

N.C. Division of Marine Fisheries' Initial Review of the Game Fish Designation Aspect of the 2013 Fisheries Economic Development Act (House Bill 983)

Legislation to designate red drum, spotted seatrout and estuarine striped bass as coastal game fish is contrary to the 1997 Fisheries Reform Act, our state's guiding law for managing N.C.'s coastal fisheries. H.B. 983 would allocate these fish solely to the recreational fishing sector, prohibiting all sale by commercial fishermen and purchase by consumers. The division recommends continuing to manage the state's resources for the benefit of all user groups as specified in the Fisheries Reform Act. Designating game fish status for any coastal species is a departure from the mandates of this law.

Public Trust and the Fisheries Reform Act

In North Carolina, coastal fish are considered a public trust resource and belong to the citizens of the state as a whole. The Division of Marine Fisheries is charged with stewardship of these resources, as set out in N.C.G.S. 113-131.

In 1997, the General Assembly adopted the Fisheries Reform Act after two years of intensive debate and study by a Moratorium Steering Committee made of commercial and recreational fishermen, as well as scientists and regulators. The preamble to the act, Session Law 1997-400, states the General Assembly ***“recognizes the need to protect our coastal fishery resources and to balance the commercial and recreational interests through better management of these resources”*** and also requires the Marine Fisheries Commission ***“to provide fair regulation of commercial and recreational fishing groups in the interest of the public.”***

In accordance with this law, the division manages the state's coastal public trust fisheries through fishery management plans to provide balanced opportunities and access for both recreational and commercial fishermen. Allocation of any stocks to one user group, as proposed in H.B. 983, does not balance commercial and recreational interests, nor will this action ensure sustainable harvest of these resources.

Stock Status

There is no biological evidence that designating red drum, spotted seatrout and estuarine striped bass game fish will improve stocks or guarantee sustainable harvest in the future. Fishery management plans have been adopted for these species to achieve sustainable harvest while providing fair and equitable allocation of these fishery resources.

Red drum are no longer experiencing overfishing and the stock is recovering as expected. Harvest restrictions implemented in 1998, as a prelude to the initial N.C. Red Drum Fishery Management Plan, abruptly ended overfishing and red drum stocks have now experienced over a decade of recovery. Sustainable harvest is now occurring in both the recreational and commercial fisheries. Both sectors shared equally in the plan's harvest reduction strategies and both are now benefiting from the stock's recovery. Historically, the annual harvest of red drum has been approximately 60 percent recreational. Most recently, restrictions placed on gill nets as a result of interactions with threatened and endangered sea turtles has reduced the commercial harvest of red drum. Since 2010, the recreational sector has accounted for about 80 percent of the total harvest.

North Carolina has successfully managed red drum for sustainable harvest by both commercial and recreational user groups, consistent with the charge of the 1997 Fisheries Reform Act. The status of the N.C. red drum population is equal to, or better than, other South Atlantic states which have no commercial gill netting and only manage for the recreational fishery.

The N.C. Spotted Seatrout Fishery Management Plan was approved by the Marine Fisheries Commission in February 2012, though the commission took precautionary measures to end overfishing by adopting a 14-inch minimum size limit for all fisheries in 2009 while the plan was being developed. The status of the stock is overfished and overfishing is occurring. Two significant sources of mortality for spotted seatrout were identified in a 2009 stock assessment: environmentally-induced mortality due to cold stun events in 2001, 2003,

2010 and 2011 and increased recreational fishing effort in recent years. Managers were concerned with this increase in effort because the recreational fishery tends to harvest smaller, younger fish than the commercial fishery. Recreational fishing has accounted for about 72 percent of North Carolina's spotted seatrout harvest for the past 10 years. North Carolina has implemented an equitable management strategy to reduce fishing mortality, achieve sustainable harvest and provide flexibility to address extreme environmental conditions such as cold stuns.

The initial N.C. Estuarine Striped Bass Fishery Management Plan was implemented in 1994 to end overfishing and rebuild an overfished stock. By reducing commercial and recreational harvest, and improving environmental conditions on the spawning grounds, the Albemarle/Roanoke stock was declared recovered in 1997. The Marine Fisheries Commission adopted an amendment to this plan in February 2013, and the Division of Marine Fisheries is implementing the management measures that are effective June 2013. Commercial fishing accounts for about 78 percent of the estuarine striped bass landings in North Carolina (excluding the inland recreational harvest from the Roanoke River Management Area). Currently, the stock assessment for the Albemarle/Roanoke striped bass stock indicates it is not experiencing overfishing and is achieving a sustainable harvest. However, lower than expected harvest rates in sounds and rivers are a cause for concern. Striped bass in the Central Southern Management Area, which includes the inside waters from Oregon Inlet to the South Carolina state line, are also managed under the N.C. Estuarine Striped Bass Fishery Management Plan. The status of this stock is currently listed as a species of concern/unknown. The Cape Fear River is closed to harvest by both commercial and recreational fishermen to allow the stock to rebuild.

Impacts of Game Fish Status on Management

If game fish status is enacted, the Division of Marine Fisheries anticipates many anglers will immediately request an increase in recreational harvest for the affected species; for example, increasing the red drum bag limit from one fish to two fish. It is critically important that no relaxation of current recreational restrictions be considered for any game fish species until a full stock assessment is conducted. The stock assessment would need to show any increased harvest would be compatible with the division's charge to manage its fisheries for sustainable harvest.

Also, prohibiting harvest and possession of red drum, spotted seatrout and estuarine striped bass by commercial fishermen will result in increased discards because these fish will still be inadvertently caught in commercial fishing gear used to catch other species of fish. Any game fish taken as bycatch by commercial fishermen will have to be discarded, resulting in waste. The division will be unable to fully determine how many of these fish are being thrown away and that will impact the accuracy of future stock assessments for these species. Additionally, the discards will likely create new conflicts between the recreational and commercial user groups.

