

Near-shore permafrost degradation in Siberia

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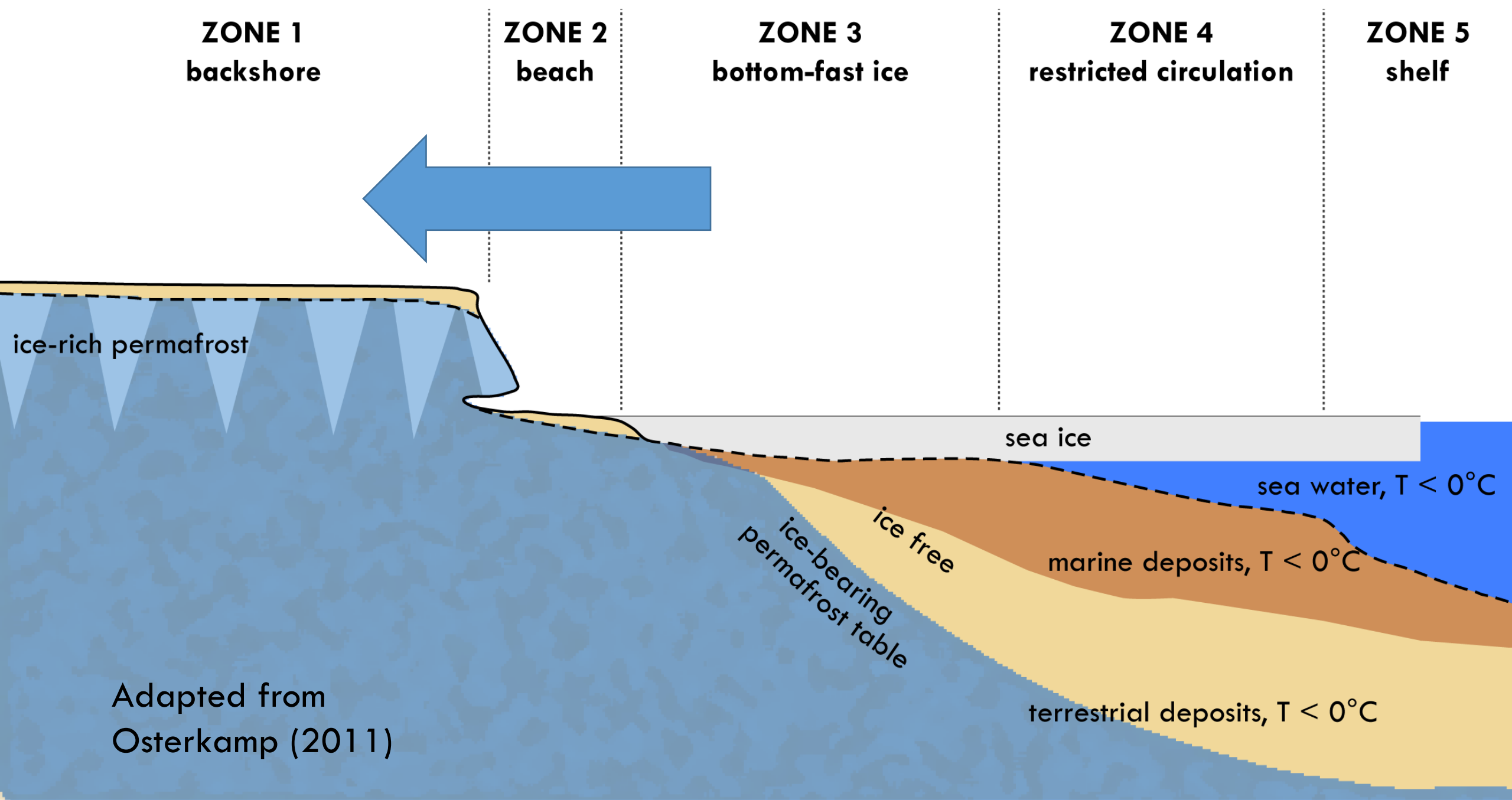
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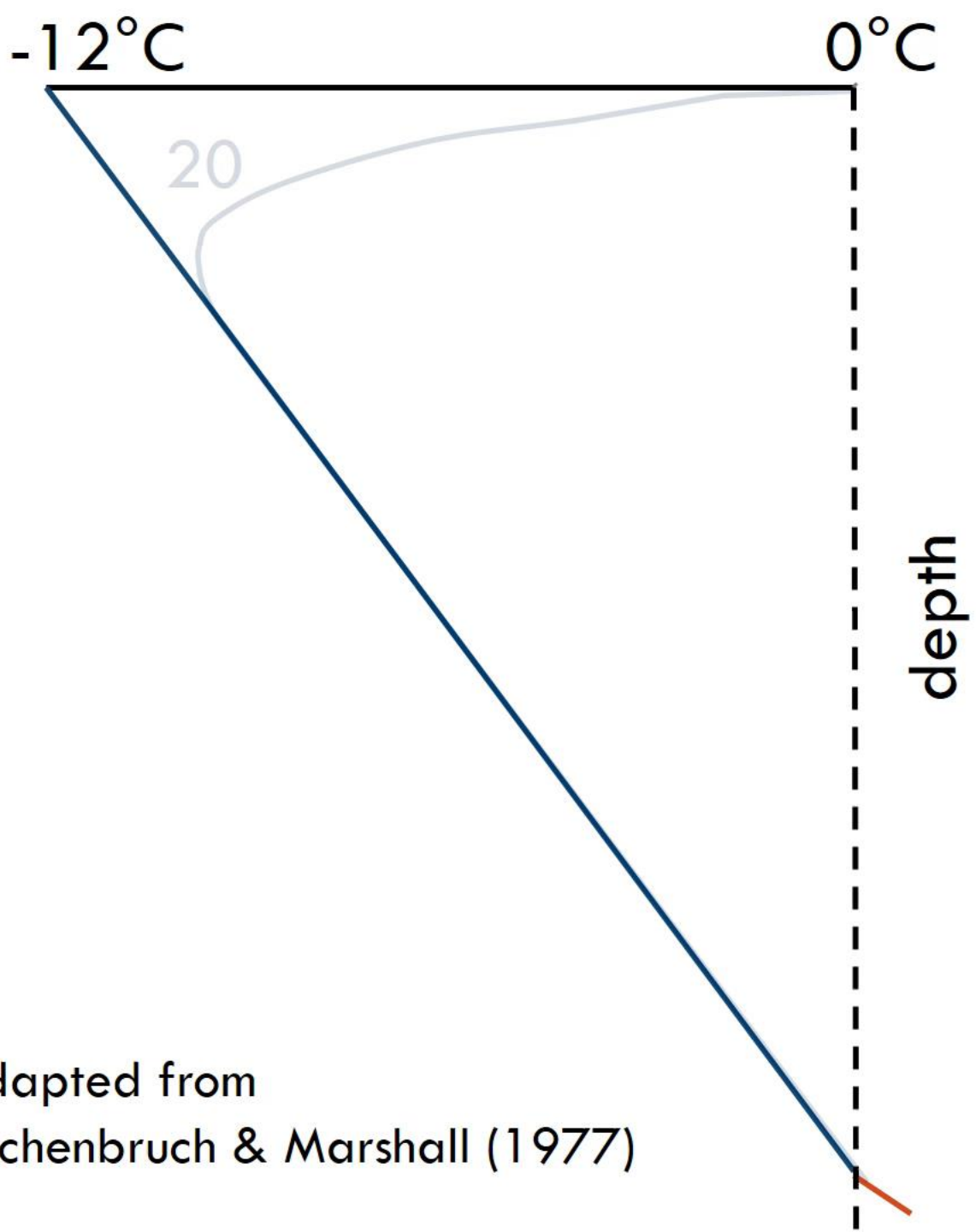




