and adjust this fee annually. The IFQ allocation holder specified in the landing transaction is responsible for the payment of the cost recovery fees, while the dealer who receives the fish is responsible for collecting the cost recovery fee and submitting the fee to NMFS on a quarterly basis. Complete regulations governing the GT-IFQ program can be found at 50 CFR 622.22 (www.ecfr.gov) and the program can be accessed through the SERO Website: <https://portal.southeast.fisheries.noaa.gov/cs>. Important information regarding the GT-IFQ program is available for download on the website under Additional Information.

Program Updates

The IFQ website and database systems were modified in 2014 and 2015 to include the Gulf Headboat Collaborative (HBC) pilot program and the Highly Migratory Species (HMS) Bluefin Tuna Individual Bycatch Quota (BFT) program. With the additions of these programs, the homepage was retitled to “SERO Catch Shares Programs” and additional information was added for each program. Each program contains a separate tab on the Public home page with information specific to that program and the Log In dialogue box was changed to reflect the additional roles for each program. The public “View Landing Locations” page was changed to include both IFQ and HBC landing locations, with a drop down box to select by program. The Additional Information page was changed to allow for selection of documents by program: IFQ, HBC, or BFT.

The SERO maintains a list of frequently asked Freedom of Information Act (FOIA) requests regarding permits, vessels, and the IFQ participants:

http://sero.nmfs.noaa.gov/operations_management_information_services/constituency_services_branch/freedom_of_information_act/common_foia/index.html

Gulf of Mexico IFQ accounts are listed here under the “IFQ Gulf Reef Fish Accounts” link. In 2015, this Webpage was updated to include all IFQ shareholder accounts and their percentage of shares held by each account. Previously, this page had just indicated shareholders with an X to indicating for each account, which share categories had shares. This page can now be sorted by the any of the column headings and also has an X to indicate accounts that are in initial status (never been accessed).

2015 Grouper-Tilefish IFQ Fishing Season

Program Participants

Shareholders

Shareholders accounts that hold shares are termed shareholders. Accounts without shares may still participate in the program by obtaining allocation from another IFQ shareholder account. Shareholder accounts with allocation are termed allocation holders. Allocation holders may or may not also hold shares. Each year, some shareholder accounts without shares obtain shares, while other shareholder accounts with shares divest the account of shares. A shareholder may divest their account of shares (i.e., transfer all shares) for a variety of reasons: to exit the IFQ program, to transfer to a new IFQ account after a permit change¹, or to manage related IFQ accounts from one account².

The total number of shareholder accounts in 2015 increased to 645 (Table 3). This is the first time since the start of the program where the number of shareholders increased. Despite this increase, the number of shareholders is still less than the number of shareholders at the start of the program. Within share categories, the number of shareholders either remained the same (RG, TF) or decreased slightly (DWG, GG, and SWG) (Table 3). The reason the total number of shareholders in the program increased, but the individual share category numbers did not increase was due to more accounts holding shares in fewer categories than the previous year (Table 4). The proportion of accounts holding shares in one or two categories has been increasing over time, while the proportion of those holding shares in four or five categories has been decreasing over time. The proportion holding shares in three categories has remained consistent over time, accounting for 32-35% of the accounts.

Shareholders are categorized by volume of shares: small shareholders hold < 0.05% shares, medium shareholders hold between 0.05-1.4999% shares, while large shareholders hold \geq 1.5% shares. Since the program began, the medium and large shareholders held the majority of shares, while the small and medium shareholders accounted for the greatest number of accounts (Table 3). When attrition of shareholders occurred, it primarily occurred with the small or medium shareholders (Table 3). For example at the start of the program DWG small shareholders comprised of 65% of all shareholders, while in 2015 they comprise only 60% (Table 1). In recent years, the number of large shareholders has grown in the DWG, GG, and RG categories (Table 3).

Even as consolidation of shares occurred, new accounts obtained shares; each year, accounts with no shares (0%) acquired shares (new shareholders). New shareholders occur in the program for a variety of reasons: entering the program, transferring to a related account due to a permit name change, or managing related accounts from one account.^{1,2} There were between 21-36 new shareholder accounts

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

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

Table 3: Shareholders by volume

DWG	Small N (Share %)	Med. N (Share %)	Large N (Share %)	Total	GG	Small N (Share %)	Med. N (Share %)	Large N (Share %)	Total
Initial	299 (2%)	169 (58%)	12 (40%)	480	Initial	415 (6%)	330 (88%)	3 (6%)	748
2010	300 (2%)	148 (54%)	13 (44%)	461	2010	424 (5%)	290 (85%)	5 (10%)	719
2011	275 (2%)	143 (53%)	13 (45%)	431	2011	391 (4%)	263 (81%)	7 (15%)	661
2012	253 (2%)	134 (49%)	14 (49%)	401	2012	355 (4%)	249 (80%)	8 (16%)	612
2013	238 (2%)	131 (49%)	13 (49%)	382	2013	342 (4%)	244 (78%)	9 (18%)	595
2014	224 (2%)	129 (45%)	15 (53%)	368	2014	333 (4%)	233 (78%)	9 (18%)	575
2015	220 (2%)	131 (48%)	15 (50%)	366	2015	328 (4%)	238 (80%)	8 (16%)	574

RG	Small N (Share %)	Med. N (Share %)	Large N (Share %)	Total	SWG	Small N (Share %)	Med. N (Share %)	Large N (Share %)	Total
Initial	435 (5%)	248 (77%)	9 (18%)	692	Initial	467 (6%)	275 (68%)	10 (26%)	752
2010	421 (4%)	237 (80%)	7 (16%)	665	2010	460 (5%)	250 (65%)	11 (30%)	721
2011	377 (3%)	227 (81%)	6 (16%)	610	2011	421 (5%)	242 (65%)	11 (30%)	674
2012	349 (3%)	212 (77%)	8 (20%)	569	2012	384 (4%)	234 (65%)	11 (31%)	629
2013	339 (3%)	200 (72%)	11 (25%)	550	2013	364 (4%)	227 (65%)	13 (31%)	604
2014	327 (3%)	192 (71%)	11 (26%)	530	2014	351 (4%)	218 (64%)	13 (32%)	582
2015	332 (3%)	186 (67%)	12 (30%)	530	2015	346 (4%)	223 (67%)	12 (29%)	581

TF	Small N (Share %)	Med. N (Share %)	Large N (Share %)	Total	Total Shareholders	
Initial	171 (2%)	100 (36%)	16 (62%)	287	Initial	766
2010	185 (2%)	85 (30%)	17 (68%)	287	2010	743
2011	164 (1%)	79 (28%)	17 (71%)	260	2011	699
2012	155 (1%)	76 (27%)	15 (72%)	246	2012	665
2013	144 (1%)	72 (25%)	16 (74%)	232	2013	644
2014	143 (1%)	69 (26%)	15 (73%)	227	2014	628
2015	143 (1%)	63 (24%)	16 (75%)	222	2015	645

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

Table 4: Number of share categories held by shareholders

Categories with shares	2010	2011	2012	2013	2014	2015
1	18	22	34	33	37	55
2	34	39	42	48	51	58
3	258	239	225	214	206	208
4	172	176	156	153	145	142
5	261	223	208	196	189	182
Total	743	699	665	644	628	645

within a given category in 2015, which consisted of the creation of 59 new shareholders (Table 5). This was the largest number of new accounts created since the start of the program. Correspondingly, the amount of shares acquired by the new shareholders was greater than in previous years by a considerably amount (Table 5). The total number of new shareholders cannot be summed across categories, as an account may hold shares in more than one category. Of these new accounts, 22 held shares in four or five different share categories, while 26 accounts held shares in only one category. The RG share category received the largest number of new shareholders (n=36), followed closely by GG (n=34), SWG (n=32), DWG (n=27), and finally TF (n=21).

Table 5: New shareholder accounts

Year	2010	2011	2012	2013	2014	2015
DWG	17 (9.26%)	25 (3.06%)	18 (2.21%)	13 (0.46%)	12 (2.28%)	27 (10.62%)
GG	16 (4.07%)	25 (2.81%)	18 (4.62%)	21 (1.97%)	11 (1.53%)	34 (9.43%)
RG	18 (2.95%)	23 (3.46%)	19 (5.81%)	20 (5.29%)	11 (2.79%)	36 (16.01%)
SWG	13 (5.09%)	25 (3.35%)	17 (2.06%)	17 (1.47%)	13 (1.15%)	32 (7.44%)
TF	18 (16.22%)	13 (2.03%)	14 (0.94%)	6 (1.88%)	10 (1.48%)	21 (10.95%)

Prior to 2015, a valid reef fish permit was initially required to open a GT-IFQ account, but the account could continue to hold shares and allocation without maintaining a reef fish permit. Accounts without a reef fish permit could neither acquire more shares or allocation nor harvest GT-IFQ species, but could transfer those shares or allocation to another shareholder account. Starting in 2015, any U.S. citizen or permanent resident alien could open an account without an associated reef fish permit and accounts without a reef fish permits acquire shares and allocation. Accounts that are not associated with a reef fish permit are termed public participant accounts, and may include accounts that are related to other shareholder accounts or dealer accounts, accounts held by non-profit organizations, or accounts held by any U.S. citizen or permanent resident alien.

Already at the end of the first year of the GT-IFQ program, there were a small percentage of shareholders in each share category that no longer held a reef fish permit (Table 6). The number of shareholders without reef fish permits increased considerably by the second year of the program for all share categories (Table 6). Thereafter, this number continued to increase in all share categories. In 2015, the number of shareholders without a reef fish permit increased to 204 (32%) for the entire program and between 55 and 177 (25% - 30%) within each share category (Table 6). The amount of shares held by shareholders without a reef fish permit substantially increased in 2015 in all share categories (Table 6, Figure 1). Shareholders without reef fish permits now hold between 11% to 20% of the shares (Table 6). In previous years, the amount of shares held by accounts without reef fish permits was between 5% to 8%. This increase is most likely due to public participation, where anyone can obtain a GT-IFQ account. This should be interpreted with a degree of caution, as many accounts are related within the program. The increase in the number of new accounts and the amount of shares held by accounts without a reef fish permit may be indicative of participants separating their assets by holding their shares in an account separate from the permitted vessel. Discussions with industry representatives indicate this separation of assets may be a growing business practice.

Table 6: Shareholders by permit status

DWG	Permit N (share %)	No Permit N (share %)	GG	Permit N (share %)	No Permit N (share %)	RG	Permit N (share %)	No Permit N (share %)
2010	449 (99%)	12 (1%)	2010	690 (99%)	29 (<1%)	2010	641 (99%)	24 (<1%)
2011	392 (96%)	39 (4%)	2011	578 (98%)	83 (2%)	2011	537 (98%)	73 (2%)
2012	359 (97%)	42 (3%)	2012	513 (97%)	99 (3%)	2012	479 (98%)	90 (2%)
2013	323 (95%)	59 (5%)	2013	475 (94%)	120 (6%)	2013	440 (96%)	110 (4%)
2014	296 (93%)	72 (7%)	2014	433 (94%)	142 (6%)	2014	402 (95%)	128 (5%)
2015	275 (87%)	91 (13%)	2015	404 (87%)	170 (13%)	2015	369 (80%)	161 (20%)

SWG	Permit N (share %)	No Permit N (share %)	TF	Permit N (share %)	No Permit N (share %)	Total	Permit	No Permit
2010	692 (99%)	29 (<1%)	2010	282 (99%)	5 (<1%)	2010	714	29
2011	591 (97%)	83 (3%)	2011	238 (98%)	22 (2%)	2011	612	87
2012	527 (96%)	102 (4%)	2012	224 (98%)	22 (2%)	2012	556	109
2013	479 (94%)	125 (6%)	2013	200 (96%)	32 (4%)	2013	507	137
2014	433 (92%)	149 (8%)	2014	187 (95%)	40 (5%)	2014	465	163
2015	404 (85%)	177 (15%)	2015	167 (89%)	55 (11%)	2015	441	204

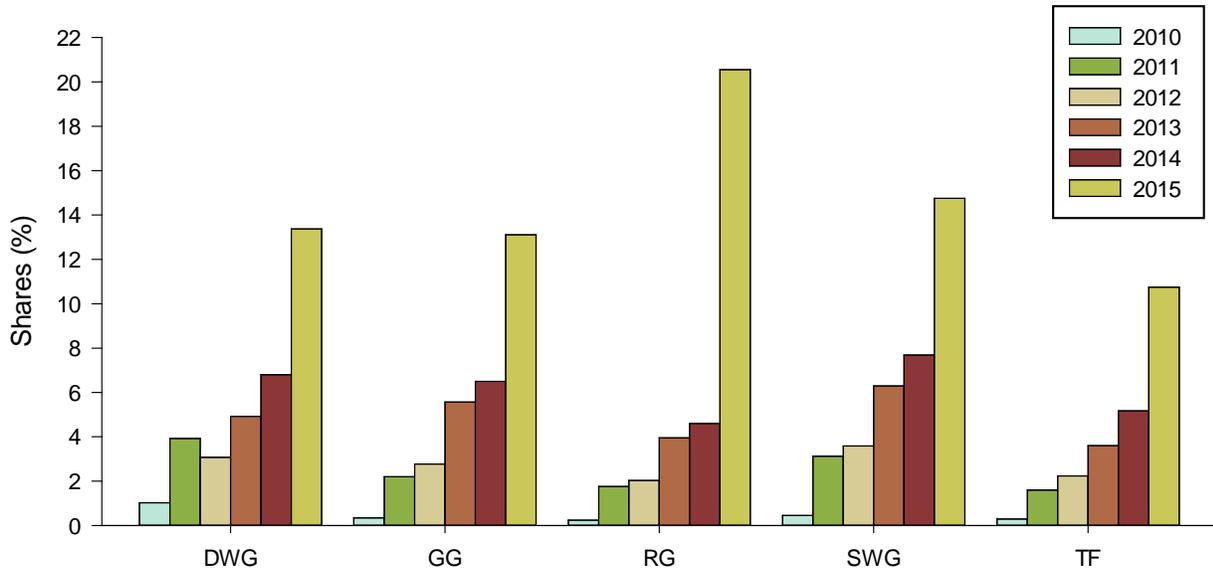


Figure 1. Shares held by accounts without Gulf reef fish permits

Allocation Holders

In the GT-IFQ program, an account holder may obtain allocation from shares (distributed at the beginning of the year or from any in-season quota increase) or from the transfer of allocation from another account holder. The number of accounts that hold allocation does not necessarily equal the number of accounts that land allocation, as not all accounts that hold allocation also hold a Gulf reef fish permit and some accounts may only transfer allocation. Accounts that hold allocation are termed allocation holders. The number of allocation holders is typically greater than the number of shareholders, and this difference has been increasing over time. In 2015, the number of allocation

holders increased from the previous year to 835 allocation holders, the largest number of allocation holders since the program began (Table 7). Within each share category, the number of allocation holders also increased, although they are still below the number of allocation holders at the beginning of the program (Table 7).

Table 7: Allocation holders by share status

DWG	N	With shares	With Transfer	GG	N	With shares	With Transfer
2010	512	472 (92%)	40 (8%)	2010	789	740 (94%)	49 (6%)
2011	521	445 (85%)	76 (15%)	2011	767	694 (90%)	73 (10%)
2012	498	416 (84%)	81 (16%)	2012	743	645 (87%)	98 (13%)
2013	465	384 (83%)	81 (17%)	2013	716	595 (83%)	121 (17%)
2014	457	365 (80%)	92 (20%)	2014	726	580 (80%)	146 (20%)
2015	464	351 (76%)	113 (24%)	2015	753	560 (74%)	193(26%)
RG	N	With shares	With Transfer	SWG	N	With shares	With Transfer
2010	744	690 (93%)	54 (7%)	2010	762	725 (95%)	37 (5%)
2011	739	675 (91%)	64 (9%)	2011	760	687 (90%)	73 (10%)
2012	715	605 (85%)	110 (15%)	2012	737	644 (87%)	93 (13%)
2013	683	563 (82%)	120 (18%)	2013	720	602 (84%)	118 (16%)
2014	689	544 (79%)	145 (21%)	2014	722	578 (80%)	144 (20%)
2015	716	522 (73%)	194 (27%)	2015	742	555 (75%)	187 (25%)
TF	N	With shares	With Transfer	ALL	N	With shares	With Transfer
2010	299	271 (91%)	28 (9%)	2010	816	765 (94%)	51 (6%)
2011	309	263 (85%)	46 (15%)	2011	833	756 (91%)	77 (9%)
2012	292	243 (83%)	49 (17%)	2012	812	701 (86%)	111 (14%)
2013	282	230 (82%)	52 (18%)	2013	786	659 (84%)	127 (16%)
2014	279	217 (78%)	62 (22%)	2014	795	639 (80%)	156 (20%)
2015	287	212 (74%)	75 (26%)	2015	835	620 (74%)	215 (26%)

Allocation holders can be classified as those holding shares and those without shares. Allocation holders without shares had to obtain allocation through the transfer of allocation from another account. Allocation holders with shares may also increase the amount of allocation within the account through the transfer of allocation from another account. At the start of the program, 94% of the allocation holders also held shares. This percentage has been declining over time, and in 2015, 74% of the allocation holders also held shares (Table 7). Within each share category, the same trend can be seen for the proportion of allocation holders without shares (Table 7). The continued decrease in allocation holders with shares may result from a variety of factors, for example, a shareholder may manage shares in related accounts,² be unable to buy shares (e.g., availability or price), change their harvesting behavior, and/or may be influenced by the RS-IFQ program. The RS-IFQ and GT-IFQ programs have a large amount of overlap; 85% of the vessels that landed at least one pound of GT-IFQ species also landed at least one pound of RS-IFQ species (Table 8). The multi-species harvest overlap observed in the reef fish complex likely contributes to the increased number of allocation holders in some share categories, as fishermen seek to reduce their bycatch and discards through allocation transfers. Quota

increases may also allow allocation to be indirectly distributed among more participants through transfers. As the quota increases, those with shares receive a larger amount of allocation than previously. If the allocation received by the fisherman is more than needed to land within that share category, they might transfer the allocation to another account that does not have shares, rather than land the allocation themselves.

