Why do we need paleo-environmental data?

Well, back in my day...
Core Collection and Sediments

soil particles

pollen

grains

Core Sites

algae
Lake Apopka, FL

Lake Griffin, FL

Waters et al. 2015

Waters 2016
Ancient HABs and Eutrophication

NSF EAGER Grant
Ancient HABs and Eutrophication

National Geographic Explorers Grant

Lake Amatitlán, Guatemala
Period of Historic Occupation

- 1880 AD +/- 15
- 1265 AD +/- 40
- 650 AD +/- 50
- 80 BC +/- 70
- 340 BC +/- 140
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