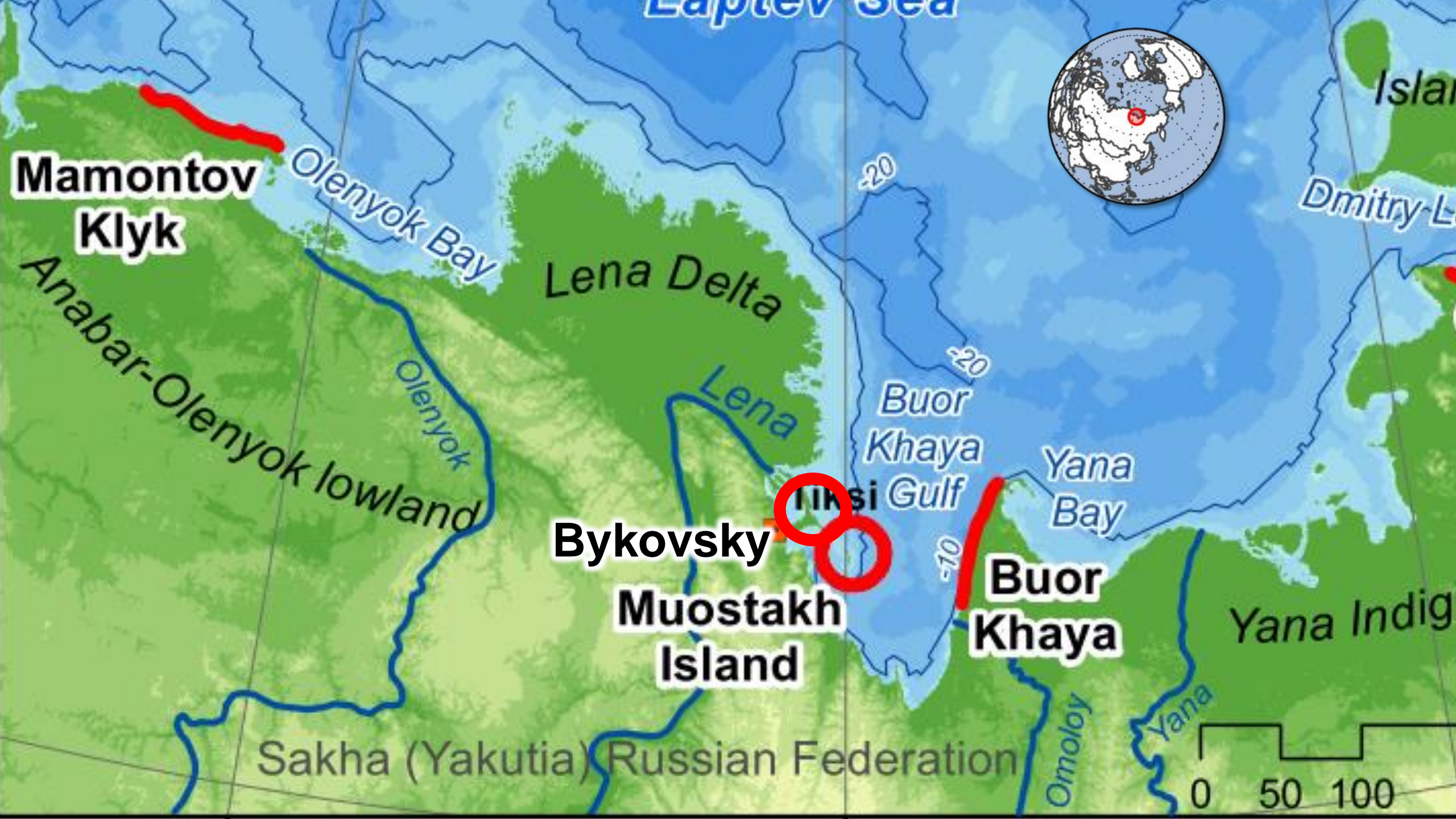


Adapted from
Osterkamp (2011)

