Management Context

The Gulf of Mexico Region includes Alabama, Louisiana, Mississippi, Texas, and West Florida. Federal fisheries in this region are managed by the Gulf of Mexico Fishery Management Council (GMFMC) and NOAA Fisheries (NMFS) under eight fishery management plans (FMPs). The spiny lobster and coastal migratory pelagic resources fisheries are managed in conjunction with the South Atlantic Fishery Management Council (SAFMC).

Gulf of Mexico Region FMPs

1. Red Drum
2. Shrimp
3. Stone Crab
4. Reef Fish
5. Coastal Migratory Pelagic Resources (with SAFMC)
6. Spiny Lobster (with SAFMC)
7. Corals
8. Aquaculture

Of the stocks or stock complexes covered in these fishery management plans, four are currently listed as overfished: gag, gray triggerfish, greater amberjack, and red snapper. Four stocks or stock complexes are currently subject to overfishing: gag, gray triggerfish, greater amberjack, and red snapper.

The Aquaculture FMP was approved in 2009 and is the only federal FMP to solely address aquaculture. The purpose of the plan is to develop a regional permitting process to ensure that the aquaculture industry is environmentally sound and economically sustainable. As of May 2011, the FMP had not yet been implemented.

Commercial Fisheries

In 2009, commercial fishermen in the Gulf of Mexico Region landed 1.4 billion pounds of finfish and shellfish, earning $629 million in landings revenue. Landings revenue was dominated by shrimp ($325 million) and oyster ($72 million). These species commanded ex-vessel prices of $1.30 and $3.21 per pound, respectively, and comprised 63% of total landings revenue, but only 19% of total landings in the Gulf of Mexico Region.

Key Gulf of Mexico Region Commercial Species

- Blue crab
- Crawfish
- Groupers
- Menhaden
- Mullets
- Oyster
- Red snapper
- Shrimp
- Stone crab
- Tunas

Louisiana and Texas had the highest landings revenue in the region in 2009, $284 million and $150 million, respectively. The next greatest landings revenue came from West Florida with $116 million in landings revenue. In terms of pounds landed, Louisiana had the highest landings (1 billion pounds), followed by Mississippi (230 million pounds) and Texas (99 million pounds).

Economic Impacts[1]

In 2009, the Gulf of Mexico Region's seafood industry generated $391 million in sales impacts in Alabama, $1.7 billion in sales impacts in Louisiana, $289 million in sales impacts in Mississippi, $1.7 billion in sales impacts in Texas, and $13 billion in sales impacts in Florida. Florida generated the largest employment, income, and value added impacts, generating 65,000 jobs, $2.4 billion, and $4.3 billion, respectively. The smallest income impacts were generated in Mississippi ($113 million) and the smallest employment impacts were also generated in Mississippi (6,400 jobs).

The sector that generated the greatest employment impacts by state was the importers sector with 34,000 jobs in Florida and 2,500 jobs in Texas. The harvest sector in Texas generated 3,700 jobs. More sales impacts were generated by importers in Florida than any other sector in any another state in the region at $9.5 billion and the greatest value added impacts were also generated by importers in Florida ($2.9 billion).

Landings Revenue

Landings revenue in the Gulf of Mexico Region totaled $629 million in 2009. This was a 37% decrease (a 46% decrease in real terms) from 2000 levels ($997 million) and a 5% decrease (a 4.6% decrease in real terms) relative to 2008 ($662 million). Totaling $488 million in 2009, shellfish revenue experienced a 40% decrease (a 49% decrease in real terms) from 2000 to 2009 and experienced a 5.5% decrease (5.1% decrease in real terms) from 2008 to 2009.

Between 2000 and 2009, the landings revenue from shrimp decreased 50% (a 58% decrease in real terms) and the landings revenue for oyster increased 36% (a 17% increase in real terms).

Shrimp landings revenue and shrimp landings declined in the face of falling ex-vessel prices (decreasing 43%, a 33% decrease in real terms, from 2000 to 2009). This decrease in ex-vessel price can be partly attributed to loss of market share to shrimp imports, which increased 59% from 2000 to 2009, while landings of shrimp in the Gulf decreased 14% over the same time period.

