

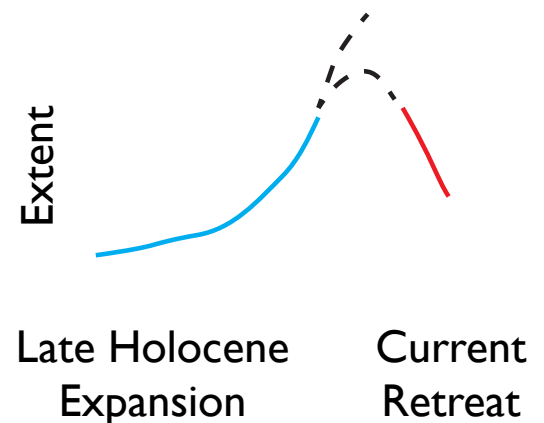
Late Holocene Expansion of the Greenland Ice Sheet and Implications for Its Current Decay

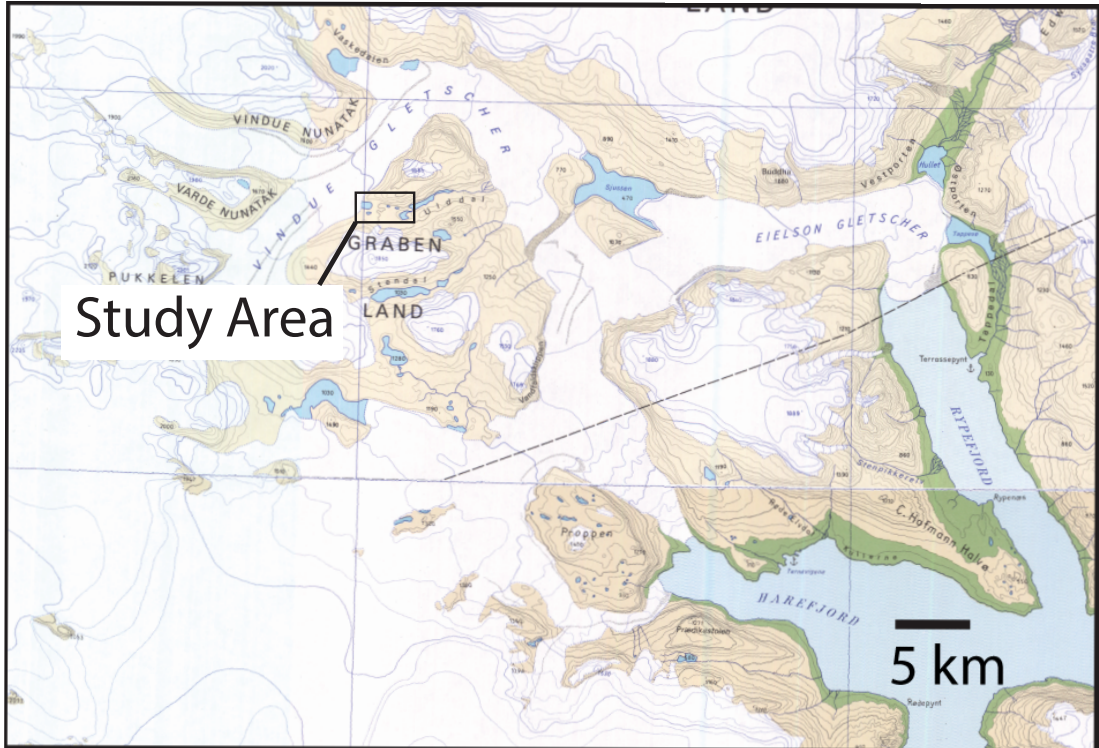
Thomas V. Lowell, Paul Wilcox, Brenda Hall, Aaron
Medford, Meredith Kelly, Laura Levy



Contribution

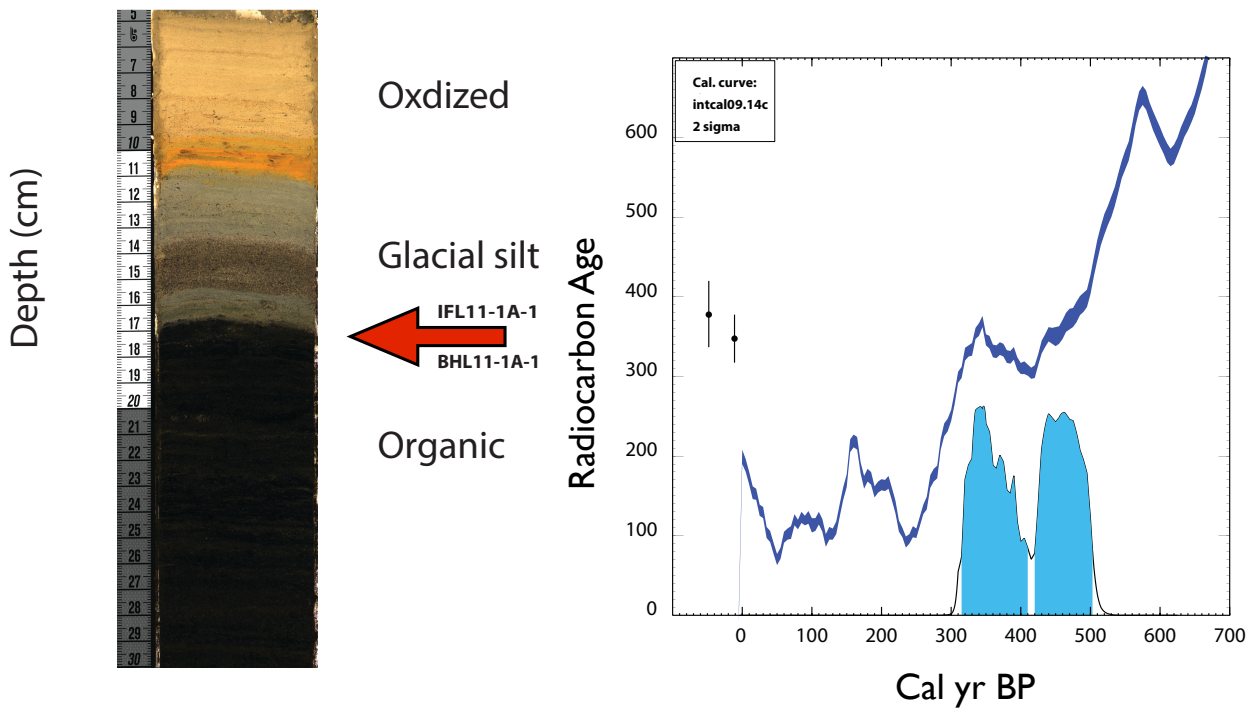
- 1. Independent glaciers and ice caps
 - History over late Holocene (~last 1000 yr)
 - *Independent assessment of atmosphere forcing of glaciers*
- 2. Outlet Glacier - expansion and thinning
 - Current retreat started in
 - Expansion?
 - Natural retreat?
 - *Starting conditions for current retreat*





Study Area

5 km



Vindue Gletschert maximum position in the last ~4700 yrs achieved between 300 and 500 yr ago. ~10 m thinning

Summary

- Current marine margins cutting into the largest ice sheet of the Holocene
- Vertical thinning too far upstream to be margin effect (~35 km)
- Lakes along outlet glaciers hold an archive of expansions and retreats (~100 yr)