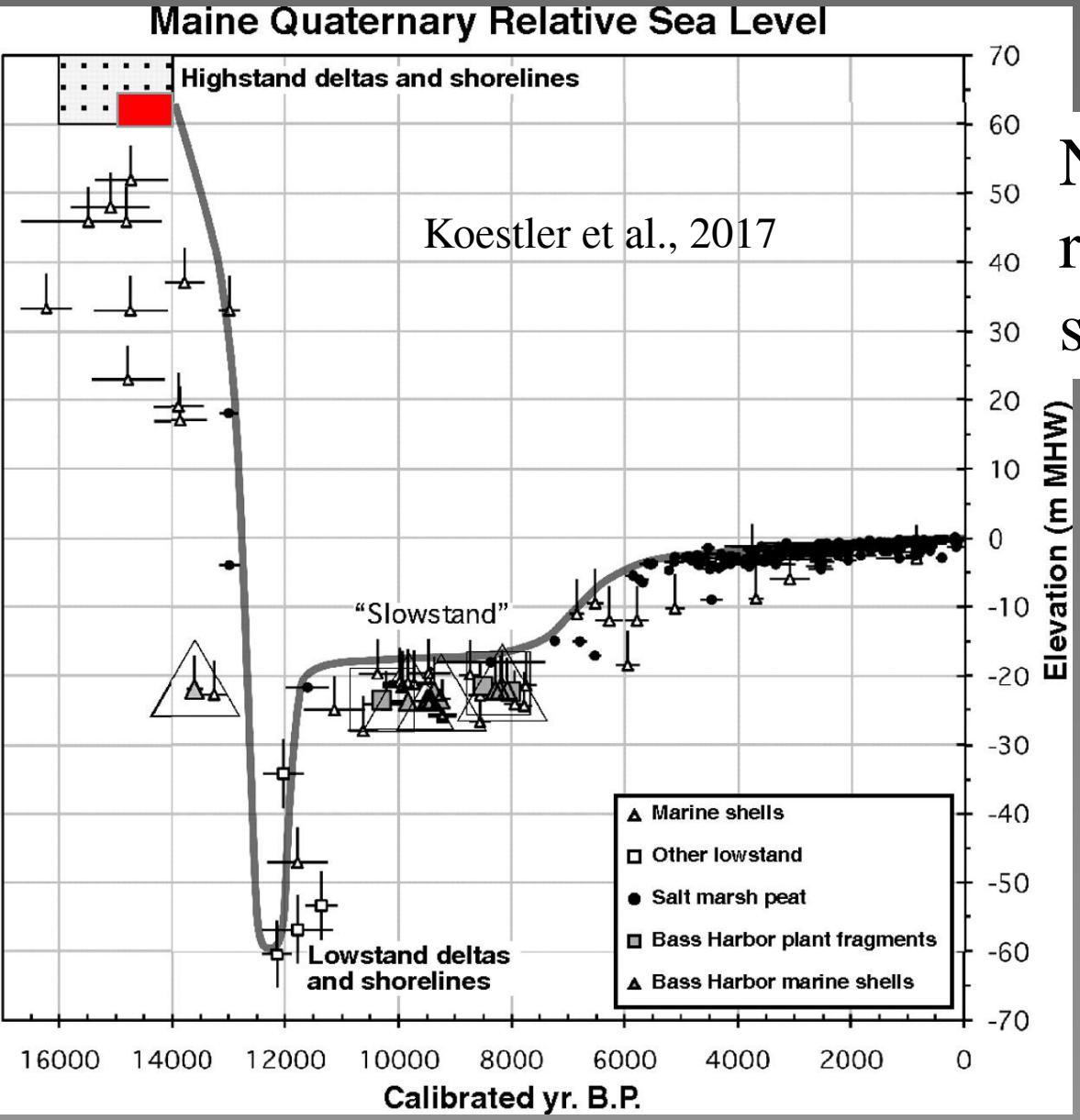
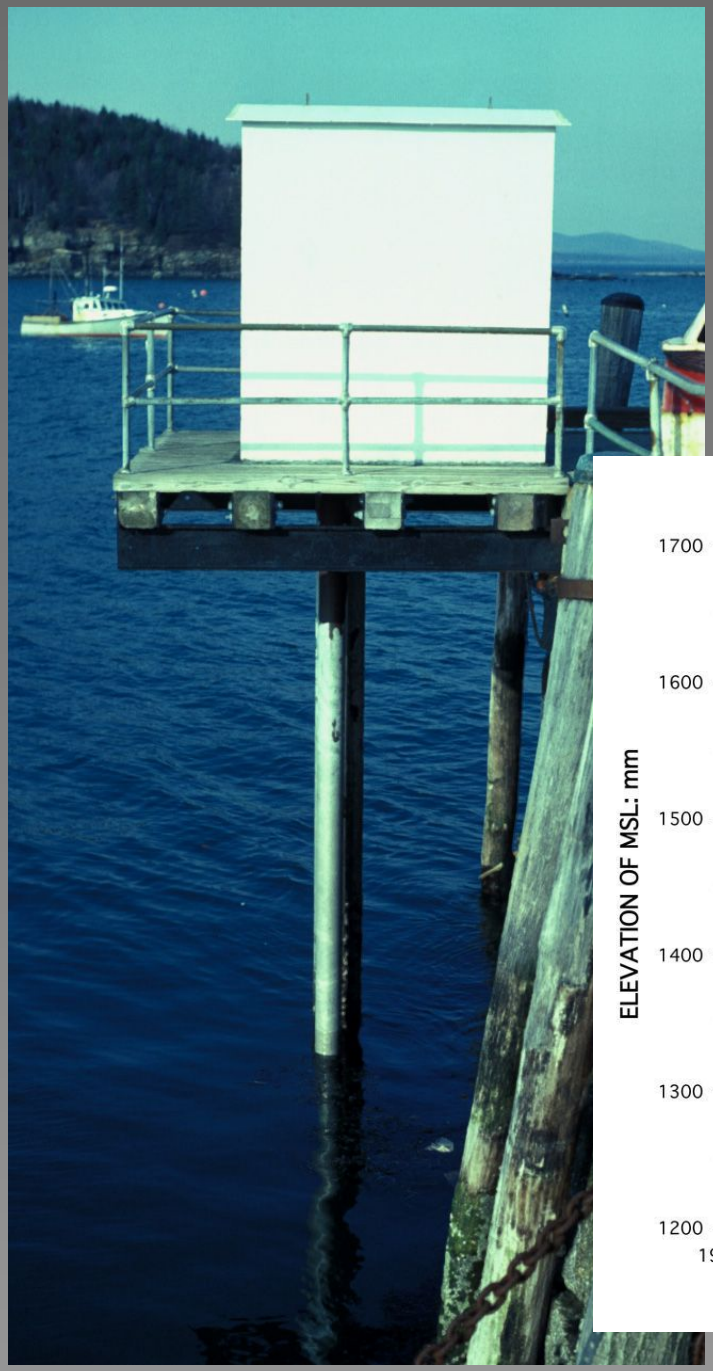
Sea Level Rise & Maine's Shell Middens



