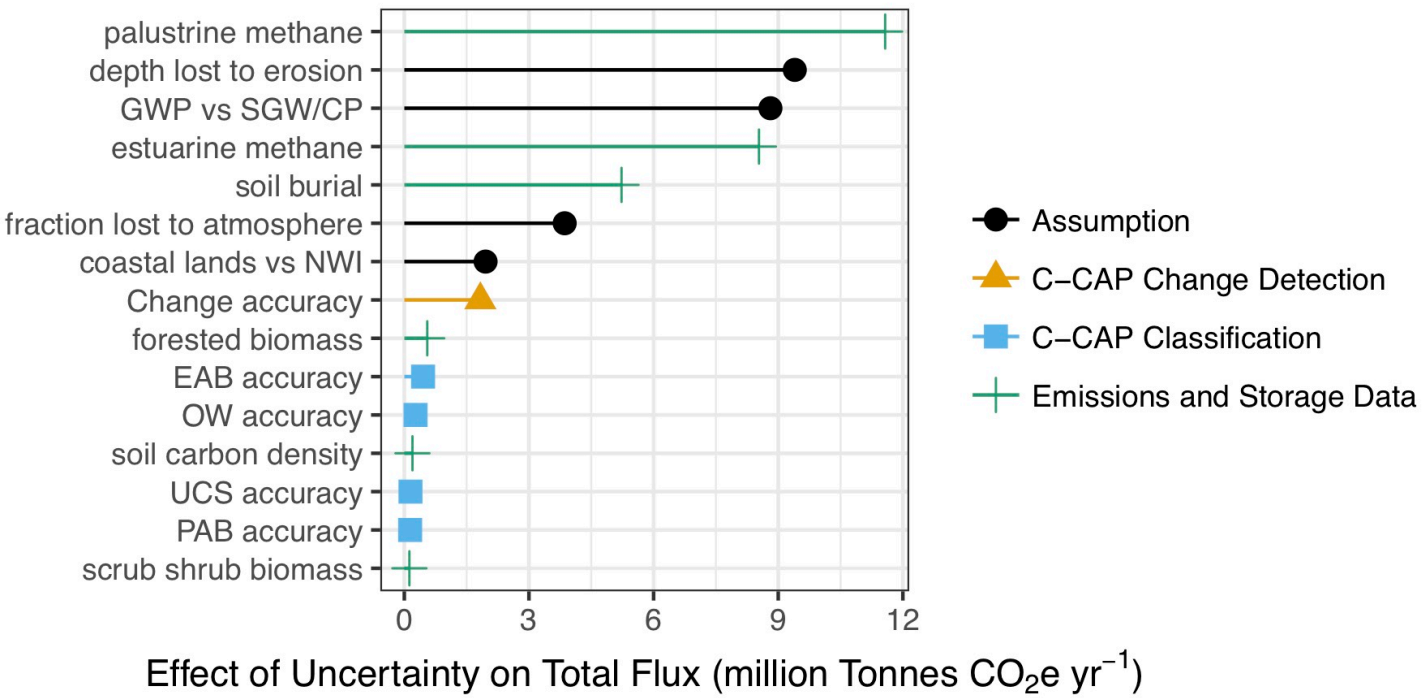
Uncertainty in United States Coastal Wetland Greenhouse Gas Inventorying

James R Holmquist (HolmquistJ@si.edu)[1], Lisamarie Windham-Myers[2], Kristin B Byrd[2], and 12 other coauthors
1. Smithsonian Environmental Research Center, 2. U.S. Geological Survey, Project #NNH14AY67I

- Coastal wetlands can be a sink or source of greenhouse gasses (GHG).
- We merged Coastal Change Analysis Program (C-CAP) maps with data and assumptions.
- From 2006-2011 coastal wetlands were an source of GHGs due to erosion in Louisiana.
- Data and assumptions on CH_4 emission, erosion events, and carbon burial introduced the most uncertainty into this inventory.



We need more data, and better models (maps) of coastal CH_4 emissions and CO_2 burial. We could also use better change detection, and map accuracy assessments that go back further in time.

Holmquist et al., (2018). Uncertainty in United States coastal wetland greenhouse gas inventorying. Environmental Research Letters. https://doi.org/10.1088/1748-9326/aae157.