Economics

Game fish status will eliminate a source of income for several hundred commercial fishermen and associated seafood dealers, but it is unknown what offsetting economic gains will be created in the recreational fishery through this designation. Although advocates say game fish status will increase recreational effort and thereby generate more revenue for the recreational fishing industry, that claim is very difficult to quantify with great certainty. The growth in recreational fishing activity in North Carolina is already consistent with, and at times even greater than, other South Atlantic states (South Carolina, Georgia and the east coast of Florida) that have game fish and/or net bans, calling into question the need or capacity of North Carolina to accommodate even more increased recreational activity while maintaining viable fish stocks. Presently, the Division of Marine Fisheries is successfully managing for a robust and growing recreational fishery for these species, while at the same time maintaining the commercial fishery, consistent with the mandates of the 1997 Fisheries Reform Act.

Stock Status
&
Regulatory Discards

Red Drum

Status: Recovering

The N.C. Red Drum Fishery Management Plan, first adopted in 2001, has ended overfishing and recovery is well underway. Both commercial and recreational fishermen played key roles in the plan's harvest reduction strategies and should equally share in the recovery benefits.

The most recent stock assessment for red drum, completed by the Atlantic States Marine Fisheries Commission in 2009, indicates that current regulations have been effective at eliminating overfishing of red drum in North Carolina.

Red drum is managed by the Atlantic States Marine Fisheries Commission, which, in 2002, required states to implement and maintain management measures that prevent overfishing and achieve optimum yield.

The Division of Marine Fisheries began developing the N.C. Red Drum Fishery Management Plan in 1998, after the enactment of the state Fisheries Reform Act of 1997. The Marine Fisheries Commission adopted the plan in 2001, and the regulations implementing it satisfied the Atlantic States Marine Fisheries Commission requirement.

In 2008, the Marine Fisheries Commission adopted Amendment 1 to the plan, which required no further changes to harvest limits. Steps were taken, however, to reduce the impact of mortality associated with regulatory discards. These included, requiring circle hooks in some of the adult red drum recreational fisheries and expanding small mesh gill net attendance requirements in the commercial fishery.

Current Regulations:

Recreational

- 18- inch total length minimum size limit and 27-inch total length maximum size limit
- One fish per day recreational bag limit

Commercial

- 18- inch total length minimum size limit and 27-inch total length maximum size limit
- 10-fish per day commercial harvest limit
- Weight of the combined catch of other species must exceed the weight of the red drum retained
- 250,000-pound annual commercial cap, split into two seasons
 - 150,000 pounds, September to April
 - 100,000 pounds, May to August

Game fish impact on the stock

There is no biological evidence that declaring red drum a game fish will improve the stock status, because North Carolina's commercial red drum fishery is already a bycatch fishery, which originates, primarily, from the flounder gill net fishery.

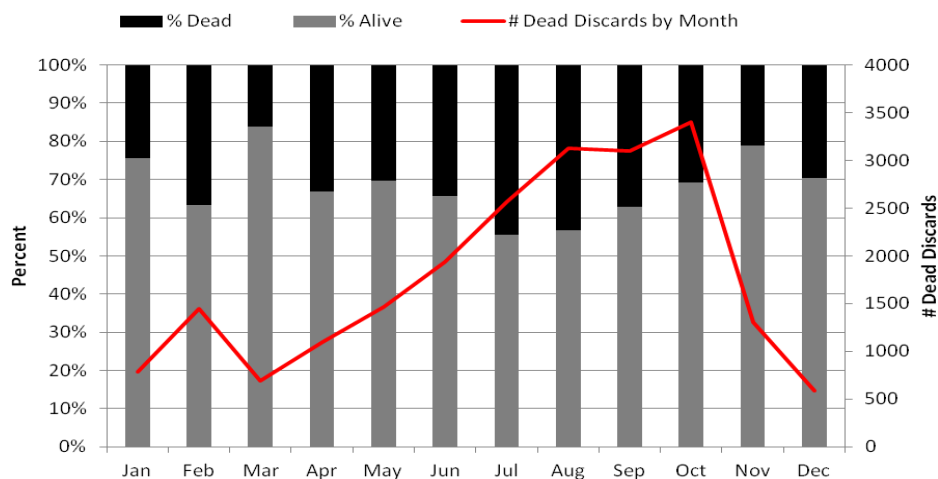
Allowing commercial fishermen to sell the bycatch instead of throwing it back prevents wasteful discards and provides consumable fish to the public.

The anchored estuarine gill net fishery accounts for 85 percent of the commercial landings of red drum. It is also a major source of dead discards. A large portion of red drum is dead at the time they are removed from the net, and studies indicate an additional five to 10 percent of the live fish will die after release.

Based on Division of Marine Fisheries observer coverage data from 2001 to 2011, declaring red drum a game fish would result in discard mortality for a third of all harvestable red drum encountered by commercial fishermen. Because there is a positive correlation between water temperature and discard mortality, the impact would be greater in the summer and early fall when gill net effort is high and legal-sized red drum are abundant.

The below graph quantifies the potential impact of game fish status on increasing commercial discards. These amounts are in addition to current regulatory discards.

Shown is the proportion of previously harvested fish that would be released either alive or dead had game fish status been in place. The proportions are across all gears, but only take into account dead discards associated with anchored estuarine gill nets and assume all other gears would have zero percent release mortality, making it a conservative estimate.



Source: N.C. Division of Marine Fisheries commercial observer data, 2001-2011

Other gears for red drum, such as run-around gill nets, pound nets and beach seines, will also have increased discards, albeit with lower discard mortality.

Declaring red drum a game fish will not impact when or where gill nets can be set. Unless fishing behavior changes and/or gill net effort decreases, dead discards will occur.

Since red drum commonly occur in the same areas as other targeted species, such as southern flounder (anchored gill nets) and striped mullet (run around gill nets), fishermen likely will be unable to avoid red drum.

Additionally, there will be no incentive for commercial operations to release red drum alive or to remove and handle them with intentions of them surviving. To many, they will become a nuisance species, and may be treated similar to the way recreational anglers treat dogfish and rays on the piers. This may increase discard mortality.