Table 8: IFQ programs vessel overlap

Year	Percentage vessels also landing RS	Year	Percentage vessels also landing RS
2010	78%	2013	81%
2011	75%	2014	83%
2012	77%	2015	85%

Dealers

In 2015, the number of dealers that received and processed GT-IFQ species increased slightly from the previous year to 114 dealers (Table 9). Dealers can be classified by the percentage of annual GT-IFQ species landed with the dealer: small dealers purchased less than 1% of GT-IFQ landings, medium dealers between 1-3% of annual GT-IFQ landings, and large dealers greater than 3% of annual GT-IFQ landings. As in previous years, in 2015 the majority of dealers purchased a small proportion of the overall catch (Table 9). These small-sized dealers are likely fishermen who have obtained a GSAD dealer permit to eliminate the middleman and therefore reduce costs and increase profits. Currently, it is not possible to link ownership of a shareholder account to ownership of a dealer account, as accounts may be held under different names (e.g., business vs. individual name(s) vs. different business name). Personal communication with industry representatives indicated that there were fishermen who also owned dealer permits, but these were not limited to just small-sized dealers.

Table 9: Dealer accounts with landings by volume

Year	Total	Small <1% of landings	Medium 1-3% of landings	Large >3% of landings
2010	85	63 (74%)	15 (18%)	7 (8%)
2011	94	75 (80%)	12 (13%)	7 (7%)
2012	97	73 (75%)	16 (16%)	8 (8%)
2013	96	75 (78%)	11 (11%)	10 (10%)
2014	112	94 (84%)	7 (6%)	11 (10%)
2015	114	97 (85%)	7 (6%)	10 (9%)

Dealer size determined by percentage of annual IFQ landings by each dealer and may include multiple facilities.

Vessels

In 2015, the number of vessels landing GT-IFQ species increased slightly from the previous year, with 446 vessels landing GT-IFQ species (Table 10). Even with this increase, the number of vessels is still below the number that were harvesting GT-IFQ species prior to the program (n = 630). The GG, RG, and SWG share categories continue to have a greater number of vessels harvesting these species than the DWG or TF share categories (Table 10). Since the start of the program, vessels primarily landed their catch at Florida facilities and in 2015, Florida facilities received GT-IFQ species from 397 (89%) of the vessels participating in the program. As with accounts holding shares, there is a high degree of overlap landings among share categories for GT-IQ vessels. In 2015, 37% of the vessels landed species in at least three of the share categories, while just 10% landed in one category and 12% landed in all five share categories. This is not unexpected since many of the species in the reef fish fishery often co-occur and are harvested together.

Table 10: Vessels that harvested GT-IFQ species by region

DWG	N	FL	Other Gulf	GG	N	FL	Other Gulf	RG	N	FL	Other Gulf
Pre-IFQ	238	NA	NA	Pre-IFQ	493	NA	NA	Pre-IFQ	546	NA	NA
2010	187	142	59	2010	415	379	44	2010	393	383	11
2011	192	148	54	2011	363	336	29	2011	383	375	9
2012	206	165	52	2012	384	354	37	2012	398	386	13
2013	185	144	52	2013	367	334	40	2013	363	356	9
2014	186	143	47	2014	376	348	29	2014	384	371	13
2015	165	125	47	2015	374	347	32	2015	376	369	9
SWG	N	FL	Other Gulf	TF	N	FL	Other Gulf	ALL	N	FL	Other Gulf
Pre-IFQ	489	NA	NA	Pre-IFQ	166	NA	NA	Pre-IFQ	630	NA	NA
2010	322	284	54	2010	79	66	22	2010	452	401	64
2011	307	270	43	2011	75	59	23	2011	440	388	59
2012	343	304	52	2012	97	81	21	2012	449	398	61
2013	324	282	52	2013	78	61	23	2013	414	364	57
2014	353	310	46	2014	91	75	18	2014	434	386	51
2015	341	299	53	2015	86	66	24	2015	446	397	57

¹ The total number of vessels is less than the sum of vessels across states because some vessels land in multiple states. Pre-IFQ years are an annual average based on 2007-2009.

Program Activity

Share Transactions

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 were distributed at the start of the program to participants based on landings history. Shares can only be increased or decreased through share transfers. Share transfers in 2015 increased considerably from the previous year, as did the amount of shares transferred (Table 11). There were 606 share transfers in 2015, which is the second highest number of transfers within a year to date. The number of share transfers increased within

each share category in 2015, with the greatest increase occurring within the RG share category (n = 214 or 70 more than the previous year) (Table 11). The volume of shares transferred in 2015 was between 21% to 38% among the share categories (Table 11). These were the greatest volume of shares transferred for all share categories except SWG, although the 2015 volume was similar to the 2010 volume for SWG. Individual share transfers ranged between 0.00001% to 5%, with share category averages between 0.15% and 0.67%.

The number of share transfers and amounts transferred may have increased due to a variety of reasons. The Gulf Council is in the process of modifying both the RS-IFQ and GT-IFQ programs, and discussion at these meetings centered on concepts that may have influenced share transfers, such as inactivated accounts and related accounts. At the same time, the IFQ website began posting account holder names, status (initial vs active), and the amount of shares held by each account. This discussion and the posting of IFQ shareholders may have facilitated communication between activated and inactivated shareholders. These discussions have led to the activation of some accounts, which in turn may have led to the transfer of shares out of those accounts. The Gulf Council also discussed related accounts. Related accounts have at least one person in common among different accounts. Related accounts may be created to separate assets (e.g., shares held separately from the vessel), due to different business relationship (e.g., each vessel is incorporated separately), or other reasons. Discussions of such accounts may have led to more participants seeking to create related accounts to hold their shares, particularly as the restriction from opening an account without a permit was removed in 2015.

Table 11: Number and volume of share transfers

DWG	N	Total Shares	Average Shares	GG	N	Total Shares	Average Shares
2010	161	25.8	0.16	2010	256	24.0	0.09
2011	96	7.0	0.07	2011	138	18.8	0.14
2012	78	9.3	0.12	2012	129	14.8	0.12
2013	53	7.3	0.14	2013	88	5.5	0.06
2014	62	12.6	0.20	2014	106	19.2	0.18
2015	85	32.7	0.38	2015	153	24.7	0.16
RG	N	Total Shares	Average Shares	SWG	N	Total Shares	Average Shares
2010	267	24.3	0.09	2010	195	25.6	0.13
2011	168	13.5	0.08	2011	104	8.4	0.08
2012	202	17.2	0.08	2012	97	6.9	0.07
2013	145	13.7	0.09	2013	82	12.2	0.15
2014	144	14.2	0.10	2014	63	10.6	0.17
2015	214	32.9	0.15	2015	97	21.6	0.22
TF	N	Total Shares	Average Shares	ALL	N	Total Shares	Average Shares
2010	91	31.6	0.35	2010	970	131.30	0.14
2011	59	9.0	0.15	2011	565	56.62	0.10
2012	44	11.8	0.27	2012	550	59.97	0.11
2013	29	5.5	0.19	2013	397	44.34	0.11
2014	34	16.3	0.48	2014	409	72.94	0.18
2015	57	38.2	0.67	2015	606	150.17	0.25

Allocation Transactions

Annual GT-IFQ allocation is the actual poundage each IFQ account can use to possess, land, and/or transfer during a given calendar year. Individual units of allocation cannot be tracked in the system (e.g., the same pounds may be transferred multiple times). Only allocation transfers between shareholder accounts were analyzed in this report, and not transfers within accounts (e.g., shareholder account to vessel account). While the number of allocation transfers were similar in 2015 to the previous year with 6,813 transfers, the amount of allocation transfer increased considerably from the previous year (Table 12). The amount of pounds transferred in 2015 was the greatest to date with just over 15 million pounds (mp) transferred (Table 12). Within each share category, the amount of allocation transferred exceeded the quota for that share category with between 110% (SWG) to 294% (DWG) of the quota transferred. This was the first year that the allocation transfers for SWG exceed the SWG quota, while both the DWG and TF allocation transfers exceed the respective quotas by more than 200% (Table 12). While allocation transfers ranged between one pound and 150,000 lb, the average number of pounds transferred ranged between 532 lb (SWG) and 3,609 lb (DWG).

Table 12: Number and volume of allocation transfers

DWG	N	Lb.	Avg. lb.	% quota	GG	N	Lb.	Avg. lb.	% quota
2010	490	1,027,477	2,097	101%	2010	945	743,266	787	53%
2011	632	1,447,229	2,290	142%	2011	1,250	332,049	266	77%
2012	764	1,524,618	1,996	135%	2012	1,745	503,899	289	89%
2013	608	1,762,344	2,899	158%	2013	1,718	621,594	362	88%
2014	846	2,370,757	2,802	214%	2014	2,232	1,236,126	554	148%
2015	898	3,240,557	3,609	294%	2015	1,847	1,255,383	680	134%
RG	N	Lb.	Avg. lb.	% quota	SWG	N	Lb.	Avg. lb.	% quota
2010	1,065	3,217,048	3,021	56%	2010	616	315,042	511	77%
2011	1,550	4,260,483	2,749	81%	2011	568	272,816	480	67%
2012	1,906	4,736,612	2,485	88%	2012	900	365,563	406	72%
2013	1,752	5,579,299	3,185	101%	2013	911	493,144	541	95%
2014	2,317	7,187,959	3,102	128%	2014	1,000	506,556	507	97%
2015	2,480	8,654,733	3,490	151%	2015	1,084	576,714	532	110%
TF	N	Lb.	Avg. lb.	% quota	ALL	N	Lb.	% quota	
2010	268	489,585	1,827	111%	2010	3,384	5,792,418	64%	
2011	328	765,586	2,334	174%	2011	4,328	7,078,163	94%	
2012	385	685,980	1,782	118%	2012	5,700	7,816,672	96%	
2013	291	933,105	3,207	160%	2013	5,280	9,389,486	111%	
2014	430	1,255,737	2,920	216%	2014	6,825	12,557,135	145%	
2015	504	1,411,779	2,801	243%	2015	6,813	15,139,166	171%	

Allocation Activity

Account activity (active vs. inactive) can be determined through analyzing allocation transactions. An account is considered active if the account landed, sold, and/or bought allocation during that fishing year. Accounts may be inactive due to several reasons: inactivated accounts (never accessed), shares resulting in negligible pounds for harvest or sale (e.g., 1-5 lb), or inability to harvest (e.g., vessel in dry dock). Each year, the account status was determined based on an account's activity within that year. Active accounts can be classified as those landing allocation and those that only transfer allocation. Accounts that landed allocation may have also transferred allocation into or out of the account. There are a variety of reasons why an account holder may only transfer allocation: account holder could not harvest allocation (e.g., no permit, vessel inoperative), allocation was transferred to a related account, account holder had insufficient allocation to harvest (e.g., shares resulted in only a few pounds of allocation), and/or greater profit could be earned from selling than harvesting the allocation. Accounts without a reef fish permit may not land GT-IFQ species, and therefore can only transfer allocation. Prior to 2015, accounts without permits could only transfer out allocation and could not transfer in allocation.

In 2015, the proportion of inactive accounts within each share category was similar to the previous year (Table 13). The proportion of inactive accounts within the TF share category increased slightly more than in other share categories, but the increase was still marginal (Table 13). The number of inactive accounts still remains high with between 22% to 30% of the accounts inactive. In comparison, the RS-IFQ program has only 12% of the allocation accounts inactive. While it was expected that the Gulf Council discussions about inactive accounts may have resulted in a decrease in inactive accounts, this was not seen in 2015 for the GT-IFQ program. In 2015, the proportion of accounts that were landing GT-IFQ species was less than 50% in all share categories (Table 13). Only the GG (45%) and RG (48%) categories had nearly 50% of the accounts landing GT-IFQ species.

Table 13: Accounts by activity

DWG	N	Inactive	Landings	GG	N	Inactive	Landings	RG	N	Inactive	Landings
2010	512	169 (33%)	161 (31%)	2010	789	244 (31%)	362 (46%)	2010	744	222 (30%)	348 (47%)
2011	521	140 (27%)	169 (32%)	2011	767	221 (29%)	323 (42%)	2011	739	184 (25%)	344 (47%)
2012	498	104 (21%)	185 (37%)	2012	743	184 (25%)	344 (46%)	2012	715	167 (23%)	357 (50%)
2013	465	115 (25%)	168 (36%)	2013	716	206 (29%)	336 (47%)	2013	683	171 (25%)	332 (49%)
2014	457	103 (23%)	168 (37%)	2014	726	187 (26%)	340 (47%)	2014	689	153 (22%)	349 (51%)
2015	464	109 (23%)	152 (33%)	2015	753	206 (27%)	337 (45%)	2015	716	166 (23%)	342 (48%)
SWG	N	Inactive	Landings	TF	N	Inactive	Landings				
2010	762	277 (36%)	282 (37%)	2010	299	101 (34%)	66 (22%)				
2011	760	261 (34%)	272 (36%)	2011	309	77 (25%)	68 (22%)				
2012	737	220 (30%)	303 (41%)	2012	292	59 (20%)	87 (30%)				
2013	720	233 (32%)	297 (41%)	2013	282	70 (25%)	76 (27%)				
2014	722	208 (29%)	324 (45%)	2014	279	54 (19%)	83 (30%)				
2015	742	223 (30%)	311 (42%)	2015	287	64 (22%)	79 (28%)				

N indicates the number of accounts with allocation.

Of the accounts that landed allocation, most of the share categories had at least or greater than 50% of the 2015 landings coming from accounts that also held shares (Table 14). Within the TF share category, only 40% of the landings came from accounts that also held shares. Within all share categories, the proportion of landings from accounts with shares decreased in 2015, continuing a trend seen in all share categories since the start of the program (Table 14). While this appears to show a growing disconnect between accounts with shares and those that land those shares, these data must be interpreted with caution. As stated earlier, many accounts are related to other accounts and conversations with industry representatives have indicated that some fishermen purposely separate their shares from the account landing the allocation.

Table 14: Landings by share status

DWG	w/ shares		w/o shares		GG	w/ shares		w/o shares	
2010	602,749 lb	96%	22,013 lb	4%	2010	473,362 lb	96%	20,576 lb	4%
2011	701,273 lb	90%	78,246 lb	10%	2011	286,560 lb	90%	33,577 lb	10%
2012	806,041 lb	84%	157,794 lb	16%	2012	436,556 lb	83%	88,510 lb	17%
2013	562,498 lb	62%	350,425 lb	38%	2013	470,701 lb	81%	108,963 lb	19%
2014	576,636 lb	55%	471,506 lb	45%	2014	450,465 lb	65%	239,048 lb	35%
2015	458,548 lb	50%	452,791 lb	50%	2015	356,593 lb	64%	198,348 lb	36%
RG	w/ shares		w/o shares		SWG	w/ shares		w/o shares	
2010	2,800,064 lb	96%	113,794 lb	4%	2010	155,091 lb	98%	3,143 lb	2%
2011	4,397,093 lb	92%	385,101 lb	8%	2011	170,156 lb	91%	16,079 lb	9%
2012	4,513,535 lb	87%	703,670 lb	13%	2012	256,643 lb	85%	43,724 lb	15%
2013	3,688,461 lb	80%	906,211 lb	20%	2013	242,464 lb	79%	65,382 lb	21%
2014	3,609,728 lb	66%	1,888,265 lb	34%	2014	193,570 lb	74%	69,681 lb	26%
2015	2,943,654 lb	62%	1,841,338 lb	38%	2015	193,160 lb	68%	89,178 lb	32%
TF	w/ shares		w/o shares						
2010	246,987 lb	99%	2,721 lb	1%					
2011	330,997 lb	86%	55,137 lb	14%					
2012	350,670 lb	78%	100,451 lb	22%					
2013	219,869 lb	50%	220,222 lb	50%					
2014	214,600 lb	41%	302,668 lb	59%					
2015	214,554 lb	40%	322,958 lb	60%					

Since the start of the program, there has been a high percentage (23% to 44%) of accounts that only transfer allocation (no landings) (Table 15). The majority of the accounts that only transfer allocation held both shares and reef fish permits (Table 15). Previous to 2015, accounts without Gulf reef fish permits were restricted from receiving allocation from another shareholder. Therefore, prior to 2015 there could not be an account without shares and without a reef fish permit that could transfer allocation. In 2015, there were a small number of accounts without shares and without a reef fish permit that were only transferring allocation. Between 7 to 16 of these accounts, among the different share categories, transferred between 6-14% of the allocation from all accounts that only transferred allocation (Table 15). The total amount of pounds transferred from these accounts was between 12,432 lb (SWG) to 632,466 lb (RG). These accounts without shares and without a Gulf reef fish permit may have been acting as brokerage accounts, obtaining allocation solely to transfer it to other accounts, or these accounts may have related accounts and are being used to temporarily hold allocation. Currently, there

is no method to determine which accounts are related or any established method to distinguish accounts that act as brokers.

