

Atlantic States Marine Fisheries Commission
Spiny Dogfish Technical Committee
Providence, RI
October 16, 2008

Present: Chris Vonderweidt (ASMFC), Matt Cieri (ME DMR), Jim Armstrong (MAMFC), Angel Bolinger (MD DNR), Chris Batsavage (NC DMF), Scott Newlin (DE DNR), Claire McBane (NHFGD); Paul Rago (NEFSC), Russ Babb (NJ DEP), Jack Musik (VIMS), Kathy Sosobee (NEFSC), Hannah Goodall (NMFS)

Call in: Matt Gates (CT DEP), Wilson Laney (FWS), Jamie Goen (NMFS)

Observers: Eric Brazer (CCCHFC), Louie last name inaudible (Processor), Jim Fletcher (NC)

The Spiny Dogfish Technical Committee (TC) met on October 16, 2008 to review the 2008 NEFSC spawning stock biomass (SSB) update and recommend a quota and possession limit for the 2009/2010+ fishing season(s).

At the beginning for the meeting, Dr. Rago gave the TC a detailed presentation of the 2008 SSB update report. The SSB estimate for 2008 suggests that the spiny dogfish population exceeds the target biomass of 167,800 mt and is rebuilt based on the definition in the FMP. The updated assessment which uses the NEFSC spring bottom trawl data from 2006-2008 estimates SSB to be 194,600 mt with 75% of the computed values exceeding the target biomass. The most recent stochastic estimate of fishing mortality for spiny dogfish stock indicates that *overfishing is not occurring*. Fishing mortality in 2007 is estimated to be 0.1104 a value approximately equal to the rebuilding fishing mortality rate. The fishing mortality threshold, defined as a value that allows for the production of 1.5 female pups per female that will recruit to the spawning stock biomass, was updated to $F_{threshold} = 0.284$.

Dr. Rago pointed out that the determination of rebuilt status is not without problems for several reasons.

- The size frequency of the female population is concentrated between 75 and 95 cm with very few fish above 100 cm or below 70 cm.
- The low numbers of juvenile female and male dogfish imply that the population will oscillate over time.
- The decline will be induced by the sequence of poor recruits from the last ten years. In other words the recruitment deficit will have to be paid back.
- SSB should increase again IF pup survival rates begin to increase. Recruitment in the past 5 years has been modest but well below expectations.
- The consequences of the skewed sex ratio of 4:1 for mature males to mature females has unknown implications for future reproductive success.

- All projection scenarios assume that survival of pups is at average long term values. All of the projections will be optimistic if this assumption is not true.

After questions and a long discussion, the TC unanimously agreed that the Board should take a precautionary approach and continue to use the rebuilding F value of 0.11 rather than a value between $F_{\text{threshold}} = 0.39$ and $F_{\text{target}} = 0.28$ as the 'rebuilt' status might allow. Allowing for a target or threshold fishing mortality rate would cause the stock to decline below the threshold SSB (i.e. overfished) around 2017 because of the lack of strong year classes beginning in 1997. TC members do not believe that the stock is truly rebuilt because the size structure is so heavily truncated. The size frequency of the female population is concentrated between 75 and 95 cm with very few fish above 100 cm or below 70 cm.

They also agreed that the quota should only be set for one fishing season because a new Transboundary Resource Assessment Committee (TRAC) assessment will happen in 2009. The TC should review the 2009 TRAC before recommending specifications for the 2010/2011 fishing season. If the 2009 TRAC is not available before specifications need to be set for the 2010/2011 fishing season then a SSB update based on the 2009 NEFSC spring bottom trawl survey can be used to recommend specifications.

The TC recommends a 12 million pound quota for the 2009/2010 fishing season for the following reasons.

- 12 million pounds coincides with $F = 0.11$ after taking into account discards and Canadian landings.
- Setting a quota at $F = 0.11$ allows NMFS to set an identical quota. Higher quotas in state waters concentrate catch on the state water population where fishermen are guaranteed to land primarily females.
- Projections show that an $F = 0.11$ will not cause the population to drop below threshold SSB (i.e. overfished) when the recruitment deficit is paid back around 2017.
- Assumptions about pup survivorship may be overestimating SSB projections.

The TC found no strong biological reasoning for choosing a possession limit value. There is no quantitative projection that directly relates various possession limits to the F target or discard rates. Several members noted that setting the possession limits value is more of a management decision because it can impact regional quota allocation.

Possession limits of both large and small values have discard problems associated with them. There is no evidence that a large trip limit will cause more discards than a small trip limit or vice versa. A large trip limit will cause the quota to be harvested early forcing fishermen to discard all dogfish caught after the quota is taken. A small trip limit may discourage a certain portion of the fishing fleet from retaining any dogfish because the value of such a small quantity of dogfish does not give enough incentive to keep any bycaught dogfish.

The TC recommends that possession limits for the 2009/2010 fishing season are set at a maximum of 3,000 lbs. The 2008/2009 possession limit of 3,000 lbs did not cause F to exceed 0.11 while allowing fishermen to harvest the entire quota. Several members also stated that it may be beneficial for NMFS to set possession limits at 3,000 lbs to help shift fishing pressure away from inshore state waters.

The TC also briefly discussed the impact of a male only fishery on the stock in response to a question that one of the observers asked. Although increased removals of male dogfish would not in itself threaten the health of the stock, the Committee expressed concern about how such a fishery (the perennially proposed male-only fishery) would operate: If regulations are adjusted to allow for either a directed or an unrestricted bycatch fishery for males, how will that affect discard F on females? It is expected that the discard F would increase because of the tendency for males and immature females to form schools and thus violate assumed discards used to project total catch.