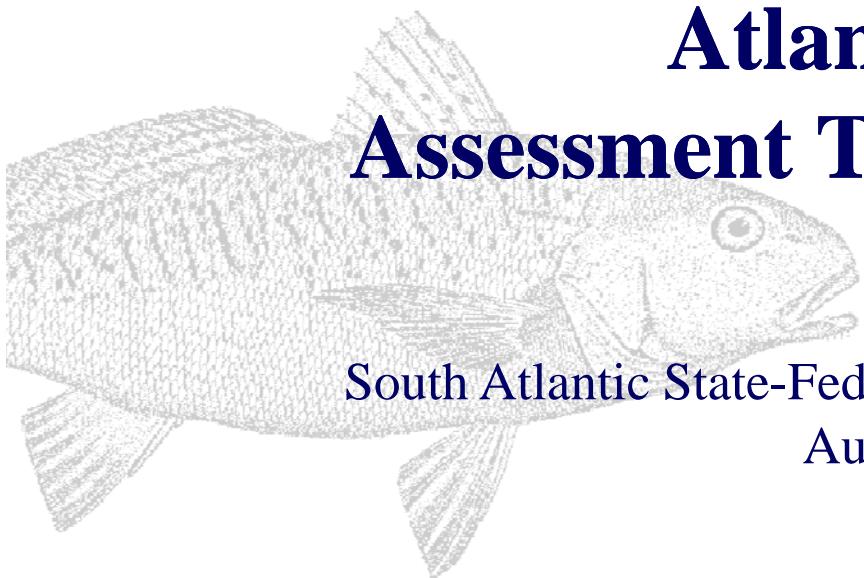




Working towards healthy, self-sustaining populations  
for all Atlantic coast fish species or successful  
restoration well in progress by 2015

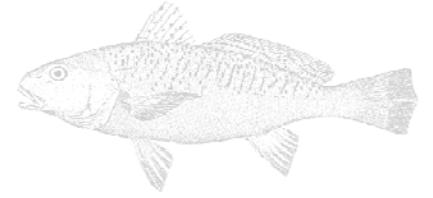
# Atlantic Croaker Assessment Triggers 2013 Report



South Atlantic State-Federal Fisheries Management Board  
August 7, 2013



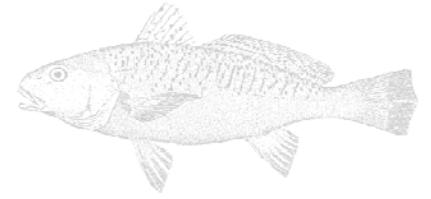
# Triggers



- Annual Landings
- Biological Data
- Commercial Fisheries Effort vs. Landings
- Recreational Fisheries Catch Rates
- Surveys

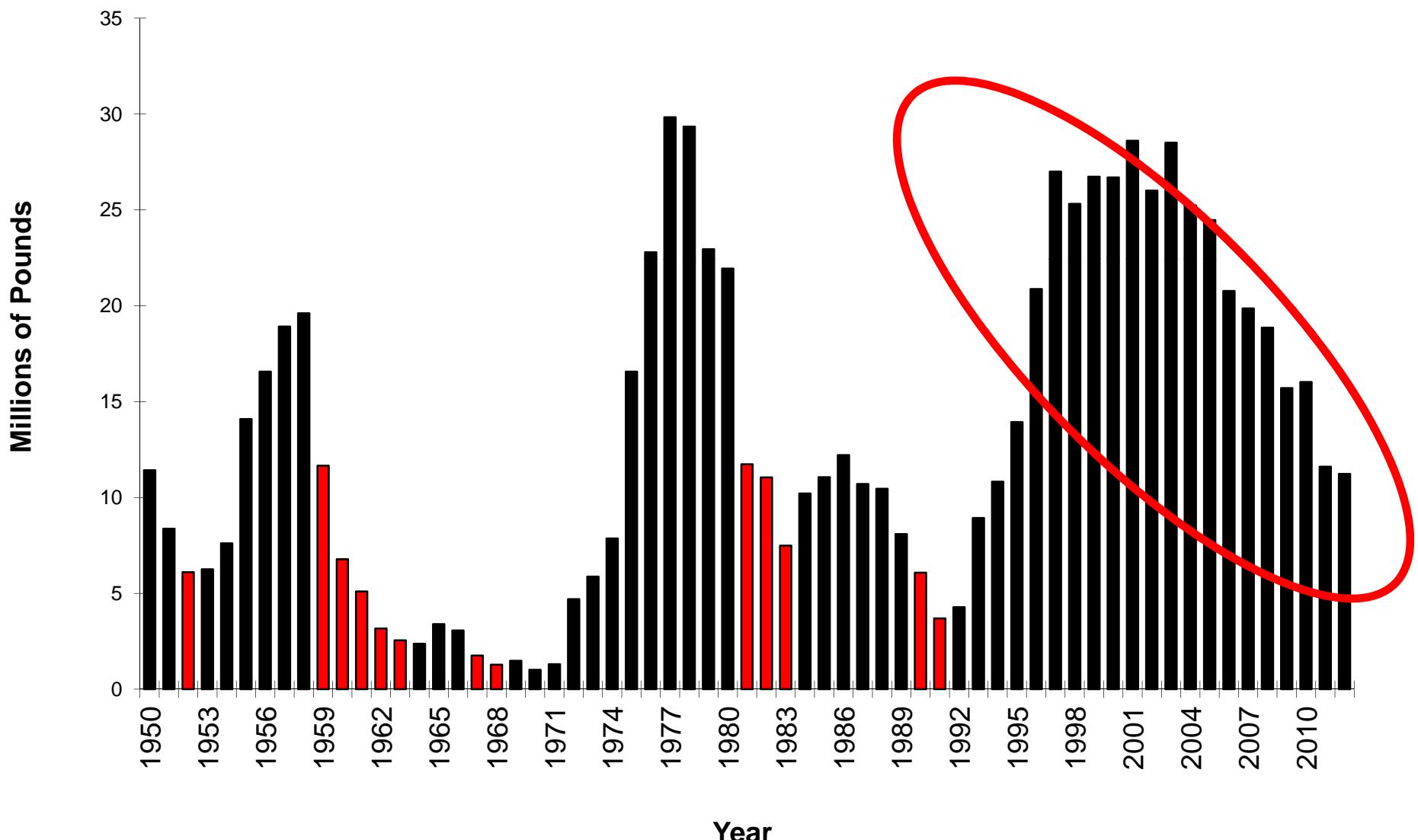


# Annual Landings

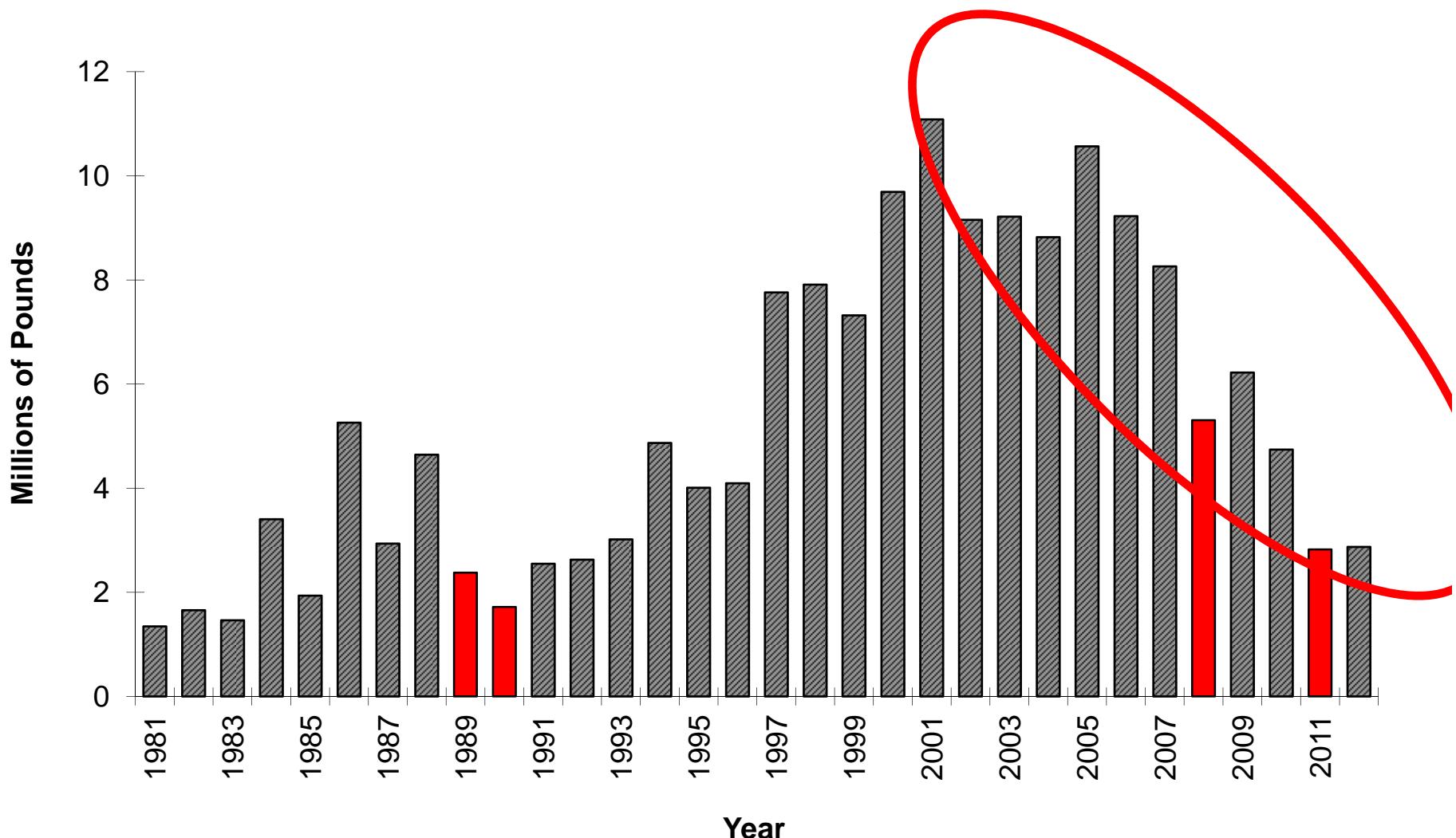


- Hard triggers
- Commercial landings
  - A stock assessment is triggered if 2012 landings are < 70% of the 2010–2011 average landings
- Recreational landings
  - A stock assessment is triggered if 2012 landings are < 70% of the 2010–2011 average landings

# Commercial Landings- Triggered Years



# Recreational Harvest-Triggered Years

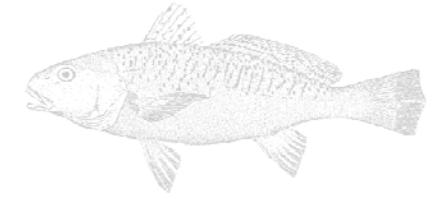


# Landings Trigger Values

- Commercial Landings
  - 2010-2011 Ave. = 13,821,999 pounds
  - 2012 = 11,230,827 pounds
  - **Trigger value = 80.3%**
- Recreational Harvest
  - 2010-2011 Ave. = 3,783,973 Fish
  - 2012 = 2,873,302 Fish
  - **Trigger value = 75.9%**



# Biological Data



- Recreational Fisheries Mean Length
  - Compare Mean length of 2012 to average of 2010-11 mean lengths
- Commercial Fisheries Mean Size (Length & Weight)
  - Compare Mean length and weight of 2012 to average of 2010-11 mean lengths and weights
- Commercial Fisheries Age Composition and Mean Size (Length & Weight) at Age

# Commercial Landings Avg Length

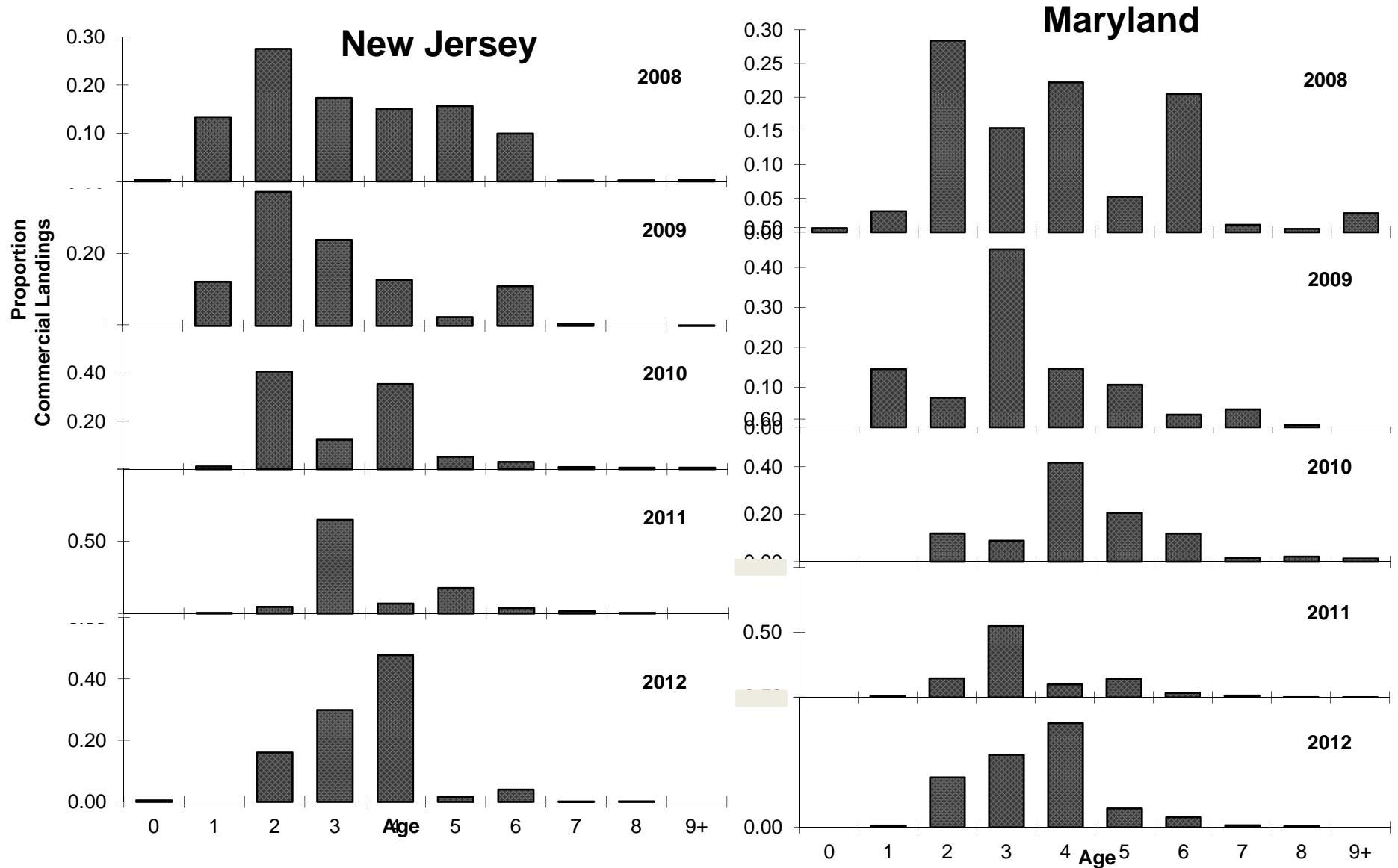
State	Gear	Average Length (in)		Percent Change (%)
		Avg., 2010-2011	2012	
NJ–East FL	All	10.5	10.1	-3.81
M. Atlantic (NJ-VA)	All	10.65	10.1	-5.16
S. Atlantic (NC-E. FL)	All	9.7	10.0	3.09
New Jersey	Gill Net	11.8	11.3	-4.00
New Jersey	Trawl	11.2	9.8	-12.11
Maryland	Pound Net	11.3	10.8	-4.11
Virginia	Haul Seine	10.2	10.8	6.25
Virginia	Pound Net	12.4	11.8	-4.87
Virginia	Sink/Anchor Gill Net			
North Carolina	Long Haul	10.1	9.1	-9.70
North Carolina	Inside Gill Net	10.5	9.8	-7.09
North Carolina	Ocean Gill Net	12.3	11.9	-2.85
North Carolina	Fly Net	11.2	10.7	-4.21

# Commercial Landings Avg Weight

State	Gear	Average Weight (lb)		Percent Change (%)
		Avg., 2010-2011	2012	
New Jersey	Gill Net	0.86	0.76	-11.63
New Jersey	Trawl	0.69	0.42	-39.13
Maryland	Pound Net	0.74	0.79	6.76
Virginia	Haul Seine	0.48	0.62	28.75
Virginia	Pound Net	0.90	0.81	-9.89
Virginia	Sink/Anchor Gill Net			
Virginia	Long Haul	0.80	0.76	-4.15
North Carolina	Inside Gill Net	0.46	0.33	-29.96
North Carolina	Ocean Gill Net	0.57	0.46	-19.09
North Carolina	Fly Net	0.78	0.71	-8.59
North Carolina		0.60	0.52	-13.93

