2015 Squid-Butterfish (MSB) Advisory Panel (AP)

Fishery Performance Reports (FPRs)

The Mackerel-Squid-Butterfish (MSB) Advisory Panel (AP) met April 27, 2015 to develop the Fishery Performance Reports (FPRs) below. These FRPs do not represent a consensus but rather a summary of the perspectives and ideas that were raised at the meeting.

The meeting was conducted via internet webinar and facilitated by Jason Didden, the MSB Fishery Management Plan (FMP) coordinator. The MSB advisors who participated were:

Lars Axelson
Kristen Cevoli
Eric Reid
Hank Lackner
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Peter Moore
Jeff Reichle
Steve Weiner
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Other participants included:

Jeff Kaelin
Tara Froehlich
Doug Vaughan
Dave Secor
Eric Buck
Katie Almeida
Meghan Lapp
David Tomberlin
Doug Lipton
Anthony DiLernia
Marin Hawk
John Boreman
Laurie Nolan
Lee Anderson
Carly Bari
Howard King
Greg DiDomenico

The fishery performance reports' primary purpose is to contextualize catch histories for the Scientific and Statistical Committee (SSC) because of the potential importance of catch histories for determining Acceptable Biological Catches (ABCs) in cases of fisheries with high levels of assessment uncertainty. The goal is to compare and contrast the most recent year's conditions and fishery characteristics with previous years. A series of trigger questions was posed to the AP. The questions are based on the discussion and results of the 2011 fishery performance meeting that focused on 2010 and prior catches. The primary intent of the questions is to generate discussion of direct observations of knowledgeable individuals involved in the fisheries in some fashion, especially as related to factors that may have influenced catches. The trigger questions were:

1. Are you aware of market issues that influenced MSB catches? For example: Fish prices, fuel prices, overall economy, etc…
2. Are you aware of environmental issues that influenced MSB catches? For example: Weather, sea temperature, climate, etc…
3. Are you aware of management issues that influenced MSB catches? For example: management induced effort shifts, management prohibiting directed fishing, etc…
4. Are you aware of other fishing behavior issues that influenced MSB catches? For example:

refrigerated sea water (RSW) vs. at-sea freezing activity, vessels focusing on other fisheries, etc…
5. What other issues/concerns does the AP wants to highlight? For example: lack of U.S. mackerel allocation, forage concerns, calibration issues, fishery conflicts, regulatory concerns, etc…

The charge to the AP was thus to provide input on factors that have influenced catch levels over time as well as any other observations and ideas that could prove useful to the SSC and/or Council as catch levels and specifications for 2016 and beyond are considered. For organizational purposes, the summary is broken down by species and several thematic categories (per the above trigger questions), which begin on the following page. Some general points were also raised by AP members, as noted immediately below. Like the fishery specific summaries, these do not necessarily reflect a consensus.

Many ideas are carried forward from last year. Such items are marked with "**".

General

-The AP appreciated the Biological Updates provided by the NMFS Northeast Fisheries Science Center (NEFSC) as a concise summary of what is known (or not known) about the status of each of the species.**

-Dogfish (spiny), given their prevalence, could be severely impacting MSB and other species, in terms of abundance or as an ecological barrier (e.g. maybe mackerel or squid won't go into areas with high dogfish concentrations, which means pretty much everywhere). As dogfish have come back it seems like everything else has gone down and this issue should be an important component of ecosystem management. Dogfish also have made fishing for MSB species difficult just because of continually loading the nets with dogfish.**

-Consumption of forage stocks by marine mammals likely dwarfs mortality from fishing.**

-Staff noted that some management issues raised by the AP are out of the scope of specifications and/or this call, and that they should write to the Council or talk to their Council members to have such issues considered by the Council.**

Mackerel

The key points (not necessarily consensus positions) were:

Market Issues

-Fuel costs discourage searching but mackerel prices are sufficient to stimulate directed activity if fish are available. While effort was high initially in 2012-2014, a variety of factors (especially fuel prices) contributed to a reduction in searching for and exploration of potentially fishable areas.**

-Price is mostly driven by world prices and world supply is high.**

Environmental Issues

-Availability is the primary driver for catches, and availability is likely highly variable and highly sensitive to external environmental factors, making catch a poor indicator of stock status.**

-Can't catch what's not here - and mackerel that did appear in 2014 were far north. Can't hurt a stock that's not here - need to figure out where it is (ctenophore research, Labrador Current, etc.). The fish are not gone, just not swimming here.**

-Both availability and the size of fish have been low in recent years, both offshore and inshore. The size issue appears to apply to other forage species like Atlantic Herring and *Illex*, possibly due to warming waters - see Ohlberger 2013, Kingsolver & Huey 2008, Conover et. al. 2002, Forster et. al. 2012).**

-There has been a lack of mature mackerel. Some of the advisors have provided size information to the NEFSC. 1999/2000 seemed to be a turning point, with small mackerel dominating catches since.**

-Late 2014 saw a run of larger fish.

