**Materials and Methods**

**Experimental Design.** The effects of both lure release rate and light on the number of CRB captured in double-vaned bucket traps was tested using a multi-factor balanced design.

**Statistical Analyses.** Total CRB trap captures were analyzed using the Fit Model platform of JMP Statistical Discovery Software, version 10.0.0 ([SAS Institute 2012](#_ENREF_1)), with Lure (oryctalure release rate), Light (UV LED), and the interaction of Lure\*Light as model effects. The mean numbers of male and female CRB captured in traps were not significantly different by t-test so total CRB captured was used as the single response (dependent) variable. The factor (independent) variables were Lure (three levels: standard lure “SL”, reduced lure “RL”, and no lure) and Light (two levels: UV light “UV” and no light). Means comparisons were subsequently performed using either Tukey’s HSD test (for Lure) or t-test (Light). All analyses of significance were made at the *P <* 0.05 level.

**Results**

Both UV light and oryctalure release rate were found to have significant impact on the number of adult *O. rhinoceros* trapped. While trap captures were dependent upon UV light as well as the release rate, release rate showed the more significant *P* value with the interaction of light and release rate not being significant: Lure F = 8.77, *P* = 0.0002; Light F = 8.04, *P* = 0.0050; Lure\*Light F = 1.77, *P* = 0.1737. With no multiplicative effect, trap capture appears to increase independently with the presence of oryctalure and UV light (Figure 1): Tukey’s HSD (letter denote significant differences in Lure means at *P* < 0.05): standard lure “SL” = A, reduced lure “RL” = A, and no lure = B, and t-test (letter denote significant differences in Light means at *P* < 0.05): UV light “UV” = A and no light = B. Unsurprisingly, traps without UV lights or oryctalure (“Trap alone”) did not capture any CRB while traps equipped only with UV light caught only two beetles (Figure 1). Overall the addition of UV lights increased trap captures of CRB by 2.85 fold. Because only two beetles were trapped without lure, most of the increased trap captures are seem between traps with lights and oryctalure and those with only oryctalure. Dispite the fact that the interaction of UV light and lure release rate was not significant, it seems likely that the lights and oryctalure increase trap captures synergistically. Interestingly, there was not a significant difference between the standard and reduced oryctalure treatments. There was no significant difference in the number of male or female *O. rhinoceros* trapped (t-test, *P* = 0.6211).

**References**

Sas Institute. 2012. JMP Statistical Discovery Software. 10.0.0 ed. SAS Institute Inc., Cary, NC.

Figure 1 CRB per day.tiff

Figure 1