Table 15: Number and volume of accounts only transferring allocation

DWG	N	Shares		No Shares		GG	N	Shares		No Shares	
		Permit	No permit	Permit	No permit			Permit	No permit	Permit	No permit
2010	182 (36%)	148	7	27	NA	2010	183 (23%)	156	14	13	NA
2011	212 (41%)	142	30	40	NA	2011	223 (29%)	164	35	24	NA
2012	209 (42%)	147	30	32	NA	2012	215 (29%)	156	37	22	NA
2013	182 (39%)	126	24	32	NA	2013	174 (24%)	123	33	18	NA
2014	186 (41%)	128	29	29	NA	2014	199 (27%)	137	38	24	NA
2015	203 (44%)	114	35	43	11	2015	210 (28%)	110	47	41	12

RG	N	Shares		No Shares		SWG	N	Shares		No Shares	
		Permit	No permit	Permit	No permit			Permit	No permit	Permit	No permit
2010	174 (23%)	144	12	18	NA	2010	203 (27%)	172	14	17	NA
2011	211 (29%)	156	37	18	NA	2011	227 (30%)	162	36	29	NA
2012	191 (27%)	136	34	21	NA	2012	214 (29%)	155	37	22	NA
2013	180 (26%)	122	31	27	NA	2013	190 (26%)	121	34	35	NA
2014	187 (27%)	127	39	20	NA	2014	190 (26%)	126	39	25	NA
2015	208 (29%)	110	46	36	16	2015	208 (28%)	106	44	46	12

TF	N	Shares		No Shares	
		Permit	No permit	Permit	No permit
2010	132 (44%)	105	3	24	NA
2011	164 (53%)	111	20	33	NA
2012	146 (50%)	105	18	23	NA
2013	136 (48%)	97	11	28	NA
2014	142 (51%)	98	18	26	NA
2015	144 (50%)	82	25	30	7

Note: N indicates the number of accounts only transferring allocation. The percentage under N indicates the percentage of these accounts out of all accounts with allocation. The percentage in the remaining column indicates the percentage of accounts only trading allocation.

Commercial Quota and Landings

Quota

The quotas for the GT-IFQ program are lb gw and all allocation and landings are reported in lb gw. Adjustments in quota can occur if the status of a stock changes as a result of new assessments or through the reallocation of quota between fishing sectors. Adjustments can occur at the start of the fishing season or during the fishing season. DWG, SWG, and TG quotas have increased slightly compared to the pre-IFQ 2009 quota (Table 16). The RG quota decreased in 2011 by 1.43 mp, but increased in November of that year and continued to increase thereafter (Table 16). The RG quota in 2015 was slightly less than prior to the GT-IFQ program. While the GG quota initially increased in the first year of the GT-IFQ, it decreased by 1.31. mp in 2011 (Table 16). The GG quota has increased each year thereafter, but as of 2015 it was just below 1 mp. In-season quota adjustments occurred in 2011 for GG and RG share categories, and in 2012 for DWG, GG, SWG, and TF share categories. In 2015, the DWG quota decreased from 1.11 mp in 2014 to 1.101 mp in 2015, while the GG, RG, and SWG quotas

increased (Table 16). The GG quota increased by 104,000 lb, the RG by 90,000 lb, and the SWG by 2,000 lb (Table 16). The TF quota remained the same at 582,000 lb. There were no in-season quota increases in 2015.

Table 16: IFQ commercial quota

DWG	Jan 1	Quota Increase	Increase Date	Dec 31	GG	Jan 1	Quota Increase	Increase Date	Dec 31
2009*	1,020,000			1,020,000	2009*	1,320,000 ¹			1,320,000
2010	1,020,000			1,020,000	2010	1,410,000			1,410,000
2011	1,020,000			1,020,000	2011	100,000	330,000	6/1	430,000
2012	1,020,000	107,000	1/30	1,127,000	2012	430,000	137,000	3/12	567,000
2013	1,118,000			1,118,000	2013	708,000			708,000
2014	1,110,000			1,110,000	2014	835,000			835,000
2015	1,101,000			1,101,000	2015	939,000			939,000

RG	Jan 1	Quota Increase	Increase Date	Dec 31	SWG	Jan 1	Quota Increase	Increase Date	Dec 31
2009*	5,750,000 ¹			5,750,000	2009*	410,000 ¹			410,000
2010	5,750,000			5,750,000	2010	410,000			410,000
2011	4,320,000	910,000	11/2	5,230,000	2011	410,000			410,000
2012	5,370,000			5,370,000	2012	410,000	99,000	1/30	509,000
2013	5,530,000			5,530,000	2013	518,000			518,000
2014	5,630,000			5,630,000	2014	523,000			523,000
2015	5,720,000			5,720,000	2015	525,000			525,000

TF	Jan 1	Quota Increase	Increase Date	Dec 31
2009*	440,000			440,000
2010	440,000			440,000
2011	440,000			440,000
2012	440,000	142,000	1/30	582,000
2013	582,000			582,000
2014	582,000			582,000
2015	582,000			582,000

* Indicates the quota in the year prior to the GT-IFQ Program.
¹ The total shallow-water grouper quota was an aggregate of the other shallow-water species, red grouper, and gag which was 7.48 mp in 2009. In this table, the gag and red grouper individual quotas are listed, while the remainder of the aggregate quota is listed as the SWG quota.

Landings

The percentage of the quota landed varies yearly and among the share categories (Table 17). The first year of the program, which also coincided with the Deepwater Horizon oil spill, had only 49% of the program's entire quota landed. This was due mostly to closures of fishing areas (Appendix 3). In 2015, 80% of the program's quota (7.071 mp) was landed, which was less than the previous year in which 8.02 mp were landed (Table 17). Per share category the percentage of quota landed and the pounds landed decreased from the previous year for DWG, GG, and RG.

In 2015, peak landings occurred primarily in the spring and summer months from March through July. Peak landings occurred in March for GG, RG, and TF, while peak landings occurred in June for DWG and SWG (Table 18). With the exception of 2010 when landings were influenced by the Deepwater Horizon (DWH) oil spill and the subsequent fishery closures (Appendix 3), the landings patterns have been consistent with increased GG and RG landings in the early part of the year, followed by increased

DWG and TF landings mid to late year (Figure 2). SWG landings are consistent through most of the year. Increased landings in December were observed in all share categories as commercial fishermen sought to harvest unused allocation before the end of the fishing season.

Table 17: Annual Landings

DWG	Landings	% Quota	GG	Landings	% Quota
2010	624,762	61%	2010	493,938	35%
2011	779,519	76%	2011	320,137	74%
2012	963,835	86%	2012	525,066	93%
2013	912,923	82%	2013	579,664	82%
2014	1,048,142	94%	2014	689,513	83%
2015	911,339	83%	2015	554,941	59%
RG	Landings	% Quota	SWG	Landings	% Quota
2010	2,913,858	51%	2010	158,234	39%
2011	4,782,194	91%	2011	186,235	45%
2012	5,217,205	97%	2012	300,367	59%
2013	4,594,672	83%	2013	307,846	59%
2014	5,497,993	98%	2014	263,251	50%
2015	4,784,992	84%	2015	282,338	54%
TF	Landings	% Quota	All	Landings	% Quota
2010	249,708	57%	2010	4,440,500	49%
2011	386,134	88%	2011	6,454,219	86%
2012	451,121	78%	2012	7,457,594	91%
2013	440,091	76%	2013	6,835,196	81%
2014	517,268	89%	2014	8,016,167	92%
2015	537,512	92%	2015	7,071,122	80%

Table 18: 2015 Monthly landings

	DWG	GG	RG	SWG	TF	ALL
Jan	49,141	38,717	346,553	17,726	26,292	478,429
Feb	30,201	40,135	377,266	16,604	25,885	490,091
Mar	70,793	68,525	586,891	28,584	60,672	815,465
Apr	113,801	48,889	563,888	22,090	53,782	802,450
May	92,505	56,515	397,064	26,645	34,327	607,056
Jun	132,601	65,145	330,577	37,722	54,986	621,031
Jul	105,722	37,457	240,003	26,372	46,521	456,075
Aug	75,875	34,054	287,456	27,986	47,284	472,655
Sept	57,064	22,785	493,225	9,690	25,380	608,144
Oct	60,078	21,120	320,964	11,750	55,348	469,260
Nov	38,770	39,099	354,287	22,307	45,084	499,547
Dec	84,788	82,500	486,818	34,862	61,951	750,919

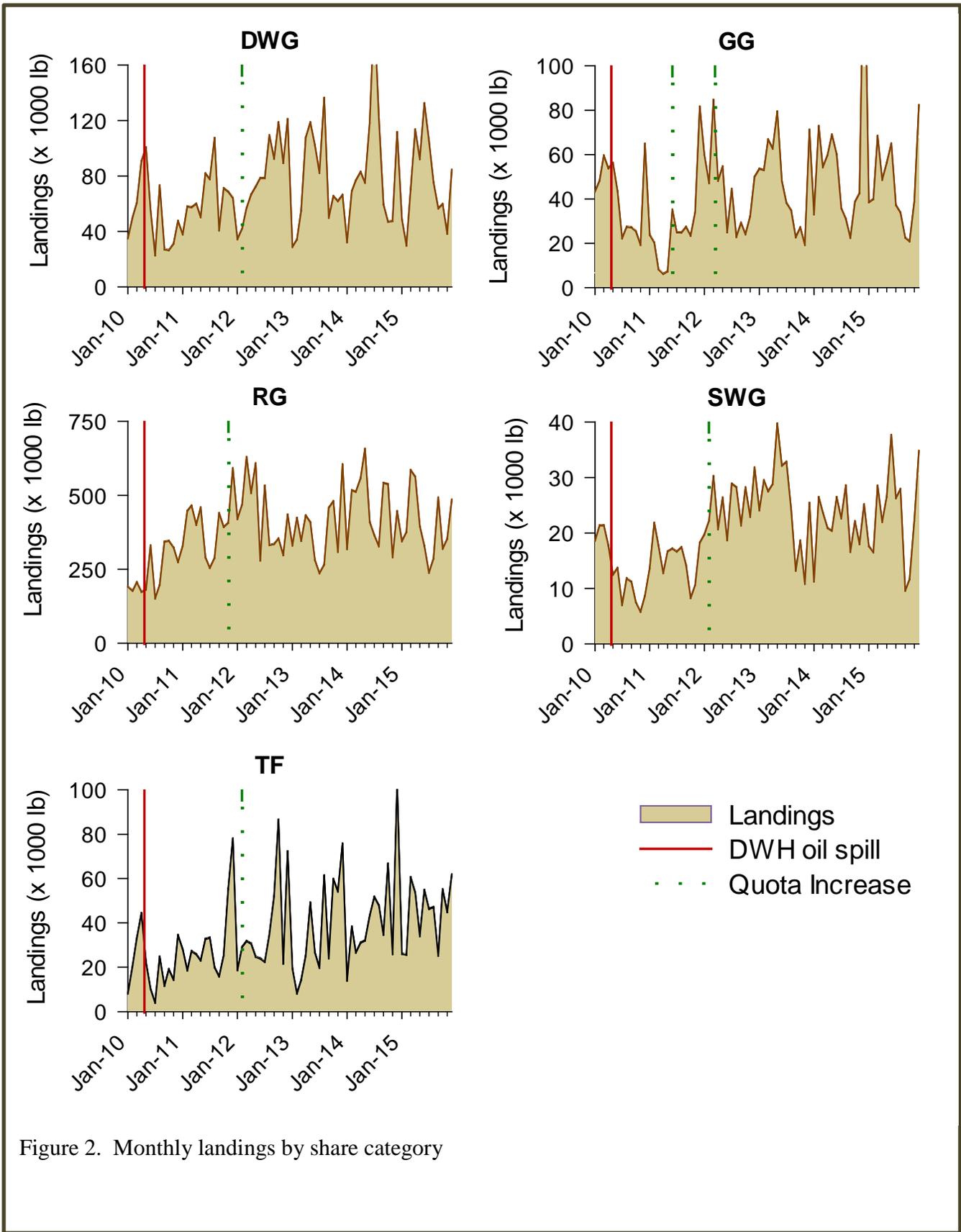


Figure 2. Monthly landings by share category

Landings by Species

Three of the share categories (DWG, SWG, and TF) contain multiple species. One species within each of these categories comprises the majority of the landings for that share category (Table 19, Figure 3). Landings may be strongly influenced by social and economic factors such as, share price, allocation price, allocation availability, market desirability, and ex-vessel price for these species within the IFQ program. All the species in a category use the same shares and allocation, although landings and ex-vessel prices may differ among these species. Differences in ex-vessel price among species within the same share category may influence the fishing behavior as fishermen target species that receive a higher ex-vessel price. While this may occur in non-catch share fisheries, this behavior may be magnified due to the allocation costs and availability. If a fishermen has limited allocation available, they may change effort to harvest the fish with a higher ex-vessel value to maximize their economic benefits.

DWG species

The DWG share category contains four species: snowy grouper, speckled hind, warsaw grouper, and yellowedge grouper. During the program, yellowedge grouper accounted for 70-77% of the DWG landings, followed by snowy grouper which accounted for 11-17% of the landings (Table 19, Figure 3). Both warsaw grouper and speckled hind landings were typically less than 10% each year. In 2015, all four species' landings were less than the previous year (Table 19). Warsaw grouper landings have been decreasing for the last three years and further research should be directed towards understanding these decreased landings.

SWG species

The SWG share category contains four species: black grouper, scamp, yellowfin grouper, and yellowmouth grouper. During the program, scamp accounted for 70-80% of the SWG landings, followed by black grouper with 11-26% of the landings, while yellowfin grouper and yellowmouth grouper are each less than 1% of the landings (Table 19, Figure 3). The landings of species within SWG have changed with the start of the GT-IFQ program, with an increased proportion of scamp landings and decreased proportion of black grouper and yellowfin grouper landings. Yellowfin grouper landings pre-IFQ consisted of 2% of the SWG landings but decreased to less than 1% during the GT-IFQ years. Black grouper landings pre-IFQ consisted of 36% of the SWG landings, but decreased at the start of the GT-IFQ program to 12%. The black grouper landings then increased to 26% in 2014 and 23% in 2015 (Table 19, Figure 3). In 2015, scamp had greater landings (0.182 mp) than the previous year (0.168 mp), while the remaining species landings were less than the previous year (Table 19).

TF species

The TF share category contains three species: golden tilefish, blueline tilefish, and goldface tilefish. During the program golden tilefish accounted for 67-90% of the TF landings, followed by blueline tilefish with 9-18%, and goldface tilefish with less than 1% to 23% (Table 20, Figure 3). The landings

of species within TF have changed with the start of the GT-IFQ program, with a near reversal in proportions of golden tilefish and blueline tilefish. Prior to the GT-IFQ program, blueline tilefish composed 74% of the TF landings, but this dropped to 9% at the start of the program (Table 20, Figure 3). Since the start of the program, blueline tilefish have not comprised more than 18% of the TF landings. In contrast, golden tilefish pre-IFQ comprised only 26% of the TF landings, but increased to 68% in the first year of the GT-IFQ program. Thereafter, golden tilefish landings continued to compromise an increasing proportion of the TF landings (Table 20, Figure 3).

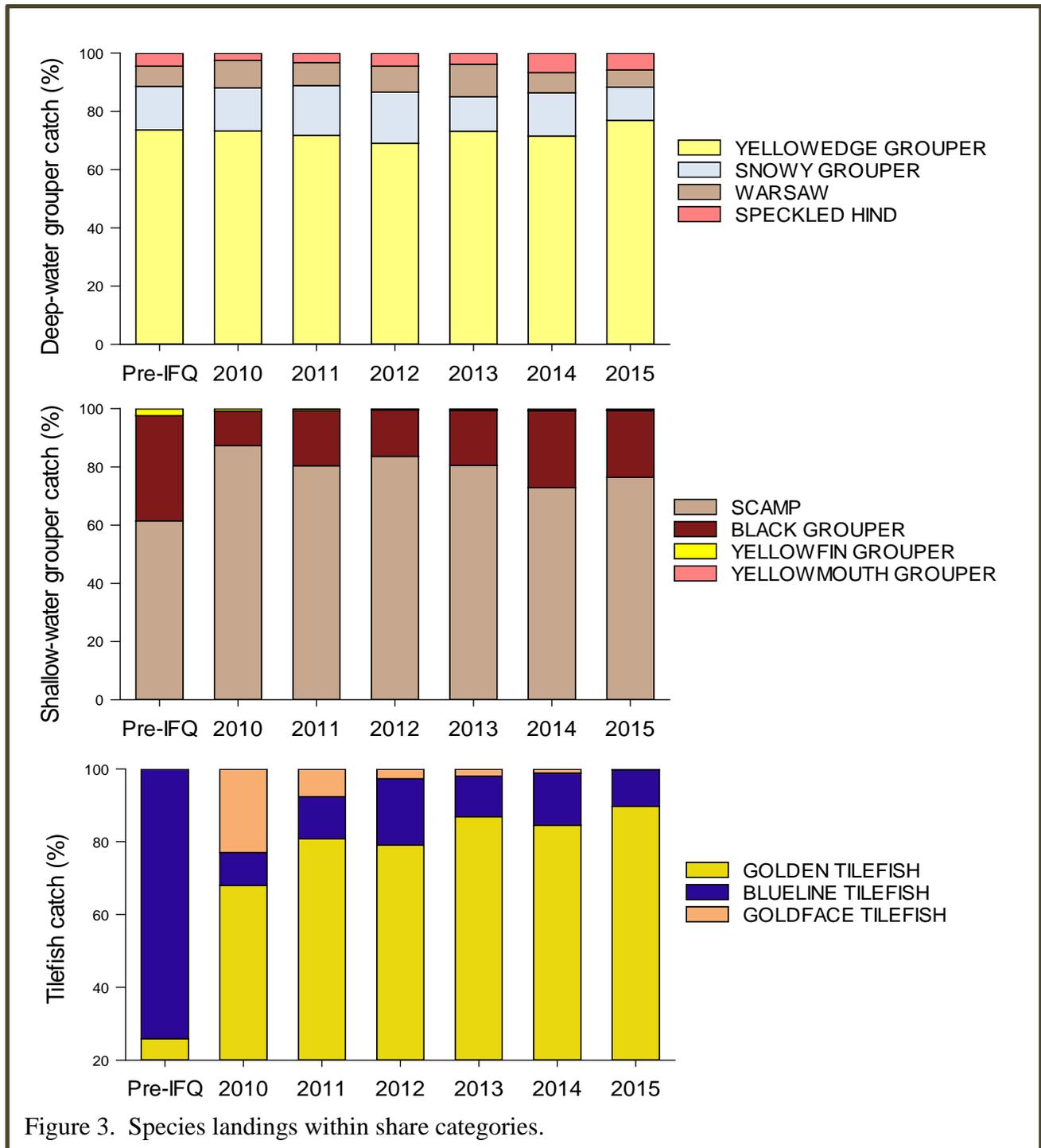


Figure 3. Species landings within share categories.

