RIMFC *Ad hoc* Whelk Committee
Thursday, February 20, 2014
Coastal Institute / Hazard Room A
6:00 – 9:00PM

Meeting Participants:
Jeff Grant (Chair), Ronald Major, Ken Murgo, Ken Murgo, Jr., Remus Saccoccio, Greg Mataronas, Daniel Eagan, Katie Eagan, Daniel Eagan, Jr., Robert Morris, Bill Blank, David Ghigliotty, Gerry Schey, John McDonald, Seamus Sullivan, Dr. Kathy Castro, Mark Gibson, Thomas Angell

Meeting convened at 6:05PM. There were 18 people in attendance.

Meeting Agenda:

1. **Review RIDFW report "Size and Age at Sexual Maturity and Growth of the Channeled Whelk (*Busycotypus canaliculatus*) and Knobbed Whelk (*Busycon carica*) in Narragansett Bay, Rhode Island and Implications for Whelk Fishery Management"**

    a. Discuss report data, implications, and RIDFW recommendations for 2014 whelk fishery management.

    T. Angell reviewed the RIDFW whelk research report.
    - Morphometric correlations – current minimum shell length (4.75") is not correlated with current minimum shell width (2.75"); recommend adjusting minimum shell length up to 5" to equate to 2.75" minimum shell width
    - Whelk growth – females of both species grow faster than males; channeled whelk grow faster than knobbed whelk; female channeled whelk average growth of 2/3" length and 3/8" width per year; male channeled whelk average growth of 9/16" length and 1/3" width per year
    - Size at Sexual Maturity – **virtually no female channeled whelk mature at current minimum size standards**, 50% mature at 3.18" width and 5.53" length, 100% mature at 3.3" width and 6.1" length; approximately 50% of male channeled whelk mature at current minimum size standards, 100% mature at 3.15" width and 5.9" length; approximately 20% of female knobbed whelk mature at current minimum size standards; 100% of male knobbed whelk mature at current minimum size standards.
    - Estimated that a 1/8" increase in minimum width will reduce the number of whelk landed by approximately 21% and pounds of whelk landed by 14%; a 1/4" increase in minimum width will reduce the number of whelk landed by approximately 38% and pounds of whelk landed by 26%; a 3/8" increase in minimum width will reduce the number of whelk landed by approximately 21% and pounds of whelk landed by 14%; a 1/2" increase in minimum width will reduce the number of whelk landed by approximately 65% and pounds of whelk landed by 51%
    - RIDFW recommends adjusting the minimum length standard to correlate with the minimum width standard
    - Updated whelk stock assessment indicates a 30% reduction in the fishing mortality rate (F) is needed to stay at F_{msy}, if we remain at the current minimum sizes.

    Committee Comments / Questions:
    - Do these whelk species change their sex as they get older/larger? Males become females at a particular size/age? This is reported for knobbed whelks in more southern waters (North Carolina?), but has not been verified.

T. Angell responded that he has not seen any evidence of this with the whelks in this area; may be some evidence of changing sexes due to chemical pollution, particularly TBT (tributyltin); both whelk species appear to be dioecious (separate sexes) in our area.

- Current regulations manage both of these whelk species as if they were one; data indicates that separate management of these species may be warranted; **recommendation to manage these whelks separately**.

  M. Gibson responded that the commercial whelk fishery is dominated by channeled whelk which account for 95% of the total whelk landings.

  T. Angell commented that if we want to manage these whelk species separately, then they must be separated and sold to the dealer as separate species.

- Concerns expressed that only 1 year of research does not provide enough information to make management decisions
- Concerns expressed about what could happen to other shellfisheries if the whelk populations were allowed to increase; these whelks eat quahogs, mussels, and other bivalve molluscs
- Concerns expressed about the adverse affects of otter trawl gear damaging/destroying whelk egg cases
- Need information on whelk diet (all size ranges)
- Comment that the maximum size of a whelk may be area-specific
- What is the management objective for this fishery?
- Request/suggestion made to round-off the proposed minimum length(s) upward to the nearest 1/8"; T. Angell will make the changes.
- Comment to keep the daily possession limit at the status quo until the updated whelk stock assessment has been prepared and made available.
- Concerns expressed regarding ability for more license holders to participate in the whelk fishery; how can the number of whelk fishery participants be capped?

  T. Angell responded that it is not possible to cap the number of whelk fishery participants due to the multi-purpose license and the large number of "latent" multi-purpose license holders that could decide to become whelk fishery participants.

