

Dr. G. Matthew Davies

Assistant Professor of Soil and Plant Community Restoration

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Appointments

Assistant Professor	The Ohio State University	Jan 2015 to present
Lecturer in Environmental Stewardship	University of Glasgow	Dec 2010 to Dec 2014
Post-Doctoral Research Associate	University of Washington	Dec 2008 to Dec 2010
Research Fellow	The University of Edinburgh	Feb 2008 to Jul 2008
Volunteer Project Worker	The Shanti Trust, Malawi	Jul 2007 to Aug 2007
Research Fellow	The University of Edinburgh	Feb 2006 to Jun 2007
NERC-CASE PhD Researcher	Game and Wildlife Conservation Trust	Jan 2003 to Dec 2005

Education

Postgraduate Certificate in Academic Practice (<i>Note: this is a UK Higher Education teaching qualification</i>)	University of Glasgow	2013
PhD Thesis title: Fire Behaviour and Impact on Heather Moorlands	University of Edinburgh	2006
MSc Environmental Protection and Management (with distinction)	University of Edinburgh	2001
BA (Hons) Environment and Archaeology (2:1)	University of Wales Lampeter	2000

Publications and reports

Graduate student co-authors are shown in *italics*, undergraduate students are shown underlined

Peer-reviewed journal papers

35. Grau-Andrés R., **Davies G.M.**, *Rey-Sanchez C.* & *Slater J.* (2019). Bryophyte community composition and diversity are indicators of hydrochemical and ecological gradients in temperate kettle hole mires in Ohio, USA. *Mires and Peat*, 24, 37.
34. Wainwright C., **Davies G.M.**, *Dettweiler-Robinson E.*, *Dunwiddie P.W.*, *Wilderman D.* & *Bakker J.D.* (2019). Methods for tracking sagebrush-steppe community trajectories and quantifying resilience in relation to disturbance and restoration. *Restoration Ecology*, 28, 115-126.

33. *Rey-Sanchez C., Bohrer G., Slater J., Li Y-F., Grau-Andrés R., Hao Y., Rich V.I. & Davies G.M. (2019). The ratio of methanogens to methanotrophs and water-level dynamics drive methane transfer velocity in a temperate kettle-hole peat bog. Biogeosciences, 16, 3207-3231.*
32. **Davies G.M.,** Legg C.J., Smith A.A. & McDonald A.J. (2019). Development and participatory evaluation of fireline intensity and flame property models for managed burns on *Calluna*-dominated heathlands. *Fire Ecology, 15, 30.*
31. *Grau-Andrés R., Gray A., Davies G.M., Scott M. & Waldron S. (2019). Burning increases post-fire carbon emissions in a heathland and a raised bog, but experimental manipulation of fire severity has no effect. Journal of Environmental Management, 233, 321-328*
30. *Grau-Andrés R., Davies G.M., Waldron S., Scott M. & Gray A. (2019). Increased fire severity alters initial vegetation regeneration across Calluna-dominated ecosystems. Journal of Environmental Management, 231, 1004-1011*
29. *Johnston J.M., Wheatley M.J., Wooster M.J., Paugam R., Davies G.M., DeBoer K.A. (2018). Flame-front rate of spread estimates for moderate scale experimental fires are strongly influenced by measurement approach. Fire, 1, 1.*
28. *Grau-Andrés R., Davies G.M., Gray A., Scott E.M. & Waldron S. (2018). Fire severity is more sensitive to low fuel moisture content on Calluna heathlands than on peat bogs. Science of the Total Environment, 616-617, 1261-1269.*
27. *Grau-Andrés R., Gray A. & Davies G.M. (2017). Sphagnum abundance and photosynthetic capacity show rapid short-term recovery following managed burning. Plant Ecology & Diversity, 10, 353-359.*
26. *Grau-Andrés R., Davies G.M., Waldron S., Scott M. & Gray A. (2017). Leaving moss and litter layers undisturbed reduces the short-term environmental consequences of heathland managed burns. Journal of Environmental Management 204, 102-110*
25. *Mitchell R.M., Vincent J.B., Bakker J.D. & Davies G.M. (2017). The relative importance of abiotic, biotic, and disturbance drivers on plant communities in a semi-arid ecosystem. Ecological Applications, 27, 756-768.*
24. **Davies G.M.,** Kettridge N., Stoof C.R., Gray A., Ascoli D., Fernandes P.M., Marrs R., Allen K.A., Doerr S.H., Clay G.D., McMorrow J. & Vandvik V. (2016). Informed debate on the use of fire for peatland management means acknowledging the complexity of socio-ecological systems. *Nature Conservation, 16, 59-77.*
23. **Davies G.M. & Legg C.J. (2016). Regional variation in fire weather controls the occurrence of Scottish wildfires. PeerJ, 4, e2649.**
22. **Davies G.M.,** Kettridge N., Stoof C.R., Gray A., Ascoli D., Fernandes P.M., Marrs R., Allen K.A., Doerr S.H., Clay G., McMorrow J., Vandvik V. (2016). The peatland vegetation burning debate: keep scientific critique in perspective. A response to Brown et al. and Douglas et al. *Philosophical Transactions of the Royal Society B, 371, 20160434.*
21. **Davies G.M.,** Kettridge N., Stoof C.R., Gray A., Ascoli D., Fernandes P.M., Marrs R., Allen K.A., Doerr S.H., Clay G.D., McMorrow J. & Vandvik V. (2016). The role of fire in UK peatland and moorland management: the need for informed, unbiased debate. *Philosophical Transactions of the Royal Society B, 371, 20150342.*
20. **Davies G.M.,** Kettridge N., Stoof C.R. & Gray A. (2016). Comment on: Vegetation burning for game management in the UK uplands is increasing and overlaps spatially with soil carbon and protected areas. *Biological Conservation, 195, 293-294.*
19. **Davies G.M.,** Domènech R., Gray A. & Johnson P.C.D. (2016). Vegetation structure and fire weather influence variation in burn severity and fuel consumption during peatland wildfires. *Biogeosciences, 13, 389-398.*
18. **Davies G.M. & Gray A. (2015). Don't let spurious accusations of pseudoreplication limit our ability to learn from natural experiments (and other messy kinds of ecological monitoring). Methods in Ecology and Evolution, 5, 5295-5304.**
17. **Davies G.M. & Bodart J. (2015). Changes in vegetation composition and diversity following livestock removal along an elevational gradient. iForest, 8, 582-589.**

