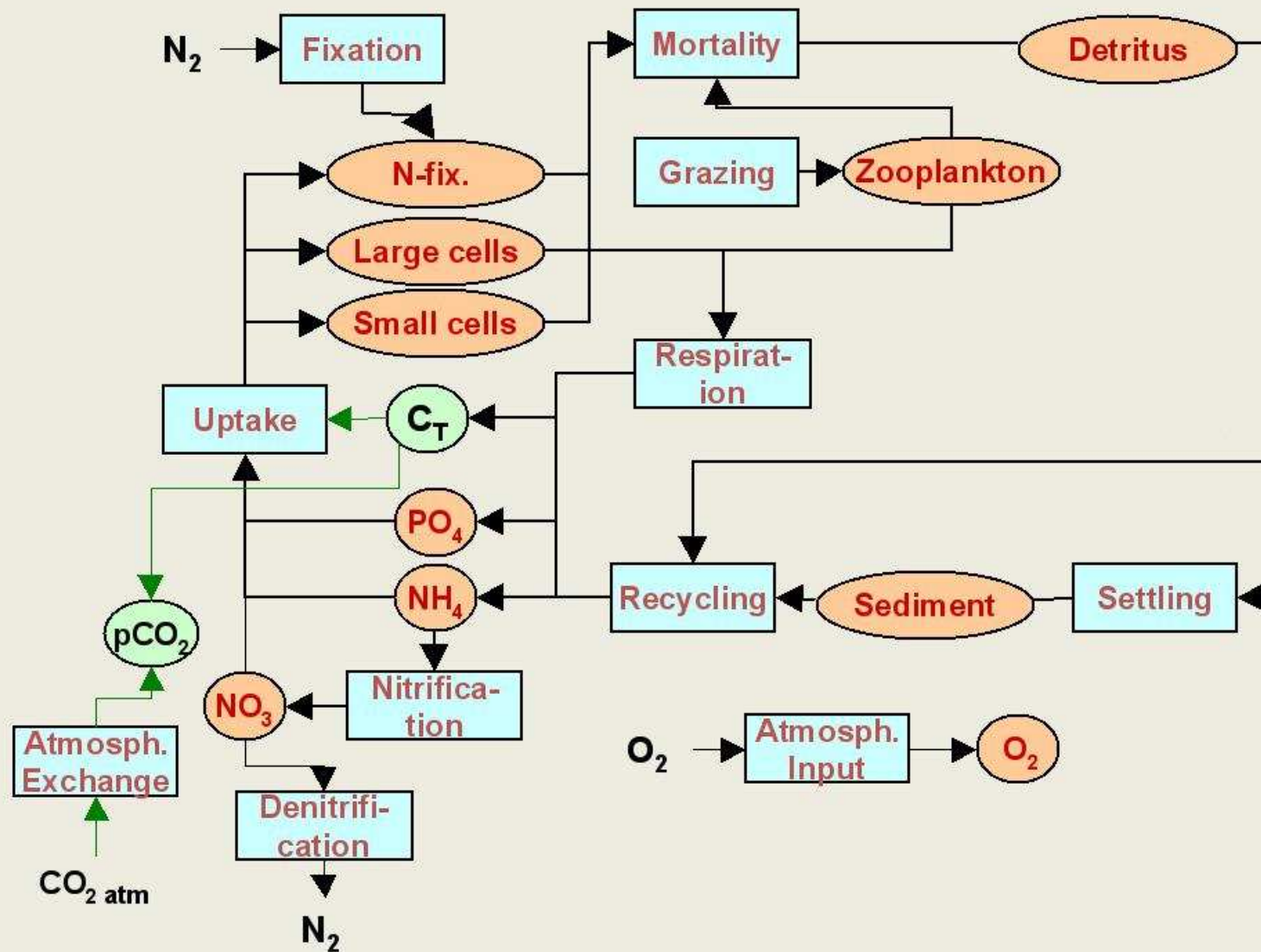# Simulation of the carbon cycle in the Baltic Sea.