In terms of finfish, Louisiana contributed the most ($62 million) followed by West Florida ($49 million), and Mississippi ($19 million). Shellfish landings revenue was dominated by Louisiana, which also contributed the most ($222 million) followed by Texas ($143 million), and West Florida ($67 million).

From 2000 to 2009, species or species groups with large changes in landings revenue include crawfish (increased 2090%), mullets (decreased 51%), and shrimp (decreased 50%). Species or species groups with large changes in landings revenue between 2008 and 2009 include crawfish (increasing 59%), tunas (increasing 35%), and groupers (decreasing 25%).

[1]The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: `www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf`)

Landings

Fishermen in the Gulf of Mexico Region landed 1.4 billion pounds of finfish and shellfish in 2009. This was a 20% decrease from the 1.8 billion pounds landed in 2000 but a 12% increase from the 1.3 billion pounds landed in 2008. Finfish landings contributed 75% of total landings in the Gulf of Mexico Region (1.1 billion pounds) in 2009. From 2008 to 2009, finfish landings experienced a 7.7% increase. Over the same time period, shellfish landings experienced a 27% increase from 284 million pounds in 2008 to 359 million in 2009 and a 10% decrease from 398 million pounds in 2000.

Commercial Fisheries Facts

Landings revenue

- On average, between 2000 and 2009, the key species or species groups accounted for 91% of total revenue, generating $650 million in the Gulf of Mexico Region.
- Shrimp had higher landings revenues than any other species or species group, averaging $409 million in landings revenue from 2000 to 2009.
- Crawfish had the largest annual increase in landings revenue over the 10 year time period, increasing 1144% from $684,000 in 2000 to $8.5 million in 2001.
- Crawfish had the largest annual decrease in landings revenue over the 10 year time period, decreasing 85% from $8.4 million in 2005 to $1.3 million in 2006.

Landings

- Key species or species groups contributed an average of 96% annually to total landings between 2000 and 2009.
- Menhaden, contributed the most to landings in the region, averaging 1.1 billion pounds from 2000 to 2009.
- Crawfish had the largest annual increase in landings over the 10 year time period, increasing 2549% from 393,000 in 2000 pounds to 10 million pounds in 2001.
- Crawfish had the largest annual decrease in landings over the 10 year time period, decreasing 90% from 15 million pounds in 2005 to 1.5 million pounds in 2006.

Prices

- Stone crab had the highest average annual ex-vessel price per pound ($4.02) over the time period, followed by tunas ($2.95), and red snapper ($2.68).
- Menhaden had the lowest average annual ex-vessel price per pound ($0.05) over the time period, followed by mullets ($0.65), and blue crab ($0.73).
- Crawfish had the largest annual increase in ex-vessel price over the 10 year time period, increasing 60% from $0.55 per pound in 2005 to $0.88 in 2006.
- Crawfish had the largest decrease in ex-vessel price over the 10 year time period, decreasing 53% from $1.74 per pound in 2000 to $0.82 in 2001.

Menhaden and shrimp had the highest annual landings in the Gulf of Mexico Region in 2009, with 1 billion pounds and 249 million pounds, respectively. Together they accounted for 88% of the total landings in 2009. Menhaden landings decreased 23% and shrimp landings decreased 14% during this period.

From 2000 to 2009, species or species groups with large changes in landings include crawfish (increasing 4633%), red snapper (decreasing 48%), and groupers (decreasing 42%). Species or species groups with large changes in landings between 2008 and 2009 include tunas (increasing 60%), shrimp (increasing 32%), and groupers (decreasing 22%).

