ASSOCIATION OF CANADIAN MAP LIBRARIES AND ARCHIVES
BULLETIN

Regional News

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Alberta

Edmonton Map Society
David Jones

Glaciation | GIS, Low Birthweight and Gestational Age

The Edmonton Map Society's Winter Meeting was held on March 14th, 2018 with approximately 15 members in attendance. They gathered together to hear two highly interesting presentations on PhD research at the University of Alberta.

Sophie Norris received her MSc degree from Durham University (UK) before moving to the University of Alberta to complete a PhD. Dr. Norris' research focussed on reconstructing Late Wisconsin glacial activity in northern Alberta and Saskatchewan using both geomorphology and subsurface analysis.

Abstract: The Interior Plains of northern Alberta and Saskatchewan hosted the Laurentide-Cordilleran ice saddle and the south-western slopes of the Keewatin Ice Dome at the peak of the Late Wisconsinan glaciation. Subsequently, the western margin of the Laurentide Ice Sheet passed over this region during the deglaciation, opening the north-western drainage route for Lake Agassiz. The north-western Agassiz outlet and the associated flooding event(s) have received great attention and continue to be a subject of debate. However, the detailed ice dynamics in the region, the understanding of which is crucial for inferences of meltwater drainage, is still poorly understood. This applies both for the ice sheet geometry at the Last Glacial Maximum (LGM) and for the pattern of ice margin retreat.

We focus on a 26, 680 km^2 region of northeast Alberta and northwest Saskatchewan centered on the Clearwater-Athabasca Spillway, the assumed north-western Agassiz outlet. Using mapping from high-resolution digital elevation data, we reconstruct the glacial landform record comprising attenuated bedforms, eskers, moraines and meltwater channels. These data permit the classification of 62 flowsets that indicate multiple cross cutting ice flow directions. We tie the reconstructed ice flow direction with moraines and meltwater landforms to derive the ice margin configuration. Based on this mapping we present a preliminary five-stage model of ice sheet evolution in the form of palaeo-geographic maps spanning from the LGM through to deglaciation (~21-9.5 cal ka BP). This reconstruction reveals three major changes in ice stream configuration and indicates that margin retreat was complex and dominated by the dynamic spatial and temporal evolution of ice streams. Overall, this project provides the foundations to improve the knowledge of one of the focal points of the last North American deglaciation.

Charlene Nielsen, an interdisciplinary Ph.D. candidate in Earth and Atmospheric Sciences & Pediatrics at the University of Alberta working on the Data Mining and Neonatal Outcomes (DoMiNO) project that she calls 'Born too small' was the second presenter.

Abstract: The goal of my research is to better understand the relationships of the shared exposures on pregnant women and adverse birth outcomes. Infants born small for gestational age (SGA) and low birth weight at term (LBWT) are important markers of survival, development, and future health – childhood as well as adult diseases. I use Geographical Information Systems (GIS) and spatial statistics to recognize where and how environmental factors coincide with SGA and LBWT. In this presentation I show the many ways of mapping babies born too small from secondary health databases using: choropleth, Bayes rates, double kernel density, and emerging hot spots.

Lively discussion ensued.

The Edmonton Map Society will next convene on May 7th when they will have the privilege of hearing Dan Duda, Map Librarian (and ACMLA member!) from Memorial University, speak.

New Brunswick

University of New Brunswick
Siobhan Hanratty

Stories of the New Brunswick Loyalists

UNB Libraries was recognized by Esri for its work using story maps by declaring New Brunswick Loyalist Journeys the Esri story map for January 2018. The project was a collaborative effort among staff and students in the University of New Brunswick Libraries system. By mining the wealth of material in the UNB Libraries' Loyalist Collection, researchers were able to find interesting subjects for whom documentary evidence existed and tell their stories in a compelling fashion. Esri Story Maps were used to visualize the varied life experiences of refugees of the American Revolution who ultimately settled in York County, New Brunswick.

Ontario

University of Waterloo
Eva Dodsworth

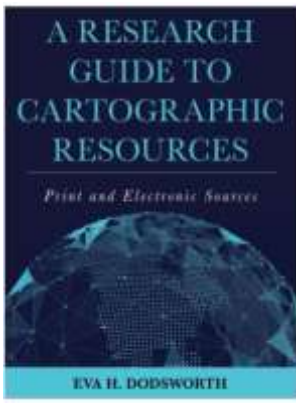
Research Guide! | SWOOP, COOP, and DMTI

Staff at the Geospatial Centre has spent some time lately updating datasets. We now have SWOOP 2015, COOP 2016, DMTI 2017, and we're negotiating to purchase some Infrared imagery. We have had quite a few questions from students about geomorphic analysis, so we have been using

the Geomorphic Change Detection Add-on for ArcGIS to study minute changes in high resolution rasters.

After an eighteen month (part-time) study leave, I am back to work full-time. I have completed my book *A Research Guide to Cartographic Resources*, available for pre-order.

Now, I am now learning OJS (Open Journal System) and look forward to the inaugural issue of the digital *Bulletin* (this issue!)



Quebec

Centre GéoStat, Bibliothèque, Université Laval
Stéfano Biondo

Projet de plateforme partagée de données géospatiales (PPDG) | Exposition cartographique au Musée maritime de Charlevoix (MMC)

Le projet de refonte de Géoindex+ afin d'héberger certaines données du Ministère des Ressources naturelles du Québec (MERN) et de les rendre disponibles à l'ensemble des établissements universitaires du Québec va bon train. La partie cartographique permettant la visualisation et l'extraction des données, ainsi que celle de la gestion des métadonnées ont été développées au cours de la dernière année. Un comité de pilotage a été mis sur pied en décembre 2017 pour valider et tester les phases de développement, prioriser les améliorations et modifications aux développements existants et futurs, et effectuer des recommandations pour le design. Ce comité réuni Stéfano Biondo de l'Université Laval, Kati Brown de l'Université du Québec à Rimouski (UQAR), Alex Guindon de l'Université Concordia, Anne Hakier de l'Université de Montréal (UdeM), Sylvie Saint-Pierre de l'Université du Québec à Montréal (UQAM), Simon Trottier de l'Université de Sherbrooke, ainsi que de Nadia Villeneuve de l'Université du Québec à Chicoutimi (UQAC). L'état d'avancement de l'élaboration de la nouvelle plateforme sera présenté lors de CARTO 2018.

Le Centre GéoStat collabore à la réalisation de l'exposition *Jeu de cartes — Cinq siècles d'hydrographie* qui débutera le 18 mai prochain au Musée maritime de Charlevoix (MMC). L'exposition porte sur les cartes marines et l'hydrographie. Elle vise à faire connaître la conception des cartes marines, de leurs relevés à leur publication, depuis l'époque de la Nouvelle-France jusqu'à aujourd'hui. Une visite dans Charlevoix pourrait être un prolongement intéressant de notre rencontre à Montréal en juin.