Table 19: Landings by species

Cat.	Species	Pre-IFQ¹	2010	2011	2012	2013	2014	2015
DWG	Snowy grouper	161,175	90,180	132,971	168,759	108,689	159,857	108,980
	Speckled hind	47,913	15,359	24,925	43,344	34,922	72,241	55,550
	Warsaw grouper	74,476	56,496	61,661	86,212	103,074	75,426	55,502
	Yellowedge grouper	792,055	443,887	558,908	667,785	673,349	773,621	735,218
GG	Gag	952,555	496,826	318,663	523,138	575,335	586,377	542,774
RG	Red grouper	3,910,083	2,910,970	4,783,668	5,219,133	4,599,001	5,601,905	4,797,159
SWG	Black grouper	156,778	20,905	34,970	47,537	56,750	60,555	54,831
	Scamp	266,193	153,533	149,286	249,320	242,170	167,840	182,108
	Yellowfin grouper	10,122	1,394	945	739	856	568	442
	Yellowmouth grouper	466	85	548	506	959	1,285	1,046
TF	Blueline tilefish	123,072	22,555	44,841	82,025	49,454	74,221	53,681
	Golden tilefish	352,080	169,031	311,848	356,846	381,947	436,921	482,046
	Goldface tilefish ²	NA	57,169	29,445	12,250	8,690	6,126	1,785

¹ Pre-IFQ data from the SEFSC Coastal Logbook records as of 4/25/2016 and therefore may not contain the complete 2015 data. RS-IFQ annual values were averaged over three years: 2007-2009.

² Goldface tilefish were grouped with unclassified tilefish prior to the start of the GT-IFQ program.

³ Pounds are by species and not the share category the species of landing.

Goldface tilefish in the first year of the GT-IFQ program comprised 23% of the TF landings, but in the following years decreased considerably and now account for less than 1% of the TG landings (Table 19, Figure 3). In 2015, golden tilefish had greater landings (0.482 mp) than the previous year (0.436 mp), but blueline and goldface tilefish landings decreased (Table 19).

Multi-use for gag and red grouper species

A portion of the gag or red grouper allocation may be reserved each year for multi-use allocation, which may be used to land either gag or red grouper. The multi-use provision is to ensure that there may be allocation to use if either gag or red grouper are landed as incidental catch. The percentage of multi-use may change each year and may even be zero (Table 20). Since 2013, the red grouper multi-use (RGM) and gag multi-use (GGM) allocation was based on formulas (see below) utilizing the commercial quota and the annual catch limits for gag and red grouper. If either stock is under a rebuilding plan, the percentage of the other species multi-use allocation will equal zero. Multi-use allocation cannot be used until all the species-specific allocation has been landed or transferred, including allocation in shareholder and all associated vessel(s) accounts. For example, gag may not be landed under GGM or RGM unless there is no GG allocation remaining in the shareholder and associated vessel(s) accounts. Similarly, multi-use allocation may only be transferred after landing or transferring all the corresponding species-specific allocation in the shareholder and associated vessel(s) accounts

Table 20: Multi-use allocation

Year	GGM	RGM
2010	8%	4%
2011	8%	NA
2012	8%	NA
2013	70%	NA
2014	47%	NA
2015	33%	4.8%

$$RGM \text{ allocation} = 100 * \frac{(Gag \text{ ACL} - Gag \text{ Commercial Quota})}{Red \text{ Grouper Commercial Quota}}$$

$$GGM \text{ allocation} = 100 * \frac{(Red \text{ Grouper ACL} - Red \text{ Grouper Commercial Quota})}{Gag \text{ Commercial Quota}}$$

In 2015, the RGM was set to 33% of the RG quota while the GGM was set to 4.8% of the GG quota. This was the first time since 2010 that there was RGM. There was no RGM allocation from 2011-2014 because gag was under a rebuilding plan. Analysis of how multi-use quota is used in the IFQ system revealed that the majority of the multi-use allocation is used for the main species. For example, in 2010 72% of the GGM allocation was used to harvest gag, while only 28% was used to harvest red grouper (Table 21). In 2015, 74% of the GGM allocation (92,661 lb) was used to harvest gag, while 26% was used to harvest red grouper. Likewise, 82% of the RGM was used to harvest red grouper, while 18% was used to harvest gag (Table 21).

Table 21: Percentage of Multi-use Landings

Year	RGM		GGM	
	Red Grouper	Gag	Red Grouper	Gag
2010	73% (13,833 lb)	27% (5,091 lb)	28% (2,203 lb)	72% (5,654 lb)
2011	NA	NA	14% (1,474 lb)	86% (8,700 lb)
2012	NA	NA	6% (1,928 lb)	94% (32,230 lb)
2013	NA	NA	1% (4,329 lb)	99% (376,528 lb)
2014	NA	NA	35% (103,151 lb)	65% (188,950 lb)
2015	82% (98,466 lb)	18% (20,998 lb)	26% (33,165 lb)	74% (92,661 lb)

Remaining Allocation

At the end of each year on December 31, any remaining allocation in an account expires. In 2015, 76% of the accounts (635 accounts) had at least one pound of GT-IFQ allocation remaining, for a total of 1.80 mp (Table 22). Within share categories, the percentage of accounts with remaining allocation in 2015 ranged between 42% (TF) to 69% (GG) (Table 22). This remaining allocation consisted of 8% (TF) to 46% (SWG) of the quota per share category (Table 22). Compared to the previous year, there were more accounts that had remaining allocation. Of the accounts with remaining allocation, 60% of those accounts were active (landed or transferred allocation), and these accounts contained the majority of the

Table 22: Number of accounts with remaining allocation and volume by activity status

DWG	Lb	Acct	% quota	Inact. lb	Inact. Acct	GG	Lb	Acct	% quota	Inact. lb	Inact. Acct
2010	395,615	390	39	64,601	169	2010	916,034	706	65	114,277	257
2011	240,703	283	24	15,731	140	2011	109,780	531	26	17,991	259
2012	163,126	235	14	11,177	103	2012	41,981	425	7	11,808	221
2013	205,088	253	18	14,192	115	2013	128,169	467	18	21,471	217
2014	62,405	195	6	5,406	103	2014	145,486	418	17	17,536	196
2015	189,347	238	17	8,411	109	2015	384,151	519	41	51,875	232
RG	Lb	Acct	% quota	Inact. lb	Inact. Acct	SWG	Lb	Acct	% quota	Inact. lb	Inact. Acct
2010	2,835,405	666	49	343,665	235	2010	251,503	630	61	33,961	277
2011	448,926	501	9	64,216	184	2011	223,743	513	55	22,514	261
2012	152,249	356	3	38,159	167	2012	208,450	441	41	22,711	220
2013	935,526	441	17	62,605	171	2013	210,129	493	41	20,999	233
2014	132,651	317	2	46,907	153	2014	259,689	461	50	20,948	208
2015	935,240	478	16	58,501	190	2015	242,619	499	46	26,732	223
TF	Lb	Acct	% quota	Inact. lb	Inact. Acct	ALL	Lb	Acct	% quota	Inact. lb	Inact. Acct
2010	190,857	219	43	59,798	101	2010	4,589,414	750	51	453,584	245
2011	53,920	142	12	5,343	77	2011	1,077,088	667	14	96,463	260
2012	130,903	130	22	5,951	59	2012	696,709	596	9	75,785	254
2013	141,968	148	24	11,614	70	2013	1,620,880	608	19	110,513	244
2014	64,855	113	11	2,380	54	2014	665,086	561	8	85,800	232
2015	44,613	122	8	4,410	64	2015	1,795,970	635	20	109,014	251

remaining allocation (Table 22). This pattern is similar to previous years. Within share categories, more than half of the accounts with remaining allocation were active accounts and those accounts contained the majority of the remaining allocation.

A flexibility overage measure allows accounts that hold shares to land in excess of their allocation once per category per year. This overage measure allows one of the shareholder's vessels to land 10% more allocation for that category than was on the vessel at that point in time. These overages typically occur late in the year, as there must be no allocation in the shareholder account for the overage measure to take effect. Any overage will be deducted from the shareholder's allocation in the following year. Each year, a small number of accounts (less than or equal to 50 accounts) have overages (Table 23). Share category overages were less than 0.1% of the quota for that share category. Average overages per share category were as low as 8 lb (SWG, 2015) and as great as 1,139 lb (RG, 2011) (Table 23). In 2015, there were only 16 accounts that used the overage provision, which consisted of 1,255 lb for the entire program. Overages were utilized in all 5 share categories (Table 23). The average 2015 overage across the program was 78 lb, with a median of 35 lb (Table 23).

Table 23: Number of accounts with overages and associated volume

DWG	Acct	Lb	Average lb	Median lb	GG	Acct	Lb	Average lb	Median lb
2010	2	31	16	16	2010	5	372	74	49
2011	8	260	33	22	2011	20	206	10	3
2012	2	88	44	44	2012	24	263	11	5
2013	4	30	8	5	2013	9	79	9	4
2014	5	491	98	4	2014	3	14	5	4
2015	4	325	81	57	2015	4	25	6	6
RG	Acct	Lb	Average lb	Median lb	SWG	Acct	Lb	Average lb b	Median lb
2010	14	52	52	26	2010	0	0	0	0
2011	13	1,139	1,139	31	2011	8	253	32	16
2012	9	236	236	6	2012	7	69	10	6
2013	4	85	85	8	2013	6	113	19	2
2014	6	833	833	79	2014	4	43	11	3
2015	6	688	688	41	2015	2	8	4	4
TF	Acct	Lb	Average lb	Median lb	ALL	Acct	Lb	Average lb	Median lb
2010	0	0	0	0	2010	9	455	51	26
2011	3	22	7	7	2011	48	1,880	39	10
2012	0	0	0	0	2012	33	656	20	10
2013	3	17	6	4	2013	23	324	14	4
2014	3	127	42	32	2014	19	1,508	79	30
2015	2	209	105	105	2015	16	1,255	78	35

Effort and Discards

Effort was categorized by analyzing the number of trips that caught at least one pound of GT-IFQ species, days at sea (days away), and the average landings of GT-IFQ species on those trips. Note: values were not adjusted for misidentified species (e.g., gag as black grouper). This analysis used the

Southeast Fisheries Science Center's (SEFSC) coastal logbook records for 2007-2015 accessed on 4/25/2016. These values may change due to late reporting of logbooks. Due to the multi-species nature of the reef fish fishery, effort data on a share category may be influenced by the targeted species for each trip. This information was not utilized as the analysis was by share category and not by species. The total number of trips taken to harvest GT-IFQ species and the days away on a trip decreased in 2015 for the program and within share categories (Table 24). The 2015 average days per trip were similar to the 2014 for trips that caught GG, RG, and SWG species, but increased by about 0.5 days for trips harvesting TF species and approximately 1day for trips harvesting DWG species (Table 24). The 2015 average lb/trip were similar to 2014 for trips harvesting DWG, GG, and SWG species, but decreased by 172 lb/trip for trips harvesting RG species and 299 lb/trip for trips harvesting TF species.

Table 24: Effort harvesting GT-IFQ species

DWG	Trips	Days away	Avg. days/trip	Avg. lb/trip	GG	Trips	Days away	Avg. days/trip	Avg. lb/trip
Pre-IFQ	921	7,274	7.9	1,192	Pre-IFQ	4,015	21,348	5.3	236
2010	808	5,812	7.2	745	2010	3,067	16,639	5.4	156
2011	924	6,907	7.5	822	2011	2,514	13,589	5.4	123
2012	1,182	8,873	7.5	779	2012	3,073	15,634	5.1	166
2013	1,044	8,022	7.7	862	2013	2,956	16,571	5.6	188
2014	1,060	8,080	7.6	934	2014	3,222	18,135	5.6	169
2015	909	7,627	8.4	958	2015	2,711	15,516	5.7	180

RG	Trips	Days away ¹	Avg. days/trip	Avg. landing per trip	SWG	Trips	Days away	Avg. days/trip	Avg. landing per trip
Pre-IFQ	5,004	25,732	5.1	780	Pre-IFQ	3,331	20,220	6.1	131
2010	3,533	18,647	5.3	796	2010	2,080	13,197	6.3	92
2011	3,764	19,523	5.2	1,218	2011	2,424	14,887	6.1	77
2012	3,916	19,903	5.1	1,262	2012	2,839	17,554	6.2	106
2013	3,747	19,637	5.2	1,182	2013	2,444	16,356	6.7	121
2014	4,054	21,236	5.2	1,301	2014	2,485	16,264	6.5	88
2015	3,745	19,271	5.1	1,129	2015	2,222	14,795	6.7	96

TF	Trips	Days away	Avg. days/trip	Avg. lb/trip	ALL	Trips	Days away	Avg. days/trip	Avg. lb/trip
Pre-IFQ	489	4,108	8.4	970	Pre-IFQ	6,601	33,792	5.1	1,040
2010	311	2,459	7.9	819	2010	4,428	22,895	5.2	980
2011	390	3,093	7.9	969	2011	4,675	24,269	5.2	1,330
2012	476	3,827	8.0	865	2012	4,935	25,326	5.1	1,436
2013	386	3,229	8.4	1,060	2013	4,663	24,500	5.3	1,419
2014	436	3,561	8.2	1,478	2014	5,095	26,372	5.2	1,506
2015	424	3,692	8.7	1,179	2015	4,832	24,427	5.1	1,307

¹ Data from the SEFSC Coastal Logbook records as of 4/25/2016 and therefore may not contain the complete 2015 data. Pre-IFQ data is the

Effort can also be categorized by region: Florida peninsula, Florida panhandle (including Alabama and Mississippi) and western Gulf (LA-TX). The number of trips in 2015 for each different region was similar to the number of trips in 2014. The numbers of trips by region have been consistent since the

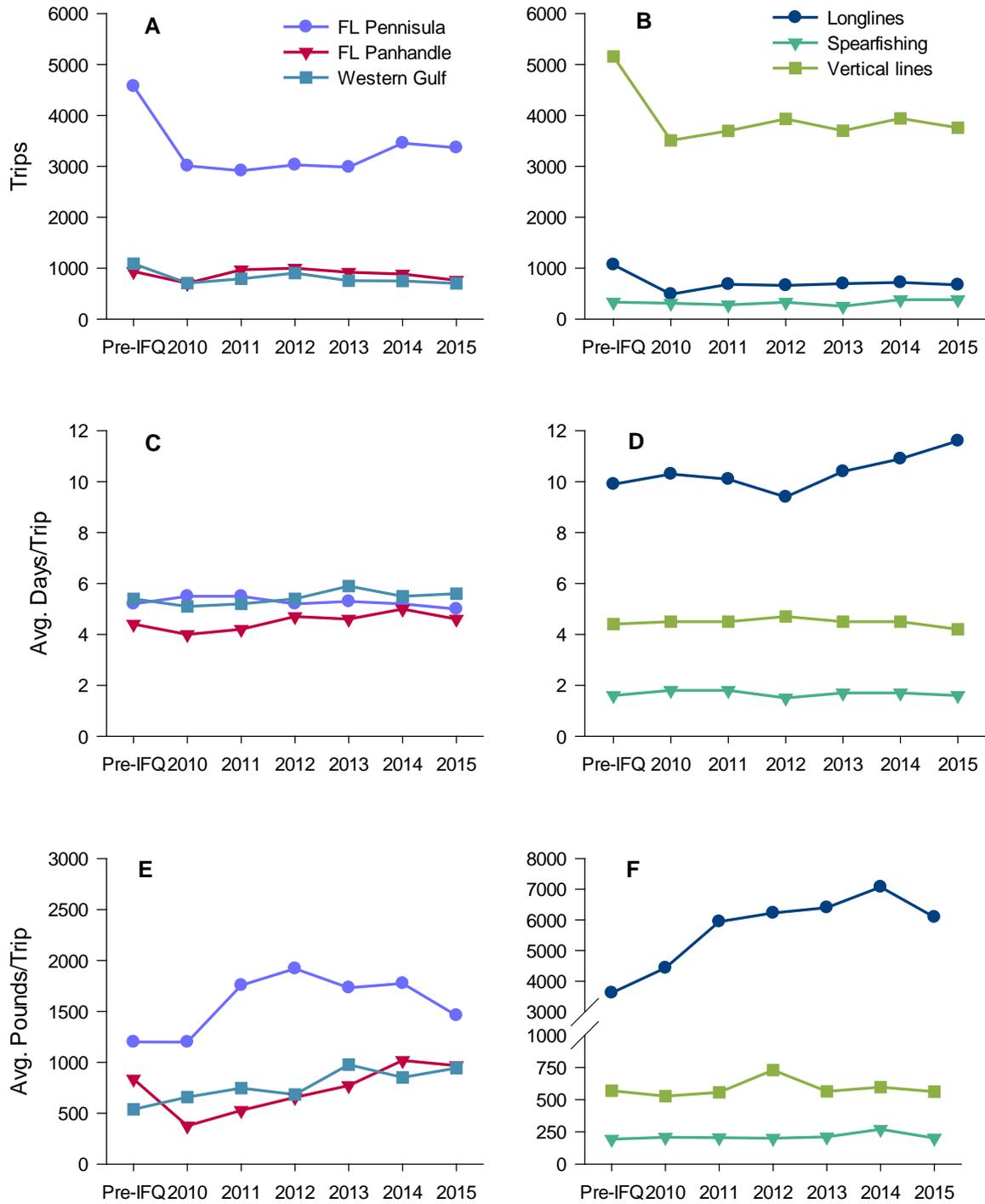


Figure 4. Effort by harvesting region or gear

start of the GT-IFQ program, although, for all three regions the number of trips was greater pre-IFQ (Figure 4A). The Florida peninsula region continues nearly three times the number of trips than the other regions. The 2015 average days per trip were also similar to 2014 within each region, and has been consistent throughout the GT-IFQ program and prior to the program (Figure 4C). The 2015 average pounds per trip remained similar to 2014 for trips in the Florida panhandle and western Gulf regions, but

decreased for trips in the Florida peninsula region (Figure 4E). Since the start of the GT-IFQ program, the average landings per trip have increased for vessels fishing in the Florida panhandle and western Gulf regions, and average landings per trips in both regions are greater than pre-IFQ average landings per trip (Figure 4E). While the average landings per trip have been decreasing in the Florida peninsula region since 2012, the average landings per trip are still greater than pre-IFQ values (Figure 4E).

