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LinkedIn: <https://www.linkedin.com/in/melissa-dawes-4895a235/>
Date of Birth: 21 September 1982
Citizenship: United States of America
Marital Status: married (maiden name: Melissa Martin), two children



Education

PhD	2010	Plant Ecology, Botanical Institute, University of Basel (Switzerland) – <i>Summa cum laude</i> <i>Dissertation:</i> Plant responses to long-term <i>in situ</i> CO ₂ enrichment and soil warming at treeline in the Swiss Alps
MSc	2007	Ecosystem Science, College of Forest Resources, University of Washington (USA) <i>Thesis:</i> Native plant performance on a Seattle green roof
MLA	2007	Landscape Architecture, College of Built Environments, University of Washington (USA) <i>Thesis:</i> Green Roofs in the Pacific Northwest: region-specific considerations for native plant performance
BSc	2003	Ecology and Evolutionary Biology, University of Michigan (USA) – <i>Summa cum laude</i>

Professional Experience

Freelance Scientific English Editor (2014 to present, sole proprietorship since Nov 2017)

- Completed substantive and copy-editing of >400 scientific manuscripts (main text, supplementary material, figures and tables, citations, reviewer response letters), 3 books, 3 websites (incl. translations from German), and several lengthy reports
- Edited texts in a range of research fields, including archaeology, biogeochemistry, botany, ecology, evolution, forestry, genetics, geography, engineering, landscape planning, microbiology, natural hazards, snow and climate science, and veterinary science (see <http://www.scientific-editing.ch> for a list of recent work)
- Edited high-profile national and international reports (e.g. SCNAT, FOEN, IPCC)
- Became experienced at implementing house editorial style guidelines, producing customized style guidelines in cooperation with authors, and following style manuals (e.g. Chicago Manual of Style, New Oxford Style Manual)
- Proposed changes to texts using Tracked Changes in MS Word, Adobe Acrobat (for PDF), and Overleaf (for Latex)
- Gained extensive experience in applying both US and UK language conventions
- Worked independently (remote) while communicating with authors, project managers, and other editors via email, phone and video conference

Life Sciences Independent Contract Editor (2016)

American Journal Experts

- Completed linguistic editing of manuscripts from a wide range of fields in the life sciences
- Worked under tight deadlines while meeting rigorous quality standards and following strict editorial procedures

Research Scientist (2014–2017)

Forest Soils and Biogeochemistry & Ecophysiology Research Units, Swiss Federal Institute for Forest, Snow and Landscape Research – WSL

- Conducted research on carbon, nitrogen and water dynamics in Swiss ecosystems in the face of global change and on treeline patterns along a latitudinal gradient in the Ural mountains (Russia)
- Monitored and maintained a national network of high-precision instruments measuring tree water relations
- Programmed R scripts to visualize and analyze large volumes of time-series data on tree and soil water status
- Authored papers and regularly completed peer reviews for several high-impact journals in the field of ecology

Postdoctoral Researcher (2010–2014)

Mountain Forests and Alpine Ecosystems Research Unit, WSL Institute for Snow and Avalanche Research – SLF

- Led the final stage of a 12-year global change (CO₂ enrichment and soil warming) experiment at the alpine treeline, coordinating work across several research groups and supervising Master's students
- Played a major role in three additional projects on alpine treeline dynamics
- Contributed to an alpine biodiversity project with data from 124 Swiss mountain summits spanning >100 years
- Organized and led intensive fieldwork campaigns in steep alpine terrain (summer and winter)
- Worked with a wide range of experimental techniques (e.g. dendrochronological methods, high-precision dendrometer measurements, stable isotope and nutrient analyses for plants and soil, vegetation surveys)
- Completed R-based statistical analysis for complex experimental designs (e.g. linear mixed-effects models)
- Wrote two successful funding proposals and several research papers
- Presented research findings orally at international conferences
- Integrated data and metadata from experiments throughout Switzerland into an online platform

Student Intern (2005–2006)

Water Quality Monitoring Team, Seattle Public Utilities

- Worked as part of a team of scientists to monitor the health of urban Seattle streams through the collection and analysis of hydrological data and measurements of aquatic and riparian habitat value
- Collected data from and maintained a wide range of monitoring instruments and data loggers at sites spread across the city limits, working independently and with other staff
- Learned and applied various measurement and sampling protocols
- Contributed to data analysis and written reports

