

Bremer support value of 4 for the tribe. The distribution pattern suggests five derivations of taxa in the Nearctic Region and five derivations of taxa in the Palearctic Region.

10:30 USE OF MICROCOSM STUDIES TO ASSESS THE RELATIONSHIP BETWEEN AQUATIC PLANTS AND SOIL MICROORGANISMS

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In this mini wetland study on the relationship between aquatic plants and soil microorganisms, I tried to show the difference in the soil microbial activity by performing a series of tests on the basic composition of the soil in each plot in the microcosm study. The plant species in this experiment were expected to promote the growth of different microbial communities in the soil and rhizosphere. We examined the soil for differences in the microbial communities, as represented by Fatty Acid Methyl Esters (FAME) and determined if they had different enzymatic properties. Through the process of natural selection these species of aquatic plants should flourish due to their invasive behavior. Each plant in this study had its own unique microbial population equipped with enzymatic properties that act as catalyst in the decomposition of nutrients and other organic pollutant. Due to years of ecology and environmental safety, nature should reduce the levels of deposits from unavoidable forces that must evolve such as erosion. This is positive feedback from the effort of the scientist at USDA-ARS Stoneville, Ms that serve as environmental protectors who find more eco-safe ways to carry out agricultural evolutions.

10:45 ANTS IN MISSISSIPPI STATE PARKS

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The objectives of this study were to survey Mississippi's state parks for ants to provide baseline data on the diversity and distributions of native and exotic species. The state parks provide ideal collecting localities because they are spread throughout Mississippi and offer an array of habitats. Collections were made from the spring of 2005 through late summer of 2006 in 17 of the 24 state parks. Ants were collected by a variety of methods for two to four hours at each park, identified, and stored in the Mississippi Entomological Museum. This survey resulted in the collection of 88 native species, including one that is undescribed, and ten exotic species (plus the hybrid fire ant). These included six new state records, three species only recently described, six species that were only recently reported, and 25 species that are rarely collected. Differences in the diversity and assemblages of ants have been observed with the greatest diversity found thus far from Wall Doxey State Park in Marshall County with a total of 56 species documented. Areas with high concentrations of exotic

species, especially in the southern portion of the state, have been found to have lower diversity. A web site documenting ants found in Mississippi State Parks has been prepared that includes collecting trip logs, species lists, and photos of the parks and/or ant species ([http://www.msstate.edu/or/mississippientmuseum/Researchtaxa es/Formicidae es/MS.state.~k.ants.htm](http://www.msstate.edu/or/mississippientmuseum/Researchtaxa%20es/Formicidae%20es/MS.state.%20k.ants.htm)).

11:00 A PRELIMINARY LIST OF THE ORTHOPTEROID INSECTS OF THE GREAT SMOKY MOUNTAINS NATIONAL PARK

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Due to recent concern over what appears to be rapidly declining levels of biodiversity, Discover Life in America initiated the All Taxa Biodiversity Inventory, whose main goal is to catalog all the living organisms in the Great Smoky Mountains National Park. Taxonomists from all over the world have been awarded grants and volunteered their time to this cause. This project will provide checklists, reports, databases, maps, and natural history information for future reference in monitoring biodiversity in the park. As part of this project the authors have been surveying the Orthoptera and associated orders of the Great Smoky Mountains National Park for several years. Thus far, we have documented approximately 100 species of Orthopteroid insects as occurring in the park, along with spatial and temporal information. This includes 45 species belonging to the Orthoptera sub-order Caelifera (grasshoppers, grouse locusts, and pygmy mole crickets), as well as 46 species belonging to the sub-order Ensifera (camel, cave, mole, true crickets, and katydids). Other orders under study include Phasmida (walking sticks), Mantodea (mantids), and Blattaria (roaches).

11:15 ACENTROPINAE (CRAMBIDAE) OF MISSISSIPPI AND ALABAMA

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The subfamily Acentropinae (Lepidoptera: Crambidae) includes 22 species in 11 genera of moths in Mississippi and Alabama. Larvae of these species are associated with aquatic habitats. Only five species in three genera previously have been reported to occur in Mississippi and Alabama. Eleven species are in genera restricted to lentic habitats, six species are in genera occurring in both lentic and lotic habitats, and five species are in genera with unknown habitat preferences. The purpose of this poster is to provide new distributional records for 17 species of Acentropinae from Mississippi and Alabama. Distribution maps and photographs of imago are provided.

11:30 Divisional Business Meeting