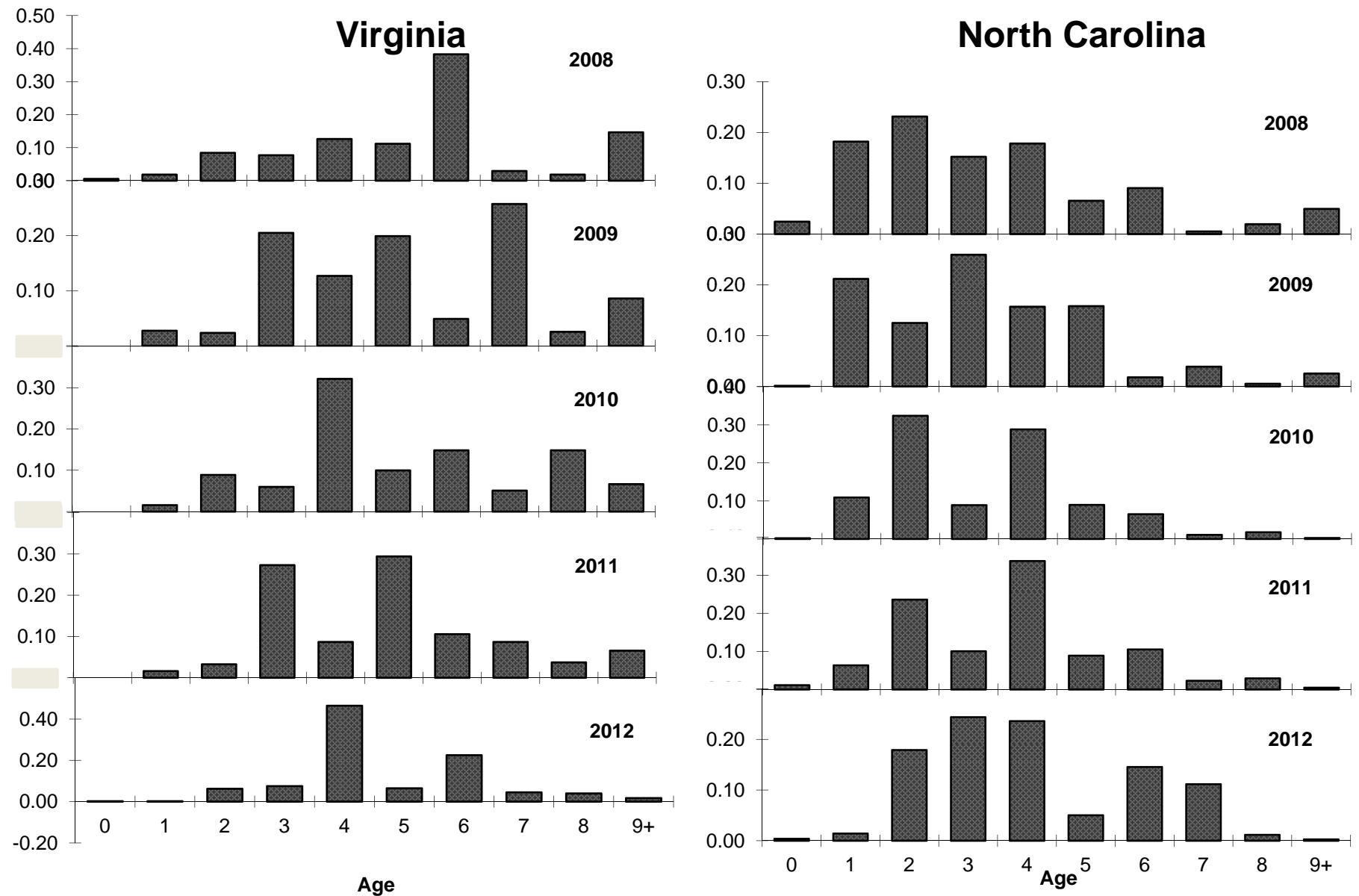
# Commercial Landings

## Proportion at Age



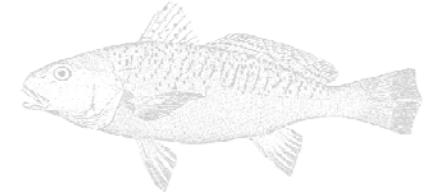
# Commercial Landings

## Proportion at Age





## Other Metrics



### ➤ Compare effort versus landings

- Effort units not standard among states
- Inconsistent effort reporting – would like to improve

### ➤ Recreational CPUE (Not provided)

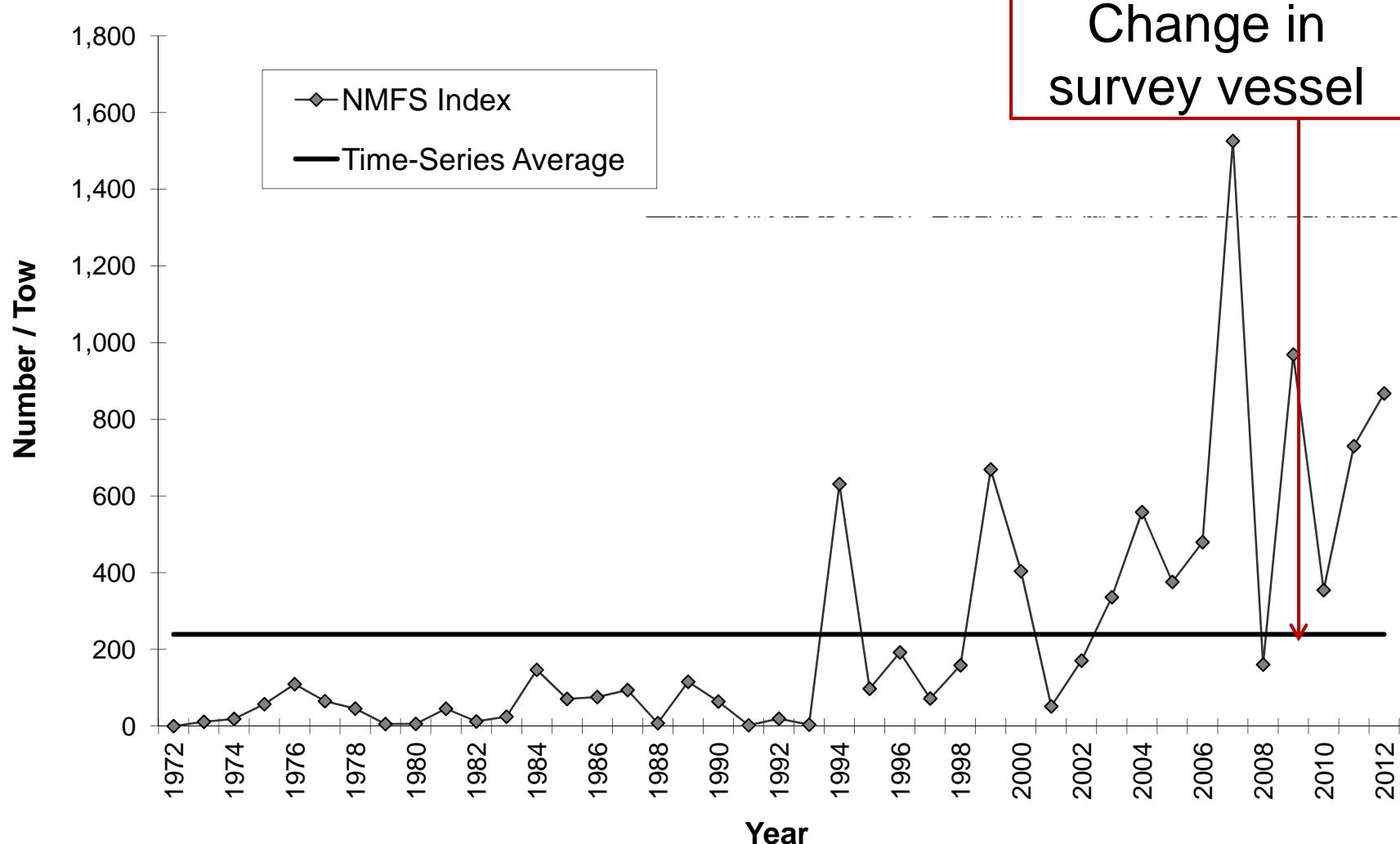
- 2010 assessment considered two approaches; concerns with both Directed trips and Stephens & MacCall (2004)
- Methods to improve Stephens & MacCall approach evaluated  
→ TC should have review panel endorsement before using

### ➤ Surveys (4 used in assessment model out of 31)

- 1 showed decrease, 3 showed increased
- All were above there time series mean



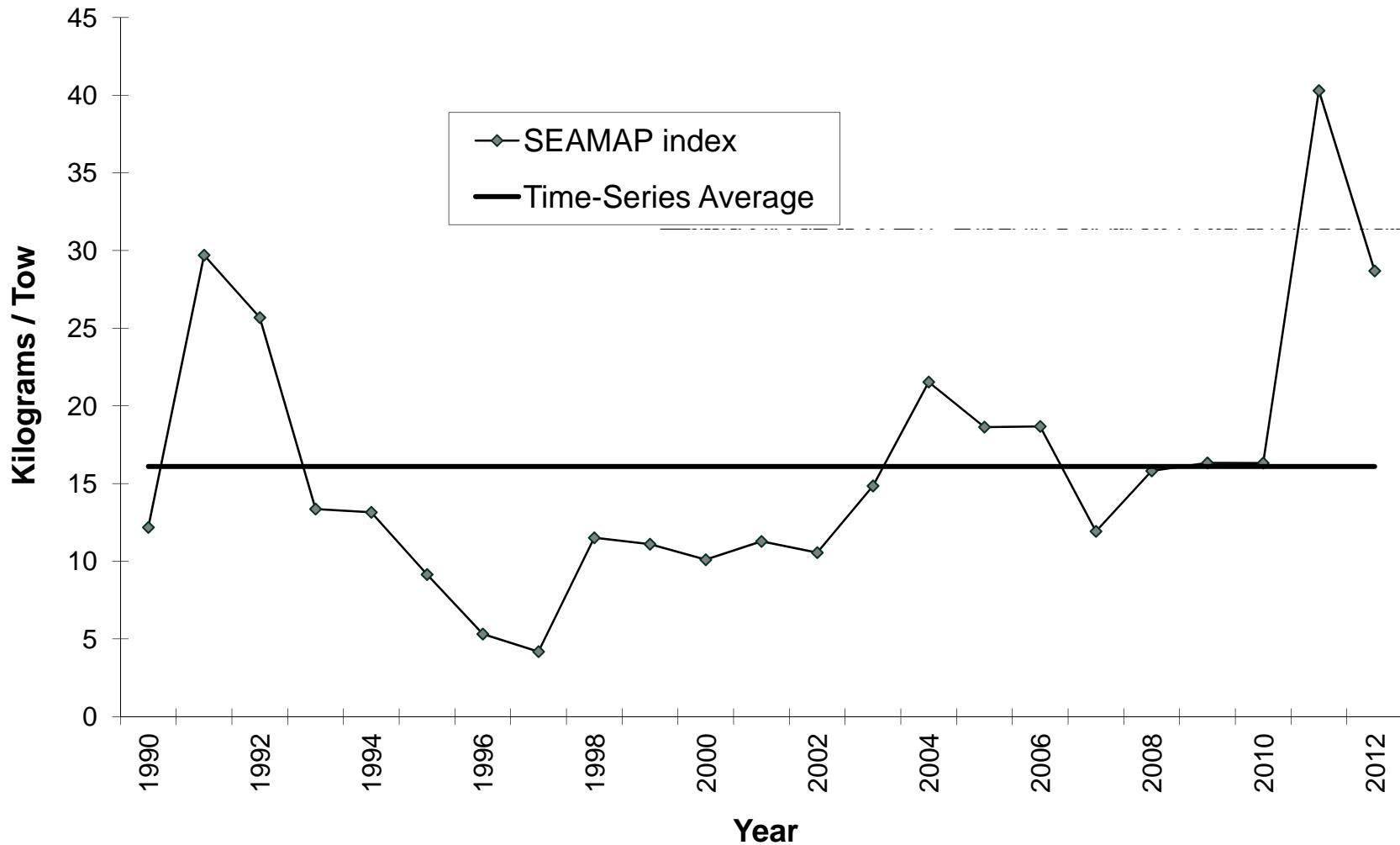
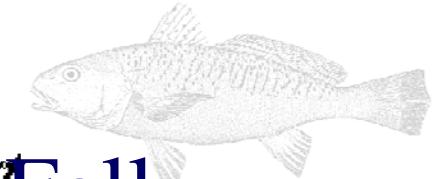
# Surveys NMFS Bottom Trawl—Fall