Spotted Seatrout

Status: Depleted

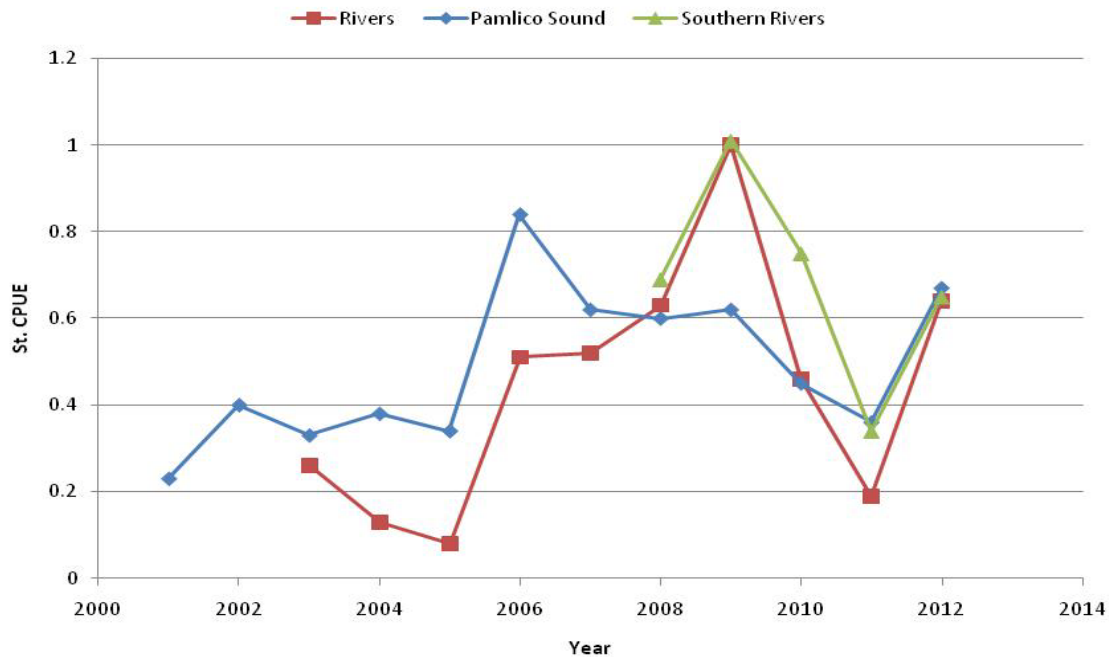
The N.C. Spotted Seatrout Fishery Management Plan was approved by the Marine Fisheries Commission in March 2012, though management measures to end overfishing were adopted prior to finalization of the plan. The status of the stock is overfished and overfishing is occurring.

Two significant sources of mortality for spotted seatrout were identified in a 2009 stock assessment: environmentally-induced mortality due to cold stun events in 2001, 2003, 2010 and 2011 and increased recreational fishing effort in recent years.

Managers also were concerned with this increase in effort because the recreational fishery tends to harvest smaller, younger fish than the commercial fishery. Recreational fishing has accounted for about 72 percent of North Carolina's spotted sea trout harvest for the past 10 years.

North Carolina has implemented a management strategy to reduce fishing mortality to increase the likelihood of reaching a sustainable fishery. Both commercial and recreational fishing sectors share equally in harvest reduction strategies of the fishery management plan.

N.C. Spotted Seatrout Catch Per Unit Effort



Source: N.C. Division of Marine Fisheries Independent Gill Net Sampling Program

Current Regulations:

Commercial

- 14-inch total length size limit
- 75 fish per day harvest limit
- 4 fish per day harvest limit if taken by hook and line in joint and coastal waters for commercial purposes
- No gill nets set in joint fishing waters on weekends (Albemarle and Currituck Sounds are exempt)
- No possession or sell of spotted seatrout taken from joint fishing waters on weekends (Albemarle and Currituck Sounds are exempt)

Recreational

- 14-inch total length size limit
- 4 fish per day bag limit

Game Fish Impact on Stock

There is no biological evidence that declaring spotted seatrout a game fish will improve the stock status, because North Carolina's commercial spotted seatrout fishery is primarily a bycatch fishery.

Occasionally, targeted spotted seatrout trips do occur, mainly in the fall and winter when the recreational fishery occurs.

Allowing commercial fishermen to sell the bycatch instead of throwing it back prevents wasteful discards and provides consumable fish to the public.

Estuarine gill nets account for 76 percent of the commercial spotted seatrout landings. At this time, a large portion of the spotted seatrout taken as bycatch by these nets is legally harvested.

Declaring spotted seatrout a game fish would necessitate the release of more than 100,000 pounds of spotted seatrout per year, and this amount will increase as the stock recovers. According to estimates in the latest stock assessment, 60 percent of the released fish will die.

Game fish status will not impact when or where gill nets can be set unless fishing behavior and/or gill net effort decreases. Since spotted seatrout commonly occur in the same areas as other targeted species such as southern flounder (anchored gill nets) and striped mullet (run around gill nets), fishermen will likely be unable to avoid spotted seatrout.

Additionally, there will be no incentive for commercial operations to release spotted seatrout alive or to remove and handle them with intentions of them surviving. To many, they will become a nuisance species, and may be treated similar to the way recreational anglers treat dogfish and rays on the piers. This may increase discard mortality.

While estuarine gill nets account for the majority of commercial spotted seatrout harvest, there is a growing commercial gig fishery in the winter. Game fish status would curtail this fishery with no increase in discards.

Estuarine Striped bass

Status: Recovered/Viable (Albemarle Sound Management Area and Roanoke River Management Area)
Unknown/Concern (Central/Southern Management Area)

The first N.C. Striped Bass Fishery Management Plan was implemented in 1994 to end overfishing and rebuild an overfished stock. By greatly reducing commercial and recreational harvest, and improving environmental conditions on the spawning grounds, the Albemarle/Roanoke stock was declared recovered in 1997. The Marine Fisheries Commission adopted an amendment to this plan in February 2013, and the Division of Marine Fisheries is implementing management measures that are effective June 2013.