16. *Dettweiler-Robinson E.*, Bakker J.D., Evans J.R., Newsome H., **Davies G.M.**, Wirth T.A., Pyke D.A., Easterly R.T., Salstrom D. & Dunwiddie P.W. (2013). Outplanting Wyoming big sagebrush following wildfire: stock performance and economics. *Range Ecology and Management*, 66, 657-666.
15. **Davies G.M.**, Gray A., Rein G. & Legg C.J. (2013). Peat consumption and carbon loss due to smouldering wildfire in a temperate peatland. *Forest Ecology and Management*, 308, 136-144.
14. *Fernandes P.M.*, **Davies G.M.**, Ascoli D., Fernández C., Moreira F., Rigolot E., Stoof C.R., Vega J.A. & Molina D. (2013). Prescribed burning in southern Europe: developing fire management in a dynamic landscape. *Frontiers in Ecology and the Environment*, 11, e4–e14.
13. **Davies G.M.**, Bakker J.D., *Dettweiler-Robinson E.*, Dunwiddie P.W., Hall S.A., Downs J. & Evans J.R. (2012) Trajectories of change in sagebrush-steppe vegetation communities in relation to multiple wildfires. *Ecological Applications*, 22, 1562-1577.
12. *Rivera J.*, **Davies G.M.** & *Jahn W.* (2012) Flammability and the heat of combustion of natural fuels: a review. *Combustion Science and Technology*, 184, 224-242.
11. **Davies G.M.** & Legg C.J. (2011). Fuel moisture thresholds in the flammability of *Calluna vulgaris*. *Fire Technology*, 47, 421-436.
10. **Davies G.M.**, *O'Hara R.*, Smith A.A., MacDonald A. & Legg C.J. (2010). Winter desiccation and rapid changes in the live fuel moisture content of *Calluna vulgaris*. *Plant Ecology and Diversity*, 3, 289-299.
9. **Davies G.M.**, Pollard L. & Mwenda M.D. (2010). Perceptions of land-degradation, forest restoration and fire management: a case study from northern Malawi. *Land Degradation and Development*, 21, 546-556.
8. **Davies G.M.**, Smith A.A., McDonald A.J., Bakker J.D. & Legg C.J. (2010). Fire intensity, fire severity and ecosystem response in heathlands: factors affecting the regeneration of *Calluna vulgaris*. *Journal of Applied Ecology*, 47, 356-365.
7. Legg C.J., **Davies G.M.** & Gray A. (2010). Comment on "Burning management and carbon sequestration of upland heather moorland in the UK". *Australian Journal of Soil Research*, 48, 100-103.
6. **Davies G.M.**, Legg C.J., Smith A.A. & McDonald A.J. (2009). Fire rate of spread in *Calluna vulgaris*-dominated moorlands. *Journal of Applied Ecology*, 46, 1054-1063.
5. **Davies G.M.** & Legg C.J. (2008). The impact of traditional management burning on lichen diversity. *Applied Vegetation Science*, 11, 529-538.
4. **Davies G.M.**, Gray A., Hamilton A. & Legg C.J. (2008). The future of fire management in the British uplands. *International Journal of Biodiversity Science and Management*, 4, 127-147.
3. **Davies G.M.**, Legg C.J., Hamilton A. & Smith A.A. (2008). Using visual obstruction to estimate heathland fuel load and structure. *International Journal of Wildland Fire*, 17, 380-389.
2. **Davies G.M.**, Legg C.L., Smith A.A. & MacDonald A. (2006). Developing shrub fire behaviour models in an oceanic climate: Burning in the British Uplands. *Forest Ecology and Management*, 234, Supplement 1, S107.
1. Kitchen K., Marno P., Legg C., Bruce M. & **Davies G.M.** (2006). Developing a fire danger rating system for the UK. *Forest Ecology and Management*, 234, Supplement 1, S21.

Papers in review

- Lei Y. & **Davies G.M.**, Liu Z., Zhang X., Zhang R., He D., Li Y., Zhang S. & Tian G. (in review). Scale-dependent effects of urban greenspace on particulate matter air pollution. *Urban Forestry and Urban Greening*.
- Gray A., **Davies G.M.**, Domenech Jordi R., Levy P. (in review). Peatland wildfire severity and post-fire gaseous carbon fluxes. *Ecosystems*.

Book chapters

1. **Davies G.M.** (2013). Understanding fire regimes and fires' ecological effects. In: Belcher C.M. (Ed.) *Fire Phenomena and the Earth System: An Interdisciplinary Guide to Fire Science*. Wiley: London.

Research reports

10. Bakker J., **Davies G.M.**, Wainwright C. & Power S. (2020). Long-term SUCCESS: SUCCESSION and Ecosystem dynamics in the Sagebrush Steppe following wildfires. JFSP PROJECT ID: 15-1-07-2. Final Report to JFSP.
9. **Davies G.M.** & Bohrer G. (2018). Bog HELPR: Bog History, Ecosystem status and Land-use for Peatland Restoration in Ohio. Report to the Ohio Water Resources Center.
https://wrc.osu.edu/sites/wrc.osu.edu/files/uploads/2017oh534b_davies_progress.pdf
8. **Davies G.M.** (2016). Ecological Status of Utiznger Bog and Priorities for Restoration: a preliminary briefing note. Unpublished Report to Appalachia Ohio Alliance.
7. **Davies G.M.** & Bodart J. (2014). Changes in vegetation composition and diversity following stock-removal on Linshaw Knowe and Hartfell. Report to the Borders Forest Trust.
6. **Davies G.M.** (2013). Corehead orchard tree establishment and grazing damage survey. Report to the Borders Forest Trust.
5. Bakker J.D., Dunwiddie P.W., Hall S.A., Evans J.R., **Davies G.M.** & *Dettweiler-Robinson E.* (2012). Vegetation impacts of recurring fires on Sagebrush ecosystems in Washington: implications for conservation and rehabilitation. Final Report JFSP Project 08-1-5-20.
4. Legg C.J. & **Davies G.M.** (2009). FireBeaters Phase II Report. Unpublished report to Scottish Natural Heritage.
3. Legg C.J., **Davies G.M.**, Kitchen K. & Marno P. (2007). Developing a Fire Danger Rating System for the UK: FireBeaters Phase I final report. Report to the Scottish Wildfire Forum.
2. Gray A., Legg C.J., **Davies G.M.**, Rein G., Riveria J. & Torero J.L. (2006). Peat fuel moisture and fire behaviour: a literature review. Unpublished report to the Met Office.
1. **Davies G.M.** (2004). The Bradda Head Fire. Unpublished report to the Isle of Mann Government Department Agriculture, Fisheries & Forestry.

