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FRANCIS MARION UNIVERSITY, FLORENCE, SC

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UNIVERSITY OF NORTH CAROLINA, WILMINGTON, NC

MARCH 28 -31, 2018

MEETING SITE: MYRTLE BEACH SHERATON AND CONVENTION

CENTER, MYRTLE BEACH, SOUTH CAROLINA



Old Main, oldest building on the campus of the University of North Carolina at Pembroke.

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PURPOSE

The purpose of this association shall be to promote the advancement of biology as a science by encouraging research, the imparting of knowledge, the application of knowledge to the solution of biological problems, and the preservation of biological resources. The ASB has representation in Section G Committee of the AAAS. Varying types of membership are available to individuals and institutions. See inside back cover.

TIME AND PLACE OF FUTURE MEETINGS

2018 March 28-31: Featured Institutions – Baruch Marine Field Laboratory, Georgetown, SC; Coastal Carolina University, Conway, SC; Francis Marion University, Florence, SC; University of North Carolina, Pembroke, NC; and University of North Carolina, Wilmington, NC. Meeting site is the Sheraton Myrtle Beach Convention Center Hotel, Myrtle Beach, SC.

315 - A survey of *Aspergillus* species in beach sand and the corresponding water column of commercial and private beaches in South Carolina.

Olivia Cannon, Fang-Ju Lin

Coastal Carolina University, Conway, SC

Beach sand is a known reservoir of fungal species, some of which can cause illnesses in humans. Several species of the ascomycete *Aspergillus* are known potential human pathogens which can cause a series of conditions broadly referred to as aspergillosis. In order to determine the abundance of *Aspergillus* species between a commercial and private beach in South Carolina, sand and water samples were collected from Myrtle Beach and Waties Island over the course of four weeks during the summer. Samples were plated on Sabouraud's Dextrose Agar and incubated at 27°C until distinct colonies formed. Colonies were isolated and fungi were preemptively identified by macro- and microscopic observation, and DNA from isolates was sequenced for definitive identification. Preliminary data showed that sand samples from the Myrtle Beach study site contained *Rhodotorula*, *Aspergillus*, and *Penicillium* species, while none of these fungi were seen in samples from Waties Island. However, Waties Island samples did exhibit growth of colonies not seen in Myrtle Beach samples, potentially indicating a difference in species present between the two locations. Possible reasons for this discrepancy include environmental differences and differences in human presence and impact. This study contributes to the knowledge and understanding of potentially pathogenic fungi present in beach sand and water in Myrtle Beach, as well as the potential impact of human activity on the presence of these fungi.

317 - Lichen Biodiversity of the Redstone Arsenal, Madison County, Alabama

Curtis Hansen

Auburn University Museum of Natural History, Auburn, AL

Lichens were surveyed across nine ecologically sensitive areas of the U.S. Army's Redstone Arsenal in Madison County, Alabama. From a total of 466 collections, 147 species in 60 genera were identified, including twelve state records and two new species currently being described. Prior to this research, only eight lichen species had been documented from the Redstone Arsenal, thus most collections reported here represent new county records at a minimum. Interesting finds include *Cladonia stipitata*, *Hypotrachyna imbricatula*, *Parmotrema despectum*, *Physconia detersa* and *Thelidium decipiens*. Collections from this study represent the first comprehensive survey of lichens carried out on the Redstone Arsenal and will serve as a baseline for future studies.

318 - The Status of *Schwalbea americana* L. (Orobanchaceae) in Georgia

Richard Carter¹, W. Wilson Baker²

¹*Valdosta State University, Valdosta, GA*, ²*Ecological Consultant, Tallahassee, FL*

Field surveys conducted in Georgia for federally endangered *Schwalbea americana* L. (chaffseed) resulted in identification of 10 metapopulations in six counties of southwestern Georgia. All populations of this hemiparasitic perennial herb were found in longleaf pine-wiregrass savanna communities with a history of regular and frequent burning. Data were recorded on numbers of individuals in each metapopulation, associated species, and other environmental attributes. Populations were ranked based on habitat quality and other factors. Permanent plots were established to enable long-term monitoring of populations and to acquire quantitative data on chaffseed and associated species.