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New England Fishery Management Council
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MEETING SUMMARY

Red Crab Plan Development Team

Webinar
Tuesday, June 18, 2019

The Atlantic Deep-Sea Red Crab Plan Development Team (PDT) met to discuss updated data and the specifications process for the fishing years 2020-2022.

Meeting Attendance: Michelle Bachman, Dan Caless, Toni Chute, Jenny Couture, Rachel Feeney, Marianne Ferguson, Jessica Joyce (Chair), Allison Murphy; and the audience included Chris Kellogg and Lou Goodreau.

The meeting began at 1:00 pm.

Key Outcomes:

- The PDT reviewed and discussed updated red crab fishery data and other relevant research and regulations since 2016.
- The PDT planned a schedule and discussed preparation of materials for the August SSC and September Council meetings.

Review of 2017-2019 Specifications

Jessica Joyce provided an overview of the 2017-2019 specifications process and background information on the fishery from 2016 (*new information since 2016 is included after this section*):

- Red Crab is a data-poor fishery; there is insufficient information to estimate the Overfishing Limit (OFL) or Maximum Sustainable Yield (MSY).
- Since 2011, the Acceptable Biological Catch (ABC) has been estimated based on long-term historical landings of males.
    - This ABC has been 1,775 metric tons (mt), including fishing year (FY) 2017-2019
- Updated landings, landings per unit effort (LPUE), and port samples did not indicate any signs of stock decline.
- Landings increased from 2013-2015, but remained below the Total Allowable Limit (TAL).
- LPUE has generally increased since 2007.
- There has been no assessment update since the Data Poor Working Group meeting in 2009.

- No new methods for discard estimation or discard mortality.

Analysis of New Fishery-Dependent Data for Red Crab

Toni Chute presented updated analyses on landings, LPUE, port samples and observer data (through FY 2018):

- The limited access fishery began in 2002, and landings from VTR data (2002-2018) have been variable, with a slight increase in 2018, and have remained below the TAL.
- Landings from VTR and dealer data (CFDBS) are almost identical.
- Using VTR data, landings by region indicate Region 1(GB, SNE) shows a decrease in landings over the early part of the time series, since the fishery was concentrated there at this time but has been slowly expanding into other regions over the past several decades. For instance, in recent years, Region 2 (NY, NJ, DE, MD) has yielded higher landings than Region 1. Most trips to Regions 1 and 2 land their catch in New Bedford where the processing plant is located. Region 3 (VA, NC) has lower, but stable landings from two types of trips: shorter trips for catch sold to a live crab market and longer trips for crab to process.
    - Using dealer data, landings by region are very similar with the exception of one anomaly in 2004 where the region was not reported.
- Toni described the method for calculating LPUE (VTR data) and cleaning up the data.
    - LPUE has been fairly consistent overall and across regions (for similar trips), though there has been a slight decrease in LPUE since 2017.
    - LPUE in Region 3 was calculated separately for the shorter trip duration of landings for the live crab market. These trips started in 2016.
- Port samples measure carapace width in millimeters (CW mm). When combined across all regions, recent port samples show a larger average size in the last 4 years.
    - In Regions 1 and 2, sampled crabs mostly range from 95 mm to 130 mm, with an average of 109 mm (Region 1) and 111 mm (Region 2) from 2016-2018.
    - In Region 3, larger sizes are targeted for the live market, with sampled crabs ranging mostly from 100 mm to 145 mm, and an average CW of 117 mm from 2016-2018.
- Observer data has provided more samples, as observers randomly sample pots throughout a trip. **These data and analyses are preliminary.**
    - From 2015-2017, samples taken from 29 trips show a presence of smaller crabs (both female and male) in the "Northern" region (all observed hauls in stat areas beginning with 5, i.e., Region 1), than the "Southern" region (all observed hauls in stat areas beginning with a 6, i.e., Regions 2 & 3).
    - This is a male-only fishery, and all females are discarded.
    - Over a longer period from 1994-2017, samples taken from 40 trips show female crabs are larger in the Southern area than the Northern Area. This may be more evidence for a latitudinal gradient in size. Red crabs from the Gulf of Maine (there is no fishery currently there) have always been said to be smaller than they are south of Georges Bank. Female sizes were compared since there would not have been removals by the fishery.
    - Observer data provide insight into the number and size of egg-bearing females by region.