The Albemarle/Roanoke striped bass stock is not experiencing overfishing and is producing a sustainable harvest, according to a 2010 stock assessment. Fishing mortality estimates were well below the target, and other biological indicators showed a healthy stock. Commercial fishing accounts for about 74 percent of the harvest of striped bass from the Albemarle Sound and Roanoke River management areas.

Striped bass in the Central Southern Management Area, which includes the inside waters from Oregon Inlet to the South Carolina state line, are also managed under the N.C. Estuarine Striped Bass Fishery Management Plan. The status of this stock is currently listed as a species of concern/unknown. The Cape Fear River is closed to harvest by both commercial and recreational fishermen to allow the stock to rebuild. A major cause for concern over striped bass in the Central Southern Management Area involves environmental conditions on the upper river spawning grounds in the spring. Dams blocking access to spawning habitat and low water flow associated with droughts, municipal water use and electrical power production frequently limit the spawning success of this species. Commercial harvest accounts for about 65 percent of striped bass harvests from the Central/Southern Management Area.

Regulations

Albemarle Sound Management Area

Commercial

- 18-inch total length minimum size limit
- Daily landings limit set by proclamation
- 275,000-pound quota
- Seasons open Jan. 1 to April 30 and Oct. 1 to Nov. 30

Recreational

- 18-inch total length minimum size limit
- Three fish per day bag limit
- Seasons open Jan. 1 to April 30 and Oct. 1 to Dec. 31

Roanoke River Management Area

Commercial

- Closed

Recreational

- 18- inch total length minimum size limit
- No possession of striped bass between 22 and 27 inches in Roanoke River
- Two fish per day bag limit and only one fish in daily limit may be greater than 27 inches
- Season March 1 to April 30

Central/Southern Management Area

Commercial

- 18-inch total length minimum size limit
- 25,000-pound quota
- March to April season
- No harvest in the Cape Fear River and its tributaries

Recreational

- 18-inch total length minimum size limit
- Two-fish bag limit with gear restrictions
- No possession of striped bass between 22 and 27 inches in joint waters
- Oct. 1 through April 30 season
- No harvest in the Cape Fear River and its tributaries

Game Fish Impact on the Stock

The majority of estuarine striped bass harvest comes as bycatch during the American shad fisheries in the spring. Some harvest does occur from various other fisheries however, including the run around gill net fishery, the flounder fishery, various small mesh gill net fisheries, and pound nets.

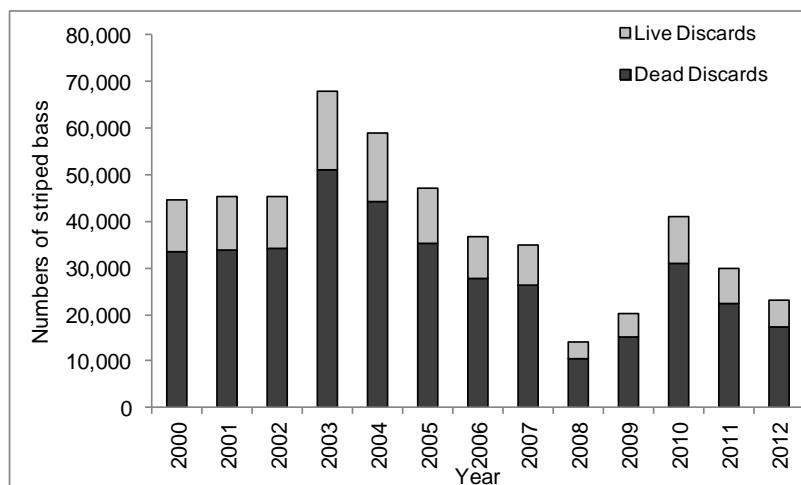
Allowing commercial fishermen to sell the bycatch instead of throwing it back prevents wasteful discards and provides consumable fish to the public.

For the period 2000 to 2009 anchored gill nets accounted for an average of 90 percent of striped bass landings in internal waters. Under a game fish designation, all striped bass catch in these various fisheries would become regulatory discards.

Data from the N.C. Division of Marine Fisheries independent gill net surveys indicate at-net mortality of striped bass varies with water temperature, increasing during the warmer months and decreasing during the colder months, and ranges from 16 to 70 percent. Adding delayed mortality estimates increases these percentages.

Striped bass occur in the same habitat as American shad so it would be difficult for fishermen to alter their fishing behavior in order to avoid striped bass and still harvest shad.

The below chart shows the estimated live and dead discards from the commercial fishery from all North Carolina internal waters.



Case Study

Red Drum: A Case Study in Successful Fisheries Management

No other species exemplifies the success of fisheries management in North Carolina like the red drum, our state saltwater fish.

North Carolina has successfully managed red drum for sustainable harvest by both commercial and recreational user groups, consistent with the charge of the 1997 Fisheries Reform Act. The status of the N.C. red drum population is equal to or better than other South Atlantic states which have no commercial gill netting and only manage for the recreational fishery.

The below table shows how North Carolina's red drum stock compares to other states in the South Atlantic and the Gulf by looking at two biological indicators of a healthy stock: escapement rate and static spawning potential ratio (sSPR). Escapement, as used with red drum, refers to the percentage of fish that survive from age one to age five. Spawning potential ratio refers to the percentage of spawning fish in a stock in relation to an unfished stock. An unfished stock would have a spawning potential ratio of 100 percent. Static spawning potential ratio is a measure of spawning potential ratio at the current fishing rate.

Stock Status of Red Drum

State	Escapement Rate	3 yr sSPR	Terminal Year	Source
Alabama	34%	-	2007	Red Drum Special Working Group for Gulf Council
Florida (Gulf)	31%	-	2007	Florida FWC
Louisiana	48%	-	2005	Red Drum Special Working Group for Gulf Council
Mississippi	35%	-	2006	Red Drum Special Working Group for Gulf Council
Texas	30%	-	2009	Red Drum Special Working Group for Gulf Council
N. Carolina	54%	45%	2007	SEDAR 18
S. Carolina*	48%	50%	2007	SEDAR 18
Georgia*	48%	50%	2007	SEDAR 18
Florida (Atlantic)**	-	62%	2010	Florida FWC

*Values are for a regional assessment include SC, GA and east coast of FL.