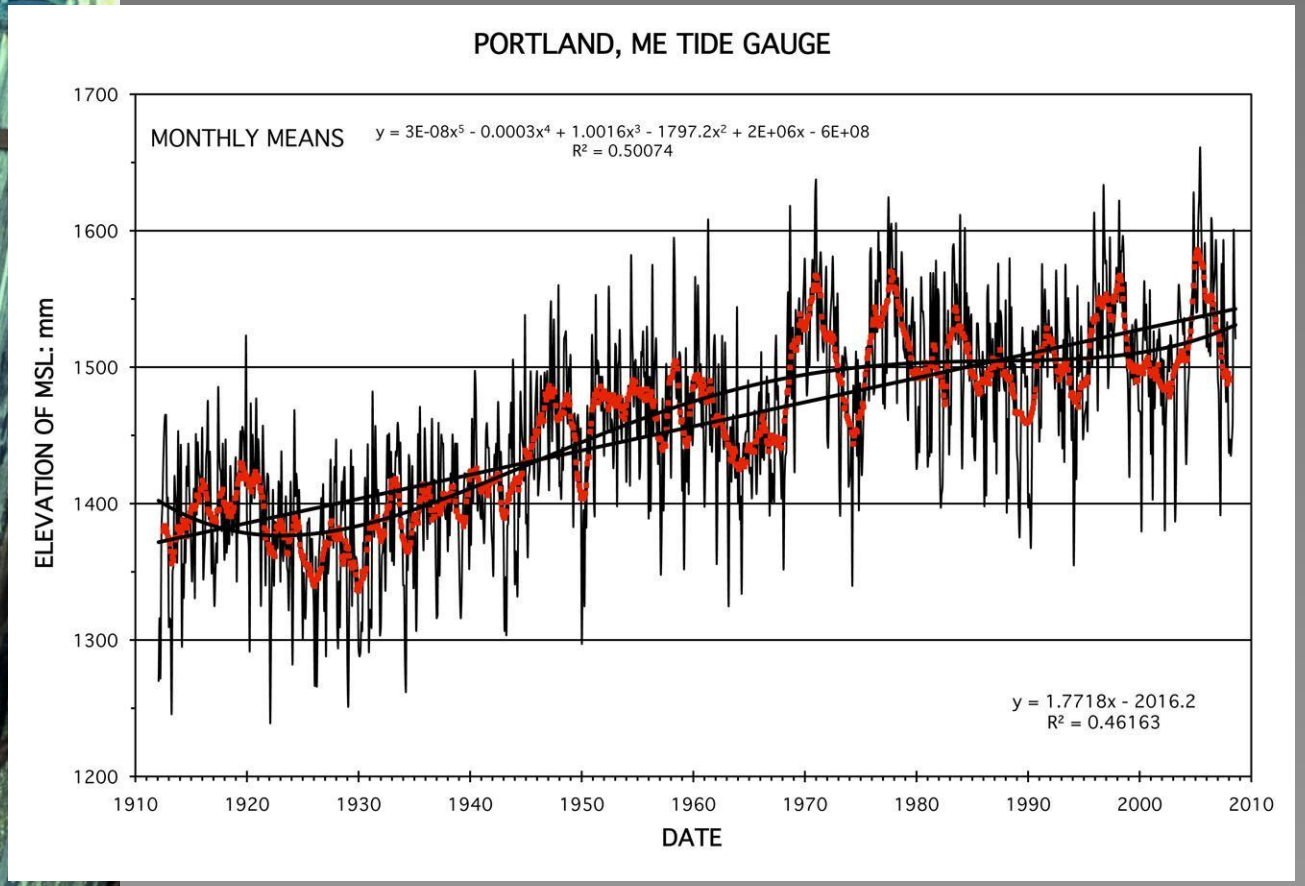
New technique to date raised shorelines: surface exposure dating

