Management Context

The Mid-Atlantic Region includes Delaware, Maryland, New Jersey, New York, and Virginia. Federal fisheries in this region are managed by the Mid-Atlantic Fishery Management Council (MAFMC) and NOAA Fisheries (NMFS) under seven fishery management plans (FMPs). Two of these FMPs are developed in conjunction with the New England Fisheries Management Council (NEFMC). The MAFMC is the lead Council for the Dogfish FMP and the NEFMC is the lead for the Monkfish FMP.

Mid-Atlantic Region FMPs

1. Atlantic mackerel squids and butterfish
2. Bluefish
3. Spiny dogfish (with the NEFMC)
4. Summer flounder scup and black sea bass
5. Surfclam and ocean quahog
6. Golden tilefish
7. Monkfish (with the NEFMC)

Of the stocks or stock complexes covered in these fishery management plans, one is currently listed as overfished: butterfish. No stocks in this region are currently subject to overfishing.

Commercial Fisheries

In 2009, commercial fishermen in the Mid-Atlantic Region landed 696 million pounds of finfish and shellfish, earning $435 million in landings revenue. Landings revenue was dominated by sea scallop ($162 million) and blue crab ($85 million). These species commanded ex-vessel prices of $6.31 and $1.10 per pound, respectively, and comprised 57% of total landings revenue, but only 15% of total landings in the Mid-Atlantic Region.

Key Mid-Atlantic Region Commercial Species

- American lobster
- Atlantic surf clam
- Blue crab
- Eastern oyster
- Menhaden
- Quahog clam
- Sea scallop
- Squid
- Striped Bass
- Summer flounder

Virginia and New Jersey had the highest landings revenue in the region in 2009, $153 million and $149 million, respectively. The next greatest landings revenue came from Maryland with $76 million in landings revenue. In terms of pounds landed, Virginia had the highest landings (426 million pounds), followed by New Jersey (162 million pounds) and Maryland (68 million pounds).

Economic Impacts[1]

In 2009, the Mid-Atlantic Region's seafood industry generated 407 in employment impacts in Delaware, 15,000 in employment impacts in Maryland, 38,000 in employment impacts in New Jersey, 44,000 in employment impacts in New York, and 19,000 in employment impacts in Virginia. New Jersey generated the largest impacts across the three other impact categories, generating $5.8 billion sales impacts, $1.3 billion in income, and $2.1 billion in value added impacts. The smallest income impacts were generated in Delaware ($11 million) and the smallest employment impacts were also generated in Delaware (407 jobs).

The sector that generated the greatest employment impacts by state was the retail sector with 22,000 jobs in New York and 13,000 jobs in New Jersey. The harvest sector in Maryland generated 2,800 jobs. More sales impacts were generated by importers in New York than any other sector in any another state in the region at $4.1 billion and the greatest value added impacts were also generated by importers in New York ($1.2 billion).

Landings Revenue

Landings revenue in the Mid-Atlantic Region totaled $435 million in 2009. This was a 25% increase (a 7.1% increase in real terms) from 2000 levels ($347 million) and a 5% decrease (a 4.6% decrease in real terms) relative to 2008 ($458 million). Totaling $339 million in 2009, shellfish revenue experienced a 36% increase (a 17% increase in real terms) from 2000 to 2009 and experienced a 7.3% decrease (7% decrease in real terms) from 2008 to 2009.

In terms of finfish, Virginia contributed the most ($42 million), followed by New Jersey ($23 million), and New York ($17 million). Shellfish landings revenue was dominated by New Jersey ($126 million), followed by Virginia ($111 million), and Maryland ($64 million).

Sea scallop and blue crab had the highest landings revenue in the Mid-Atlantic Region in 2009. Between 2000 and 2009, the landings revenue from sea scallop increased 145% (a 109% increase in real terms) and the landings revenue for blue crab 28% increase (a 9.5% increase in real terms).

From 2000 to 2009, species or species groups with large changes in landings revenue include American lobster (decreased 67%), squid (decreased 46%), and summer flounder (increased 32%). Species or species groups with large changes in landings revenue between 2008 and 2009 include Atlantic surf clam (increasing 366%), American lobster (decreasing 43%), and squid (decreasing 40%).

Landings

Fishermen in the Mid-Atlantic Region landed 696 million pounds of finfish and shellfish in 2009. This was a 2.8% decrease from the 715 million pounds landed in 2000 but a 1.9% increase from the 682 million pounds landed in 2008. Finfish landings contributed 71% of total landings in the Mid-Atlantic Region (491 million pounds) in 2009. From 2008 to 2009, finfish landings experienced a 1.9% increase. Over the same time period, shellfish landings experienced a 2% increase from 201 million pounds in 2008 to 205 million pounds in 2009 and a 0.6% increase from 203 million pounds in 2000.