<30% escapement = overfishing on Gulf coast

< 30% sSPR = overfishing on Atlantic coast; 40% sSPR = management target

Additionally, establishing game fish status for red drum did not increase recreational landings of the species in South Carolina. The charts below show that red drum landings significantly dropped after South Carolina established red drum as a game fish in 1987. It was not until regulatory changes took effect in 2002 to address the recreational harvest that landings began to increase.

South Carolina total catch with regulatory changes noted

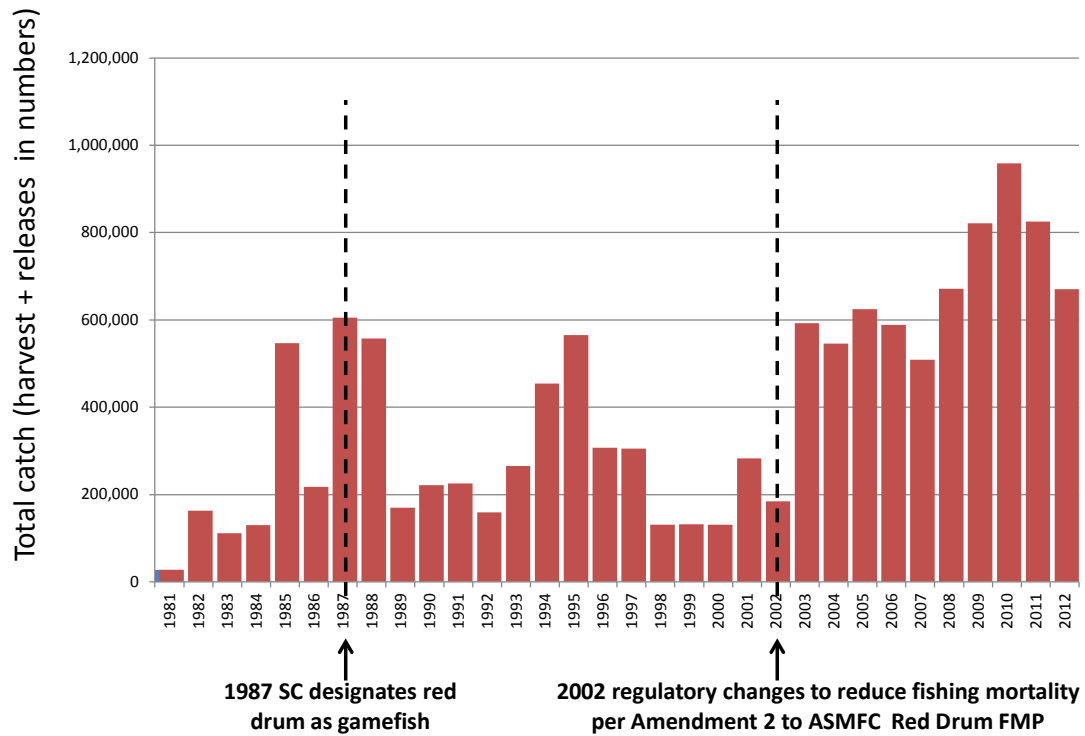


Figure 1. Total Recreational Catch of Red Drum for South Carolina (Harvest +Releases) Source: NMFS MRIP (2012 preliminary)

Finally, over the past decade, North Carolina has been consistent with and often outperformed other states in the South Atlantic region in directed recreational fishing trips for red drum. Economic impacts from the recreational fishery are driven by the number of trips that recreational anglers take. Therefore, increases in trips can be equated to increases in economic impacts. The below chart and table compare the increases in the South Atlantic states.

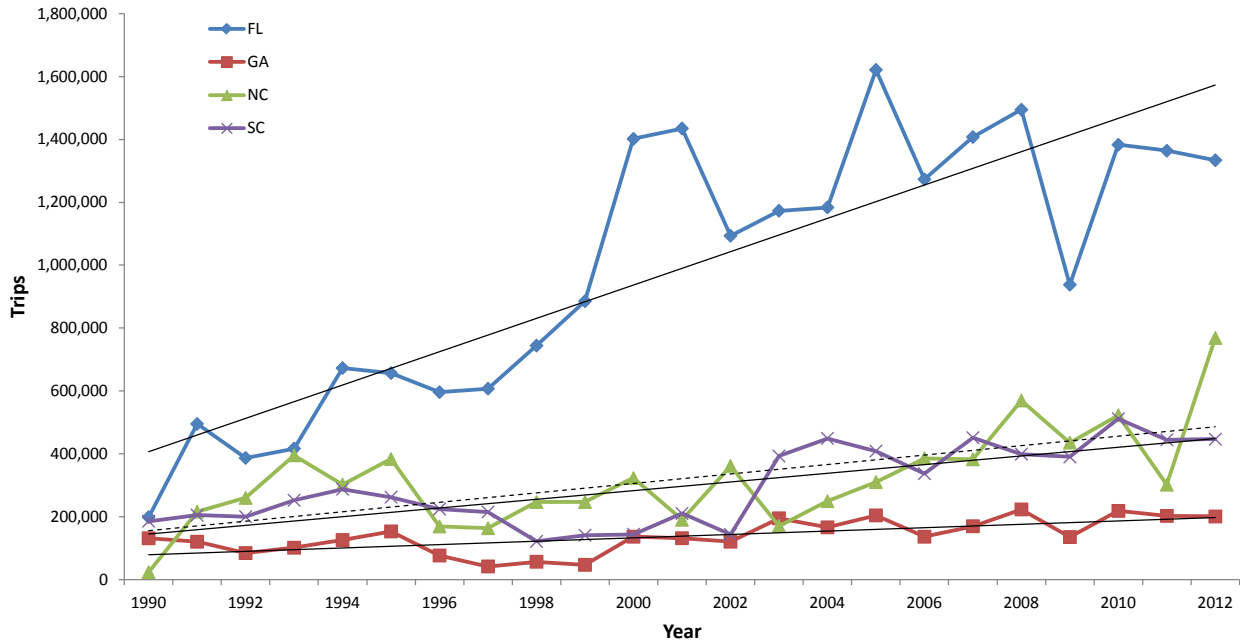


Figure 2. Directed recreational fishing trips for red drum in south Atlantic States, 1990-2012.