MOM+ERGOM application

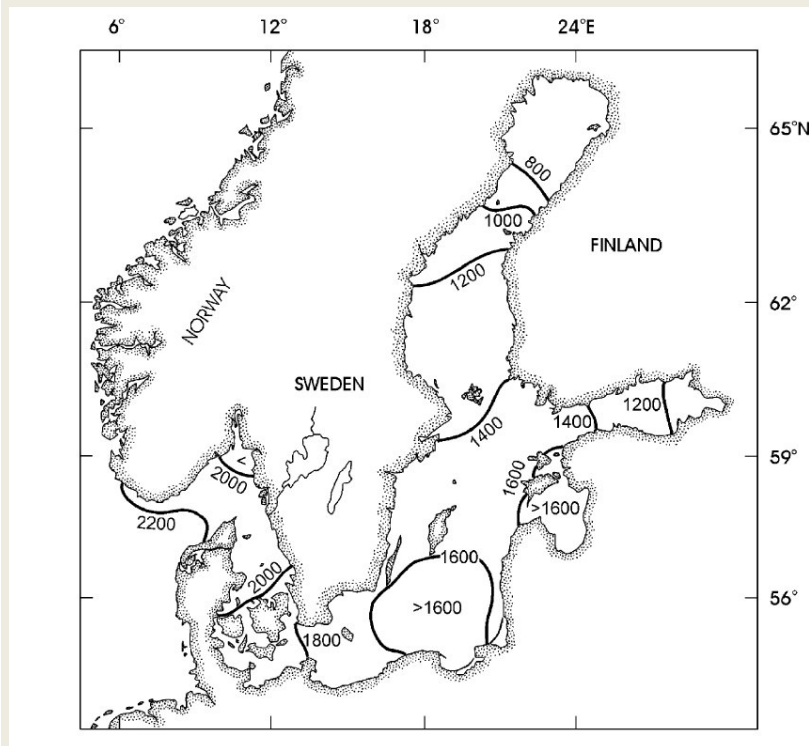**Ivan Kuznetsov, Thomas Neumann.**
Leibniz Institute for Baltic Sea Research Warnemünde (IOW).

The marine ecosystem in changing climate - on the added value of coupled climate-environmental modeling for the Baltic Sea

