

Environmental Time travel

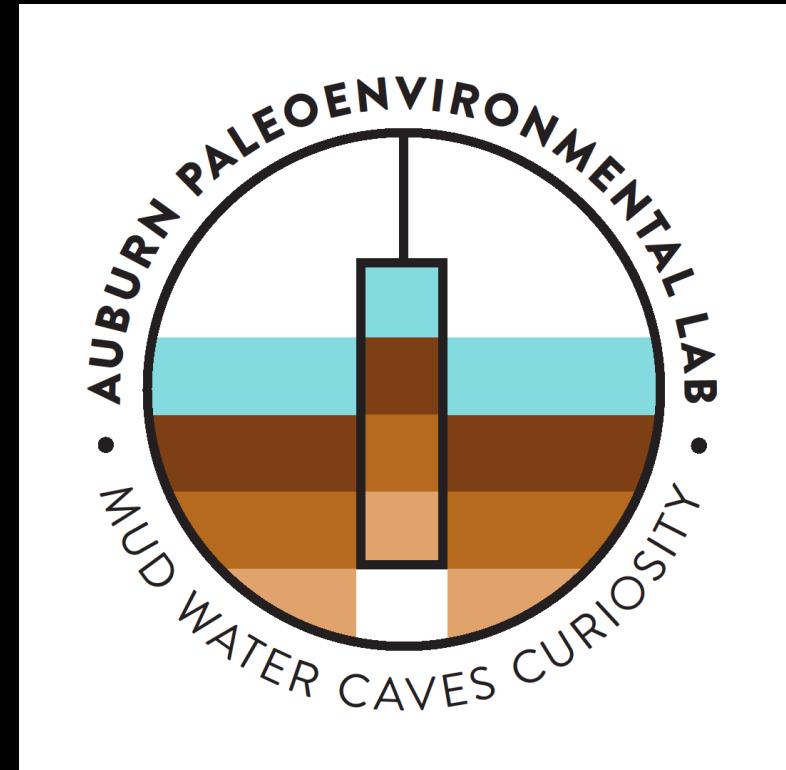
Using Paleo-Records to Understand Ecosystems

