



GÖTEBORG UNIVERSITY
Faculty of Science

Presentation of
FjordEnv and MOM
ECASA Stakeholder
Meeting, September 19,
2007, Heraklion, Crete

Anders Stigebrandt
Oceanography/Dept of Earth Sciences
Göteborg University
anst@oce.gu.se

The Norwegian MOM system

Modelling-Ongrowing fish-Monitoring system

The holding capacity is estimated with respect to three basic environmental requirements:

- The benthic fauna at a farm site must not be allowed to disappear due to accumulation of organic material; (Farm scale - A)
- The water quality in the net pens must be kept high; (Farm scale - A)
- The water quality in the areas surrounding the farm must not deteriorate. (Regional scale - B)

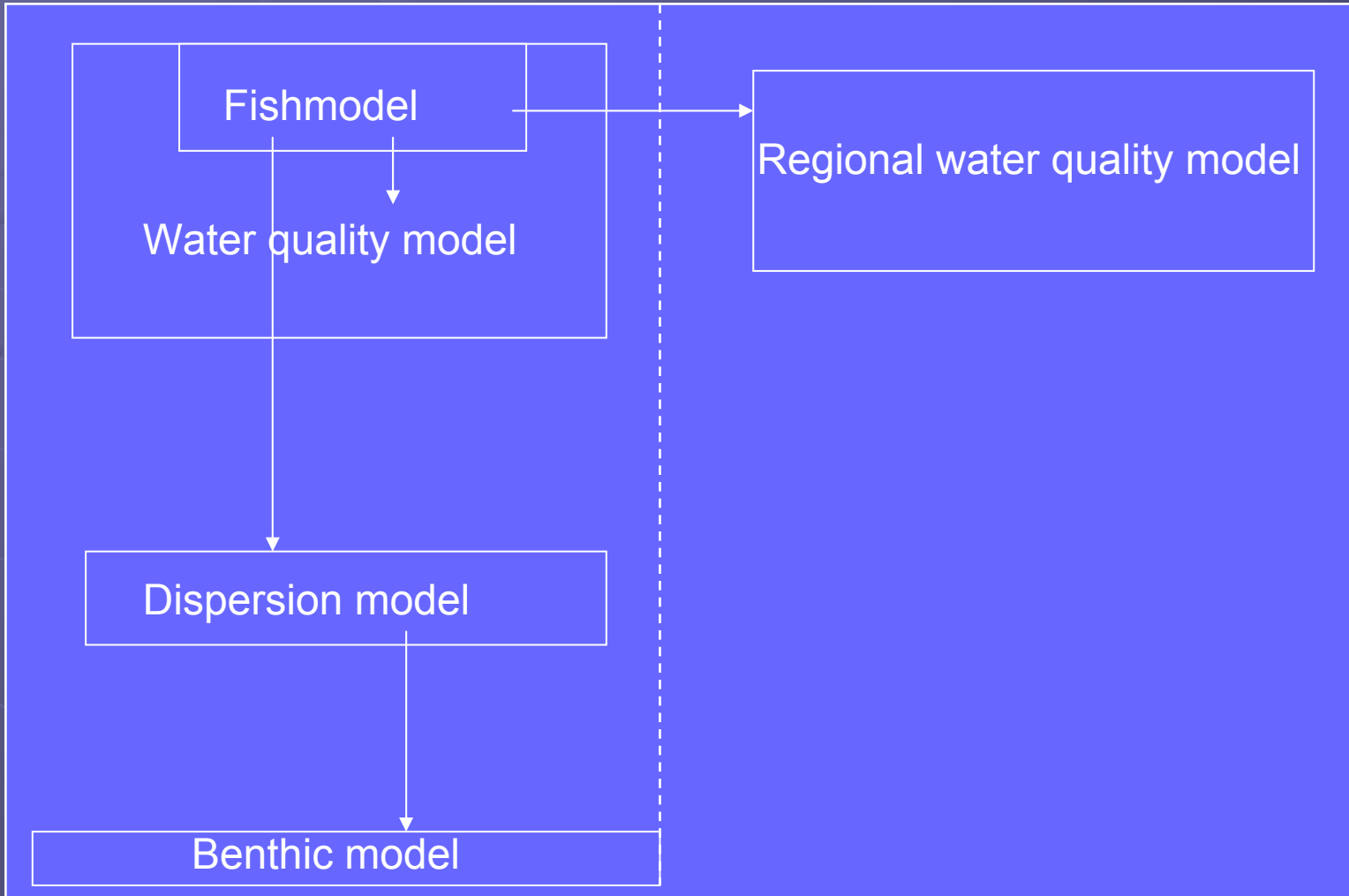
All three requirements must be fulfilled, and **the holding capacity is determined by the lowest of the three estimates.**

Local effects

MOM

Regional effects

FjordEnv



MOM - (Farm scale - A)

The MOM model computes fish respiration, oxygen and ammonium conditions in the cages and the maximal loading of organic matter on the bottom beneath the farm with living fauna.