GT-IFQ species are harvested throughout the Gulf using three main gear types: longline, vertical line, and spearfishing. Fishing effort may differ based on these attributes. The number of trips in 2015 for trips using longline, vertical line, or spear remained similar to 2104. These values have remained consistent since the GT-IFQ program, but were lower than pre-IFQ values (Figure 4B). The 2015 average days per trip for trips using vertical lines and spearfishing were similar to the 2014 values, and have been consistent within each gear throughout the GT-IFQ program (Figure 4D). The days per trip are typically longest for trips using longline gear and shortest for spearfishing trips. The 2015 average days per trip for vessels using longline gear has been increasing gradually since 2012 (Figure 4D). The 2015 average landings per trip for vessels using vertical lines or spearfishing were similar to the 2014 values, and these values have been consistent throughout the GT-IFQ program and prior to the start of the program (Figure 4F). Average 2015 landings per trip for vessels using longline gear decreased in 2015, although they had increased each year previously (Figure 4F). Despite this decrease, the average landings per trip are still considerably greater than the pre-IFQ value (Figure 4F).

IFQ species may be discarded due to the lack of allocation or fish that are below the minimum size limit. Five species in the GT-IFQ program have minimum size limits: gag, red grouper, black grouper, scamp, and yellowfin grouper. Data from the SEFSC reef fish observer (RFOB) program were used to evaluate changes in gag and red grouper discards. The RFOB program began in mid-2006, and the data for this analysis were restricted to the following gear: longline (LL) and vertical line (VL; handlines and bandit reels). LL trips primarily occurred off the Florida peninsula, while VL trips occurred throughout the entire Gulf. In 2009, RFOB coverage shifted effort towards vessels using LL gear increasing the total number of trips sampled from 2010 through 2012 (Table 25). The total number of trips observed decreased in 2013 and 2014, but increased in 2015 (Table 25). In 2015, there were 215 trips with observer coverage, with 193 (90%) of the trips utilizing VL gear and 22 (10%) of the trips utilizing LL gear (Table 25). In 2015, 62% of the observed trips ($n = 133$) that occurred off the coast of the Florida peninsula (Table 25). The proportion of gear and regions observed is similar to what has occurred in past years.

RFOB observers record disposition status as: landed/kept, discarded alive, discarded dead, and unknown. These disposition statuses were used to calculate discard ratios by gear and region. The discard ratio is the number of discarded fish for each fish landed. A larger value indicates that more fish are being discarded. Discard ratios may be influenced by the amount of allocation available to the vessels that were observed. Discussions at several stock assessments indicated that fishermen behavior, particularly with regards to discards, varies with the amount of allocation available both during a trip and throughout the year and the species the fishermen were targeting.

Table 25: Reef fish observer trips

Year	<u>All trips</u>			<u>LL trips</u>			<u>VL trips</u>			<u>FL Peninsula trips</u>			<u>Other Gulf</u>		
	All	Gag	Red gpr.	All	Gag	Red gpr.	All	Gag	Red gpr.	All	Gag	Red gpr.	ALL	Gag	Red gpr.
2007	90	51	50	11	7	7	79	39	43	46	35	39	46	11	11
2008	59	33	36	5	1	2	54	32	34	35	25	30	28	10	8
2009	78	50	54	33	24	22	45	26	32	55	40	45	29	13	13
2010	110	71	74	54	41	39	56	30	35	81	60	68	37	14	8
2011	187	138	146	81	71	72	106	67	74	129	114	120	65	30	31
2012	273	178	196	19	16	15	254	162	181	159	131	153	126	55	51
2013	209	131	147	84	69	72	125	62	75	141	112	126	81	29	29
2014	136	71	88	27	22	21	109	49	67	84	58	75	55	15	14
2015	215	104	124	22	19	18	193	85	106	133	81	117	91	27	11

Note: One trip may include multiple regions, and therefore the sum of regions may be greater than the total trips.
 Data source: SFSC Reef Fish Observer Program accessed 5/10/16

Gag 2015 discards

From 2007 through 2011, the minimum size limit for gag was 24 inches total length (TL). Starting in 2012, the minimum size limit was reduced to 22 inches TL (Appendix 2.1). In 2015, 104 of the 215 observed trips caught gag. The gag discard rate in 2015 was greater in the VL observed trips than the LL observed trips, although the discard rate was still low with less than 1 fish discarded for each fish kept (Table 26). The discard values in 2015 for the trips using VL were similar to the 2014 and 2013 discard ratios. At the start of the GT-IFQ program, the GG discard ratio for vessels using VL gear had a 1.6 discard ratio, which may have influenced by changes in fishing behavior due to the DWH oil spill. Thereafter, the discard rate decreased each year, and in 2015 was lower than pre-IFQ years (Table 26).

Table 26: Discard ratio (x discarded: 1 landed)

Gag	VL	LL	FL peninsula	Other Gulf	Red grouper	VL	LL	FL peninsula	Other Gulf
2007	0.72	0.02	0.51	0.22	2007	0.63	1.27	0.95	0.47
2008	0.27	0.08	0.35	0.08	2008	0.76	1.16	1.07	0.29
2009	1.49	0.08	0.85	0.28	2009	0.83	1.12	1.06	1.11
2010	1.60	0.09	0.62	0.20	2010	1.44	1.11	1.14	0.63
2011	1.14	2.06	1.64	0.92	2011	0.63	0.84	0.82	0.35
2012	0.47	0.32	0.63	0.09	2012	0.42	0.82	0.61	0.11
2013	0.25	0.49	0.51	0.13	2013	0.35	0.50	0.51	0.08
2014	0.19	0.04	0.15	0.03	2014	0.23	0.57	0.51	0.00 ²
2015	0.18	0.01	0.11	0.07	2015	0.40	0.47	0.45	0.02

¹ Data from the Reef Fish Observer Program accessed as of 5/10/2016 and may not contain all 2015 data. 2007-2009 = pre-IFQ.

² Indicates that all fish were landed and no fish were discarded.

For observed trips using LL gear, the greatest discard rate occurred in 2011 with 2 fish discarded for each kept. This discard rate has decreased over time and in 2015 nearly all fish captured are kept. The 2015 discard rate for trips using LL gear is now equivalent to pre-IFQ values (Table 26). Discard ratios in 2015 were greater for trips off the Florida peninsula (0.11) when compared to the rest of the Gulf (0.07), although both discard ratios were low (Table 26). Discard ratios for both regions are below the pre-IFQ values.

Red grouper 2015 discards

In 2009, prior to the start of the GT-IFQ program, the minimum size limit changed from 20 inches TL to 18 inches TL (Appendix 2.2). Similar to past years, the red grouper discard rate was greater in trips that used LL gear instead of VL, although 2015 discard ratios were low at 0.47 (LL) and 0.40 (VL) (Table 26). Discard ratios for both gear types peaked in 2011, which corresponds with a lower quota for the first three quarters of the year. Discard ratios for both gear types continued to decrease each year and were considerably lower than pre-IFQ years (Table 26). Discard ratios since the GT-IFQ program have been greater off the coast of the Florida peninsula than the rest of the Gulf. Discard ratios off the Florida peninsula were greatest in 2010, but have been decreasing each year (Table 26). Discard ratios in all regions in 2015 were below pre-IFQ values.

Price Information

Share, allocation, and ex-vessel price information is important for evaluating the performance of catch share programs. Economic theory suggests that, when fishermen no longer have to engage in a “race for fish,” their profits will likely increase as they adjust their operations to take advantage of weather and market conditions. The elimination of “derby” fishing is expected to increase market stability. As more efficient and profitable operators are willing to pay higher prices to purchase shares and allocation, share and allocation prices increase, which may result in increased profits. Theoretically, allocation prices should reflect the expected annual profit from harvesting one unit of quota, whereas, share prices should reflect the net present value of the expected profit from harvesting one unit of quota in the long-run. Dockside or ex-vessel prices are anticipated to increase as well as fishermen no longer have to race to fish, which in turn, should reduce market gluts and generate higher quality products. All inflation-adjusted values in the analysis below were calculated based on the Gross Domestic Product (GDP) deflator³. The GDP deflator was chosen as the measure of inflation because it includes prices for all domestically produced goods and services and so is broader than other indexes.

Share Transfer Prices

Reporting of share transfer prices was not required until mid-2010, when a minimum transfer price of \$0.01 was required for all share transfers. Each year, there are share transactions that are either missing price information or have under-reported price information (e.g., \$0.01/lb). Transactions that had reported low or no value could be due to, but not limited to, any of the following: entering a price per

³ <http://www.bea.gov/national/index.htm#gdp>

pound equivalent⁴ instead of transaction price, reluctance to enter price information, gifts, transferring to a related accounts, part of a package deal (e.g., sale of shares with a permit, vessel, and/or other equipment), and/or unrecorded bartering of shares within the GT-IFQ or RS-IFQ programs. This misreporting of prices led to a 2012-2013 mail survey to participants about share prices. The survey was mailed to both the transferor and transferee for all past transfer where information was incomplete or possibly incorrect. Participants were asked to verify or correct the price information and select one of seven share transfer reasons: “Barter trade for allocation,” “Barter trade for shares,” “Gift,” “Transfer to a related account,” “Sale to another shareholder,” “Package deal,” and “No comment.” Beginning in 2013, a submission of one of these share transfer reasons was required to complete every share transfer, to better monitor the performance of the program.

In 2015, most share transfers listed either “Sale to another shareholder” or “No comment” as the transfer reason (Table 27). The highest volume of shares transferred in 2015 had listed “Sale to another shareholder” (61%), followed by “Transfer to a related account” (47%), and “No comment” (32%) (Table 27). The numbers of transfers that list “No comment” as the transfer reason have increased since the reason field was added to the transaction form. The 2015 pattern was similar to the previous years with “Sale to another shareholder” being the top selected reason, followed by “No comment”, and “Transfer to a related account.”

Table 27: Share Transfer Reasons

Reason	2013		2014		2015	
	N	%	N	%	N	%
Barter trade for allocation	-	-	7	0.97	16	1.28
Barter trade for shares	8	0.22	10	4.62	40	7.95
Gift	11	0.12	11	2.49	-	-
No comment	67	12.74	68	10.68	164	32.28
Package deal	22	3.62	22	3.40	8	0.87
Transfer to a related account	66	12.88	44	11.06	91	46.58
Sale to another shareholder	223	14.76	247	39.73	287	61.22

For share price analysis, the data were limited to share transfers with representative price per pound equivalents (see Appendix 4). From 2013 onward, when prices differed between the transferor and transferee, a final price was decided based on the more representative total price entered. For example, a total price was selected over a value that was more representative of a price per pound. All values were weighted by the pounds instead of on a transactional basis.

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

Obtaining representative share prices continues to remain a problem in 2015, with only 62% of the transactions supplying representative share prices (Table 28). The transactions that did not contain representative prices listed “Transfer to a related account” (41%), “No comment” (28%), “Barter trade” (16%), “Sale to another shareholder” (14%), and “Package deal” (1%). By share category, the percentage of 2015 representative share prices reported varied between 47% and 70%. The percentage of representative prices reported in 2015 decreased from the previous year in the following share categories: DWG, GG, and RG. In 2015, the average share equivalent price per pound decreased for all share categories except TF (Table 28). The greatest decrease occurred in GG, where the share price dropped by nearly \$9/lb from the previous year (Table 28). All other decreases in share price were less than \$1/lb difference. Likewise, the TF increase in share price was only \$0.34/lb (Table 28). The GG share category continues to have the greatest share price (~\$22/lb), followed by DWG and RG (~\$13/lb), TF (~\$9/lb), and SWG (~\$7/lb).

Table 28: Number of representative share transfers with prices

DWG	N	%	Avg.	Median	Inf.-adj. avg	GG	N	%	Avg.	Median	Inf.-adj. avg
2010	53	33%	\$8.19	\$9.00	\$8.90	2010	107	42%	\$5.35	\$6.00	\$5.81
2011	44	46%	\$11.35	\$12.02	\$12.08	2011	47	34%	\$24.24	\$25.00	\$25.81
2012	34	44%	\$10.78	\$12.00	\$11.27	2012	68	53%	\$25.91	\$30.00	\$27.09
2013	30	57%	\$12.58	\$12.00	\$12.94	2013	52	59%	\$31.41	\$30.02	\$32.32
2014	38	61%	\$13.04	\$13.00	\$13.18	2014	78	74%	\$30.18	\$30.02	\$30.50
2015	40	47%	\$12.74	\$13.00	\$12.74	2015	93	61%	\$21.97	\$22.00	\$21.97
RG	N	%	Avg.	Median	Inf.-adj. avg	SWG	N	%	Avg.	Median	Inf.-adj. avg
2010	111	42%	\$3.73	\$3.30	\$4.05	2010	76	39%	\$6.91	\$6.49	\$7.51
2011	76	45%	\$6.24	\$5.97	\$6.64	2011	42	40%	\$9.93	\$11.99	\$10.57
2012	124	61%	\$8.02	\$8.00	\$8.38	2012	41	42%	\$7.80	\$7.99	\$8.15
2013	106	73%	\$13.16	\$13.70	\$13.54	2013	49	60%	\$8.30	\$7.25	\$8.54
2014	107	74%	\$13.06	\$13.00	\$13.20	2014	33	52%	\$7.36	\$7.50	\$7.44
2015	150	70%	\$12.86	\$13.00	\$12.86	2015	62	64%	\$6.74	\$6.00	\$6.74
TF	N	%	Avg.	Median	Inf.-adj. avg	ALL	N	%			
2010	38	42%	\$3.11	\$2.15	\$3.38	2010	385	40%			
2011	24	41%	\$5.77	\$5.14	\$6.14	2011	233	41%			
2012	14	32%	\$8.22	\$9.00	\$8.59	2012	281	51%			
2013	13	45%	\$8.44	\$8.00	\$8.68	2013	250	63%			
2014	17	50%	\$8.75	\$8.50	\$8.84	2014	273	67%			
2015	33	58%	\$9.18	\$9.00	\$9.18	2015	378	62%			

* Inflation adjustments from: <http://www.bea.gov/> with 2015 as the base year using the GDP deflator

Allocation Transfer Prices

Allocation transfer prices are collected on a per pound basis, but are not required to complete a transfer. Fifty-two percent or more of the allocation transactions each year are either missing or have under-reported price information (e.g., \$0.01/lb). Transfers that had low or no price information may be due to, but not limited to, any of the following: reluctance to enter price information, gift, transferring to a related account, part of package deal, or bartering for shares and/or allocation in the GT-IFQ program. Similar to the share transfers, to better monitor the program’s performance, beginning in 2013 the selection of one of seven allocation transfer reasons was required for every allocation transfer. Allocation transfer reasons that could be selected were “Barter trade for allocation,” “Barter trade for shares,” “Gift,” “Transfer to a related account,” “Sale to another shareholder,” “Package Deal,” and “No comment.” In 2015, the majority of allocation transfers had “No comment” (51%) selected as the allocation transfer reason, followed by “Sale to another shareholder” (28%) and “Transfer to a related account” (18%) (Table 29). The amount of pounds transferred followed a similar pattern with 41% of the pounds transferred listed as “No comment”, 30% listed as “Sale to another shareholder”, and 25% listed as “Transfer to a related account” (Table 29).

Table 29: 2014 Allocation transfer reasons

Reason	2013		2014		2015	
	N	Pounds	N	Pounds	N	Pounds
Barter trade for allocation	167	175,545	98	175,545	101	214,922
Barter trade for shares	14	56,675	19	56,675	35	292,573
Gift	139	81,314	126	81,314	80	38,276
No comment	2,276	5,362,270	3,145	5,362,720	3,484	6,196,445
Package deal	60	467,153	77	467,153	23	107,961
Transfer to a related account	1,075	2,651,134	1,043	2,651,134	1,211	3,819,045
Sale to another shareholder	1,549	3,763,044	2,317	3,763,044	1,879	4,469,944

For the allocation price analysis, the data were limited to representative prices (See Appendix 4: Price Analysis Rationale). All statistics were computed by weighting pounds transferred and not on a transactional basis. In 2015, like the preceding years, still less than 50% of the allocation prices were representative prices (Table 30). The transactions that did not contain representative prices mainly listed “No comment” (66%), “Transfer to a related account” (21%), and “Sale to another shareholder” (7%) as the transfer reasons. The percentage of representative prices reported in 2015 decreased slightly from the previous year for DWG and RG, while they increased slightly for GG, SWG, and TF (Table 30). By share category, the 2015 representative allocation prices reported varied between \$0.60/lb (SWG) and \$1.90/lb (GG) (Table 30). In 2015, the average allocation price remained similar to the previous year for TF (+\$0.04/lb) and DWG (+\$0.05/lb), increased slightly for RG (+\$0.09/lb), and decreased for SWG (-\$0.14/lb) and GG (-\$0.16/lb) (Table 30). DWG allocation prices have remained stable since 2013, with values between \$1.13 and \$1.18/lb, although, these are lower than allocation prices in the first three

years of the program (Table 30). GG allocation prices peaked in 2013, but continued to decrease thereafter. These prices might be influenced by the increasing GG quota and the availability of RGM in 2015. RG allocation prices have remained stable since 2013, with prices between \$0.98 and \$1.07/lb (Table 30). SWG allocation prices have been decreasing since 2011, and may be reflective of the low percentage of the quota that is landed each year, indicating that these species are probably more incidentally caught than targeted (Table 30). TF allocation prices have slowly increased in 2014 and 2015, with the greatest prices occurring in 2015 (Table 30).