Dr. Matthew Waters

Department of Crop, Soil, and Environmental Sciences

mwaters@auburn.edu

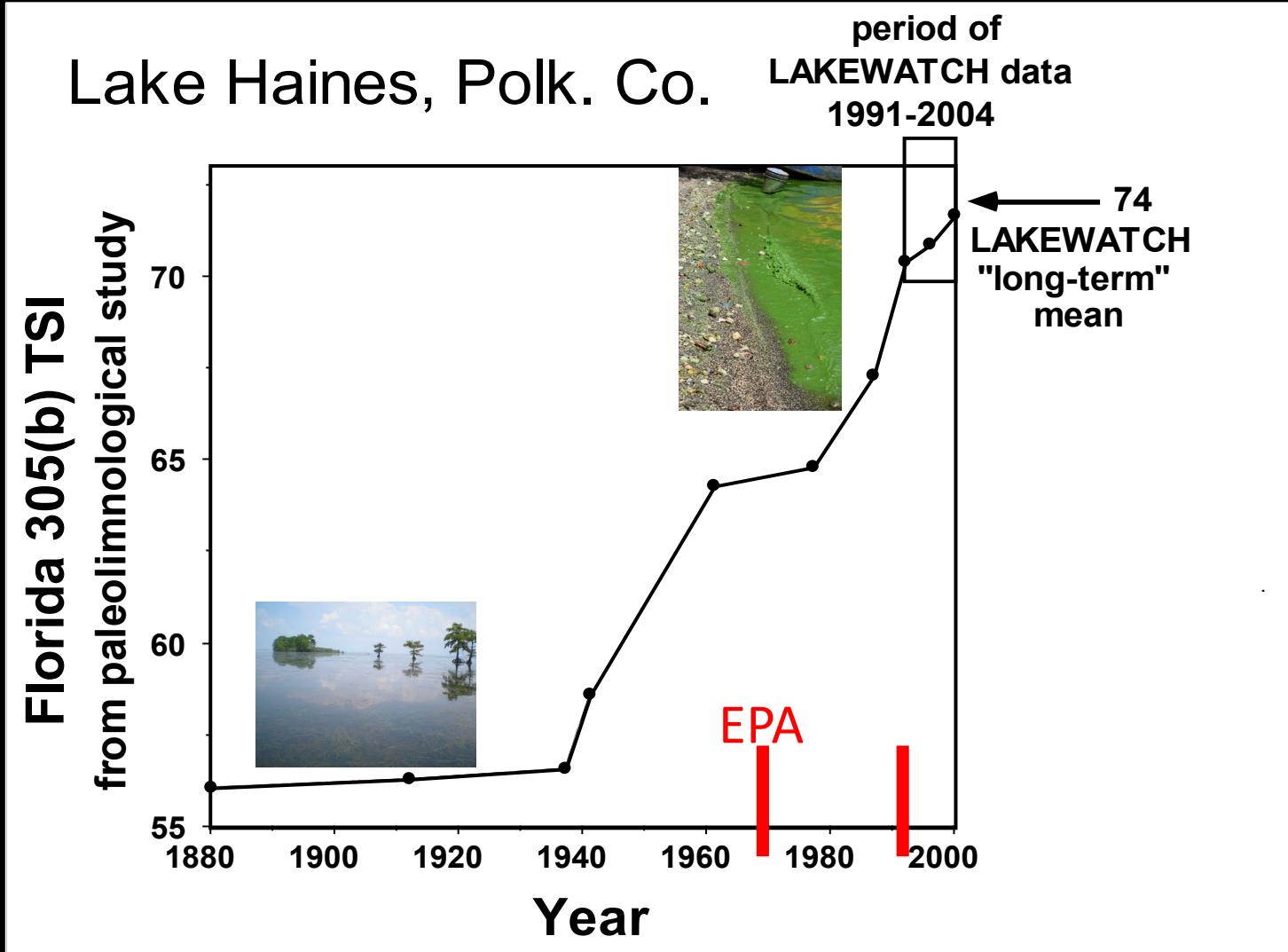
@Waters_Paleolim



Why do we need paleo-environmental data?



Well, back in my day...