Discussion papers, proceedings, pre-prints and outreach articles

12. Bergefurd B. & **Davies G.M.** (2019). Money Does Grow on Trees! CFAES Connections – OSU South Centers Newsletter. https://southcenters.osu.edu/sites/southc/files/site-library/site-documents/connections/Newsletter_Tag_Dept_8Page%20Revised.pdf
11. Stoof C., Kettridge N., Gray, A. Ascoli D., Fernandes P., Marrs R., Allen K., Doerr S., Clay G., McMorrow J., Vandvik V. & **Davies G.M.** (2017). Controlled fires, politics, and the media. 19th EGU General Assembly, EGU2017. Proceedings from the Conference held 23rd-28th April, 2017, Vienna, Austria., p.14706.
10. **Davies G.M.**, Domènech R., Gray A. & Johnson P.C.D. (2016). Vegetation structure and fire weather influence variation in burn severity and fuel consumption during peatland wildfires. *Biogeosciences Discussions*, 12, 15737-15762.
9. **Davies G.M.** (2016). Long-term plots for long-term processes. *Test Plots*, 1, 22-23. [OSU Knowlton School Magazine: <http://testplotsmagazine.com/issue-1>].
8. *Muller T.*, Forrest D., **Davies G.M.**, McConnel A. & Bishop P. (2016). Mapping ancient woodlands. *Test Plots*, 1, 6-9. [OSU Knowlton School Magazine: <http://testplotsmagazine.com/issue-1>].
7. **Davies G.M.**, Gray A., Domenech Jardi R. & Johnson P. (2014). Variation in peatland wildfire severity – implications for ecosystem carbon dynamics. In: Viegas D.X. (Ed.) *Advances in Forest Fire Research*. Imprensa da Universidade de Coimbra, Coimbra.
6. *Grau R.*, **Davies G.M.**, Waldron S., Gray A. & Bruce M. (2014). Fuel and climate controls on peatland fire severity. In: Viegas D.X. (Ed.) *Advances in Forest Fire Research*. Imprensa da Universidade de Coimbra, Coimbra.
5. Krivtsov V., **Davies G.M.**, Legg C., Valor T. & Gray A. (2011) Peat moisture in relation to meteorological factors: monitoring, modelling and implications for the application of the Canadian Forest Fire Weather Index System. In: Lang P.R. & Lombargo F.S. (Eds.) *Atmospheric Turbulence, Meteorological Modeling and Aerodynamics*. Nova Science Publishers, Hauppauge.
4. Legg C.J. & **Davies G.M.** (2009). What determines fire occurrence, fire behaviour and fire effects in heathlands? In: (ed. Alonso I.) *Managing Heathlands in the Face of Climate Change*. Proceedings

of the 10th National Heathland Conference, 9th-11th September 2008, University of York. Natural England Commissioned Report, Number 014.

3. Krivtsov V., Gray A., *Valor T.*, Legg C.J. & **Davies G.M.** (2008). The fuel moisture content of peat as a fuel in relation to meteorological factors. In: (eds. J. de la Heras, C.A. Brebbia, D.X. Viegas & V. Leone). Modelling, Monitoring and Management of Forest Fires. WIT Transactions on Ecology and Environment Vol. 119. [DOI: 10.2495/FIVA080201]
2. **Davies G.M.** & Legg C.J. (2008). Developing a live fuel moisture for fire danger rating in heather moorlands. In: (eds. J. de la Heras, C.A. Brebbia, D.X. Viegas & V. Leone). Modelling, Monitoring and Management of Forest Fires. WIT Transactions on Ecology and Environment Vol. 119. [DOI: 10.2495/FIVA080231]
1. Legg C.J., Bruce M. & **Davies G.M.** (2006). Country Report for the United Kingdom. International Forest Fire News, 34.

Conference and seminar presentations (since 2010)

From 2010 onwards. Invited/plenary presentations shown with *

25. **Davies G.M.** (2019). Quantifying resilience and tracking states in the sagebrush-steppe. University of Idaho, Department of Forest, Rangeland and Fire Sciences Departmental Seminar. Moscow Idaho, 24th April 2019.
24. **Davies G.M.**, Gray A., Domenech Jordi R. (2019). Burn severity drives carbon fluxes during and after peatland wildfires. The Byrd Center Symposium - Climate Change Research at Ohio State. Columbus, Ohio, March 22nd 2019.
23. **Davies G.M.** (2019). There's nothing standard about data standardization – asking the right questions when analyzing ecosystem change. Society for Ecological Restoration Midwest Great Lakes Chapter Annual Meeting. Pella, IA, 12th-14th April 2019.
22. **Davies G.M.** (2018). Make peat not class war - the controversial nature of peatland management in the British Uplands. Soil and Human Culture Dynamics During the Holocene Epoch: An international, Interdisciplinary Workshop in Anthropology, Archaeology, and Soil Science. The Ohio State University, Columbus, Ohio, 25th June 2018
21. **Davies G.M.** (2018). Do plant functional traits predict sagebrush-steppe ecosystem resilience. OSU Community of Practice on Resilience Research Seminar. Columbus, Ohio, November 2018.
20. **Davies G.M.**, Gray A. & Domenech Jordi R. (2017). Wildfire severity drives differences in the regeneration trajectories of temperate peatlands. 7th Association for Fire Ecology International Fire Congress. Orlando, Florida, 28th November - 2nd December 2017.
19. **Davies G.M.**, Gray A. & Domenech Jordi R. (2017). Wildfire severity drives differences in moorland vegetation regeneration [poster]. UK Wildfires Conference, Bournemouth. U.K., 7th – 8th November 2017.
18. **Davies G.M.** & Goebel P.C. (2017). Novel disturbances for novel ecosystems: restoring conifer plantations to provide multiple ecosystem services. Society for Ecological Restoration Mid-West Great Lakes Chapter Annual Meeting. Grand Valley State University, Grand Rapids, Michigan, 24th – 26th March 2017.
17. ***Davies G.M.** (2016). Understanding how disturbances affect the ecological structure and function of peat bogs Fourth Annual Kent State University Water and Land Symposium. Kent State University, Kent, Ohio, 5th-6th October 2016.
16. ***Davies G.M.** (2016). Disturbance effects on the ecological function of peat bogs. ESGP Seminar, The Ohio State University, Columbus, Ohio, 30th September 2016.
15. **Davies G.M.**, Brigner L. & Bergefurd B. (2016). Understanding controls on fruit production in wild pawpaw patches Fourth International Pawpaw Conference. Kentucky State University, Frankfort, Kentucky, 2nd-3rd September 2016.
14. **Davies G.M.**, Legg C.J. & Bruce M. (2015). Scotland should use the Fine Fuel Moisture Code to forecast periods of potentially high wildfire activity [poster]. Wildfires 2015: the UK wildfire prevention conference. Cambusland, Scotland, U.K., November 10th-11th 2015.