Table 30: Number of representative allocation transfers and prices

DWG	N	%	Avg.	Median	Inf.-adj. avg	GG	N	%	Avg.	Median	Inf.-adj. avg
2010	68	14%	\$1.32	\$1.50	\$1.43	2010	150	16%	\$1.18	\$1.00	\$1.28
2011	116	18%	\$1.36	\$1.40	\$1.45	2011	303	24%	\$1.74	\$1.50	\$1.85
2012	213	28%	\$1.19	\$1.25	\$1.24	2012	631	36%	\$2.27	\$2.25	\$2.38
2013	215	35%	\$1.14	\$1.15	\$1.18	2013	705	41%	\$2.40	\$2.50	\$2.47
2014	325	38%	\$1.11	\$1.10	\$1.13	2014	1,015	45%	\$2.04	\$2.00	\$2.06
2015	282	31%	\$1.18	\$1.25	\$1.18	2015	847	46%	\$1.90	\$2.00	\$1.90
RG	N	%	Avg.	Median	Inf.-adj. avg	SWG	N	%	Avg.	Median	Inf.-adj. avg
2010	153	14%	\$0.92	\$1.00	\$1.00	2010	75	12%	\$1.15	\$1.00	\$1.25
2011	482	31%	\$0.54	\$0.50	\$0.58	2011	117	21%	\$1.25	\$1.40	\$1.33
2012	746	39%	\$0.79	\$0.75	\$0.82	2012	279	31%	\$1.15	\$1.00	\$1.20
2013	827	47%	\$0.97	\$1.00	\$1.00	2013	354	39%	\$0.83	\$0.75	\$0.86
2014	1,337	58%	\$0.97	\$1.00	\$0.98	2014	443	44%	\$0.73	\$0.60	\$0.74
2015	1,331	54%	\$1.07	\$1.00	\$1.07	2015	529	49%	\$0.60	\$0.50	\$0.60
TF	N	%	Avg.	Median	Inf.-adj. avg	ALL	N	%			
2010	35	13%	\$0.65	\$0.50	\$0.70	2010	481	14%			
2011	62	19%	\$0.67	\$0.70	\$0.71	2011	1,080	25%			
2012	93	24%	\$0.66	\$0.65	\$0.69	2012	1,962	34%			
2013	88	30%	\$0.67	\$0.65	\$0.69	2013	2,188	41%			
2014	153	36%	\$0.72	\$0.75	\$0.73	2014	3,273	48%			
2015	186	37%	\$0.77	\$0.75	\$0.77	2015	3,175	47%			

Ex-vessel Prices

While ex-vessel prices are required to complete a landing transaction, prices have been variable, with prices as low as \$0.01/lb reported. Ex-vessel prices may differ depending on location and season. They may also be under-reported for a variety of reasons: to minimize cost recovery fees and/or capital gains, contractual arrangements between dealers and shareholders, and deductions for transferred allocation, goods (e.g., bait, ice, fuel), and/or services (e.g., repairs, machinery replacement). In June of 2011, regulations modified the definition for ex-vessel price and explicitly prohibited the deduction of allocation, goods, and/or services when reporting the ex-vessel price. For ex-vessel price analysis, the data were limited to representative ex-vessel prices (See Appendix 4: Price Analysis Rationale). All

statistics were weighted by pounds rather than on a transactional basis. All ex-vessel prices prior to the start of the program were calculated using the SEFSC Accumulated Landings System (ALS) database as of 10/12/2016. After the start of the GT-IFQ program, ex-vessel prices are reported to both the ALS and GT-IFQ systems, but IFQ prices are used in this analysis.

In 2015, the majority (%) of ex-vessel prices submitted were representative of the industry (Table 31). The 2015 ex-vessel prices ranged between \$2.90/lb (TF) and \$5.07/lb (GG) (Table 30). After adjusting for inflation, the average 2015 ex-vessel prices increased in all share categories (Table 31). The largest increase in ex-vessel price (+\$0.26/lb) occurred in the TF category, followed by GG (+\$0.19/lb), DWG and RG (+\$0.13/lb), and SWG (+\$0.06/lb).

Table 31: Number of ex-vessel transfers and prices

DWG	N	%	Avg.	Median	Inf.-adj. avg	GG	N	%	Avg.	Median	Inf.-adj. avg
2010	1,529	94%	\$3.61	\$3.70	\$3.92	2010	3,226	99%	\$4.27	\$4.25	\$4.64
2011	1,961	96%	\$3.80	\$3.75	\$4.05	2011	2,811	98%	\$4.59	\$4.75	\$4.89
2012	2,450	96%	\$4.06	\$4.00	\$4.24	2012	3,562	98%	\$4.69	\$4.75	\$4.90
2013	2,006	97%	\$4.30	\$4.50	\$4.42	2013	3,509	99%	\$4.90	\$5.00	\$5.04
2014	2,090	97%	\$4.44	\$4.50	\$4.49	2014	3,940	98%	\$4.83	\$5.00	\$4.88
2015	1,762	97%	\$4.62	\$4.95	\$4.62	2015	3,179	97%	\$5.07	\$5.25	\$5.07
RG	N	%	Avg.	Median	Inf.-adj. avg	SWG	N	%	Avg.	Median	Inf.-adj. avg
2010	3,803	99%	\$3.05	\$3.00	\$3.31	2010	2,282	98%	\$4.06	\$4.10	\$4.41
2011	4,563	99%	\$3.15	\$3.24	\$3.35	2011	2,782	97%	\$4.14	\$4.00	\$4.41
2012	4,587	99%	\$3.21	\$3.25	\$3.36	2012	3,273	97%	\$4.33	\$4.25	\$4.53
2013	4,383	100%	\$3.54	\$3.55	\$3.64	2013	2,954	98%	\$4.48	\$4.50	\$4.61
2014	4,891	99%	\$3.77	\$3.80	\$3.81	2014	3,188	98%	\$4.50	\$4.50	\$4.55
2015	5,009	98%	\$3.94	\$4.00	\$3.94	2015	3,046	96%	\$4.61	\$4.50	\$4.61
TF	N	%	Avg.	Median	Inf.-adj. avg	Note that prices are based on the category under which a species was landed. Under flexibility measures, when a species is landed under its secondary category, the price is captured for that category (e.g., red grouper landed under gag multi is counted in the GG price per pound.)					
2010	357	100%	\$2.07	\$2.11	\$2.25						
2011	411	100%	\$2.31	\$2.40	\$2.46						
2012	529	99%	\$2.27	\$2.25	\$2.37						
2013	447	98%	\$2.58	\$2.75	\$2.65						
2014	512	94%	\$2.61	\$2.80	\$2.64						
2015	531	97%	\$2.90	\$3.00	\$2.90						

Ex-vessel prices can also be evaluated at the species level, which can reveal which species are driving the average ex-vessel prices. When ex-vessel prices were calculated at the species level rather than the landing share category, there will be slight differences for species that can be landed in multiple categories (i.e., red grouper and gag) when compared to the category average prices. In 2015, within the DWG category, yellowedge grouper had the greatest ex-vessel price (\$4.75/lb), which was +\$0.82/lb greater than warsaw grouper which had the smallest ex-vessel price (Table 32). This pattern is similar to what was seen in previous years. Within the SWG category, black grouper had the greatest ex-vessel price (\$4.89/lb), followed closely by scamp (\$4.67/lb), while yellowfin grouper and yellowmouth

grouper had ex-vessel prices closer to \$4.00/lb (Table 32). Within the TF category, golden tilefish (\$3.04/lb) and goldface tilefish (\$2.97/lb) ex-vessel prices are considerably greater than the ex-vessel price for blueline tilefish (\$1.58/lb) (Table 32). It is worth noting that the goldface tilefish landings only comprise less than 1% of the TF landings, and so this value should be taken with a degree of caution.

Table 32: Species average inflation adjusted ex-vessel price

Cat.	Species	Pre-IFQ	2010	2011	2012	2013	2014	2015
DWG	Snowy grouper	\$3.46	\$3.41	\$3.68	\$3.61	\$3.82	\$3.92	\$4.19
	Speckled hind	\$3.25	\$3.30	\$3.39	\$3.41	\$3.64	\$3.76	\$4.01
	Warsaw grouper	\$3.20	\$2.83	\$2.87	\$3.25	\$3.69	\$3.79	\$3.93
	Yellowedge grouper	\$4.05	\$4.16	\$4.27	\$4.57	\$4.65	\$4.71	\$4.75
GG	Gag	\$4.32	\$4.65	\$4.89	\$4.90	\$5.05	\$5.03	\$5.14
RG	Red grouper	\$3.21	\$3.30	\$3.35	\$3.36	\$3.64	\$3.82	\$3.94
SWG	Black grouper	\$4.21	\$4.33	\$4.43	\$4.54	\$4.63	\$4.76	\$4.89
	Scamp	\$4.18	\$4.44	\$4.47	\$4.60	\$4.68	\$4.62	\$4.67
	Yellowfin grouper	\$3.41	\$3.69	\$3.36	\$3.75	\$4.26	\$4.47	\$4.04
	Yellowmouth grouper	\$3.14	\$4.27	\$4.13	\$4.63	\$3.80	\$4.07	\$4.09
TF	Blueline tilefish	\$1.11	\$1.02	\$1.20	\$1.38	\$1.54	\$1.36	\$1.58
	Golden tilefish	\$2.15	\$2.36	\$2.66	\$2.61	\$2.80	\$2.84	\$3.04
	Goldface tilefish	\$1.97	\$2.46	\$2.27	\$2.17	\$2.50	\$3.05	\$2.97

Note: Ex-vessel prices are on a species level, not a share category level, and therefore average price for red grouper and gag species will differ compared to the RG and GG categories. Pre-IFQ prices are the average ex-vessel prices from 2007-2009

Pre-IFQ annual average ex-vessel prices from the SEFSC’s ALS were adjusted for inflation based on the Gross Domestic Product (GDP) deflator⁵ (Figure 5). The GDP deflator was chosen as the measure of inflation because it includes prices for all domestically produced goods and services and thus is broader than other indexes. In general, ex-vessel prices were fairly stable for most species since the late 1990s onward and then increased with the start of the GT-IFQ program (Figure 5). The exceptions were yellowmouth grouper and yellowfin grouper, which had highly variable ex-vessel prices both pre- and post-IFQ (Figure 5). Pre-IFQ the blueline tilefish ex-vessel price was steadily decreasing. At the start of the IFQ program, blueline tilefish ex-vessel price began to rise but decreased slightly in 2015. In comparison, golden tilefish ex-vessel price was stable since 2000, and increased with the start of the GT-IFQ program. The golden tilefish ex-vessel value has continued to increase each year.

⁵ <http://www.bea.gov/national/index.htm#gdp>
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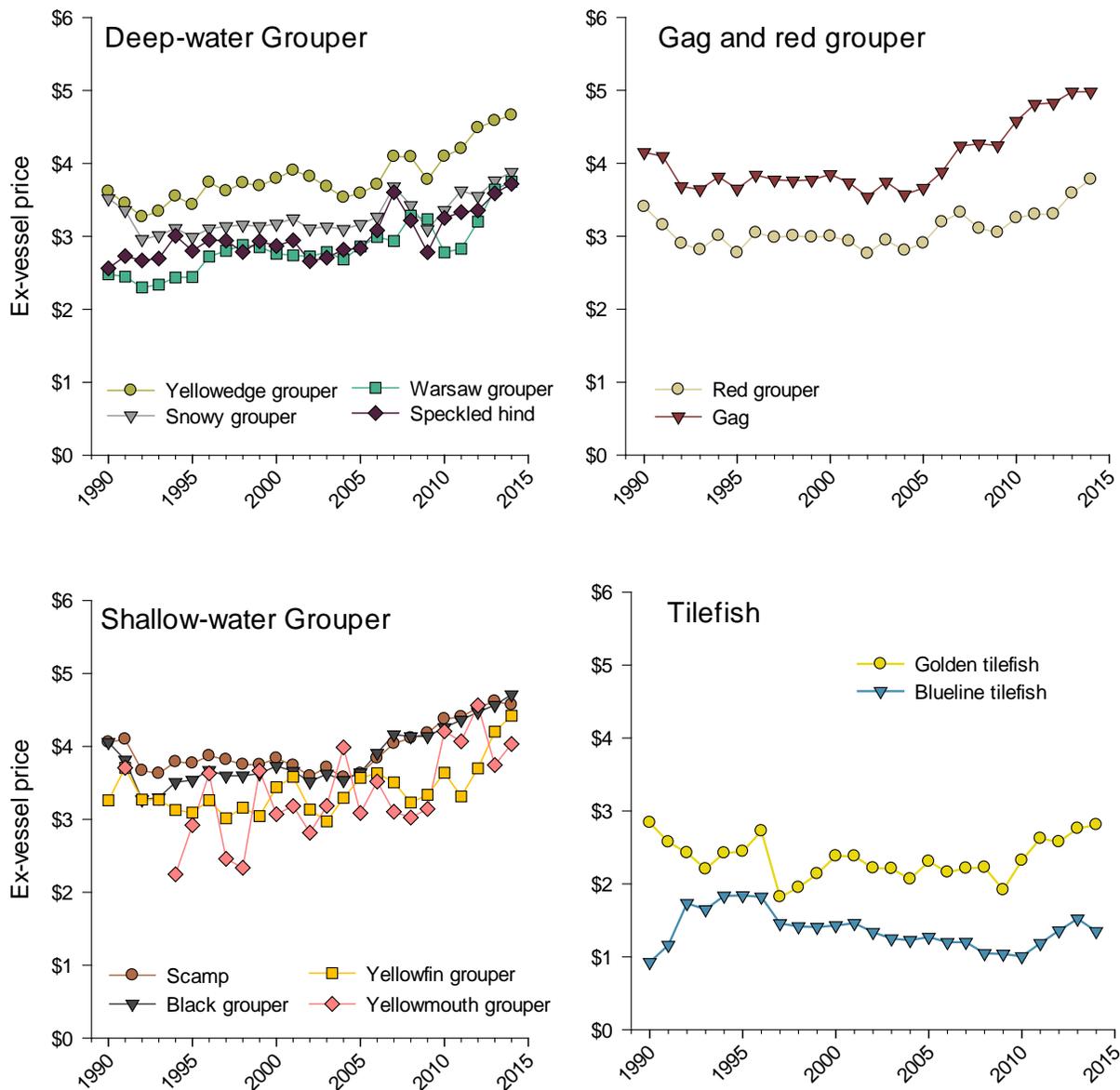


Figure 5. Annual inflation adjusted ex-vessel prices by species since 1990.

1990-2009 data from the ALS system accessed on 10/12/16.

Cost Recovery and Ex-vessel Value

The Magnuson-Stevens Act requires the Secretary of Commerce to adopt regulations implementing a cost recovery program to recover the actual incremental costs of managing and enforcing the GT-IFQ program. The cost recovery fee established for the GT-IFQ program is currently 3% of the actual ex-vessel value of GT-IFQ species. GT-IFQ allocation holders who completed a landing transaction with a dealer were responsible for payment of the fee. The dealer who purchased GT-IFQ species was 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, enforcement of the GT-IFQ program, and scientific research.

Cost recovery fees were calculated from the reported ex-vessel value, and therefore changes in ex-vessel prices and landings will affect the amount of cost recovery fees collected (Tables 33 and 34). Total cost recovery fees collected decreased in 2015 to \$861,198 (Table 33). Ex-vessel value for the grouper-tilefish component totaled \$28 million in 2015 (Table 34). The RG share category ex-vessel value (\$18 million) was 66% of the total GT-IFQ ex-vessel value (Table 34). DWG accounted for the next highest proportion of the GT-IFQ ex-vessel value, with \$4 million (15%).

Table 33: Cost recovery fees by share category

Year	DWG	GG	RG	SWG	TF	Total
2010	\$66,184	\$63,156	\$266,260	\$19,115	\$15,531	\$430,246
2011	\$88,479	\$43,899	\$451,488	\$22,960	\$26,809	\$633,634
2012	\$117,288	\$73,722	\$502,196	\$38,555	\$30,711	\$762,477
2013	\$117,381	\$84,932	\$487,547	\$41,060	\$34,037	\$764,959
2014	\$139,423	\$99,521	\$621,957	\$35,401	\$40,417	\$936,634
2015	\$126,141	\$84,084	\$565,612	\$38,701	\$46,659	\$861,198

Table 34: Ex-vessel value by share category

Year	DWG	GG	RG	SWG	TF	Total
2010	\$2,206,106	\$2,105,130	\$8,875,259	\$637,127	\$517,706	\$14,341,283
2011	\$2,949,252	\$1,463,237	\$15,049,541	\$765,285	\$893,616	\$21,120,932
2012	\$3,909,578	\$2,457,341	\$16,739,801	\$1,285,110	\$1,023,692	\$25,415,521
2013	\$3,912,673	\$2,831,039	\$16,251,479	\$1,368,639	\$1,134,578	\$25,498,408
2014	\$4,647,386	\$3,317,315	\$20,729,024	\$1,180,005	\$1,347,240	\$31,220,969
2015	\$4,204,690	\$2,802,739	\$18,853,659	\$1,289,988	\$1,555,302	\$28,706,377

Enforcement and Administrative Actions

Law Enforcement Activities

Law enforcement is a crucial component of the IFQ programs. Agents and officers from NOAA/NMFS Office of Law Enforcement (OLE) Southeast Division, the U.S. Coast Guard (USCG) and participating Joint Enforcement Agreement (JEA) states enforce the regulated activities mandated under the Gulf IFQ programs. State wildlife officers and game wardens routinely contribute to the enforcement of the IFQ programs under the auspices of the Cooperative Enforcement Agreement, by patrolling the waterfront, meeting vessels upon landing, and monitoring offloads. OLE Special Agents conduct random monitoring of vessels, assist state wildlife officers and game wardens with violations requiring further

investigation and conduct independent investigations, primarily those involving the undocumented landing and sale of IFQ species and the trafficking of illegally harvested red snapper and grouper-tilefish entered into interstate commerce. During offshore boarding, the USCG and JEA partners with long range capabilities ensure that vessels harvesting red snapper have valid RS-IFQ accounts. During patrol, action was taken by OLE agents to correct problems identified and educate fishermen on program requirements and regulations. In other instances, OLE agents took enforcement action by way of warnings (verbal and written), citations, and follow-up investigation by NOAA’s Special Agents. Major violations since implementation of the IFQ programs included the false reporting of species harvested and under reporting of total weights landed. Typical violations included landing prior to the three-hour minimum landing notice, landing at a unspecified or unapproved location, insufficient allocation, transporting IFQ species without an approval code, completing a landing transaction without a landing notification, and offloading after approved hours. Typical dealer violations included misreporting IFQ species, failure to provide a current dealer permit and/or IFQ dealer endorsement, and failure to report IFQ species landed.