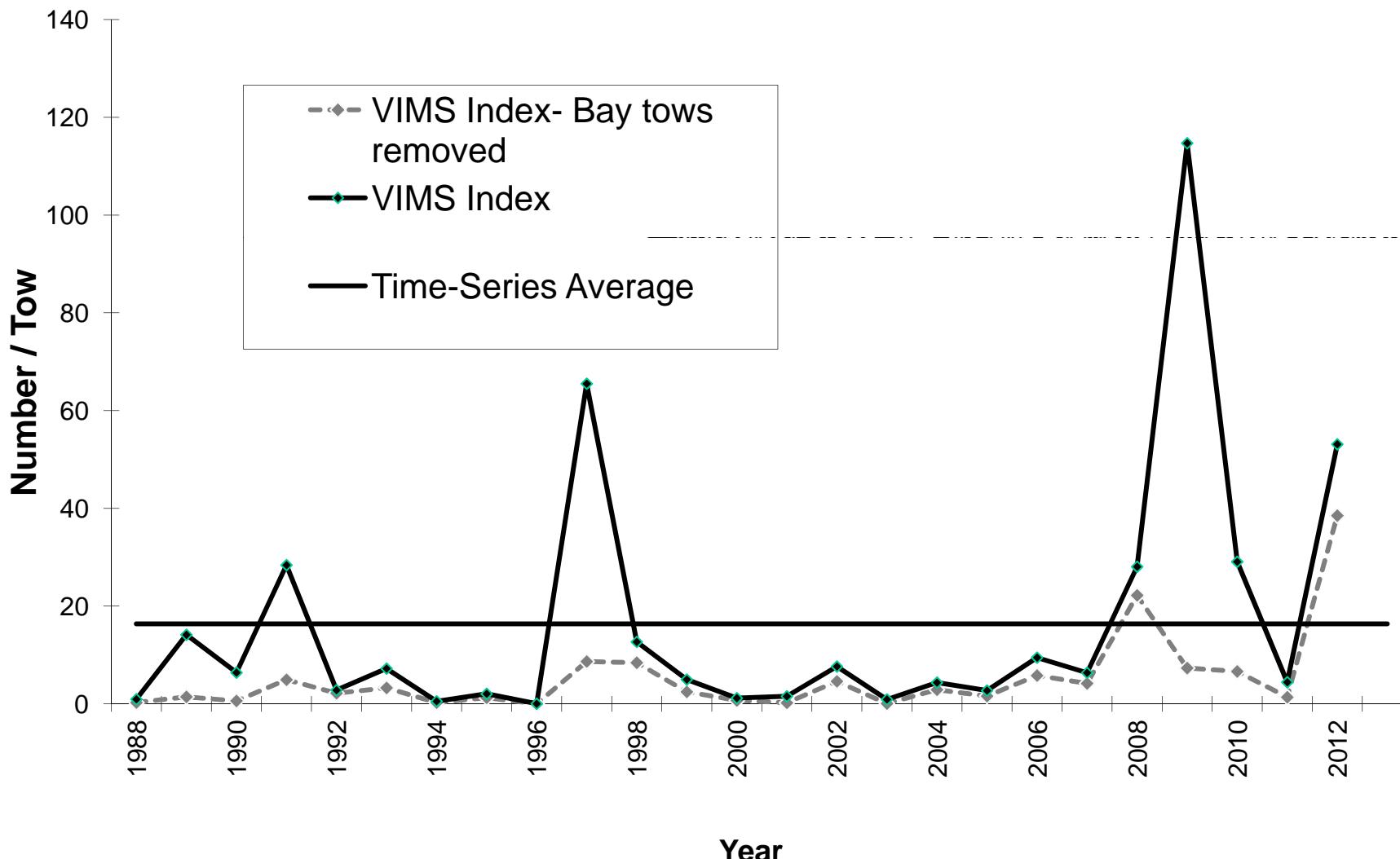
# Surveys

## SEAMAP-SA Coastal Trawl Fall



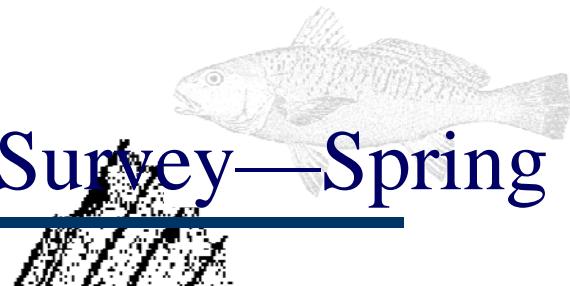
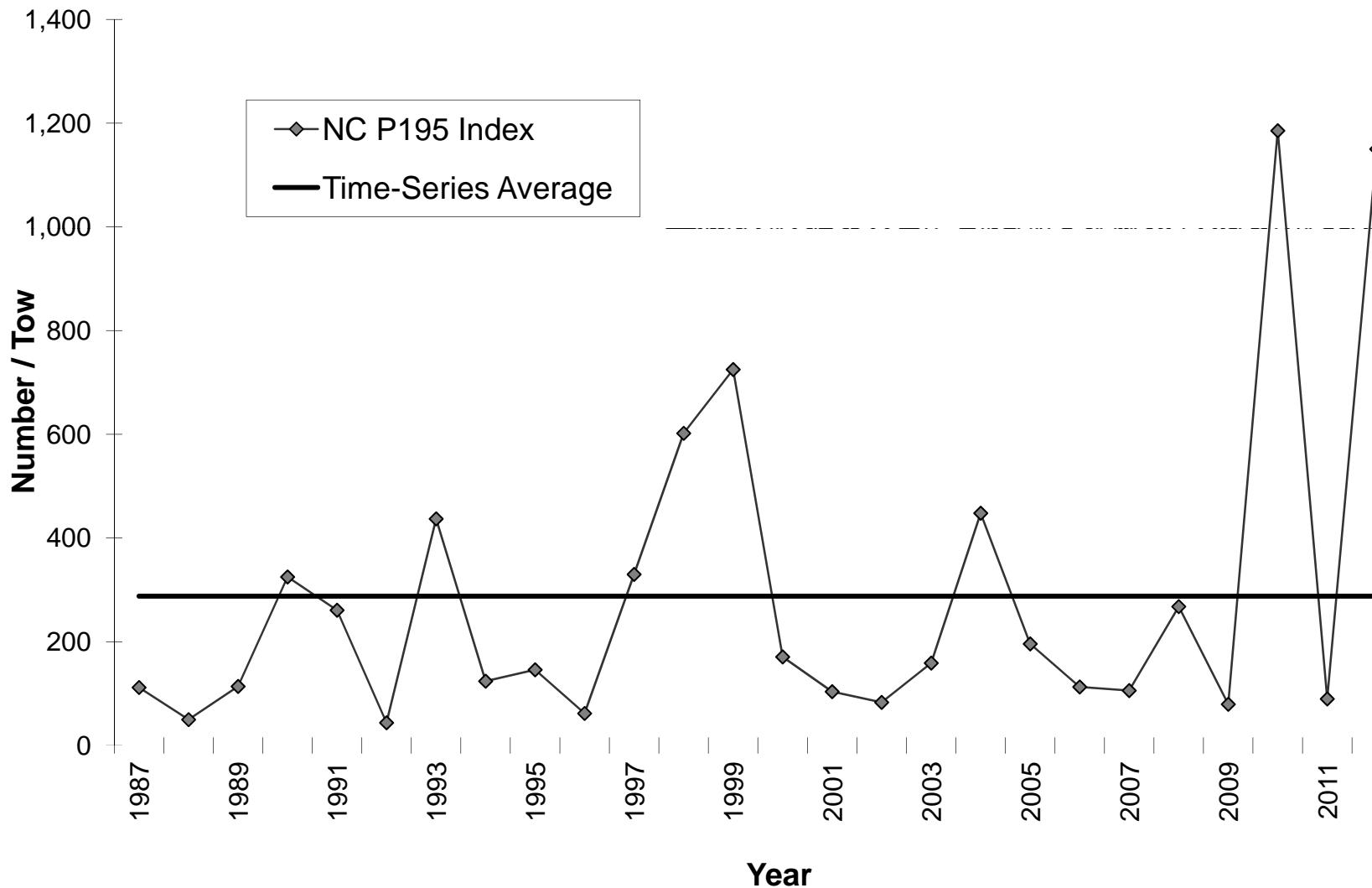


# Surveys VIMS Juvenile Trawl-Spring





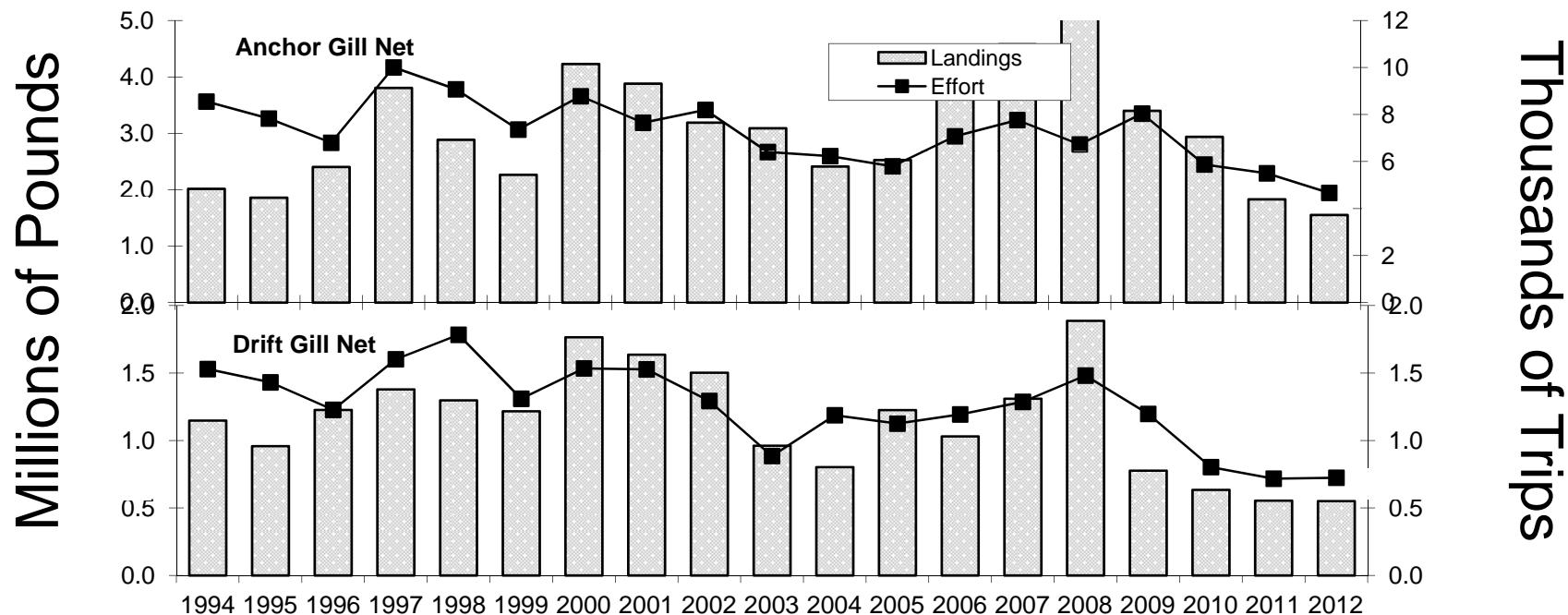
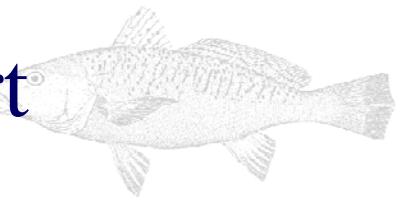
# Surveys NC Pamlico Sound Survey—Spring





# Commercial Landings vs. Effort

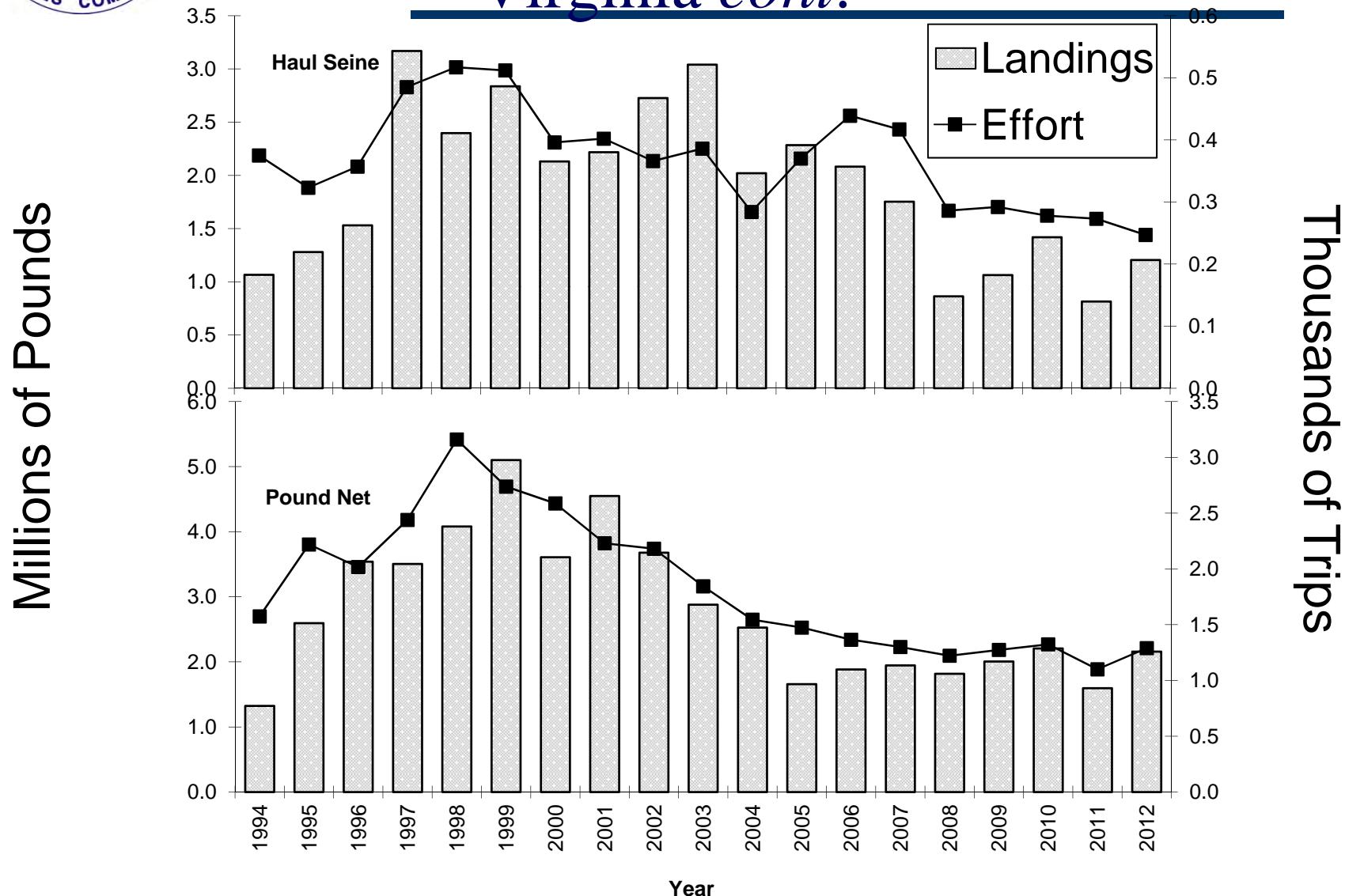
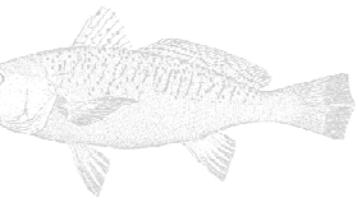
## Virginia





# Commercial Landings vs. Effort

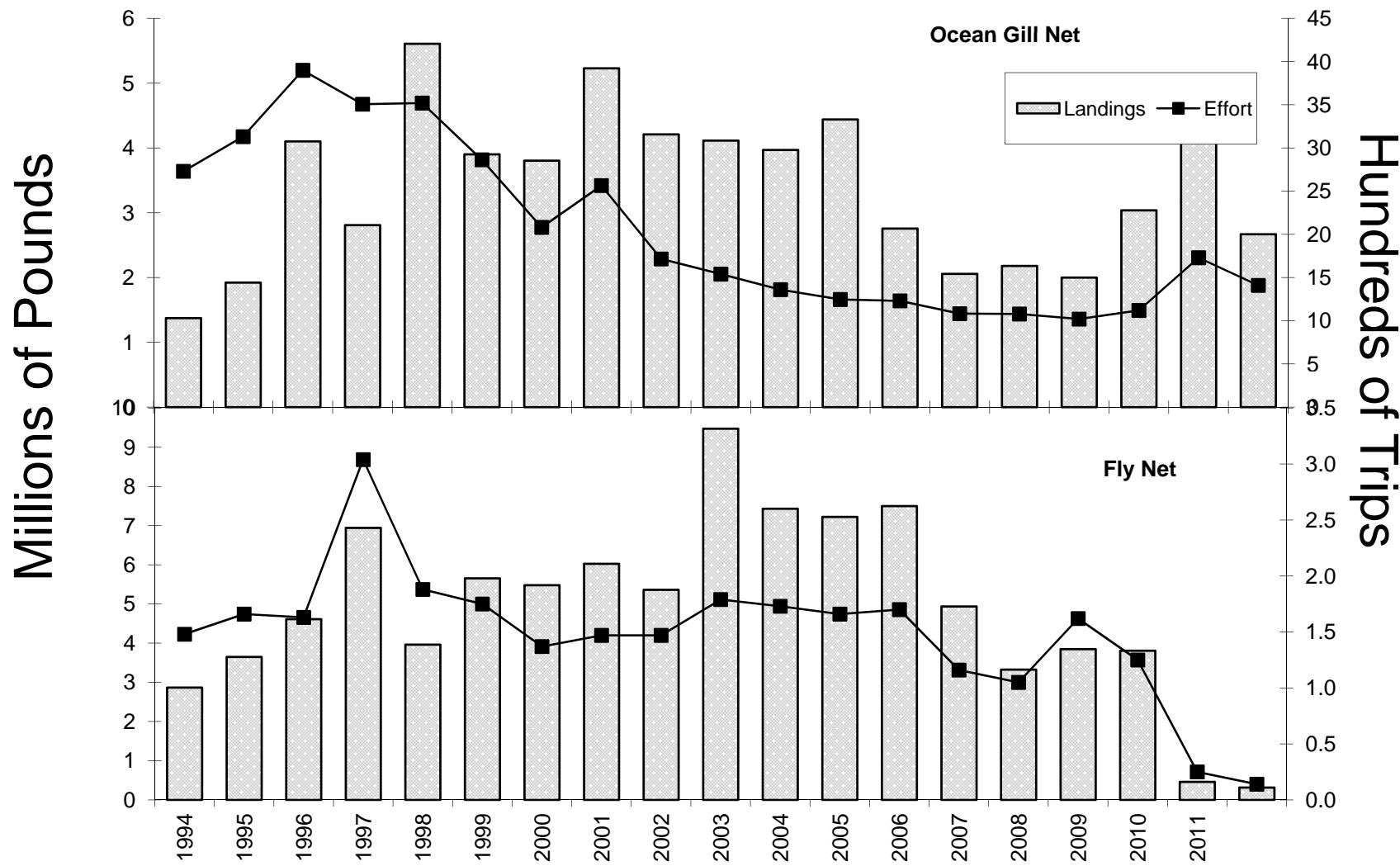
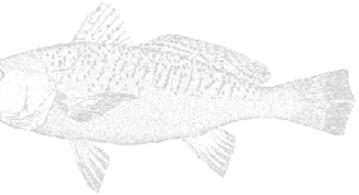
Virginia *cont.*





# Commercial Landings vs. Effort

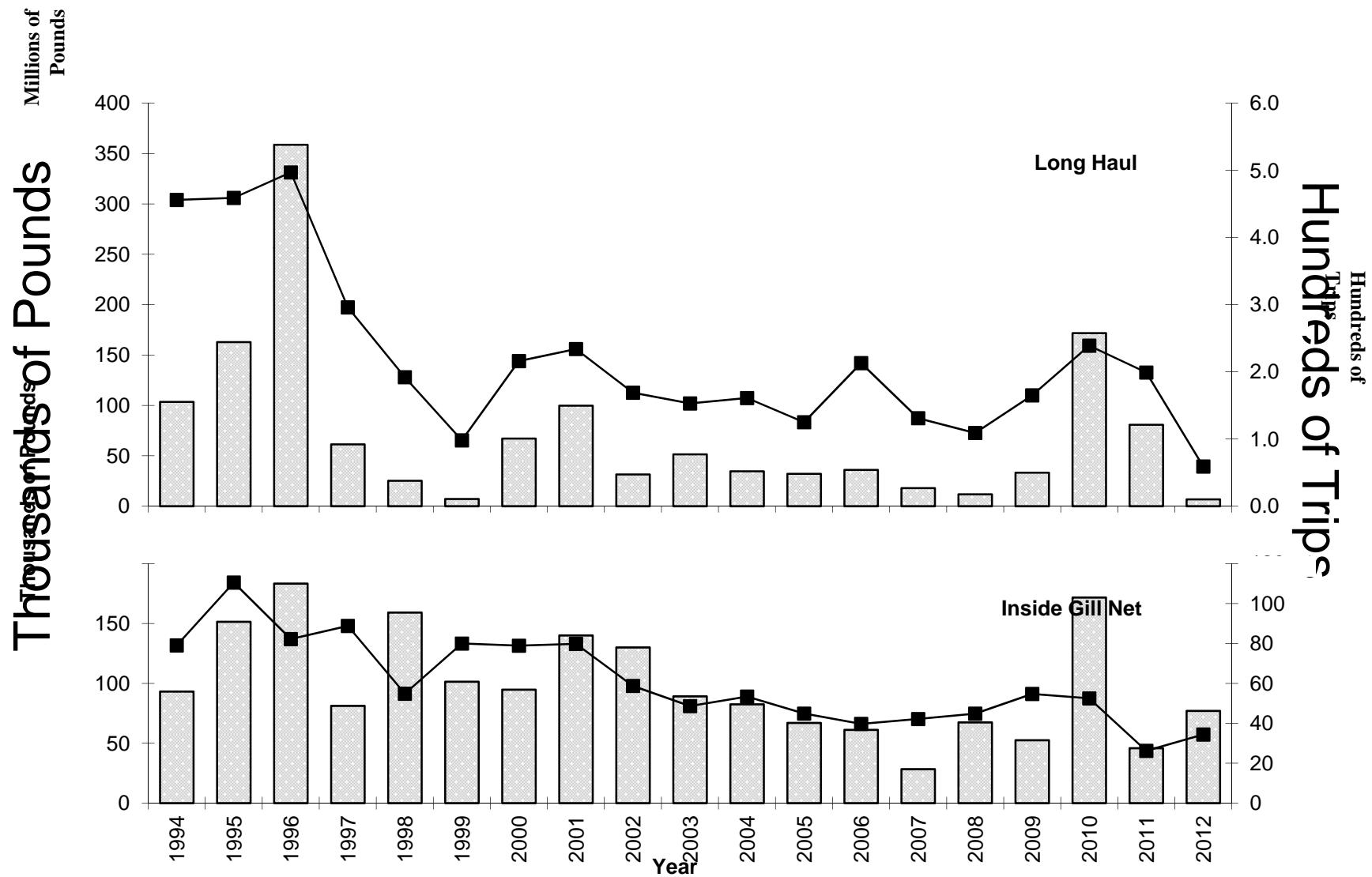
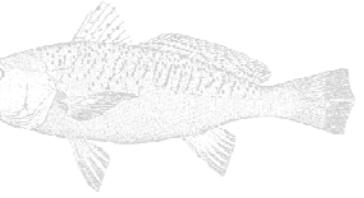
## North Carolina





