Meeting Summary:
NOAA Fisheries, in collaboration with GMRI, hosted a second workshop in Quincy, Massachusetts focusing on developing solutions to improve groundfish businesses through improving the use of sector annual catch entitlements (ACE) and increasing the value of ACE to sector members. Discussion and presentations focused on factors that were identified by the groundfish industry at a January workshop held in Gloucester. The mix of presenters included Dan Salerno, NEFS V Sector Manager; Libby Etrie, NESSN; Tom Nies, NEFMC; Mark Grant, GARFO; Chad Demarest, NEFSC; and Jenny Sun, GMRI. The talks focused on a sector model of shared allocations; Georges Bank haddock catch by the US and Canada, and mesh size selectivity; Experimental Fishing Permits (EFPs); GOM cod use and revenue by segments of the fleet across fishing years; and variability in the ACE leasing market. One outcome of the meeting was to develop a list of strategies that can be brought back to sectors that could result in increased harvest and value of allocations. This list is below, and accompanying presentations from the meeting will be available on GMRI's website in the coming weeks. Subsequent workshop(s) may focus on dogfish marking initiatives and discard methodology, finding the fish (in relation to closed areas and CATT analysis), uncertainty and lack of stability in ACL setting (in relation to GF Oversight Committee work), and EFPs.

Meeting Outcome: A list of practical strategies that can be brought back to individual sectors/organizations that could result in increased harvest and increased value of allocations in the immediate future:

1. Northeast Fishery Sector (NEFS) V model of shared allocations of specific stocks: NEFS V only allocates certain stocks to their members (GB West cod, witch flounder, SNE Yellowtail, SNE Winter flounder) and all other stocks are held in common by the sector, and can be accessed free of charge by any member, regardless of their potential sector contribution (PSC). A member would only be liable for bringing in more ACE for these "common pool" stocks (via trade or lease) if it puts the sector allocation in the negative. If more than one member contribute to the overage, the lease cost/trade would be apportioned based on the level of catch of the multiple members.
   a. Rational:
      i. To encourage the harvest of underutilized stocks.
      ii. To mitigate observed discards on Georges Bank that were resulting in increased discard rates and thus assumed discards for members who fish exclusively in the SNE Broad Stock Area.
      iii. To mitigate observed discards which result in assumed discards on stocks that many members have little to no allocation of because of history.
b. **Applicable to sectors who meet the following criteria:**
   Stocks that are consistently underutilized by the sector based on initial allocation and without regard to carryover or trade/lease activity.

c. **How to propose this in your sector:** Draft a proposal for board review that analyzes initial allocation of stocks (not including carryover or trades) and highlights the stocks that have a utilization rate of 50% or less. Dan Salerno is available to discuss how to discuss this process and can be contacted by e-mail: nefsector5@gmail.com.

2. **Georges Bank Catch: Mesh Selectivity and the Experimental Fishing Permit (EFP) process:** U.S. fishermen have noted that Canadian fishermen have generally caught a higher percentage of their EGB haddock quota than U.S. fishermen. Prior to 2004, U.S. and CA landings of GB haddock were similar (note that this compares catches for the entire stock, not just EGB haddock). Between 2004 and 2009, the Canadian catches generally increased while U.S. catches fluctuated between 4000 and 8000 mt. After 2010, U.S. and Canadian catch of Eastern Georges Bank haddock plummeted. These changes occurred even though U.S. mesh size and year round closed areas haven’t changed since 2003, so Tom’s presentation showed data to try and inform this research question. The reasons that U.S. haddock catches have been low appear to be complex and relate to the distribution of haddock, the slower growth of haddock when large year classes enter the fishery, mesh selectivity, closed areas, and other regulations (such as area closures to limit catches of EGB cod).

   a. **Rationale:** A combination of mesh size, Closed Areas on GB and the seasonal distribution of haddock in US and Canadian waters is affecting the ability for fishermen to find haddock and use their ACE. Researching mesh size selectivity of haddock on GB may address one of these factors.*

   b. **Applicable to sectors that meet the following criteria:**
      i. Target GB haddock
      ii. May also be applicable to other stocks that are not managed jointly, but occur on both sides of the Hague line (e.g., redfish and pollock).

   c. **How to propose this in your sector:**
      i. If a sector would like to pursue an EFP request to test mesh sizes, contact Mark Grant (Mark.Grant@noaa.gov) to start a conversation on how to approach the process. GMRI may be able to provide technical assistance for the proposal and project.
      ii. GMRI and GARFO/SFD can host a workshop on how to apply for an EFP. Contact Mark Grant (Mark.Grant@noaa.gov) if you are interested in this.

   d. **Other resources and next steps:**
      i. *There are currently two EFPs that are being reviewed related to these topics, one from industry and one from NMFS. The Omnibus Habitat Amendment is ongoing and addressing the closed areas.
ii. The meeting organizers will review existing data on mesh size and catch rates of pollock and redfish in US and Canada to report back at a future date.