[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`)

Commercial Fisheries Facts

Landings revenue

- On average, between 2000 and 2009, the key species or species groups accounted for 82% of total revenue, generating $322 million in the Mid-Atlantic Region.
- Sea scallop had higher landings revenues than any other species or species group, averaging $128 million in landings revenue from 2000 to 2009.
- Atlantic surf clam had the largest annual increase in landings revenue over the 10 year time period, increasing 366% from $5.7 million in 2008 to $26 million in 2009.
- Atlantic surf clam had the largest annual decrease in landings revenue over the 10 year time period, decreasing 83% from $32 million in 2007 to $5.7 million in 2008.

Landings

- Key species or species groups contributed an average of 82% annually to total landings between 2000 and 2009.
- Menhaden, contributed the most to landings in the region, averaging 418 million pounds from 2000 to 2009.
- Atlantic surf clam had the largest annual increase in landings over the 10 year time period, increasing 376% from 8.8 million in 2008 pounds to 42 million pounds in 2009.
- Atlantic surf clam had the largest annual decrease in landings over the 10 year time period, decreasing 84% from 54 million pounds in 2007 to 8.8 million pounds in 2008.

Prices

- Eastern oyster had the highest average annual ex-vessel price per pound ($6.32) over the time period, followed by quahog clam ($6.20), and sea scallop ($5.41).
- Menhaden had the lowest average annual ex-vessel price per pound ($0.06) over the time period, followed by Atlantic surf clam ($0.57), and squid ($0.63).
- Squid had the largest annual increase in ex-vessel price over the 10 year time period, increasing 126% from $0.38 per pound in 2008 to $0.86 in 2009.
- Squid had the largest decrease in ex-vessel price over the 10 year time period, decreasing 56% from $0.86 per pound in 2007 to $0.38 in 2008.

Menhaden and blue crab had the highest annual landings in the Mid-Atlantic Region in 2009, with 396 million pounds and 77 million pounds, respectively. Together they accounted for 68% of the total landings in 2009. Menhaden landings decreased 2% and blue crab landings increased 24% from 2000 to 2009.

From 2000 to 2009, species or species groups with large changes in landings include sea scallop (increasing 80%), squid (decreasing 71%), and American lobster (decreasing 66%). Species or species groups with large changes in landings between 2008 and 2009 include Atlantic surf clam (increasing 376%), squid (decreasing 73%), and quahog clam (decreasing 38%).

Prices

The ex-vessel prices for the Mid-Atlantic Region's key species and species groups in 2009 were higher than their 10 year average for eight of the key species (four of the species in real terms). Ex-vessel prices for Eastern oyster and squid experienced the biggest increases between 2000 and 2009, increasing 154% (118% in real terms) and 83% (57% in real terms), respectively. Relative to the ex-vessel prices in 2008, the Mid-Atlantic Region's squid experienced the greatest increase (126%, 127% in real terms) from $0.38 in 2008 to $0.86 in 2009. Of the changes in ex-vessel price experienced by species or species groups between 2008 and 2009, American lobster experienced the greatest decrease (17.3%, 17% in real terms) from $4.73 to $3.91. Relative to ex-vessel prices in 2008, four species or species groups experienced increases, including squid (126%), and menhaden (17%).

In Delaware, the species or species group with the largest change in ex-vessel price from 2000 to 2009 was weakfish (94% increase, 66% increase in real terms) from $0.97 to $1.88. The largest change in ex-vessel price experienced in Maryland was for Eastern oyster (154% increase, 117% increase in real terms from $3.04 to $7.73 and in New Jersey the largest change in ex-vessel price was experienced by blue crab (33% decrease, 43% decrease in real terms from $1.08 to $0.72).

Recreational Fishing

In 2009, over 2.6 million recreational anglers took 17 million fishing trips in the Mid-Atlantic Region. Over 93% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 57% of them were taken from a private or rental boat and another 36% were shore-based. Summer flounder were the most frequently caught species or species group with 24 million fish caught in 2009, and represented 33% of total fish caught in the region. Of the summer flounder caught, 93% of them were released rather than harvested.

Economic Impacts and Expenditures[1]

The contribution of recreational fishing activities in Mid-Atlantic 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 New Jersey were the highest in the region with over 8,500 full- and part-time jobs generated by recreational fishing activities in the state. Maryland (5,700 jobs), and Virginia (5,200 jobs), followed in terms of employment impacts.

