



BALTEX Survey on

Biogeochemical Modelling Activities in the Baltic Sea Basin

Model Name	CN-REcoM (Carbon-Nitrogen Regulated Ecosystem Model)
Model Description	Model with focuses on carbon and nitrogen decoupling; model exists in different configurations; includes exudation of polysaccharides and the coagulation of polymers; model includes air-sea exchange of CO ₂
State Variables	DIC, TALK (total alkalinity), DIN, PhyN, PhyC, residual labile DOC, polysaccharides (PCHO), carbon content of transparent exopolymer particles (TEPC), HetC, HetN (Microzooplankton+bacteria), DetC, DetN (detritus). Approx., 15 free parameters (subject to optimisation or tuning)
On a scale between 1 and 10, please classify your model	1 Biogeochemical cycling, matter fluxes 2 3 4 5 6 7 8 9 10 Ecosystem functioning
Dimension (0D, 1D, 2D, 3D)	0D configuration for mesocosm simulations 1D configuration for open ocean simulations (local sites) 3D configuration for Southern Ocean; global version (2 Degree resolution)
Modeled Area (Marine, terrestrial, combined)	marine
Coupled to hydrological component	Yes, one version is coupled to MIT-GCM
Suited for climate change sensitivity studies	Yes; suited for CO ₂ (pH) and temperature sensitivity studies
Publications	Schartau et al. (2006), submitted to Biogeosciences Modelling carbon overconsumption and the formation of extracellular particulate organic carbon
Institute	GKSS Research Centre Geesthacht, Institute for Coastal Research & Alfred Wegener Institute Bremerhaven
Developer, E-Mail	Prime: Markus Schartau (CN-REcoM, REcoM&Dia, REcoM&Co) Soenke Hohn (AWI) = REcoM&Dia (advanced) Martin Losch (AWI) = REcoM&Dia Christoph Voelker = REcoM&Dia, CN-REcoM (global scale)
Web Site	No
Remarks	Only one model version (CN_REcoM) is ready for publication (2006); other model versions are under development (model refinements)