

SPLAT Bioassay 2: Attractivity of SPLAT Containing 5% Cypermethrin to Adult Coconut Rhinoceros Beetles

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This bioassay tests attractivity to adult CRB of RB-SPLAT containing 5% cypermethrin (RB-SPLAT-C).

1 Methods

CRB adults were field collected from a compost pile on January 27, 2011. Beetles were held individually one quart Mason jars containing moist peat moss.

During the first hour the beetle was subjected to 4 litres per minute of humidified breathing air. During the second hour, the beetle was subjected to 4 litres per minute of breathing air plus volatiles from RB_{SPLAT-C}.

2 Results

When exposed to volatiles from RB-SPLAT-C, the beetle maintained a distance significantly further away from the central air emitter (mean radius = 250 pixels for control, 300 pixels for treatment; $p = 0.000005$; Welch Two-sample T-test)(Figure 1.

When exposed to volatiles from RB-SPLAT-C, the beetle was significantly more active (mean displacement per minute = 34 pixels per minute for control,

49 pixels per minute for treatment; $p = 0.039$; Welch Two-sample T-test)Figure 2.

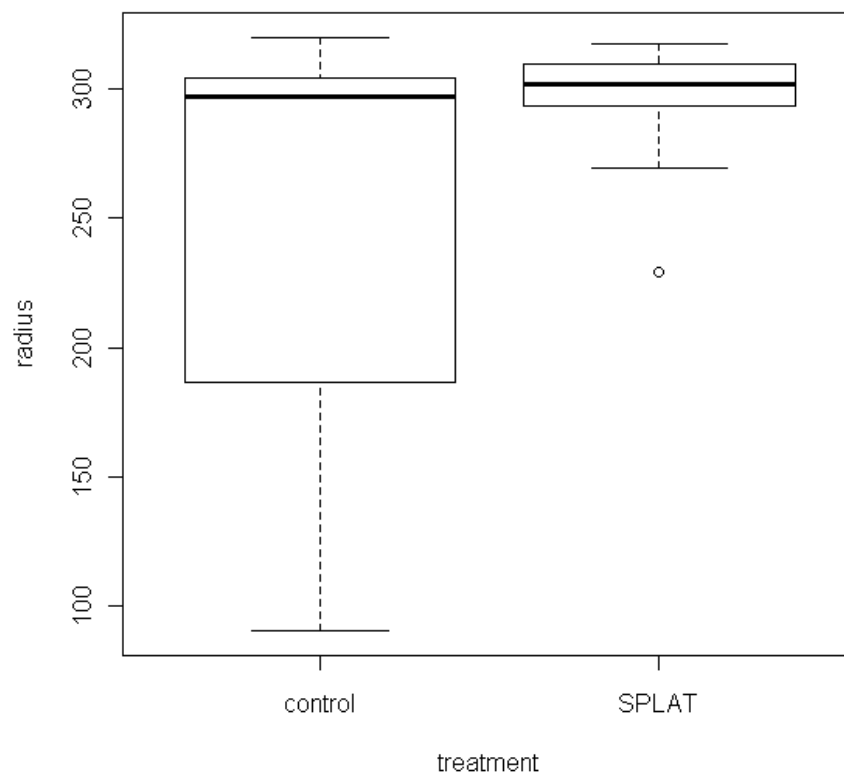


Figure 1: asasasas

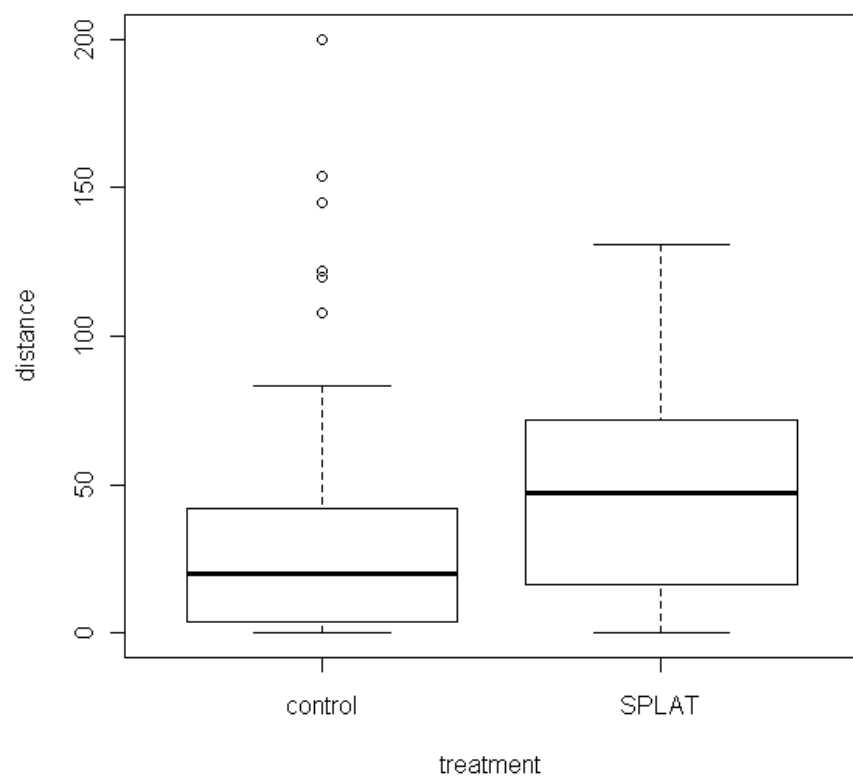


Figure 2: bbbb