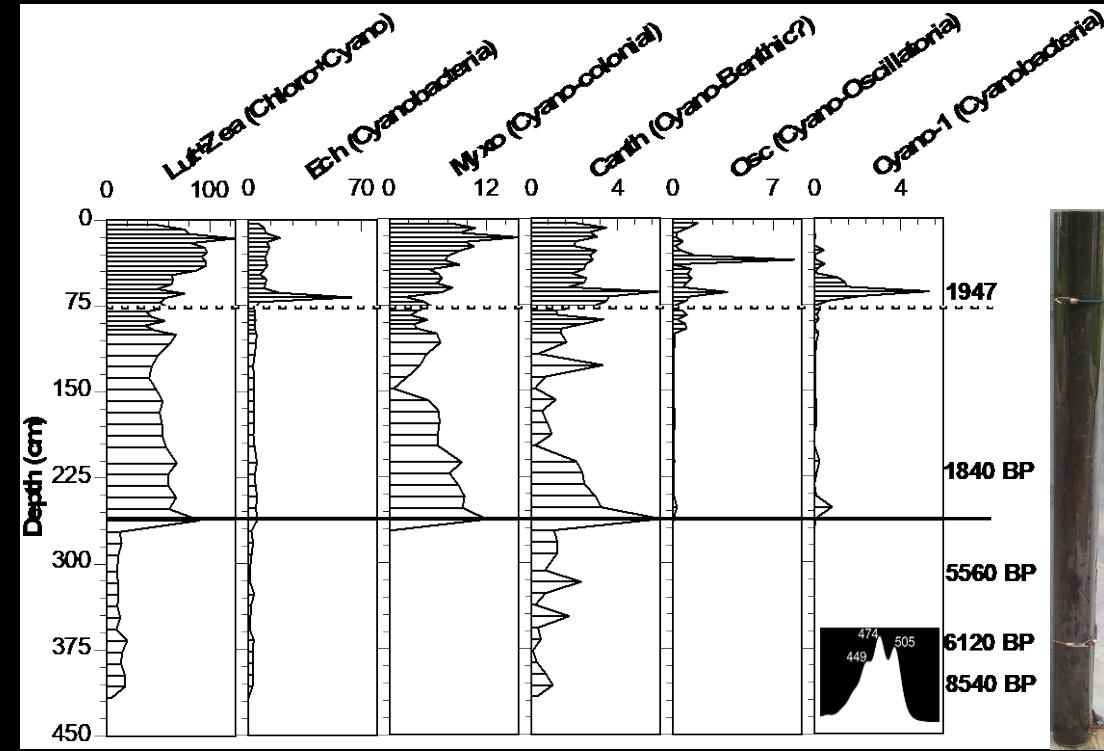


Lake Mattamuskeet, NC

Core



Lake Apopka, FL

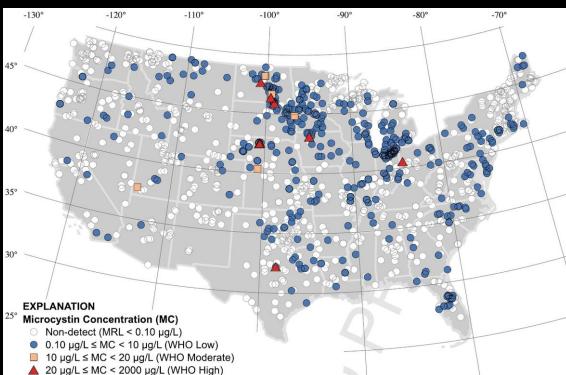
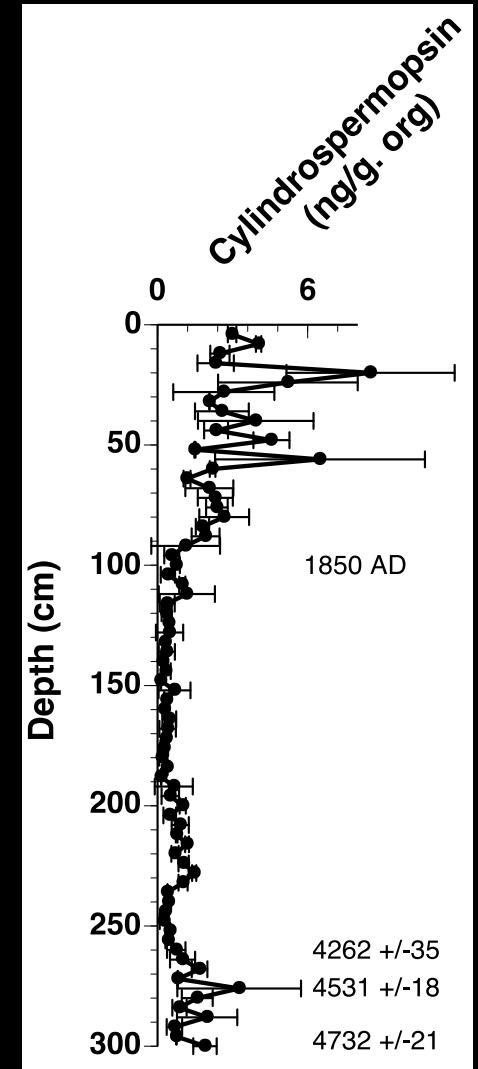


