# **OrNV** Transmission Experiment

# James Grasela and Aubrey Moore March 10, 2020

This experiment was performed to determine if OrNV isolate V23B can be transmitted from a dosed CRB adult to an undosed CRB adult.

```
@misc{grasela_guam_2020,
   title = {Guam {{CRB Biocontrol Project Technical Report}}: {{OrNV Transmission Experiment}}},
   author = {Grasela, James and Moore, Aubrey},
   date = {2020},
   url = {https://github.com/aubreymoore/OrNV-Transmission/blob/master/ornv-transmission.pdf}}
```

## 1 Materials and Methods

#### 1.1 Beetles

#### 1.2 Virus

Beetles were dosed per os with ca. 30 microlitre V23B virus preparation of unknown concentration (AgResearch, New Zealand).

### 1.3 Experimental design

To test for virus transmission, beetles were selected at random and assigned to 45 pairs with a male and a female in each pair. These pairs were housed in Mason jars half filled with moist peat moss. The jars were held under standard rearing conditions in an environmental chamber: 30 deg C; 80% RH; 12h photoperiod. At the start of the bioassay, the beetle pairs were randomly placed in 3 treatment groups of 15 jars each.

Table 1: caption

Treatment group	Treatment
Jars labeled C1 through C15 Jars labeled TF1 through TF15 Jars labeled MF1 through MF15	Experimental control; neither beetle was dosed Female was dosed with virus; male was not dosed Female was dosed with virus; male was not dosed

### 2 Results

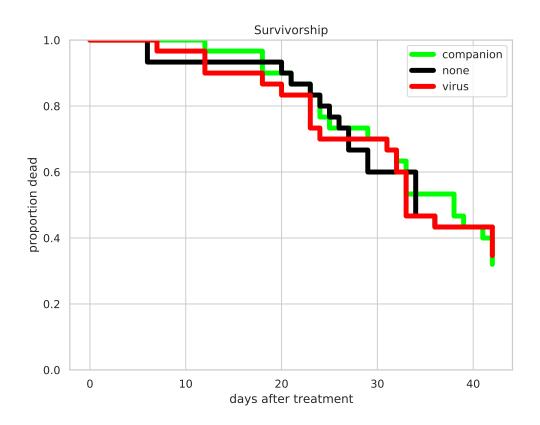


Figure 1: Caption

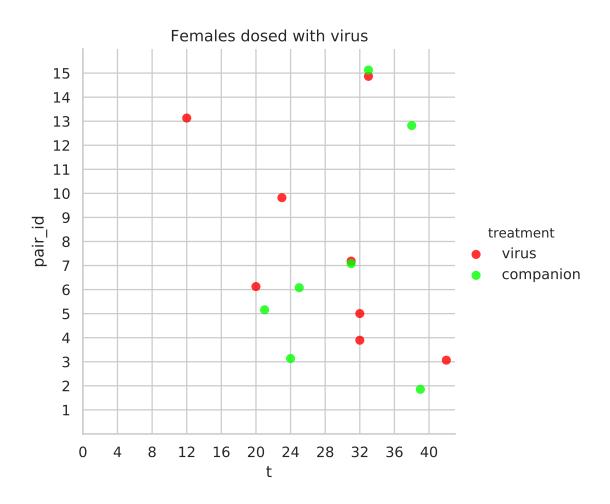


Figure 2: Caption

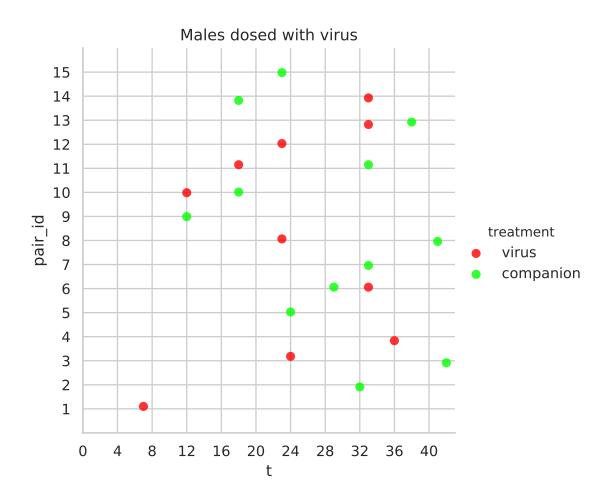


Figure 3: Caption