

MARTIN MARGOLD – CV

Department of Physical Geography and Geoecology, Charles University, Prague, Czech Republic

1. EDUCATION

PhD, 2012, Physical Geography, Stockholm University, Sweden

Thesis title: *Retreat pattern and dynamics of glaciers and ice sheets: reconstructions based on meltwater features* Main advisor: K. N. Jansson, Co-advisors: J. Kleman, A.P. Stroeven, K.F. Helmens

Mgr. (~M.Sc.), 2007, Physical Geography, Charles University in Prague, Czech Republic

(5-year combined B.Sc. and M.Sc. programme)

2. EMPLOYMENT / PROFESSIONAL TIMELINE

- 2019 – Assistant professor, Department of Physical Geography and Geoecology, Charles University, Prague, Czech Republic
- 2018 – 2019 Researcher, Department of Physical Geography and Geoecology, Charles University, Prague, Czech Republic
- 2015 – 2018 Postdoctoral research fellow, Department of Earth and Atmospheric Sciences, University of Alberta, Edmonton, Canada
- 2013 – 2015 Postdoctoral Research Associate, Department of Geography, Durham University, UK
- 2007 – 2012 PhD Candidate and teaching assistant, Department of Physical Geography and Quaternary Geology, Stockholm University, Sweden

3. RESEARCH

My research interests are in reconstructing the dynamics of past glaciers and ice sheets through the tools of glacial geomorphology and Quaternary geology. In particular, I study the deglaciation dynamics of the North American Ice Sheet Complex and the linkages to global climate during the Late Glacial. I use both remote sensing (mapping from satellite imagery and digital elevation models) and field-based methods. To support my studies with quantitative dating, I have been using cosmogenic exposure dating and optically stimulated luminescence. Geographically, my research focuses on North America, but I have also published studies from Europe, Siberia, and Antarctica.

3A. INDICATORS OF ESTEEM

- **43 publications** (14 as a 1st author) in international scientific journals (WOS-listed) **since 2011**, including *Nature* (2nd author) and *Science* (4th author).
- Czech Science Foundation: Junior gr. (PI; 4,463 k CZK, 2018), Standard gr. (co-I; 6,381 k CZK, 2021)
- Swedish Research Council International Postdoctoral Fellowship (3,150 k SEK) awarded in 2014.
- Invited talks:
 - ‘The Cordilleran Ice Sheet: A Glacial Legacy in the Pacific Northwest’ at Pardee Keynote Symposium, Geological Society of America (GSA) Annual Meeting, Vancouver, October 2014.
 - ‘The evolution of the ice stream network in the Laurentide Ice Sheet during the last deglaciation’ at Geological Society of America (GSA) Annual Meeting, Seattle, October 2017.
 - ‘The retreat chronology of the western Laurentide Ice Sheet’ at EGU General Assembly, Vienna, 2019.
- Total acquired research funding of ~ 25 M CZK.

3B. SELECTED PEER-REVIEWED ARTICLES

(* led by a PhD student of MM)

Dalton AS, Dulfer HE, **Margold M**, Heyman J, Clague JJ, Froese DG, Gauthier MS, Hughes ALC, Jennings CE, Norris SL, Stoker BJ (2023): Deglaciation of the north American ice sheet complex in calendar years based on a comprehensive database of chronological data: NADI-1. *Quaternary Science Reviews* 321, 108345. IF 4

Nørgaard J, **Margold M**, Jansen JD, Kurbanov R., Szuman I, Lund Andersen J, Olsen J, Faurischou Knudsen M. (2023): Absence of Large-Scale Ice Masses in Central Northeast Siberia During the Late Pleistocene. *Geophysical Research Letters* 50, e2023GL103594. IF 5.2

*Stoker BJ, **Margold M**, Gosse JC, Hidy AJ, Monteath AJ, Young JM, Gandy N, Gregoire LJ, Norris SL, Froese D (2022): The collapse of the Cordilleran–Laurentide ice saddle and early opening of the Mackenzie Valley, Northwest Territories, Canada, constrained by ¹⁰Be exposure dating. *The Cryosphere* 16, 4865–4886. IF 5.8

*Dulfer HE, **Margold M**, Darvill CM, Stroeven AP (2022): Reconstructing the advance and retreat dynamics of the central sector of the last Cordilleran Ice Sheet. *Quaternary Science Reviews* 284, 107465. IF 4.5

*Dulfer HE, **Margold M**, Engel Z, Braucher R, Aster Team (2021): Using ¹⁰Be dating to determine when the Cordilleran Ice Sheet stopped flowing over the Canadian Rocky Mountains. *Quaternary Research*. IF 2.7

