



Does Size Matter?

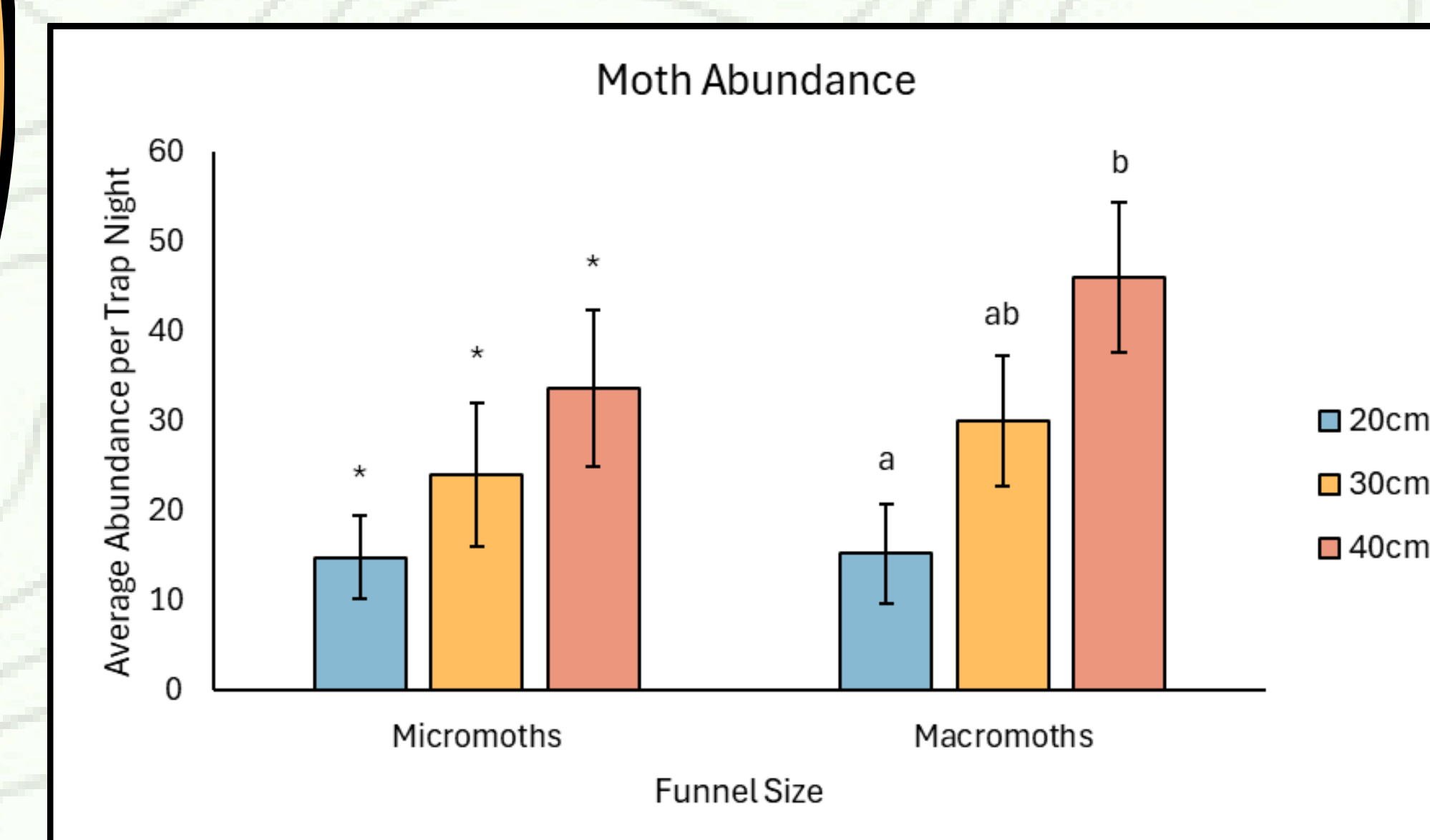
