Notes on this paper:

* Modeling as an individual-based thing or as a collective thing
* What are we modeling?
  + You’re a male in a species with two strategies: A and B
* Building blocks of the model:
  + population, and model terms for:
    - Total # in the population (carrying capacity)
    - Sex ratio: F : M
    - Ratio of male phenotypes M1:M2
  + Environment
    - Resource levels
      * “male type” resources vs “female type” resources or
      * 2 models:
        + 1 continuous, 1 bimodal?

Starting with bimodal

* + - * What are the relative sizes of the resources? Big males need MORE resource? Different kind?
  + Genetics???
    - Do we HAVE to set up genetics for this? Should we?
    - Dominance vs recessive?
      * Vary the “choices” heterozygotes have: like dominance with incomplete penetrance (100% go to sneaker, 95% to sneaker, 75%, 50%, 25%, 5%, 0%)
        + First case:
    - Is this autosomal?
    - Y linked?
    - QUESTION: survey the literature on the genetics of ESS
    - CASE 1:
      * Genetic, no switching
      * Focus on this FIRST.
    - CASE 2:
      * Environmental, no switching
      * Possible thing to focus on?
    - CASE 3:
      * Environmental, switching with cost
  + Resource depletion and renewal (survival)
  + Reproduction (mating success)
    - Mating success vs
  + At each time step, pull out:
    - Allele frequency
    - # males in each genotype
    - Summary values for each run:
      * Did something fix?
        + If so, what allele?
        + When?
* Parameters to vary:
  + Reproduction differential
  + Initial resource levels matter—is there an equilibrium
  + Resource depletion and/or renewal
  + Initial # of sneakers/male strategy ratio
  + Genetic penetrance