13. *Davies G.M., Dettweiler-Robinson E., Dunwiddie P. & Bakker J.D. (2015). Tracking post-wildfire states and transitions in the sagebrush-steppe. Restoring the West: restoration and fire in the Interior West. Logan, Utah, October 28th-29th 2015.
12. *Davies G.M., Gray A., Domenech R. & Grau R. (2015). Ground fuels are the key to understanding peatland wildfire severity. 5th International Conference of Fire Effects on Soil Properties. University College Dublin, Eire, 14th-17th July 2015.
11. Davies G.M. (2015). Wildfire effects on the carbon dynamics of temperate peatlands. The Ohio State University Carbon Management and Sequestration Center, Columbus OH, January 27th 2015.
10. Davies G.M., Gray A., Domenech R. & Johnson P. (2014). Variation in peatland wildfire severity – implications for ecosystem carbon dynamics. VII International Conference on Forest Fire Research. Coimbra, Portugal, 14th-21st November, 2014.
9. *Davies G.M., Gray A. & Grau R. (2014). Fire regimes on temperate peatlands – why we worry about moss. Wildland Fire Canada. Halifax, Nova Scotia, October 7th-9th 2014.
8. Davies G.M., Gray A., Domenech R. & Johnson P. (2013). Variation in fire severity and the ecological impact of wildfires. Wildfire 2013, Cardiff, U.K., 22nd-23rd October 2013.
7. Davies G.M. (2013). Aldo Leopold's Land Ethic and the management of the British uplands. School of Interdisciplinary Studies Senior Seminar.
6. *Davies G.M., Domenech R. & Gray A. (2013). Wildfire severity and moorland carbon dynamics. Knowledge for Wildfire (KfWf) seminar. Manchester, UK, 27th February 2013.
5. Davies G.M., Dettweiler-Robinson E., Dunwiddie P. & Bakker J.D. (2012). Tracking vegetation states and transitions in response to multiple wildfires in the sagebrush-steppe. British Ecological Society Annual Meeting, Birmingham, U.K., 17th-20th December 2012.
4. Davies G.M. (2012). Fuel consumption and carbon loss from a smouldering wildfire. Workshop on Smouldering Wildfires and the Earth System. Edinburgh, U.K. 27th July 2012.
3. Davies G.M., Bakker J., Dettweiler-Robinson E., Evans J., Dunwiddie P.W., Downs J. & Marsh M. (2011). Patterns and drivers of long-term change in sagebrush-steppe vegetation communities. International Association for Vegetation Science Annual Symposium. Vegetation in and around water: patterns, processes and threats. Lyon, France, 20th-24th June 2011.
2. Davies G.M., Bakker J., Dettweiler-Robinson E., Evans J., Dunwiddie P.W., Downs J. & Marsh M. (2011). Using multivariate control charts to communicate long-term changes in sagebrush-steppe vegetation communities. Columbia Basin Landscapes Workshop: Linking Science and Management to Improve Restoration Success in the Shrub Steppe. Kennewick, WA, 26th-28th April 2011.
1. *Davies G.M., Dettweiler-Robinson E., Bakker J., Dunwiddie P.W., Evans J., Hall S.A. & Downs J. (2010). Multiple wildfires and trajectories of change in sagebrush-steppe ecosystems. In: Oregon Wildlife Society Annual Meeting. Bend, OR, 11th-12th February 2010.

Extension and outreach presentations (since 2015)

6. Davies G.M., Francino S., Bergefurd B., Scheerens J. & Powell R. (2019). Perfecting pawpaw production in Ohio - quantity and quality. 2019 Farm Science Review, London, Ohio, 18th September 2019.
5. Davies G.M. (2019). March STEAM Exchange: Ice and Fire, Columbus Ohio, 21st March 2019.
4. *Davies G.M. (2018) Screw Smokey let's burn down Ohio's forests. Ohio Ecology on Tap. Columbus, Ohio, 5th April 2018.
3. *Davies G.M. & Bergefurd B. (2017). Understanding Fruit Production in Wild Pawpaw Patches. Tree Pittsburgh Arbor Aid and Pawpaw Festival, Carrie Furnaces, PA, 23rd September 2017.
2. *Davies G.M. & Bonnell J. (2017). Integrating forest succession into logic models to plan for long-term woodland restoration. Ohio Water, Woodland and Wildlife Conference. Mid-Ohio Conference Center, Mansfield, Ohio, 1st March 2017.
1. *Davies G.M. (2016). The science of peatland restoration: challenges for Cranberry Bog. Buckeye Lake Interesting Speaker Series. Buckeye Lake Historical Society Museum, Ohio, 21st May 2016.

Conference and seminar presentations by supervised students (since 2015)

Graduate students advisees shown in *italics*, undergraduates underlined

32. *Kingsbury J., Davies G.M.,* Tonra C. & Macleod R. Restoring tropical grasslands for biodiversity in Beni Bolivia - Understanding links between disturbance, habitats and birds across the cerrado-grassland gradient. Society for Ecological Restoration Midwest Great Lakes Chapter Annual Meeting. Pella, IA, 12th-14th April 2019.
31. *Reding J.M., Davies G.M.* & Klips R. (2019). The effects of rock climbing on bryophyte and lichen communities on exposed rock within the Red River Gorge, Kentucky. Society for Ecological Restoration Midwest Great Lakes Chapter Annual Meeting. Pella, IA, 12th-14th April 2019.
30. *Glover R.E., Davies G.M.* & Swab R.M. (2019). Trait selection as a tool for restoration success on degraded prairie in Southeastern Ohio. Society for Ecological Restoration Midwest Great Lakes Chapter Annual Meeting. Pella, IA, 12th-14th April 2019.
29. *Francino S., Davies G.M.,* Powell R. & Bergefurd B. (2019). Pawpaw patch management as a tool to facilitate woodland restoration: effects of forest structure on fruit yield. Society for Ecological Restoration Midwest Great Lakes Chapter Annual Meeting. Pella, IA, 12th-14th April 2019.
28. *Slater J.M. & Davies G.M.* (2019). Hydrochemical gradients in Ohio's Sphagnum-dominated peatlands. Society for Ecological Restoration Midwest Great Lakes Chapter Annual Meeting. Pella, IA, 12th-14th April 2019.
27. *Slater J.M., & Davies G.M.* (2019). Historical land use changes of Ohio's Sphagnum-dominated peatlands. Society for Ecological Restoration Midwest Great Lakes Chapter Annual Meeting. Pella, IA, 12th-14th April 2019.
26. *Grau-Andrés R., Gray A., Davies G.M.* Scott M.E. & Waldron S. (2019). Burning increases post-fire carbon emissions in a heathland and a raised bog, but experimental manipulation of fire severity has no effect. The Byrd Center Symposium - Climate Change Research at Ohio State. Columbus, Ohio, March 22nd 2019.
25. *Rey-Sanchez C., Bohrer G., Slater J., Hao Y., Grau-Andres R., Rich V., Li Y.-F. & Davies G.M.* (2019). Patterns of pore-water methane concentration and atmospheric emissions across biotic and abiotic gradients in an Ohio peat bog. The Byrd Center Symposium - Climate Change Research at Ohio State. Columbus, Ohio, March 22nd 2019.
24. *Francino S., Davies G.M., & Bergefurd B.* (2018). Woodland production of pawpaws across Ohio. Ohio Pawpaw Festival. Albany, Ohio, 14th-16th September 2018.
23. *Bergefurd B., Francino S., Powell R. & Davies G.M.* (2018). Orchard establishment in Ohio. Ohio Pawpaw Festival. Albany, Ohio, 14th-16th September 2018.
22. *Fernandes P.M., Sil Â, Ascoli D., Cruz M.G., Alexander M.E., Rossa C.G., Baeza J., Burrows N., Davies G.M., Fidelis A., Gould J.S., Govender N., Kilinc M., McCaw L.* (2018). Drivers of wildland fire behaviour variation across the Earth. VIII International Conference on Forest Fire Research, Coimbra, Portugal, 9th-16th November 2018.
21. *Grau-Andrés R., Davies G.M.,* Gray A., Marian S. & Waldron S. (2017). Increased fire severity after drought alters vegetation regeneration in a *Calluna* heathland and a peat bog [poster]. UK Wildfires Conference, Bournemouth. U.K., 7th – 8th November 2017.
20. *King J., Kingsbry J. & Davies G.M.* (2017). Measuring the effects of cattle ranching on forest island structure and mammal/nocturnal bird populations in the Bolivian Beni savanna [poster]. SIICUSP Undergraduate Research Meeting, Sao Paulo, Brazil, 24th – 25th October 2017.
18. *Stoof C., Kettridge N., Gray A., Ascoli D., Fernandes P., Marrs R., Allen K., Doerr S., Clay G., McMorrow J., Vandvik V. & Davies G.M.* (2017). Controlled fires, politics, and the media. European Geosciences Union General Assembly. Vienna, Austria 23rd – 28th April 2017.
17. *Grau-Andrés R., Davies G.M.,* Waldron, Scott M. & Gray A. (2017). Drought increases fire severity and alters vegetation regeneration in *Calluna* heathlands and peat bogs. International Congress on Prescribed Fires, Barcelona, Spain, 31st January – 3rd February 2017.