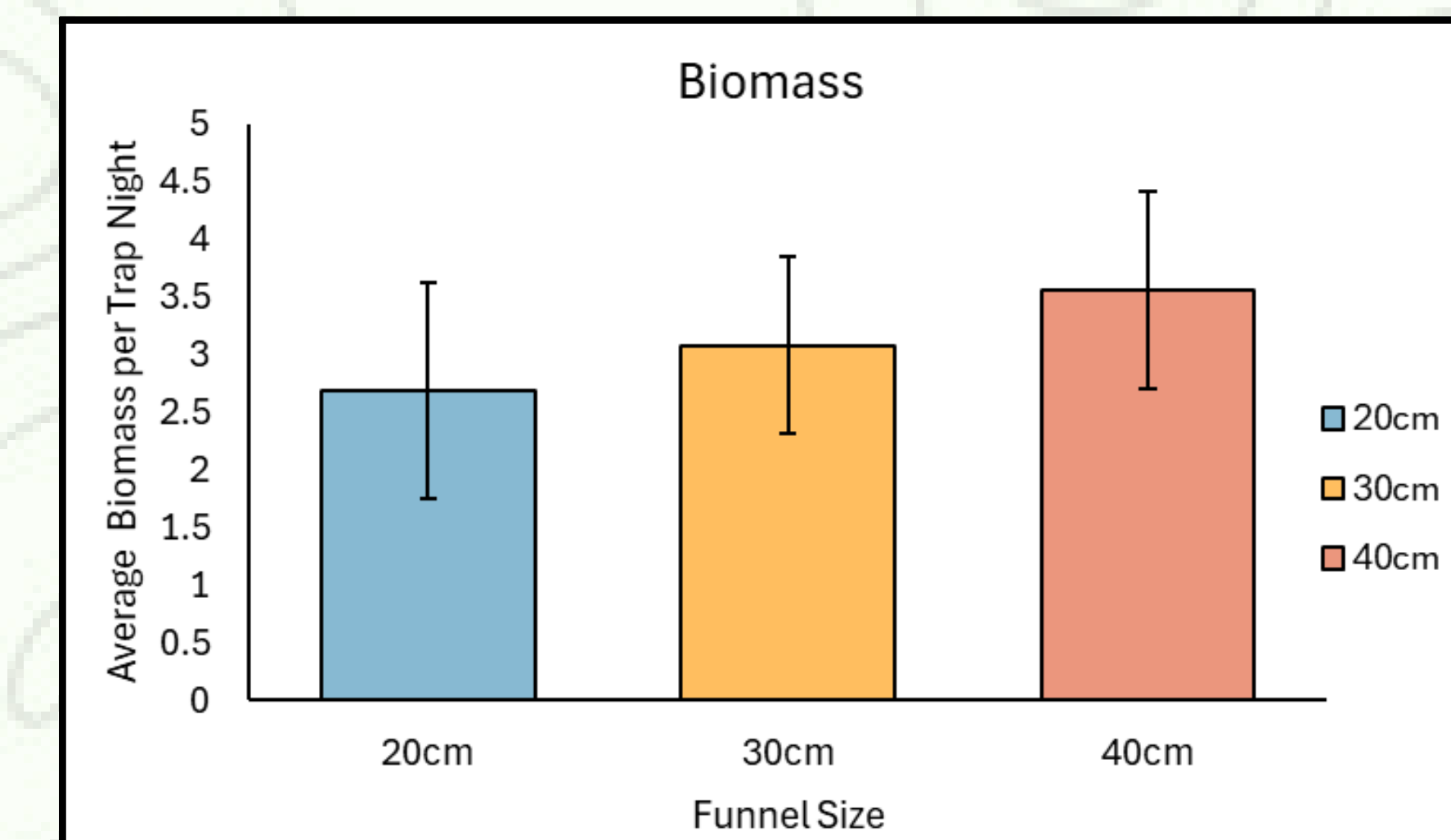
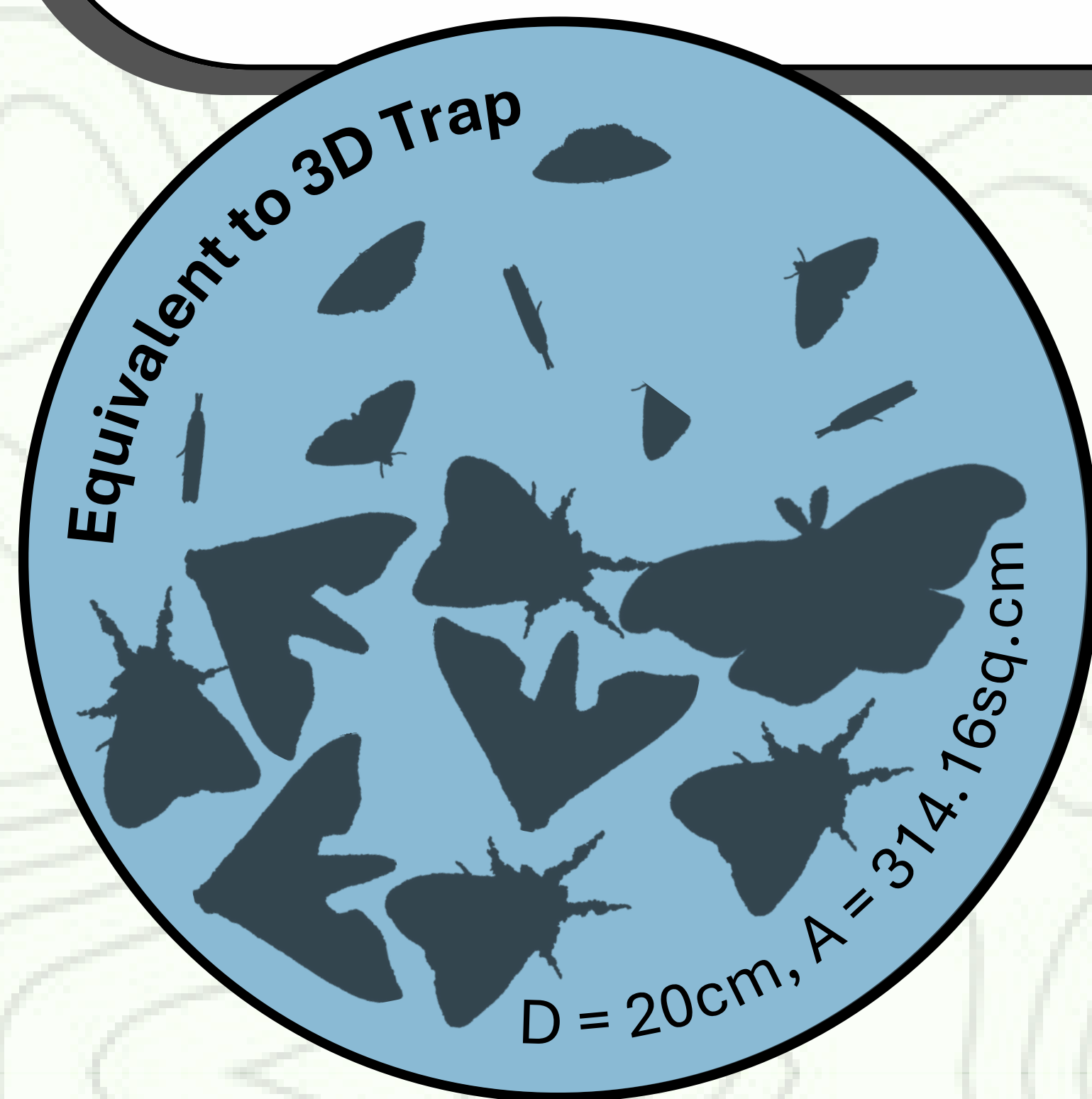
Assessing the Effect of Funnel Size on Trapping Success in Pennsylvania Style Black Light Moth Traps