LEIBNIZ-INSTITUT FÜR OSTSEEFORSCHUNG WARNEMÜNDE

ERGOM model + simple carbon cycle
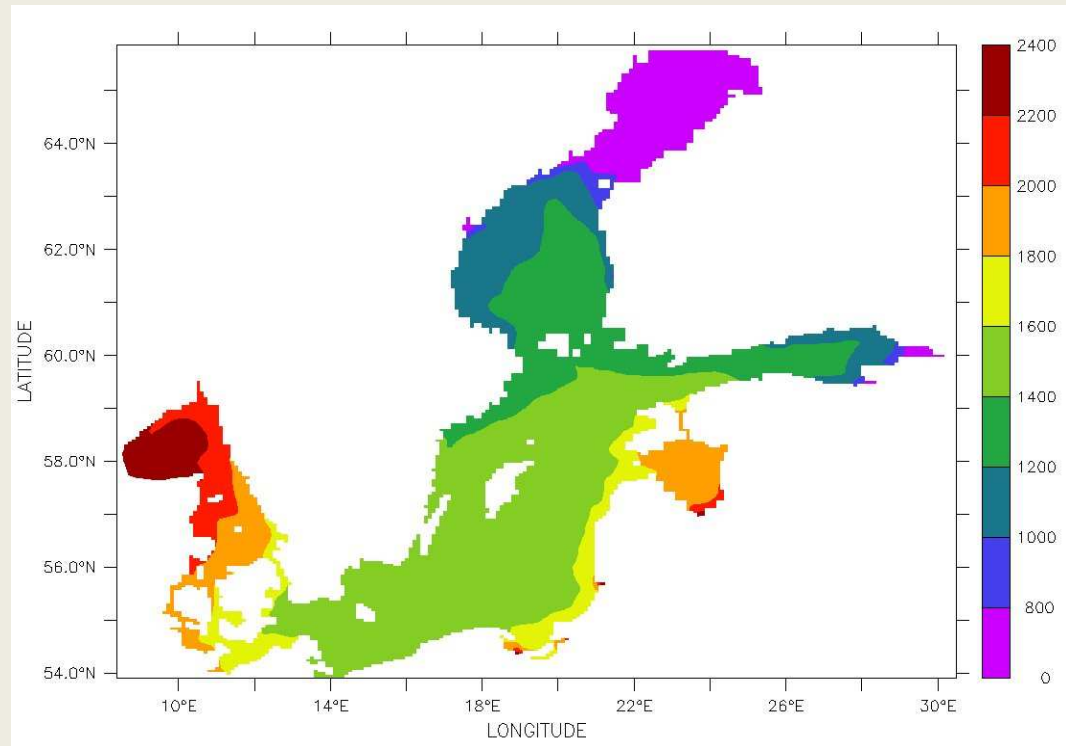
