

Hi Bill and John,

Thank you for holding the yellowtail meeting in the library on Monday, August 12. As you know, I asked a few questions, and I am not sure that I fully understood the answers.

1. The natural mortality of cod appeared to quadruple. I asked how this affected management regulations. Normally, an increasing natural mortality would suggest a smaller optimal mesh size and higher fishing mortality reference points. How is the quadrupling of natural mortality taken into account in management?
2. Alternative models. I asked why alternative models were not considered. I think the answer was that many alternative models were considered and lead to the same catch advice for yellowtail. We wrote a paper comparing standard production models to age structured production models. We found that standard production models gave a much more favorable view of the status of the stock than the age structured production models that are presently used. When Steve Cadrin showed his results from multiple model applications, these showed that the standard production model gave a better perception of the status of the stock than the age structured model. My conclusion is that the models give different results, and this is supported by earlier calculations and simulations (see Rothschild, B.J. and Y. Jiao. 2013. Comparison between maximum sustained yield proxies and maximum sustained yield. *The Open Fish Science Journal* 6:1-9. doi:10.2174/1874401X01306010001). How are these observations factored into the stock assessment process?
3. The $F_{40\%}$ criterion. We have pointed out many times that simply by reducing 40 to a lesser number, say, 30 or 20, we would get a much more optimistic picture of the status of the stock. Since 40 is chosen arbitrarily, why not determine the value that best meets our management objectives (see Rothschild, B.J., Y. Jiao and S. Hyun. 2012. Simulation study of biological reference points for the summer flounder. *Trans. Am. Fish. Soc.* 141:426-436.)?
4. Asymmetry of acceptance. The SMAST tagging studies seem to be rejected out of hand. I can see why one might be skeptical. On the other hand, it seems like the overall assessment is laced with problems, the biggest of which may be stock structure. Yet, the overall assessment is accepted without blinking an eye. Why are the SMAST estimates *totally* discarded?

By the way, it appears that the allocation by the TRAC is based on both distribution and “utilization.” It seems that utilization is an economic factor that is difficult to control. I don’t see why utilization should play an important part in allocation. The degree of utilization should vary among years and be driven by a variety of factors that may be independent of the resource. Also, the distribution issue depends on the same survey results that have been arguable.

Consistent with adoption of best available science and the magnitude of the stock assessment results, it seems that we should not change regulations until we have more information. This information should come from field studies and an immediate review of the assessment.

I don't see why the TRAC has the authority to bar stock assessment alternatives, particularly when the assessments are so very problematic and controversial. What is the basis of the TRAC authority?

I hope my observations, which are intended to be constructive, are of some use to you.

Brian