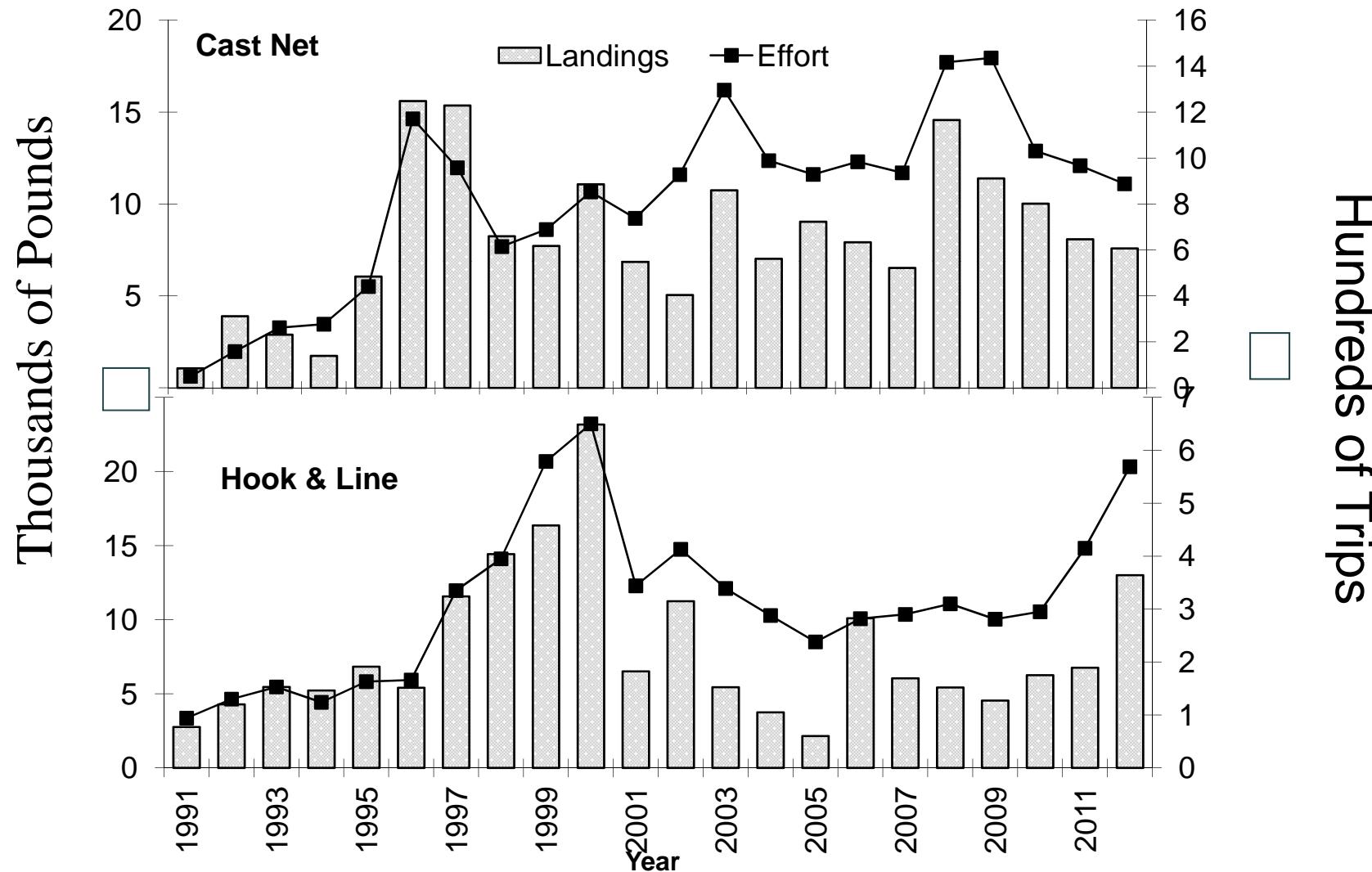
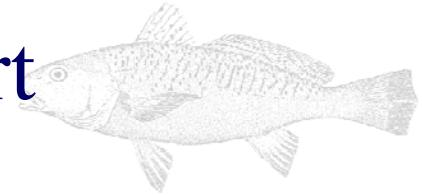
# Commercial Landings vs. Effort

## North Carolina cont.



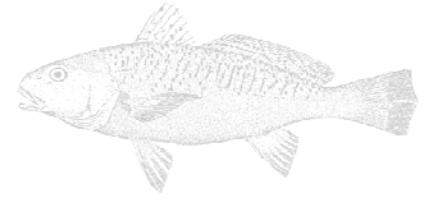


# Commercial Landings vs. Effort Florida





## TC Recommendations



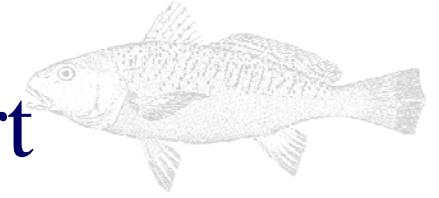
- **Do not initiate a benchmark or update**
- Consider incorporating the Traffic Light Analysis into the Trigger Exercises
- Does not recommend management measures
  - But the TC would support Board's efforts if wishes to begin process
- Research needs



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# Atlantic Croaker TC Report

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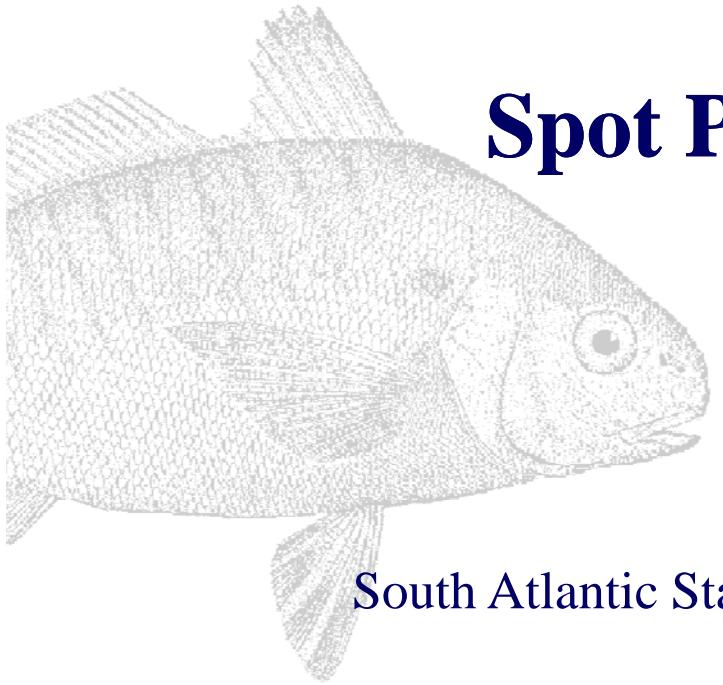


# Questions?



Working towards healthy, self-sustaining populations  
for all Atlantic coast fish species or successful  
restoration well in progress by 2015

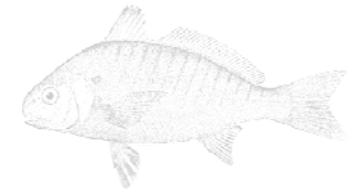
## Spot PRT: Trigger Report



South Atlantic State-Federal Fisheries Management Board  
August 9, 2012



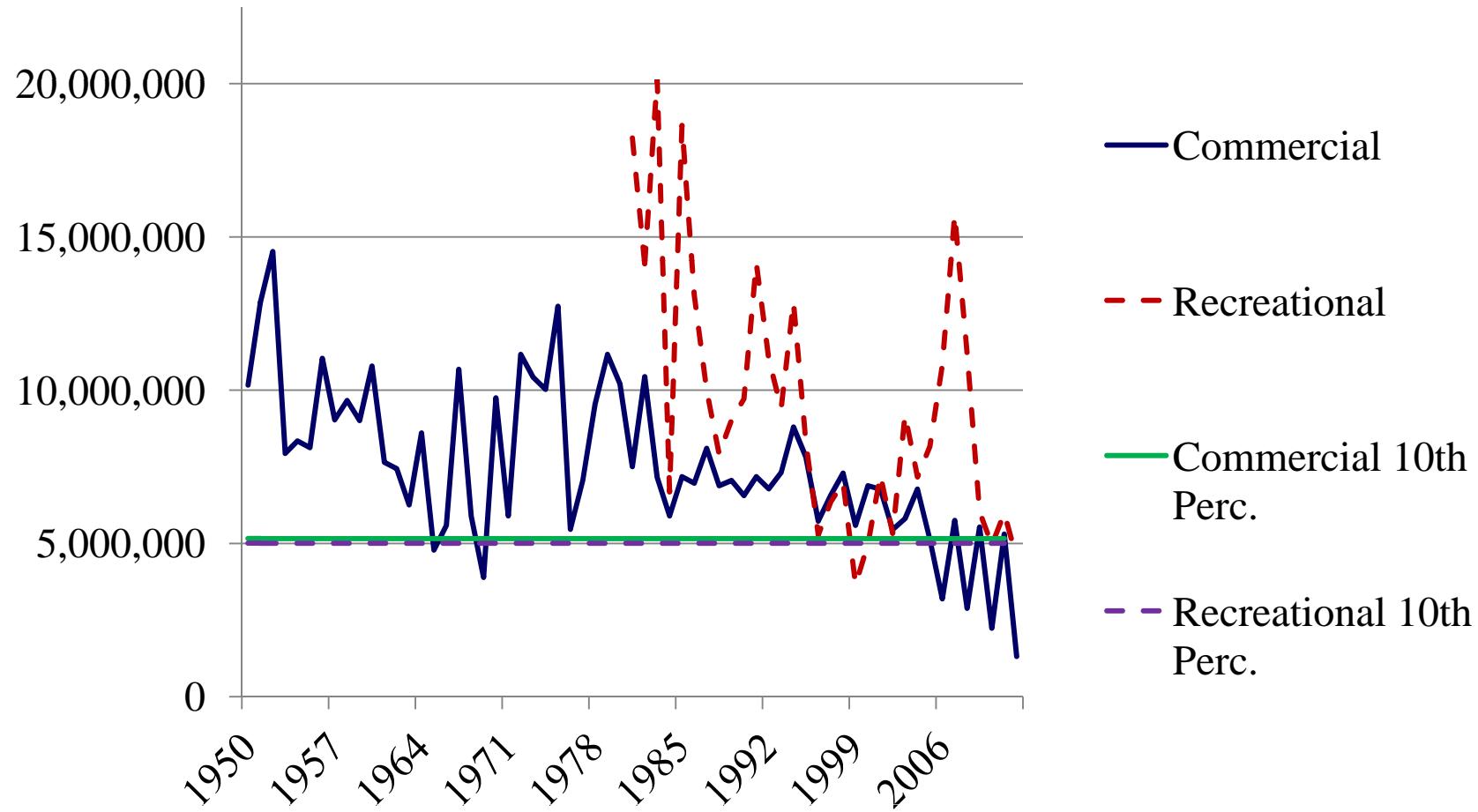
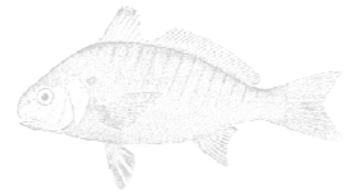
# Overview



- 5 Triggers included in Omnibus Amendment
  - Fishery-Dependent
    - Commercial Landings
    - Recreational Landings
  - Fishery-Independent
    - NMFS Survey
    - SEAMAP Survey
    - MD Chesapeake Bay Seine Survey
  - 10<sup>th</sup> Percentile