Dalton AS, **Margold M**, Stokes CR, Tarasov L, Dyke AS, and 66 others (2020): An updated radiocarbon-based ice margin chronology for the last deglaciation of the North American Ice Sheet Complex. *Quaternary Science Reviews* 234, 106223. *Invited review*. IF 4.6

Batchelor CL, **Margold M**, Krapp M, Murton DK, Dalton AS, Gibbard PL, Stokes CR, Murton JB, Manica A (2019): The configuration of Northern Hemisphere ice sheets through the Quaternary. *Nature Communications* 10, 3713. IF 11.9

Margold M, Gosse JC, Hidy AJ, Woywitka RJ, Young JM, Froese D (2019): Beryllium-10 dating of the Foothills Erratics Train in Alberta, Canada, indicates detachment of the Laurentide Ice Sheet from the Rocky Mountains at ~15 ka BP. *Quaternary Research* 92, 469–482. IF 2.1

Barlow NLM and 15 others, including **Margold M** (2018): Lack of evidence for substantial ice sheet regrowth during the Last Interglacial. *Nature Geoscience* 11, 627–634. IF 14.5

Margold M, Stokes CR, Clark CD (2018): Reconciling records of ice streaming and ice margin retreat to produce a palaeogeographic reconstruction of the deglaciation of the Laurentide Ice Sheet. *Quaternary Science Reviews* 189, 1–30. *Invited review*. IF 4.8

Margold M, Jansen JD, Codilean AT, Preusser F, Gurinov AL, Fujioka T, Fink D (2018): Repeated megafloods from the Eurasian interior to the Arctic Ocean over the past 60,000 years. *Quaternary Science Reviews* 187, 41–61. IF 4.8

Menounos B and 14 others, including **Margold M** (*4th author*) (2017): Cordilleran Ice Sheet mass loss preceded climate reversals near the Pleistocene Termination. *Science* 358, 781–784. IF 37.2

Seguinot J, Rogozina I, Stroeven AP, **Margold M**, Kleman J (2016): Numerical simulations of the Cordilleran ice sheet through the last glacial cycle. *The Cryosphere* 10, 639–664. IF 4.4

Stokes CR, **Margold M**, Clark CD, Tarasov L (2016): Ice stream activity scaled to ice sheet volume during Laurentide Ice Sheet deglaciation. *Nature* 530, 322–326. IF 38.1

Greenwood SL, Clason CC, Helanow C, **Margold M** (2016): Theoretical, contemporary observational and palaeo-perspectives on ice sheet hydrology: Processes and products. *Earth Science Reviews* 155, 1–27. IF 7.1

Margold M, Jansen JD, Gurinov AL, Codilean AT, Fink D, Preusser F, Reznichenko NV, Mifsud C (2016). Extensive glaciation in Transbaikalia, Siberia, at the Last Glacial Maximum. *Quaternary Science Reviews* 132, 161–174. IF 4.8

Margold M, Stokes CR, Clark CD (2015): Ice streams in the Laurentide Ice Sheet: identification, characteristics and comparison to modern ice sheets. *Earth Science Reviews* 143, 117–146. IF 7.0

Margold M, Stroeven AP, Clague JJ, Heyman J (2014): Timing of terminal Pleistocene deglaciation at high elevations in southern and central British Columbia constrained by ¹⁰Be exposure dating. *Quaternary Science Reviews* 99, 193–202. IF 4.6

Margold M, Jansson KN, Stroeven AP, Jansen JD (2011): Glacial Lake Vitim, a 3000 km³ outburst flood from Siberia to the Arctic Ocean. *Quaternary Research* 76, 393–396. IF 2.5

3C. PEER REVIEW & EDITORSHIP

Peer review for: ANR France, NRF South Africa, NSERC Canada, NSC Poland, RC Ireland, *Quat. Sci. Rev.* (11×), *Nat. Geo.* (3×), *Nat. Comms.* (2×), *Sci. Adv.*, *Geology*, *Earth & Planet. Sci. L.* (3×), *Earth Sci. Revs.*, *Quat. Res.* (4×), *Boreas* (4×), *The Cryosphere* (3×), *Comm. Earth & Env.* (2×), *J. Quat. Sci.* (2×), *Glob. Planet. Change*, *Geogr. Ann. A*, *NHESS*, *Proc. Geol. Asc.*, *Env. Earth Sci.*, *Int. Geol. Rev.*, *Sed. Geol.*, *GSA Spec. Pap.*, *Can. J. Earth Sci.*, *J. Maps*, *Hydro. Res.*, *Sci. Rep.*,

Associate editor for: *Journal of Maps* (2020–present)

Guest editor for: *Env. Earth Sci.*