Funding, Awards and Scholarships

2014	Swiss Confederation COST Action SENSFOR (ES1203). Project C14.0037. CHF 162,230
2011	Internal Grant, Swiss Federal Institute for Forest, Snow and Landscape Research WSL. CHF 119,100
2011	PhD Dissertation Award of the Ecological Society of Germany, Austria and Switzerland (GfÖ). €1500
2008	Honor Award for Master's thesis, Washington Chapter American Society of Landscape Architects
2006–2007	Three Scholarships, University of Washington College of Forest Resources
2006	Honor Award for group project, Washington Chapter American Society of Landscape Architects
2005–2006	Two Scholarships, University of Washington Department of Landscape Architecture
2000–2003	Rogel Scholarship, University of Michigan
2000–2003	Angell Scholar Honor Award, University of Michigan
2001	Branstrom Freshman Prize, University of Michigan

International Scientific Meetings (oral presentations & published abstracts)

2010, 2015	Global Change and the World's Mountains, Mountain Research Initiative Conference (Perth, UK)
2013	Clim Tree 2013 (Zürich, Switzerland)
2013	European Geosciences Union Annual Meeting (Vienna, Austria)
2011	Ecological Society of Germany, Austria and Switzerland Annual Meeting (Oldenburg, Germany)
2009, 2011, 2014	Ecological Society of America Annual Meeting (USA)
2009	British Ecological Society Annual Meeting (Hatfield, UK)
2008, 2009	Swiss Global Change Day (Bern, Switzerland)
2007	Greening Rooftops for Sustainable Communities Conference (Minneapolis, MN, USA)

Additional Professional Skills

Computer skills: Microsoft Office; Adobe Reader, Acrobat, Photoshop and InDesign; Overleaf; R; SigmaPlot

Peer reviews: e.g. Annals of Botany, Ecology, Forest Ecology and Management, Functional Ecology, Global Change Biology, Journal of Biogeography, Journal of Ecology, Oecologia, Oikos, PLoS ONE, PNAS

Languages: English (native speaker), German (level B2), French (basic)

Hagedorn, F., **Dawes, M.A.**, Bubnov, M.O., Devi, N.M., Grigoriev, A.A., Mazepa, V.S., Nagimov, Z.Y., Shiyatov, S.G., Moiseev, P.A. 2020. Latitudinal decline in stand biomass and productivity at the elevational treeline in the Ural mountains despite a common thermal growth limit. *Journal of Biogeography* 47: 1827–1842.

Möhl, P., Mörsdorf, M., **Dawes, M.A.**, Hagedorn, F., Bebi, P., Viglietti, D., Thomas, F.M., Freppaz, M., Wipf, S., Körner, C., Rixen, C. 2019. Twelve years of low nutrient input stimulates growth of trees and dwarf shrubs in the treeline ecotone irrespective of temperature. *Journal of Ecology* 107: 768–780.

Craine, J., Elmore, A. J., Wang, L., Aranibar, J., Bauters, M., Boeckx, P., Crowley, B.E., **Dawes, M.A.**, Delzon, S., Fajardo, A., Fang, Y., Fujiyoshi, L., Gray, A., Guerrieri, R., Gundale, M.J., Hawke, D.J., Hietz, P., Jonard, M., Kearsley, E., Kenzo, T., Makarov, M., Maranon-Jiménez, S., McGlynn, T.P., McNeil, B.E., Mosher, S.G., Nelson, D.M., Peri, P.L., Roggy, J.C., Sanders-DeMott, R., Song, M., Szpak, P., Templer, P.H., van der Colff, D., Werner, C., Xu, X., Yang, Y., Yu, G. and Zmudczynska-Skarbek, K. 2018. Isotopic evidence for oligotrophication of terrestrial ecosystems. *Nature Ecology and Evolution* 2: 1735–1744.

Frei, E., Bianchi, E., Bernareggi, G., Bebi, P., **Dawes, M.A.**, Brown, C., Trant, A., Mamet, S., Rixen, C. 2018. Biotic and abiotic drivers of tree seedling recruitment across an alpine treeline ecotone. *Scientific Reports* 8: 10894.