    - A camera survey measured pairs of crabs mating, and males were 50% bigger than females.
- Discards are not currently included in catch as they are highly variable in VTR data; however, recent observer data confirm this variation in kept and discarded catch by haul.
- There is very little bycatch of other species in the red crab fishery.

There were some clarifying questions, and one request for Toni to write up the LPUE methods.

Analysis of Social and Economic Data and Information

Jenny Couture presented updated analyses on landings revenue[1] and qualitative social and economic information from a recent call with red crab fisherman Jon Williams:

- Red crab live landings and dealer landings have generally increased over FY 2009-2018, with the 3 most recent years above the 10-year landings average (DMIS data).
- The inflation-adjusted price per pound has decreased slightly over FY 2009-2018, with the 3 most recent years slightly below the 10-year average (DMIS data).
- Dealer revenue has generally increased over FY 2009-2018, with the 3 most recent years above the 10-year dealer revenue average ($2,959,229=10-year average).
- The value of *all landings on trips landing red crab* is lower, on average, in FY 2016-2018 compared to FY 2013-2015:
    - Average value of all landings from FY 2013-2015 = $3.69 million (M)
    - Average value of all landings from FY 2016-2018 = $3.47M
- The value of *red crab landings* is higher, on average, in FY 2016-2018 compared to the FY 2013-2015:
    - Average value of red crab landings from FY 2013-2015 = $2.58M
    - Average value of red crab landings from FY 2016-2018 = $3.29M

A discussion followed about the reasoning for the lower landings in specific years (i.e. 2006-2009 and 2012-2014), which are primarily due to lower market demand. There was a question about the decline in price per pound (inflation adjusted) from FY 2009-2018 as well. While unknown, a potential cause could be attributed to landing more quota towards the end of the fishing year and flooding the market. There were questions about clarifying what the dealer revenue numbers reflect, as there is vertical integration with the fishing vessels, processing plant, and dealer. GARFO clarified the price per pound should reflect what the dealer paid to the vessel. It was later clarified that the price reflects the legal value transferred between the companies, which are separate.

<u>Qualitative Social, Economic, and Market Data</u>

- This is a market-driven fishery, and the market in recent years has been strong, thus the fishery is generally closer to the TAL than previous years, and there are indications the market could bear more landings if the TAL were to increase.
- The incidental fishery is very small, and catch is mostly consumed by vessel crew.
- There is a processing facility in New Bedford, MA that processes both red crab and Jonah crab, and employs around 60-70 full time employees with shoreside operations. The meat is processed for human consumption.

[1] The value of all landings and red crab landings are for limited-access red crab vessels only.

- Approximately 40 full time employees work on the red crab fishing vessels.
- Trips have gradually become shorter since the FMP was implemented, and currently there are two types of trips: long trips for processed crab (a mean of 6-12 days), and short trips for the live market (a mean of 2-4 days), not including steam time.
- Relative to landings in New Bedford, a smaller amount is landed in Virginia for the live crab market; >60% of which is trucked to Chinatown in NYC, while <40% stays in Virginia. The blue crab market in Virginia impacts seasonal demand and annual pricing of red crabs, whereas a higher price (50% higher) is realized in the NYC market.
- There is a small Canadian red crab fishery, which was unlikely to reach the 300 mt Total Allowable Catch (TAC) in 2018.
- The New Bedford facility currently processes more Jonah crab than red crab. On average, around 65% of sales are from Jonah and 35% are from red crab. Canadian processors have started to process Jonah crab, which is affecting the US market and pricing for Jonah crab.

