

Science, Service, Stewardship



Amendment 5 to the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan: Issues and Options

NOAA

Highly Migratory Species
Management Division
NMFS/NOAA

**NOAA
FISHERIES
SERVICE**

September 2011



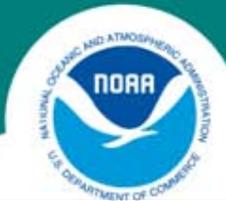
Overview

- Need for Action
- Recent Shark Stock Assessments
 - Scalloped Hammerhead
 - Dusky
 - Sandbar
 - Blacknose
- Possible Management Alternatives
- Request for Comments



Need for Action

- New/updated stock assessments for scalloped hammerhead, dusky, sandbar, and blacknose sharks indicate management measures may be necessary to end overfishing and rebuild these stocks
- New management measures must be implemented by April 28, 2013 (2 years from the overfished/overfishing declaration for scalloped hammerhead sharks)



Stock Status

Shark Species	Overfished	Overfishing
Scalloped Hammerhead	Yes ⁺⁺	Yes ⁺⁺
Dusky*	Yes	Yes
Sandbar*	Yes	No ⁺
Blacknose: South Atlantic*	Yes ⁺⁺	Yes ⁺⁺
Blacknose: Gulf of Mexico*	Unknown ⁺⁺	Unknown ⁺⁺

***Preliminary Results**

+Improved stock status from previous assessment

++New stock status



Scalloped Hammerhead Shark

2011 Determination: **Overfished; Overfishing occurring**

- Scalloped hammerhead sharks determined to be overfished (45% of B_{MSY}) with overfishing occurring (129% of F_{MSY}) by NMFS on April 28, 2011 (76 FR 23794)
- Determination based on Hayes et al., 2009
- Stock is estimated to be 17% of virgin stock size
- An annual TAC of 2,853 sharks is estimated to allow a 70% probability to rebuild the stock in 10 years
 - 20% mortality reduction from 2009 commercial landings, recreational landings, and dead discards



**PRELIMINARY
RESULTS**

Dusky Shark

2011 Final SEDAR stock assessment: **Overfished; Overfishing occurring**

- Dusky sharks may continue to be overfished (44% of B_{MSY}) with overfishing occurring (159% of F_{MSY})
- Results based on 2010/2011 Final SEDAR assessment; previous assessment conducted in 2006
- An estimated fishing mortality rate of 0.02 may provide a 70% chance of rebuilding by 2099 ($F_{2009}=0.06$); previous assessment estimated rebuilding by 2400
 - 2/3 reduction in fishing mortality relative to 2009
 - Current fishing mortality is estimated to have a low probability (11%) of rebuilding the stock by 2408
 - $TAC \leq 9.1$ mt dw



**PRELIMINARY
RESULTS**

Sandbar Shark

**2011 Final SEDAR stock assessment:
Overfished; Overfishing not occurring**

- Sandbar sharks may continue to be overfished (65% of B_{MSY})
- Overfishing may no longer be occurring (62% of F_{MSY})
- Results based on 2010/2011 Final SEDAR stock assessment; update of 2005/2006 SEDAR 11 assessment
- Year_{rebuild} may have improved from the previous assessment from 2070 to 2066, but stock may be slightly more overfished (72% to 65% of B_{MSY})
- There may be a greater than 70% probability that the stock will rebuild by 2070 with a 2009 TAC (220 mt)



**PRELIMINARY
RESULTS**

Atlantic Blacknose Shark

**2011 Final SEDAR stock assessment:
Overfished; Overfishing occurring**

- Atlantic blacknose sharks may be overfished (60% of B_{MSY})
- Overfishing may be occurring (>500% of F_{MSY})
- Results based on 2010/2011 Final SEDAR assessment, now assessed as two stocks (Atlantic and Gulf of Mexico); 2007 assessment assessed as one stock
- An annual TAC of 7,300 sharks may allow a 70% probability to rebuild the stock by 2043
 - Current TAC is 19,200 sharks for the Atlantic and Gulf of Mexico combined. (current rebuilding estimated at 70% probability by 2027)



