NetLogo & R: Assignments

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Assignment I

- Open the 'Correlated Random Walk' model (corrRandWalk.nlogo)
- Familiarize yourself with the model
- Observe the 'turtle diffusion'
- Describe the diffusion with **R-extension**
  - Descriptive statistics
    - e.g. `mean()` over time, `sd(), ...`
  - Is diffusion normally distributed?
    - e.g. `hist(), qqnorm(), qqline() and shapiro.test(), ...`
  - Visualize the diffusion with R
    - e.g. `plot(), smoothScatter(), ...`

Assignment II

Investigate *habitat connectivity* c_{ij} - i.e. the probability that an individuum, started a habitat i, reaches habitat j.

- Formulate a hypothesis about how *distance to habitat* is related to *habitat connectivity*
- Design an experiment to test it
  - run it both with **BehaviorSpace** and **RNetLogo**
- Do the results support your hypothesis?