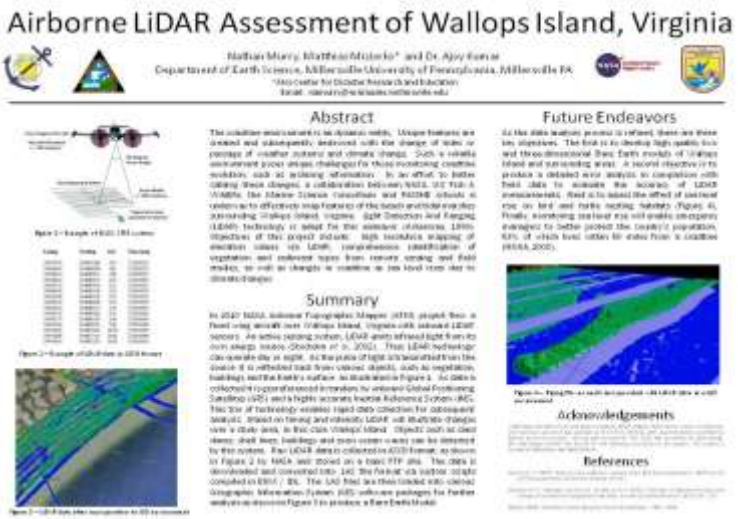
**Title:** Projecting the Impacts of Climate Change and Identifying Adaptation Options at Wallops Island, Virginia.

**Abstract:** The barrier islands of the mid-Atlantic coast have been ranked by the USGS as extremely vulnerable to the impacts of sea level rise (SLR). Understanding how these environments responds to SLR is critical to the protection of the shallow benthic environments behind them. This project will develop management plans that incorporate impacts of Global Climate Change specifically on Chincoteague National Wildlife Refuge (CNWR) and Wallops island, Va. This area is critical to the protection of nesting sites for endangered species including Piping Plover, Loggerhead Turtles, and the many invertebrate species that form the food chain for those organisms. This study will use remote sensing data, including LIDAR data to develop a Digital Terrain Model (DTM), map the current distributions of important habitats at the CNWR, detail the likely areas of greatest impact from rising sea levels, quantify the rates of habitat change, and identify areas that may become important wetlands as the coastal systems attempt to migrate inland. This project is a collaborative effort between NASA Goddard Wallops Flight facility, Marine Science Consortium (MSC), US Fish and Wildlife Service and two Pennsylvania State System of higher Education (PASSHE) institutions of Millersville University of Pennsylvania and East Stroudsburg of Pennsylvania.