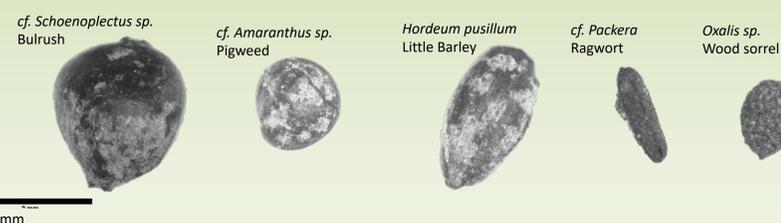
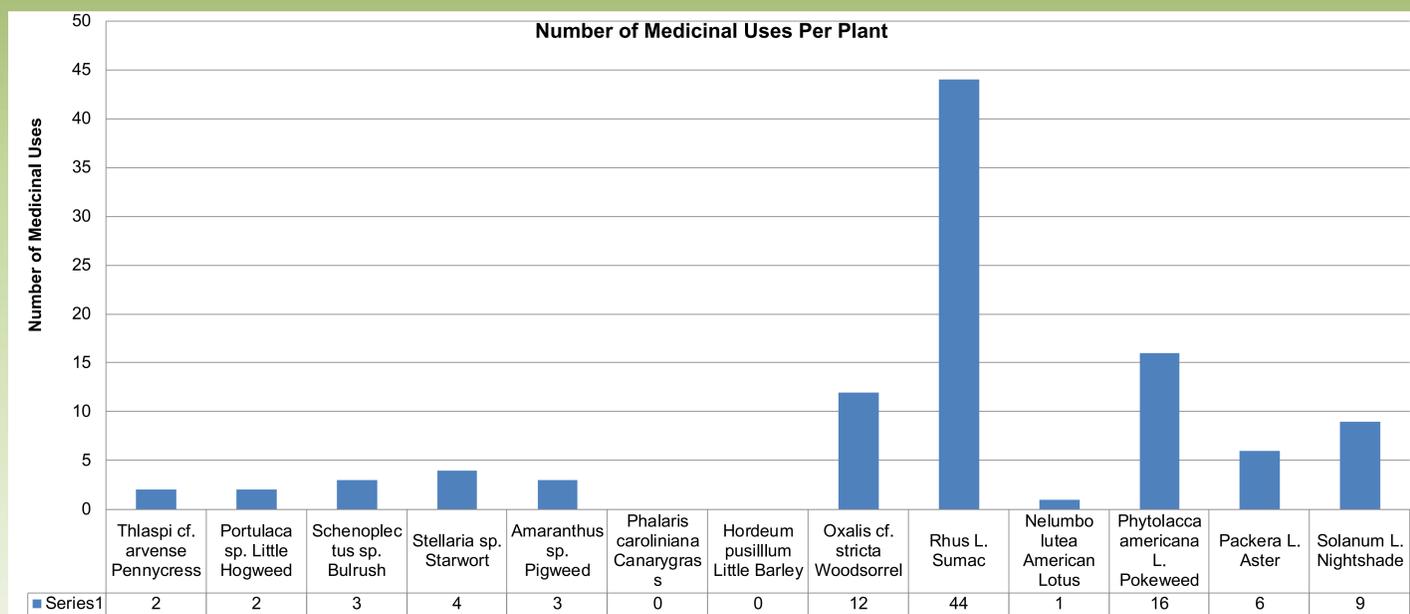


Background

Mound House is a Middle Woodland earthen mound site that dates from 50 BC to 250 AD. Located in Greene County in the Lower Illinois River Valley, the site lies on a sand ridge between backwater lakes. Previous investigations theorized that Mound House may have been a ceremonial or civic site intended for seasonal gatherings. Past paleoethnobotanical studies have focused on subsistence strategies and processing techniques. Medicinal uses of ancient plants have not been previously researched at this site and may lend more detail to the activities taking place at Middle Woodland sites.



Image is of feature 380 extension L01. Almost all pieces of a broken cooking vessel was found in this extension. It is thought to have been a refuse pit. The light fractions most recently floated for analysis were from this feature.



Methods

To supplement two previously published paleoethnobotanical analyses (Mueller 2013, Schroeder 1998), 72.5 liters of sediment were analyzed from feature 380. Feature 380 is identified as a refuse pit with multiple fill episodes. The light fractions of these samples were sorted into carbonized wood, nutshell, and seeds. Wood and nutshell were weighed and counted while seeds were counted and identified to genus and lower taxa where possible.

