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Google Scholar: [scholar.google.com/citations?user=CslCJcAAAAJ&hl=en](https://scholar.google.com/citations?user=CslCJcAAAAJ&hl=en)

***Education and training***

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Postgraduate Certificate in Academic Practice	University of Glasgow	2013
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(Note: this is a UK Higher Education teaching qualification)

PhD	University of Edinburgh	2006
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Thesis title: Fire Behaviour and Impact on Heather Moorlands

MSc	University of Edinburgh	2001
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Environmental Protection and Management (with distinction)

BA (Hons)	University of Wales Lampeter	2000
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Environment and Archaeology (2:1)

***Research and professional experience***

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Associate Professor of Soil and Plant Community Restoration	The Ohio State University	Jun 2021 - present
Assistant Professor of Soil and Plant Community Restoration	The Ohio State University	Jan 2015 - Jun 2021
Lecturer in Environmental Stewardship	University of Glasgow	12/2010 - 12/2014
Post-Doctoral Research Associate	University of Washington	12/2008 – 12/2010
Post-Doctoral Research Fellow	University of Edinburgh	02/2006 – 07/2008

***Publications***

Note: In the lists below post-doctoral co-authors are shown in **bold**, graduate student co-authors are shown in *italics*, undergraduates are underlined.

**Peer reviewed scientific papers**

41. *Novais W.*, Wenner B.A., *Block J.A.*, **Power S.**, Porteus E. & Davies G.M. (in press). Goat browse selectivity during conservation grazing in an invaded eastern oak-hickory forest. *Agroforestry Systems*.
40. *Reding J.*, Davies G.M. & Klips R. (2022). Rock climbing disturbance and abiotic gradients interact to determine cryptogam diversity and community structure. *Applied Vegetation Science*, 25, e12680.
39. *Minsavage-Davis C.D.* & Davies G.M. (2022) Evaluating the performance of fire rate of spread models in northern-European *Calluna vulgaris* heathlands. *Fire*, 5, 46
38. *Peacock J.*, Tonra C.M., King J. & Davies G.M. (2021). Restoration of gallery forest patches improves recruitment of motacú palms (*Attalea princeps*) while diversifying and increasing wildlife populations. *PLOS ONE*, 16, e0250183.

37. Lei Y., Davies G.M., Jin H., Tian G. & Kim G. (2021). Scale-dependent effects of urban greenspace on particulate matter air pollution. *Urban Forestry and Urban Greening*, 61, 127089.
36. Gray A., Davies G.M., Domenech R., Taylor E. & Levy P. (2021). Peatland wildfire severity and post-fire gaseous carbon fluxes. *Ecosystems*, doi.org/10.1007/s10021-020-00545-0.
35. Wainwright C., Davies G.M., Dettweiler-Robinson E., Dunwiddie P.W., Wilderman D. & Bakker J.D. (2020). Methods for tracking sagebrush-steppe community trajectories and quantifying resilience in relation to disturbance and restoration. *Restoration Ecology*, 28, 115-126.
34. 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.
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., McMorro 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 Jordi 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

Davies G.M., Gray A. & **Domenech Jordi R.** (in review). Resilience of temperate peatland vegetation communities to wildfire depends upon burn severity and pre-fire species composition. *Ecology and Evolution*.

**Power S.**, Davies G.M., **Wainwright C.**, Bakker J. & Marsh M. (in review). Restoration can support the resilience of sagebrush-steppe ecosystems subjected to repeated fires – temporarily. *Journal of Applied Ecology*.

*Peacock J.L.*, Macleod R., Davies G.M., Boorsma T. & Tonra C.M. (in review). Populations of three declining Neotropical grassland birds show species-specific responses to resources and habitat structure, indicating a need for complex conservation management approaches. *Tropical Conservation Science*.

#### Book chapters

2. **Davies G.M.**, Vandvik V., Marrs R.M. & Velle L.G. (2022). Fire management in heather-dominated heaths and moorlands of North-West Europe (Chapter 12). In: Weir J. & Scasta J.D. (eds.) *Prescribed Fire: Global Applications*. Clayton, Victoria, CSIRO.
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

13. Gagkas Z., Campbell G., Owen J. & **Davies G.M.** (2021). Provision of analyses of Scottish Fire and Rescue Service (SFRS) Incident Reporting System (IRS) data in relation to wildfire incidents. Report prepared for the Scottish Government.
12. 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.