16. *Kingsbury J., Davies G.M., Macleod R. & Tonra C.M.* (2017) Tropical grassland restoration for biodiversity in Beni, Bolivia. Society for Ecological Restoration Mid-West Great Lakes Chapter Annual Meeting. Grand Valley State University, Grand Rapids, Michigan, 24th – 26th March 2017.
15. *Slater J.M., Davies G.M., Rich V.I., Bohrer G., Hao Y. & Ray Sanchez A.C.* (2017). A comparison of plant communities in intact and damaged Ohio peat bogs. Society for Ecological Restoration Mid-West Great Lakes Chapter Annual Meeting. Grand Valley State University, Grand Rapids, Michigan, 24th – 26th March 2017.
14. *Glover R., Swab R. & Davies G.M.* (2017). Restoration and management of prairie on reclaimed strip mine in Southeastern Ohio. Society for Ecological Restoration Mid-West Great Lakes Chapter Annual Meeting. Grand Valley State University, Grand Rapids, Michigan, 24th – 26th March 2017.
13. *Slater J.M., Davies G.M., Rich V.I., Bohrer G.* (2017). Plant community composition across environmental and disturbance gradients in Ohio's peat bogs [poster]. Ohio Academy of Science Annual Meeting. University of Cincinnati, Cincinnati, Ohio, 8th April 2017.
12. *Wainwright C.E., Davies G.M., Bakker J.D.* (2017) Succession and ecosystem dynamics in the sagebrush steppe following wildfires". Washington Botanical Symposium, Seattle, Washington, 21st March 2017.
11. *Kingsbury J., Davies G.M. & Tonra C.* (2016). Restoring Tropical Grasslands for Biodiversity in Beni, Bolivia. ESGP Seminar, The Ohio State University, Columbus, Ohio, 2nd December 2016.
10. *Brigner L. & Davies G.M.* (2016) Poor pawpaw production in woodland patches – what's the explanation? [poster] Denman Undergraduate Research Forum, The Ohio State University, Columbus, 30th March 2016.
9. *Bakker J.D., Mitchell R.M., Vincent J.B. & Davies G.M.* (2016) Leveraging Land Condition Trend Analysis (LCTA) data to understand vegetation change on military installations. DoD ITAM Workshop. 11th May 2016.
8. *Brigner L. & Davies G.M.* (2016). Poor pawpaw production in woodland patches – what's the explanation? [poster] Ohio Academy of Science Annual Meeting. Ohio University, Athens, Ohio, 15th-16th April 2016.
7. *Muller T., Forrest D., Davies G.M., McConnel A. & Bishop P.* (2016). Tree cover in Nithsdale and Annandale in the 18th and early 19th centuries. Dumfries Archival Mapping Project Events Series. Auldgirth, Scotland, 29th September 2016.
6. *Muller T., Dalgligh C., Forrest D., Davies G.M., McConnel A. & Bishop P.* (2015). Do ancient maps show ancient woodlands? [poster] British Ecological Society Annual Meeting, EICC, Edinburgh, Scotland, 13th-16th December 2015.
5. *Grau R., Davies G.M., Waldron S., Gray A. & Scott M.* (2015). Climate controls on fire severity and post-fire vegetation regeneration. Fuegoed International Meeting 2015, Universidad de Málaga - Andalucía Tech, Malaga, Spain, 18th-21st November 2015.
4. *Grau R., Davies G.M., Waldron S. & Legg C.J.* (2015). Moisture codes of the Canadian Forest Fire Weather Index System could be used to forecast the flammability of key moorland fuels. Wildfires 2015: the UK wildfire prevention conference. Cambusland, Scotland, U.K., November 10th-11th 2015.
3. *Grau R., Davies G.M., Waldron S., Gray A. & Scott M.* (2015). Fire severity controls on peatland carbon dynamics. C-MASC Seminar, The Ohio State University, Columbus, 7th October 2015
2. *Grau R., Davies G.M., Waldron S., Gray A. & Scott M.* (2015). Fuel and climate controls on peatland fire severity. 5th International Conference of Fire Effects on Soil Properties. University College Dublin, Ireland, 14th-17th July 2015.
1. *Grau R., Davies G.M., Waldron S., Gray A. & Scott M.* (2015). Fire severity controls on peatland carbon dynamics [poster]. 5th International Conference of Fire Effects on Soil Properties. University College Dublin, Ireland, 14th-17th July 2015.

Funding proposals

Research grants secured or pending either as PI, Co-PI, contributing author (CA, where not eligible for PI/Co-PI status) or collaborator (COL)