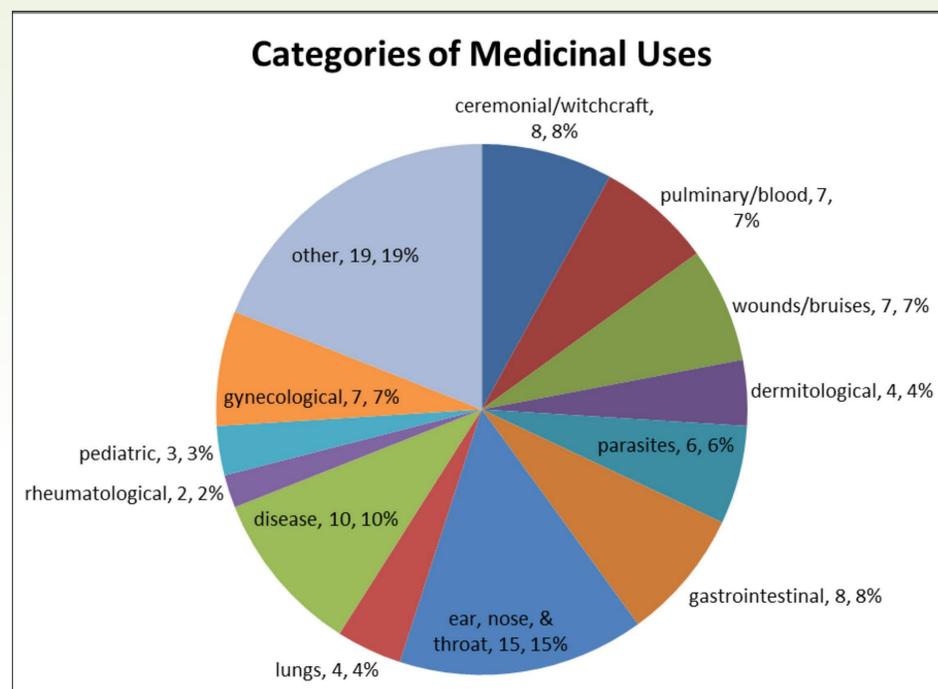
Using the United States Department of Agriculture's Natural Resources Conservation Service website (<https://plants.sc.egov.usda.gov/java/>), the native species of each identified seed were researched further. Medicinal uses were noted by way of the Native American Ethnobotany Database (<http://naeb.brit.org/>). As it is unknown which historic or modern tribes are directly descended from the Middle Woodland inhabitants of the Lower Illinois Valley, all recorded medicinal uses by Indigenous peoples of eastern North American were considered.

Thirteen plants were analyzed based on their unusual concentration at Mound House compared to other Middle Woodland sites. The possible medicinal uses were then separated into 15 categories based on their use. Ubiquity of each plant was then compared those from Napoleon Hollow, a contemporaneous site.

Conclusions

Little barley and maygrass were used only for subsistence. It is likely that many of the other plants were used for both medicinal and subsistence use. Plants such as woodsorrel and sumac may have been used for ceremonial and possibly "alterative" uses. As this is a small, exploratory research project, it cannot be definitively claimed whether the number of medicinal and ceremonial plants found at Mound House are representative of medicinal uses or ceremonies.

Categories of Medicinal Uses



Results

Of the 13 plants analyzed, 101 medicinal uses were identified. *Rhus L.*, or sumac, accounted for 43 of these uses. Seven of the 13 plants are recorded to have ceremonial, mystic, or witchcraft related uses. While seven plants are edible, maygrass and little barley did not have any recorded medicinal uses. It is likely that these two plants were used only for subsistence in the Middle Woodland period. When comparing Mound House to Napoleon Hollow, only three of the 13 plants were accounted for in Napoleon Hollow's assemblage. These three plants, pokeweed, sumac, and maygrass, are two to three times more common at Mound House than at Napoleon Hollow. It was expected that these numbers would be more similar as the sites are both considered ceremonial sites. The differences in percentages could be due to differing seasons in which the sites were in use. Sumac and wood sorrel are also reported as being used as "alteratives". This could refer to mind-altering drugs such as psychedelics or hypnotics, both of which are regularly used in ceremonies and rituals.

Future Directions

Further comparative analysis of Lower Illinois Valley earthen mound sites should be conducted. Comparison between ceremonial sites may reveal trends in the types of medicinal plants that were used. Similarities and differences between habitation and ceremonial sites should be determined by comparative analysis as well, to help understand both daily and ceremonial use. A larger data pool will also allow researchers to pinpoint which paleobotanical remains are likely incidental inclusions.