- **Committee requested that copies of the whelk stock assessment report be sent as soon as the report is completed.**

b. <u>Review of RIDFW proposed management options:</u>
<u>4.35(c), 4.35(d), 4.35(e) – Unauthorized Hauling of Conch Pots, Unauthorized Possession and/or Transfer of Conch Pots, Hauling or Setting Conch Pots at Night:</u>
4.35(c) and 4.35(d) are "universal" regulations for pot/trap gear in our regulations. 4.35(c) and 4.35(d) prohibit someone from hauling or possessing someone else's pot/trap gear without the pot/trap gear owner's permission and 4.35(e) prohibits anyone from hauling or setting conch pots at night.

- <u>4.35(c) – Unauthorized Hauling of Conch Pots</u>
  Committee had no objection to this regulation; recommend adopting

- <u>4.35(d) – Unauthorized Possession and/or Transfer of Conch Pots</u>

Committee had no objection to this regulation; recommend adopting

- 4.35(e) – Hauling or Setting Conch Pots at Night
  Committee had no objection to this regulation; recommend adopting

  Question regarding requirement for buoy markings (buoy colors) for conch pots; concerned that this is not required for conch pots.

  Question regarding the use of pot number or license number when marking buoys; it is the license number that is required by the current regulations.

- 4.35(f) – Commercial and Recreational Season:
  Question – Will the closed season apply to otter trawl fishermen as well?

  T. Angell responded that the closed season would apply to everyone no matter if you are commercial or recreational and no matter what fishing gear is used; no fishing for whelk during the closed season.

  Question – Will conch pots be required to be removed from the water during the closed season?

  M. Gibson commented that we could also consider **closed areas** for conch fishing, but that option is not part of the proposed regulations at this time; DFW does not have the data at this time to consider closed areas for conch fishing.

  Comment that there is currently a directed otter trawl fishery for whelk in certain parts of Narragansett Bay.
  Concerns expressed that otter trawlers are damaging/destroying the whelk egg cases.

  Comment that the knobbed whelk is an underutilized species.

  After discussion, the majority of the committee recommended Option #1 (status quo) for keeping the fishery open year-round.

- 4.35(g)(1) – Legal Minimum Size:
  Committee Discussion / Comments / Questions:
  M. Gibson commented that the information regarding size at maturity is the most compelling evidence that an increase in the minimum size is needed; if the committee is opposed to increasing the minimum size, then the committee needs to decide which other management option(s) they are willing to accept; M. Gibson does not believe that the Director will "do nothing" regarding whelk fishery management for 2014.

  Concerns expressed that there is not a measurement tool available to determine legal size accurately; whelks are not symmetrical and are difficult to measure accurately; concerns expressed about consistency of the minimum width measurement and variability among fishermen regarding how this measurement is made.

  Question – Has the conch fishery been officially declared to be over-fished?

M. Gibson responded that the official/completed stock assessment report has not been presented to the Director yet, but all of the DFW calculations indicate that it is; the overall fishing mortality rates have recently crossed over the overfishing limit; state law requires DEM/DFW to adopt regulations to stop overfishing.

Comment that the reproductive potential for larger female whelks is unknown.

Question – Are licenses still available for people to enter the whelk fishery?

J. Grant responded that they are, but restricted to people with an active quahog license and renewal of previous year's conch endorsement.
T. Angell commented that the committee could recommend a license moratorium for the whelk fishery, but currently no way to control any of the multi-purpose license holders from participating in the whelk fishery.

Question/Request – Can the committee see the stock assessment report and the evidence for overfishing?

M. Gibson responded "yes", but the first principle of overfishing is evident in that there are no mature female channeled whelks at the current minimum size.

Comment that there are plenty of other species that are managed without the females being mature.
M. Gibson responded that he was not aware of any fisheries that did not take size at maturity into account when setting a minimum size; cannot have a viable fishery if animals are being taken before they get a chance to reproduce.

Comment that there is not enough data to make a determination on the size at maturity; need more years of research and data collection.

M. Gibson commented that biological attributes such as the size at maturity do not change from year to year; species have evolved for a particular reproductive strategy and do not change quickly; the "boom and bust" nature of the whelk fishery is due to the lack of an appropriate minimum size to protect some adequate proportion of mature females that can reproduce and help sustain the population; this has happened to conch/whelk/gastropod mollusc fisheries all over the world; there are multiple sources of data that show that the whelk fishery is headed into the "bust" part of the cycle; need to manage this fishery so that it is sustainable.