Prices

The ex-vessel prices for the Gulf of Mexico Region's key species and species groups in 2009 were higher than their 10 year average for six of the key species (three of the species in real terms). Ex-vessel prices for oyster and red snapper increased the most between 2000 and 2009, increasing 56% (33% in real terms) and 49% (27% in real terms), respectively. Relative to ex-vessel prices in 2008, the Gulf of Mexico Region's crawfish experienced the greatest increase (35%, 35.5% in real terms) from $0.60 in 2008 to $0.81 in 2009. Of the changes in ex-vessel price experienced by species or species groups between 2008 and 2009, shrimp experienced the greatest decrease (33%, 32.8% in real terms) from $1.94 to $$1.30. Relative to ex-vessel prices in 2008, three species or species groups experienced increases, including oyster (10%).

In Alabama, the species or species group with the largest change in ex-vessel price from 2000 to 2009 was menhaden (156% increase, 119% increase in real terms) from $0.09 to $0.23. The largest change in ex-vessel price experienced in Louisiana was for oysters (57% increase, 34% increase in real terms) from $2.16 to $3.39 and in Mississippi the largest change in ex-vessel price was experienced by oysters (62% increase, 38% increase in real terms) from $1.72 to $2.78.

Recreational Fishing

In 2009, over 2.8 million recreational anglers took 22 million fishing trips in the Gulf of Mexico Region. Almost 90% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 59% were taken from a private or rental boat and another 37% were shore-based. Spotted seatrout were the most frequently caught species or species group with 29 million fish caught in 2009, and represented 47% of total fish caught in the region. Of the spotted seatrout caught, 57% of them were released rather than harvested.

Economic Impacts and Expenditures[1]

The contribution of recreational fishing activities in the Gulf of Mexico Region are reported in terms of economic impacts at the state level (employment, sales, income, and value added impacts) and expenditures on fishing trips and durable equipment at the regional level. Employment impacts in West Florida were the highest in the region with over 42,000 full- and part-time jobs generated by recreational fishing activities in the state. Texas (22,000 jobs), and Louisiana (20,000 jobs) followed in terms of employment impacts.

[1]Expenditures and economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see Marine Angler Expenditures in the United States, 2006, available at: `http://www.st.nmfs.noaa.gov/st5/publication/AnglerExpenditureReport/AnglerExpendituresReport_ALL.pdf`)

Overall, these employment impacts were generated by expenditures on recreational fishing trips taken by anglers (private or rental boat, for-hire boat, or shore-based trips) and expenditures on durable equipment. Throughout the Gulf of Mexico Region, most of the employment impacts in 2009 were generated by expenditures on durable equipment: 92% in Mississippi, 91% in Texas, and 81% in Louisiana.

In addition to employment impacts, the contribution of recreational fishing activities to the Gulf of Mexico Region's economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value added impacts). In 2009, sales impacts were the highest in West Florida ($4.4 billion in sales impacts), followed by Texas ($2.8 billion), Louisiana ($1.8 billion), Alabama ($475 million), and Mississippi ($417 million). In the same year, value added impacts were the highest in West Florida ($2.4 billion in value added impacts), followed by Texas ($1.4 billion), Louisiana ($894 million), Alabama ($245 million), and Mississippi ($162 million).

Key Gulf of Mexico Region Recreational Species

- Atlantic croaker
- Gulf and southern kingfish
- Sand and silver seatrout
- Spotted seatrout
- Sheepshead porgy
- Red drum
- Red snapper
- Southern flounder
- Spanish mackerel
- Striped mullet

Overall, total fishing trip and durable equipment expenditures across the Gulf of Mexico Region in 2009 were $10 billion. Approximately 87% of these expenditures were related to durable equipment purchases. The greatest expenditures were for boat expenses ($4.1 billion), followed by fishing tackle ($1.5 billion), vehicle expenses ($1.4 billion), second home expenses ($1.2 billion), and other equipment ($570 million). Fishing trip-related expenditures by the Gulf of Mexico Region's non-residents totaled over $523 million of which the greatest portion can be attributed to shore-based fishing trips ($241 million). Residents of the Gulf of Mexico Region spent $794 million on saltwater fishing trips, with most of these expenses related to private boat trips ($561 million).