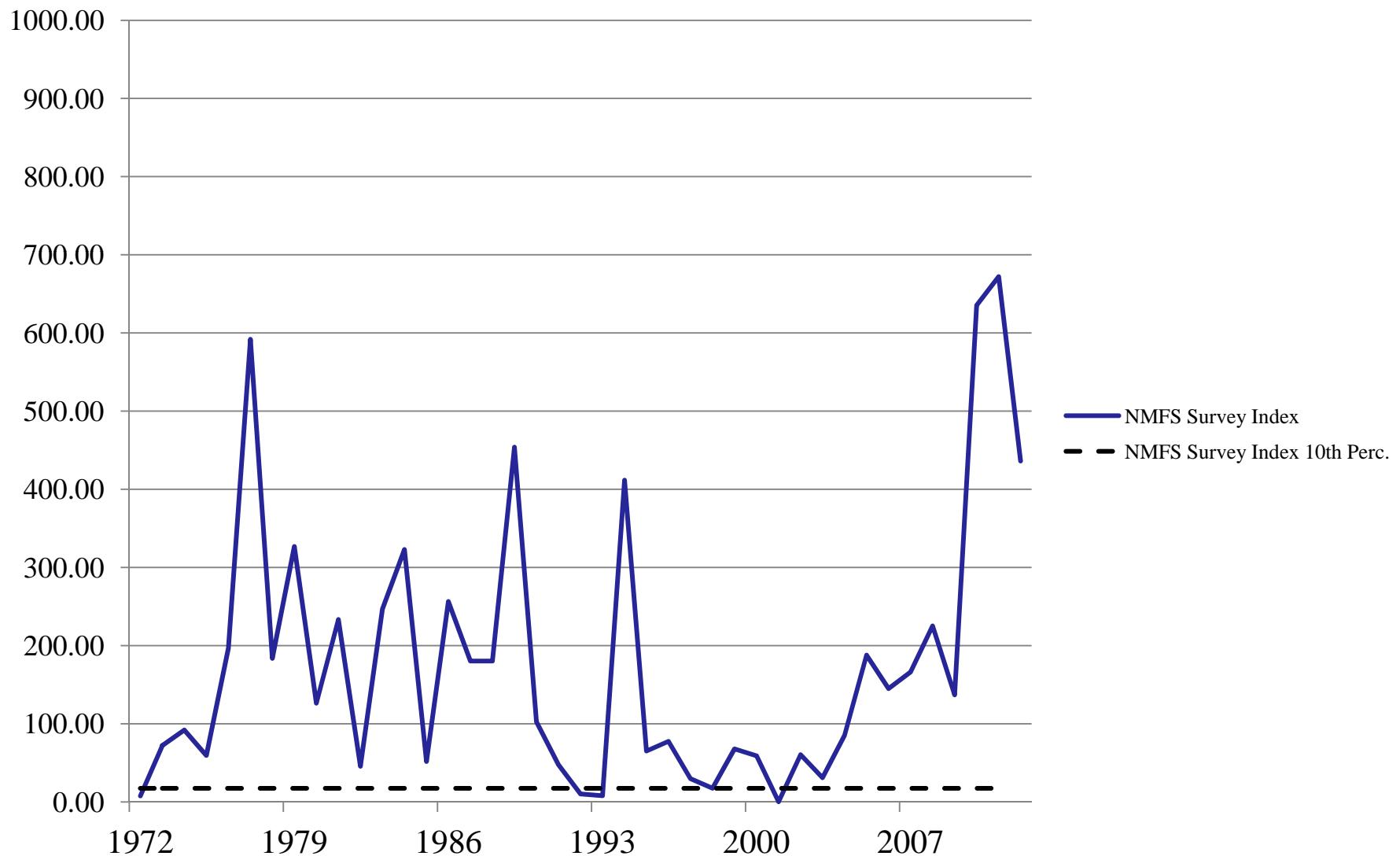


# Fishery Landings



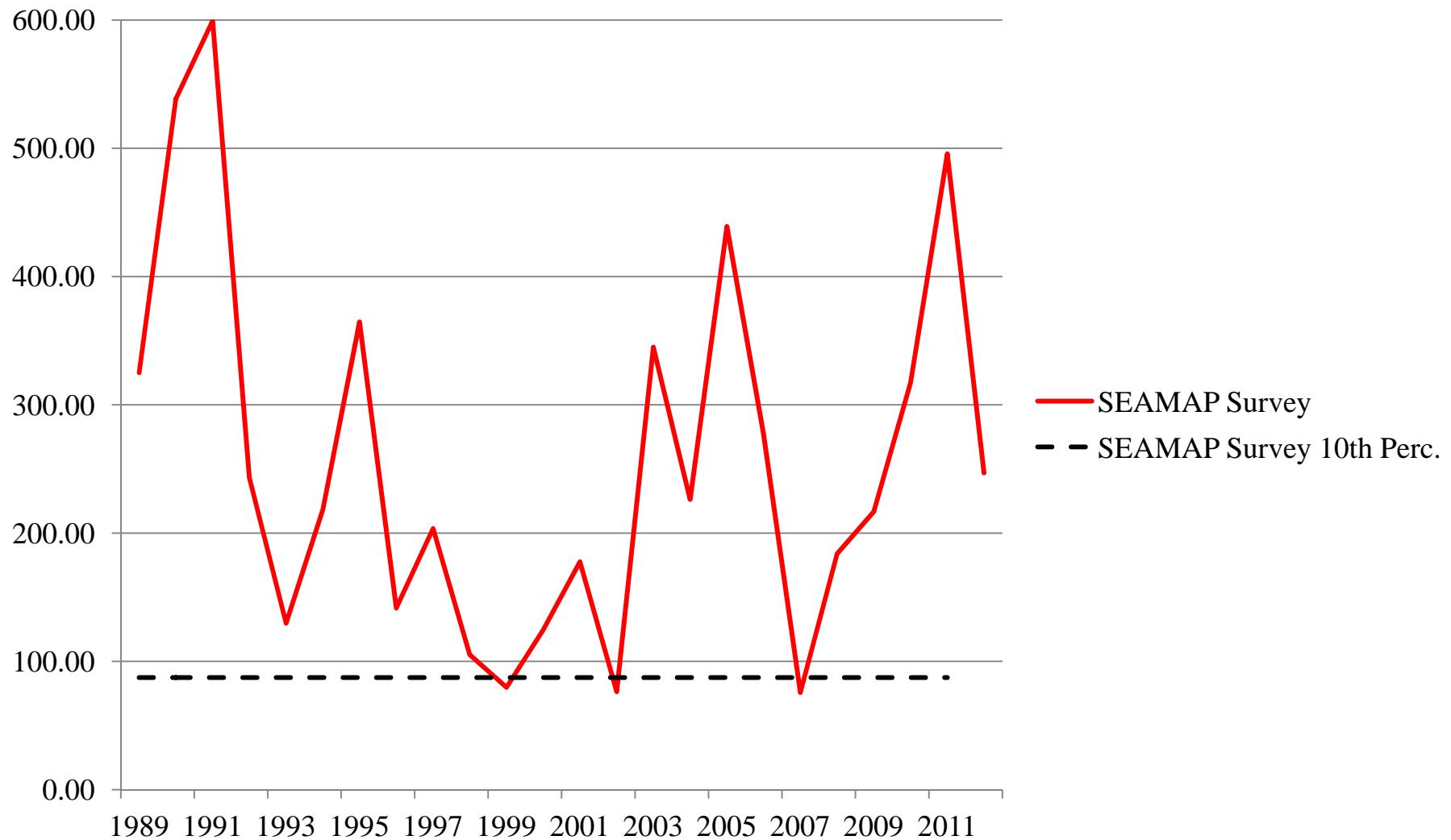


# NMFS Survey



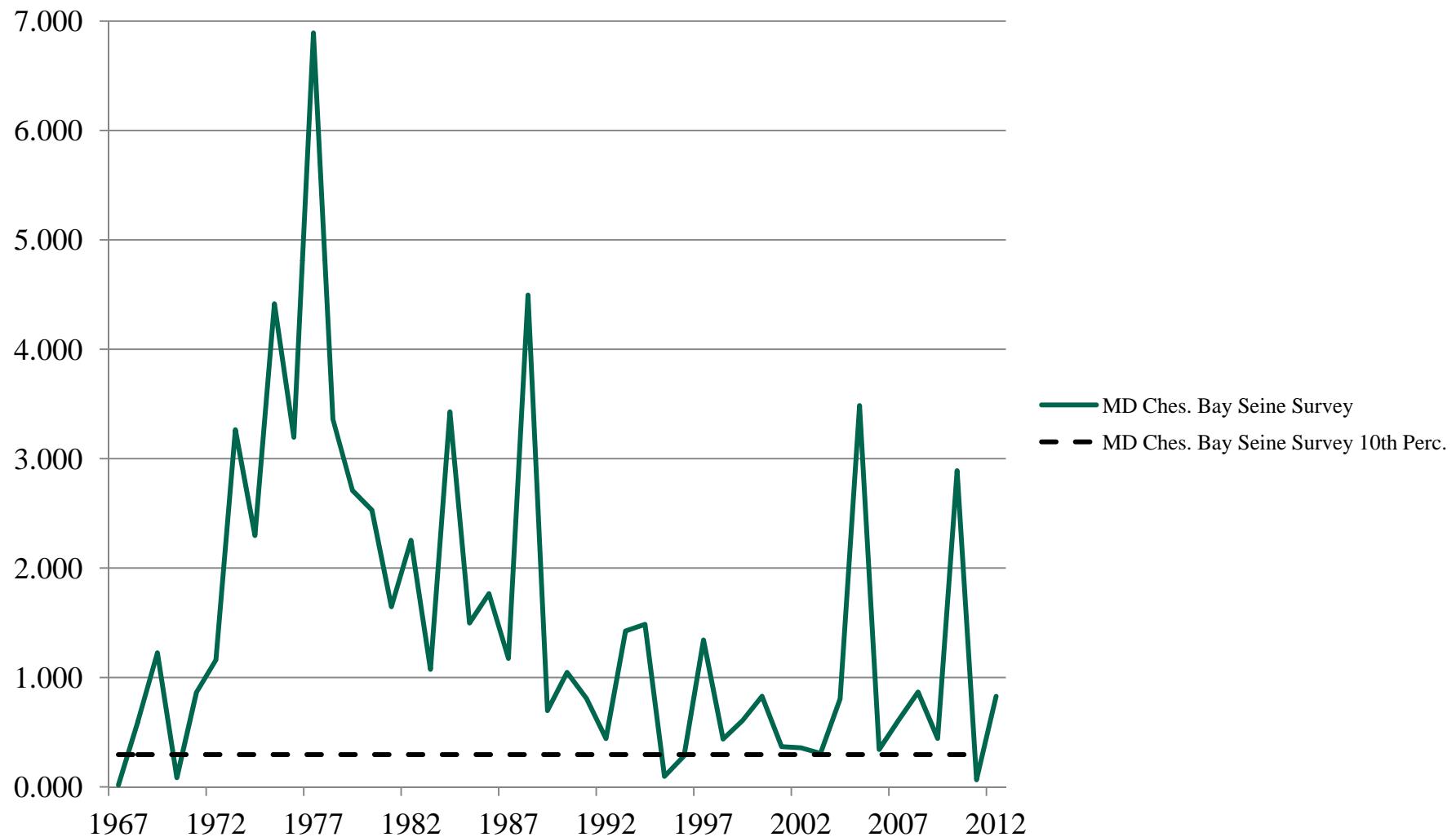


# SEAMAP Survey





# MD Ches. Bay Seine Survey





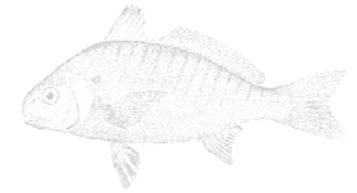
# Percentile Change



Trigger (10 <sup>th</sup> Percentile)	Commercial Landings	Recreational Landings	NMFS Survey	SEAMAP Survey	ChesMAP Survey
2011 (I)	5137086	5270362	16.67	84.85	.292
2011 (F)	5318703	5270362	16.67	84.85	.292
2012 (I)	5159184	5006267	17.40	87.38	.294
2012 (F)	?	?	?	?	?



## PRT Recommendations



- Trigger did not trip, although very close
  - PRT does not recommend management action
  - But would support Board if wished to initiate management changes
  - Would the board like the PRT to develop potential management options
  - Would like consideration of Traffic Light Analysis (similar to Atlantic Croaker)



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## Spot PRT Report

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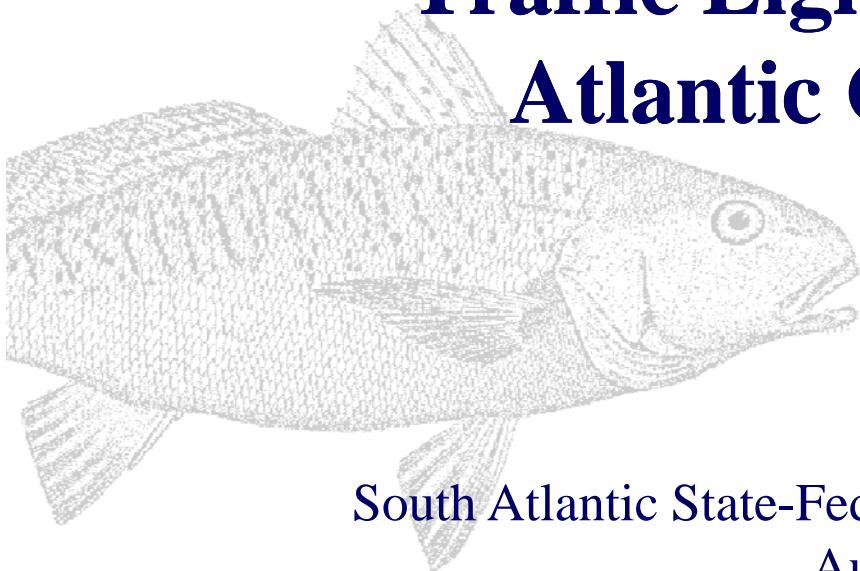


# Questions?



Working towards healthy, self-sustaining populations  
for all Atlantic coast fish species or successful  
restoration well in progress by 2015

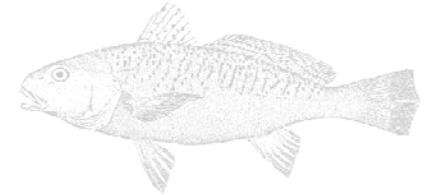
## Traffic Light Method Analysis Atlantic Croaker Fishery



South Atlantic State-Federal Fisheries Management Board  
August 7, 2013



# Traffic Light Method



- Precautionary Approach
- Illustrates trends easily
- Useful for data poor & data rich species

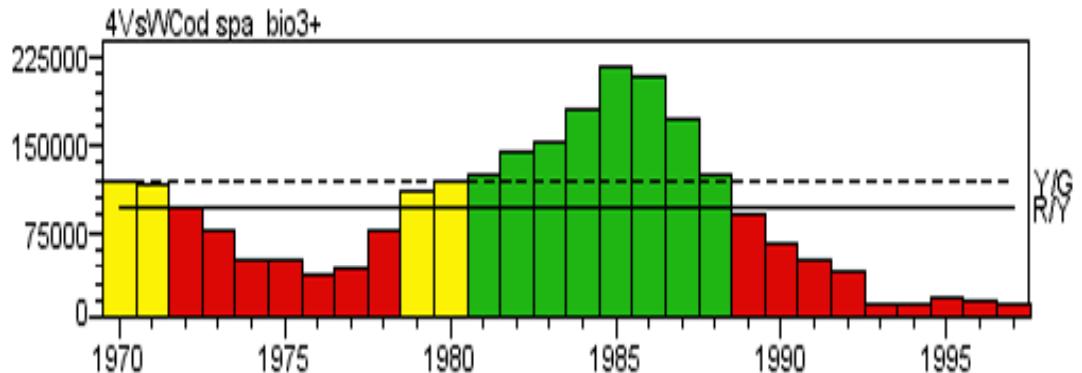


Table 11. Months between 2001 and present when commercial pot CPUE (measured as pounds per pot) exceeded threshold values.

YEAR	Threshold Management in Effect											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1989												
1990												
1991												
1992												
1993												
1994												
1995												
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												
2007												

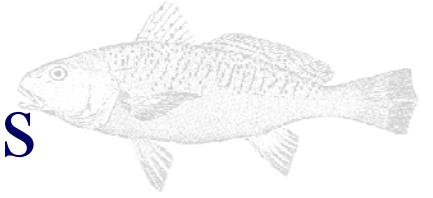
Data on quantity of traps fished was not routinely reported until the 2001 fishing season

Legend:

- 6 consecutive months above Upper 81% CI plus 3 consecutive month below
- 6 consecutive months below Lower 95% CI plus 3 consecutive months above
- 6 consecutive months below (at least) Lower 81% CI plus 3 consecutive months above



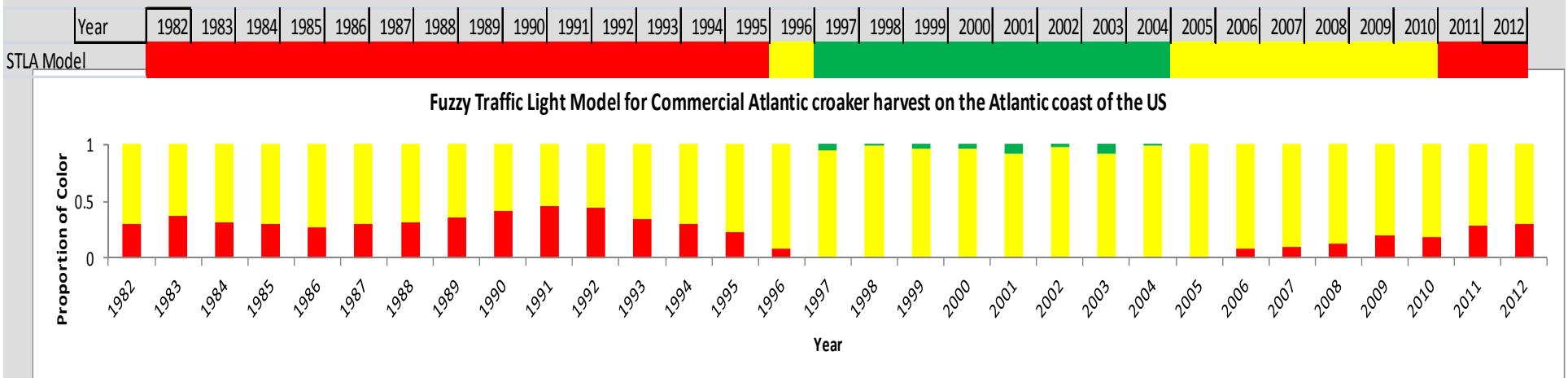
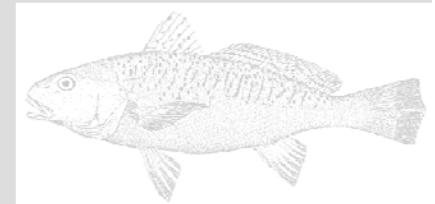
# Atlantic Croaker Analysis



- Fishery Independent indexes
- Apply Hard Trigger Threshold (70% of previous to 2-year index average)
- Strict vs. Fuzzy Traffic Light Analysis
- 1996-2008 reference period

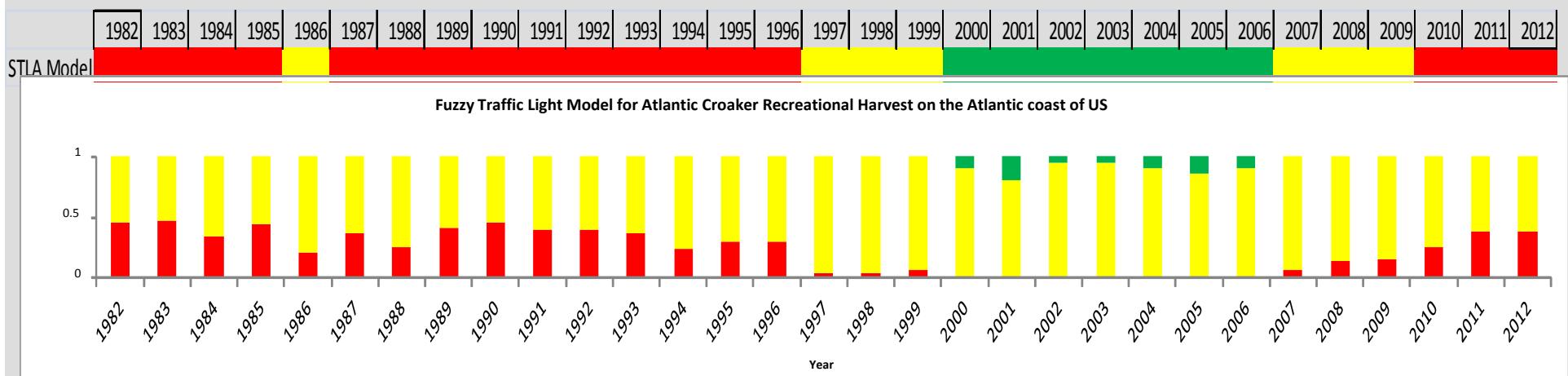
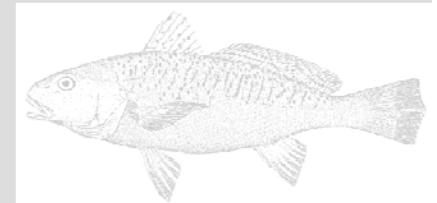


