a

PAR

Ocean Surface

T_{MLD}

light & temperature dep. growth

N —uptake→ P —grazing→ Z —higher order predation→

mixing

mixing

sloppy feeding

mortality/excretion

mortality/excretion

mixing

D

remineralisation

sinking

mixing

Mixed Layer

MLD

Deep Ocean

N_0

mixing

b

N_0

inflow

N —uptake→

mortality

egestion

P_1 P_2 P_3 $\cdots$ P_i

size-selective grazing
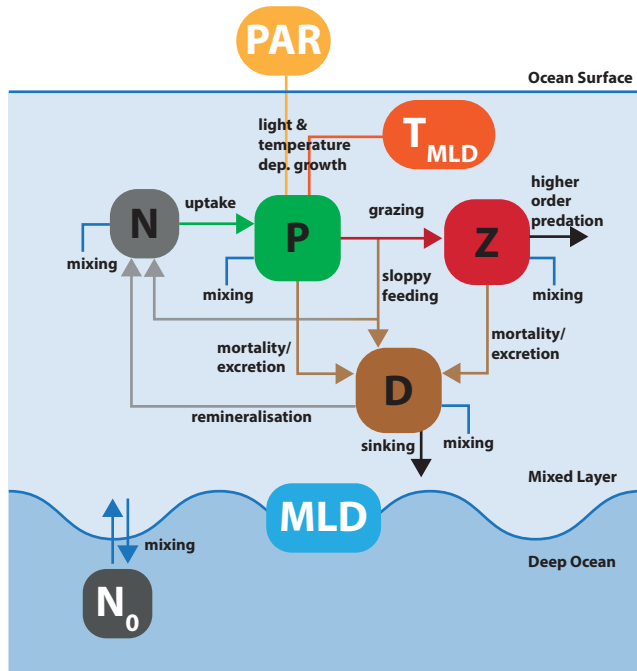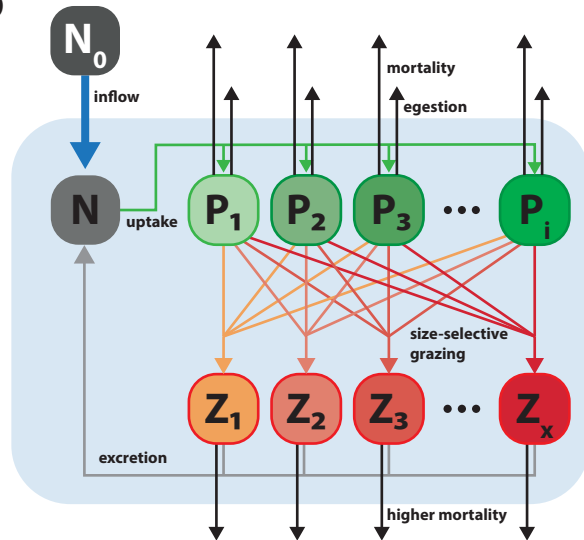
Z_1 Z_2 Z_3 $\cdots$ Z_x

excretion

higher mortality

Model is contained in blue box, outfluxes are lost from system