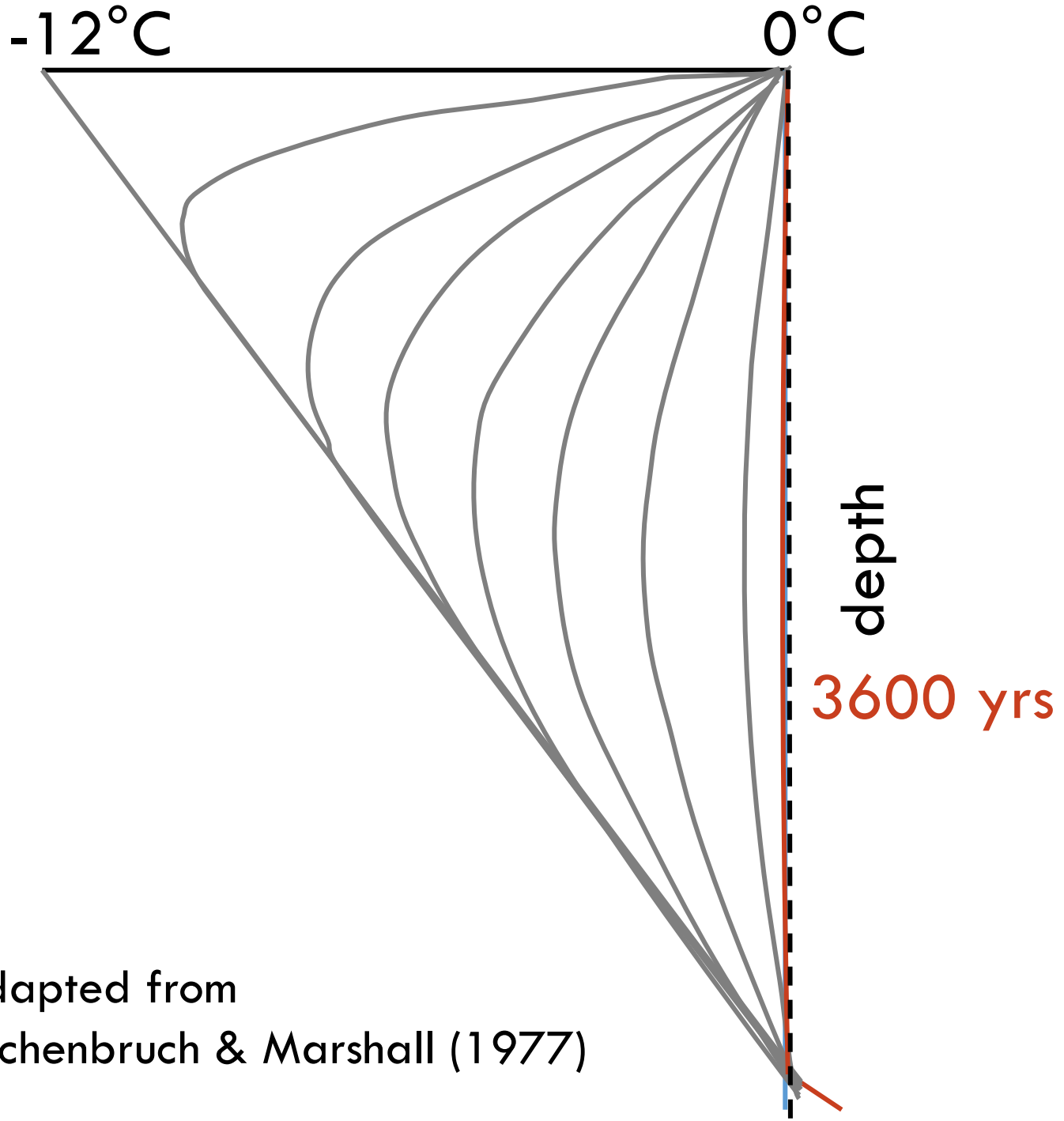




Adapted from
Lachenbruch & Marshall (1977)