1947



Waters et al. 2015

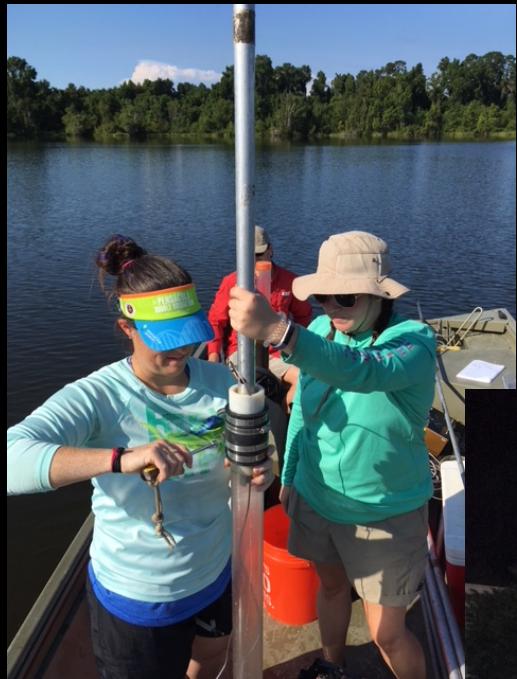
Lake Griffin, FL



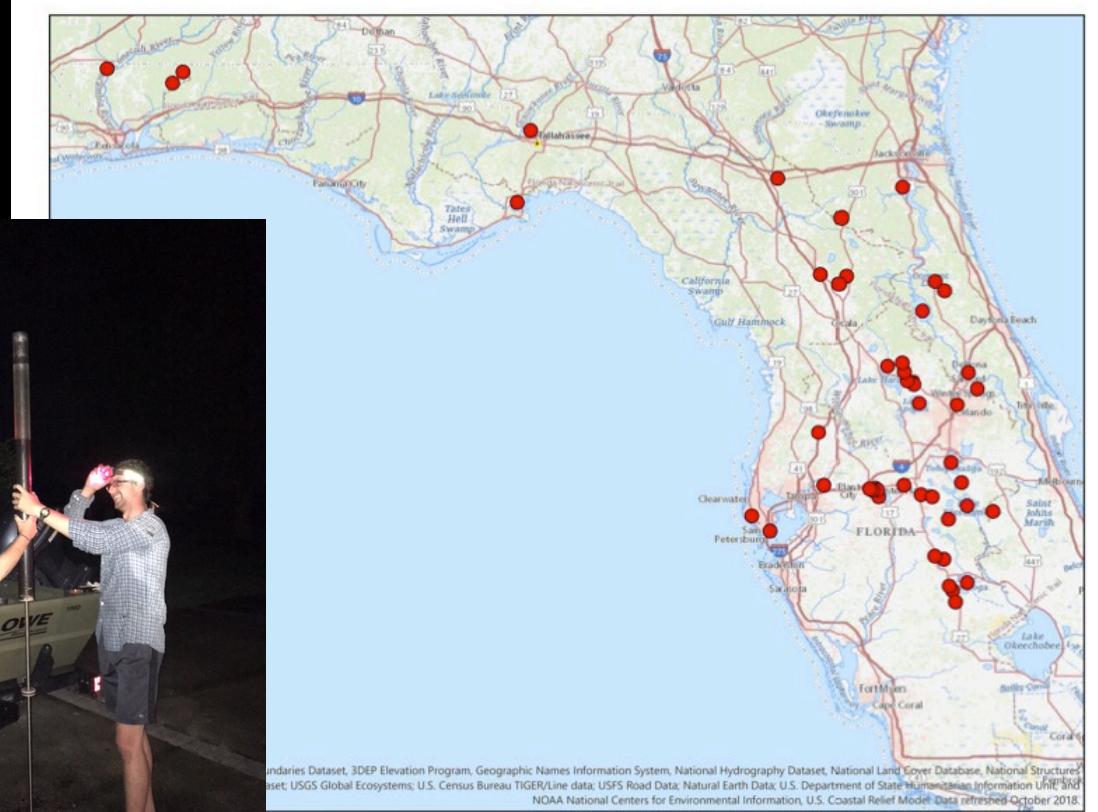
Waters 2016

Ancient HABs and Eutrophication

NSF EAGER Grant

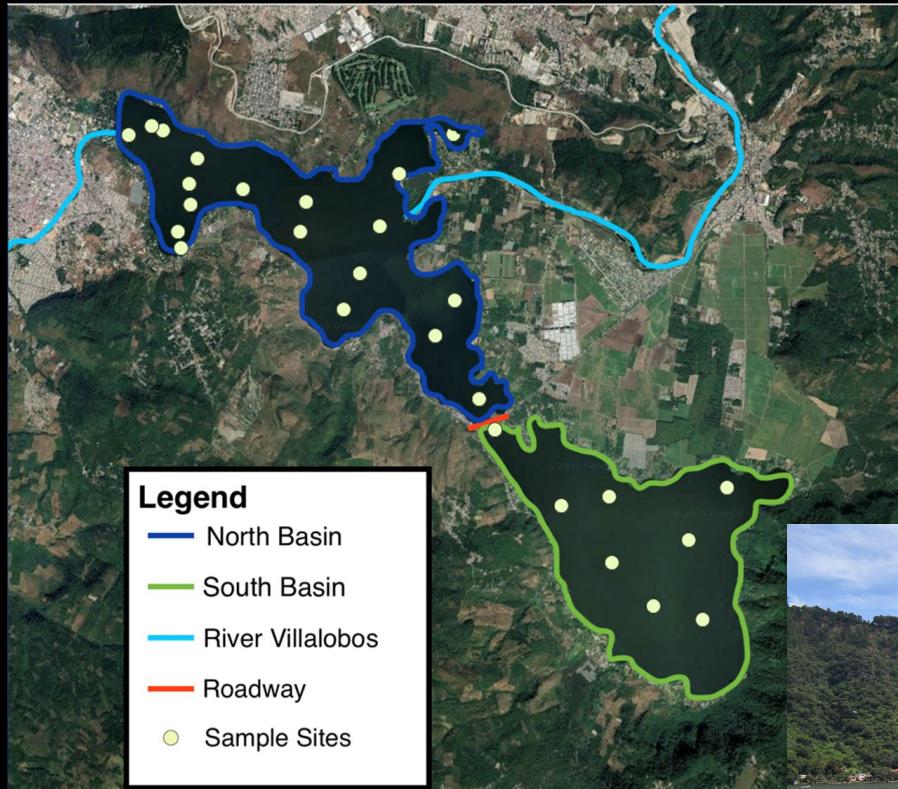


Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset; USGS Global Ecosystems: U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed October 2018.

