

5. Climate-related Marine Ecosystem Change (Chapter 5.b)

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- 5.1. Background: BACC I –review: what's new since then? (Viitasalo)
- 5.2. System-level variations in the past (Blenckner)
 - 5.2.1. Causes and consequences
 - 5.2.2. Climate-induced changes or not?
- 5.3. Classification of climatic effects (Viitasalo and The Group)
 - 5.3.1. Individual-level and physiological responses to climate-induced environmental change
 - 5.3.2. Species- and population-level responses
 - 5.3.3. Food web and system-level mechanisms
- 5.4. Modelling approaches to climate change – a review of performance and reliability of ecosystem models (Gårdmark)
- 5.5. Manifestations of climate change in the different ecosystem compartments
 - 5.5.1. Pelagic ecosystem (Lindegren, Blenckner & Olli)
 - 5.5.2. Deep benthic ecosystem (Norkko)
 - 5.5.3. Sublittoral ecosystem (Kautsky)
 - 5.5.4. Winter ecosystems (Kuosa)
- 5.6. How does climate change affect biogeochemical cycles? (Wikner)
 - 5.6.1. Pelagic-benthic coupling and the vicious cycle of internal loading
 - 5.6.2. System changes in the different Baltic Sea basins
- 5.7. Effects of climate change on the highest trophic levels (Lindegren)
- 5.8. Biodiversity in the Baltic Sea – how does the climate change affect it? (Olli)
- 5.9. Question of regime shifts (Blenckner)
- 5.10. Summary of system level effects of climate change (The Group)
 - 5.10.1. Conceptual model
 - 5.10.2. Gaps in knowledge and recommended future studies
- 5.11. Policy-relevant effects of climate change on the marine ecosystem (Blenckner)