

PAR

MLD

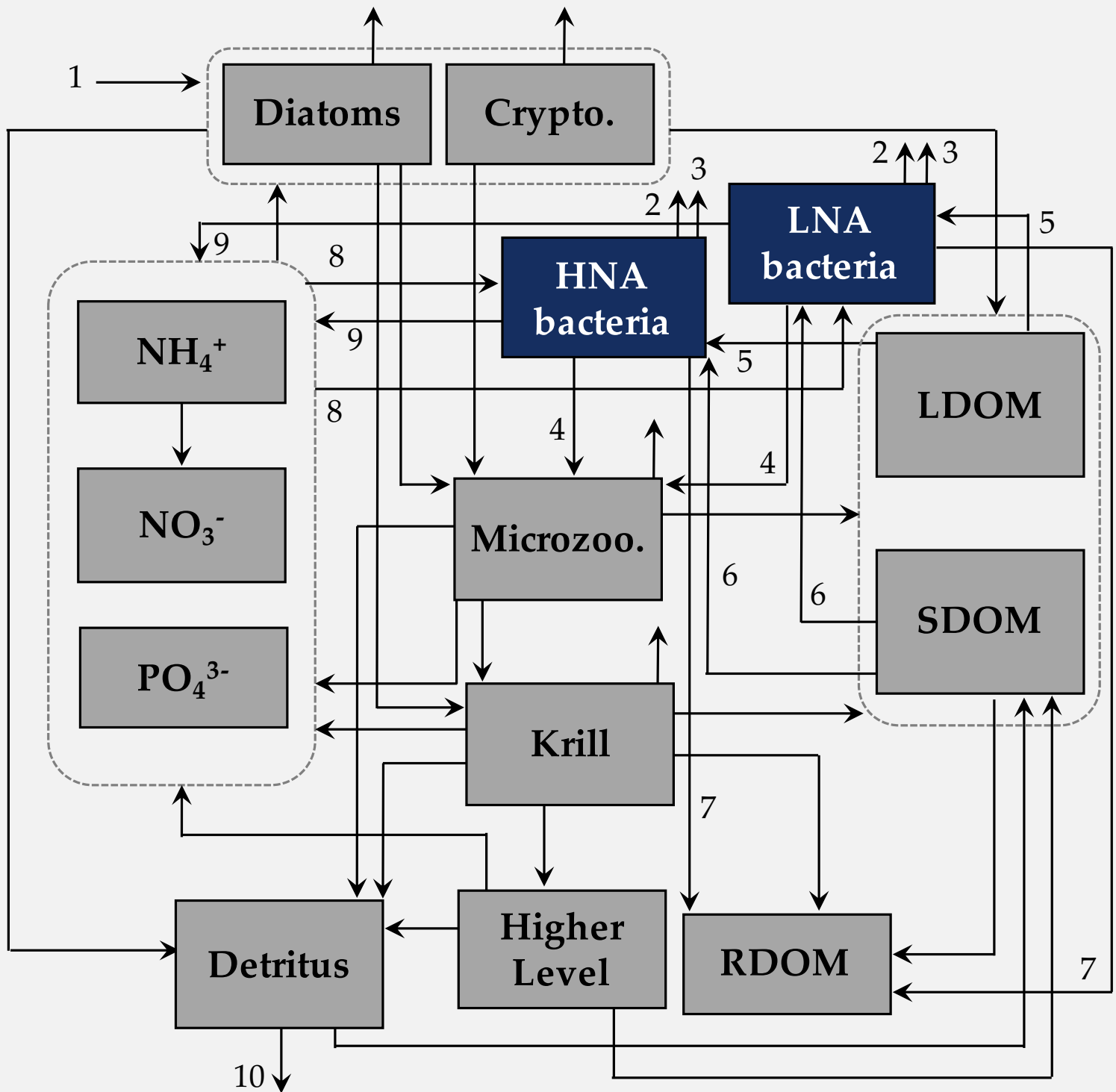
Sea ice

Temperature

Eddy  
diffusivity

↓ Physical forcing

Bacteria-oriented ecosystem model (modified from WAP-1D-VAR v1.0)



PAR: photosynthetically active radiation, MLD: mixed layer depth,

Crypto.: cryptophytes, Microzoo.: microzooplankton, LDOM: labile dissolved organic matter (DOM), SDOM: semi-labile DOM, RDOM: refractory DOM (implicit), Higher Level: higher-level zooplankton (implicit)

1: Primary production, 2: Respiration, 3: Viral mortality, 4: Grazing, 5: LDOM uptake, 6: SDOM uptake, 7: Excretion, 8: Nutrient uptake, 9: Regeneration, 10: Particle sinking flux