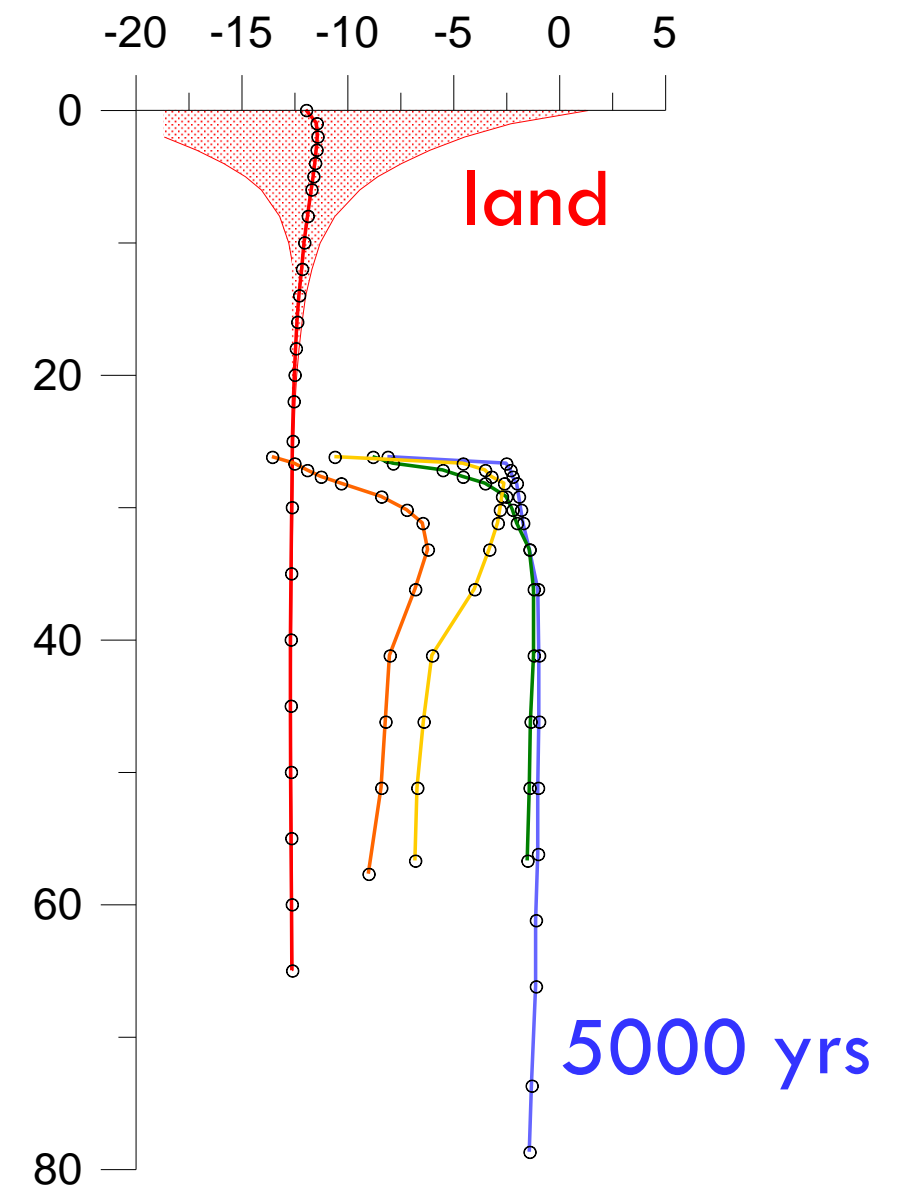


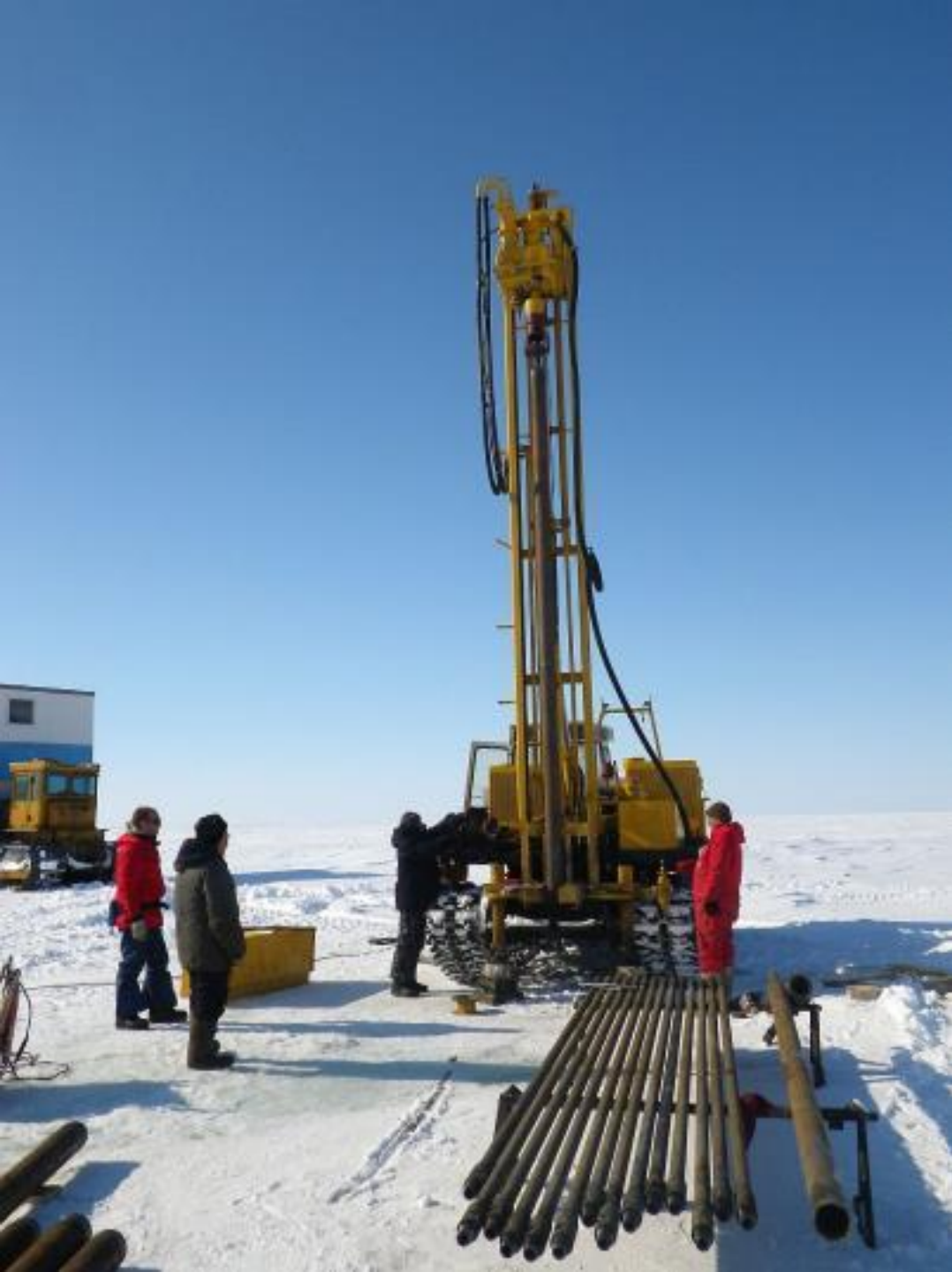




Adapted from
Lachenbruch & Marshall (1977)

Permafrost temperature Cape Mamontov Klyk



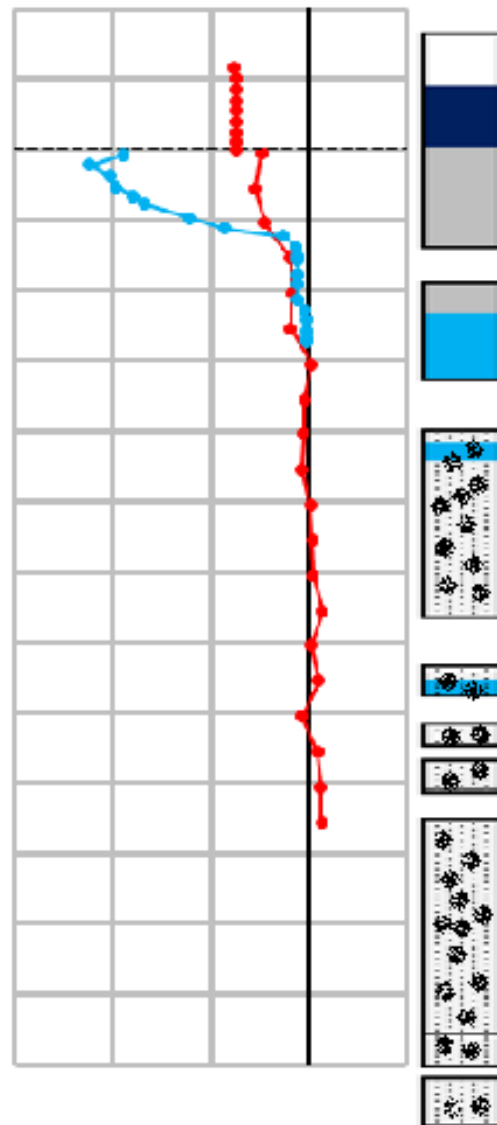


Depth Below Lakebed (m)

