Project notes

August 8, 2019

* Model runs on a monthly timescale. We are focusing on a deterministic version for this paper, trying to understand how the combination of seasonal food availability and temperature stress on metabolism affect growth and reproduction.
* Prior versions of this model, which need to be re-run to provide a convincing baseline, suggest that delaying reproduction is never evolutionarily advantageous when limits on reproductive capacity are not imposed (IE restricting reproduction to a function of body size).
* Parameters are still being tuned to be appropriate for monthly timescales. So asymptotic growth and the fecundity exponent of 3 are goals. Delayed reproduction (maturation) is the stretch goal.
* This run is once again relaxing that constraint (reproductive limit = 100% of structural energy content; prior runs had limited that to 20%). But assessing the role of seasonal variability in affecting emergent growth and reproduction.