Successful applications

- Co-PI (PI: Basta N., Culman S. Demyan S., Lower B., Lower S., Slater B., Dayton E.) Managing for Improved Soil Health and Ecosystem Services. NIFA Hatch Project, 2019-2024.
- PI (Co-PIs Zhao K., Williams R., Hix D., Smith K., Mehmood S.) Inventory to Inform Sustainable Management and Use of OSU's Forest Resources. Ohio. OSEP Award, 2018-2019, \$80k.
- Co-PI (PI: Scheerens J., Co-PIs: Bergefurd B., Ivey M.L.) Improved Pawpaw Cultural and Post-harvest Practices Enhancing Orchard Establishment, Productivity, Fruit Quality and Marketability. Ohio Department of Agriculture Specialty Crop Block Grant, 2019-2021, \$150k.
- COL (Metallinou M., Log T., Vandvik V., Velle L.-G. et al.) Reducing fire disaster risk through dynamic risk assessment and management. Research Council of Norway, 2019-2024, \$900k (\$27k to OSU).
- CA (Taylor A., Owen I.J., Fielding D.A., Pohle I., Hadden R.M., Bruce M., Davies. G.M.) Providing the Evidence Base for the Development of a Fire Danger Rating System (FDRS) for Scotland. Response to CR/2018/03. 2019-2021.
- PI (Davies G.M.; Wenner B.; Williams R.) PyroGoat - Prescribed fire and goat grazing as tools to control invasive species and restore productive oak forests. OARDC SEEDS Grant, 2019-2021, \$50k
- Co-PI (PI: Demyan S.; Co-PIs: Basta N., Hovick S., Kawa N.): Restoring Ecosystems with bio-based wastes for BLended Soils (REBLS). Sustainable and Resilient Economy Seed Grant, 2017-2019, \$50k.
- Co-PI [lead author of proposal] (PI Bergefurd B.) Marketing and Orchard Resource Efficiency for Ohio Pawpaw Production (MORE Ohio Pawpaw). Ohio Department of Agriculture Specialty Crop Block Grant, 2017-2019, \$125k.
- COL (PI: Van Maassakers T.; Co-PIs: Boswell J., Miller H., Bowen-Ellzey N., Cheramie K., Knox E. & Oh J.; COLs: Basta N.): OH/LEX: the Ohio Land Exchange. OSU Connect & Collaborate Expansion Grant, 2017-2019, \$40k.
- PI (Co-PI: Bohrer G.) Bog HELPR: Bog History, Ecosystem status and Land-use for Peatland Restoration in Ohio. Ohio Water Resources Center, 2017-2018, \$27k.
- PI (Co-PI: Bergefurd B.): Improving the productivity and quality of woodland pawpaw production in Ohio. Warner Endowment Fund for Sustainable Agriculture Interdisciplinary Grant Program for On-Farm Research, 2016-2017, \$3.9k.
- PI (Co-PIs: Rich V. & Bohrer G.): PRO Peat Bog: indicators for assessing the Potential for Restoration of Ohio's Peat Bog ecosystems. SEEDS Interdisciplinary Grant, 2016-2018, \$98k.
- COL (PIs Vandvik V. & Velle L.-G.): Land use management to ensure ecosystem service delivery under new societal and environmental pressures in heathlands (LandPress). Norwegian Research Council, 2016-2019, \$887k.
- Co-PI [lead author of proposal]: Long-term SUCCESS: SUCCESSION and Ecosystem dynamics in the Sagebrush Steppe following wildfires. Joint Fire Science Program, 2015-2019, \$300k.
- Co-PI: Woodland ecosystems: developing an inter-disciplinary method for characterising and mapping the environmental legacies of past human actions. University of Glasgow Kelvin-Smith PhD Scholarship, 2014-2018, £60k.
- PI: Heathland regeneration following stock removal. Borders Forest Trust, 2013, £1.5k.
- PI: Development of a Teaching Garden for the Crichton Campus. Solway Heritage, 2013, £2.5k.
- PI: Vegetation structure and potential fire behaviour in an endangered savannah ecosystem. The Carnegie Trust for the Universities of Scotland, 2012, £1.8k.
- PI: Understanding the interacting effects of climate change and wildfire severity on peatland carbon dynamics. University of Glasgow Kelvin-Smith PhD Scholarship, 2012-2016, £55k.
- PI: Development of a teaching and phenology garden for the Crichton Campus. University of Glasgow Chancellor's Fund, 2012, £10k.

PI: Understanding the impact of severe wildfires on moorland carbon dynamics. Natural Environment Research Council, 2011-2013, £60k.

PI: Participatory identification of research challenges for the Galloway and Southern Ayrshire Biosphere. Adam Smith Research Foundation Seedcorn Fund, 2011, £1.5k.

Co-PI: Proposal for the Development of a Fire Behaviour Prediction System for Vegetation Fires in the UK: The FireBeaters Project Phase II. Scottish Natural Heritage, 2008-2009, £50k.

Co-PI: Peat Fuel Moisture & Fire Test Monitoring Programme. The Met Office, 2007-2008, £50k.

CA: Proposal for the Development of a Fire Behaviour Prediction System for Vegetation Fires in the UK. Scottish Government Wildfire Forum and Scottish Natural Heritage, 2006-2008, £250k.

Pending (as of December 2019)

PI (Co PIs: Toman E., Liu D., Lyons S.) New Arctic Fire Regimes: Society, Environment, and Infrastructure as Drivers and Responses. NSF, \$3M. *[In preparation]*.

PI (Co-PIs: Hamilton M., Mark B., McCarty J., Raundrup K.) Can Novel Technologies Promote Social and Ecological Resilience to Novel Disturbances in a Changing Arctic Climate? Battelle Engineering, Technology and Human Affairs (BETHA) Endowment Grant. \$46k. *[Submitted December 2019]*.

PI (Co-PIs: Hamilton M., Mark B., Raundrup K.) Assessing the Resilience of Arctic Ecosystems to Novel Disturbances – The Impact of Wildfires in Greenland. National Geographic, \$30k. *[Submitted August 2019]*.

Co-PI (PI: Demyan S.) Development of a Holistic Restoration Framework for Human-Degraded Ecosystems. SEEDS Partnership Grant, \$25k. *[Submitted October 2019]*.

Successful applications by student advisees

Kingsbury J. (2018). Disturbance induced shifts in the distribution of threatened savanna bird species in Bolivia. Tinker Foundation Field Research Grant, 2018, \$3,000

Kingsbury J. (2018). Threatened Birds, Dynamic Habitats and Disturbance – Examining Fire Ecology for Species Conservation in Bolivia's Beni Savannas. International Association of Wildland Fire Scholarship, 2018, \$3,000

Reding J. (2018). The effects of rock-face characteristics and use for rock-climbing on cliff vegetation communities of the Red River Gorge, Kentucky. Kentucky Native Plants Society, 2018, \$500

Glover R. (2018). Using disturbance and plant functional types to improve restoration success of a prairie on reclaimed mine land in Southeastern, Ohio. OARDC Student SEEDS Grant, 2018-2019, \$5,000

Slater J. & Hao Y. (2017). Influences of Disturbance on Above- and Below-ground Linkages in Ohio's Peat Bogs. OARDC Student SEEDS Grant (Team Science Award). 2017-2018, \$9,964

Kingsbury J. (2017). Restoring Tropical Grasslands for Biodiversity in Beni, Bolivia. OARDC Student SEEDS Grant. 2017-2018, \$5,000.

Kingsbury J. (2017). Restoring Tropical Grasslands for Biodiversity in Beni, Bolivia. OSU Graduate Academic Enrichment Grant. 2017-2018, \$5,000.

King J. (2017). Restoring savanna forest islands for wildlife: connecting land management, habitat structure and biodiversity utilization. SENR Undergraduate Research Grant. 2017, \$1,300.

Unsuccessful applications (since 2015)

PI (Co-PI: Gabor R.) Restoring Degraded Peatlands to Enhance Water Quality. Mott Foundation. *[Letter of Interest Submitted April 2019]*.

Co-PI (PI: Demyan S.) Development of a Holistic Restoration Framework for Human-Degraded Ecosystems. SEEDS Partnership Grant, \$25k. *[Submitted February 2019]*.

Co-PI (Sohnngen B., Toman E., Liu D., Bromwich D.) New Arctic Fire Regimes: Society, Environment, and Infrastructure as Drivers and Responses. NSF, \$3M. *[Submitted April 2019]*.

CA (PI: Hadden R., Co-PIs: Williams M., Waldon S., Oliveras I., Black H., Hester A., Coe H., Smith T., et al.) An Impact Based Assessment System for Current and Future Wildfire Danger in the UK. Natural Environment Research Council (U.K.), \$3M. *[Submitted August 2019]*.

