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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

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| 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 >300 scientific manuscripts (main text, supplementary material, figures and tables, citations, reviewer response letters), three books, websites (incl. translations from German), and 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, 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

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| 2014 | Swiss Confederation COST Action SENFOR (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)

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| 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 B1), 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.

Rixen, C., **Dawes, M.A.**, Wipf, S. and Hagedorn, F. 2012. Evidence of enhanced freezing damage in treeline plants during six years of CO₂ enrichment and soil warming. *Oikos* 121: 1532–1543.

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., Zumbunn, 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.