

## ADVANCES IN STATISTICS, ASSESSMENTS, MODELLING AND SURVEY METHODS

### WG-SAM advice

2.1 Dr Constable (WG-SAM Convener) presented the report of WG-SAM (Annex 4), noting that most of the report was referred to WG-EMM and WG-FSA for consideration. Dr Constable thanked participants of WG-SAM for their contributions to the meeting, noting that the presence of new participants this year had facilitated useful discussions and progress in the development and review of new methods.

2.2 In endorsing the report of WG-SAM, including its advice summarised in Annex 4, paragraphs 8.1 to 8.9, the Scientific Committee thanked Dr Constable for convening WG-SAM, and thanked all participants in the Working Group for assisting in developing a flexible approach to its work.

### Acoustic survey and analysis methods

2.3 The Scientific Committee thanked the Convener and participants in SG-ASAM for their work estimating krill biomass from a reanalysis of acoustic data collected during the CCAMLR-2000 Survey, noting that SG-ASAM had corrected errors in input files and code, developed new procedures to improve the parameterisation of krill shape and estimation of the orientation distribution of krill, and included a corrected computation of weight/length/TS conversion factors.

2.4 The Scientific Committee endorsed the work of SG-ASAM in revising the methodology for estimating krill biomass (Annex 5, paragraphs 2.40 to 2.44), noting that WG-EMM had also endorsed the finding of this report (Annex 6, paragraph 2.62) and agreed that further consideration of the outcomes of SG-ASAM, in particular the subsequent consideration by WG-EMM, would be further considered under Item 3(i)(b).

2.5 The Scientific Committee endorsed the recommendation of SG-ASAM that application of the full version of SDWBA is preferable to the simplified version for future analyses of acoustic surveys of krill biomass. The Scientific Committee encouraged progress on calculating a probability density function to characterise uncertainty in biomass estimates calculated using these methods, but noted that this is likely to be a complicated task.

2.6 Australia, UK and the USA reported to the Scientific Committee their intention to apply the methods agreed at SG-ASAM to the reanalysis of surveys in Area 58 and Subareas 48.3 and 48.1 respectively. The Scientific Committee welcomed this information, noting that it would lead to a revision of advice on krill biomass and sustainable yield.