**PRELIMINARY
RESULTS**

Gulf of Mexico Blacknose Shark

2011 Final SEDAR stock assessment: **Overfished Unknown; Overfishing Unknown**

- 2010/2011 Final SEDAR assessed as two stocks (Atlantic and Gulf of Mexico), the previous assessment in 2007 assessed the stock as one population
- In the final assessment the model was unable to fit trends in some abundance indices
- Fundamental lack of fit of some of the input data to the model
- Review Panel did not accept the stock assessment for Gulf of Mexico blacknose sharks, therefore stock status may be unknown
- Current TAC is 19,200 sharks for the Atlantic and Gulf of Mexico combined. (current rebuilding estimated at 70% probability by 2027)



Possible Management Measures



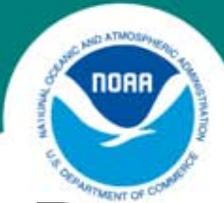


Scalloped Hammerhead Shark

Overfished; Overfishing occurring

Challenges:

- Overfished with overfishing occurring, yet generally not directly targeted in commercial shark fisheries
- Extremely high at-vessel mortality level in the bottom longline shark fishery (>90%).
- Recreational landings estimates of scalloped hammerheads averaged ~1,000 sharks per year from 2006-2009
- At-vessel mortality rate in the shark gillnet fishery is estimated to be ~75%
- Retention in ICCAT fisheries (com and rec) will be prohibited (Sept. 28, 2011)



Scalloped Hammerhead Shark

Overfished; Overfishing occurring

Potential Measures:

- Development of a TAC and ACL for scalloped hammerhead sharks, and creating appropriate quotas
- Gear restrictions (e.g., limits on BLL mainline length, number of hooks, soak time)
- Time/area closures – commercial and/or recreational?
- Gear tending requirements
- Individual commercial quota for scalloped hammerhead sharks – linked or not linked with non-sandbar LCS quota?
- Bag/Trip limits for commercial and/or recreational fisheries
- Gear technology (e.g., weak hooks, electropositive metals)
- Retention prohibition
- Add to research fishery priorities
- Others?



**PRELIMINARY
RESULTS**

Dusky Shark

Overfished; Overfishing occurring

Challenges and Potential Measures:

- Prohibited from commercial and recreational harvest, but F needs to be reduced by 2/3 to reach rebuilding goals
- Prohibited species that is not targeted
- Generally have a high at-vessel mortality rate (~75% on bottom longline gear; ~50% on pelagic longline gear)
- Time/Area closures, gear and soak time restrictions, gear technology may be able to reduce F
- Other suggestions?



**PRELIMINARY
RESULTS**

Sandbar Shark

Overfished; Overfishing not occurring

Challenges and Potential Measures:

- Currently prohibited from recreational harvest; commercial harvest limited to the shark research fishery
- Current TAC has >70% probability of rebuilding the stock by 2070
- Need to take additional measures?



**PRELIMINARY
RESULTS**

Blacknose Shark

Atlantic: **Overfished; Overfishing occurring**

Gulf of Mexico: **Overfished Unknown; Overfishing Unknown**

Challenges and Potential Measures:

- Final assessment looks like it may split the stocks
- May have two different stock status results to address
- Options for TAC allocations under this scenario:
 - Consider regional allocations based on current TAC and recommended Atlantic blacknose TAC
 - Reconsider linking blacknose quota to SCS commercial quota
 - Reconsider recreational size/bag limits
 - Consider blacknose a priority in the research fishery



Request for Comments

Please submit comments to:

<http://www.regulations.gov>

Keyword - “NOAA-NMFS-2011-0229”

Comments can also be submitted via fax:

301-713-1917, Attn: Peter Cooper

Or Mail:

NMFS SF1, 1315 East-West Highway, Silver Spring, MD 20910

Please identify comments with:

“Scoping Comments on Amendment 5 to the HMS FMP”

For more information go to: <http://www.nmfs.noaa.gov/sfa/hms/>



Amendment 5 Timeline

- **Comment period for scoping: Dec. 31, 2011**
- **Scoping Meetings: TBD**
- **Predraft to AP: Early 2012**
- **Proposed Rule and EIS: Mid-2012**
- **Final EIS: Late 2012 / Early 2013**
- **Final Rule: Early 2013**