Road Test Simulations

If you plan on running simulations with obstacles such as roads and plotting their results, you will need to run BehaviorSpace experiments in a different way. The steps below outline how a simulation could be run for testing the impact of future road construction on the spread of worms over the region.

1. Create a simulation directory named “defaultRun” and fill it with all the original GIS data and parameter tables required for a normal simulation

Tip: It is recommended to keep a ‘default’ directory at all times for control purposes and as backup

1. Create a copy of the default simulation directory and name the new one “roadTest” (we will edit this to create a map with roads)
2. Start the program and type in “roadTest” in the *save\_name* box
3. Click Initialize, Load GIS then Save Environment
4. On the top (next to the speed slider) change updates from *on ticks* to *continuous*
5. Under *Environmental Controls* click Draw to begin drawing
6. Click on the *change* dropdown menu and select *highway*
7. Using your mouse, draw roads where desired on the map

Note: Draw slowly; otherwise you will see gaps in the road

Tip: At any point if you need to reset the map, click on Load Environment

1. Click on Draw again to stop drawing
2. Click Save Environment
3. From *SpeciesControl,* add worms and click Save
4. Type in “defaultRun” in the *save\_name* box
5. Click Initialize, Load GIS then Save Environment
6. Add worms and click Save

Tip: Adding worms in the same place as in roadTest will allow for a better comparison

1. Open BehaviorSpace
2. Create a new experiment and name it as desired
3. In the Vary variables… text box, enter (with quotations)

[“save\_name” “roadTest” “defaultRun”]

Note: Changing “save\_name” allows the user to run different simulations from their respective directories. This experiment will run roadTest first and then defaultRun separately.

1. Make sure the Setup Command is *setup\_bs* and click Ok
2. Run the simulation and plot it as previously described steps