



New England Fishery Management Council

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E.F. "Terry" Stockwell III, *Chairman* | Thomas A. Nies, *Executive Director*

To: Tom Nies, Executive Director
From: Scientific and Statistical Committee
Date: December 2, 2013

Subject: Skate ABC and discard mortality rates.

The SSC met on November 15, 2013 to address the following terms of reference (TORs):

1. Approve update of discard mortality estimates to be used in ABC specifications for fishing years 2014-2015.
2. Review revised estimate of MSY resulting from revised discard mortality updates.
3. Recommend an ABC for the Northeast Skate Complex consistent with the fishing mortality limit (F_{MSY} or its proxy) and the ABC control rule or rebuilding program for fishing years 2014-2015.

The SSC considered the following documents in its deliberations:

1. November 5, 2013 memo from Skate Plan Development Team to SSC – NE Skate Complex ABCs for FY 2014 - 2015
2. Memo from William A. Karp, Ph.D. Re: Update of Skate Stock Status Based on NEFSC Bottom Trawl Survey Data through Autumn 2012 and Spring 2013
3. Mandelman et al. 2013. Short-term post-release mortality of skates (family Rajidae) discarded in a western North Atlantic commercial otter trawl fishery. *Fisheries Research*. 139: 76 – 84.
4. Listing Endangered and Threatened Wildlife and Plants; 90-Day Finding on Petitions to List the Thorny Skate (*Amblyraja radiata*) Under the Endangered Species Act
5. Memo from Dr. Steve Cadrin to Paul J. Howard dated February 11, 2009 – SSC Recommendations on Skate Amendment 3

The SSC agreed with the PDT conclusion that the new species-specific discard mortality rates provided in the recently published study by Mandelman et al. (2013) should be adopted for little (22%), smooth (60%), thorny (23%) and winter (9%) skate. Moreover, the SSC agreed that applying the updated estimates developed for otter trawl gear to gillnet is not warranted, and therefore that the current assumed discard mortality of 50% should be retained for gillnet. Accordingly, the SSC also supported the PDT recommendations for updated estimates of MSY and ABC using existing methods but applying the updated estimates. This results in **MSY of 36,415mt and ABC of 35,479mt for 2014 and 2015.**

In addition to addressing the three TORs, the SSC also considered issues previously discussed regarding assessment and management of skates, and reiterates recommendations made in reports to the Council dated April 28, 2010 and June 20, 2011. Specifically, from the June 2011 report:

1. The ABC control rule should be revisited. The control rule was established when the complex was overfished, and it might not be as suitable for rebuilt stocks. A revised control rule might include different methodologies that apply at different stock statuses.
2. Development of ABCs for individual species and/or geographically defined management units should be considered. Although there are important practical limitations associated with species- and/or area-specific ABCs, there are also important costs of an ABC applied across too large of an area and across species with different biology, distribution and status.
3. Development of improved MSY reference points (or proxies) should be considered.