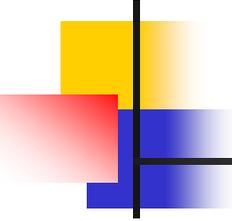


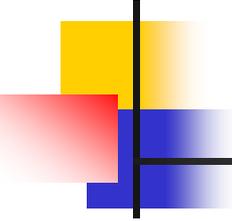
COASTAL PELAGICS SPECIES STAR PANEL

Agendum I.2



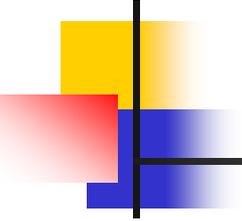
Participants

- STAR Panel:
 - Tom Barnes (Chair)
 - Andre Punt (SSC Representative)
 - Rodolfo Serra (IFOP)
 - John Wheeler (DFO, CIE)
- PFMC
 - Brian Culver (CPSMT)
 - Diane Pleschner-Steele (CPSAS)
- STAT
 - Ray Conser (Sardine)
 - Kevin Hill (Sardine & Mackerel)
 - Suzanne Kohin (Sardine)
 - Nancy Lo (Sardine)
 - Paul Crone (Mackerel)



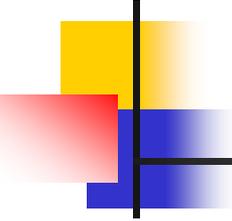
Overview

- The STAR Panel reviewed the assessments in terms of the most appropriate framework for conducting future assessments.
- It did not:
 - Review assessment results (these will be presented to the Council in November 2004 – sardine, and in July 2005 – mackerel).
 - Evaluate the harvest control rule.



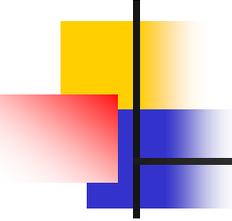
Appropriate Assessment Framework

- The STAR Panel supported the future use of the ASAP (Age Structured Assessment Program) framework for assessment of both sardine and mackerel. This framework would replace the current frameworks:
 - CANSAR-TAM (Sardine)
 - ADEPT (Mackerel)
- Reasons for this support include:
 - The values for the migration parameters in CANSAR-TAM are largely arbitrary, and the treatment of fleets is *ad hoc*. ASAP provides a more straightforward way to model multiple fleets and areas.
 - ADEPT is based on backwards VPA so ignores errors in the catch-at-age data.
 - ASAP can be used to more fully quantify uncertainty.
- Note that ADEPT will continue to be run as a sensitivity test for the mackerel assessment.



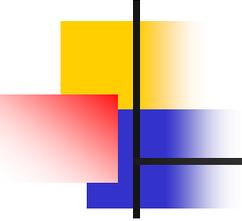
Key Uncertainties and Recommendations (Sardine)-I

- Stock structure and mixing is not well understood:
 - The current working hypothesis is of one stock from Mexico to British Columbia. This working hypothesis was supported for the present.
 - Recommendations:
 - Conduct synoptic surveys to provide information to address stock structure issues and for use in a possible assessment of sardine in the Pacific northwest.
 - Growth and spawning data should be collected and analyzed.
 - Various methods for determining stock identity should be applied.



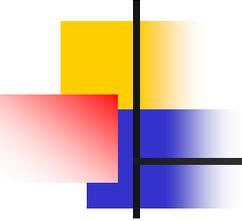
Key Uncertainties and Recommendations (Sardine)-II

- Input data:
 - Fishery independent data are limited to southern California.
 - The Tri-National Sardine Forum should be utilized to share fishery, survey and biological information among researchers (Mexico, Canada, US).
 - Recommendations:
 - Examine ways to extend the DEPM method.
 - Consider different ways to index the population in the Pacific northwest (e.g. acoustics).
 - Update the catch-at-age data for use in the assessment.



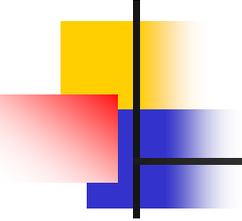
Key Uncertainties and Recommendations (Sardine)-III

- Modeling and assessment issues:
 - Data
 - Drop the CalCOFI percent positive and spawning area indices.
 - Include any additional Mexican catch-at-age data.
 - Include any additional catch-at-age data for the Pacific northwest.
 - Modeling
 - Allow for fleet-specific weight-at-age.
 - Define spawning biomass in terms of end-year numbers.
 - Add a zero age-class.
 - Quantify uncertainty using the MCMC algorithm.



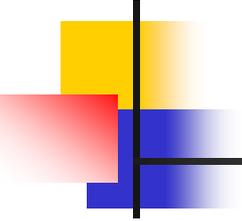
Key Uncertainties and Recommendations (Mackerel)-I

- Input Data:
 - The lack of catch-at-age and weight-at-age data for Mexico remains a major source of uncertainty.
 - The abundance indices used in the assessment relate to only a small fraction of the distributional range of Pacific mackerel.



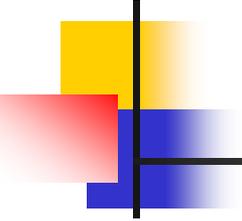
Key Uncertainties and Recommendations (Mackerel)-II

- Recommendations :
 - Develop of coastwide synoptic survey for mackerel.
 - Examine (and revise) the basis for the catch-at-age data (discrepancies between observed and predicted catches-at-age could be the result of several factors).
 - Fishery and survey data should be obtained from Mexico and incorporated into future assessments.



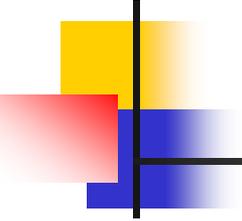
Key Uncertainties and Recommendations (Mackerel)-III

- Modeling and assessment issues:
 - Allow for fleet-specific weights-at-age.
 - Define spawning biomass in terms of end-year numbers.
 - Add a zero age-class.
 - Quantify uncertainty using the MCMC algorithm.



Endorsements

- The Panel endorsed:
 - The aerial survey for sardine that started in 2004 (support was given for a similar survey off the Pacific northwest).
 - Overall greater collaboration with industry in the collection and analysis process for coastal pelagic species.



Concluding Remarks

- The Panel commends the STAT for:
 - excellent presentations;
 - well-written and complete documentation;
and
 - rapid responses to the many requests for additional analyses.