

SRB Reports Sean Cox Jim Ianelli Marc Mangel

SRB08 – June 2016 SRB09 – Sept 2016

SRB08: Space-time* modeling

- Pros
 - Accounts for consistent spatial-temporal patterns such as hotspots and localized "year-effects"
 - Eliminates most ad hoc adjustments
 - Uses local data in extrapolations (e.g., Salish Sea)
- Cons
 - It's a model...hard to communicate; costly to build, manage, and maintain; requires highly specialized knowledge
 - WPUE values used in assessment are model predictions, not data



* SRB recommended naming "geostatistical approach"

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SRB08: Biological/Ecosystem Program

- Encouraging developments in genetic methods for sexing fish
- Improving understanding of spawning behaviour that may impact how SSB is defined
- Improving understanding of halibut growth
- Estimating DMRs: SRB recommends simulation studies to evaluate likelihood of success as function of effort/cost
- Needs to maintain alignment with assessment needs



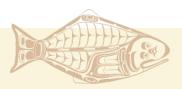
SRB08: Stock assessment modeling

- Spatial assessment model: strategic model for exploring implications of
 - Movement: sex, age, region
 - Selectivity: fleet/area
 - Harvest rates: area



SRB08: Stock assessment modeling

- **Spatial assessment model**: strategic model for exploring implications of
 - Movement: sex, age, region
 - Selectivity: fleet/area
 - Harvest rates: area
- **Spatial assessment model**: precursor to spatial operating model for MSE simulations



SRB08: Stock assessment modeling

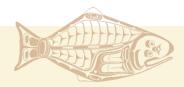
- Spatial assessment model: strategic model for exploring implications of
 - Movement: sex, age, region
 - Selectivity: fleet/area
 - Harvest rates: area
- Spatial assessment model: precursor to spatial operating model for MSE simulations
- Too uncertain to use as tactical tool for setting annual TACs



SRB09: Space-time modeling

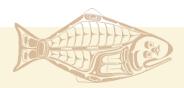
- Updated space-time model results
- Survey timing adjustment: SRB recommendation

 drop EBIO
 - use recent estimated area-specific harvest rates



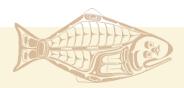
SRB09: Stock assessment

- Reviewed sources of mortality: components and communication
- Spatial model: SRB recommendation
 - Develop benchmark data to guide spatial model fitting
 - What data *must be fit* by the spatial model to provide credibility?



SRB09: Management strategy

 Progress on objectives essential to future science work



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