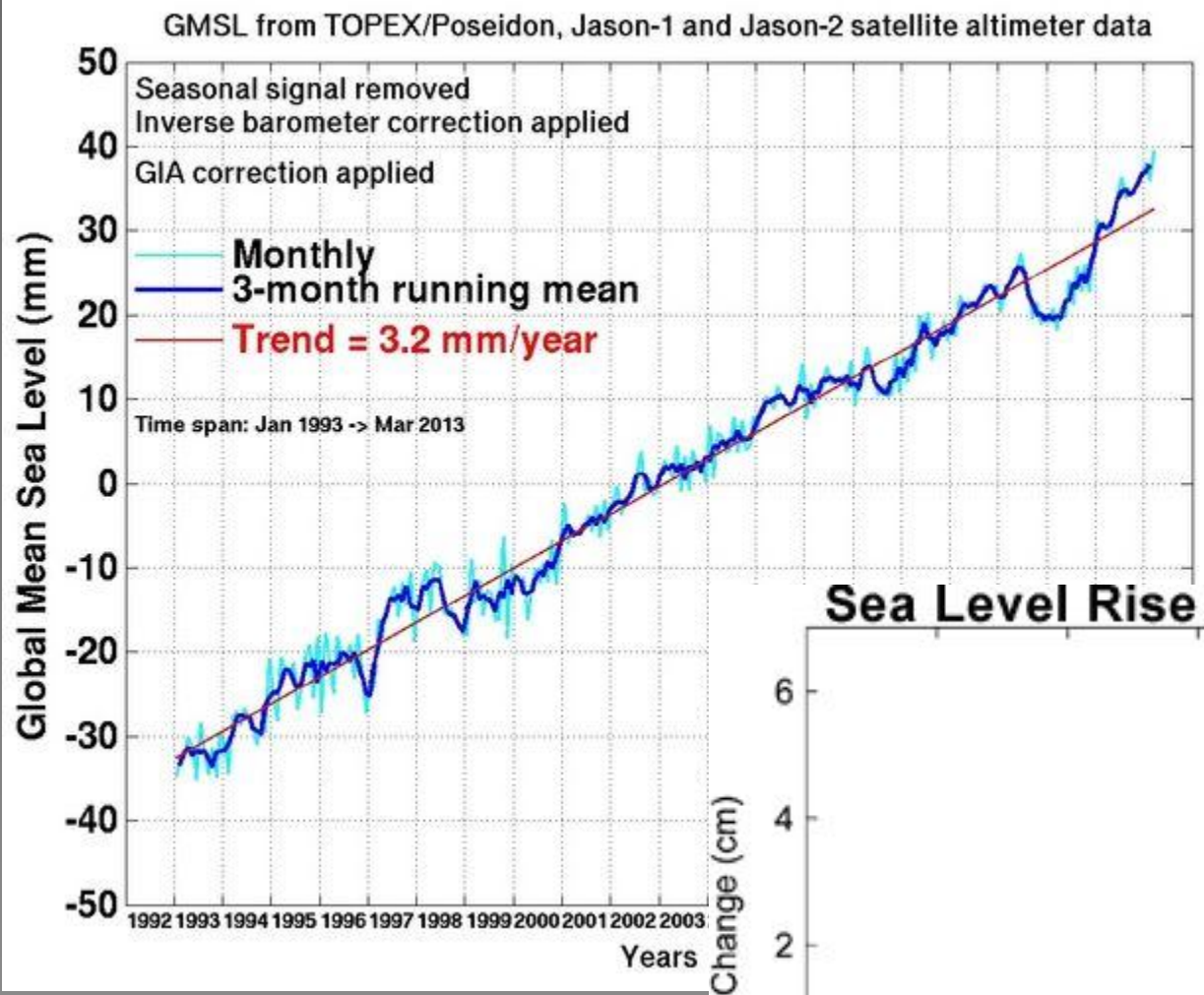
Kelley et al., 2010, 2013



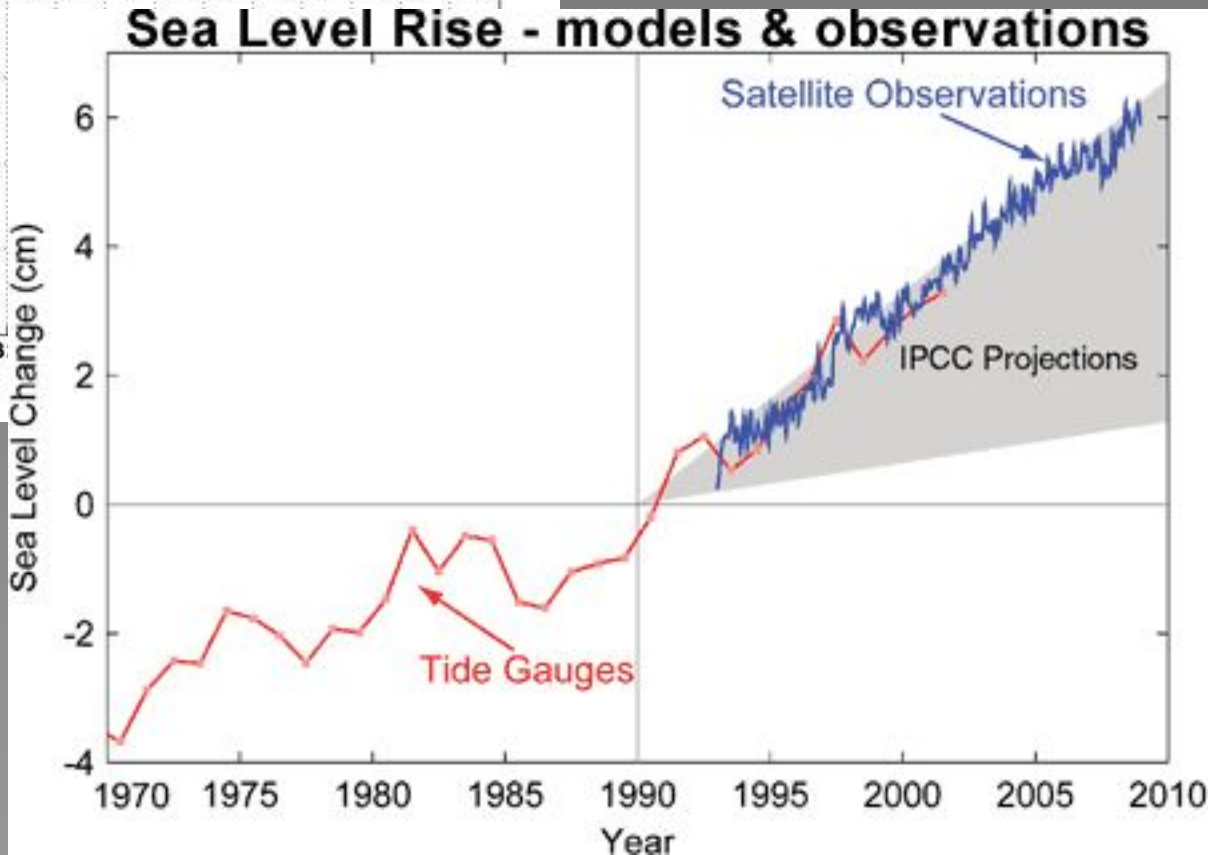
Bar Harbor tide gauge

Portland tide gauge record: 1.77 mm/yr, 1912-2009 (0.58 ft/century)

