

Research over the last decade has revealed the importance of the cutaneous microbiome for the health and immune function of amphibians. Thousands of Bacteria and Archaeans species living in and on the skin are able to outcompete pathogenic species of fungus or types of viruses. The relationship between microbes and their host is so intimate that the term "metaorganism" has been used to describe this phenomenon. We are, however, at the early stages of understanding what determines the composition of the cutaneous microbiome and the relative effects of factors like genetics and habitat use. Could it be that there is a species-specific "microbiome fingerprint" that is consistent across different sites? Do species inhabiting similar microhabitats host similar microbes? We have replicated a similar study performed in Sosbee Cove in Union County, with a site in Cherokee County, with multiple species that are comparable across the two sites. We present our project designed to answer these questions and report preliminary results.