-Ecological needs in terms of mackerel as forage should be factored in explicitly by the SSC when setting ABCs. The low landings and Canadian assessment should give pause for concern and warrant consideration of a lower ABC.**

-The survey appears to have no connection to landings. More science needs to be conducted to figure out what is really going on with mackerel, including communicating with Iceland about mackerel's recent abundance there.**

-Based on the size of mackerel seen in Canada (larger) and U.S. (smaller) and presumed migration pattern (Canada to U.S.), it appears that the Canadian and U.S. stocks are different (fish don't shrink).**

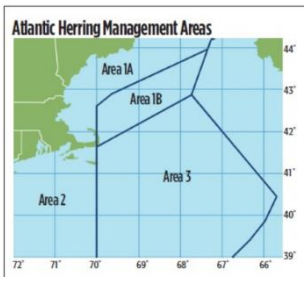
Management Issues & Management Induced Effort Shifts

-The February 2012 closure of Atlantic herring in southern New England in 2012 reduced the ability of participants to target mackerel because of mixing of these two species. There were some vessels that would have continued to fish/search for mackerel but what the end result of that searching would have been can never be known.**

-The same was true in 2013 but to a lesser degree as Atlantic Herring closed in April 2013. Better information on the interaction between Atlantic herring fishing and Atlantic mackerel fishing would allow further analysis of this issue and continued/additional coordination between these fisheries is important.

-No early 2014 herring closures occurred.

-Had a good run in late 2014 which has been rare. Size was also better this year than in a long time. The northern fishery were also limited in late 2014 by herring closures and groundfish gear restrictions in the north that reduced access to northern fish. For herring, Area 1A was closed on October 26, 2014, Area 1B was closed on May 24, 2014, and Area 3 was closed on Sept 23, 2014.



-Also had an extended run of some mackerel in 2015 to the south (2 cold winters), but they were mixed with menhaden and because of menhaden limits in NJ, boats could not land menhaden, so they couldn't target mackerel (January into April).

-The observer call-in requirements may limit opportunistic fishing.**

-Need to leave some amount of mackerel quota so that fishery can capitalize on availability when it occurs. There is a concern that once a quota is reduced it will never be restored given the current state of mackerel science. Recent catches of mackerel should not be used as an indicator of what the catch should be next year.**

Other Fishing Behavior Issues

-In recent years much of the mackerel catch has been retained incidental catch from herring fishing.**

-With high fuel prices, high catches of mackerel will only occur if fish are abundant (gas price not as substantial this year - 2015). Economics will self-regulate this fishery and the fishery has not impacted the mackerel stock.

Other Issues for Council/SSC Consideration as Appropriate

-Despite reluctance by the Canadians, joint research should be pushed and U.S. research should proceed where appropriate relative to the 2010 TRAC recommendations (especially on the influence of environmental factors and on mackerel's stock structure).**

-In terms of buffering against U.S. ACL overages, a 15% buffer seems excessive given the monitoring that occurs in the mackerel fishery and the apparently low level of mackerel discarding.**

-There is concern about what exactly an MSE means and consists of.

-Specifications should consider allowing a roll-over of unused quota in a similar fashion as occurs with Atlantic Herring.**

Illex Squid

The key points (not necessarily consensus positions) were:

Market Issues

-Price and demand are mostly dependent on S. Atlantic (e.g. Falkland Islands) landings, which drive world trade prices and/or demand for US *Illex*. Availability has to be sufficient to overcome any market/fuel price issues to drive interest in fishing for *Illex* for most vessels. Strong dollar may impact price/sales/demand going forward.

-Falkland squid landings continue to be very strong with low prices.**

-Availability was higher in 2014, but with small squid and low prices on small squid, this reduces the incentive to fish for *Illex* to some degree.**

Environmental Issues

-Availability changes from year to year and also very quickly within a year (waves of squid "come up onto the bank" in an unpredictable fashion). Real-time assessment would be optimal. 2014: Availability was higher than 2013 – fish stayed farther south.