- Co-PI (PI: Gabor R.) Mitigating Nutrient Runoff through Peatland Restoration. Lake Erie Protection Fund, \$50k. *[Submitted May 2019]*.
- COL (Co-PIs: Goebel C., Adam J., Anderson J.W., Pavelgio T.B., Toman E.) Wildfire Integrated Center for Advanced Research in Security and Sustainability. Pre-proposal to NSF. *[Submitted June 2019]*
- PI (Co-PIs: Bohrer G., Demyan S., Rich V., Zhao K., Raundrup K.) Fire and Ice: environmental change in polar systems through the lens of the 2017 Greenland Wildfire. National Geographic, \$42k *[Submitted January 2018]*.
- PI (Co-PIs: Bohrer G., Demyan S., Rich V., Zhao K.) Quantifying variation in the effects of wildfire burn severity on arctic tundra ecosystems: critical questions following the 2017 Greenland wildfire. NSF, \$600k *[Submitted December 2017]*.
- Co-PI (PI: Bakker J.; COL: Wainwright C.) Modelling shifts in the distribution of natural capital on sagebrush steppe lands managed by the Department of Defense. SERDP, \$200k *[Submitted October 2017]*
- PI (Co-PIs: Bohrer G., Rich V., Demyan S. & Zhao K.): Characterizing burn severity of the 2017 Greenland wildfire to underpin modeling of variation tundra resilience. NSF, \$40k *[Submitted June 2017]*
- PI (Davies G.M., Toman E., Goodell K. & Basta N.T.) Evaluating the benefits of ODOT post-construction groundcover for pollinators. Ohio Department of Transportation, \$60k *[Submitted March 2018]*.
- PI (Co-PIs: Bohrer G., Gabor R.): Peat Water QED: Peatland restoration for Water Quality Enhancement in Degraded systems. Ohio Water Development Authority, \$199k *[Submitted May 2018; Short-listed]*
- PI (Davies G.M., Bohrer G., Gabor R.): Peatland restoration to mitigate land-use impacts on water quality. Ohio Sea Grant, \$10k *[Submitted June 2018]*
- PI (Co-PIs: Bakker J., Demyan S. & Culman S.): Post-fire Recovery and Restoration of Soil Health in the Sagebrush-Steppe. Joint Fire Science Program, \$199k *[Submitted November 2016; recommended for funding, lost out due to JFSP federal budget reduction]*
- Co-PI (PI Dickinson M.; Co-PIs: McCorrison J. & Hutchinson T.): Herbaceous Communities in Central Hardwoods Forests – Using Historical Assemblages To Inform Oak-Ecosystem Restoration. US Forest Service National Fire Plan Seed Funding, \$70k. *[Submitted October 2016]*
- PI (Co-PI: Basta N.): Restoring Ecosystems with bio-based wastes for BLended Soils (REBLS) *[pre-proposal]*. Sustainable and Resilient Economy Seed Grant, \$25k. *[Submitted April 2016]*
- Co-PI [lead author of proposal] (PI: Williams R.): SAFE PB: Seasonal variation in Appalachian Fire Effects - understanding the ecology of Prescribed Burning. Joint Fire Science Program, 2016-2019, \$198k *[Submitted November 2015]*.
- PI (Co-PI: Bergefurd B.): Improving the productivity and quality of woodland pawpaw patches *[pre-proposal]*. Sustainable Agriculture Research and Education Program North Central, 2016-2018, \$100k *[Submitted June 2015]*
- CA: Establishing relationships between fire behaviour and ecosystem response for UK peatland fires. Natural Environment Research Council [UK NSF equivalent], 2016-2020, \$1.74M *[Submitted June 2015]*.

Teaching and supervision

The Ohio State University

Curriculum development

- Developing new undergraduate Ecosystem Restoration curriculum (2015-2017)
- Secured Society for Ecological Restoration alignment and certification for graduate and undergraduate restoration programs (2019)

Course leader or co-leader

- Principles and Tools of Ecosystem Restoration (2017-present) ENR 3800
- Practical Skills for Ecosystem Restoration (2018-present) ENR 4800

- Dynamics of Ecosystem Restoration (2015-present) ENR 5560
- Environment and Natural Resources Capstone (2016-2019) ENR 4900.01
- Individual Studies in Environment and Natural Resources (2017) ENR 4193
- Database Design and Management (2017; Columbus and Wooster) ENR 8890.02
- Wilds Restoration Field Course ENR 4193

Contributor

- Environment and Natural Resources Survey (2015-present) ENR 1100
- Visioning the new Student Farm (2017) HCS 4193
- Design of Ecological Field Studies (2017, 2018) ENR 8890.01
- Landscape Architecture Design Studios (2015-present) LARCH 6910
- EEOB Community Ecology (2017, 2020) EEOB 5470

Post-doctoral supervision/collaboration

- Simon Power (Post-doctoral researcher, 2018-present)
- Roger Grau-Andres (Post-doctoral researcher, 2018)
- Claire Wainwright (Post-doctoral researcher, University of Washington, 2017-2019)
- Lei Yakai (Visiting Researcher, Henan Agricultural University, China, Urban Ecology)

Graduate supervision

Co-I status shown with *; Completed students shown in *italics*

- Jeremy Block (MS Student – Environmental Science Graduate Program; 2019-present)
- Wanderson Novais Pereira (MS Student – Environment and Natural Resources; 2019-present)
- Charles Davis (MS Student – Environment and Natural Resources; 2019-present)
- *Sarah Francino (PhD student - Environmental Science Graduate Program; 2019-present)
- *Jo Kingsbury (PhD student - Environmental Science Graduate Program; 2016-present)
- Rachel Glover (PhD student - Environment and Natural Resources; 2016-present)
- *Jordan Reding (MS student - Environment and Natural Resources; 2017-2019)*
- *Sarah Francino (MS student - Environment and Natural Resources; 2017-2019)*
- **Yushan Hao (MS student - Environmental Science Graduate Program; 2016-2019)*
- *Julie Slater (MS student - Environment and Natural Resources; 2016-2018)*
- *Roger Grau (PhD Student - University of Glasgow; 2012-2016)*

Graduate thesis committee member

Completed students shown in *italics*

- Aminata Fofana MS Student Microbiology (2019-present)
- Leah Weston MS Student EEOB (2018-present)
- Alice Snyder MS Student ENR (2018-present)
- Leanna DeJong MS Student ENR (2018-present)
- Ryan McCarthy PhD Student EEOB (2015-present)
- Jay Wright PhD Student ENR (2019-present)
- *Tania Burgos-Hernandez PhD Student ENR (2015-2019)*
- *Anne Morgan MArch Student Landscape Architecture (2018-2019)*
- *Chris Riley PhD Student Entomology (2017-2019)*
- *Danielle Frevola MS Student EEOB (2017-2018)*
- *Camilo Rey-Sanchez PhD Student ESGP (2016-2018)*
- *Andrew Lybert PhD Student EEOB (2016-2018)*
- *Alyssa Zearley MS Student ENR (2016-2018)*
- *Kaitlyn Benson MS Student ENR (2016-2017)*

Undergraduate research supervision

Graduated students shown in *italics*

- Michael Rizzo (2020-present) ENR 4998
- Maddie Reuschling (Honors) (2018-present) ENR 4998
- Johnathan King (2017-2019) ENR 4998
- Katie Gaffney (2017) ENR 4998, Research technician
- *Charles Davis* (2018) *SROP*
- *Chelsea Cancino* (2018) *Research technician*
- *Ashley Fox* (2017) *ENR 4998*
- *Jackie Reusser* (2017) *ENR 4998*
- *Jordan Reding* (2016) *Research volunteer*
- *Alyssa Jones* (2015-2016) *ENR 4998*
- *Liberty Brigner* (2015-2016) *ENR 4998*

