HELPING REFUGE MANAGERS FIND PRE-DISTURBANCE SOIL WETNESS: REFINING OUR UNDERSTANDING WITH EARLY AND LATE WOOD IN ATLANTIC WHITE CEDAR. Jordan M. Williams & Robert B. Atkinson, Dept. of Organismal and Environmental Biol., Christopher Newport Univ. Atlantic white cedar (*Chamaecyparis thyoides*), AWC, stands form in seasonally flooded peatland habitats along the Atlantic coast of the United States from Maine to Mississippi. Today, less than 2% of AWC swamp stands from the pre-colonial era exist, and much of the existing stands experience altered hydrologic conditions. Annual rings are composed of growth that occurs in spring, early wood, and growth that occurs later in the summer, late wood. These growth periods may yield more precise relationships with monthly climate parameters and may also be indicators of optimized carbon storage in forested peatlands. Total ring width has been previously used to analyze factors affecting AWC growth, though factors affecting inter-annual ring growth in AWC remain unclear. The purpose of this study is to identify environmental factors affecting the formation of earlywood and latewood in mid-Atlantic AWC. Two study sites were selected from within national wildlife refuges in North Carolina and Virginia which exhibit both altered and un-altered hydrologic conditions. Series of earlywood, latewood, and total ring widths were measured and evaluated in wood samples from each site. Initial results suggest increased earlywood and latewood width in AWC from drained sites, in comparison to AWC from un-drained sites. These results may indicate that AWC radial growth is stressed by dry conditions in the early portions of the growing season. Future research will combine early and late wood measurements with climate variables to determine monthly climate correlations. Author contact: [jordan.williams.23@cnu.edu](mailto:jordan.williams.23@cnu.edu)