



Guppy Settings		Predators		Run Model	
Init-Guppy	200	Num_Pike	0	Run_Time	50000
Freq-spots	0.5	Num_Rivulus	0	Setup	Go
Mutation	0.0015			Generations	0
Fem_Pref	0			# Guppies	200
				Sex Ratio F:M	1.04
				Ave # Spots	5.15
				St. Dev. Spots	1.78

### Guppy Settings

**Init-Guppy:** The initial number of guppies in the ecosystem.

**Freq-spots:** Average number of tail-spots at the start (Multiply by 10).

**Mutation:** The probability that a guppy will have genetic mutation associated with the number of spots.

**Fem\_Pref:** The likelihood that a female will reject a male with less than average spots.

**Brood Size:** The number of guppies born in a reproductive event (0-20).

**Guppy K:** The maximum number of guppies that can be sustained in the pond (0-500)

**Mortality:** The probability that a guppy will randomly die in 100 ticks ( 0-1.0)

### Predators

**Num\_Pike:** The number of pike cichlids in the ecosystem.

**Num\_Rivulus:** The number of Rivulus in the ecosystem.

### **Simulation Instructions: BE SURE TO DO THE FOLLOWING AFTER EACH ROUND**

- Make sure that all of the settings are reset except for the variable that you are

testing that round.

- Leave the following settings as they are: Init-Guppy, Mutation, Brood Size, Group K, Mortality.



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