4
2
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-26

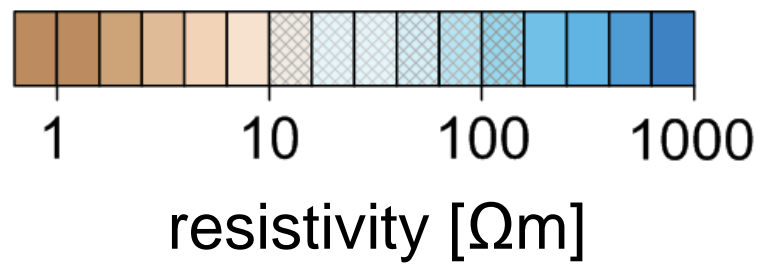
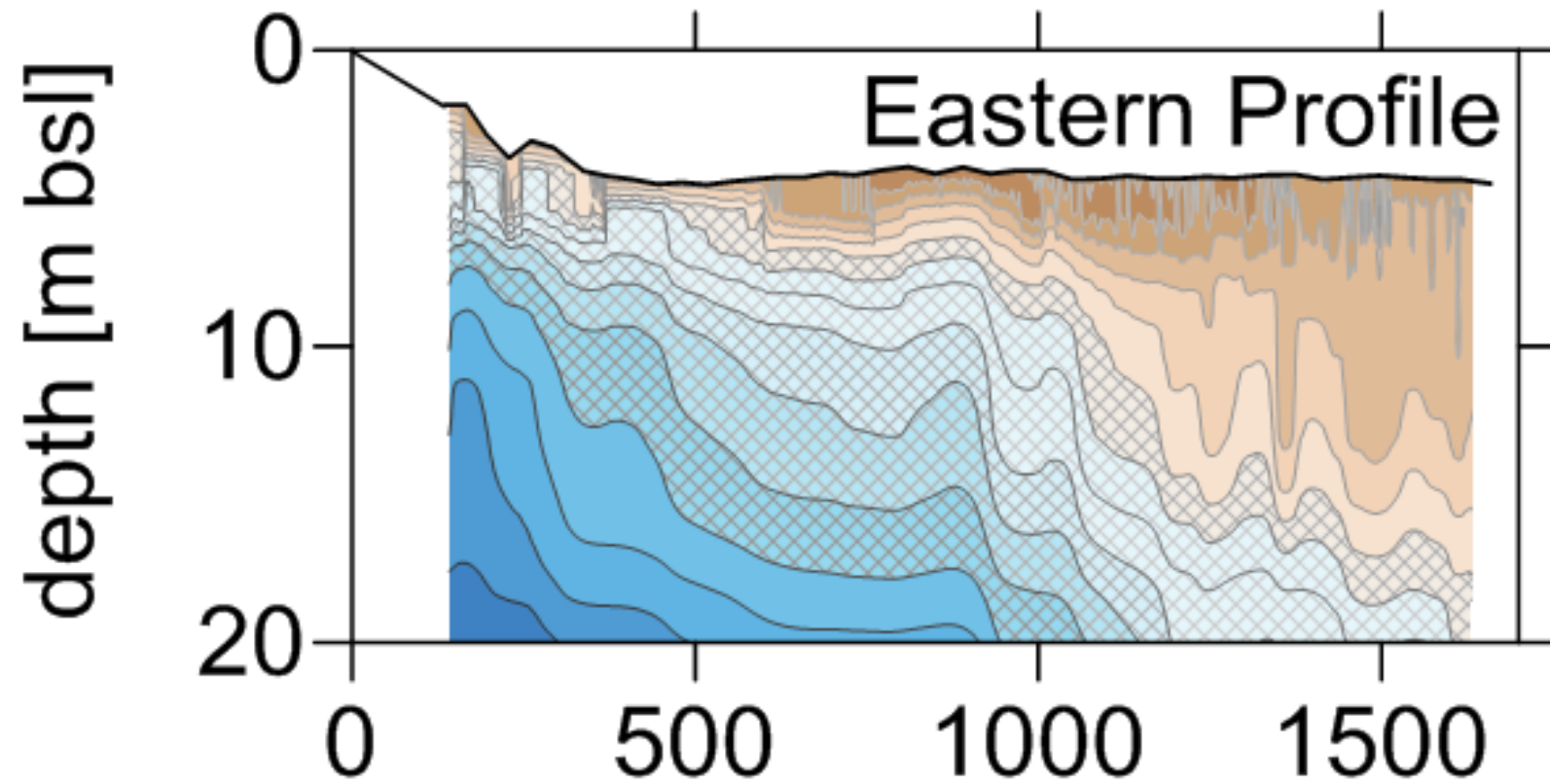
Temperature (°C)