FjordEnv - (Local scale – B)

Computes how fish farming affects a fjord (RRE)

Increased oxygen consumption in the deepwater
increased primary production in the surface layer

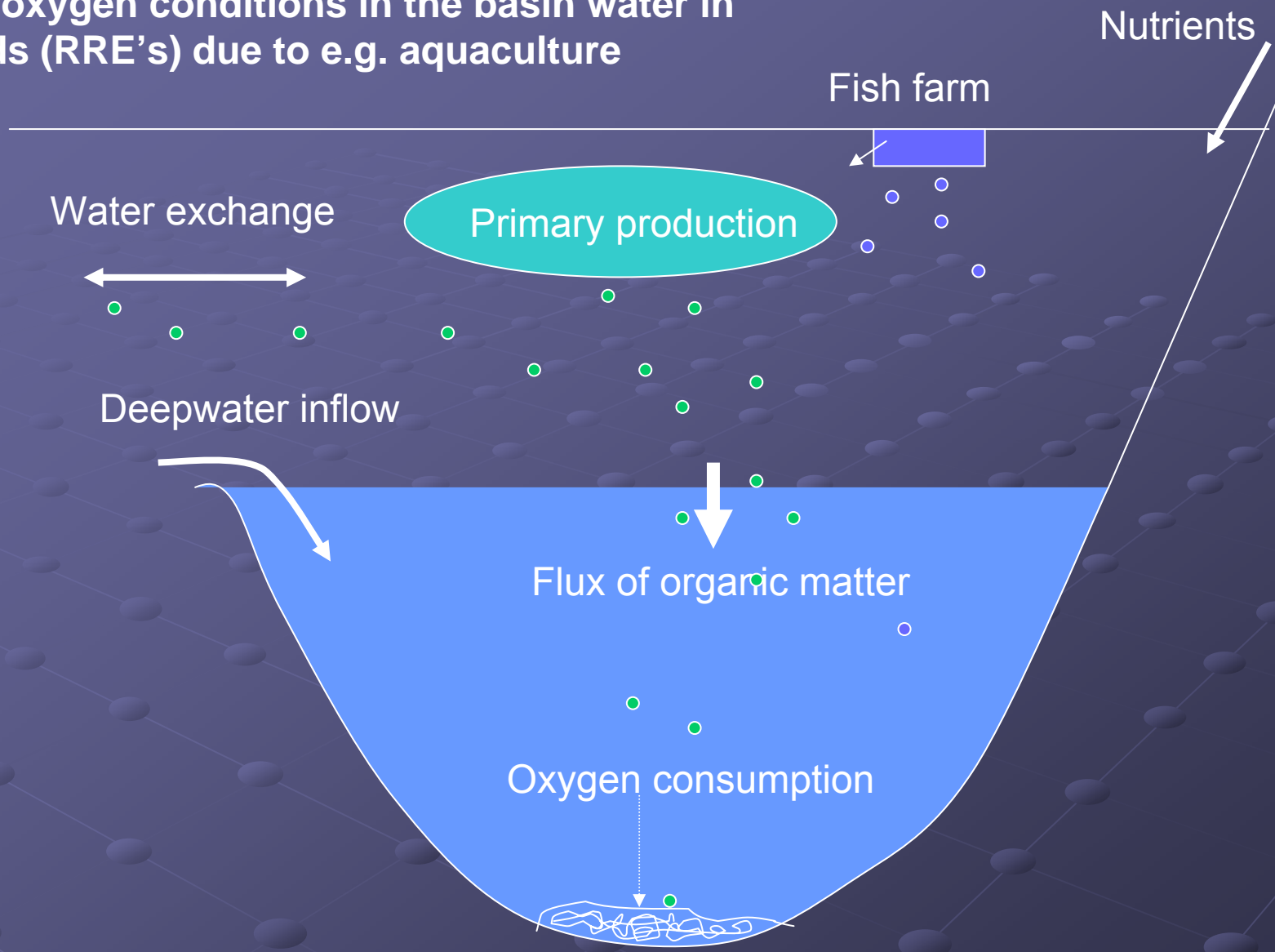
Models so far mainly used for screening purposes

Both models provided by:

www.Ancylus.net

These models have been developed in co-operation with the Institute of Marine Research, Bergen, Norway

FjordEnv – computes changes in Secchi depth and oxygen conditions in the basin water in fjords (RRE's) due to e.g. aquaculture



Simulation with the MOM model