11. Bergefurd B. & **Davies G.M.** (2019). Marketing and Orchard Resource Efficiency for Ohio Pawpaw. Final Report to the Ohio Department of Agriculture Specialty Crop Block Grant Program.
10. **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](https://wrc.osu.edu/sites/wrc.osu.edu/files/uploads/2017oh534b_davies_progress.pdf)
9. **Davies G.M.** & Bergefurd B. (2016). Improving the productivity and quality of woodland pawpaw production in Ohio. Final Report to the Warner Endowment Grant.
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](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. 19<sup>th</sup> EGU General Assembly, EGU2017. Proceedings from the Conference held 23<sup>rd</sup>-28<sup>th</sup> 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 Jordi 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 \*

27. \***Davies G.M.** & Minsavage-Davis C. (2022). Traditional Managed Burning. FIRE-RES Workshop 2022, 14<sup>th</sup>-15<sup>th</sup> Jun 2022, Solsona, Spain. Online.
26. **Davies G.M.**, Francino S., Bergefurd B., Scheerens J. & Powell R. (2021). Woodland pawpaw production – controls on productivity and quality. Ohio Pawpaw Conference, Online.
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, 24<sup>th</sup> 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 22<sup>nd</sup> 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, 12<sup>th</sup>-14<sup>th</sup> 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, 25<sup>th</sup> 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. 7<sup>th</sup> Association for Fire Ecology International Fire Congress. Orlando, Florida, 28<sup>th</sup> November - 2<sup>nd</sup> 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., 7<sup>th</sup> – 8<sup>th</sup> 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, 24<sup>th</sup> – 26<sup>th</sup> 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, 5<sup>th</sup>-6<sup>th</sup> October 2016.
16. \***Davies G.M.** (2016). Disturbance effects on the ecological function of peat bogs. ESGP Seminar, The Ohio State University, Columbus, Ohio, 30<sup>th</sup> 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, 2<sup>nd</sup>-3<sup>rd</sup> 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 10<sup>th</sup>-11<sup>th</sup> 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 28<sup>th</sup>-29<sup>th</sup> 2015.
12. \***Davies G.M.**, Gray A., Domenech R. & *Grau R.* (2015). Ground fuels are the key to understanding peatland wildfire severity. 5<sup>th</sup> International Conference of Fire Effects on Soil Properties. University College Dublin, Eire, 14<sup>th</sup>-17<sup>th</sup> 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 27<sup>th</sup> 2015.
10. **Davies G.M.**, Gray A., Domenech Jordi R. & Johnson P. (2014). Variation in peatland wildfire severity – implications for ecosystem carbon dynamics. VII International Conference on Forest Fire Research. Coimbra, Portugal, 14<sup>th</sup>-21<sup>st</sup> 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 7<sup>th</sup>-9<sup>th</sup> 2014.
8. **Davies G.M.**, Gray A., Domenech Jordi R. & Johnson P. (2013). Variation in fire severity and the ecological impact of wildfires. Wildfire 2013, Cardiff, U.K., 22<sup>nd</sup>-23<sup>rd</sup> 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 Jordi R. & Gray A. (2013). Wildfire severity and moorland carbon dynamics. Knowledge for Wildfire (KfWf) seminar. Manchester, UK, 27<sup>th</sup> 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., 17<sup>th</sup>-20<sup>th</sup> 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. 27<sup>th</sup> 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, 20<sup>th</sup>-24<sup>th</sup> 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, 26<sup>th</sup>-28<sup>th</sup> 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, 11<sup>th</sup>-12<sup>th</sup> February 2010.

#### **Extension and outreach presentations (since 2015)**

13. **Davies G.M.** & Wenner B. (2021). Conservation grazing with goats to control woodland invasive species. OSU Farm Science Review. September 21<sup>st</sup> – 23<sup>rd</sup> 2021. Gwynne Conservation Area, London, Ohio.
12. **Davies G.M.**, *Francino S.*, Bergefurd B., Scheerens J. & Powell R. (2021). Managing woodlands for pawpaw production. OSU Farm Science Review. September 21<sup>st</sup> – 23<sup>rd</sup> 2021. Gwynne Conservation Area, London, Ohio.
11. Bergefurd B., **Davies G.M.**, *Francino S.*, Scheerens J., Signorini G. & Harker T. (2021). MORE OHIO PAWPAW – A multidisciplinary research and extension development program. Ohio State University Extension Annual Virtual Conference. December 7<sup>th</sup> – 9<sup>th</sup> 2021, Online.
10. **Davies G.M.**, *Francino S.*, Bergefurd B., Scheerens J. & Powell R. (2021). Powerful Pawpaws. Chadwick Arboretum Tree University. September 23<sup>rd</sup> 2021, Online.
9. **Davies G.M.**, *Francino S.*, Bergefurd B., Scheerens J. & Powell R. (2021). Growing pawpaws in woodlands, orchards and gardens. Franklin County Master Gardeners, Online.
8. **Davies G.M.**, *Novais W.*, *Block J.* Power S. & Wenner B. (2021). Prescribed goat grazing for woodland restoration. 2021 Ohio Woodland Water and Wildlife Conference. Online
7. **Davies G.M.**, *Francino S.*, Bergefurd B., Scheerens J. & Powell R. (2020). Picking pawpaw patches - managing woodlands for pawpaw production. 2020 Farm Science Review, Online.
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, 18<sup>th</sup> September 2019.
5. **Davies G.M.** (2019). March STEAM Exchange: Ice and Fire, Columbus Ohio, 21<sup>st</sup> March 2019.
4. \***Davies G.M.** (2018) Screw Smokey let's burn down Ohio's forests. Ohio Ecology on Tap. Columbus, Ohio, 5<sup>th</sup> 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, 23<sup>rd</sup> 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, 1<sup>st</sup> 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 and post-docs (since 2015)**