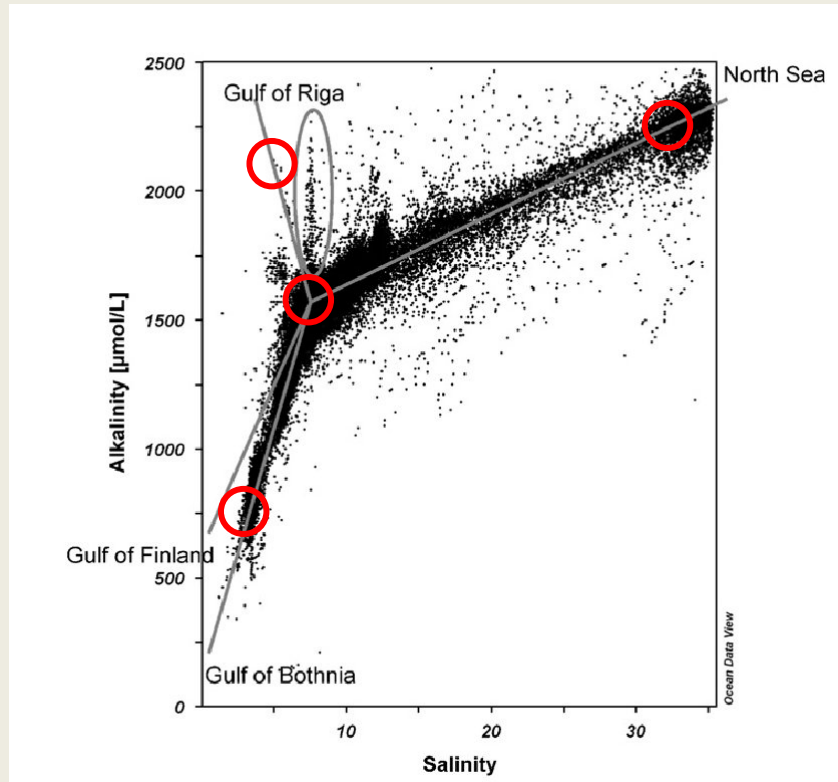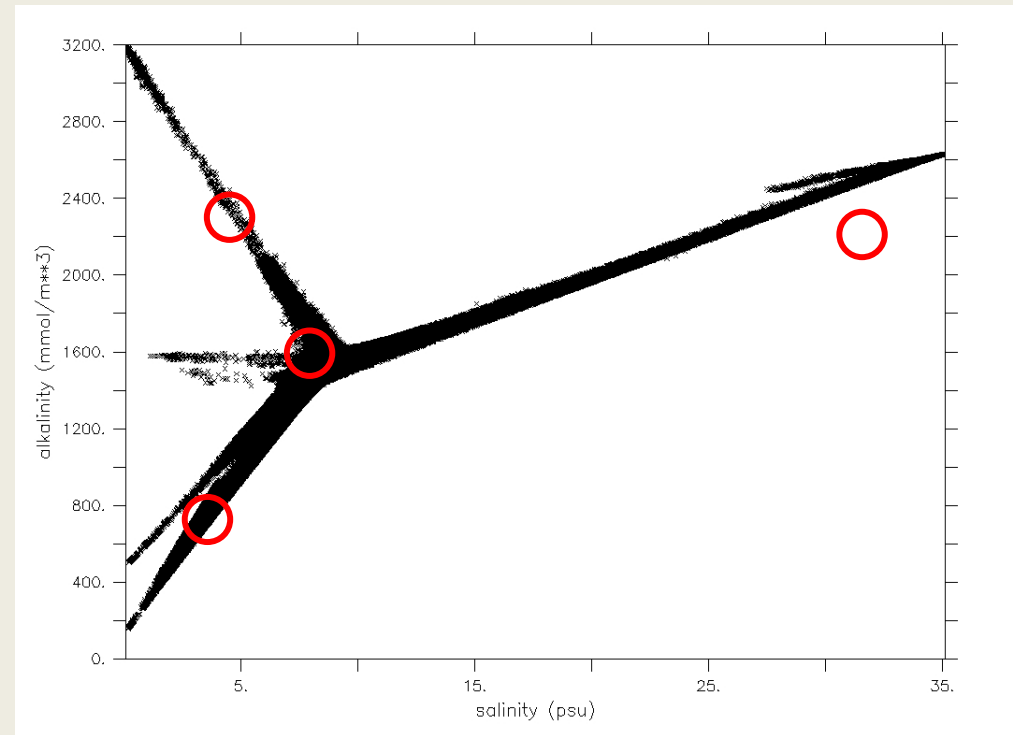
Time averaged surface alkalinity