OLE agents working with Florida Fish and Wildlife Conservation Commission and Alabama Marine Resources Division investigators, and officers recently completed an undercover investigation leading to the criminal indictments of eight individuals involved in the illegal commercial harvest, sale, and filing of false landing reports for IFQ species in the Florida panhandle and Alabama. OLE agents and officers conducted approximately 13 patrols, offload monitorings, and investigations involving IFQ program regulations, including the seizure of IFQ regulated species. The 2015 cases resulted in the issuance of verbal warnings, fix-its, written warnings and violations. There were no GT-IFQ seizures in 2015, as the only seizure was for red snapper.

Table 35: Federal IFQ law enforcement seizures

Year	IFQ cases	GT-IFQ Cases	Total Pounds	Total Value
2010	9	2	3,011	\$9,347
2011	10	7	19,059	\$63,570
2012	6	4	4,893	\$19,988
2013	6	3	4,255	\$15,861
2014	4	3	4,501	\$18,789
2015	1	0	0	0

Synopsis

Summation of the 2015 fishing year

In the sixth year of the GT-IFQ program, there has been progress toward meeting the program’s objectives: reducing overcapacity, increasing harvesting efficiency, and mitigating derby-fishing conditions. Participation in the GT-IFQ program increased in 2015 in all aspects (shareholders, allocation holders, vessels, and dealers). The number of shareholders (accounts with shares) increased in 2015 (n=645), the first time since the program began that there was an increase in shareholders. Despite this overall increase in shareholders, within each share category the number of shareholders decreased. While this might seem contradictory, this was due to the number of categories where an account held shares. There was an increase in the number of accounts holding shares in 1 or 2 share

categories, and a decrease in the number of accounts holding shares in 4 or 5 categories. In 2015, the number of new shareholders doubled the number of new shareholders in any past year. This may be in part due to a change in regulations that allowed any U.S. citizen or permanent resident alien to obtain an account and obtain shares separate from their permit. The new shareholders also obtained more shares than new shareholders obtained in previous years. These values should be interpreted with a note of caution, as many of these accounts may be related to other IFQ accounts. Related accounts have at least one entity in common between the accounts and discussions with industry representatives indicate that some participants obtain different GT-IFQ accounts to separate their assets (e.g., shares from the vessel harvesting fish).

As seen in the RS-IFQ program, there is a high degree of related accounts within the program, with participants purposefully separating their shares from the account that is associated with their harvesting vessel. The number of allocation holders ($n = 835$) also increased in 2015 both across the program and within categories. Likewise the number of vessels ($n = 446$) also increased, but this pattern is more similar to the pattern seen with the shareholders, with decreases in the number of vessels per share category. The number of dealers ($n = 114$) also increased slightly in 2015. As participants adjust to the program, there have been changes in how participants behave and interact with other participants, including changes in the percentages of shareholders without reef fish permits, the percentage of accounts with shares, and account activity (number accounts inactive, landing or trading allocation). In 2015, there was a continuation of the increasing trend in number of shareholder accounts without Gulf reef fish permits, with 32% of the accounts that hold shares, also not holding a Gulf reef fish permit. These accounts hold between 11-20% of the shares now, while in past years they held between 5-8%. The percentage of accounts holding allocation that did not also hold shares increased again this year, with around 26% of all allocation holding accounts obtaining allocation from transfers instead of from holding shares. The number of accounts that had landings and also held shares decreased in 2015. For the SWG, RG, and GG categories, the accounts with landings and holding shares were greater than the accounts without shares, while the reverse was true for TF. Within the DWG category, the number of accounts landings was split evenly between those with shares and those without shares. The proportion of inactive accounts (22-30%) and accounts only trading allocation (28-44%) remained similar to the previous year. For the accounts that only transferred allocation, the majority of accounts held both shares and a Gulf reef fish permit.

The number of share transfers increased in 2015, with 606 transfers totaling 150.17% of the GT-IFQ quotas (GT-IFQ shares = 500%). This was the greatest number of share transfers since 2011. Within share categories, the number of share transfers increased with 22-38% of shares transferred. Allocation transfers also increased in 2015, with 6,813 transfers totaling 15 mp. Allocation transfers exceed the quota for the program by 171%, and within categories exceed share category quotas by 110%-294%, indicating that allocation was being transferred multiple times.

Quotas increased slightly for GG, RG, and SWG categories, while they decreased in DWG. The TF quota remained the same as the previous year. For the entire GT-IFQ program, 80% of the quota was landed. Within share categories, 54-92% of the quota was landed. The DWG, RG, and TF categories

all had less than or equal to 84% of the quota landed. For share categories with multiple species, there were specific species that comprised the majority of landings with that category. The DWG share category was predominately yellowedge grouper landings (77%), the SWG share category was predominately scamp (76%), and golden tilefish was 90% of the TF landings. Within the multi-use categories, the multi-use was predominately used to land the primary species and not the secondary species. The remaining allocation that was not landed primarily resided in active accounts and accounted for 20% of the entire GT-IFQ allocation. Landings occurred year-round, with the greatest landings for the entire program occurring in the spring and summer months (March through June), and at the end of the year (December). Increased landings in December were observed in all share categories as commercial fishermen sought to harvest unused allocation before the end of the fishing season. Effort decreased for the entire program with fewer trips taken, fewer days at sea, and smaller average pounds landed per trip. Vessels harvesting DWG and TF typically had longer trips than vessels harvesting GG, RG, or SWG. Vessels using longline to harvest GT-IFQ species usually have longer trips (~10 days) than vessels using either vertical line (~4 days) or spearfishing (~2 days) gear. Likewise, vessels using vertical line gear typically take more trips than vessels using longline gear. Vessels harvesting off the Florida peninsula typically take more trips and have a greater average pounds per trip than vessels harvesting in other regions. In 2015, there was a decrease in the average pounds per trip for vessels harvesting off the Florida peninsula, which may have driven the overall decrease in pounds per trip for the entire program. Discard ratios for gag and red grouper were similar to the past year.

When representative price information (share, allocation, and ex-vessel price) is provided, the price information can indicate the success of an IFQ program. Representative price reporting has improved since the start of the program, although further improvements are still needed for share and allocation prices. Representative prices decreased slightly for shares (62%), but remained similar to 2014 for allocation (47%) and ex-vessel prices (96-98%). The inclusion of transfer reasons for share and allocation transactions helped to explain some of the low prices. For share transfers without a representative price, the 41% of transfers had "Transfer to a related account" listed as the transfer reason and 28% had "No comment" listed. For allocation transfers without a representative price, 66% of the transfer had "No comment" listed and 21% had "Transfer to a related account" listed as the transfer reason. The average share price decrease slightly for DWG, RG, and SWG, and decreased considerably for GG (-\$8.53/lb), while the share price increased slightly for TF. Allocation prices decreased slightly for GG and SWG, remained similar for DWG and TF, and increased slightly for RG. Average ex-vessel price increased for all share categories. Within share categories that contained multiple species, some species had considerably higher ex-vessel prices than the other species. In DWG, which had a category average ex-vessel price of \$4.62, yellowedge grouper had a species ex-vessel price of \$4.75/lb. For SWG, black grouper (\$4.89/lb) and scamp (\$4.67/lb) had average prices that were greater than the category's average ex-vessel price (\$4.61/lb). For TF, golden tilefish's average ex-vessel price of \$3.04/lb exceeds the share category average ex-vessel price of \$2.90/lb. The ex-vessel price within a share category in relation to the allocation price may influence fishermen behavior while fishing, with fishermen targeting the species that have a higher ex-vessel price. This may also be influenced by the amount of allocation individual fishermen must obtain outside of allocation from shares.

Looking Ahead

The Gulf Council is currently considering changes to both the RS-IFQ and GT-IFQ programs through Amendments 36A and 36B to the Reef Fish FMP. These amendments aim to improve the performance of the RS-IFQ and GT-IFQ programs based on suggestions from the Red Snapper 5-year review, an advisory panel, and Gulf Council discussions. Amendment 36A considers four actions: hail-in requirements for commercially permitted reef fish vessel that are not landing IFQ species, considerations for inactivated IFQ shareholder accounts (i.e., returning shares to NMFS, distribution of those shares), retaining allocation before a quota reduction, and dealer notification requirements. Amendment 36B considers the more complicated actions that deal with share and allocation caps, use requirements, program eligibility, and regulatory discards. Data are currently being analyzed for the Grouper-Tilefish five-year review and preliminary results will be discussed with the Gulf Council and their Scientific and Statistical Committee in the upcoming year.

The SERO Catch Share staff are continuously looking for ways to improve the interaction with the online Website. If you have a suggestion on how the online system can be further improved, please call or e-mail SERO Catch Share customer support as listed on the cover page.

Appendices

Appendix 1: Program history

Development of the Grouper-Tilefish Individual Fishing Quota (GT-IFQ) program began in 2008, when a majority of eligible voters, Gulf of Mexico (Gulf) reef fish permit holders having annual average grouper and tilefish landings of at least 8,000 pounds (lb) during 1999-2004, supported the formation of the GT-IFQ program through a referendum. During 2008, the Gulf of Mexico Fishery Management Council (Gulf Council) developed Amendment 29 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico, outlining the key components of the GT-IFQ program. In January 2009, the Gulf Council approved Amendment 29 by a vote of 14 to 3. Amendment 29⁶ was approved by NOAA's National Marine Fisheries Service (NMFS) in July 2009. Implementation of the program began in fall 2009 and the first fishing year of the program began on January 1, 2010. For the first five years of the program, shares and allocation could only be sold to and fished by an entity that held a valid commercial Gulf reef fish permit and had an active GT-IFQ online account. After January 1, 2015, all U.S. citizens and permanent resident aliens were eligible to purchase GT-IFQ shares and allocation, although a valid Gulf reef fish permit was still required to harvest, possess, and land any allocation.

Prior to implementation of the GT-IFQ program, commercial grouper-tilefish species were managed with limited access fishing permits, trip limits, size limits, closed seasons, and quotas. This resulted in overcapitalization of the commercial grouper-tilefish segment of the reef fish fishery. The collective harvesting capacity of fishing vessels was in excess of that required to harvest the commercial grouper-tilefish quotas, resulting in quota overages and early closures. In 2004 and 2005, the shallow-water grouper fishing season was shortened by 6-10 weeks, and between 2003 and 2009. The deep-water grouper and tilefish seasons year-round seasons in 2003-2004 were shortened by more than 50% with closures in April through June, and seasons as short as 15 weeks. It was anticipated that under the prevailing management regime incentives for derby fishing would persist.

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

⁶ <http://sero.nmfs.noaa.gov/sf/pdfs/Amendment%2029%20Final%20Rule.pdf>

Appendix 2: Commercial Management Histories

Appendix 2.1 Gag commercial management history

Year	Days Open	Size Limit (" TL)	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	311	20	7.8 SWG	0.79	20" TL minimum size limit SWG season: Jan 1 – Nov 7 (Amend. 1) Created deep-water and shallow-water aggregates (Amend. 1) 11 mp ww commercial quota for all groupers: 1.8 mp ww for DWG (Amend. 1) Established commercial reef fish permit (Amend. 1) Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL (Amend. 1)
1991	365	20	7.8 SWG	0.93	
1992	366	20	8.2 SWG	1.24	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4)
1993	365	20	8.2 SWG	1.48	
1994	365	20	8.2 SWG	1.28	Extends reef fish permit moratorium through 1995
1995	365	20	8.2 SWG	1.34	
1996	366	20	8.2 SWG	1.27	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	20	8.2 SWG	1.4	
1998	365	20	8.2 SWG	2.25	
1999	320	24	8.2 SWG	1.74	Increased commercial size limit to 24" TL Prohibited sale of gag from Feb 15 – Mar 15 (peak gag spawning season) Established two marine reserves
2000	320	24	8.2 SWG	1.91	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	320	24	8.2 SWG	2.78	
2002	320	24	8.2 SWG	2.66	
2003	320	24	8.2 SWG	2.29	
2004	275	24	8.8 SWG	2.88	Secretarial amendment 1 reduced the SWG quota to 8.8 mp gw
2005	320	24	8.8 SWG	2.47	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw
2006	320	24	8.8 SWG	1.37	Required commercially permitted reef fish vessels to be equipped with VMS
2007	320	24	8.8 SWG	1.26	
2008	320	24	8.8 SWG	1.32	
2009	320	24	1.32	0.75	Defined maximum stock size threshold and optimum yield for gag Set gag and red grouper allocations between recreational and commercial sectors Reduced SWG quota from 8.80 mp to 7.8 mp Set gag quota at 1.32 mp gw (Amend 30B) Repealed the commercial closed season (Feb 15-Mar 15) Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps (Amend 31) Created a longline endorsement permit for vessels in the Eastern Gulf (Amend 31) May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act
2010	365	24	1.410	0.497	Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31) Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31)
2011	365	24	0.430	0.319	Gag quota initially set at 0.10 mp gw Mid-year quota increase of 0.33 mp gw
2012	366	22	0.567	0.523	Mid-year quota increase of 0.137 mp gw Set ACLs and ACTs for gag (Amend. 32) Established rebuilding plan for gag (Amend. 32) Adjust multi-use IFQ shares in the GT-IFQ program (Amend. 32) Reduced gag commercial size limit to 22" TL (Amend. 32)
2013	365	22	0.708	0.575	
2014	365	22	0.835	0.586	
2015	365	22	0.939	0.542	

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

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

Appendix 2.2: Red grouper commercial management history

Year	Days Open	Size Limit (" TL)	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	311	20	7.8 SWG	4.74	SWG season: Jan 1 – Nov 7 (Amend. 1) Created deep-water and shallow-water aggregates (Amend. 1) 11 mp ww commercial quota for all groupers: 1.8 mp ww for DWG (Amend. 1) Established commercial reef fish permit (Amend. 1) Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL (Amend. 1)
1991	365	20	7.8 SWG	5.07	
1992	366	20	8.2 SWG	4.46	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4)
1993	365	20	8.2 SWG	6.36	
1994	365	20	8.2 SWG	4.89	Extends reef fish permit moratorium through 1995
1995	365	20	8.2 SWG	4.65	
1996	366	20	8.2 SWG	4.34	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	20	8.2 SWG	4.67	
1998	365	20	8.2 SWG	3.70	
1999	320	20	8.2 SWG	5.80	Prohibited sale of red grouper from Feb 15 – Mar 15 (peak gag spawning season) Established two marine reserves
2000	320	20	8.2 SWG	5.70	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	320	20	8.2 SWG	5.80	
2002	320	20	8.2 SWG	5.79	
2003	320	20	8.2 SWG	4.83	
2004	319	20	5.31	5.64	
2005	282	20	5.31	5.38	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw Secretarial Amendment 1 to the Reef Fish FMP set red grouper quota at 5.31 mp gw
2006	365	20	5.31	5.10	
2007	365	20	5.31	3.64	
2008	366	20	5.31	4.75	
2009	365	18	5.75	3.70	Set gag and red grouper allocations between recreational and commercial sectors Reduced SWG quota from 8.90 mp to 7.48 mp Increased red grouper quota from 5.31 to 5.75 mp Repealed the commercial closed season (Feb 15-Mar 15) Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act
2010	365	18	5.750	2.911	Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31) Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31) Set red grouper TAC at 5.68 mp gw for 2011 (76% commercial = 4.32 mp gw)
2011	365	18	5.230	4.784	Mid-year quota increase of 0.91 mp gw Regulatory amendment allows red grouper TAC to increase until 2015, as long as TAC not exceeded in previous years
2012	366	18	5.370	5.219	Set ACLs and ACTs for red grouper (Amend. 32) Adjust multi-use IFQ shares in the GT-IFQ program (Amend. 32)
2013	365	18	5.530	4.599	
2014	365	18	5.630	5.602	
2015	365	18	5.720	4.798	