Table 6. Comparison of 5-year average number of directed recreational fishing trips for red drum in south Atlantic states for the time periods of 2003-2007 and 2008-2012. (Source: Marine Recreational Information Program)

Red Drum (2003-2007 vs 2008-2012)	NC	FL*	GA	SC
5 year average number of rec. trips (2003-2007)	299,770	1,331,909	174,191	407,838
5 year average number of rec. trips (2008-2012)	519,632	1,302,758	195,958	438,370
Difference in average number of rec. trips	219,862	-29,151	21,767	30,532
Percent difference in average number of rec. trips	73%	-2%	12%	7%

*East coast of Florida only

Landings Data

North Carolina Striped Bass Landings, 1994 through 2012

Year	Commercial Pounds	Recreational Pounds	Total Pounds	Commercial Percent	Recreational Percent
1994	122,228	30,217	152,445	80.2	19.8
1995	102,162	30,564	132,726	77.0	23.0
1996	123,383	29,186	152,569	80.9	19.1
1997	124,642	26,581	151,223	82.4	17.6
1998	149,900	64,580	214,480	69.9	30.1
1999	196,829	61,338	258,167	76.2	23.8
2000	245,071	116,158	361,229	67.8	32.2
2001	244,938	118,506	363,444	67.4	32.6
2002	260,441	92,649	353,090	73.8	26.2
2003	364,721	51,794	416,515	87.6	12.4
2004	306,043	119,379	425,422	71.9	28.1
2005	259,825	77,079	336,904	77.1	22.9
2006	207,547	43,352	250,899	82.7	17.3
2007	196,690	37,429	234,119	84.0	16.0
2008	85,035	34,619	119,654	71.1	28.9
2009	120,641	40,375	161,016	74.9	25.1
2010	223,693	17,007	240,700	92.9	7.1
2011	164,320	52,011	216,331	76.0	24.0
2012	138,329	84,981	223,310	61.9	38.1

North Carolina Red Drum Landings , 1994 through 2012

Year	Commercial Pounds	Recreational Pounds	Total Pounds	Commercial Percent	Recreational Percent
1994	142,169	192,060	334,229	42.5	57.5
1995	248,122	405,620	653,742	38.0	62.0
1996	113,338	204,555	317,893	35.7	64.3
1997	52,502	39,077	91,579	57.3	42.7
1998	294,366	591,429	885,795	33.2	66.8
1999	372,942	326,303	699,245	53.3	46.7
2000	270,953	316,028	586,981	46.2	53.8
2001	149,616	132,579	282,195	53.0	47.0
2002	81,370	182,225	263,595	30.9	69.1
2003	90,525	118,808	209,333	43.2	56.8
2004	54,086	124,264	178,350	30.3	69.7
2005	128,770	239,694	368,464	34.9	65.1
2006	169,206	251,735	420,941	40.2	59.8
2007	243,658	305,664	549,322	44.4	55.6
2008	229,809	236,744	466,553	49.3	50.7
2009	200,296	286,702	486,998	41.1	58.9
2010	231,828	281,587	513,415	45.2	54.8
2011	91,980	212,245	304,225	30.2	69.8
2012	66,470	241,380	307,850	21.6	78.4

North Carolina Spotted Seatrout Landings, 1994 through 2012

Year	Commercial Pounds	Recreational Pounds	Total Pounds	Commercial Percent	Recreational Percent
1994	412,358	679,996	1,092,354	37.7	62.3
1995	574,296	478,673	1,052,969	54.5	45.5
1996	226,580	197,260	423,840	53.5	46.5
1997	232,497	311,890	544,387	42.7	57.3
1998	307,671	444,441	752,112	40.9	59.1
1999	546,675	690,606	1,237,281	44.2	55.8
2000	376,574	385,191	761,765	49.4	50.6
2001	105,714	213,439	319,153	33.1	66.9
2002	175,555	274,101	449,656	39.0	61.0
2003	181,462	145,936	327,398	55.4	44.6
2004	130,961	390,807	521,768	25.1	74.9
2005	129,601	674,410	804,011	16.1	83.9
2006	312,620	819,879	1,132,499	27.6	72.4
2007	374,722	874,458	1,249,180	30.0	70.0
2008	304,430	988,679	1,293,109	23.5	76.5
2009	320,247	957,655	1,277,902	25.1	74.9
2010	200,822	407,193	608,015	33.0	67.0
2011	75,239	403,160	478,399	15.7	84.3
2012	265,008	818,521	1,083,529	24.5	75.5

Landings Information for Species in House Bill 983

Year	Species	Value Range	Pounds	Value	Trips	Participants
2011	R.DRUM/EST.S.BASS/S.SEATROUT	\$1-\$1,999	147,958	\$314,265	8,109	873
2011	R.DRUM/EST.S.BASS/S.SEATROUT	\$2,000-\$4,999	115,490	\$271,147	3,508	89
2011	R.DRUM/EST.S.BASS/S.SEATROUT	\$5,000-\$9,999	64,182	\$166,850	1,417	24
2011	R.DRUM/EST.S.BASS/S.SEATROUT	≥ \$10,000	*	*	76	<3
2012	R.DRUM/EST.S.BASS/S.SEATROUT	\$1-\$1,999	174,593	\$365,331	8,968	974
2012	R.DRUM/EST.S.BASS/S.SEATROUT	\$2,000-\$4,999	161,427	\$354,523	4,370	109
2012	R.DRUM/EST.S.BASS/S.SEATROUT	\$5,000-\$9,999	96,934	\$214,900	1,910	32
2012	R.DRUM/EST.S.BASS/S.SEATROUT	≥ \$10,000	36,854	\$76,145	547	6