New Research and Regulations

- Following a recent decline in the North Atlantic right whale population, NMFS has taken several parallel actions under the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA):
    - NMFS reinitiated consultation (pursuant to Section 7 of the ESA) on the federal fisheries due to the right whale population decline, including the red crab fishery. The revised Biological Opinion for the red crab fishery will include the most updated fishery and protected species information, and a draft is expected to be released around the same time as the proposed rule (see below).
    - The Atlantic Large Whale Take Reduction Team (ALWTRT) met in April 2019 and recommended a suite of measures aiming at a 60% reduction in risk of serious injury and mortality to North Atlantic right whales. NMFS is working with states to develop specific measures. The proposed rule is expected to be published late in 2019 or early 2020, so final action is unlikely before the red crab rule is published.
    - GARFO will be providing language for the Supplemental Information Report (SIR) on right whales.
    - There was a question about whether the Council process should look at gear modifications for red crab or whether this would be considered as part of the ALWTRT process. The ALWTRT has primarily focused on lobster pot/trap gear. While ALWTRT discussions to date have not included red crab, it is not out of the realm of possibilities that the red crab fishery could be affected, as it also uses pot/trap gear.

- The Mid-Atlantic Fishery Management Council (MAFMC) coral management zone went into effect on January 13, 2017, which did not include any restrictions for the red crab fishery. However, the MAFMC may reconsider the red crab exemption from fishing regulations in discrete zones (canyons), but not the entire slope, which would affect the fishery if it were closed. Discrete zones are listed at 50 CFR §648.372.
- The New England Fishery Management Council (NEFMC) is proposing a coral management zone that starts no shallower than 600m, which is slightly shallower than

where the red crab fishery occurs. These regulations include an indefinite exemption for the red crab fishery. The final rule should be in effect by the time there is final action on the red crab specifications.

- Regarding the Northeast Canyons and Seamounts Marine National Monument, there is a possibility that red crab and lobster pots will be prohibited from the Monument before September 2023, when the 7-year exemption sunsets. However, at this time, there is no movement on lifting the exemption prior to this initial sunset date.
- Brad Stevens (University of Maryland) and a student are conducting research on reproduction in female red crabs. Evidence suggests they may be able to store sperm, and only hatch eggs every other year, although more research is needed. Females have a smaller carapace width when they reach physiological maturity, but it is not until they are larger when they are behaviorally mature.

PDT Schedule

- July 26 – Submit SSC documents. This is one week earlier than the August 5 mailing deadline, due to vacation schedules. Information should be submitted to the PDT chair several days prior to July 26, date TBD.
- Aug. 21 or 22 – SSC meeting to review information from PDT and develop ABC recommendations
- Late Aug./early Sept. – PDT meeting to discuss SSC recommendations and final preparation of Council decision documents
- Sept. 9 – Submit the Council decision documents
- Sept. 24-26 – NEFMC meeting (Gloucester, MA) – Council decision

Supplementary Information Review (SIR) Process

- The length of a typical SIR is around 15-30 pages, and has different requirements from an EA. The premise is that the action has already been analyzed a previous EA, and there isn't any new scientific information or large shifts in landings/trends.
- It is okay to only develop status quo specifications and not analyze multiple alternatives. It is important to have justification of why the previous analysis is still relevant. Most background information will be referred to in the previous EA.
- Impacts are not analyzed at the same level of detail in an EA, and can be referenced in the previous EA (as those impacts still stand). A brief summary of impacts can be included from recent years.
- The purpose and need statement will be revised for clarification (e.g., purpose is to set specifications and need is to prevent overfishing and manage the fishery), but will not change the intent.

Next Steps

- Prepare SSC documents: PDT memo, Risk Policy memo, background documents, and presentation
- Draft specifications package after SSC meeting
- Next PDT meeting will be scheduled the week of August 26 (or early September)

The Red Crab PDT meeting adjourned at approximately 2:30 p.m.