



New England Fishery Management Council

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John Pappalardo, *Chairman* | Paul J. Howard, *Executive Director*

DRAFT MEMORANDUM

DATE: June 10, 2010
TO: Scientific and Statistical Committee (SSC)
FROM: Paul J. Howard, Executive Director
SUBJECT: **Terms of reference for red crab for the June 21, 2010 SSC meeting**

Terms of Reference

1. Review the information provided by the Red Crab Plan Development Team on historical dead discards of red crab in the directed trap fishery and in bycatch fisheries and recommend an ABC that includes both landings and dead discards.
2. Review the information provided by the Red Crab PDT and develop recommendations concerning the potential inclusion of female red crab landings in the ABC.

Background

The SSC reviewed information related to the sustainable harvest of red crab at its March 16, 2010 meeting and recommended to the Council that “landings of male red crabs should be limited to an interim ABC of 1775 mt.” The SSC noted that “historical landings of male red crab and historical discarding practices appear to be sustainable.” The SSC also stated that “if the ABC is intended to include total catch, it would have to be increased to include discards.” Whereas the National Standard 1 Guidelines indicate that ABC should include removals from all sources, the ABC for red crab should be increased to include the volume of dead discards that would have accompanied the long-term historical male landings on which the 1775 mt ABC for male landings only was based.

In response to a request from the red crab industry and from red crab researchers on June 23, 2009 the National Marine Fisheries Service approved an exempted fishery permit (EFP) that exempts four vessels from the prohibition on landing more than one standard tote of female crab per trip. The EFP allows for landing of no more than 1 million lb of female red crab over two years. According to the Federal Register announcement for the EFP, the primary goal of the exempted fishing is to begin harvesting non-egg-bearing females to expand the red crab market and increase efficiency in the harvesting process. In addition, the EFP provides an opportunity and funding to conduct at-sea sampling, renew tagging efforts, and to develop models to better evaluate the growth and reproductive performance of the population, as well as the impact of

current and proposed harvesting on yields and egg production. The experimental design calls for the females to be taken in the course of normal commercial fishing operations. The fulfillment of the purpose of the EFP contemplates some level of continuing female landings at a level deemed to be sustainable by the SSC, and therefore requires consideration of the inclusion of female crab in the ABC as a potential component of the retained catch.

The PDT reviewed data concerning discards and discard mortality from a variety of sources. Those sources include the 2006 stock assessment, the Report of the Data Poor Stocks Working Group, the 2009 SAFE Report, and data from observed trips in both the directed red crab fishery and for fisheries for which red crab discards have been recorded. This information and the recommendations of the PDT are included in three documents that will be provided to the SSC prior to its June meeting.

One document analyzes scenarios in which some portion of the previously discarded female red crab are retained rather than discarded in the normal course of fishing. Another document examines historical discard data for fisheries that take and discard red crab as an incidental catch and includes estimates of the discard mortality that would have taken place during the period that was used to determine the long-term sustainable landings and historical discarding of red crab. The third document focuses on historical discards and estimated discard mortality rates in the directed fishery to determine the volume of dead discards that should be added to the male-only long-term average landings to estimate the long-term average annual removal of animals from the population by directed fishing. This document then incorporates an estimate of historical dead discards in bycatch fisheries to produce two options for ABC including dead discards. This document also provides options for the inclusion of potential female landings in the ABC and the impact of female landings on exploitation rates depending on assumptions concerning historical sex ratios and discard mortality rates compared to those values going forward.

Information

1. PDT discussion paper titled: "Options for Potential Female Red Crab Harvest for Inclusion in the ABC and ACL."
2. PDT discussion paper titled: "Estimates of Historical Discards and Discard Mortality Rates in Fisheries for which Red Crab Is Caught Incidentally."
3. PDT discussion paper titled: "PDT Analysis of Dead Discards and Potential Female Allowable Landings to be added to the Interim ABC for Red Crab."
4. "Escape ring selectivity, bycatch, and discard survivability in the New England fishery for deep-water red crab, *Chaceon quinquedent*", S. M. L. Tallack