3. Recent (mainly 200 years) and current climate change

3.b Baltic Sea

ii. Marine biogeochemistry *Bernd Schneider*

Introduction:

The carbon cycle as a control for the cycling of elements (O_2, N, P, Si, TM).

1. Present knowledge and gaps

1.1 External forcing

- Nutrient inputs
- Atmospheric CO_2
- Organic and inorganic carbon input via rivers

1.2 Internal cycling

- Stoichiometry of organic matter production/decomposition
- Oxidation of organic matter (denitrification, sulfate reduction, methanogenesis)
- Phosphate chemistry

2. Reconstruction of the past

- Historical data
- Sediment cores

3. Scenarios for the future development

- Changes in the external forcing
- Oxygen depletion and anoxia
- Acidification
- CO_2 atmosphere/sea balance