

Modeling of the palaeo-hydrogeological evolution of a fractured-rock aquifer following the Champlain Sea Transgression in the St. Lawrence Valley (Quebec)

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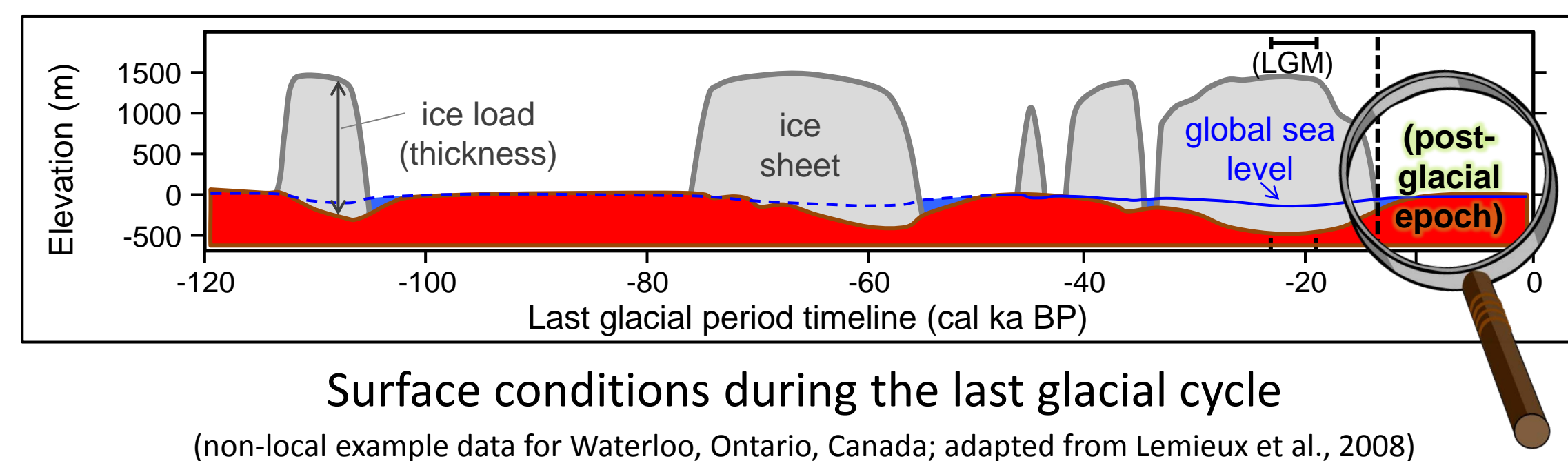
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1. INTRODUCTION AND OBJECTIVES

This study aims to better understand changes in regional aquifer dynamics that followed the Champlain Sea marine incursion, $\approx 13\,000$ years ago.

The main objectives are to:

1. reconstruct the evolution of groundwater salinity and dynamics following deglaciation, using physically-based numerical models;
2. identify the key palaeo-hydrogeologic processes involved;
3. explain the present-day state of the system, especially the persistence of brackish groundwater even at shallow depths;
4. improve our understanding of high-amplitude marine transgression-regression effects on groundwater systems in general.



2. STUDY AREA & ITS INTRIGUING “BRACKISH AREA”