Comment that putting in management measures to protect the whelk fishery will have adverse effects on the other shellfisheries in Narragansett Bay (quahogs, mussels).

Comment that research needs to be done regarding the diet of whelks and how much shellfish they eat; the quahog fishery is extremely important to RI shellfishermen.

M. Gibson commented that our laws do not allow us to sacrifice one species for the benefit of another; we are not at the point where we can manage the "ecosystem".
K. Castro commented that Dave Bengston is thinking about a predator-prey model for whelks and quahogs; whelk-quahog dynamics for multispecies modeling.

Comment that other states (CT) value their quahog fishery more than their whelk fishery; which fishery does RI value more?

M. Gibson responded that it is not DEM/DFW's responsibility to worry about the market; we are required by law to manage the fisheries so that they don't get overfished and for "equitable and sustainable use".

K. Castro commented that the existing data is a good start, but there are certain gaps in the data that need to be addressed by further research; need to identify areas of research that are currently lacking.
Need to identify the objectives of the management plan; are we managing the economics? social issues? biological attributes? Answering this question will determine which management measures should be implemented.

T. Angell reviewed the draft proposed regulatory options for minimum size(s); three draft options for minimum size increases were presented and considered by the committee.

Question regarding the size dimorphism of male and female whelks.
T. Angell responded that the data indicates that males do not grow as large as females.
Comment that increasing the minimum size would put proportionally more fishing pressure on the female whelk due to this size dimorphism.

Discussion of a potential maximum size limit for whelk; this could potentially be beneficial for increasing spawning stock biomass, but the fishing mortality rate on the sizes between the minimum and maximum size needs to be low enough to allow the whelks to be able to grow and actually make it to the maximum size and become protected.

T. Angell suggested rounding-off the proposed minimum shell width sizes to the nearest larger 1/8"; the committee approved of this revision.

Question regarding the current status of the fishery in relation to the overfishing threshold and if a combination of management measures could be used to address overfishing; **How far do we really have to go with minimum size increases to eliminate overfishing? Do we really need to go all the way up to a 3-1/4" minimum width and 5-3/4" minimum length to stop overfishing?**

M. Gibson responded that the current stock assessment indicates that overfishing is occurring; if the desire is to address this with increases in the minimum size only, then the minimum size increases will have to be fairly aggressive; if the desire is to keep the current minimum sizes (with the revision for a 5" minimum length), then fishing mortality would need to be reduced by about 30% (could use season, quota to do this); catch needs to reduced via some mechanism; the sustainable fishing mortality rate for whelk is F=0.3; whelk are not highly-productive animals in terms of their reproductive capacity; the life history of these whelks does not support an intense fishery and is responsible for the "boom and bust" nature of this whelk fishery and whelk/gastropod fisheries around the world.

Comment that it would make more sense to raise the minimum size than to institute a maximum size.

M. Gibson commented that whelk landings were on an upward trend when the landings were around 300,000 pounds (2006-2008), then peaked at about 750,000 pounds (2009-2012) and started a downward trend (2013-?); this suggests that a whelk harvest of about 500,000 pounds may be sustainable at current minimum sizes.

Question – What other data could be collected that would help to determine the status of the whelk stock? Is CPUE data available?
M. Gibson responded that we currently only have catch-per-trip as a CPUE index; data regarding catch-per-trap has only recently started to be collected, but will be useful at some point in the future.

M. Gibson commented that an industry-based survey would be helpful in supplying data for the stock assessment model; a survey that is spatially-stratified.
The gap between the current minimum size and the size at maturity needs to be closed.

Question – What is the proportion of each whelk species in the landings data?
T. Angell commented that there are relatively large landings of whelk that are unclassified regarding which species they are; if we want to manage these species separately, then the landings need to be classified by species.

Committee recommended keeping both the width and length minimum size measurement options.

Committee was not in favor of any of the draft DFW proposed options and proposed 2 alternative options for consideration at the March 25th public hearing.