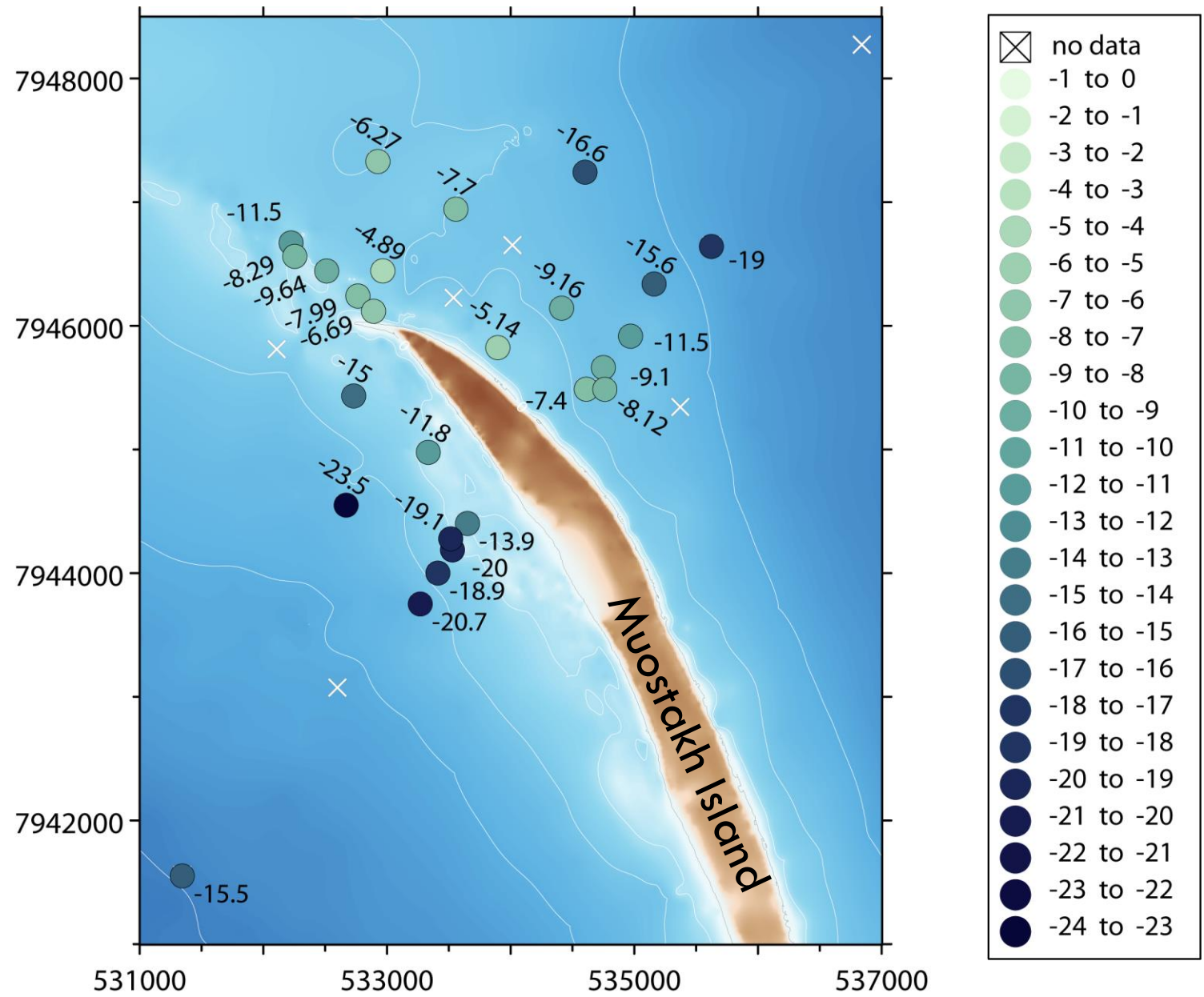
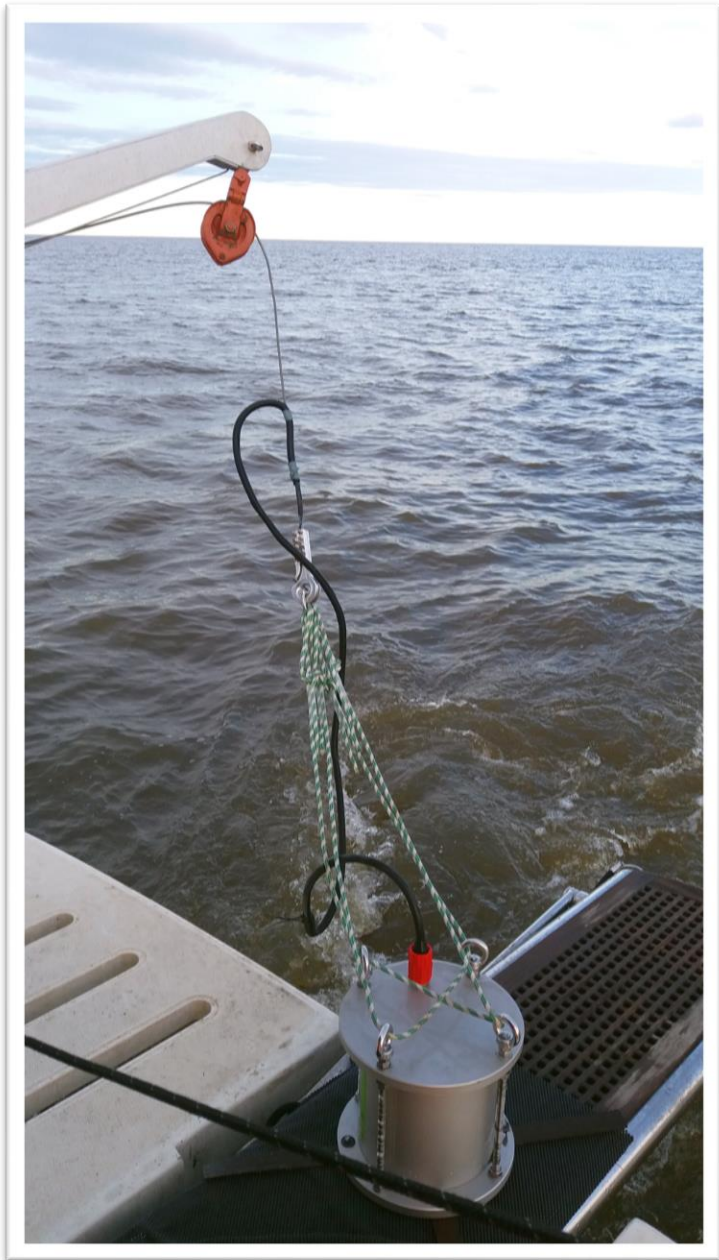
-3 -2 -1 0 1