*confidential

Year	Species	Value Range	Pounds	Value	Trips	Participants
2011	ESTUARINE STRIPED BASS	\$1-\$1,999	54,545	\$146,573	2,083	271
2011	ESTUARINE STRIPED BASS	\$2,000-\$4,999	61,419	\$164,851	1,716	55
2011	ESTUARINE STRIPED BASS	\$5,000-\$9,999	48,355	\$139,606	1,077	20
2012	ESTUARINE STRIPED BASS	\$1-\$1,999	41,877	\$103,825	1,759	267
2012	ESTUARINE STRIPED BASS	\$2,000-\$4,999	53,826	\$136,092	1,502	42
2012	ESTUARINE STRIPED BASS	\$5,000-\$9,999	33,650	\$88,327	721	13
2012	ESTUARINE STRIPED BASS	≥ \$10,000	*	*	201	<3

Year	Species	Value Range	Pounds	Value	Trips	Participants
2011	RED DRUM	\$1-\$1,999	78,475	\$142,618	4,631	541
2011	RED DRUM	\$2,000-\$4,999	13,505	\$24,348	560	9
2012	RED DRUM	\$1-\$1,999	47,192	\$98,874	3,595	560
2012	RED DRUM	\$2,000-\$4,999	19,278	\$39,852	678	14

Year	Species	Value Range	Pounds	Value	Trips	Participants
2011	SPOTTED SEATROUT	\$1-\$1,999	51,009	\$97,335	3,947	662
2011	SPOTTED SEATROUT	\$2,000-\$4,999	12,926	\$25,614	303	9
2011	SPOTTED SEATROUT	\$5,000-\$9,999	11,304	\$21,647	155	3
2012	SPOTTED SEATROUT	\$1-\$1,999	126,437	\$249,488	7,072	880
2012	SPOTTED SEATROUT	\$2,000-\$4,999	68,801	\$137,723	1,524	45
2012	SPOTTED SEATROUT	\$5,000-\$9,999	49,210	\$95,024	680	14
2012	SPOTTED SEATROUT	≥ \$10,000	20,560	\$39,818	197	3

*confidential

Supplemental Red Drum Data

Stock Status of Red Drum

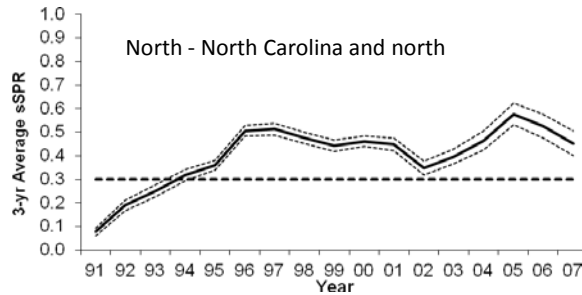
State	Escapement Rate	3 yr sSPR	Terminal Year	Source
Alabama	34%	-	2007	Red Drum Special Working Group for Gulf Council
Florida (Gulf)	31%	-	2007	Florida FWC
Louisiana	48%	-	2005	Red Drum Special Working Group for Gulf Council
Mississippi	35%	-	2006	Red Drum Special Working Group for Gulf Council
Texas	30%	-	2009	Red Drum Special Working Group for Gulf Council
N. Carolina	54%	45%	2007	SEDAR 18
S. Carolina*	48%	50%	2007	SEDAR 18
Georgia*	48%	50%	2007	SEDAR 18
Florida (Atlantic)**	-	62%	2010	Florida FWC

*Values are for a regional assessment include SC, GA and east coast of FL.

<30% escapement = overfishing on Gulf coast

< 30% sSPR = overfishing on Atlantic coast; 40% sSPR = management target

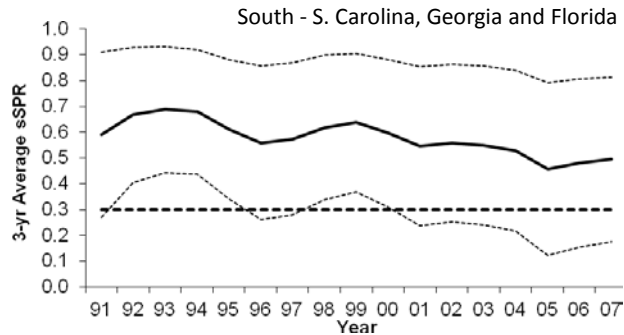
SEDAR 18 findings for Atlantic coast red drum populations



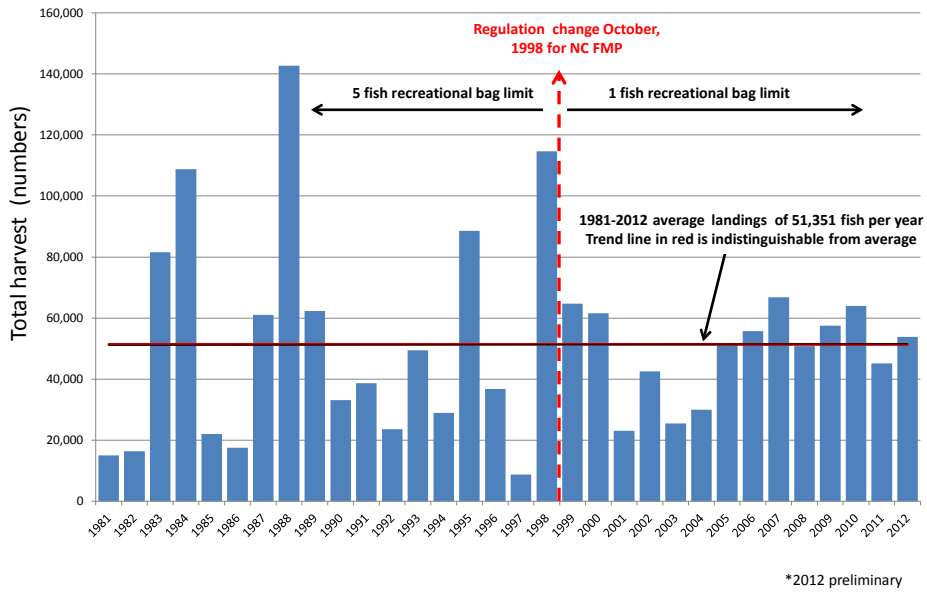
These are estimates of three-year average sSPR with 95% confidence intervals (dashed lines). The heavy dashed line shows the 30% overfishing threshold