Anadon-Rosell, A., **Dawes, M.A.**, Fonti, P., Hagedorn, F., Rixen, C., von Arx, G. 2018. Xylem anatomical and growth responses of the dwarf shrub *Vaccinium myrtillus* to experimental CO₂ enrichment and soil warming at treeline. *Science of the Total Environment* 642: 1172–1183.

Steinbauer, M.J., Grytnes, J.-A., Jurasinski, G., Kulonen, A., Lenoir, J., Pauli, H., Rixen, C., Winkler, M., Bardy-Durchhalter, M., Barni, E., Bjorkman, A.D., Breiner, F.T., Burg, S., Czortek, P., **Dawes, M.A.**, Delimat, A., Dullinger, S., Erschbamer, B., Felde, V.A., Fernández-Arberas, O., Fossheim, K.F., Gómez-García, D., Georges, D., Grindrud, E.T., Haider, S., Haugum, S.V., Henriksen, H., Herreros, M.J., Jaroszewicz, B., Jaroszynska, F., Kanka, R., Kapfer, J., Klanderud, K., Kühn, I., Lamprecht, A., Matteodo, M., Morra di Cella, U., Normand, S., Odland, A., Olsen, S.L., Palacio, S., Petey, M., Piscová, V., Sedlakova, B., Steinbauer, K., Stöckli, V., Svenning, J.-C., Teppa, G., Theurillat, J.-P., Vittoz, P., Woodin, S.J., Zimmermann, N.E. and Wipf, S. 2018. Accelerated increase in plant species richness on mountain summits is linked to warming. *Nature* 556: 231–234.

Prendin, A.L., Petit, G., Fonti, P., Rixen, C., **Dawes, M.A.**, von Arx, G. 2018. Axial xylem architecture of *Larix decidua* exposed to CO₂ enrichment and soil warming at the treeline. *Functional Ecology* 32: 273–287.

Solly, E., Lindahl, B.D., **Dawes, M.A.**, Peter, M., Souza, R.C., Rixen, C., Hagedorn, F. 2017. Experimental soil warming shifts the fungal community composition at the alpine treeline. *New Phytologist* 215: 766–778.

Dawes, M.A., Schleppei, P. and Hagedorn, H. 2017. The fate of nitrogen inputs in a warmer alpine treeline ecosystem: a ¹⁵N labelling study. *Journal of Ecology* 105: 1723–1737.

Souza, R.C., Egli, S., **Dawes, M.A.**, Graf, F., Hagedorn, F., Clement, C.R., Nagy, L., Rixen, C., Solly, E. and Peter, M. 2017. Soil warming and CO₂ enrichment effects on extracellular enzyme activities at the alpine treeline. *Plant and Soil* 416: 527–537.

Dawes, M.A., Schleppei, P., Hättenschwiler, S., Rixen, C. and Hagedorn, H. 2017. Soil warming opens the nitrogen cycle at the alpine treeline. *Global Change Biology* 23: 421–434.

Brunner, I., Herzog, C., **Dawes, M.A.**, Arend, M. and Sperisen, C. 2015. How tree roots respond to drought. *Frontiers in Plant Science* 6: 547.

Karbin, S., Hagedorn, F., **Dawes, M.A.** and Niklaus, P.A. 2015. Does treeline soil warming affect soil methane fluxes and the spatial micro-distribution of methanotrophic bacteria? *Soil Biology and Biochemistry* 86: 164–171.

Myers-Smith, I.H., Elmendorf, S., Beck, P., Wilmking, M., Hallinger, M., Blok, D., Tape, K.D., Rayback, S.A., Macias-Fauria, M., Forbes, B.C., Speed, J.D.M., Boulanger-Lapointe, N., Rixen, C., Lévesque, E., Schmidt, N.M., Baittinger, C., Trant, A.J., Hermanutz, L., Siegwart Collier, L., **Dawes, M.A.**, Lantz, T., Weijers, S., Jørgensen, R.H., Buchwal, A., Buras, A., Naito, A.T., Ravolainen, V., Schaepman-Strub, G., Wheeler, J., Wipf, S., Guay, K., Hik, D. and Vellend, M. 2015.

Climate sensitivity of shrub growth across the tundra biome. *Nature Climate Change* 5: 887–891.

