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MAPPING OF GLACIAL LANDFORM REGIONS IN THE UPPER MIDWEST, USA

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Processes of channel network integration in the low-gradient heterogeneous landscapes left behind following continental glaciation are poorly understood. Yet landscapes of different ages and initial topographies exist throughout the Upper Midwest. The first step in understanding their development is to delineate and characterize surfaces of varying ages and initial post-glacial topographic conditions. To do this, we have attempted to compile available surficial geology, soil, and topographic data to produce harmonized maps of glacial landform regions in the Upper Midwest. Individual maps produced over the past 150 years of geologic research and cartography offer a wealth of knowledge. However, the differing styles and goals of each often make them difficult to use together when trying to form a holistic view of the region's glacial geology. Our maps delineate landform regions that display where glacial deposits differ in depositional age and topographic characteristics (e.g., hummocky terrains, low-relief plains, streamlined topography) throughout the region. We used two approaches in assembling our compilation maps. The first combined state-level maps of surficial geology by assessing the provided age, texture, landform, and other stratigraphic information. The second approach used county and state-level soil maps with soil parent material information to delineate landform boundaries with accompanying ages. The compiled maps allow us to consider the respective advantages and disadvantages of each dataset, while also underscoring their complimentary utility. These compilations form the basis for further exploration into the processes by which post-glacial surfaces evolve over time.

Session No. 248--Booth# 88

T56. From Alpine Glaciers to Ice Sheets: Understanding Glacial Dynamics, Landscapes, and Environmental Change (Posters)
Wednesday, 7 November 2018: 9:00 AM-6:30 PM

Halls J-K (Indiana Convention Center)

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