-Understanding migration is key to understanding *Illex*, and we don't fully understand the migration behavior.**

-Ecological needs in terms of *Illex* as forage should be factored in explicitly by the SSC when ABCs are recommended. The recent low landings and decline in indices should give the SSC some pause for concern.**

Management Issues & Management Induced Effort Shifts

Deep-Sea Coral measures may strongly impact ability of vessels in fishery to operate going forward, especially if considerations are not made for deployment and haul-back of gear in varying weather/current conditions.

Other Fishing Behavior Issues

-For refrigerated sea water vessels to participate, they need high densities to fish to drive participation because they have to return to the dock within two days of starting to put *Illex* in the tank due to spoilage issues.**

Other Issues for Council/SSC Consideration as Appropriate

-Research should continue into how to determine *Illex* productivity as current management is not sensitive to actual *Illex* productivity. The fishing community should be an integral part of this effort, which should proceed in a very methodical fashion. "If it ain't broke don't fix it." Proceed carefully before you make any changes.**

-Summer & fall longfin closures can lead to discarding of longfin in the *Illex* fishery. A higher incidental limit for Illex vessels during longfin closures or a more gradual slowing of longfin fishing could avoid regulatory longfin discarding. The new higher limit in 2014 is better but may not totally solve this problem.**

-Concern was reiterated about re-entry of latent permits. Entry of latent effort could disrupt smooth operation of the fishery.**

Longfin Squid

The key points (not necessarily consensus positions) were:

Market Issues

-Recent ex-vessel prices are sufficient to drive increased effort if squid are available. Prices the last few years have been decreasing, possible causes could include: lower quality and high quantity of summer squid, stronger dollar, and lower prices for imported cleaned squid.

-High effort in summer causing closures and high landings volume/gluts. Concern by at least one advisor that it is being exacerbated by high capacity.

Environmental Issues

-Longfin squid has variable productivity and availability both within a year and between years and between inshore and offshore.**

-Effort was very high in the summer of 2012 because of the high squid availability both inshore and offshore. Not repeated in 2014 (squid was inshore but not also offshore).

-Ecological needs in terms of longfin squid as forage should be factored in explicitly by the SSC when ABCs are recommended.**

-End of 2014 and beginning of 2015 were very windy.

-Dogfish continue to make some areas unfishable and are a reason why landings can turn off. Believe that restraint on dogfish fishery correlates with lower squid landings.

Management Issues & Management Induced Effort Shifts

-Scup, Tilefish, and Fixed/Mobile Gear Restricted Areas (GRAs) have made *Longfin squid* fishing more difficult/less profitable, likely leading to somewhat less effort overall. Staff noted there is an ongoing action to consider modifications to the scup GRAs.**

-The butterfish cap has created a disincentive to even bother with longfin squid. There is more discussion about where not to fish because of butterfish than where to fish because of longfin squid. The observer notification requirement (even 48 hours) limits opportunistic fishing if a trip has not been notified. Both of these lead to lost revenues/fishing opportunities – especially critical for narrow winter weather windows.**

-The mistaken April 2012 closure may have substantially impacted 2012 Trimester 1 landings because landings were on the upswing immediately prior to the closure.**

-Annual landings would have been higher in some years if not for the Trimester 2 closures. Any seasonal closures likely depress annual landings (there were no seasonal closures in 2013).**

-The 2 1/8" mesh requirement may be harming productivity and causing the relatively low landings in recent years (landings have been lower since 2007). Squid that go through 2 1/8" are marketable and likely have high mortality. 2 1/8 may appear practicable for fishery but may be increasing squid mortality and is unlikely to allow substantial escapement of other fish. Should be examined in detail. Staff later researched that the mesh increase was September 13, 2010. Multiple AP members questioned the value of the 2 1/8" mesh. Some fishery participants would prefer 1 7/8" year round.

-Need to find out if landing more squid (normal trimester plus Trimester 1 roll-over) in summer is negatively impacting fall/winter productivity.

-There was concern about what the new VMS reporting requirements are being used for. Staff will incorporate additional details into future information documents.

Other Fishing Behavior Issues

-Some vessels have been focusing on other species (other quotas have been increasing - e.g. summer flounder & scallops; some vessels were retrofitted for pelagic fishing). Several recently active participants left the fishery and those vessels are unlikely to return.**

Other Issues for Council/SSC Consideration as Appropriate

-Research should continue into how to determine longfin productivity as current management is not sensitive to actual longfin productivity. The fishing community should be an integral part of this effort, which should proceed in a very methodical fashion.**

-The lack of proper NMFS notification for the 2012 Trimester 2 longfin closure needs to be avoided in the future.**

-Concern was reiterated about reentry of latent permits. Entry of latent effort could disrupt smooth operation of the fishery.**

-The issue of additional flexibility between trimesters was raised again, and staff noted that this is an issue being considered this year. Related concerns that were voiced included:

-Consider squid capacity issues before considering additional trimester issues.