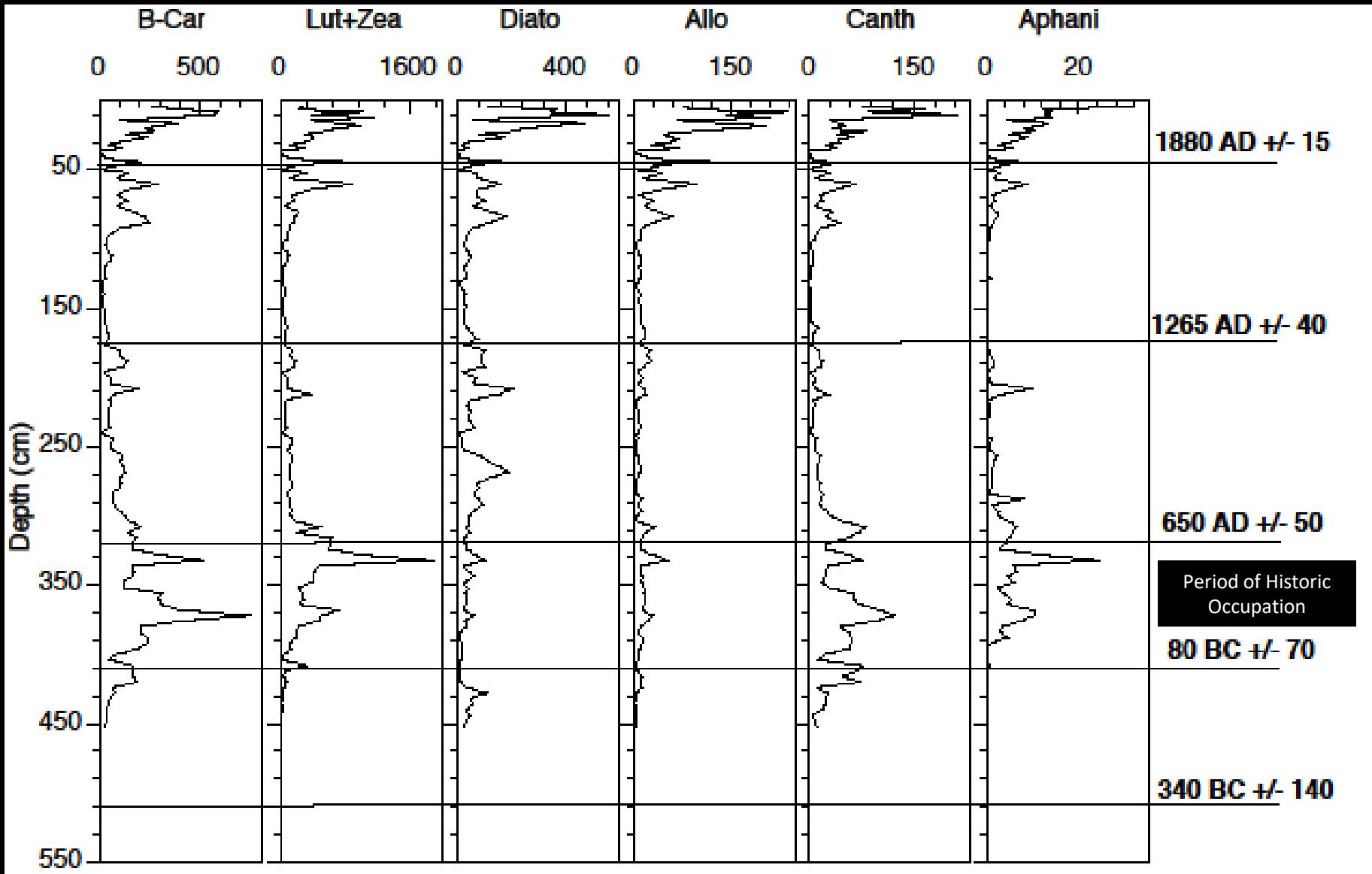


Ancient HABs and Eutrophication

National Geographic Explorers Grant