# Commercial Harvest





# Recreational Harvest



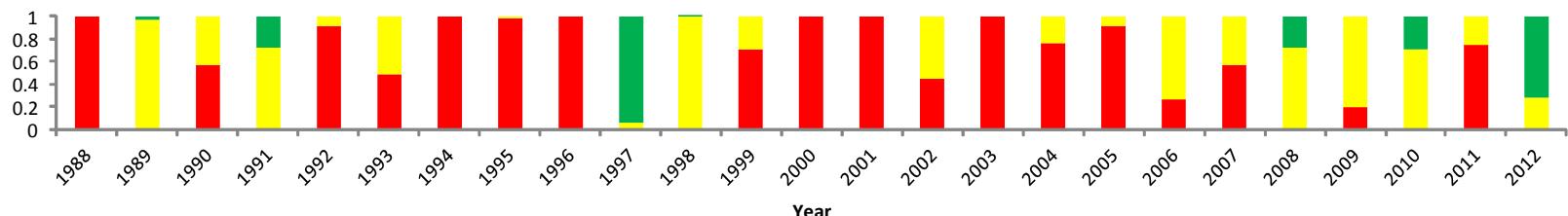


# Juvenile Surveys



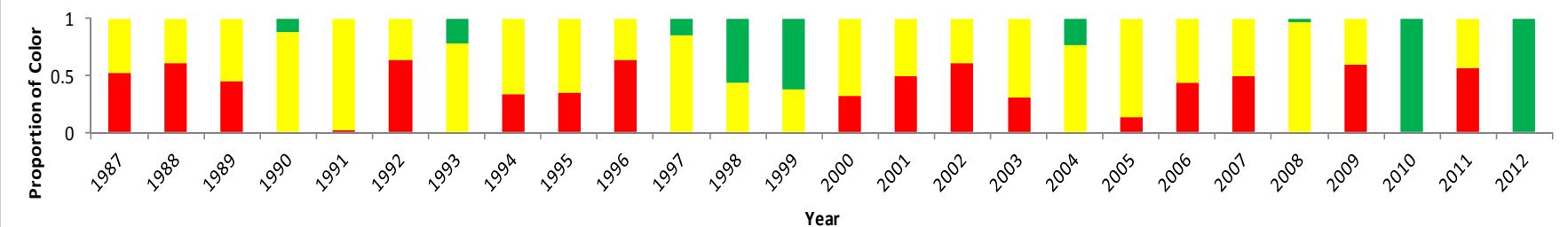
Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
VIMS: Bay and River	Red	Green	Red	Green	Yellow	Red	Red	Red	Red	Green	Red	Red	Red	Yellow	Red	Red	Red	Yellow	Red	Yellow	Green	Yellow	Red	Red	Green

VIMS Juvenile fish and Blue crab Survey Fuzzy Traffic Light Model



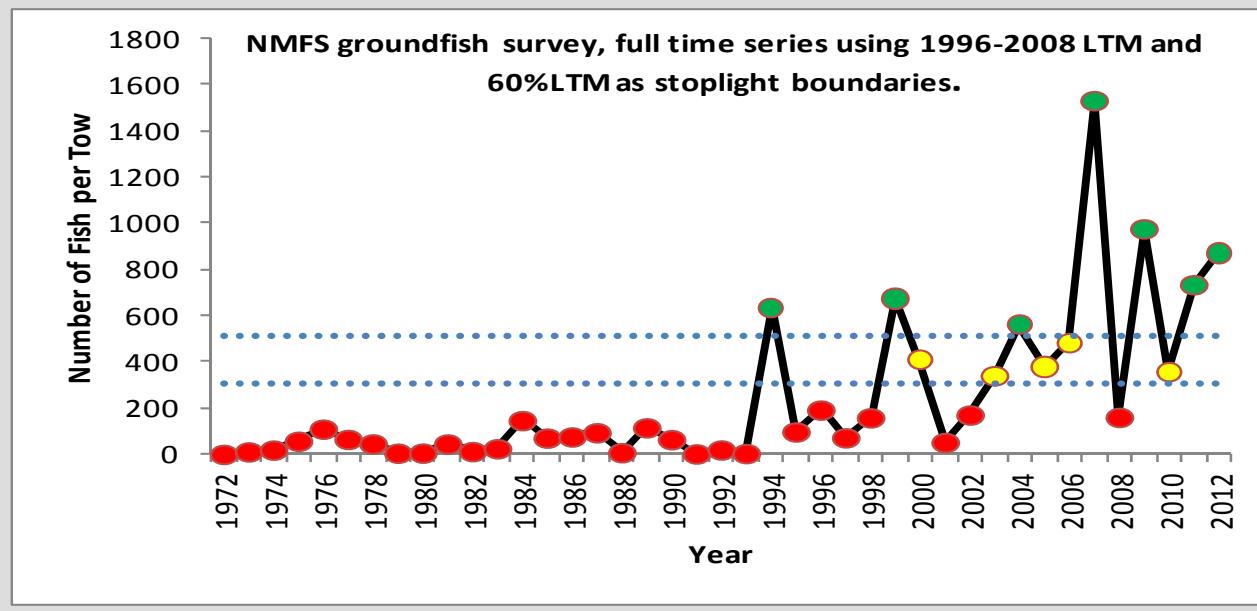
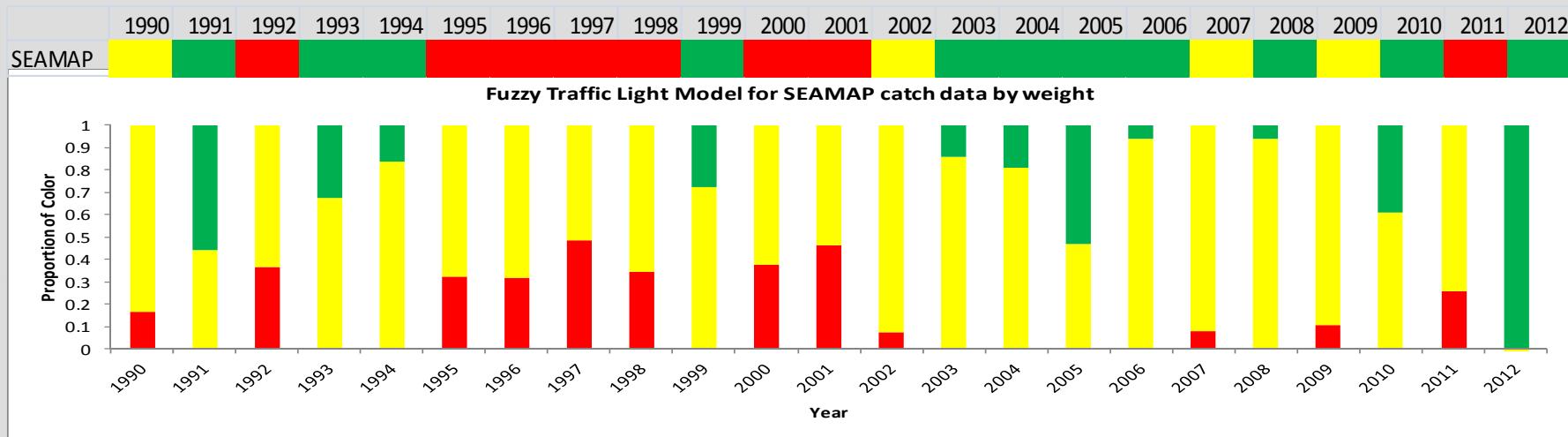
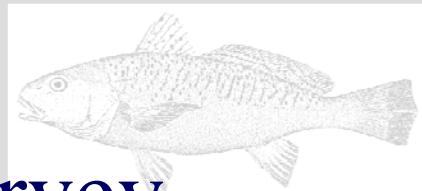
Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
NCDMF-195	Red	Red	Green	Red	Yellow	Red	Red	Red	Red	Red	Green	Red	Red	Red	Yellow	Red	Red	Yellow	Red	Yellow	Red	Red	Green	Red	Red	Green

NCDMF Program 195: Fuzzy Traffic Light Model



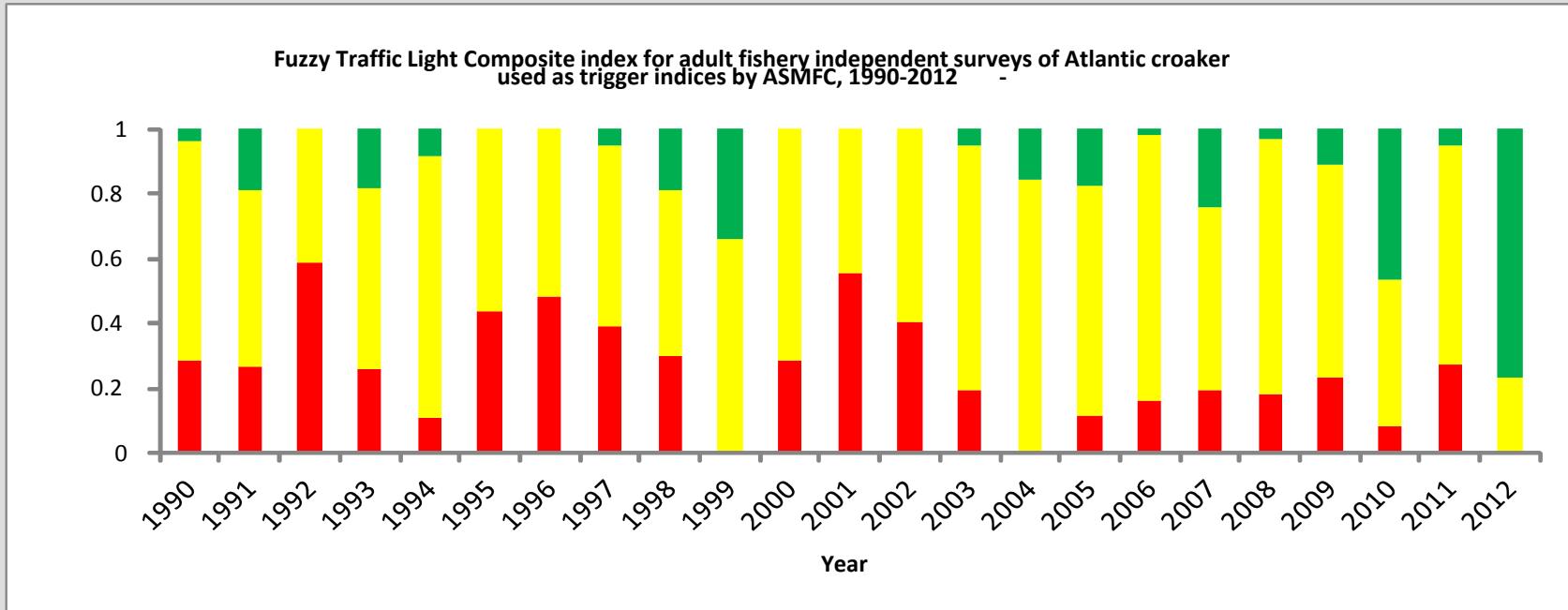
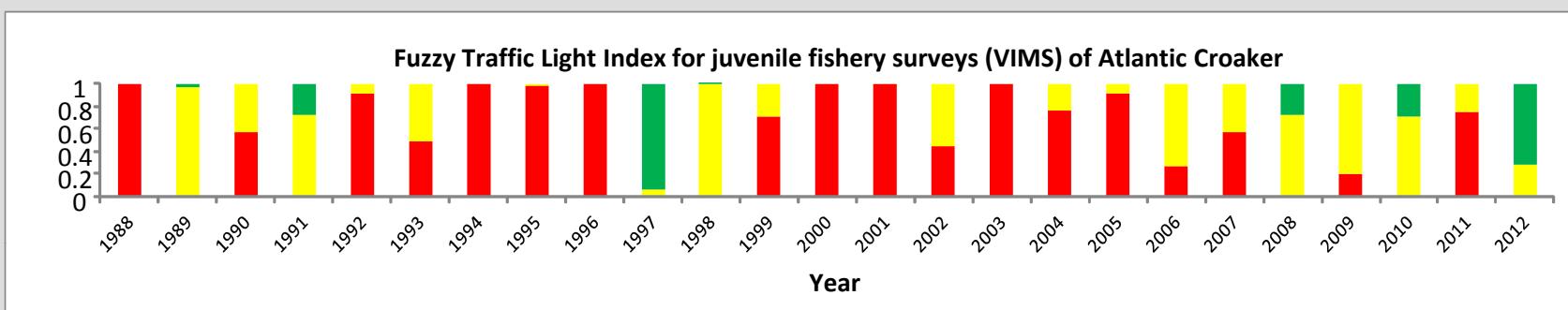


# SEAMAP & NMFS Ground-fish Survey



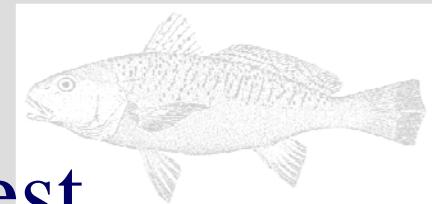


# Juvenile & Composite Adult Indices

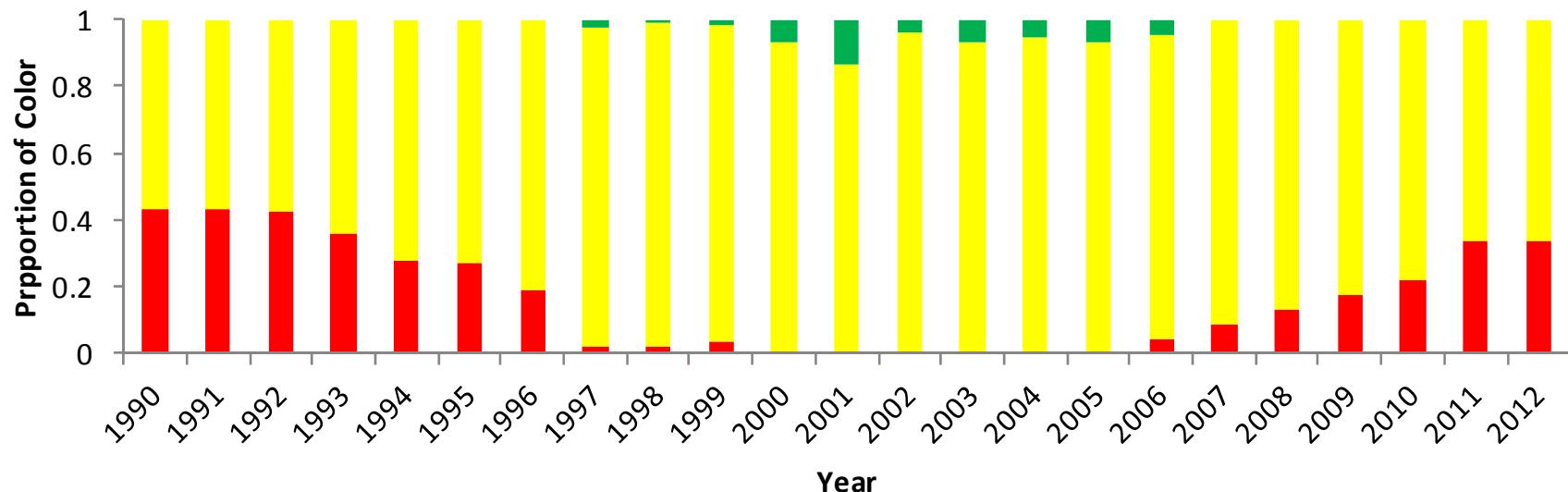




# Composite Comm & Rec Harvest

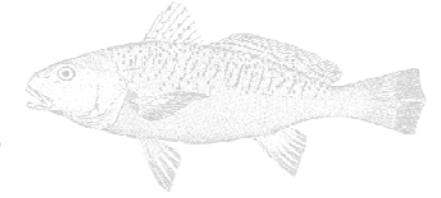


Fuzzy traffic light composite index for commercial and recreational Atlantic croaker harvest on the Atlantic coast of the United States, 1990-2012.