Conclusion: North not overfishing and likely above target (40% sSPR)

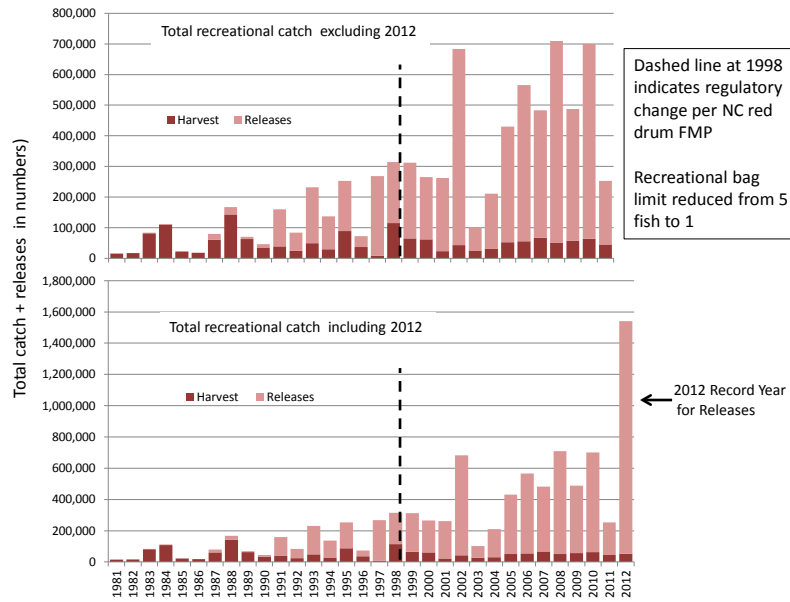
South likely not overfishing but with high uncertainty. Slow decreasing trend in sSPR.



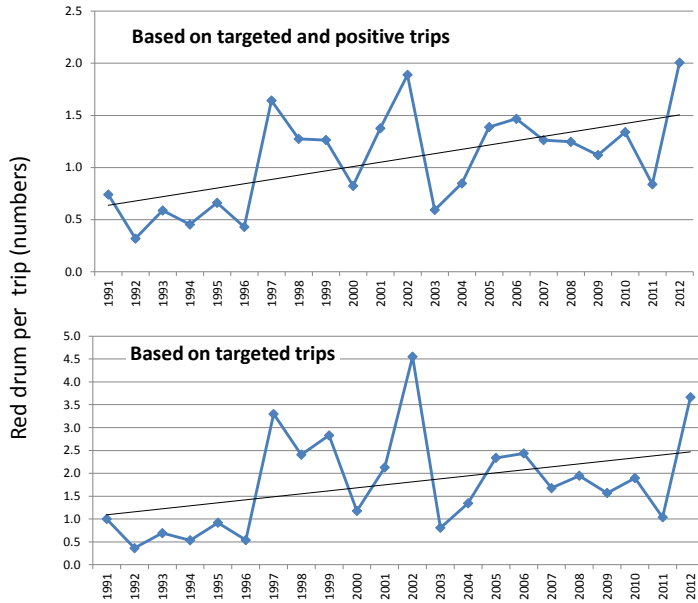
Recreational Harvest of Red Drum for North Carolina
Source: NMFS MRIP



Total Recreational Catch of Red Drum for North Carolina (Harvest +Releases)
Source: NMFS MRIP (2012 preliminary)

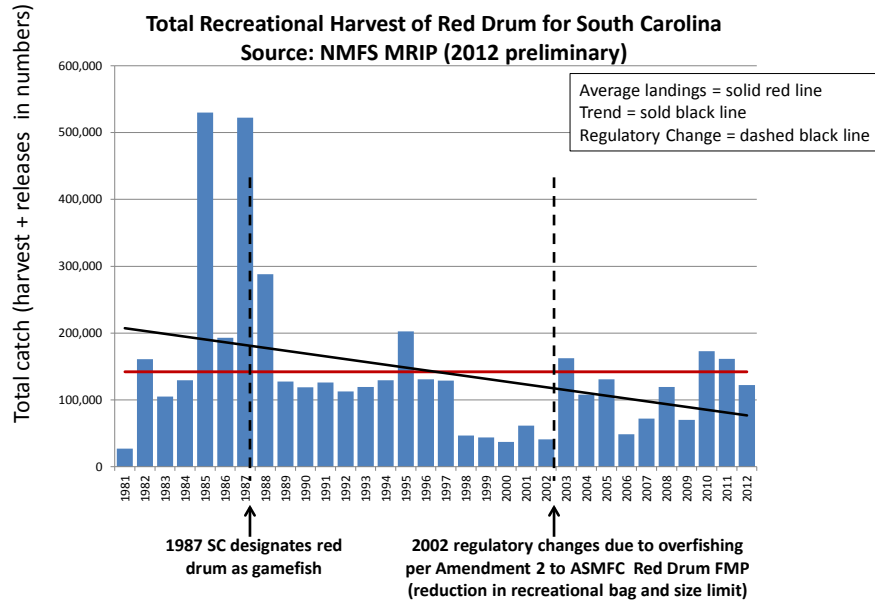


Recreational catch rate of red drum for North Carolina (Harvest +Releases)
 Source: NMFS MRIP



*2012 preliminary

South Carolina landings with regulatory changes noted



South Carolina total catch with regulatory changes noted