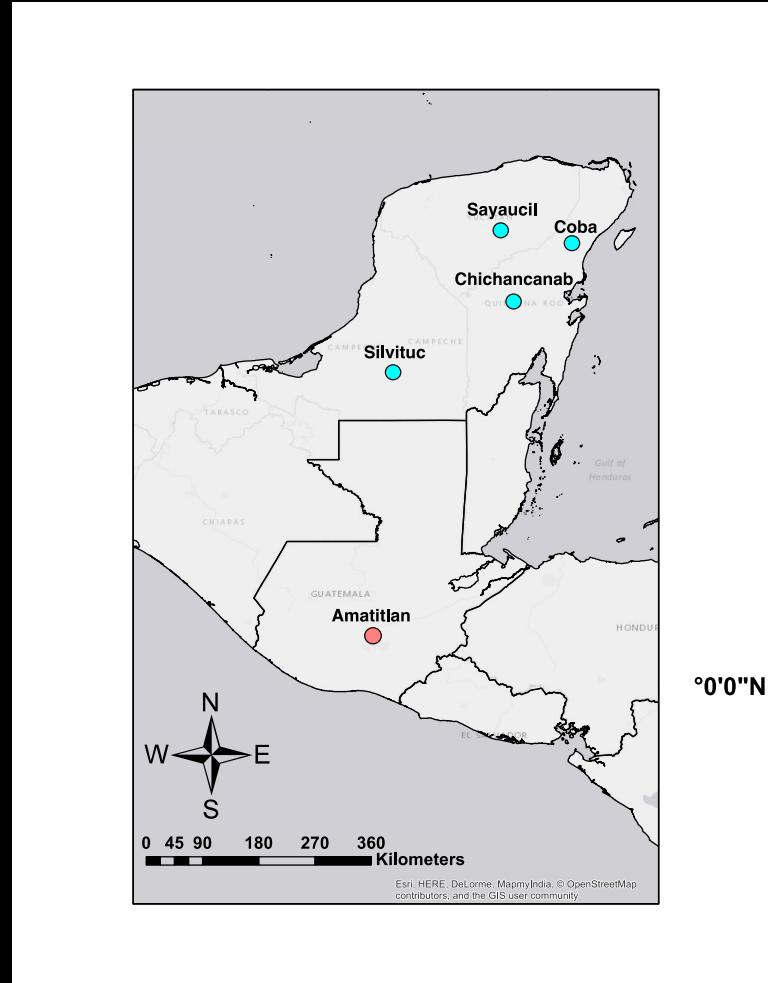
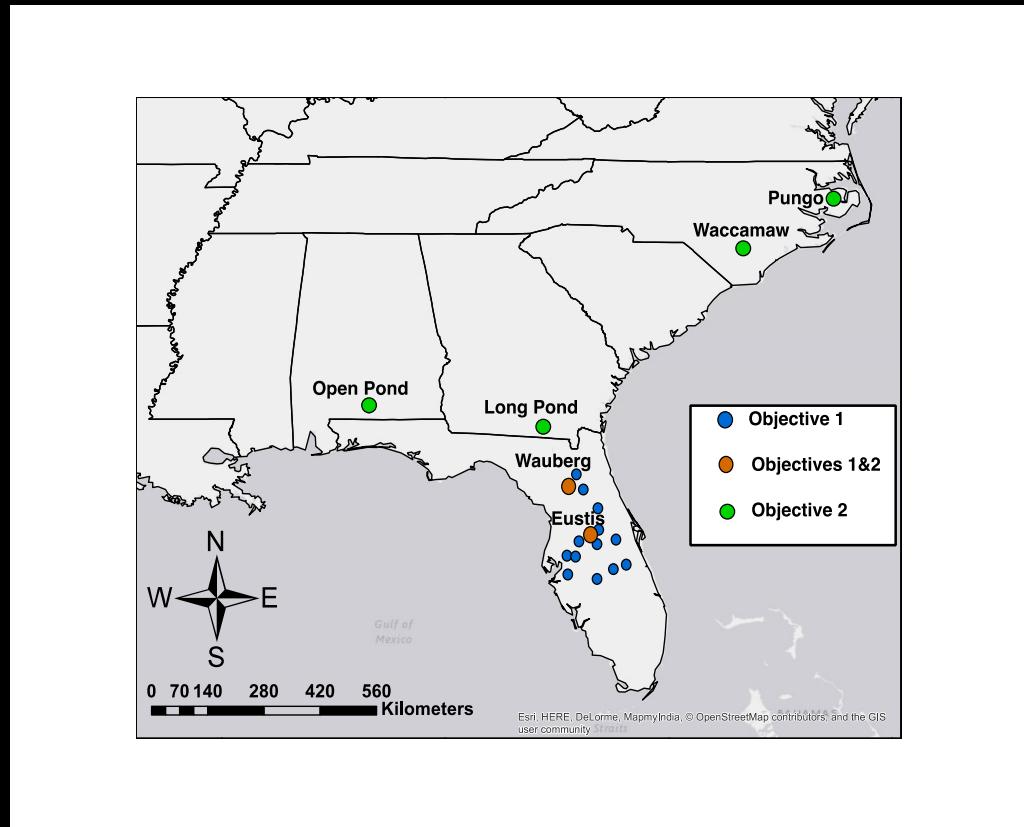


