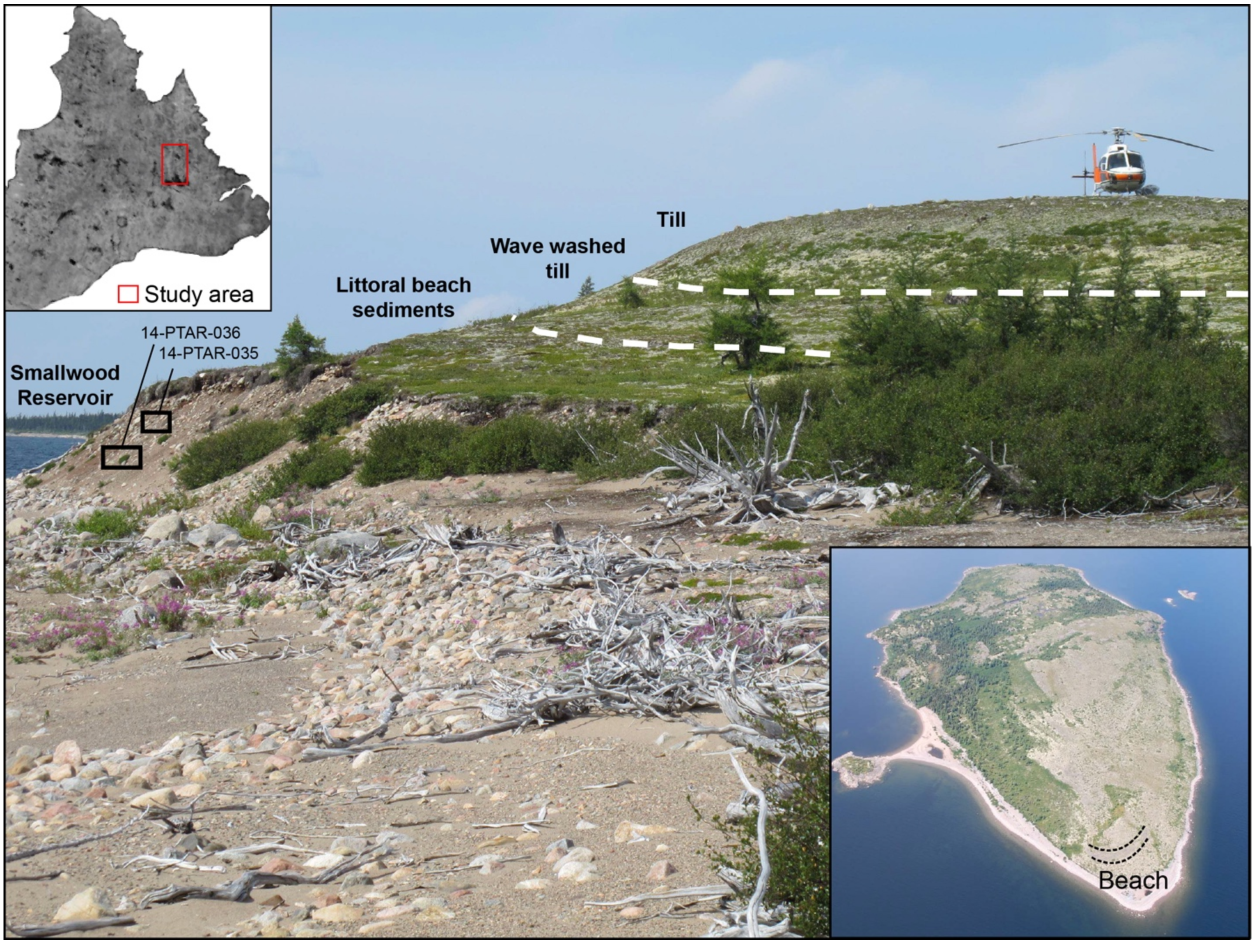

Figure 1. Beach sediments of glacial Lake Low exposed from wave action of the modern Smallwood Reservoir. Samples were collected from this exposure of littoral sediments for chronology.

