




**UNITED STATES DEPARTMENT OF COMMERCE**  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Southeast Fisheries Science Center  
75 Virginia Beach Drive  
Miami, Florida 33149 U.S.A.  
(305) 361-4204 Fax: (305) 361-4499

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**TO:** Bob Mahood  
**FROM:** Bonnie J. Ponwith, Ph.D.   
**SUBJECT:** Request for Blueline Tilefish Stock Projections

Scientists from the SEFSC, NEFSC and HQ reviewed the Council's request for additional projections for blueline tilefish to aid the SSC in developing revised catch level advice. Projections that incorporate the 2014 actual landings are in preparation now. We believe that including an estimate of 2015 landings, as requested, is not advisable, due to the additional uncertainty this introduces into the projections.

We expect that the updated projection with updated catch inputs may show higher than plausible fishing mortality rates have been occurring. Your memo asks us to explore alternative recruitment scenarios that might reconcile the higher catch with lower F levels, but there are other possible explanations. We recognize that the landings we're seeing seem incongruent with the results of the last stock assessment. While increases in recruitment since 2011 could be one reasonable hypothesis for explaining this, we're not seeing any direct evidence this is the case. We also must consider that the assessment itself, while the best that can be done with available information, has substantial uncertainty and the high F finding could be an indication some aspect of the uncertain assessment was inaccurate and needs to be adjusted when a new assessment with all new information can be conducted. Because of this, it is our view that exploration of various recruitment scenarios could mislead us into believing one possibility without considering others.

Instead of exploring various recruitment levels in the aging projections, we recommend updating the handline index and looking at the slope of that index from 2012 to date. If the slope of that index is rising or at least remaining flat, it may be an indicator that catch levels over the last three years are not having an appreciable negative impact on the stock for the area covered by the index. In that case, catch level advice going forward could be based on the average landings over the years just prior to the recent big increases until we are able to assess the stock again, informed by the exploratory survey and the genetic studies we'll conduct this year. There remains uncertainty in the spatial linkage between the area covered by the handline index and locations of recent (post 2011) catches. Localized depletion, if occurring, might go undetected by the current handline index, particularly if catches are occurring outside of the area covered by the index. If, however, the trend of the updated index is negative, the catch must be constrained to levels indicated by the benchmark

stock assessment. An update of the handline index is underway as an indicator to providing insights into the potential status of this stock.

If you have questions or wish to discuss this approach, let me know and we'll set up a call among the key scientists.

cc: Bill Karp  
Rick Methot  
Erik Williams