-Need to consider fairness and access issues. For example, there is a smaller group of vessels that can access state waters in NY.

-Want quota caught, but do it right way – higher effort in spawning areas not good for fishery.

-There are times of substantial local directed recreational effort and catch, which may not be reflective of overall abundance. Recreational catch is likely very small compared to the overall quota.**

-Sense that recreational fishery is increasing. See more squid tackle in stores. There is also a traveling recreational contingent that uses social media/internet to spread the word about varying local availability. 2014 spring fishery in MA drove towns to enact regulations to address high participation. May be approaching a level that needs to be accounted for.

Butterfish

The key points (not necessarily consensus positions) were:

Market Issues

-Low butterfish availability/abundance resulted in low landings in the 1990s and it was very difficult to re-establish a market given the low quotas. It might take several years to re-establish export markets, but there are some indications that demand may be higher than anticipated. Traditional export food markets want fish caught in December-March (fat/roe/feed issues).**

-Boats have been increasing fresh butterfish production relatively slowly so as to not crash the price. Fresh market has been absorbing surprising quantity of fish without price dropping.

-Early 2015 sizes are very good and the fish are of high quality.

-It is too early to determine how the markets will respond to U.S. butterfish in the long run, but participants remain cautiously optimistic.**

Environmental Issues

-Winter of 2014/early 2015 had very poor fishing weather.

-Abundance has been relatively high in the last few years compared to the early 2000s, both inshore and offshore. Maybe higher now than last year if anything.

-Ecological needs in terms of butterfish as forage should be factored in explicitly by the SSC when ABCs are recommended. Management needs to account for the high consumption of butterfish by predators in a precautionary fashion. Precaution is warranted given butterfish's important role in the ecosystem as part of the forage base and given butterfish catches have been very low compared to recent projection results.**

-There remains some concern about the age structure of butterfish.** What is age range of recent butterfish catches? Staff will ask center staff when next round of aging will be done.

-Dogfish continue to interfere with MSB fishing.**

Management Issues & Management Induced Effort Shifts

-Mesh requirement is holding landings back and causing regulatory discards.** Need an analysis of any discards to determine cause – regulatory discarding may be a primary cause of discarding. The 2,500 pound trip limit for using <3-inch mesh is causing regulatory discarding. If you are out squid fishing and happen to come across some butterfish, having to discard does not make any sense. Should be eliminated or at least substantially increase the threshold where 3-inch is necessary. Focused butterfish fishing will probably use 3-inch mesh anyway. Less than 3-inch mesh is probably targeting something else and hitting butterfish incidentally - why not keep?

-The directed butterfish fishery did not begin until a few weeks into 2013 (missing December 2012 and early January 2013 contributed to a slow resumption of directed activity). Fish that were found at that point were too small and/or not of optimal quality, and other fishing options were available. Exporters need high quality fish to re-enter markets.**

-Fishery was also concerned about exceeding quota in 2014 at one point and voluntarily restricted fishing because it was unclear if/when NMFS was going to transfer quota from the discard cap to landings. Fishery did not want to get a "black eye" for having a quota overage when it wasn't sure what NMFS was going to do. Would have seen higher landings if key participants had not held back.

Other Fishing Behavior Issues

-When they could get out in early 2013, some vessels found lots of butterfish but smaller butterfish and stopped fishing for them because they didn't want to discard lots of small butterfish in order to get a marketable quantity of acceptably sized fish.**

-2014 saw moderate catch increases as predicted by AP relative to 2013.

Other Issues for Council/SSC Consideration as Appropriate

-For short lived, tightly schooling fish you need a targeted & dedicated survey - this is how the rest of the world assesses these kinds of stocks.**

-Some but not all advisors think butterfish should qualify for an exemption to ACLs.**

-Looking at only the Bigelow's area sample misses a substantial amount of butterfish habitat.**

-The need for a discard cap on the longfin squid appears questionable given the current butterfish ABC.**

-The ability to balance quotas (and increase butterfish landings if a substantial part of the discard cap has not been used) late in the year is important since good quality butterfish start being available in December. (Framework 8, now implemented, allows this and it was used in 2014)

-Cornell is examining mesh issues – preliminary data suggest 8cm square mesh and 8cm T-90 mesh could be productive for eliminating small butterfish. More information pending further data collection and analysis.

-Squid trawl network still providing information on butterfish availability – negative reports are also very important for operation of the avoidance network.