- **J. Grant asked the committee if anyone wanted to keep the status quo of 2-3/4" width and 4-3/4" length; none of the committee supported this option.**
- **Option proposed for minimum sizes of 2-3/4" width and 5" length in Y2014, with continued study during 2014 (status quo). (5 people in favor of this option)**
- **Option proposed for a minimum size of 2-7/8" width and 5-1/8" length for Y2014, with continued study during 2014. (6 people in favor of this option)**

- 4.35(h) – Fishery Closure due to Eminent Public Health Risk (Biotoxins):
  This is more of a precautionary measure than anything else; MA has regulations for this and NOAA has recently instituted rules for this; RI has not had an issue with biotoxins for 35-40 years. This issue was brought to our attention by Water Quality office. No evidence at this point for accumulation of biotoxins by whelk.

  Comment that this issue needs more information before a decision can be made; recommend that DFW look into this issue more closely and see if there is evidence to support adoption/implementation of this regulation.

  Recommend testing of the whelks in our waters.

- 4.35.1-2 – Commercial Possession Limit:
  Comment/question if these 2 species of whelk are going to be managed separately? May have different possession limits for the 2 whelk species.

Comment that reducing the commercial possession limit may reduce landings, but you still need to cap the number of participants in the fishery to make it really effective.

Committee recommended status quo (35 bushels daily possession limit) for this regulatory option until more information from the stock assessment is provided.

- 4.35.1-4 – Commercial Conch Quota / Annual Catch Limit:
  Committee recommended (unanimous) that no commercial quota/annual catch limit be considered (status quo) until more data on this option is made available and had the opportunity to be discussed.

  Comment that it is difficult to make decisions without the information that the stock assessment will provide.

- 4.36, 4.37, and 4.38 – Violations for non-compliance, Penalties, and Appeals:
  T. Angell commented that the entire regulations package is going through a re-write and these regulations are just a consolidation of the regulations for non-compliance, penalties, and the appeals process.
  No committee action is required to address these regulations.

Question was raised about the omission of a proposed regulation for reducing the commercial conch pot limit and tagging of conch pots.
T. Angell responded that this was removed from consideration at this time due to uncertainties about how the conch pot tagging program would be administered; anything to do with tagging of anything other than lobster traps has been put to the side for now.

Question about the ability to fish more than one conch license from a single boat.
T. Angell responded that there are no regulations that prohibit this activity.
J. Grant responded that you are limited to 2 licenses/boat if you are in a shellfish management area.

The public hearing for these proposed regulations is on March 25th at 6:00pm in Corless Auditorium, URI Bay Campus.

c. Committee recommendations for 2014 whelk fishery management.

- **Recommend to adopt regulations 4.35(c), 4.35(d), and 4.35(e)**
- **Manage whelk species separately**
- **Keep both width and length minimum size standards**
- **Add public hearing option for minimum size of 2-3/4" width and/or 5" length in Y2014, with continued study during 2014 (status quo). (5 people in favor of this option)**
- **Add public hearing option for a minimum size of 2-7/8" width and/or 5-1/8" length for Y2014, with continued study during 2014. (6 people in favor of this option)**
- **Recommend status quo regarding commercial possession limit (35 bushels); no stock assessment information made available to propose alternative options**
- **Committee does not recommend adoption/implementation of the proposed regulation regarding a whelk fishery closure due to eminent public health risk**

from biotoxins; committee needs more information about this in order to make a recommendation

- **Committee opposed to a commercial conch quota/annual catch limit at this time; no stock assessment information made available to propose alternative options**

2. **<u>2014-2016 Sea Grant Whelk Research Project discussion.</u>**

K. Eagan summarized the purpose of this research project.

- Cooperative whelk research project starting this year; funded by RI Sea Grant.
- Part of the development of the Shellfish Management Plan.
- Forming a Whelk Fishermen's Association as part of this project
- Looking for 20 fisherman participants for this research; real-time data collection and availability to researchers and fishery managers
- Collect more data to help manage the fishery
- **First project meeting scheduled for March 19th**
- Gather local knowledge about the whelk resource and fishery
- Letters regarding this research project sent out to anyone who reported whelk landings in Y2013

<u>Request was made for DFW to make the stock assessment report available to the committee prior to the March 19th meeting and March 25th public hearing.</u>

Meeting adjourned at 8:55pm.

<u>Follow-up items:</u>

- T. Angell will prepare a document of the committee recommendations to be presented at the March 25th public hearing.
- T. Angell will investigate the reasons/evidence for the proposed regulation for a conch fishery closure due to eminent public health risk from biotoxins.
- Request for copy of DFW whelk stock assessment report to be available prior to/for March 19th Sea Grant Whelk Project meeting (and March 25th RIMFC Public Hearing).