Novel Application of Oidiodendron truncatum to Inhibit Growth

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The purpose of the project was to find an effective method of distribution for an anti-fungal compound that will inhibit the growth of Pspeudogymnoascus destructans on bats, reducing deaths caused by White Nose Syndrome. Pseudogymnoascus destructans is a type of psychrophilic fungi that causes White Nose Syndrome and is the leading cause of death in some bat species across North America, killing 70-90% of each infected colony. By creating an arch-like figure out of PVC pipe to represent the mouth of a cave, a sprayer was implemented to spray over a model bat as it traveled through. Two different nozzles were used for testing, one of them being the original nozzles that came with the sprayer, the other nozzles were modified to create slightly larger and more directional droplets of water. The data collected through testing showed that the modified nozzles dispersed more liquid on the bat model than the original nozzles. In the future, this and further experimentation could potentially lead to the implementation of sprayers in bat hibernacula to reduce or possibly eliminate the effect of Pseudogymnoscus destructans.

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