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References

Aitken, M.J. 1998. An Introduction to Optical Dating. Oxford University Press, Oxford, 267 p.

Duller, G.A.T., Roberts, H.M., Jenkins, G.T.H., Chiverrell, R.C., Ou, X., and Glasser, N.F. 2019. Luminescence isochron dating of glacial sediments using cobbles. 20th Congress of the International Union for Quaternary Research (INQUA), Abstract P-4611.

Dyke, A.S. 2004. An outline of North American deglaciation with emphasis on central and northern Canada. In: J. Ehlers and P.L. Gibbard (eds.), Quaternary glaciations — extent and chronology, Part II. North America. Elsevier B.V., Amsterdam, Development in Quaternary Science Series, pp. 371-406.

Jansson, K.N. 2003. Early Holocene glacial lakes and ice marginal retreat pattern in Labrador/Ungava, Canada. Palaeogeography, Palaeoclimatology, Palaeoecology, 193: 473-501.

Jenkins, G.T.H., Duller, G.A.T., Roberts, H.M., Chiverrell, R.C., and Glasser, N.F. 2018. A new approach to luminescence dating glaciofluvial deposits – high precision optical dating of cobbles. Quaternary Science Reviews, 192: 263-273.

Lian, O.B. 2013. Luminescence dating: optical dating. In: S.A. Elias (ed.), Encyclopedia of Quaternary Science. Elsevier, Amsterdam, pp. 653-666

Low, A.P. 1896. Report on exploration in the Labrador Peninsula along the East Main, Koksoak, Hamilton, Manicouagan and portions of other rivers in 1892-93-94- 95. Geological Survey of Canada, Annual Report, 1895, 8, Part L, 387 p.

Occhietti, S., Govare, É., Klassen, R., Parent, M., and Vincent, J-S. 2004. Late Wisconsinan—Early holocene deglaciation of Québec-Labrador. In: J. Ehlers and P.L. Gibbard (eds.), Quaternary glaciations — extent and chronology, Part II. North America. Elsevier B.V., Amsterdam, Development in Quaternary Science Series, v. 2, pp. 237–267.

Paulen, R.C., Rice, J.M., and McClenaghan, M.B. 2017. Surficial geology, Northwest Smallwood Reservoir NTS 23-I/SE, Newfoundland and Labrador. Geological Survey of Canada, Canadian Geoscience Map 315, scale 1:100 000. doi: 10.4095/300685

Paulen, R.C., Rice, J.M., Campbell, H.E., and McClenaghan, M.B. 2019a. Surficial geology, Knox Lake, NTS 23-I/NW, Quebec and Newfoundland and Labrador; Geological Survey of Canada, Canadian Geoscience Map 377, scale 1:100 000. doi: 10.4095/313547

Paulen, R.C., Rice, J.M., and Ross, M. 2019b. Surficial geology, Adelaide Lake, NTS 23-I/NW, Quebec and Newfoundland and Labrador; Geological Survey of Canada, Canadian Geoscience Map 395, scale 1:100 000. doi: 10.4095/313655

Rice, J.M., Ross, M., Paulen, R.C., Kelley, S.E., Briner, J.P., Neudorf, C.M., and Lian, O.B. 2019. Refining the ice flow chronology and subglacial dynamics across the migrating Labrador Divide of the Laurentide Ice Sheet with age constraints on deglaciation. Journal of Quaternary Science, 34: 519-535.

Ullman, D.J., Carlson, A.E., Hostetler, S.W., Clark, P.U., Cuzzone, J., Milne, G.A., Winsor, K., and Caffee, M. 2016. Final Laurentide ice-sheet deglaciation and Holocene climate-sea level change. Quaternary Science Reviews, 152: 49-59.