

Science Panel Question – Steven Murawski

We have heard from many people that fishery managers are asking too much of the science. Can we improve the tools to support the current management system or should we adjust the management structures to the existing scientific tools?

It is very clear that the demands for stock assessment, management policy analysis, essential habitat designations and socio-economic evaluations have over-taxed current science delivery systems. In some cases (such as in New England) complex and interacting indirect control measures require information at levels of spatial and temporal resolutions exceeding the original intents of supporting data systems (e.g., to support effective networks of seasonal and year round closed areas). Re-configuring imprecise data (e.g. logbooks) to support such a system is inefficient, has low credibility with the regulated industries, and saps our finite resources.

Fundamentally, the science issues faced in supporting the Councils turn on high quality fishery-dependent data delivered in a timely fashion, and fishery-independent data of sufficient precision to separate signal from noise. As harvest rates are reduced to those approaching sustainable levels, the system will have to provide even more precise information to assure that management targets are not overshot (resulting in overfishing), or undershot (resulting in foregone benefits). In this regard, then, the precision of science can be evaluated on a benefit-cost basis. Improving the tools to support management is really the only way to minimize the likelihood of making incorrect decisions in either direction. In our region, fishermen and allied business now seem more committed to improving the science system, and there is growing support, for example, for electronic fishery-dependent data systems and cooperation in many fishery research projects. This reflects a growing recognition that science is the cornerstone of effective management, and the costs and uncertainties of inadequate science are unacceptably large.

Too often in the past our management has relied on inadequate information and thus a consensus of opinions. Modern fishery management systems will only have credibility with those regulated and the general public if decisions are well supported in fact. Changing management to fit inadequate information will inspire little confidence that the system is a rational one, resulting in continuing cycles of management inertia and politicization of the process. As stated by Hippocrates:

There are in fact two things, science and opinion; the former begets knowledge, the latter ignorance.