Rodhe, 1998
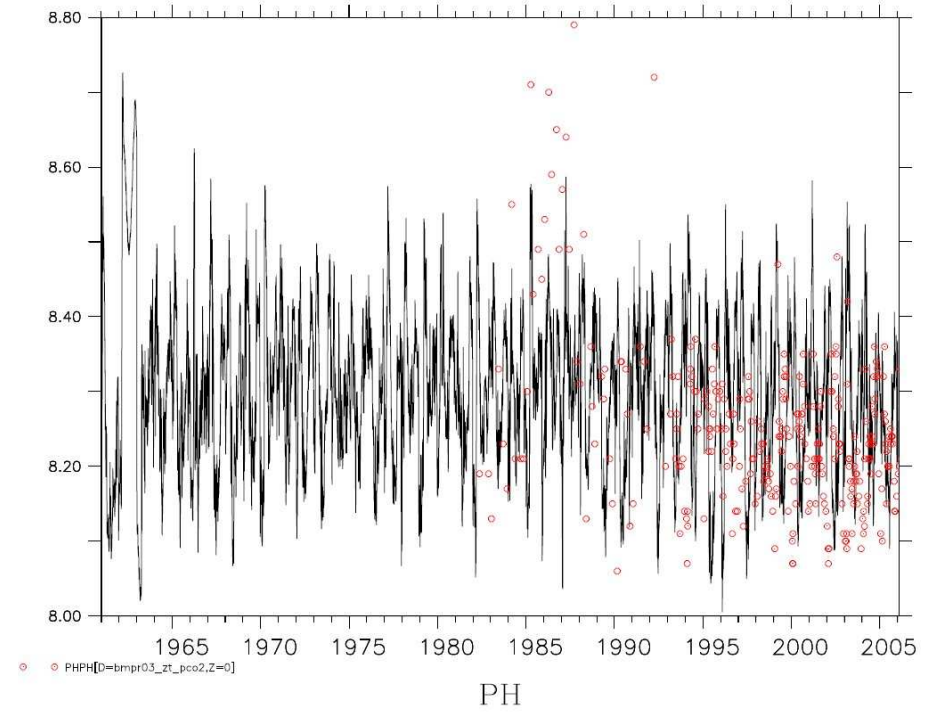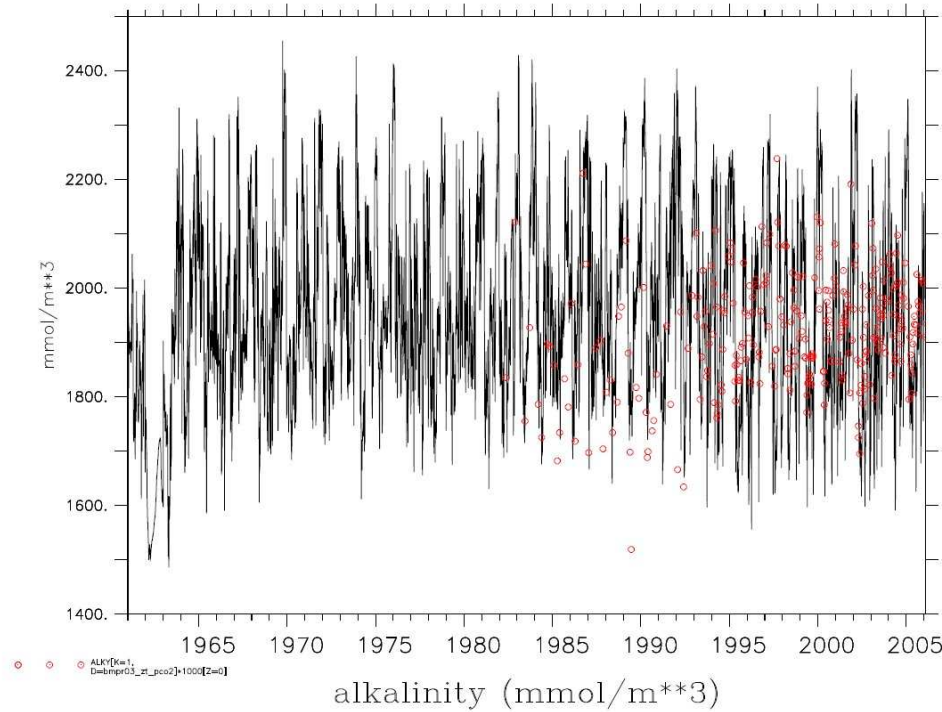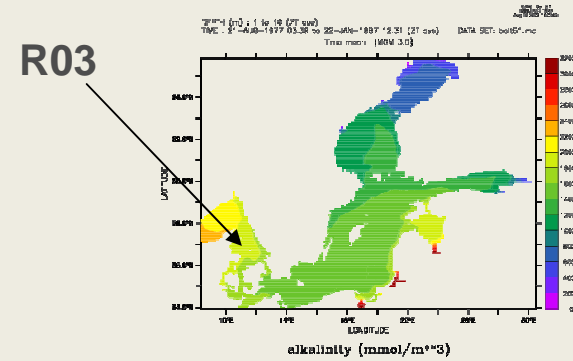
simulation results
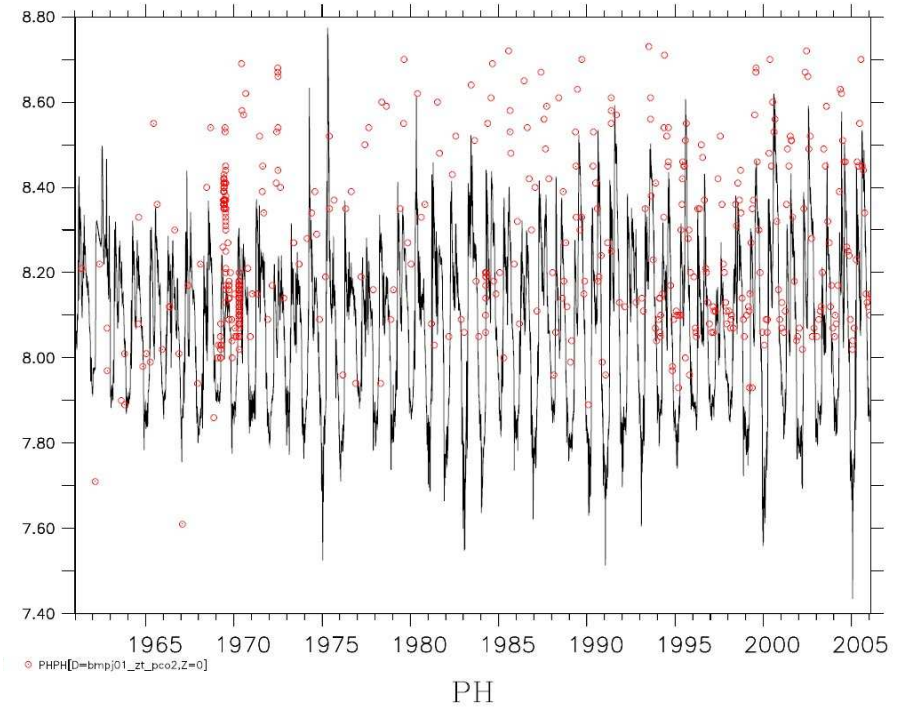
Alkalinity salinity diagrams