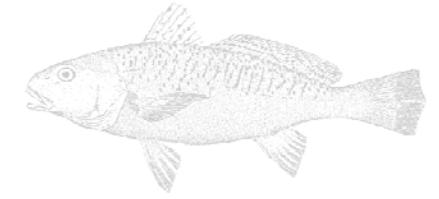




## Conclusions/Next Steps



- Fine-tuning needed
- Request to include in Trigger Exercises
- Feedback

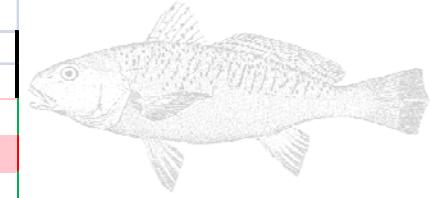


# Questions?



Year	Percent Change by Index from the Previous 2-Yr Average					
	MRIP Harvest	Comm Harvest	VIMS Spring	NCDMF 120.00	SEAMAP Fall	NMFS Fall
1981						818.30
1982						48.58
1983						85.41
1984	218.20	110.15				789.97
1985	79.55	125.02				82.59
1986	196.90	114.81				69.65
1987	81.60	92.01				128.38
1988	113.37	91.25		71.74		9.05
1989	62.74	76.51		138.51		226.94
1990	48.91	65.52	84.87	352.57		104.16
1991	124.49	52.16	276.50	110.54		2.49
1992	123.21	87.55	16.10	21.20	26.82	58.48
1993	116.60	223.92	46.28	263.68	129.52	34.32
1994	172.50	163.91	10.46	65.38	127.26	5457.99
1995	101.65	141.07	53.27	52.26	30.46	30.70
1996	92.27	168.62	2.09	40.61	52.16	52.78
1997	191.52	155.16	6272.00	347.32	44.98	49.73
1998	133.43	105.75	38.69	309.63	125.14	120.02
1999	93.43	102.20	12.73	137.05	502.84	580.21
2000	127.25	102.57	13.27	23.45	37.82	97.57
2001	130.30	107.09	50.30	24.57	24.57	9.62
2002	88.15	94.06	562.75	54.94	269.93	74.99
2003	91.07	104.39	19.67	180.40	237.29	302.18
2004	105.06	93.27	101.88	358.93	131.68	220.24
2005	109.24	90.74	103.44	73.05	161.50	84.13
2006	97.43	83.26	267.51	38.51	61.60	102.66
2007	73.97	87.82	104.42	63.00	51.25	356.64
2008	74.33	92.81	354.65	249.17	112.94	16.02
2009	90.36	81.14	59.30	38.61	81.94	114.89
2010	75.36	92.73	151.93	624.37	196.87	62.78
2011	51.52	73.15	22.54	14.21	42.62	110.34
2012	75.93	81.29	317.14	180.35	276.35	159.98

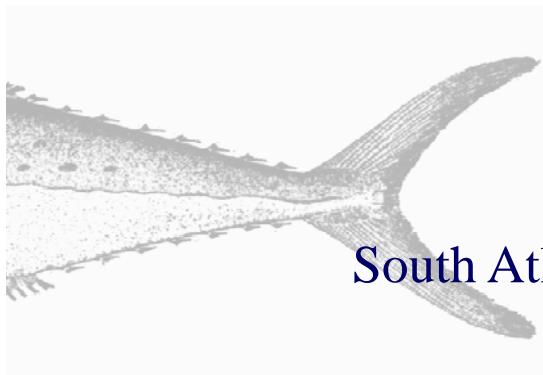
\*\*Pink highlighted cells indicate when 70% trigger level (of previous 2Yr average) was met.



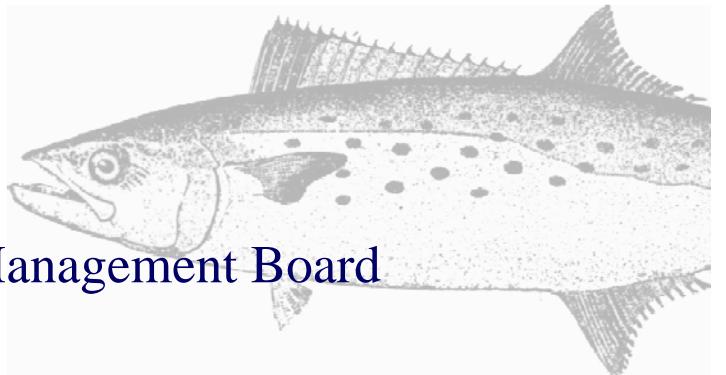


Working towards healthy, self-sustaining populations  
for all Atlantic coast fish species or successful  
restoration well in progress by 2015

## Spanish Mackerel Draft Addendum I

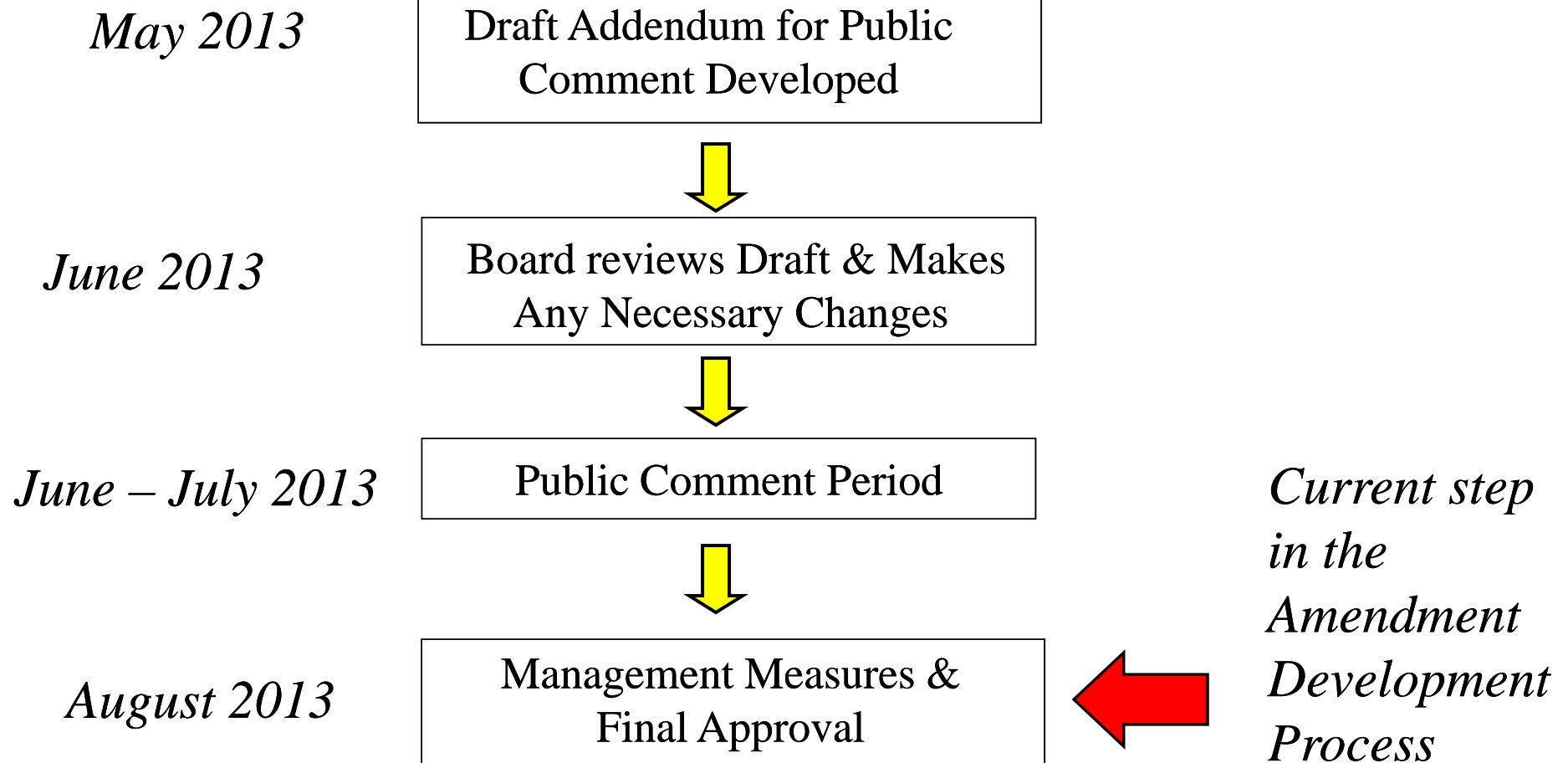


South Atlantic State-Federal Fisheries Management Board  
August 7, 2013





# Addendum I Timeline



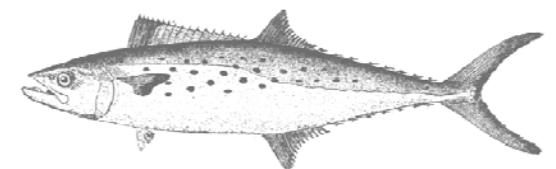


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## Background

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In May 2013, the South Atlantic Board approved the development of an addendum to the Spanish Mackerel FMP to allow states to reduce minimum size to 11 ½ inches for the fishing year 2013 and 2014 (July through September) for the pound net fishery to eliminate waste of dead discards.

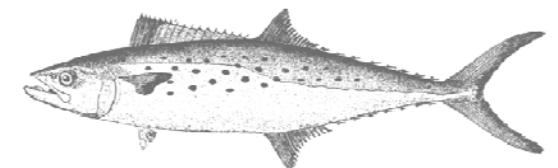




# Proposed Management Options

## Option 1: Status Quo

Maintain current commercial management measures of 12" fork length or 14" total length minimum size limit, with seasonally changing day and vessel trip limits and a decrease in commercial quotas if total annual catch limit is exceeded AND stock is overfished





# Proposed Management Options

## Option 2: Alternative size limit

- States may establish a seasonal exemption from the current minimum size limit of 12-inch fork length minimum size to 11 ½-inch fork length
- This exemption would apply to only pound net fisheries during one or more of the summer months of July through September for the 2013 and 2014 fishing years only.
- If approved, the measure could be extended through Board action.



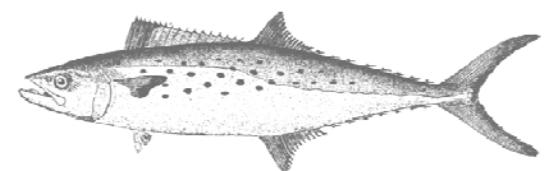


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## Annual Review & Compliance

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- If option 2 is approved, these measures would be reviewed by the Technical Committee and/or Plan Development Team as part of its annual fishery management plan review.
  
- Adopted measures would be implemented immediately upon approval of the Draft Addendum.



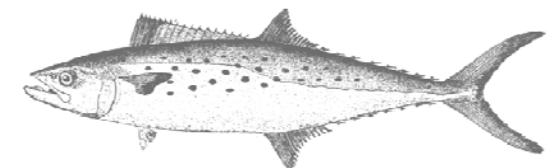


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## Draft Addendum I

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- Consider final approval of Spanish Mackerel Addendum I





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restoration well in progress by 2015*

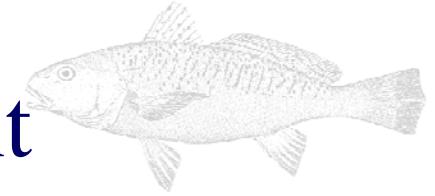
# Atlantic Croaker Fishery Management Plan Review



South Atlantic State-Federal Fisheries Management Board  
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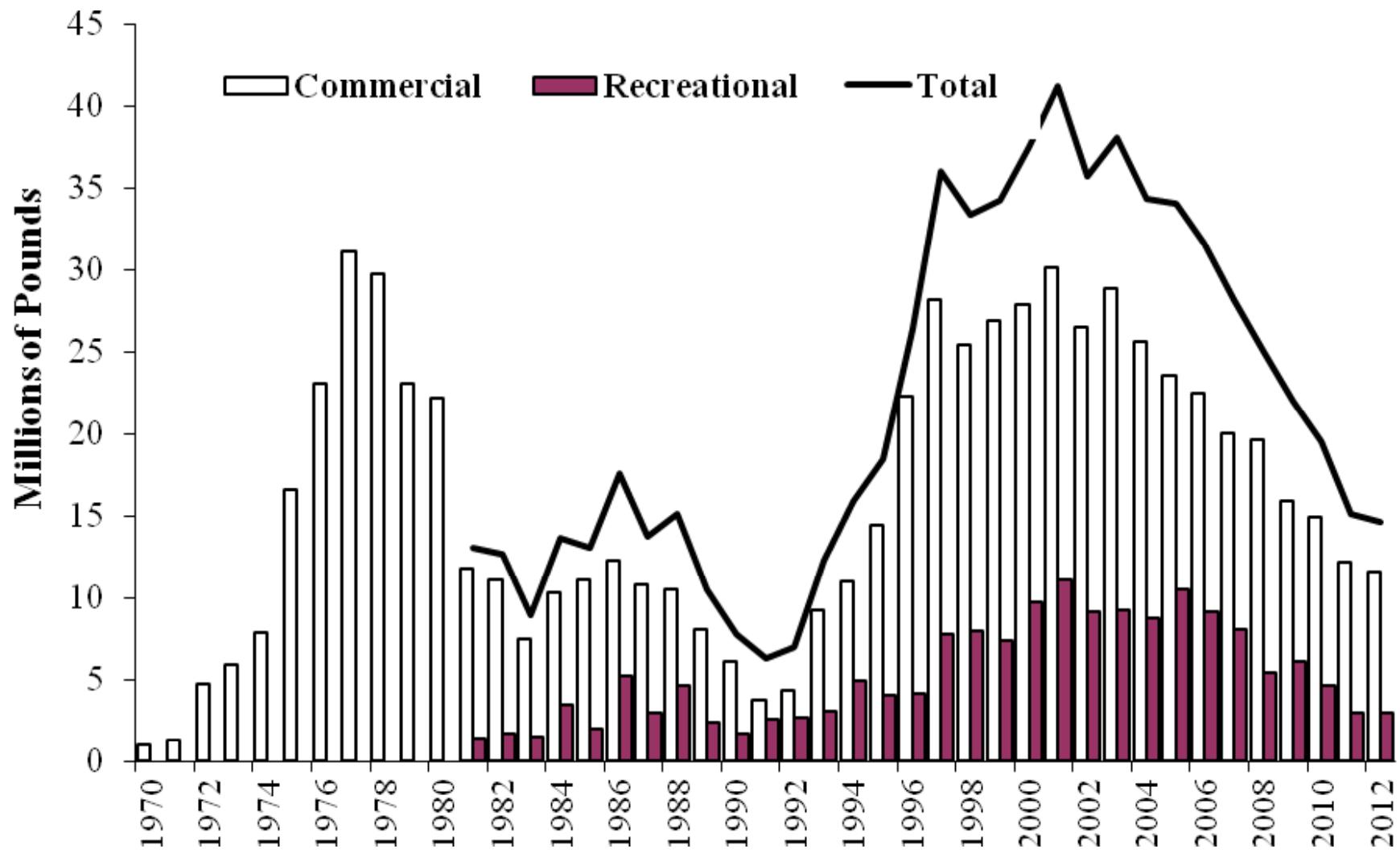
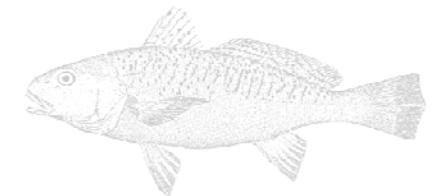
# Status of Management



- Amendment 1 (implemented 2006)
  - Defined two management areas
  - Established BRPs
  - No specific regulations
  - Requirement for compliance: annual reporting
- Addendum I (implemented 2011)
  - Combined management regions
  - Revised BRPs consistent with 2010 stock assessment

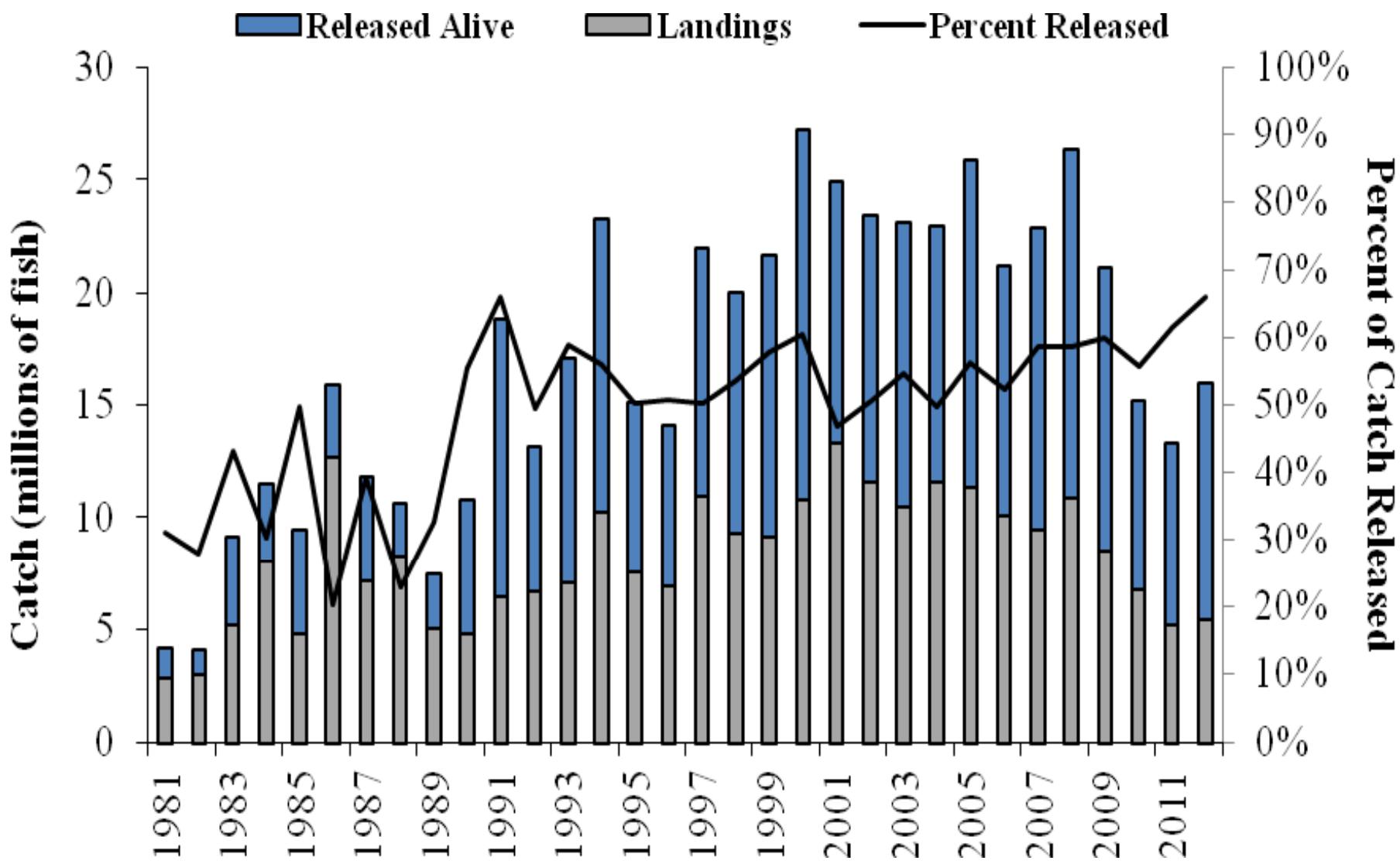
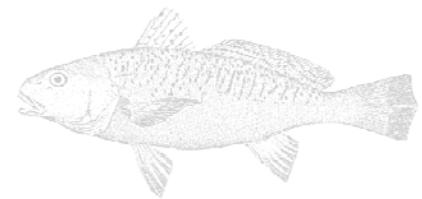