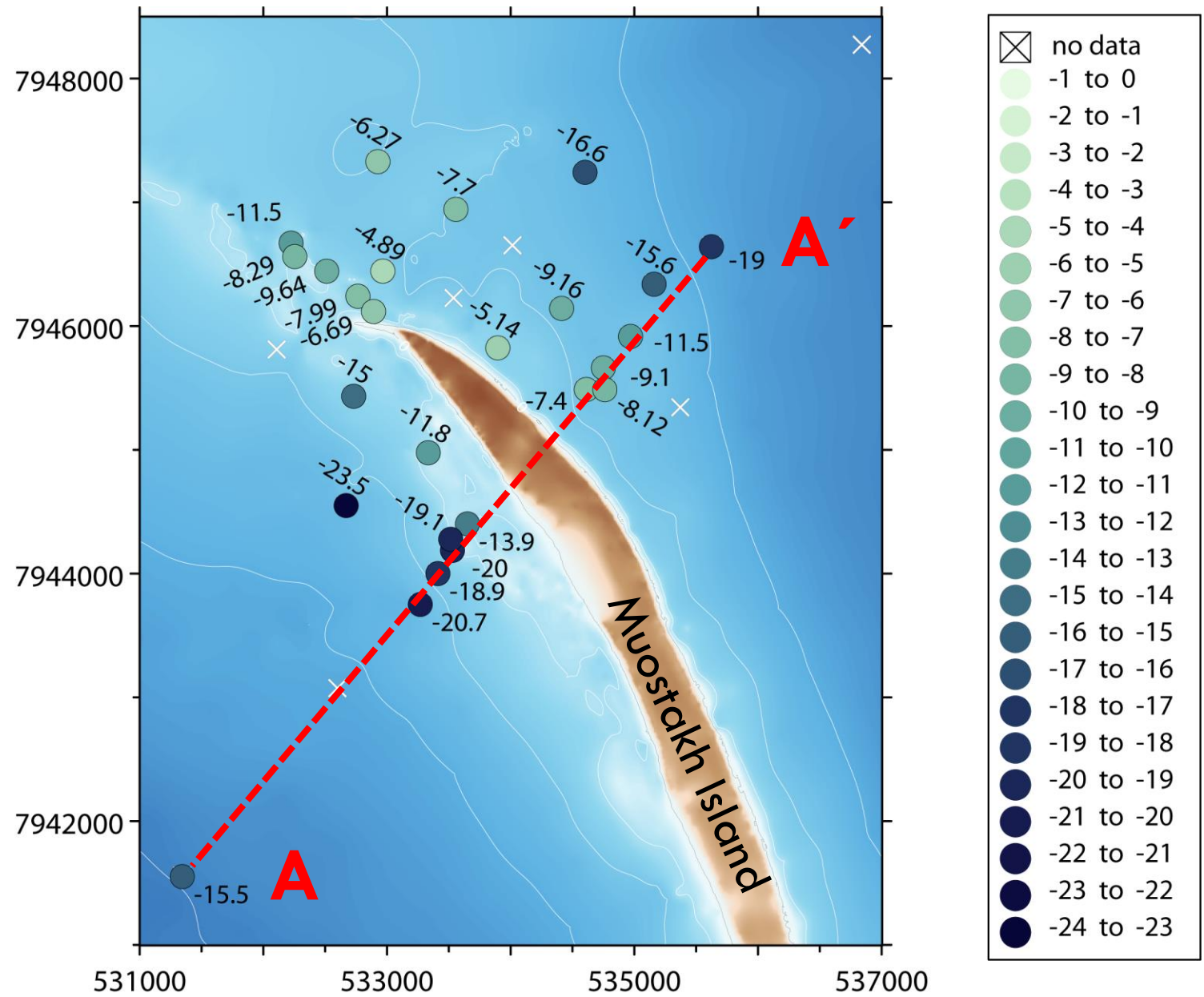
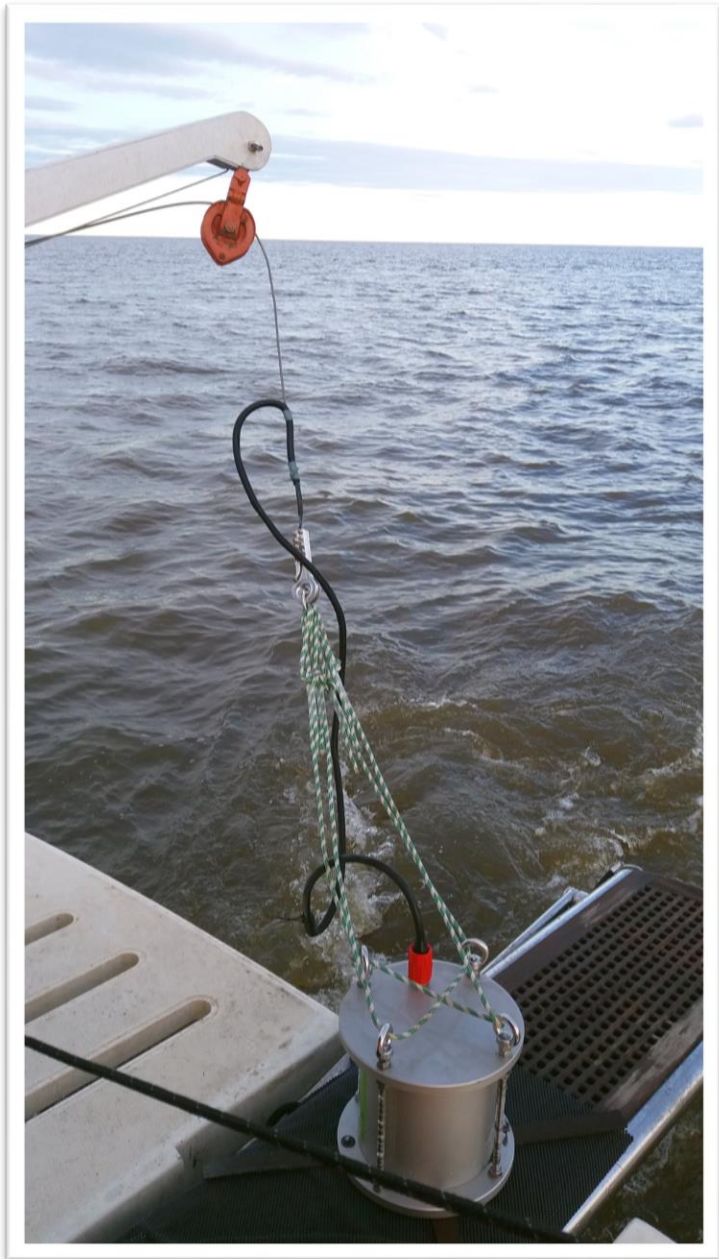


