Fungi associate with different communities of bacteria, including endobacteria that grow inside fungal hyphae. Bacterial symbionts have been known to impact the growth of fungal organisms. A newly proposed genus belonging to the fungal subphylum Mucoromycotina has been identified in our laboratory. Electron microscopy pictures and next generation sequencing analysis show large number of bacteria associated with this fungus. The purpose of this study is to describe the diversity of bacterial species associated with this new fungus using cultured-based methods. Three isolates (TLT265, YP243, AZ0501) of the fungus were grown on different media types to isolate the bacteria (e.g. MEA, SDA, R2A, PYG, CDA) at different temperatures (25°C, 35°C, and 45°C). Plates were observed for noticeable bacterial growth and bacteria were transferred to new media to generate pure cultures. DNA was extracted and amplified using the 16S rRNA region. Preliminary results for the culture isolates showed isolation of Bacillus and Stenotrophomonas. The most abundant phyla detected with next generation sequencing belong to Proteobacteria and Firmicutes, which include common taxa found in other close relatives of this new taxon.