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 Mid-Atlantic Region, most of the employment impacts in 2009 were generated by expenditures on durable equipment: 67% in New York, 66% in New Jersey, and 64% in Maryland. In addition to employment impacts, the contribution of recreational fishing activities to Mid-Atlantic Region's economy can be measured in terms of

[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`)

sales impacts and the contribution of these activities to gross domestic product (value added impacts). In 2009, sales impacts were the highest in New Jersey ($1.4 billion in sales impacts), followed by Maryland ($770 million), New York ($680 million), Virginia ($580 million), and Delaware ($193 million). In the same year, value added impacts were the highest in New Jersey ($728 million in value added impacts), followed by Maryland ($392 million), New York ($358 million), Virginia ($306 million), and Delaware ($89 million).

Overall, total fishing trip and durable equipment expenditures across the Mid-Atlantic Region in 2009 were $3.5 billion. Approximately 77% of these expenditures were generated by durable equipment purchases. The greatest expenditures were for vehicle expenses ($995 million), followed by fishing tackle ($767 million), boat expenses ($523 million), other equipment ($214 million), and second home expenses ($193 million). Fishing trip-related expenditures by the Mid-Atlantic Region's non-residents totaled over $302 million of which the greatest portion can be attributed to private boat-based fishing trips ($134 million). Residents of the Mid-Atlantic Region spent $506 million on saltwater fishing trips, with the most of these expenses generated by private boat trips ($310 million).

Key Mid-Atlantic Region Recreational Species

- Black seabass
- Bluefish
- Atlantic croaker
- Spot
- Scup
- Striped bass
- Summer flounder
- Weakfish drum
- Winter flounder
- Tautog

Participation

There were 2.6 million recreational anglers who fished in the Mid-Atlantic Region in 2009. This was a 25% increase from 2000 (2.1 million anglers). These anglers were Mid-Atlantic Region residents from either a coastal county (2.4 million anglers) or non-coastal county (187,000 anglers).Almost 93% of total anglers in 2009 were residents of a coastal county. Coastal county angler participation in 2009 increased 25% relative to 2000 (1.9 million anglers) and decreased 14% between 2008 and 2009. Non-coastal county angler participation increased 26% relative to 2000 (148,000 anglers) and decreased 5% relative to 2008 (197,000 anglers).

Fishing Trips

Recreational fishermen took 17 million fishing trips in the Mid-Atlantic Region in 2009. This was a 12% decrease from the 2000 (19 million trips) and was 3.5 million fewer trips than taken in 2008. Of the total trips taken in the Mid-Atlantic Region in 2009, approximately 57% of the trips were private or rental boat-based (9.8 million trips). The other most popular mode of fishing was shore based with 6.2 million trips in 2009.

Recreational Fishing Facts

Participation

- An average of 2.7 million anglers fished in Mid-Atlantic Region annually from 2000 to 2009.
- In 2009, coastal county residents made up 93% of total anglers in this region. These anglers averaged 93% 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 36%, from 1.6 million anglers to 2.2 million anglers.
- The largest annual decrease during the same period for coastal anglers occurred between 2001 and 2002, decreasing 28%, from 2.3 million anglers to 1.6 million anglers.

Fishing trips

- In the Mid-Atlantic Region, an average of 20 million fishing trips were taken annually from 2000 to 2009.
- Private or rental boat and shore-based fishing trips accounted for 9.8 million and 6.2 million fishing trips, respectively, in 2009. Together these made up 94% 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 19%, from 17 million trips to 20 million trips.
- The largest annual decrease during the same period in total trips taken occurred between 2001 and 2002, decreasing 22%, from 21 million trips to 17 million trips.

Harvest and release

- Summer flounder was the most commonly caught key species or species group, averaging 21 million fish over the 10 year time period. Of these, 84% were released rather than harvested.
- Of the ten commonly caught key species or species groups, eight were released more often than harvested over this time period. The species or species group that was most commonly released was summer flounder (84% released).
- Spot (67% harvested), followed by winter flounder (63% harvested), and Atlantic croaker (48% 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 winter flounder, which increased 240% between 2008 and 2009; the largest annual change in number of fish harvested occurred in scup, which increased 344% from 2002 to 2003.

Harvest and Release

Of the Mid-Atlantic Region's key species and species groups, summer flounder (24 million fish), Atlantic croaker (15 million fish), black seabass (7.8 million fish) and spot (7.7 million fish) were the most often caught by anglers in 2009. Summer flounder (93% released), black seabass (84% released), weakfish drum (82% released), tautog (74% released), striped bass (71% released), bluefish (63% released), scup (61% released), winter flounder (56% released), and Atlantic croaker (55% released) were more often released rather than harvested. The only species

harvested more often than released was spot (71% harvested).