Participation

There were 2.8 million recreational anglers who fished in the Gulf of Mexico Region in 2009. This was a 4.3% increase from 2000 (2.7 million anglers). These anglers were Gulf of Mexico Region residents from either a coastal county (2.5 million anglers) or non-coastal county (296,000 anglers). Almost 90% of total anglers in 2009 were residents of a coastal county. Coastal county angler participation in 2009 increased 0.5% relative to 2000 (2.5 million anglers) and decreased 13% between 2008 and 2009. Non-coastal county angler participation increased 55% relative to 2000 (191,000 anglers) and increased 13% relative to 2008 (262,000 anglers).

Fishing Trips

Recreational fishermen took 22 million fishing trips in the Gulf of Mexico Region in 2009. This was a 6.1% increase from the 2000 (21 million trips) and was 1.8 million fewer trips than taken in 2008. Of the total trips taken in Gulf of Mexico Region in 2009, approximately 59% of the trips were private or rental boat based (13 million) trips. The other most popular mode of fishing was shore based with 8.3 million trips in 2009.

Recreational Fishing Facts

Participation

- An average of 3.2 million anglers fished in Gulf of Mexico Region annually from 2000 to 2009.
- In 2009, coastal county residents made up 90% of total anglers in this region. These anglers averaged 92% of total anglers annually over the 10 year time period.
- The largest annual increase in the number of coastal anglers during the 10 year time period occurred between 2002 and 2003, increasing 22%, from 2.5 million anglers to 3 million anglers.
- The largest annual decrease during the same period for coastal anglers occurred between 2001 and 2002, decreasing 14%, from 2.9 million anglers to 2.5 million anglers.

Fishing trips

- In the Gulf of Mexico Region, an average of 23 million fishing trips were taken annually from 2000 to 2009.
- Private or rental boat and shore-based fishing trips accounted for 13 million and 8.3 million fishing trips, respectively, in 2009. Together these made up 96% of the fishing trips taken in that year.
- The largest annual increase in the number of total trips taken annually over the 10 year time period occurred between 2002 and 2003, increasing 17%, from 20 million trips to 23 million trips.
- The largest annual decrease during the same period in total trips taken occurred between 2001 and 2002, decreasing 14%, from 23 million trips to 20 million trips.

Harvest and release

- Spotted seatrout was the most commonly caught key species or species group, averaging 29 million fish over the 10 year time period. Of these, 61% were released rather than harvested.
- Of the ten commonly caught key species or species groups, five were released more often than harvested over this time period. The species or species group that was most commonly released was Atlantic croaker (70% released).
- Striped mullet (82% harvested), followed by southern flounder (77% harvested), and gulf and southern kingfish (69% harvested) were key species or groups that experienced the greatest proportion of harvests rather than releases.
- The largest annual change in the number of fish released was for releases of striped mullet, which increased 269% between 2002 and 2003; the largest annual change in number of fish harvested occurred in Atlantic croaker, which increased 91% from 2005 to 2006.

Harvest and Release

Of the Gulf of Mexico Region's key species and species groups, spotted seatrout (29 million fish), red drum (8.1 million fish), sand and silver seatrout (6.5 million fish) and Atlantic croaker (5.3 million fish) were the most often caught by anglers in 2009. Red snapper (75% released), Atlantic croaker (73% released), red drum (68% released), spotted seatrout (57% released), and Spanish mackerel (53% released) were most often released rather than harvested. Species or species groups that were harvested more often than released by anglers include striped mullet (78% harvested) and southern flounder (77% harvested).

At the state level, spotted seatrout was the most commonly caught species in West Florida, Louisiana, and Mississippi with a total of 28 million fish caught across the three states. In Alabama, the most commonly caught fish was sand seatrout (2 million fish) and spotted seatrout was the most commonly harvested fish in Texas[1] (810,000 fish) in 2009.

Between 2000 and 2009, five of the Gulf of Mexico Region's key species or species groups showed decreases in catch totals. Key species or groups with the largest decreases were striped mullet (48%), Atlantic croaker (12%), and gulf and southern kingfish (10%).