Dawes, M.A., Philipson, C.D., Fonti, P., Bebi, P., Hättenschwiler, S., Hagedorn, F. and Rixen, C. 2015. Soil warming and CO₂ enrichment induce biomass shifts in alpine treeline vegetation. *Global Change Biology* 21: 2005–2021.

Myers-Smith, I.H., Hallinger, M., Wilmking, M., Blok, D., Sass-Klaassen, U., Rayback, S.A., Weijers, S., Trant, A., Tape, K.D., Naito, A.T., Wipf, S., Rixen, C., **Dawes, M.A.**, Wheeler, J., Buchwal, A., Baittinger, C., Fauria, M.M., Forbes, B.C., Levesque, E., Boulanger-Lapointe, N., Beil, I. and Ravolainen, V. 2015. Methods for measuring Arctic and alpine shrub growth: a review. *Earth-Science Reviews* 140: 1–13.

Anadon-Rosell, A., Rixen, C., Cherubini, P., Wipf, S., Hagedorn, F. and **Dawes, M.A.** 2014. Growth and phenology of three dwarf shrub species in a six-year soil warming experiment at the alpine treeline. *PLoS ONE* 9: e100577.

Dawes, M.A., Zweifel, R., Dawes, N., Rixen, C. and Hagedorn, F. 2014. CO₂ enrichment alters diurnal stem radius fluctuations of 36-year-old *Larix decidua* growing at the alpine treeline. *New Phytologist* 202: 1237–1248.

Oberbauer, S.F., Elmendorf, S.C., Troxler, T., Hollister, R.D., Rocha, A., Bret-Harte, S., **Dawes, M.A.**, Fosaa, A.M., Høye, T.T., Henry, G.H.R., Jarrad, F., Jonsdottir, I.S., Klanderud, K., Klein, J.A., Molau, U., Rixen, C., Schmidt, N.M., Shaver, G., Slider, R., Totland, O., Wahren, C.H., Welker, J.M. 2013. Phenological responses of tundra plants to background climate variation tested using the International Tundra Experiment (ITEX). *Philosophical Transactions of the Royal Society B*. 368: 20120481.

Streit, K., Rinne, K.T., Hagedorn, F., **Dawes, M.A.**, Saurer, M., Hoch, G., Werner, R.A., Buchmann, N. and Siegwolf, R.T. 2013. Tracing fresh assimilates in *Larix decidua* exposed to elevated CO₂ and soil warming at the alpine treeline using compound-specific stable isotope analysis. *New Phytologist* 197: 838–849.

Dawes, M.A., Hagedorn, F., Handa, I.T., Streit, K., Ekblad, A., Rixen, C., Körner, C. and Hättenschwiler, S. 2013. An alpine treeline in a CO₂-rich world: synthesis of a nine year CO₂ enrichment study. *Oecologia* 171: 623–637.

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Barbeito, I., **Dawes, M.A.**, Rixen, C., Senn, J. and Bebi, P. 2012. Factors driving survival and growth at treeline: a 30-year experiment of 92,000 conifers. *Ecology* 93: 389–401.

Dawes, M.A., Hagedorn, F., Zumbrunn, T., Handa, I.T., Hättenschwiler, S., Wipf, S. and Rixen, C. 2011. Growth and community responses of alpine dwarf shrubs to *in situ* CO₂ enrichment and soil warming. *New Phytologist* 191: 806–818.

Dawes, M.A., Hättenschwiler, S., Bebi, P., Hagedorn, F., Handa, I.T., Körner, C. and Rixen, C. 2011. Species-specific tree growth responses to nine years of CO₂ enrichment at the alpine treeline. *Journal of Ecology* 99: 383–394.

Martin, M.A., Gavazov, K., Hättenschwiler, S., Körner, C. and Rixen, C. 2010. Reduced early growing season freezing resistance in alpine treeline plants under elevated atmospheric CO₂. *Global Change Biology* 16: 1057–1070.

Hagedorn, F., **Martin, M.A.**, Rixen, C., Rusch, S., Zürcher, A., Siegwolf, R., Wipf, S., Escape, C., Roy, J. and Hättenschwiler, S. 2010. Short-term responses of ecosystem carbon fluxes to experimental soil warming at the Swiss alpine treeline. *Biogeochemistry* 97: 7–19.