

## Mysis modeling brainstorm:

Variables:

Time	=	$t$
Average solar radiation	=	$a$
Thermocline's distance from surface	=	$d$
Calories ( $c$ )	=	if migrating: $+\omega$ else: $-\epsilon$

Migrate Desire Model equations:

Mysis engrained desire to migrate:	$M(t) =$	$C_1$ (assuming resolution of a single day)
Pressure not to migrate from light levels:	$L(a) =$	$C_2 \log(a)$
Pressure " " from thermocline depth:	$D(d) =$	$C_3(d)$
Hunger:	$H(c) =$	$c_4 e^c$

Total Mysis model:

Migrate or Not	=	$MoN(t, a, d, c) = M(t) - L(a) - D(d) + H(c)$
If ( $MoN(t, a, d, c) > \alpha$ for day)	=	migrate

A large number of Mysis will be initialized with randomly permuted starting conditions and run through an arbitrary amount of time (say a year). Their migration patterns will be visualized, from this visualizations patterns in migration will be come apparent.