Marine Economy

The sum of the gross domestic products by state for Alabama, Louisiana, Mississippi, Texas, and Florida[2] was $2.4 trillion in 2009. Employee compensation totaled $1.3 trillion and annual payroll totaled $814 billion. These economic measures increased 49% (a 27% increase in real terms) and 46% (a 24% increase in real terms), respectively, between 2000 and 2008; and experienced a 2.9% increase (a 7.1% decrease in real terms), and 3.4% increase (a 6.6% decrease in real terms), respectively, between 2007 and 2008.

In 2008, the commercial fishing location quotient (CFLQ) for Louisiana was the highest in the region at 2.19. This was an 19% increase from 2001 and a 12% decrease from 2007. Louisiana's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is approximately 2 times higher than the level of employment in these industries nationwide. The CFLQ 2008 in West Florida was 0.97 (a 29% decrease from 2000.

Seafood Sales and Processing

In 2008, there were 414 nonemployer firms, businesses that have no paid employees and are subject to federal income tax, engaged in seafood product preparation and packaging across the Gulf of Mexico Region. This was a 47% increase from 2000 levels. Over the same time period, Louisiana experienced a 97% increase. In 2008, 8% of these firms were located in Alabama. Region-wide, annual receipts totaled $25 million in 2008 and increased 11% from 2000 to 2008. Annual receipt totals experienced a 19% decrease in Mississippi between 2000 and 2008 (31% decrease in real terms). In contrast to an increase in nonemployer firms region-wide, the number of employer establishments engaged in seafood product preparation and packaging decreased 29% from 182 in 2000 to 129 in 2008. Approximately 28% of these establishments were located in Louisiana. The number of employees in the seafood product preparation and packaging sector decreased 23% from 10,839 employees in 2000 to 8,309 employees in 2009.

There were 443 seafood wholesale establishments in 2008 that employed 3,941 full- and part-time workers. From 2000 to 2008, the number of seafood wholesale establishments decreased 35% and the number of employees decreased 38% across the Gulf of Mexico Region.

Nonemployer firms engaged in seafood retail in the Gulf of Mexico Region totaled 806 in 2008, a 24% increase relative to 2000. Of these firms, 7.1% were located in Alabama. At the state level, these firms increased 5.8% in Louisiana and decreased 7.7% in Mississippi between 2000 and 2008. Annual receipts in the region totaled $79 million in 2008 a 56% increase from 2000 (a 33% increase in real terms) and a 6.6% increase from 2008 (a 3.7% decrease in real terms).

Employer establishments engaged in seafood retail increased 20% from 2000 to 2008, totaling 386 in 2008. The number of employees was not available for the retail sector in the Gulf of Mexico Region in 2008.

Transport, Support, and Marine Operations

For the sectors in which information was available at the region level, marinas employed more people than any other industry in this sector, employing approximately 7,200 people in 2008. This industry also had the highest annual payroll in the region totaling $207 million. Marinas had the highest number of establishments (701), followed by the ship and boat building industries with 582 establishments and the navigational services to shipping industries with 416 establishments.

In Alabama, industries with large changes in establishment numbers, employees, or annual payroll from 2007 to 2008 were: deep sea passenger transportation (100% increase in establishments), port and harbor operations (100% increase in establishments), marine cargo handling (58% increase in payroll) and marine cargo handling (54% increase in employees). In Texas, large changes were seen for port and harbor operations (104% increase in payroll), coastal and Great Lakes freight transportation (91% increase in payroll), port and harbor operations (60% increase in establishments) and deep sea freight transportation (44% decrease in employees). In Louisiana, large changes were seen in the deep sea freight transportation (120% increase in payroll), deep sea freight transportation (60% increase in employees), port and harbor operations (57% increase in establishments) and marinas (46% decrease in payroll).

[1] The Texas Department of Wildlife only collects information about harvest and not total catch.
[2] Marine Economy information was not available for West Florida, information for the entire state of Florida is provided here.