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Introduction

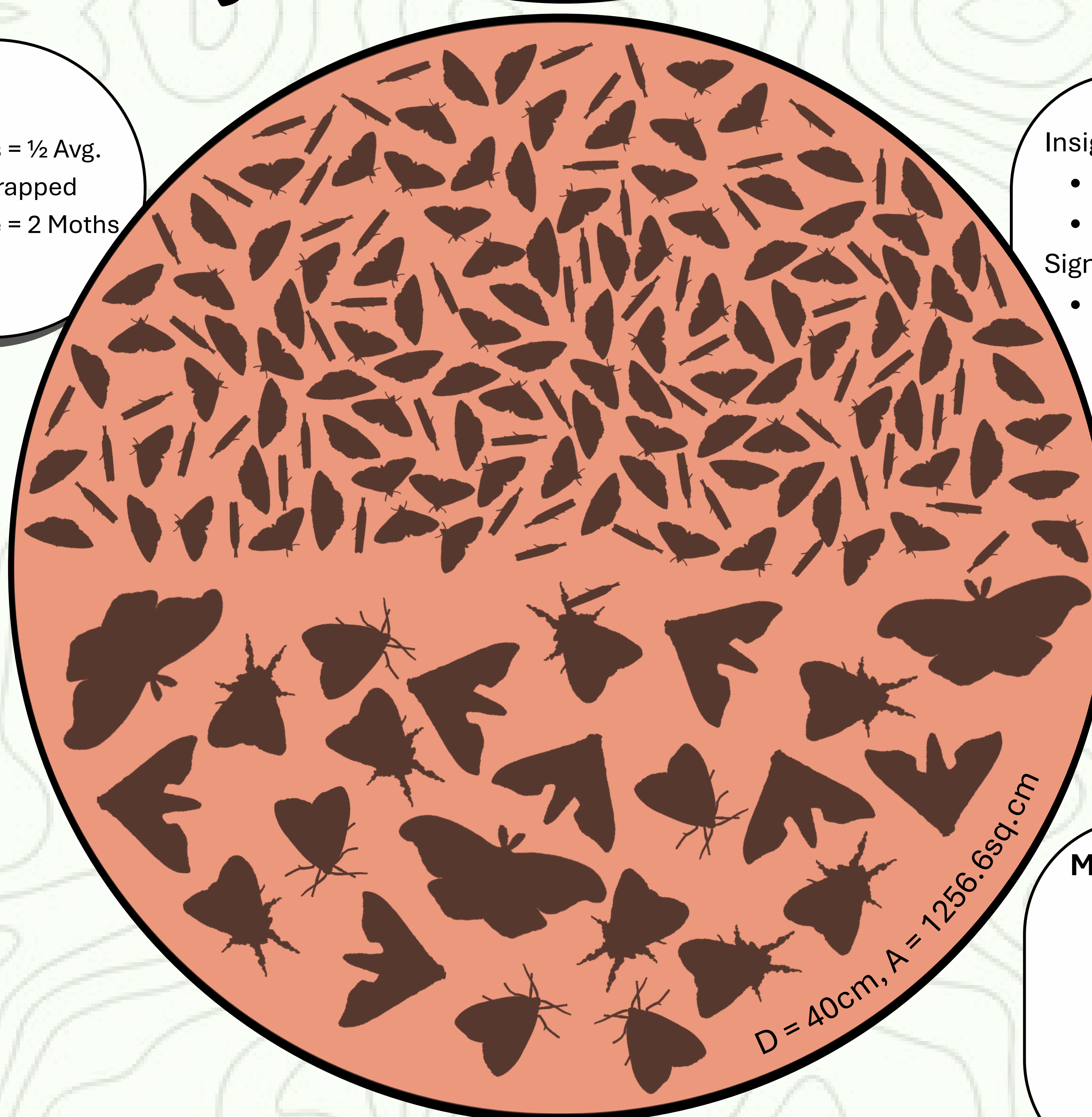
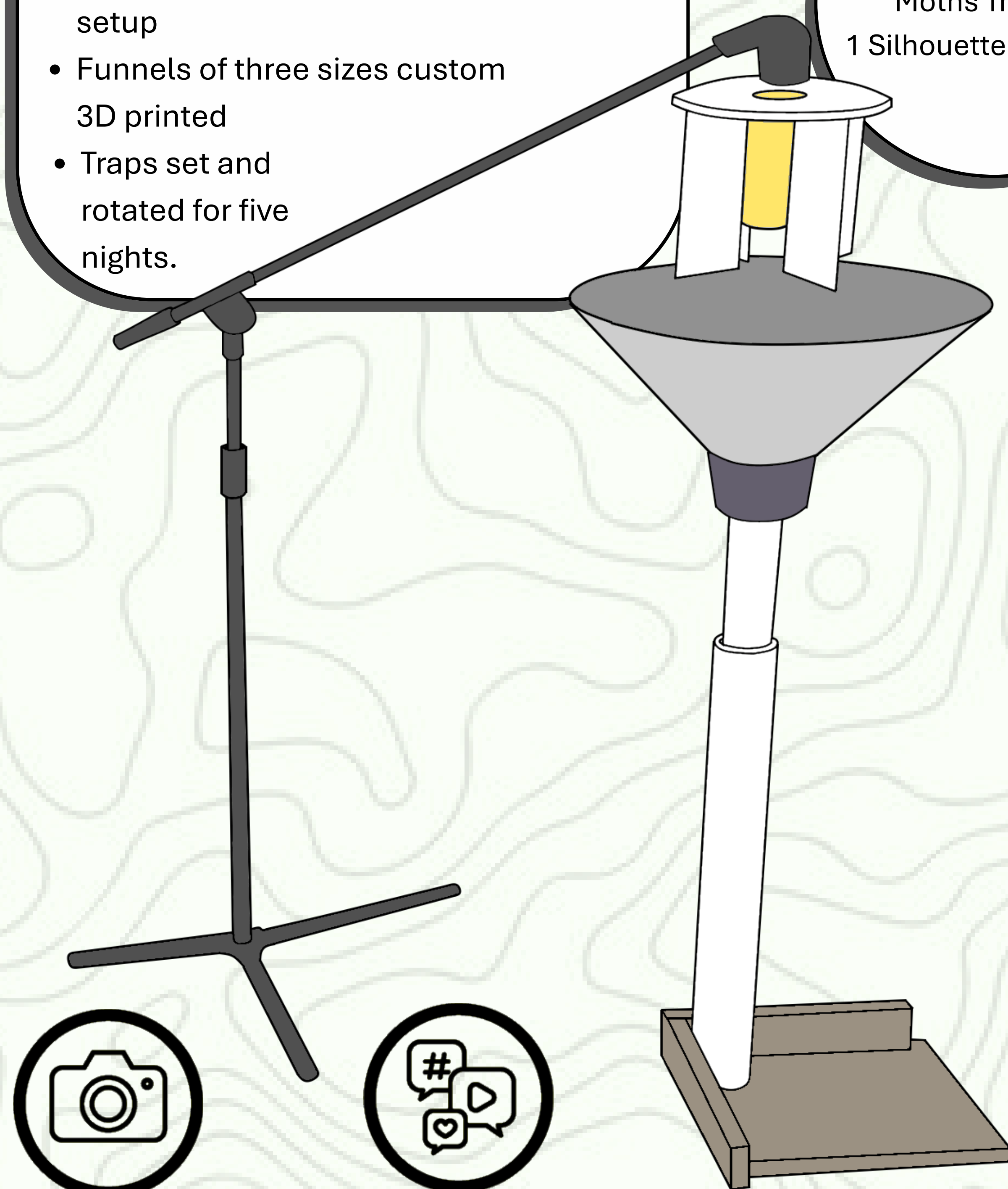
- BioQuip’s closure left a need for black light traps.
- DIY and 3D printed traps may provide a solution.
- Materials and print beds limit trap size.
- Does funnel size play a role in the trap success of black light moth traps?



Methods

- Three trap locations throughout woodlot.
- Uniform stand, pane, and light setup
- Funnels of three sizes custom 3D printed
- Traps set and rotated for five nights.

of Moths = ½ Avg. Moths Trapped
1 Silhouette = 2 Moths



Results

Insignificant differences in:

- biomass** (ANOVA, $p=0.7793$, $f=0.25458$),
- micromoths** (ANOVA, $p=0.2308$, $f=1.66115$)

Significant difference in:

- macromoths** (ANOVA, $p=0.03184$, $f=4.65742$)

Post-hoc test points to difference between **20cm and 40cm** funnels
(Tukey HSD, $Q=4.3151$, $p=0.0252025$)

Discussion

- Funnel size has relatively little effect on trap success for similarly sized traps.
- Results suggest differences experienced in previous tests may be due to lights.

More from the author:



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