Lake Amatitlán,
Guatemala



Ancient HABs and Eutrophication

NSF Career Grant



Lake Atitlán, Guatemala

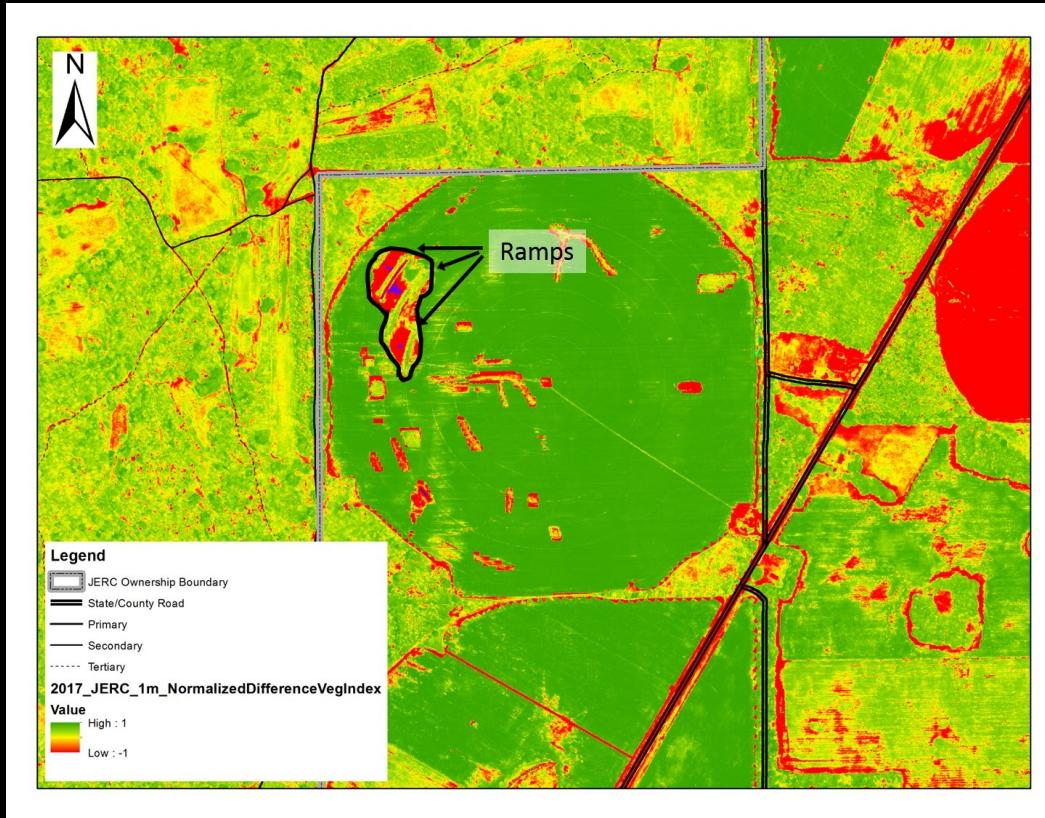
ET York International Travel Grant



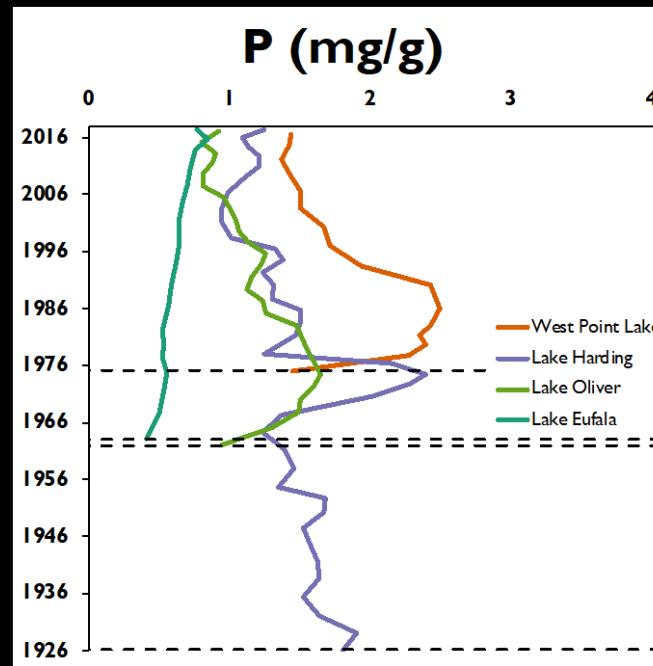
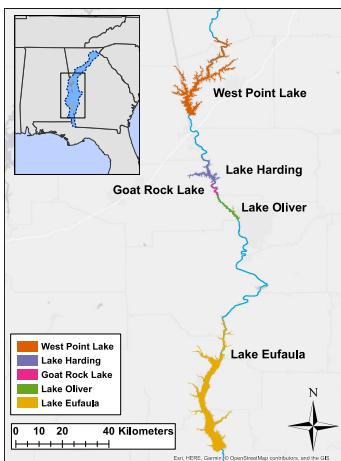
