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Research track expectations

August 9th, 2021

Research track assessments may begin with the Stock ID process

- **Stock ID is only needed if identified in the TORs.**
- **The Panel gathers together and reviews all relevant studies and data to decide on a stock structure required to build the model throughout the rest of the assessment process.**
- **The stock structure is based on BSIA and first principles and is arrived at via consensus through a transparent and inclusive process.**



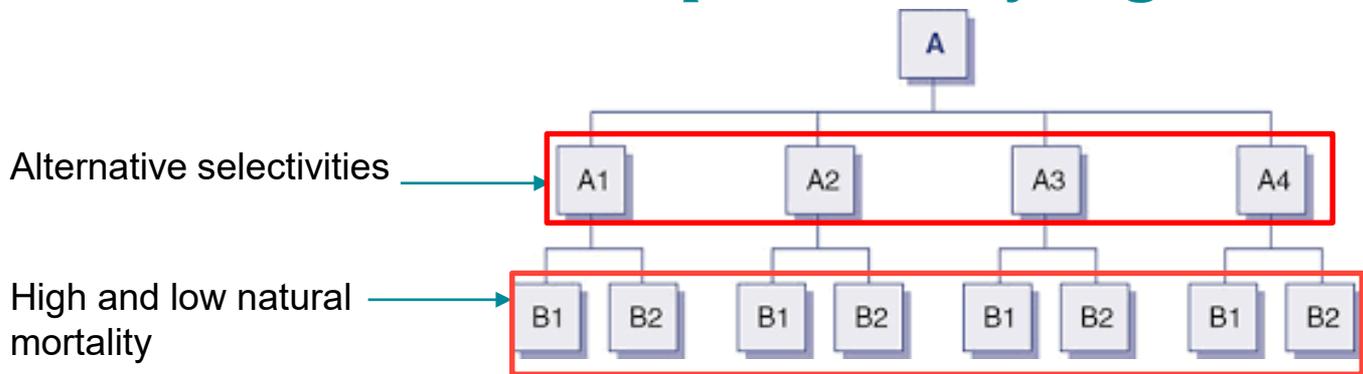
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Multiple stock structures cannot be carried through the rest of the research track for two major reasons:

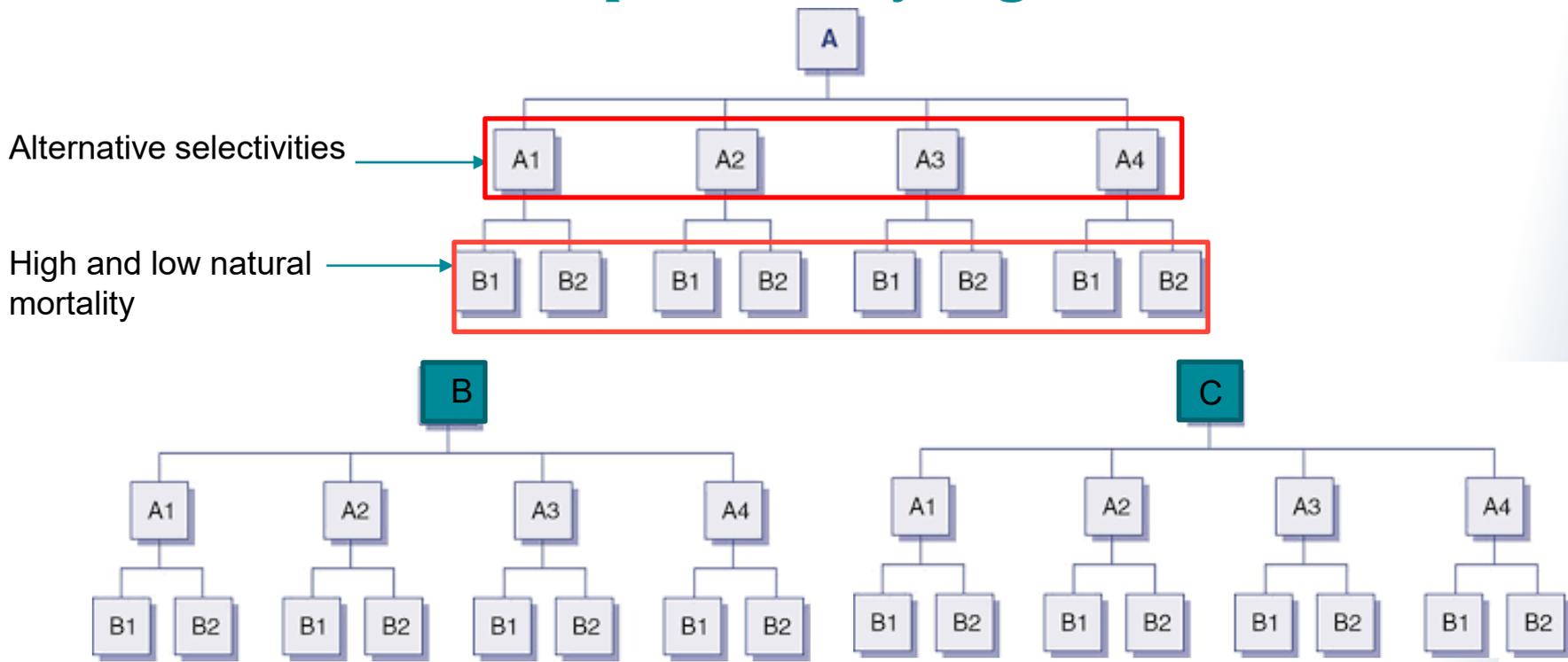
- Most importantly, there is no objective way to judge which model is best when the model structure changes:
 - Standard model comparison techniques (e.g. Information Criteria) require the same treatment of the data.
 - Changing stock structure tends to change the way data are used (different likelihoods, index configuration, etc.)
 - RT data are preliminary, and without final QA/QC'ed data, we cannot compare model diagnostics across varying stock structures.
 - Each stock structure may not be able to test the same hypotheses or use the same data, making them incomparable.
- Multiple stock structures creates a factorial design for the modeling team and data providers, creating an infeasible workload for the timeline of a research track assessment.



Carrying stock structure through the process creates an exponentially higher workload:



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Once the stock structure is decided via Panel consensus, multiple hypotheses can then be tested about the stock using:

- Indices
- Age and length composition data
- Catch and discard data
- Selectivity functions
- Retention assumptions
- Stock-recruit relationships
- Data weighting
- Published studies about topics such as larval transport, depredation, density-dependent mortality, etc.

Note: The RT framework allows for hypotheses to be tested using the data provided at the data workshop phase, based on the stock structure decided during Stock ID (or status quo, if Stock ID was not specified in the TORs).



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