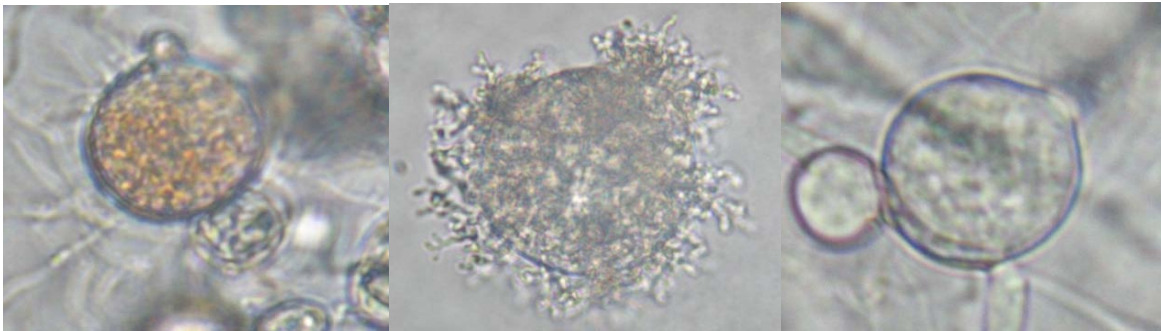
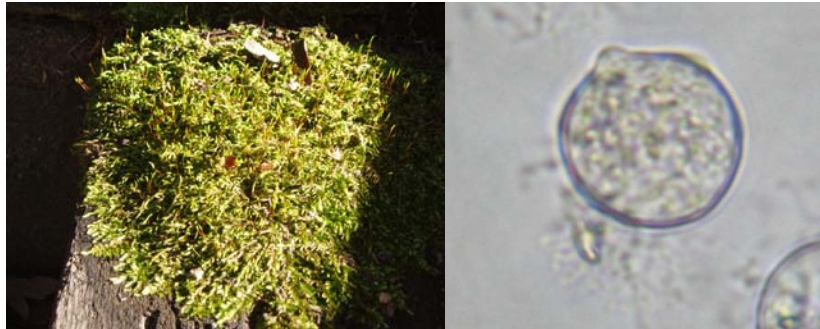


In Your Own Backyard:
A Look at Local Chytrid Diversity
William J Davis
Master's Defense
April 27, 2012 8:30am SEC 2436



Recent studies have significantly revised the taxonomy of Chytridiomycota with the use of ultrastructural and molecular characters. These studies have investigated chytrid diversity using a global sampling. Sampling globally is time consuming and costly, and it might be as informative to sample locally versus globally as chytrids are thought to be cosmopolitan. As well, the chytrid diversity of Alabama is unknown. Therefore, we sampled habitats across Alabama, focusing on Lake Lurleen and Tuscaloosa, in order to determine the chytrid diversity of Alabama, compare it to the diversity found by sampling globally, and determine how sampling area affects the amount of diversity found. The majority of the isolates could be placed within 23 described taxa that were included in the global studies. Approximately half of the isolates belonged to one of three species. This indicates there are some common chytrid species but most are uncommon to rare, which is in agreement with previous surveys of chytrid diversity. We observed a comparable amount of diversity as the global studies and observed a trend of increasing diversity with increasing sample area. Thus, sampling locally is as informative as sampling globally and a larger local area is better than a smaller local area.