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

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

Appendix 2.3: SWG commercial management history

Year	Days Open	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	311	7.8	6.94	SWG season: Jan 1 – Nov 7 (Amend. 1) Created deep-water and shallow-water aggregates (Amend. 1) 11 mp ww commercial quota for all groupers: 1.8 mp ww for DWG (Amend. 1) Established commercial reef fish permit (Amend. 1) Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL (Amend. 1) Minimum size limit: Nassau grouper, yellowfin grouper, and black grouper = 20" TL
1991	365	7.8	7.07	Speckled hind moved from shallow-water grouper to deep-water grouper (Amend. 3)
1992	366	8.2	6.58	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4) Scamp is shallow-water until closed, then deep-water Conversion from ww to gw modified to 1.05 for DWG and SWG
1993	365	8.2	8.61	
1994	365	8.2	6.80	Extends reef fish permit moratorium through 1995
1995	365	8.2	6.50	
1996	366	8.2	6.12	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	8.2	6.53	Prohibited the harvest of Nassau grouper (Amend. 14).
1998	365	8.2	6.38	
1999	320	8.2	8.11	Established two marine reserves
2000	320	8.2	8.18	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	320	8.2	9.19	
2002	320	8.2	9.05	
2003	320	8.2	7.77	
2004	319	8.88	8.88	
2005	282	8.88	8.18	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw
2006	365	8.88	6.74	
2007	365	8.88	5.19	
2008	366	8.88	6.35	
2009	365	7.48	4.70	Reduced SWG quota from 8.88 mp to 7.48 mp Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31) Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31) Reduced SWG quota to 0.41 mp Multi-use flexibility allows warsaw grouper and speckled hind to be landed with SWG allocation
2010	365	0.410	0.176	
2011	365	0.410	0.187	
2012	366	0.509	0.298	Increased TAC to 0.51 mp Minimum size limits: black grouper = 24" TL; yellowfin grouper = 20" TL; Scamp = 16" TL
2013	365	0.518	0.301	
2014	365	0.523	0.230	
2015	365	0.525	0.238	

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

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

Appendix 2.4: DWG commercial management history

Year	Days Open	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	365	1.52	1.03	Created deep-water and shallow-water aggregates (Amend. 1) 11 mp ww commercial quota for all groupers: 1.8 mp ww for DWG (Amend. 1) Established commercial reef fish permit (Amend. 1) Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL (Amend. 1)
1991	365	1.52	1.00	Speckled hind moved from shallow-water grouper to deep-water grouper (Amend. 3)
1992	366	1.6	1.28	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4) Scamp is shallow-water until closed then deep-water Conversion from ww to gw modified to 1.05 for DWG and SWG
1993	365	1.6	0.95	
1994	365	1.6	1.27	Extends reef fish permit moratorium through 1995
1995	365	1.6	0.97	
1996	366	1.6	0.63	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	1.6	0.90	
1998	365	1.6	0.77	
1999	365	1.6	1.20	Established two marine reserves
2000	366	1.6	1.39	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	365	1.6	1.04	
2002	365	1.6	1.07	
2003	365	1.6	1.54	
2004	177	1.02	1.25	Reduced commercial quota for DWG (Secretarial Amend. 1)
2005	130	1.02	1.14	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw Closed on June 23, 2005
2006	152	1.02	1.07	Closed on June 27, 2006
2007	173	1.02	1.16	Closed on June 2, 2007
2008	142	1.02	1.11	Closed on May 10, 2008; re-opened DWG Nov 1-10, 2008
2009	196	1.02	1.13	Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act
2010	365	1.020	0.606	Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31) Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31) Reduced DWG quota to 1.02 mp Multi-use flexibility allows scamp to be landed with DWG allocation
2011	365	1.020	0.779	
2012	366	1.127	0.966	Increased TAC to 1.13 mp; misty grouper removed from Reef Fish FMP and IFQ program
2013	365	1.118	0.920	
2014	365	1.110	1.081	
2015	365	1.101	0.955	

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

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

Appendix 2.5: TF commercial management history

Year	Days Open	Quota ¹ (mp gw)	Harvest (mp gw)	Commercial Management Action
1990	365	NA	0.39	Established commercial reef fish permit Longline gear prohibited inshore of 50 fathoms depth west and 20 fathoms east of Cape San Blas, FL Added golden tilefish, goldface tilefish, blackline teilfish, anchor tilefish, and blueline tilefish to the FMP (Amend. 1).
1991	365	NA	0.33	
1992	366	NA	0.40	Establish a moratorium on issuing new reef fish permits for 3 years, but allows transfers (Amend. 4)
1993	365	NA	0.37	
1994	365	NA	0.49	Extends reef fish permit moratorium through 1995
1995	365	NA	0.49	
1996	366	NA	0.23	New reef fish permit moratorium through 2000 (Amend. 11)
1997	365	NA	0.44	
1998	365	NA	0.36	
1999	365	NA	0.42	Established two marine reserves
2000	366	NA	0.55	Extend reef fish permit moratorium through 2005 (Amend. 17)
2001	365	NA	0.53	
2002	365	NA	0.55	
2003	365	NA	0.48	
2004	366	0.44	0.61	Secretarial Amendment 1: established a commercial quota of 0.44 mp gw for all tilefish (equal to average annual harvest from 1996-2000)
2005	324	0.44	0.63	Established permanent limited access system for commercial Gulf reef fish (Amend. 24) Aggregate deep-water and shallow-water grouper commercial trip limit of 6,000 lb gw
2006	202	0.44	0.42	
2007	107	0.44	0.42	
2008	130	0.44	0.50	
2009	134	0.44	0.55	Jan – April seasonal closure at Edges 40 fathom contour and at Steamboat Lumps May – Oct: Emergency interim regulation prohibiting longlines inside of 50 fathoms Oct: Reef fish bottom longline fishing restricted inside of the 35-fathom depth contour and limited to 1,000 hooks, with no more than 750 rigged for fishing under Endangered Species Act
2010	365	0.440	0.250	Began the IFQ system for commercial grouper and tilefish (Amend. 29) Longline endorsement required (Amend. 31) Reef fish bottom longline fishing restricted to outside the 35-fathom depth contour from June – August (Amend. 31) Longlines limited to 1000 hooks, with no more than 750 rigged for fishing (Amend. 31)
2011	365	0.440	0.386	
2012	366	0.582	0.451	Increased TAC to 0.58 mp; Anchor and blackline tilefish removed from Reef Fish FMP and IFQ program.
2013	365	0.582	0.440	
2014	365	0.582	0.517	
2015	365	0.582	0.537	

¹ Tilefish included: Golden tilefish, blueline tilefish, goldface tilefish, anchor tilefish, and blackline tilefish. In 2012, anchor and blackline tilefish were removed from the GT-IFQ program.

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

Appendix 3: 2010 Deepwater Horizon (DWH) oil spill closures

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

Appendix 4: Price Analysis Rationale

Price information is crucial to the economic evaluation of the program. The Grouper-Tilefish Individual Fishing Quota (GT-IFQ) program continues to have price collection or reporting issues with respect to share transfers, allocation transfers, and ex-vessel prices, although some improvements have occurred. Since mid-year 2010, a minimum transfer price of \$0.01 has been required for all share transfers. Despite requiring participants to enter a transaction price for share transfers, many share transactions specify a transaction value of \$0.01. Allocation transfer prices are currently not required by the online system (e.g., a zero value may be entered). Share prices were analyzed by year and generally resulted in right skewed distributions. Maximum share prices were selected to exclude unusually high and infrequent share prices. Minimum values were selected based on low-value outliers. Allocation prices were analyzed on a yearly basis. Allocation prices generally had a bimodal distribution that depicted a subset of transactions with low price information. The minimum allocation price was set to the valley between the bi-modal distributions. The maximum allocation prices were selected to exclude unusually high and infrequent allocation prices, including all prices in excess of the maximum ex-vessel value reported. Share and allocation prices included in the analyses were equal to or greater than the minimum value selected and equal to or less than the maximum value selected (see table above).

Cat.	Year	Share		Allocation		Cat.	Year	Share		Allocation	
		Min.	Max.	Min.	Max.			Min.	Max.	Min.	Max.
DWG	2010	\$2	\$30	\$0.50	\$3.00	GG	2010	\$2	\$40	\$0.50	\$5.00
	2011	\$2	\$30	\$0.50	\$3.00		2011	\$4	\$60	\$0.50	\$5.00
	2012	\$2	\$30	\$0.50	\$4.00		2012	\$4	\$60	\$0.50	\$5.00
	2013	\$2	\$30	\$0.50	\$3.00		2013	\$4	\$60	\$0.50	\$5.00
	2014	\$2	\$30	\$0.50	\$3.00		2014	\$5	\$60	\$0.50	\$5.00
	2015	\$2	\$30	\$0.50	\$3.00		2015	\$5	\$60	\$0.50	\$5.00
RG	2010	\$2	\$15	\$0.30	\$4.00	SWG	2010	\$2	\$30	\$0.30	\$5.00
	2011	\$2	\$15	\$0.30	\$4.00		2011	\$2	\$30	\$0.30	\$5.00
	2012	\$2	\$15	\$0.30	\$4.00		2012	\$3	\$30	\$0.30	\$5.00
	2013	\$2	\$20	\$0.30	\$4.00		2013	\$3	\$30	\$0.20	\$5.00
	2014	\$3	\$20	\$0.30	\$4.00		2014	\$3	\$30	\$0.20	\$5.00
	2015	\$3	\$20	\$0.30	\$4.00		2015	\$3	\$30	\$0.20	\$5.00
TF	2010	\$1	\$20	\$0.10	\$2.00						
	2011	\$1	\$20	\$0.10	\$2.00						
	2012	\$1	\$20	\$0.10	\$2.00						
	2013	\$1	\$20	\$0.10	\$4.00						
	2014	\$1	\$20	\$0.10	\$4.00						
	2015	\$1	\$20	\$0.10	\$4.00						

Ex-vessel prices have varied since the start of the GT-IFQ program. Extremely low prices have been attributed to dealers reporting ex-vessel prices after deducting for transferred or leased allocation, goods (e.g., bait, ice, fuel) and/or services (e.g., repairs, machinery replacement). The definition of actual ex-vessel price was changed through regulations in June 2011 and prohibits the cost of allocation transfers,

goods, and /or services from being deducted from ex-vessel prices. Despite the new regulation in 2011, ex-vessel prices in some instances continue to be under-reported in the IFQ online system. An expected range of reasonable prices was calculated for each price variable by investigating the frequency of each price within a given year(s). Any price value outside the given range was excluded from analysis. All price information decisions were verified against averages submitted by industry representatives. Ex-vessel prices were analyzed on a yearly basis. Ex-vessel price distributions were left skewed, with infrequent but unusually low prices for many of the species. Minimum prices were selected to exclude these unusually low and infrequent ex-vessel prices. It is thought that these prices reflect an additional deduction as stated above. The maximum value was selected as <\$10. \$10 is the maximum amount allowed to be entered into the system. Any values of \$10 were excluded, as they most likely resulted from typographical errors when entering the value. The table below shows the minimum price that was included in the ex-vessel price analyses.

Ex-vessel minimum price:

Cat	Species	Minimum Price					
		2010	2011	2012	2013	2014	2015
DWG	Snowy grouper	\$2.20	\$2.20	\$2.20	\$2.20	\$2.20	\$2.20
	Speckled hind	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00
	Warsaw grouper	\$1.20	\$1.20	\$1.20	\$2.20	\$2.20	\$2.20
	Yellowedge grouper	\$2.20	\$2.20	\$2.80	\$2.80	\$2.80	\$2.80
GG	Gag	\$2.70	\$2.70	\$2.90	\$2.90	\$2.90	\$2.90
RG	Red grouper	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00
SWG	Black grouper	\$2.80	\$2.80	\$2.80	\$2.80	\$2.80	\$2.80
	Scamp	\$2.50	\$2.50	\$3.20	\$3.20	\$3.20	\$3.20
	Yellowfin grouper	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00
	Yellowmouth grouper	\$2.80	\$2.80	\$2.80	\$2.80	\$2.80	\$2.80
TF	Blueline tilefish	\$0.20	\$0.20	\$0.50	\$0.80	\$0.80	\$0.80
	Golden tilefish	\$0.50	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
	Goldface tilefish	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50

Appendix 5: Monthly landings by share category

DWG	2010	2011	2012	2013	GG	2010	2011	2012	2013
Jan	35,392	38,204	34,848	29,235	Jan	43,562	24,071	60,119	53,809
Feb	50,751	58,313	42,385	34,613	Feb	48,530	20,557	47,387	53,261
Mar	61,150	57,849	57,181	55,393	Mar	59,766	8,535	84,824	67,014
Apr	91,009	60,320	66,874	108,063	Apr	54,033	6,470	48,400	62,902
May	100,750	50,734	72,627	118,960	May	56,455	7,542	54,861	79,613
Jun	55,413	82,159	78,863	102,574	Jun	43,773	35,315	25,247	48,369
Jul	23,210	78,053	78,803	82,606	Jul	22,486	25,211	44,672	38,466
Aug	73,442	107,643	109,564	136,636	Aug	27,624	25,077	23,116	35,058
Sept	27,411	41,232	92,812	50,247	Sept	27,371	27,614	29,441	22,929
Oct	26,855	71,477	118,894	65,751	Oct	25,727	23,666	24,270	27,367
Nov	31,500	68,986	89,764	62,209	Nov	19,537	34,324	32,495	19,533
Dec	47,879	64,549	121,212	66,636	Dec	65,074	81,755	50,224	71,343
RG	2010	2011	2012	2013	SWG	2010	2011	2012	2013
Jan	192,597	331,276	421,337	332,092	Jan	18,664	13,712	19,805	24,189
Feb	178,559	448,858	470,532	425,215	Feb	21,420	21,907	22,302	29,567
Mar	207,862	466,548	630,864	347,683	Mar	21,456	17,805	30,298	27,567
Apr	174,968	401,810	509,247	433,049	Apr	17,821	12,847	20,776	28,918
May	183,095	459,804	609,515	410,599	May	12,579	16,762	26,444	39,789
Jun	331,751	291,691	281,429	282,794	Jun	13,769	17,283	18,799	32,217
Jul	152,992	256,111	533,947	238,039	Jul	7,091	16,725	28,985	32,899
Aug	199,203	289,854	333,414	267,511	Aug	11,915	17,534	28,351	24,286
Sept	344,546	440,791	337,003	459,665	Sept	11,266	14,286	21,451	13,299
Oct	347,699	394,506	355,110	481,298	Oct	7,618	8,353	28,290	18,703
Nov	324,820	408,189	299,272	310,562	Nov	5,880	10,693	23,001	10,924
Dec	275,766	592,756	435,535	606,062	Dec	8,755	18,328	31,856	25,488
TF	2010	2011	2012	2013					
Jan	8,394	28,302	18,918	19,636					
Feb	21,028	18,835	29,397	8,331					
Mar	33,462	27,464	31,960	14,501					
Apr	44,533	26,043	30,920	25,456					
May	22,382	23,297	24,966	49,315					
Jun	10,397	32,987	24,185	26,924					
Jul	4,229	33,504	22,632	19,910					
Aug	24,940	20,209	34,894	61,498					
Sept	11,826	16,098	52,189	24,329					
Oct	19,335	25,582	86,750	59,911					
Nov	14,521	55,566	21,861	54,381					
Dec	34,661	78,247	72,449	75,899					

Appendix 6: Ex-vessel value by species

Cat.	Species	2010	2011	2012	2013	2014	2015
DWG	Snowy grouper	\$272,301	\$452,018	\$581,500	\$402,762	\$618,913	\$454,940
	Speckled hind	\$45,116	\$79,116	\$140,952	\$123,196	\$268,425	\$222,164
	Warsaw grouper	\$146,308	\$166,730	\$267,653	\$358,459	\$277,509	\$211,562
	Yellowedge grouper	\$1,664,723	\$2,240,559	\$2,912,679	\$3,039,922	\$3,604,832	\$3,487,366
GG	Gag	\$2,119,886	\$1,458,641	\$2,450,862	\$2,815,902	\$2,909,459	\$2,778,761
RG	Red grouper	\$8,860,503	\$15,054,137	\$16,746,280	\$16,266,616	\$21,136,879	\$18,877,637
SWG	Black grouper	\$82,821	\$142,774	\$205,481	\$255,257	\$285,382	\$267,257
	Scamp	\$623,625	\$623,262	\$1,081,530	\$1,094,629	\$764,636	\$845,335
	Yellowfin grouper	\$4,746	\$2,985	\$2,652	\$3,543	\$2,513	\$1,785
	Yellowmouth grouper	\$315	\$2,128	\$2,240	\$3,543	\$5,181	\$4,270
TF	Blueline tilefish	\$21,196	\$50,546	\$107,806	\$73,197	\$99,495	\$84,250
	Golden tilefish	\$366,660	\$780,462	\$890,360	\$1,040,230	\$1,229,238	\$1,465,747
	Goldface tilefish	\$129,043	\$62,607	\$25,526	\$21,151	\$18,507	5,304

Glossary

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

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

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

Allocation Holder – An account that holds allocation and may or may not hold shares.

Allocation Only Holder – An account that only holds allocation and does not hold shares.

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

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

Ex-vessel price – The price paid to the vessel by a dealer per pound of fish before any deductions are made for transferred (leased) allocation and goods and/or services (e.g., bait, ice, fuel, repairs, machinery replacement, etc.).

Ex-vessel value - A measure of the dollar value of commercial landings, usually calculated as the price per pound at first purchase of the commercial landings multiplied by the total pounds landed

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

IFQ Dealer Endorsement – The IFQ dealer endorsement is a document that a dealer must possess in order to receive Gulf of Mexico GT-IFQ species. 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 that 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 – The dealer completes a landing transaction by entering the date, time, and location of transaction; weight and actual ex-vessel price of GT-IFQ species landed and sold; and information necessary to identify the fisherman, vessel, and dealer involved in the transaction into the IFQ online system. The fisherman landing IFQ species must validate the dealer transaction report by entering his vessel's 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 for that particular time period. The exact share percentage that is equivalent to one pound depends on the total commercial quota and will change as the quota changes from year to year or within a year from any quota increases.

Public Participant – Accounts that do not have an associated Gulf commercial reef fish permit. Public participants may hold and transfer shares and allocation, but can not harvest GT-IFQ species.

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. With limited exceptions, your percent share of the quota does not change unless shares are transferred into or out of an account. Dealer accounts may not possess shares.

Share Cap – The maximum share allowed to be held by a person, business, or other entity. The share cap prevents one or more IFQ shareholders from purchasing an excessive amount of IFQ shares and monopolizing the GT-IFQ 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 system. Before January 1, 2012, shares could be transferred only to an entity that held a valid Gulf commercial reef fish permit.

Shareholder – An account that holds a percentage of the commercial GT-IFQ quota by share category.

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