# Status of the Fishery



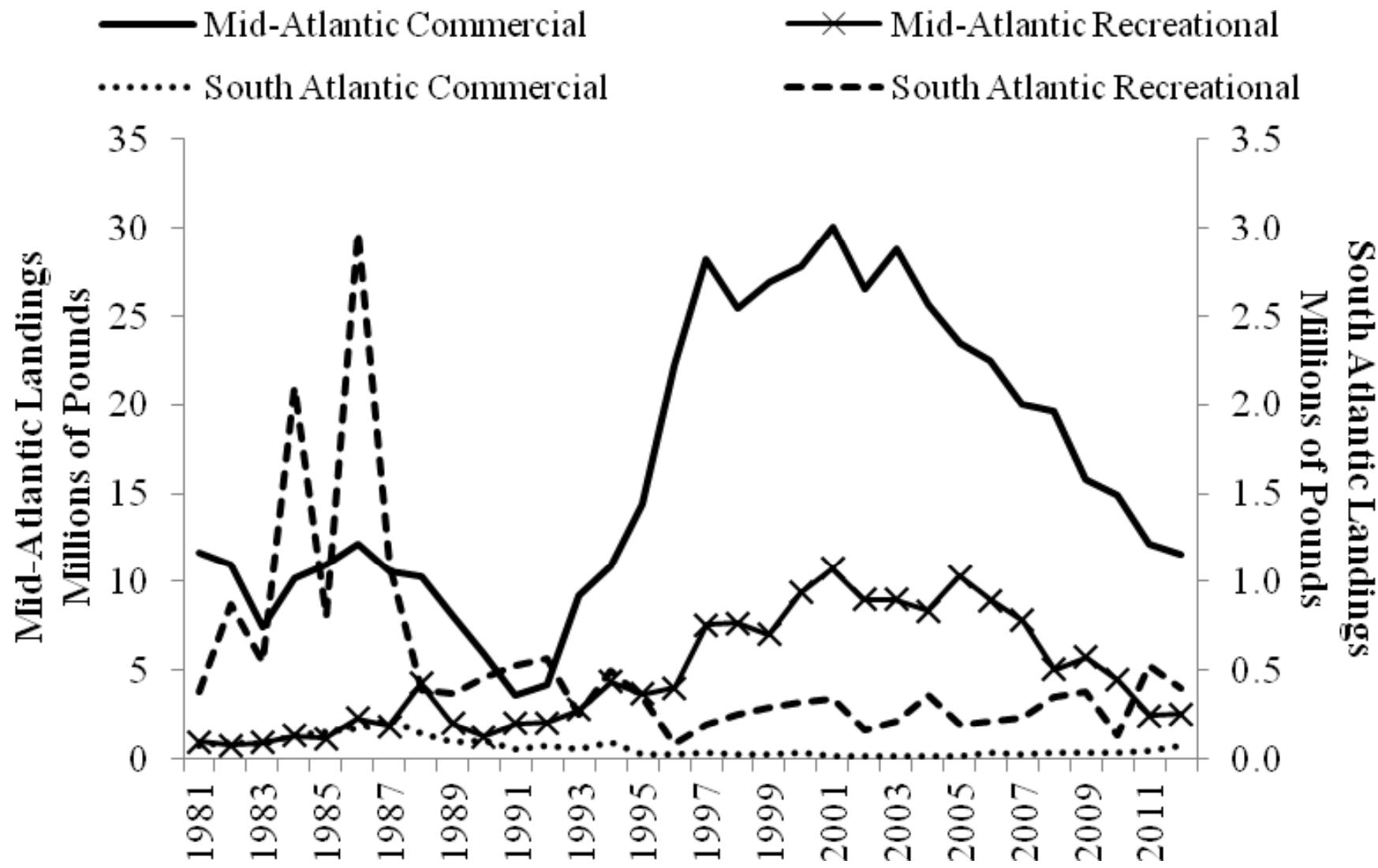
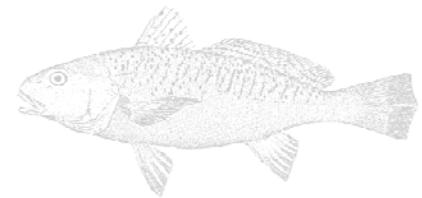


# Status of the Fishery



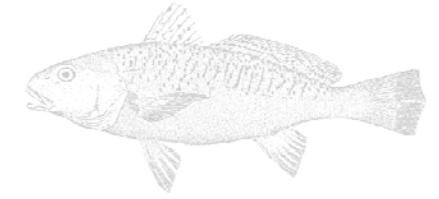


# Status of the Fishery





# Recommendations

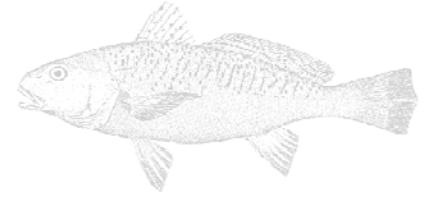


## Management and Regulatory

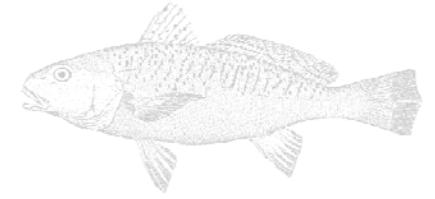
- Encourage use of circle hooks - minimize recreational discard mortality.



## State Compliance and *De minimis*



- PRT finds that all states have fulfilled the requirements of Amendment 1
- *De minimis*
  - Criteria: either fishery, 3-year average, 1%
  - Requests: DE (com), SC (com), GA (com & rec), FL (com)
  - All qualify for *de minimis*
  - Status does not exempt states from any compliance requirements



Questions?



*Working towards healthy, self-sustaining populations  
for all Atlantic coast fish species or successful  
restoration well in progress by 2015*

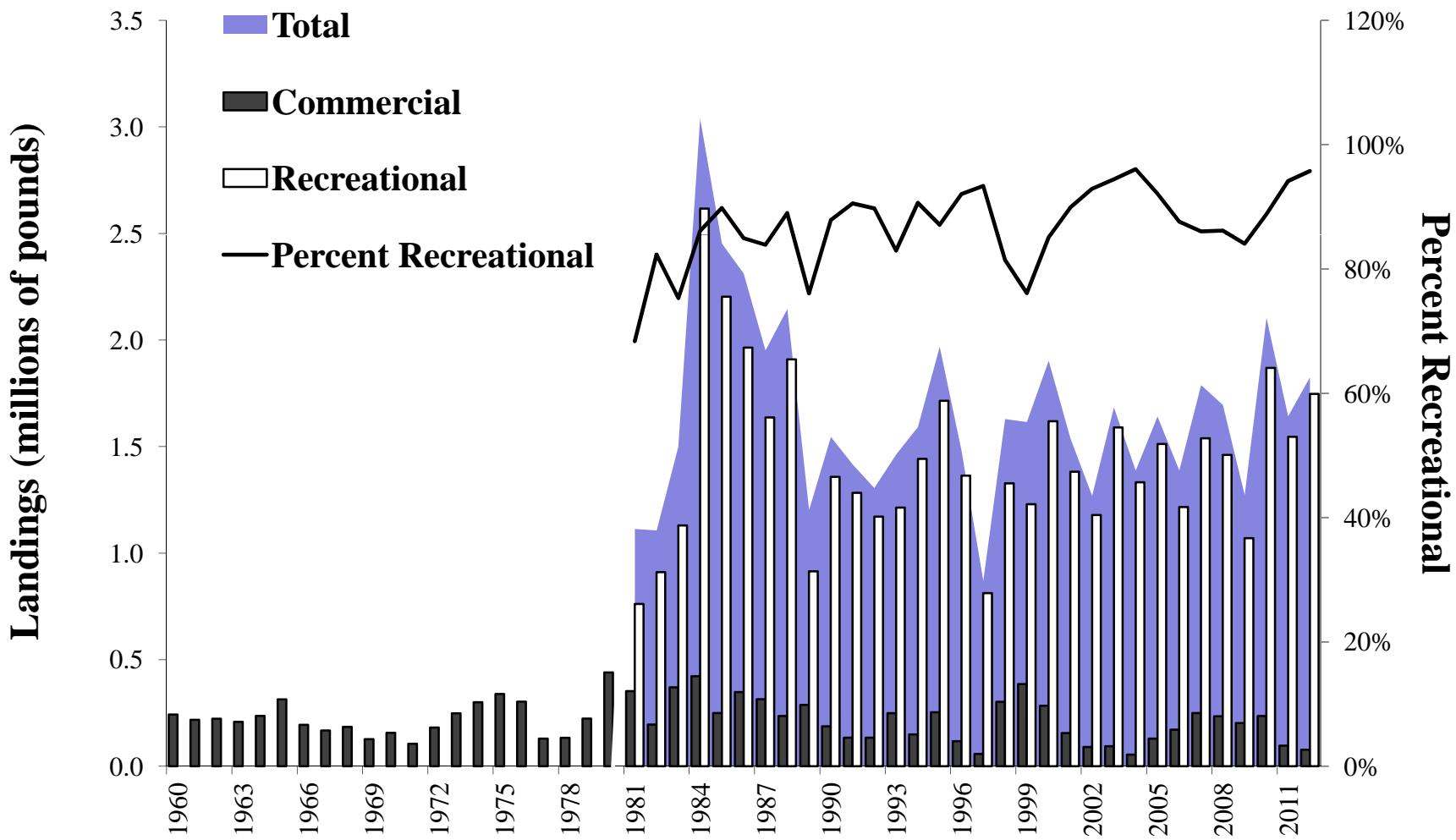
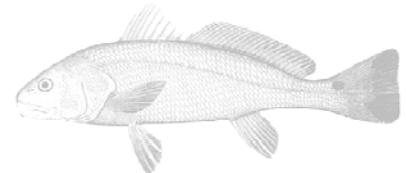
# Red Drum Fishery Management Plan Review



South Atlantic State-Federal Fisheries Management Board  
August 7, 2013

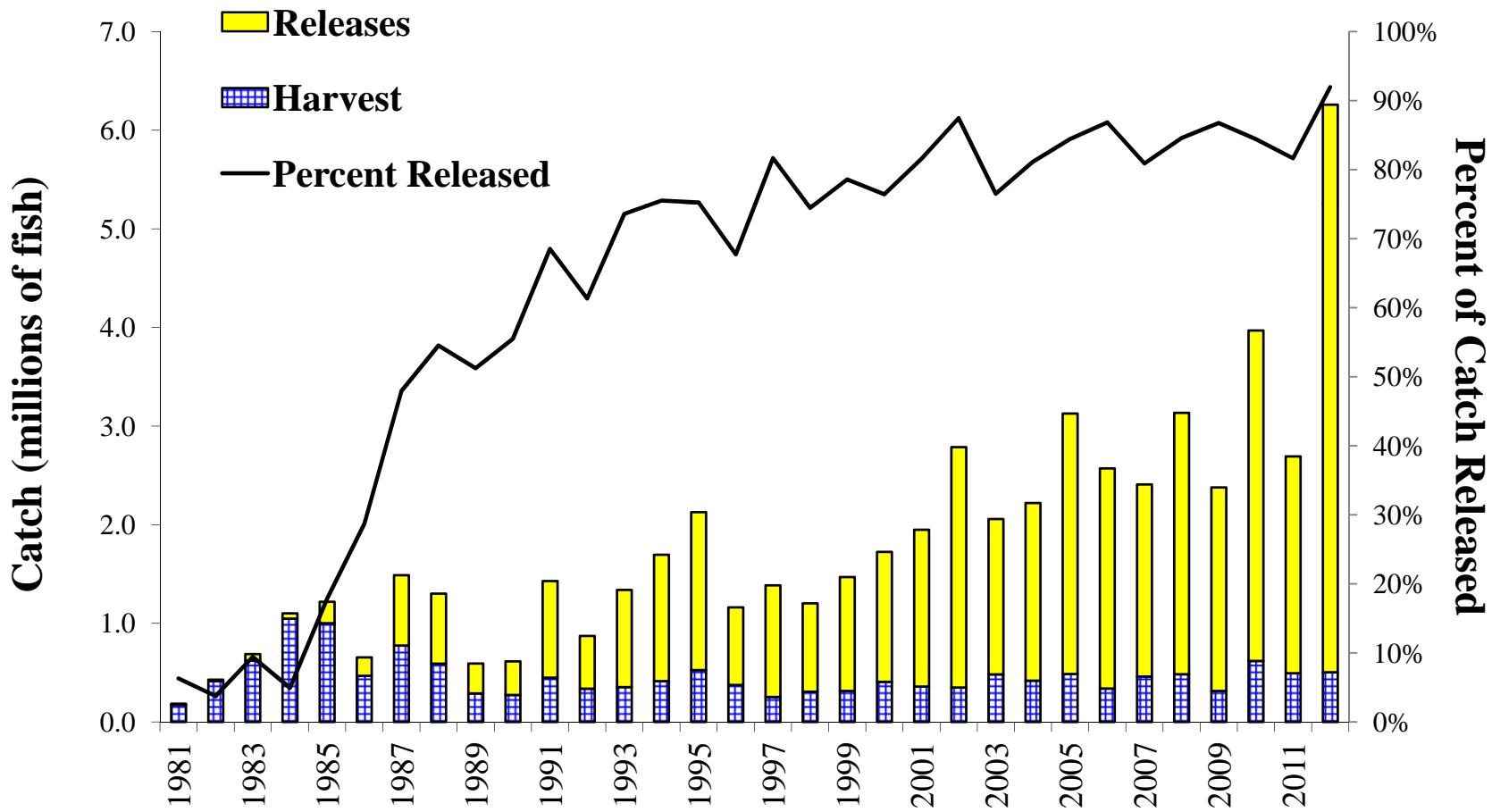
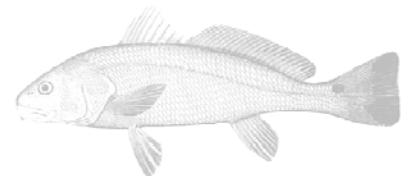


# Status of the Fisheries



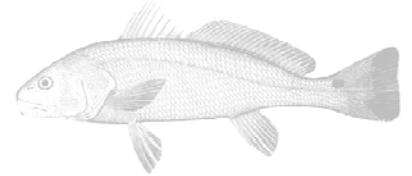


# Recreational Fishery





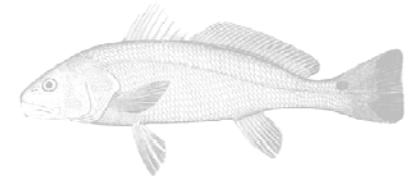
## State Compliance and *De minimis*



- No specific criteria defined
- Requests from NJ and DE
- PRT compared states' two-year (2011-2012) average total landings to coastwide
  - NJ – 0.229%, DE – 0.01%
- Status does not exempt states from any compliance requirements



# Recommendations



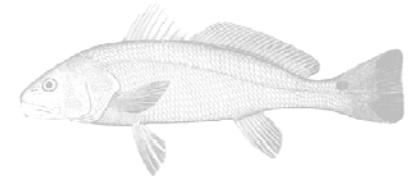
- Support a continued moratorium in the EEZ
- Consider *de minimis* requests from NJ and DE
- Review Prioritized Research Monitoring  
Recommendations



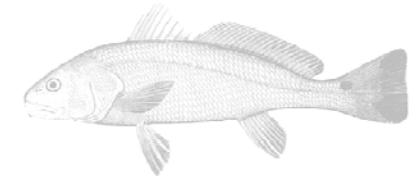
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# Status of Management

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- Amendment 2 (implemented 2003)
  - Altered the overfishing definition
  - Appropriate recreational bag/size limits
  - Maintain current commercial limits
- No amendments or addenda under development
- Transfer of Authority: October 6, 2008



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# Questions?