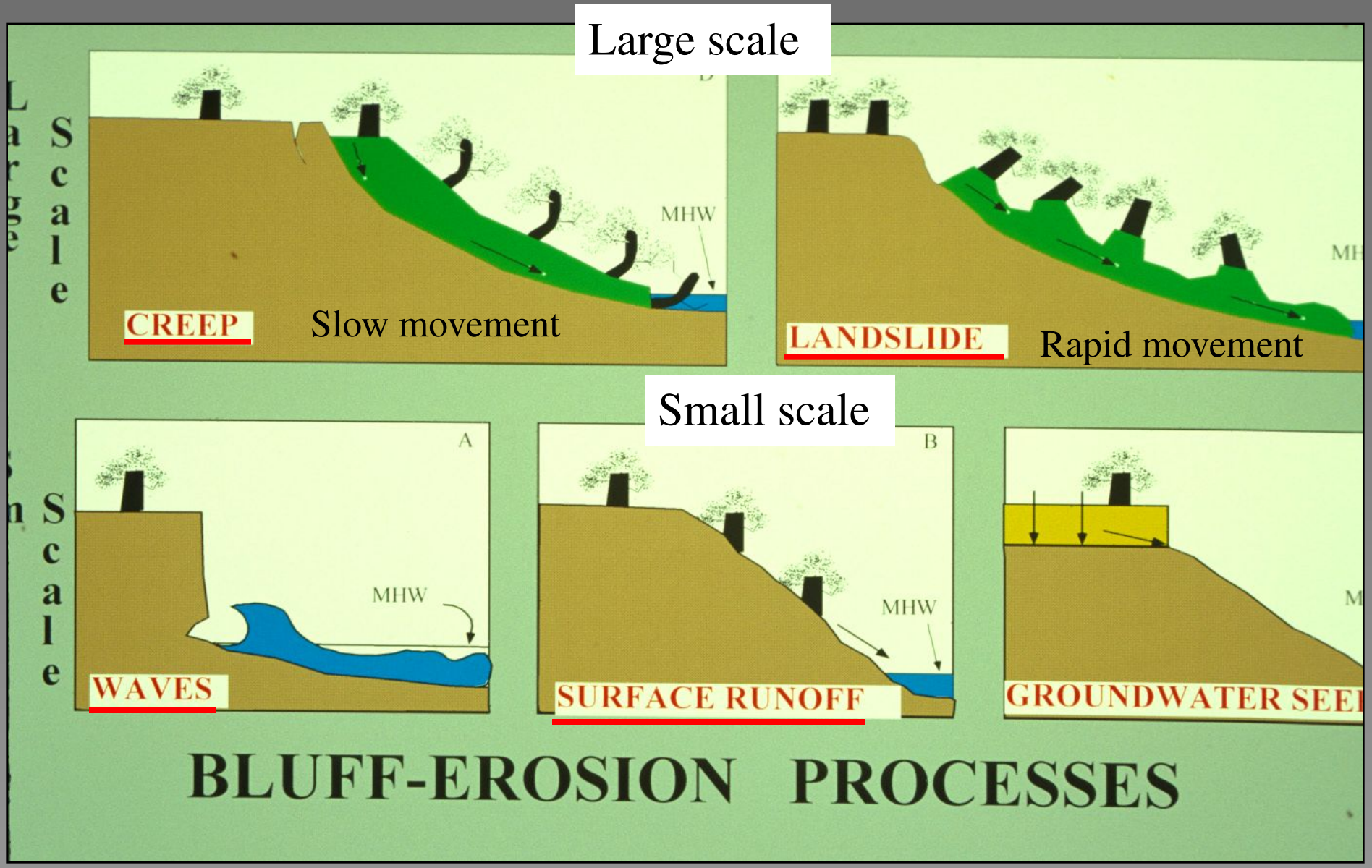




Note that satellite is not confused by "noise" that tide gauge deals with.