Hjalmarsson et al., 2008

simulation results

Surface alkalinity and pH, R03

R03

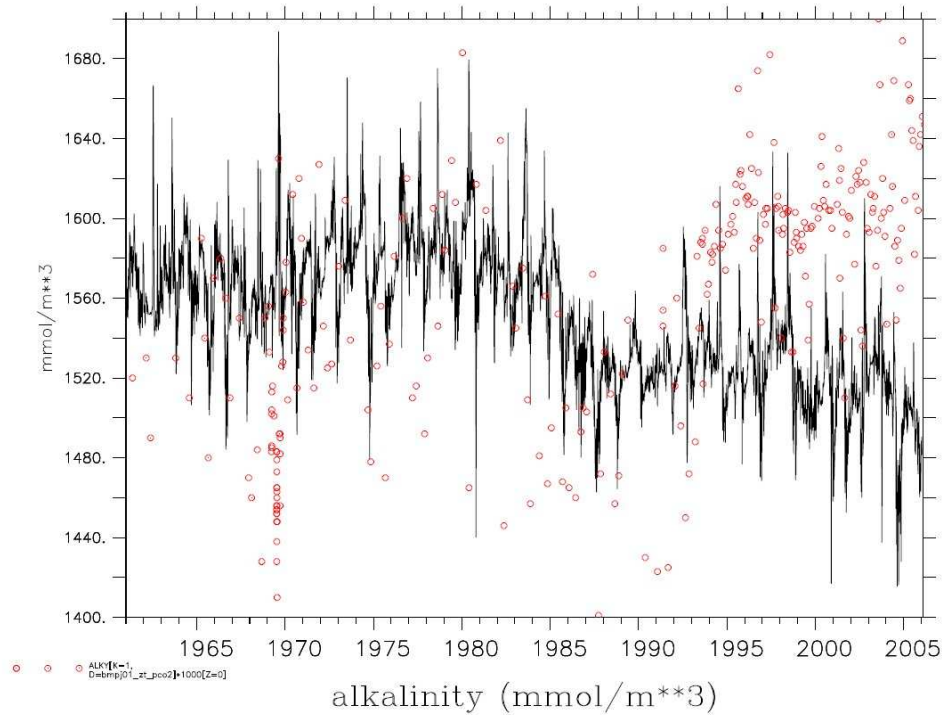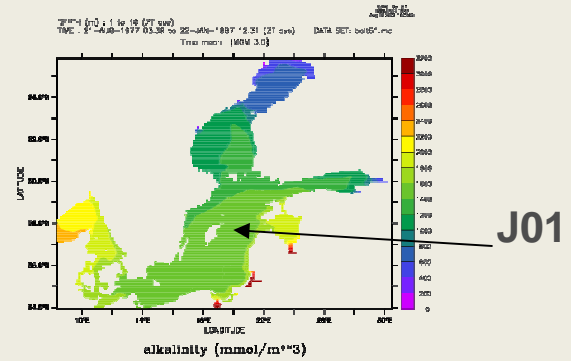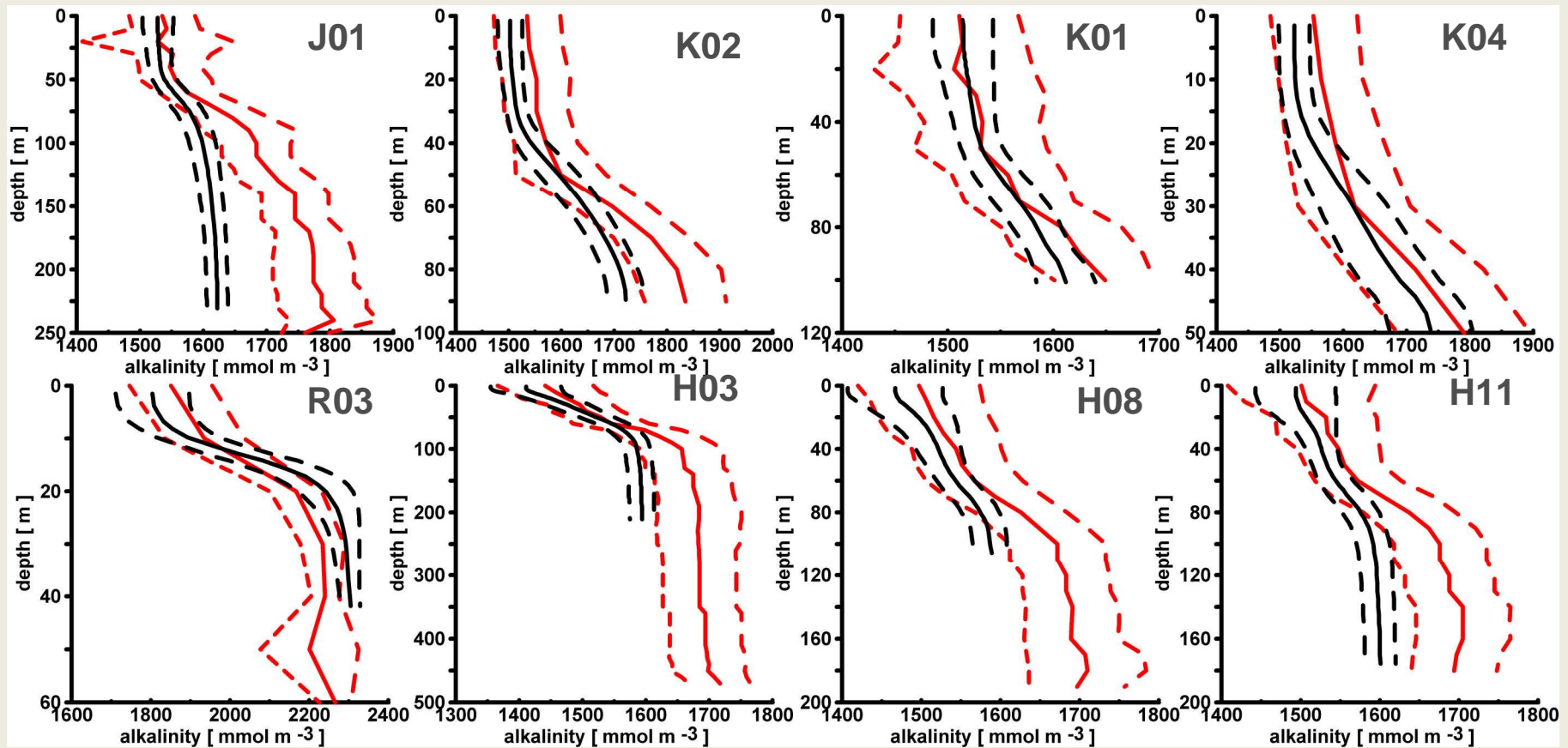alkalinity (mmol/m**3)

alkalinity (mmol/m**3)

PH

Surface alkalinity and pH, K02

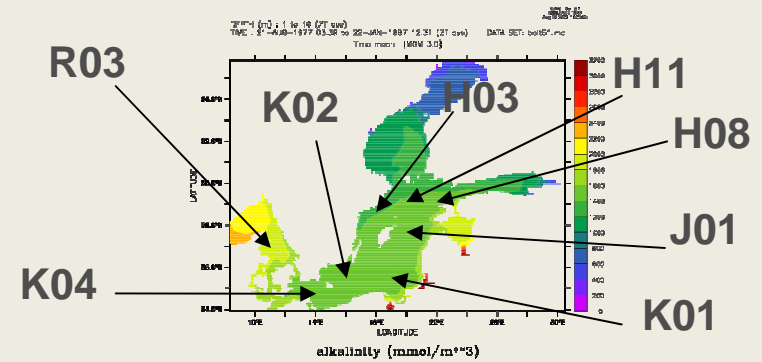## Surface alkalinity and pH, J01

J01

alkalinity (mmol/m**3)

alkalinity (mmol/m**3)

PH

Time averaged alkalinity vertical profiles
Black – simulation results
Red - observations

Surface alkalinity
Black – simulation results
Red - observations