



BALTEX Survey on

Biogeochemical Modelling Activities in the Baltic Sea Basin

Model Name	GOTM-BIO (GOTM: General Ocean Turbulence Model)	
Model Description	GOTM is a water column model focussing on vertical mixing. An archive of state-of-the-art turbulence closure models is provided for this. The biogeochemical module is based on Neumann et al. 2002, and is coded in such a way that it can be incorporated into 3D models (Burchard et al. 2006)	
State Variables	Nitrate, ammonium, phosphate, dinoflagellates, diatoms, cyanobacteria, detritus, oxygen, zooplankton, sediment detritus	
On a scale between 1 and 10, please classify your model	1	Biogeochemical cycling, matter fluxes
	2	
	3	
	4	
	5 x	
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	8	
	9	
	10	Ecosystem functioning
Dimension (0D, 1D, 2D, 3D)	1D	
Modeled Area (Marine, terrestrial, combined)	Baltic Sea (Gotland Basin)	
Coupled to hydrological component	No	
Suited for climate change sensitivity studies	Yes	
Publications	Burchard H, Bolding K, Kühn W, Meister A, Neumann T, Umlauf L (2006) Description of a flexible and extendable biogeochemical model system for the water column. J Mar Sys 61: 180-211.	
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Remarks		