

LAURENCE DYKE

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EDUCATION

PhD Palaeoglaciology and Quaternary Science 10.10–11.14
Glaciology Group, Swansea University, UK
Thesis: [The late-Quaternary glacial history of southeast Greenland](#), 1–304.

BSc (1st class honours) Physical Geography 09.05–07.08
Swansea University, UK
Thesis: Investigating periglacial trimlines in Snowdonia, North Wales, 1–44. Sir Dudley Stamp prize

EMPLOYMENT

Expedition guide and lecturer: Oceanwide Expeditions 06.18–present
Postdoctoral researcher: GEUS, Copenhagen, DK 05.15–10.17
Postdoctoral researcher: Glaciology Group, Swansea University, UK 02.15–04.15
PhD student: Glaciology Group, Swansea University, UK 10.10–11.14
Intern: 196 Productions Ltd., Cardiff, UK 07.10–09.10
Project assistant: Low Carbon Cornwall, Redruth, UK 05.10–07.10
Co-owner/co-founder: Trevilla Garden Services, Cornwall, UK 01.09–05.10

SKILLS AND EXPERIENCE

I am an earth scientist with a strong interest in geography, geology, and the environment. My primary skills include the acquisition, analysis, and presentation of geospatial and environmental data. I am highly adaptable, my scientific research has involved working across numerous disciplines and this has necessitated rapidly synthesising new knowledge and skills.

I have excellent scientific and report writing skills, I have published several first-author scientific articles and have co-authored many more. I am also a skilled communicator, I have presented scientific research at national and international conferences. I also have substantial experience in presenting science to non-technical audiences, this has included: written popular science articles, public presentations, social media engagement, and the production of a variety of science videos.

I have strong IT skills. I am highly-proficient at analysing remote sensing and GIS data; I have specific expertise working with ESRI ArcMap, ArcScene, QGIS, and I am actively developing my competence in Python programming. I also have substantial experience in the visualisation, design, and illustration of scientific data which has included working with Adobe Creative Suite Products including Illustrator, Photoshop, and Premiere Pro. I have a strong background working with the full Microsoft Office suite and \LaTeX typesetting, and an intermediate proficiency working with HTML and CSS for web design.

I hold a full, clean driving license. I speak fluent English (mother tongue), basic German, and am currently working towards an intermediate level of proficiency in Danish.

COURSES/TRAINING

University of Bergen, NO (Disko Island, GL) 08.14
Advanced Climate Dynamics Course (4 ECTS) The Dynamics of the Greenland Ice Sheet

Geological Survey of Denmark and Greenland (GEUS), DK 04.12–05.12 and 10.12–11.12

Marine sediment core analysis: sedimentology (grain size and X-ray imaging), X-ray fluorescence, ^{14}C dating, ^{210}Pb dating, and foraminifera assemblage analysis (supervised by C. S. Andresen and M.-S. Seidenkrantz).

NERC Cosmogenic Isotope Analysis Facility (CIAF), UK

06.11, 04.12, and 09.14

Preparation of rock samples for cosmogenic isotope analysis: magnetic separation, mineral etching, ICP analysis, quartz flotation, and anion/cation chromatography (supervised by D. Gheorgiu and A. Davidson).

Paleoclimate Laboratory, University at Buffalo, USA

03.11–04.11

Preparation of rock samples for cosmogenic isotope analysis: physical processing and chemical separation procedures (supervised by J. P. Briner and N. E. Young).

The University Centre in Svalbard, NO

02.11–03.11

Arctic Geology (Glaciology) 325 (10 ECTS)

Grade: A

FIELD EXPERIENCE

My research has involved planning and undertaking field campaigns around the margins of Greenland. I hold qualifications in first-aid and sea survival. In the past seven years I have been on multiple science expeditions:

- 07.15–09.15: Petermann Fjord and Nares Strait. Sediment coring and shipboard core analysis, I/B Oden (Oregon State University and Stockholm University: A. C. Mix and M. Jakobsson).
- 08.11–09.11: Bernstorffs Fjord, Gyldenløve Fjord, Sermilik Fjord, Kangerdlugssuaq Fjord, and the continental shelf of SE Greenland (boat-based and self-sufficient hiking). Oceanographic measurements, field mapping, and terrestrial cosmogenic nuclide (TCN) sampling (Swansea University: T. Murray).
- 07.11: Ikertivaq, Køge Bugt (boat-based). Marine sediment coring and TCN sampling (GEUS: C. S. Andresen).
- 06.11: Sermilik Station (helicopter and hiking). Schmidt hammer rock testing, field mapping, and TCN sampling (Swansea University: L. M. Dyke).
- 09.10: Sermilik Fjord and Kangerdlugssuaq Fjord (boat-based). Oceanographic measurements and TCN sampling (Swansea University: T. Murray).
- 06.10: Sermilik Fjord, Kangerdlugssuaq Fjord, and the continental shelf of SE Greenland (boat-based). Oceanographic measurements and TCN sampling (Swansea University: T. Murray).

GUIDING EXPERIENCE

- 15.06.18–22.06.18: Svalbard (PLA06). Oceanwide *Plancius*. (EL: M. Ginzburg).
- 22.06.18–29.06.18: Svalbard (PLA07). Oceanwide *Plancius*. (EL: M. Ginzburg).
- 29.06.18–06.07.18: Svalbard (PLA08). Oceanwide *Plancius*. (EL: B. Pruneau).
- 18.07.18–28.08.18: Northwest Spitsbergen (RVR24). Oceanwide *Rembrandt van Rijn*. (EL: J. Plana).
- 28.07.18–15.08.18: Northwest Spitsbergen and northeast Greenland (RVR25). Oceanwide *Rembrandt van Rijn*. (EL: J. Plana).