University of Glasgow

Course leader

- Earth System Science (2011-2014) (2000 equivalent)
- Research Methods for Environmental Scientists (2012-2014) (2000 equivalent)
- Energy: options for sustainability (2012-2014) (2000 equivalent)
- Restoration Ecology Field Course (2013-2014) (4000 equivalent)
- Environmental Stewardship Projects (2013-2014) (4000 equivalent)

Contributor

- Perspectives on the Environment (2014) (4000 equivalent)
- Writing the Environment (2014) (5000 equivalent)
- Climate Change Impacts on Ecology (2013) (5000 equivalent)

Supervision: 2 PhD Students, 2 Master's students, 2 Honours student dissertations, 2 research technicians, 1 teaching garden manager

University of Washington

Course leader

- Biotech, Biofuels and Biodiversity: challenges for agriculture (2010) (4000 equivalent)

Contributor

- Fire Ecology (2010) (5000 equivalent)

Supervision: 3 field technicians (2009-2010)

Recognition

- Invited to provide feedback on revised prescribed burning regulation in Scotland (2017)
- Associate of the Institute of Biodiversity, Animal Health and Comparative Medicine, University of Glasgow (2012-2017)
- Selected for Unit 5 (Biological Sciences) of University of Glasgow's submission to the 2014 UK Research Excellence Framework (<http://www.ref.ac.uk>)
- Recipient of University of Glasgow's Recognition and Reward for continued excellent achievement (2014)
- Visiting Researcher, School of Environment and Natural Resources, The Ohio State University (Jun 2013 to Aug 2013)

Extension and outreach

Extension

- Education and outreach activity (workshop, seminar, training and farm visits) for pawpaw production

- Advice to Scottish Natural Heritage (statutory conservation body) on severity assessment for peatland wildfires
- Advice to UK Fire and Rescue Services on fighting severe peatland wildfires
- Advice to Columbus Ecological Restoration Program regarding invasive control at Tuttle Park (2016)
- Advice to Lower Olentangy Watershed to provide advice on restoration projects and collaborate on pawpaw planting (2016)
- Advice to Mourne Heritage Trust (Northern Ireland) regarding fire risk and fuel management (2016)
- Report to Appalachia Ohio Alliance with short report on peatland condition monitoring and potential restoration. Collaborated with MAD Scientist Ltd to facilitate AOA bid to purchase Utzinger Bog (2016)
- Advice to Buckeye Lake Historical Society regarding management of Cranberry Bog and provided seminar talk on bog restoration (2015-2016)
- Invited participant European Forest Risk Facility Workshop on forest fires (2014)
- Invited contributor to Scottish review of management burning regulations (2012-2014)
- Led development of the University of Glasgow Campus Teaching Garden (2011-2014)
- Invited contributor to review of UK vegetation fire statistics (2008)
- Training to land-managers in best practice and adaptive management (2006-2014)
- Talks for the University of Glasgow's public engagement events programme (2010-2014)

External committees and agencies

- Invited Advisory Board member Conservation Evidence group (University of Cambridge) - global evidence on the effects of conservation interventions for shrublands (2016-present)
- Association of Fire Ecology Journal Committee Member (2016-present)
- Member of the Riparian Annan Water Project Steering Group (2014)
- Member of the Scottish Wildfire Forum (Scottish Government Advisory Body; 2013-2014)
- Associate Member of the Corehead and Devil's Beeftub Steering Group (2012-present)
- Member of the Dumfries Archival Mapping Project Steering Group (2012-2015)

Service

Reviewing

- Associate Editor: *PeerJ, Fire Ecology*
- Reviewer for the journals *Biological Conservation, Canadian Journal of Forest Research, Fire Technology, Land Degradation and Development, International Journal of the Commons, Journal of Environmental Management, Plant Ecology and Diversity, Frontiers in Ecology and Evolution, Journal of Biogeography, Journal of the Torrey Botanical Society, Journal of Applied Ecology, Restoration Ecology, PLOS ONE, Journal of Mountain Science, Fire Ecology, Natural Hazards and Earth System Sciences, Journal of Hydrology, PeerJ, SOIL, Ecological Applications, Ecological Engineering, Applied Vegetation Science, Global Change Biology, Ecohydrology*
- Grant reviewer: Natural Environment Research Council (U.K.), OARDC SEEDS Grants, SRE Discovery Theme, British Ecological Society, Department of Energy Environmental System Science Funding Opportunity
- External PhD thesis examiner for Polytechnic University of Catalonia (2011), University of Bergen (2012), King's College London (2015), McMaster University (2015), University College Dublin (2016)
- Contributing Editor of "Wildfire" magazine (membership publication of IAWF)
- Member of the Scientific Advisory Panel for the "Forest Fires" (2008 and 2010)
- Member of Organising Committee for 5th International Conference on Fire Effects on Soil Properties (2015)

- Member of Scientific Committee for International Conference on Fire Behaviour and Risk (Italy, 2015)
- Judge: Denman Undergraduate Research Forum (2015, 2016)
- Judge: The Ohio Academy of Science, State Science Day (2015, 2016)

Committee appointments

Appointments prefixed with OSU for those whilst at The Ohio State University and UoG for those whilst at the University of Glasgow

- OSU – General Education Curriculum Review – Lived Environment theme group member
- OSU – Junior Faculty Meeting narrative writing panel participant (2019)
- OSU – SENR Forest Ecology and Restoration faculty hire committee (2019-present)
- OSU – OARDC SEEDS Grant Committee (2015-present)
 - Co-Chair of SEEDS graduate committee (2017-present)
- OSU – Graduate Studies Committee (2015-present)
- OSU – Graduate Fellowship Committee (2015-2016, 2018 [Chair], 2019)
- OSU – Mirror Lake Restoration Advisory Committee (2017-2018)
- OSU – University Panel on Ecosystem Services (2017-2018)
- OSU – SENR Lowe Forest Proposal Writing Group (2017-present)
- OSU – Search committee for Director of Restoration Ecology position at The Wilds (2015)
- UoG – Member of the School of Interdisciplinary Studies ethics committee
- UoG – School representative on the campus library committee
- UoG – School representative on the College of Social Sciences library committee

Mentoring

- Faculty Advisor – Society for Ecological Restoration OSU Chapter (2017-present)
- SENR Undergraduate Faculty mentor (14 students)
- Provided support/advice to Kimberly Chapman's (MENR student) application to Society for Ecological Restoration MWGL Student Restoration Practice Grant (Spring 2016)

Training and personal development

- Ohio Department of Natural Resources - Certified Ohio Prescribed Burn Manager (2018)
- Ohio Department of Agriculture – Licensed Pesticide Applicator (2018)
- Ohio Forestry Association – Custom Chainsaw Training (2018)
- Completed S130 and S190 components of ENR 3335 to gain “red card” Wildland Fire Fighter Type II certification (2015)
- Attended OARDC Soil Health Workshop, Wooster. Training in laboratory methods to assess physical, chemical and biological soil health indicators (2016)
- On-course Training Workshop, Columbus, Ohio, 7th December 2016

Memberships

British Ecological Society, Association for Fire Ecology, Society for Ecological Restoration, Ohio Academy of Science

References

Available upon request