**Do flies respond to spider or predation ques? June 2016**

February 16, 2017

**Prediction**: Male flies will show similar response to spiders fed flies and spiders fed crickets.

**Protocol for spiders**.

Use males from our wild fly population. Use 64 DAM vials and caps with holes and mark the caps **SF, SC, F, C** 16 caps each.

Use flies eclosing on June 16.

cues from fly-fed spiders, cues from cricket-fed spiders, cues from flies, cues from crickets

Prepare humidified chambers with lights on at 10 AM and off at 10 PM for holding the predators. Also prepare the 2 tupperwares for the DAMs and their lights. Food vials: each vial will contain ~4 ml food medium (12 mm high). Vials are 22 mm wide and 48 mm long with snap cap containing a ventilation hole in the centre. The horizontal distance between the food and the IF sensors is about 7 mm. An LED light bulb will provide illumination with lights on at 10 AM and off at 10 PM.

Get spiders ASAP.

Set up 2 spider racks, one marked flies, the other crickets. Feed 16 spiders by adding 3 flies into each spider vial. Feed 20 spiders by adding 1 cricket into each vial.

Day 1. Sun, June 12. Last feeding. Prepare 64 DAM vials with regular food. Mark 4 groups of 16 DAM vials: SF, SC, F, C.

Day 2. Mon. 1 PM. Move all stimulus animals into DAM vials with regular medium + filter paper. 1. 16 fly-fed spiders in 16 SF vials. 2. 16 cricket-fed spiders in 16 SC vials. 3. 16 F vials each with 3 flies. 4. 16 C vials each with 1 cricket. Place the 4 groups of vials in distinct places.

Day 5. Thu 7:30 AM. Clear flies.

Day 5. Thu 11:30 AM. Remove spiders and silk, flies and crickets, then place newly eclosed live-sexed males in each of the 64 vials.

Monitors will be in their default vertical position with the vials being in horizontal position as they were with the flies.

Monitor 1: Top row: fly fed spider cues. 2nd row: cricket fed spider cues. 3rd row: fly cues. Bottom row: cricket cues.

Monitor 2: Top row: fly cues. 2nd row: cricket cues. 3rd row: fly fed spider cues. Bottom row: cricket fed spider cues.

Start DAM.

Day 6. Fri. Stop DAM after a bit longer than 24 h.

Spider, cricket and Fly need: 32 spiders, 16 crickets, 64 males. Also tiny crickets for spider food.