TECHNICAL MINUTES

Review Group, Baltic Fisheries Assessment (WGBFAS)

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Present:
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1. GENERAL COMMENTS TO THE REPORT

1. There is a need for inter-sessional work on problems in the assessments. When problems are identified in the WG report, these should be addressed (or at least attempted) for the next year's report.
2. The stock weights should represent weight at spawning time. These can be interpolated from catch and/or survey weights.
3. The WG is encouraged to consider modeling the maturity data. This can include testing for annual differences in the proportion mature-at-age, and if the annual differences are not significant then use annually constant values. The maturities can also be modeled along cohorts.
4. Single fleet runs with all ages and years, runs for excluded fleets, and other important exploratory runs should be available in stock files, along with plots of catchability residuals. This is useful information for the review group.
5. Figures of CPUE and effort should be in the report, for all stocks.
6. Values for short-term forecasts in the ACFM summary sheets (i.e. standard graphs) should be marked.
7. The WG is encouraged to consider methods for pre-screening indices (e.g. Surba), many of which are outlined in the WGMG 2004 report.
8. Recruitment for projections should be based on the "standardized" method, which is the geometric mean for all years after a shift, if it exists, but not including the last year.
9. Details of computations need to be recorded so that the computations can be replicated in the future if required.
10. Tuning fleets should be presented with a discussion about the ages and years used.
11. The review group appreciated XSA-formulation comparison tables.
12. The WG is commended for dealing with unreported catch. The WG is encouraged to indicate the annual and overall level of misreporting for each stock, and also the precision with which the assumed raising factors are calculated.
13. Any exploration runs for appropriate settings etc. should be referenced in an update assessment.

1.1 Kattegat cod

1. The WG should describe why a medium-term projection was not conducted.
2. Why was there was no attempt for to quantify for discards? It seems desirable for the WG to attempt to deal with discards in a consistent manner.
3. Text on pg 70, end of Sec. 2.2.7. The 2000 and 2003 year class estimates are not similar in the 1Q IBTS survey.
4. No information is provided on the impact of allocating the Danish age compositions to all landings. The WG should investigate if there has historically been good agreement between the age compositions from Denmark and Sweden.
5. Sec. 2.2.11. There does not seem to be a good reason to re-evaluate Blim.
6. Are the zero's at age 1 in 2003 for the commercial cpue indices (in Table 2.2.10) correct?
7. The Stock Annex indicates that stock weights for ages 1-3 are usually derived from the Swedish 1st quarter IBTS survey but Section 2.2.3 indicates that the 2003 "IBTS survey data was not considered reliable". This rationale needs to be described.
8.

1.2 Cod in Subdivisions 22-24

1. The units in all tables need to be specified.
2. Table 2.3.4. The % for 2002 age 0 should be 100.
3. The WG is encouraged to review the historic weights-at-age calculations. The WG's approach of fixing recent stock weights in order to avoid biasing recent estimates of SSB is illogical. The approach ignores probably the

most accurate estimates of stock weights from recent surveys and ensures that any biases will be incorporated into SSB estimates for the most recent period which is of most concern to managers.
4. The rationale for the fleets used in the RCT analysis needs to be described, especially since some fleets are not used in XSA.
5. Although it is difficult to account for the impact that the BACOMA window will have on the selectivity used in short- and medium-term predictions, it will introduce extra bias in these forecasts.
6. The WG is asked to reevaluate the existing reference points, especially the appropriateness of present Bpa value, taken into account SSB/recruit plot.

1.3 Cod in Subdivisions 25-32

1. Age-aggregated CPUE information was not utilized in the analytic assessment. The WG is encouraged to explore ways (ICA, AMCI) to utilize this information.
2. The WG is encouraged to explore length-based approaches (e.g. CSA) for the analytic assessment.
3. There appears to be little value in producing a relative table like 2.4.28 (with TAC's identified!) compared to the standard forecast table.
4. The review group recognized that the change in survey occurred in 2001, and the anonymously high survey index occurred in 2002 (back-shift year 2001 in XSA). This suggests that the 2002 "outlier" may be caused by factors other than the change in survey.