TEACHING EXPERIENCE

I have taught as both a postgraduate demonstrator and a guest lecturer in Geography at Swansea University. I have taught components of modules in; Geographical Methods, Climate Science and Policy, Environmental Research Methods, Data Analysis, and Practical Fieldwork.

PUBLICATIONS

Peer-reviewed publications

- **Dyke, L. M.**, Hughes, A. L. C., Andresen, C. S., Murray, T., Hiemstra, J. F., Bjørk, A. A., and Rodés, Á (2018) [The deglaciation of coastal areas of southeast Greenland](#). *The Holocene* **XX(X)**: 1–10.
- Wangner, D. J., Jennings, A. E., Vermassen, F., **Dyke, L. M.**, Hogan, K. A., Schmidt, S., Kjær, K. H., Knudsen, M. F., and Andresen, C. S. (2018) [A 2000-year record of ocean influence on Jakobshavn Isbræ calving activity, based on marine sediment cores](#). *The Holocene* **XX(X)**: 1–14.

- **Dyke, L. M.**, Andresen, C. S., Hughes, A. L. C., Seidenkrantz, M.-S., Hiemstra, J. F., Murray, T., Bjørk, A. A., Sutherland, D. A., and Vermassen, F. (2017) [Minimal Holocene retreat of large tidewater glaciers in Køge Bugt, southeast Greenland](#). *Scientific Reports* **7**(12018): 1–10.
- Andresen, C. S., Kokfelt, U., Sicre, M.-A., Knudsen, M. F., **Dyke, L. M.**, Klein, V., Kaczmar, F., Miles M. W., and Wangner, D. J. (2017) [Exceptional 20th century glaciological regime of a major SE Greenland outlet glacier](#). *Scientific Reports* **7**(13626): 1–8.
- Murray, T., Scharrer, K., Selmes, N., Booth, A. D., James, T. D., Bevan, S. L., Bradley, J., Cook, S., Cordero Llana, L., Drocourt, Y., **Dyke, L. M.**, Goldsack, A., Hughes, A. L., Luckman, A. J., and McGovern, J. (2015) [Extensive retreat of Greenland tidewater glaciers 2000–2010](#). *Arctic, Antarctic, and Alpine Research* **47**(3): 427–447.
- **Dyke, L. M.**, Hughes, A. L. C., Murray, T., Hiemstra, J. F., Andresen, C. S., and Rodés, Á. (2014) [Evidence for the asynchronous retreat of large outlet glaciers in southeast Greenland at the end of the last glaciation](#). *Quaternary Science Reviews* **99**: 244–259.
- Andresen, C. S., Schmidt, S., Seidenkrantz, M.-S., Straneo, F., Grycel, A., Kjær, K. H., Nørgaard-Pedersen, N., Hass, C., **Dyke, L. M.**, Olsen, J., and Kuijpers, A. (2014) [A 100-year record of changes in water renewal rate in Sermilik Fjord and its influence on calving of Helheim Glacier, Southeast Greenland](#). *Continental Shelf Research* **85**: 21–29.

Monographs

- **Dyke, L. M.** (2014) [The late-Quaternary glacial history of southeast Greenland](#). PhD thesis, *Swansea University*. 1–304.
- **Dyke, L. M.** (2008) Weathering limits and periglacial trimlines in Snowdonia, North Wales. BSc dissertation, *Swansea University*. 1–44.

Popular science publications (non-peer-reviewed)

- Andresen, C. S. and **Dyke, L. M.** (2017) [Mud from the Greenlandic seabed reveals a hidden past](#). *ScienceNordic Website*, Copenhagen, DK.
- **Dyke, L. M.** and Murray, T. (2012) [A GLIMPSE of Greenland's future](#). *Planet Earth Magazine*: Winter, NERC, Swindon, UK.
- **Dyke, L. M.** and Murray, T. (2012) [GLIMPSE film première](#). *Momentum*: Issue 5, Swansea University, UK.

SELECTED OUTREACH ACTIVITIES

News article: <i>seeker.com</i> (interview) 'An Arctic Heat Wave Is Giving Polar Researchers the Chills'.	03.18 Seeker
Science article: <i>GlacierHub</i> (interview, photos, and graphics) '9,000 Years of History from the Køge Bugt'.	10.17 GlacierHub
Blog post: <i>EGU Cryosphere Division</i> (writing and graphics) 'Image of the Week: Petermann Glacier'.	09.17 EGU Cryosphere Division
Outreach video: <i>Twitter and YouTube</i> (scripting, videography, and production) 'Minimal Holocene retreat of large tidewater glaciers in Køge Bugt, southeast Greenland'.	09.17 Twitter/YouTube
News article: <i>seeker.com</i> (interview and graphics) 'Observations of early sea-ice break-up in Nares Strait and the Lincoln Sea'.	05.17 Seeker
Outreach coordination, <i>Petermann Glacier, Greenland</i> (videography, photography, social media, and blog posts) Documenting and sharing scientific research undertaken on the Petermann 2015 Expedition.	08.15 Website
<i>ACDC summer school, Disko Island, Greenland</i> (videography) ACDC summer school film, University of Bergen.	08.14 Vimeo
Production of six short films (videography, scripting, and editing) Filming and production of short educational films about glaciology in association with 196 Productions.	11–12 YouTube

Radio (interview)
'Good Morning Wales'

11.11
[BBC Radio Wales](#)

Documentary film: A GLIMPSE of Greenland (videography, scripting, and editing)
Feature-length documentary (w/ 196 Productions). Hon. mention: Blue Ocean Film Festival 2012.

11.11
[YouTube](#)

REFEREES

Please email me for the contact details of referees.