3. **GOM cod utilization and net revenue by segments of the fleet across fishing years**: Determining an appropriate price to lease quota while maintaining a profitable trip is perhaps one of the more difficult decisions a fisherman may make. Expected revenue that results from the leased fish is, ultimately, the deciding factor. As quota becomes constraining it increases in value. As the lease cost of fish approaches the ex-vessel value of that fish, the ability to target that species and make a profit can disappear. Essentially, we would expect fishermen to stop targeting high lease-value stocks and use that valuable quota to land a mix of other stocks. In this presentation we looked at GOM cod as an example.

Total revenue (ex-vessel value of all landed stocks) generated per pound of GOM cod ACE caught varied inversely with the proportion of catch comprised of cod—that is, the higher the percentage of GOM cod landed, the lower the gross revenues obtained per pound of cod ACE used. If a fisherman is using cod ACE to catch mainly cod, the total trip revenues will be closer to the ex-vessel price of cod than if a fisherman is using cod ACE, but catching mainly other species. What was interesting was the degree to which the fleet stopped targeting GOM cod in 2012, where very few trips caught more than 20% cod by weight. On these trips, vessels generated between $30-50 of total revenue per pound of GOM cod ACE used. Depending on other expenses and additional lease costs, it may be profitable to pay relatively high prices to lease GOM cod for a trip. The lease price of GOM cod, or any limiting stock, may even exceed the ex-vessel value of that stock if it is used to land other stocks to make a profit. Understanding the ability to use ACE leases to maximize total gross revenues is essential to determining the correct price for an ACE lease for a trip.

   a. **Rationale**: The profitable price to pay for ACE leases is dependent on the total revenues and costs generated with that ACE. It is important to understand that you can generate many multiples of ex-vessel value with ACE by not targeting quota-limited (with high ACE lease prices) stocks and instead targeting stocks with low ACE lease-prices.

   b. **Applicable to sectors that meet the following criteria**: This topic is applicable to all groundfish sectors.

   c. **How to propose this in your sector**: Sector managers and members may collaborate to help understand the total net revenues that may be generated by leasing additional ACE. It is likely that sectors and fishermen are leaving "money on the table" by not leasing in additional ACE, simply because they do not fully understand the value those ACE leases could bring.

4. **Seasonality and volatility of the ex-vessel price and landings by port**;
The ex-vessel price of a species of fish is dynamic (it fluctuates a lot), and is impacted by the timing of the landings. Generally speaking, for most species landed in New England ports, prices drop when landings volume increase (direct inverse relationship). Local availability of a particular species of fish, and imported fish that can be substituted in the market plays an important role in the market and influences price at the dock.

a. **Rationale:** In order to influence the local/regional market, one potential strategy for dealing with the seasonal fluctuations (a.k.a, volatile prices) to the entire groundfish industry is to collaborate across sectors to maintain a steady stream of supply of fresh catch by developing innovative marketing channels for high quality niche markets and making long-term delivery arrangements with fish buyers.

b. **Applicable to sectors that meet the following criteria:** This topic is applicable to the entire groundfish industry, and in order to influence the local/regional market, multiple sectors would have to coordinate.

c. **How to propose/discuss this in your sector:** There could be utility for each sector to have a meeting to explore the economic implications of the seasonality of fishing activity in their sector, and the potential to have their combined consistent landings affect price.

5. **Variability in the ACE Leasing Market:** The timing of an ACE lease affects the price (seeking/selling). Prices fluctuate because there is uncertainty about whether the ACE can actually be converted to landings because fish might not be available to catch when desired, what the market value of the landed fish will be, and whether other fish in the market (e.g., imports) drive the ex-vessel price up or down. The efficiency in ACE trading is defined in conjunction with the timing of landings, market prices, and quality handling. An ACE buyer’s demand for ACE is a downward sloping demand curve which is a derived demand from dealers’ willing to pay for an additional landings in the fish market. An ACE seller’s willing to accept for leasing out an additional ACE follows an upward sloping supply curve, i.e., the higher the lease price, the seller is willing to give up more ACE.

a. **Rationale:** The lease market contributes to increased catch but the lease prices are often deterrent to leasing and catching certain species. If market prices were better, the lease prices become less of a deterrent.

b. **Applicable to sectors that meet the following criteria:** This topic is applicable to all groundfish sectors.

c. **How to propose this in your sector:** Hold a sector board of directors and member meeting to discuss current sector ACE leasing practices, sharing information about the relationship between the timing of ACE leasing and cost, and discuss potential alternatives that might be relevant for your sector.
i. Since the majority of the ACE does not roll into the next year, it is not economically efficient for ACE lesors to overstock near the end of the year. Because the time value of ACE leases trends down by the end of the fishing year, ACE leasees could try to smooth out their landings to obtain more stable and higher prices in the fish market and avoid leasing in the ACE in the beginning of the fishing year when the ACE is not at its economically efficient value.

Next steps and other research/actions

- More information from the workshops will be added to the NMFS and GMRI websites.
- The next workshop(s) will be scheduled around the assessment meetings and Council/committee meetings, possibly in June.
- Another alternative discussed at the workshop was to set up a sector that would hold ACE for one or more sectors to access to foster more collaborative, efficient, and full use of ACE.
- Look further into the L25 regulation we have on the books for groundfish that is supposed to govern the relationship of mesh size to minimum fish size.
- Find a way to share sector annual report narratives with the Council.