1.4 Sole in Division IIIA

1. Recruitment for the projection should be based on the "standardized" method, which is the geometric mean for all years after a shift, if it exists (e.g. 1994-2002), but not including the last year.
2. In Sec. 3.10. A lack of a stock and recruitment relationship is not a reason to not do a medium term projection. Such a projection may be useful.
3. There is a potential danger in excluding CPUE sets with small catches, especially if the aggregation of the species changes over time.
4. The review group recognized that the levels of sampling have been variable and anticipate in the future that the precision of the age-compositions will be quantified (EU Data Directory), presented in the report, and used to assess the adequacy of the catch-at-age data.
5. It would be desirable to have fisheries-independent surveys, because the CPUE indices comprise a large portion of the catch, in which case the population estimates can be in serious error and yet the XSA fit may appear good.

1.5 Flounder

1. Missing inputs and outputs from the RCT3 analysis, and retrospective plots.
2. It would be useful to see runs with shrinkage values of 0.8, 1.0, and 1.5.
3. The XSA estimates of year class strength in 2000 seem reliable, and there is no reason to use different values, as suggested in Sec. 4.2.7.
4. Sec. 4.2.9 does not say much, and more detail is required.
5. The review group found the text table in Sec 4.2.6.2 to be very useful.
6. The WG should consider if the two indices in SD 24 and 25 can be combined using calibration data, if this data exists and is reliable.
7. If there are concerns about the effects of the gear conversion on age-specific catch rates, the WG should consider splitting the survey time-series as soon as a sufficient number of years exist under the new design to facilitate tuning.

1.6 Herring in SD 25-29, 32, excluding Gulf of Riga

1. Use the appropriate average (i.e. starting in 1988) for recruitment in the projection.

1.7 Herring in Gulf of Riga

1. A new fleet was introduced, and it should first be screened with a single stock XSA plus diagnostics. This holds regardless of the type of assessment.
2. The number of biological samples should be indicated, or referred to.
3. The WG should consider using less shrinkage. This is because the surveys seem to be OK and they should provide the basis for the assessment rather than the high shrinkage.

1.8 Herring in SD 30

1. The WG should give figures for effort and CPUE, like for sole in IIIA (see Figure 3.2-3.3 on pg 217-218).
2. Put the amount of shrinkage in the text table on pg. 357.
3. Why is high shrinkage used? Noise in catch data is not a good argument for high shrinkage. We acknowledge it was an update assessment.
4. The WG should show the "scaled-down" stock-recruit function used in medium term projections.
5. The WG is encouraged to re-examine the value used for M in the XSA.
6. The rationale should be described, or referenced, for using tuning data after 1994.
7. Sec. 2.4.6.2. The text on catchability at age 2 is incorrect. Also, a power model is used for age 1, but there are no CPUE indices at age 1.
8. In the next full (benchmark) assessment, try to resolve the different trends in residuals in the bottom and pelagic trawls. Both indices seem to be based on the same gear and are just sampling different parts of the water column, and combining the two series should be considered.

1.9 Herring in SD 31

1. The WG introduced tapered-weighting, but in a fashion that gives little effect; that is, a 20 year tri-cubic on a 10 year time series will result in very little change in the weighting.
2. For the next benchmark assessment, environmental effects on recruitment should be included.
3. The WG should include standard graphs in the report.
4. A power model is used for age 1, but there are no CPUE indices at age 1?

1.10 Sprat in SD 22-32

1. The WG is advised to try shrinkage at 1.0 and 1.5 in next full assessment.
2. The WG is encouraged to examine the independence of the two acoustic surveys.
3. The WG should check if the stock-recruit model estimates in Figure 7.10 are "transformation-bias" corrected.