http://www.skepticalscience.com/sea-level-rise-predictions-basic.html



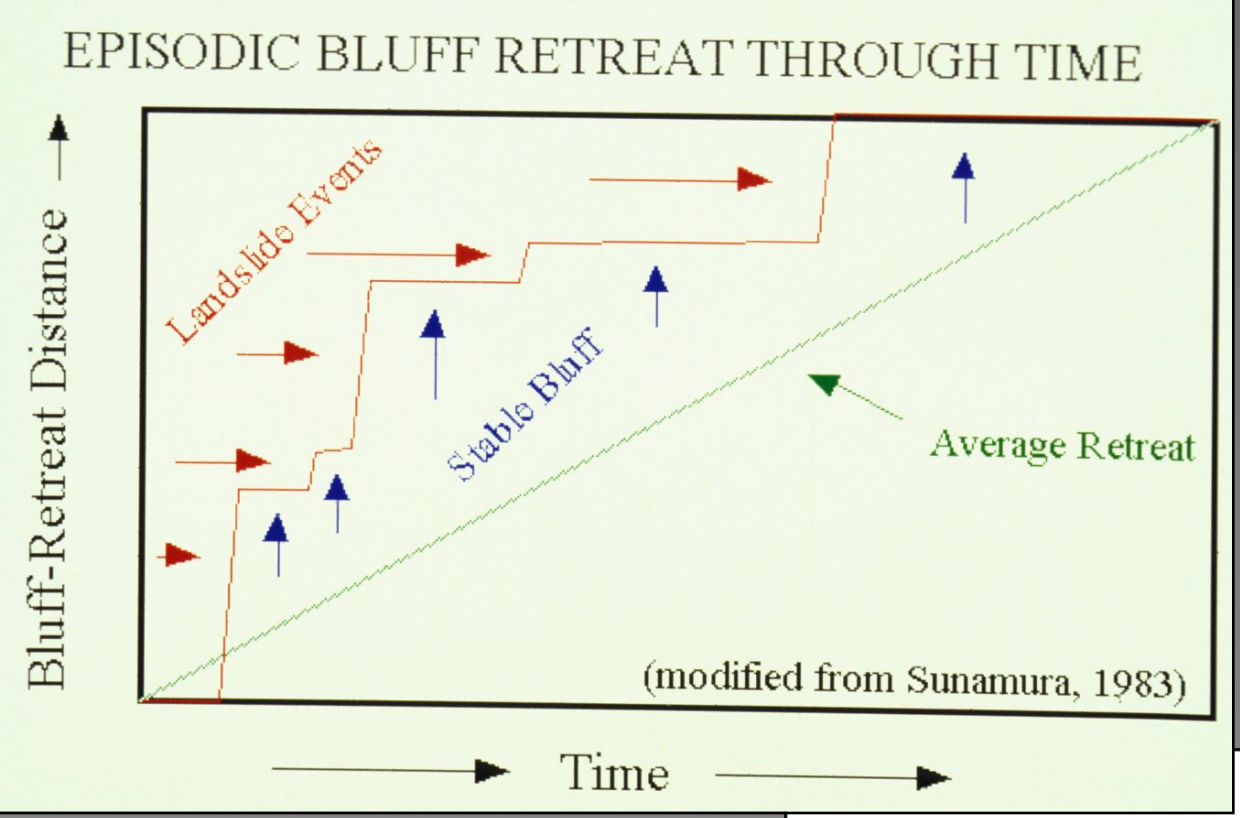
Kelley and Dickson, 2000

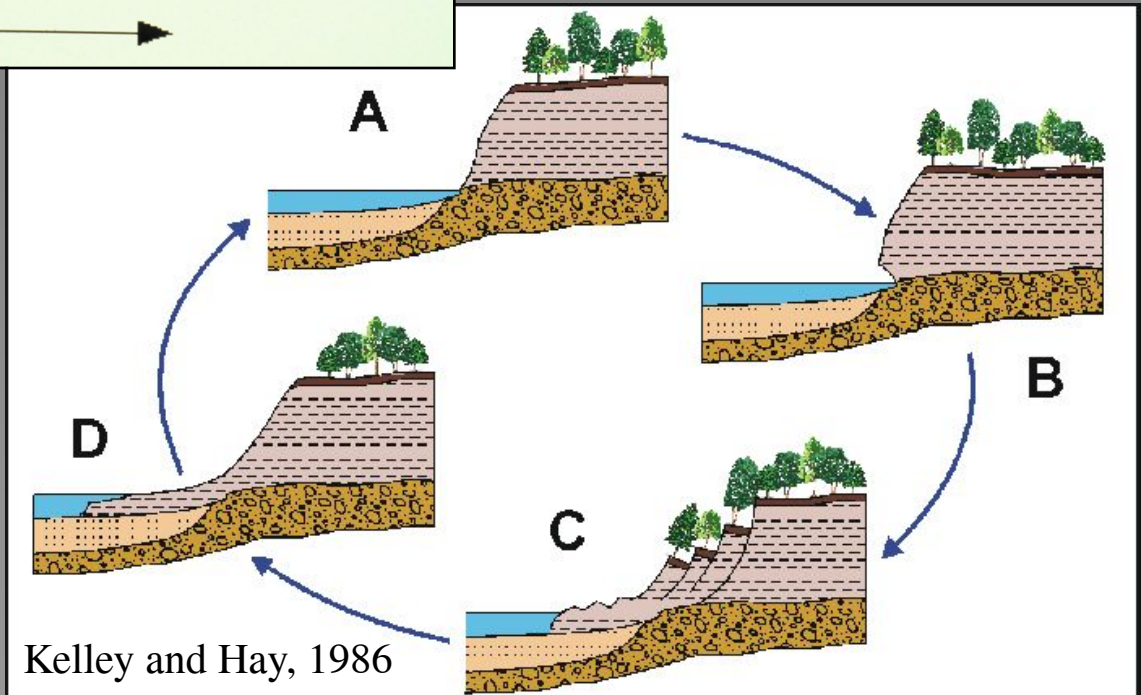

1. Wave Attack:
carries away mud
from bluff toe

2. Surface Runoff (rain, snowmelt)

3. Groundwater Thaw, Spring, Lubec, ME

Rate(s) of Bluff Retreat





Kelley and Hay, 1986

Olsen Site Midden

We monitor midden sites and other bluffs to better predict rate(s) of retreat. This is a detailed 3-d model of an eroding site that can be compared with future images to evaluate erosion.