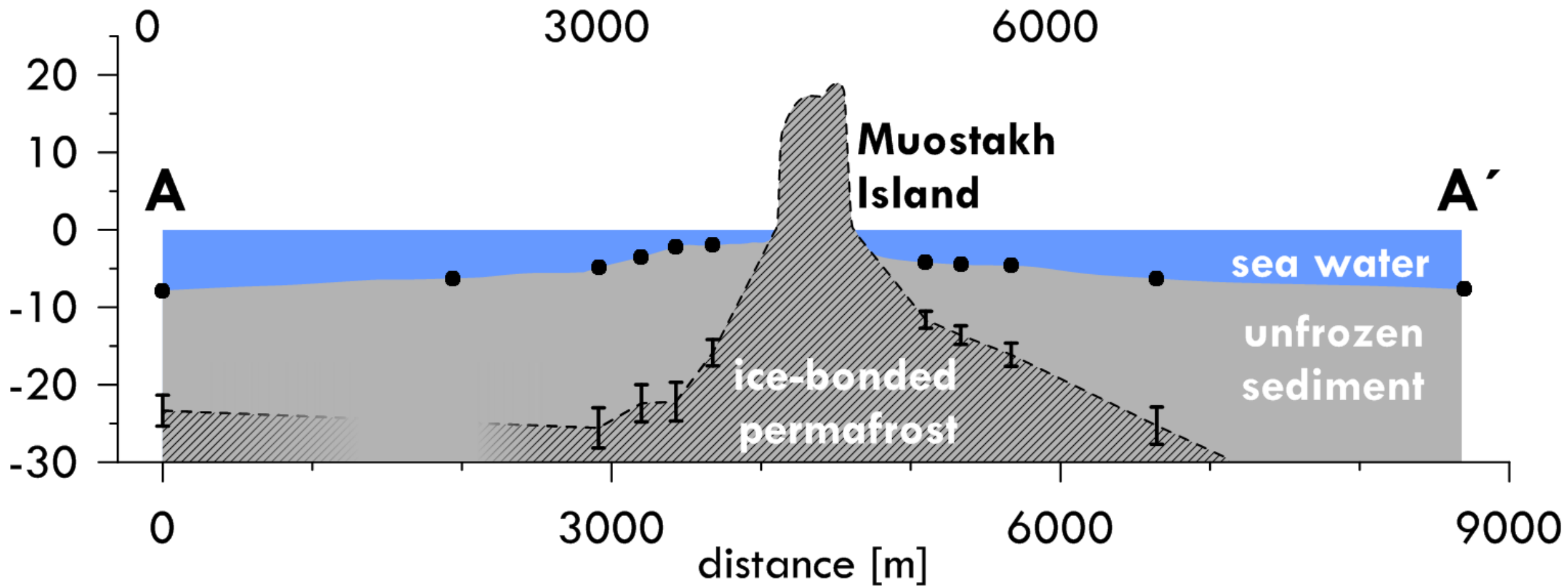
- Temperature
- Freeze Point
- Lake Ice
- Water
- Silty Sand
- Sand
- Frozen Silty Sand
- Frozen Sand

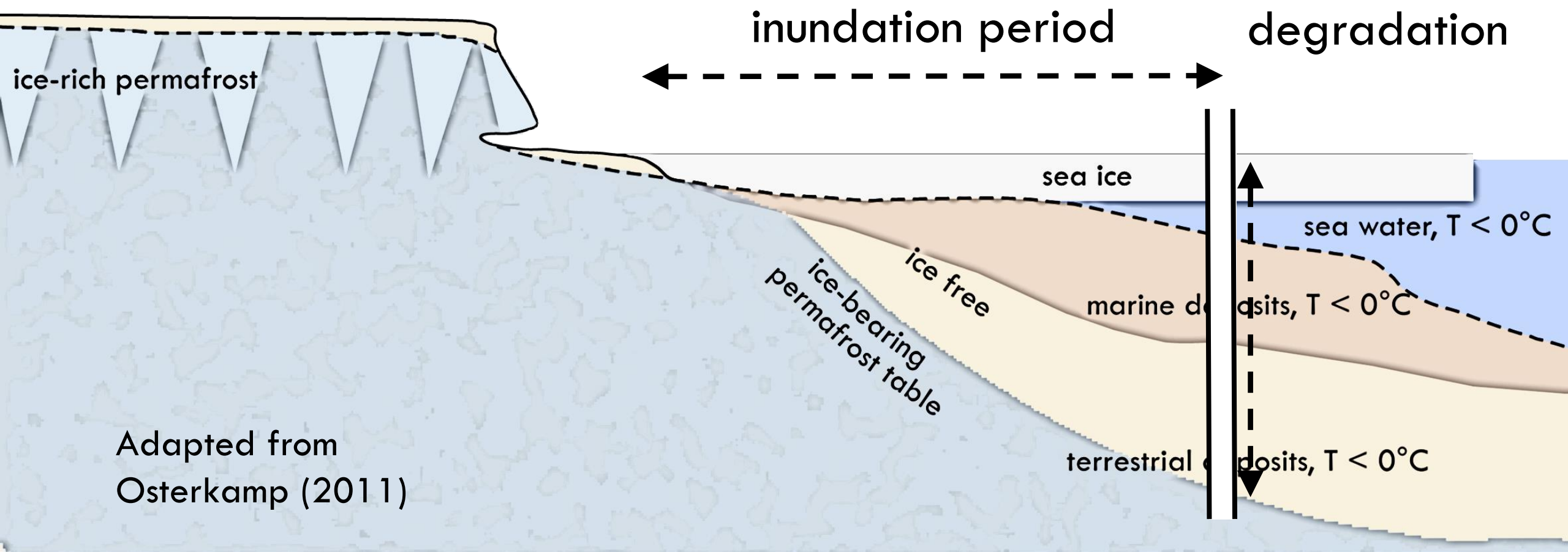












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Summary

- permafrost temperature changes rapidly following inundation
- thawing of permafrost takes longer (m to mm per year)
- frozen sediment is preserved for millenia and longer, depending on permafrost temperature and composition before inundation