Releases of winter flounder increased 240% between 2008 and 2009. This increase was partially driven by an addendum to Amendment 1 to the Interstate Fishery Management Plan for Inshore Stocks of Winter Flounder in 2009, which reduced the harvest limit from ten fish to two fish per day. The effect of the management action was compounded by a 111% increase in catch overall.

At the state level, summer flounder was the most often caught key species or species group in the Mid-Atlantic Region with 24 million fish caught, region-wide. Most of these fish were caught in New Jersey, New York, and Delaware with 12 million, 6.1 million, and 1.1 million fish, respectively. The most frequently caught fish in Maryland was spot with 3 million fish and Atlantic croaker was the most commonly caught fish in Virginia (12 million) in 2009.

Between 2000 and 2009, seven of the Mid-Atlantic Region's key species or species groups showed decreases in catch totals. Key species or groups with the largest decreases were weakfish drum (97%), winter flounder (88%), and black seabass (50%).

Marine Economy

The sum of the gross domestic products by state for Delaware, Maryland, New Jersey, New York, and Virginia was $2.3 trillion in 2009. Employee compensation totaled $1.4 trillion and annual payroll totaled $882 billion. These economic measures increased 40% (a 20% increase in real terms) and 34% (a 14% increase in real terms), respectively between 2000 and 2008; and experienced a 2.4% increase (a 7.5% decrease in real terms), and 1.7% increase (a 8.2% decrease in real terms), respectively between 2007 and 2008. Approximately 1.1 million establishments employed 17 million full- and part-time employees across the region in 2008. This was a 6.2% increase in establishment numbers and a 5.1% increase in employee numbers from 2000 to 2008.

In 2008, the commercial fishing location quotient (CFLQ) for New Jersey was the highest in the region at 1.11. This was an 5.1% decrease from 2001 and a 23% increase from 2007. New Jersey's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is approximately 1.1 times higher than the level of employment in these industries nationwide. The CFLQ 2008 in Virginia was 0.54 (a 42% increase from 2001).

Seafood Sales and Processing

In 2008, there were 228 nonemployer firms, businesses that have no paid employees and are subject to federal income tax, engaged in seafood product preparation and packaging across the Mid-Atlantic Region. This was a 119% increase from 2001 levels. In 2008, 32% of these firms were located in New York. Region-wide, annual receipts totaled $14 million in 2008 and increased 11% from 2005 to 2009. Annual receipt totals experienced a 150% increase in Maryland between 2000 and 2008 from $1.3 million to $3.3 million. In contrast to an increase in nonemployer firms region-wide, the number of employer establishments engaged in seafood product preparation and packaging decreased 26% from 108 in 2001 to 80 in 2008. Approximately 28% of these establishments were located in Maryland. The number of employees was not available for the seafood product preparation and packaging sector in the Mid-Atlantic Region.

here were 447 seafood wholesale establishments in 2008. The number of employees was not available at the region level. From 2000 to 2008, the number of seafood wholesale establishments decreased 27% across the Mid-Atlantic Region.

Nonemployer firms engaged in seafood retail in the Mid-Atlantic Region totaled 512 in 2008, a 2.2% increase relative to 2000. Of these firms, 16% were located in Maryland. At the state level, these firms showed a 2.1% decrease in New Jersey and increased 18% in Virginia between 2000 and 2008. Annual receipts in the region totaled $53 million in 2008.

Employer establishments engaged in seafood retail increased 16% from 2000 to 2008, totaling 666 in 2008. These establishments employed 3,047 workers in 2007. In the Mid-Atlantic Region, annual payroll for seafood retail increased 39% from $42 million in 2001 to $58 million in 2008.

Transport, Support, and Marine Operations

For industries where data were available, marinas employed more people than any other industry in this sector, employing approximately 5,600 people in 2008. This industry also had the highest annual payroll in the region totaling $213 million. Marinas had the highest number of establishments (947), followed by the ship and boat building industries with 186 establishments and the navigational services to shipping industries with 93 establishments.

In Maryland, industries with large changes in establishment numbers, employees, or annual payroll from 2007 to 2008 were: deep sea passenger transportation (200% increase in establishments), port and harbor operations (62% decrease in establishments), marine cargo handling (43% decrease in payroll) and navigational services to shipping (41% decrease in employees). In New Jersey, large changes were seen for deep sea freight transportation (97% increase in employees), deep sea freight transportation (72% increase in payroll), port and harbor operations (47% decrease in employees) and navigational services to shipping (32% decrease in payroll). In New York, large changes were seen in the deep sea freight transportation (66% increase in payroll), navigational services to shipping (43% decrease in payroll), port and harbor operations (40% decrease in establishments) and navigational services to shipping (33% decrease in employees).