Geographic Isolated Wetlands

USDA-NIFA

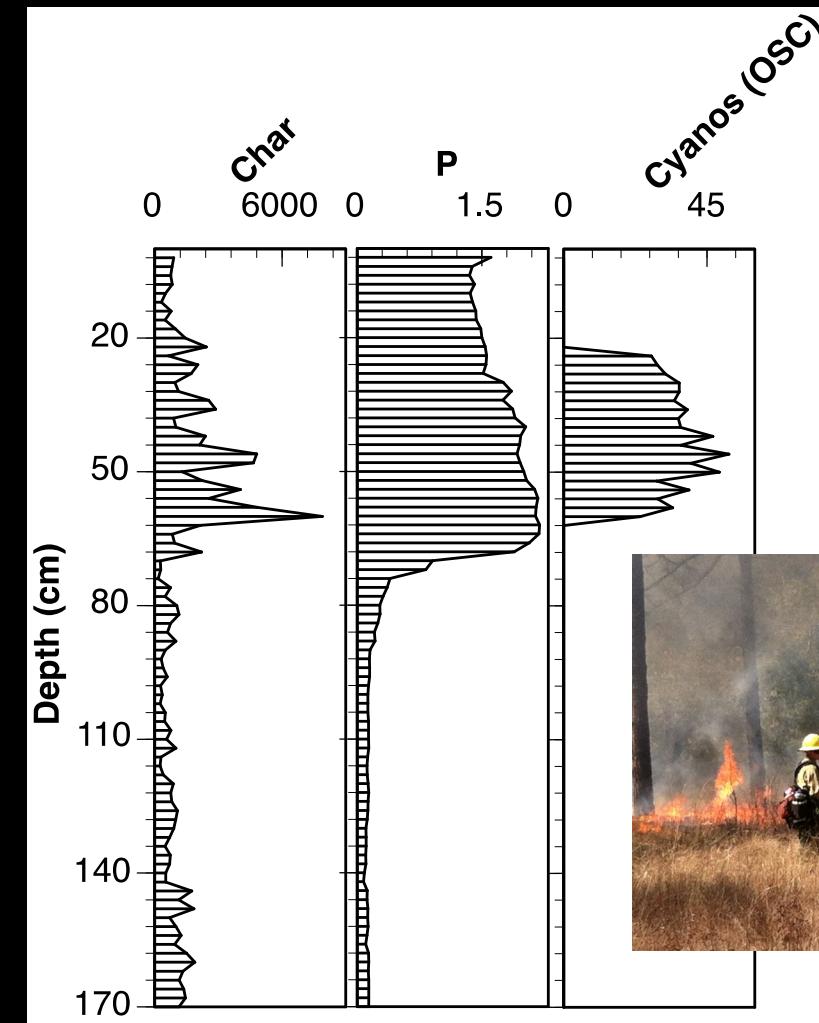
Collaboration with Frances O'Donnell (Civil Eng) and the
Joseph Jones ERC



Chattahoochee River



Conecuh National Forest (prescribed fire)



Auburn PaleoEnvironmental Lab

@Waters_Paleolim
mwaters@auburn.edu