Graduate students advisees shown in *italics*, undergraduates underlined

45. *Peacock J.L.*, Davies G.M. & Tonra C. (2022). Response of bird functional diversity and composition to restoration is contingent on habitat type across a savanna-grassland ecotone. AFO Annual Meeting, 10<sup>th</sup>-13<sup>th</sup> October 2022, Plymouth, Massachusetts, USA
44. *Dacres A.*, Basta N. & **Davies G.M.** (2022) Are carbon stocks and permanence being influenced by biophysical gradients and management in forests across Ohio. OSU ESGP – UPC Chile Joint Seminar, 3<sup>rd</sup> Aug 2022, Columbus, Ohio.
43. *Francino S.* & **Davies G.M.** (2022). Wondrous Wild Pawpaws: Production and Growth of Native Stands. Ohio Pawpaw Conference, Piketon, OH, 21st May 2022.
42. *Francino S.*, **Davies G.M.** & Scheerens J. (2022). Wondrous Wild Pawpaws: Production and Growth of Native Stands. KSU Third Thursday Thing, Frankfort, KY Sarah Francino, 14th Sep 2022.
41. *Francino S.*, **Davies G.M.** & Scheerens J. (2022). Pawpaw 101. Ohio Pawpaw Festival, Albany, OH, 17th Sep 2022.
40. Power S.C., **Davies G.M.** & Bakker J.D. (2021). Restoration enhances resistance of sagebrush-steppe communities following repeated fires but doesn't reverse changes in ecosystem state. Society for Ecological Restoration 9<sup>th</sup> World Conference on Ecological Restoration. June 21-24 2021, Online.
39. *Novais W.*, Wenner B., *Block J.*, Power S., Porteus E. & **Davies G.M.** (2021). Conservation grazing by goats in eastern oak-hickory forest: browsing behavior and forage selectivity. American Society of Animal Science Annual Meeting 2021. July 14-18, 2021, Louisville, KY.
38. *Francino S.*, Scheerens J., **Davies G.M.** & Bergesford B. (2020). From seed to market: an introduction to pawpaw production. OFFEA Conference, Cincinnati, OH, February 14th 2020.
37. *Snyder A.*, Demyan M.S., Basta N.T. & **Davies G.M.** (2019). Plateau study: testing the soil carbon saturation theory through the application of biosolids. American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America Annual Meeting, San Antonio, TX, November 10<sup>th</sup> - 13<sup>th</sup> 2019.
36. Demyan S., *Snyder A.* & **Davies G.M.** (2019). Pedogenesis in soils formed from reclaimed soda ash waste, implications for restoration. ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX, November 10<sup>th</sup> - 13<sup>th</sup> 2019.
35. *Kingsbury J.*, **Davies G.M.**, Tonra C.M. & MacLeod R. (2019). Threatened birds, dynamic habitats and disturbance – conserving birds in one of the worlds most threatened and understudied savannah ecosystems. AFO-WOS Joint Meeting; Cape Mat, NJ, October 27th-30th 2019.
34. *Francino S.*, Scheerens J., **Davies G.M.** & Bergesford B. (2019). What cultivars and management techniques produce the most consistent and highest quality pawpaw fruit? Ohio Pawpaw Festival, Athens OH, September 14th-16th. 2019.
33. *Francino S.*, **Davies G.M.** & Bergesford B. (2019). Does money grow on trees? Woodland pawpaw production. Opening Doors to Success Small Farm Conference, Piketon OH, March 29th 2019.
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, 12<sup>th</sup>-14<sup>th</sup> 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, 12<sup>th</sup>-14<sup>th</sup> 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, 12<sup>th</sup>-14<sup>th</sup> 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, 12<sup>th</sup>-14<sup>th</sup> 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, 12<sup>th</sup>-14<sup>th</sup> 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, 12<sup>th</sup>-14<sup>th</sup> 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 22<sup>nd</sup> 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 22<sup>nd</sup> 2019.*
24. *Francino S., Davies G.M., & Bergefurd B. (2018). Woodland production of pawpaws across Ohio. Ohio Pawpaw Festival. Albany, Ohio, 14<sup>th</sup>-16<sup>th</sup> September 2018.*
23. *Bergefurd B., Francino S., Powell R. & Davies G.M. (2018). Orchard establishment in Ohio. Ohio Pawpaw Festival. Albany, Ohio, 14<sup>th</sup>-16<sup>th</sup> 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., 7<sup>th</sup> – 8<sup>th</sup> 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, 24<sup>th</sup> – 25<sup>th</sup> October 2017.*
18. *Stoof C., Kettridge N., Gray A., Ascoli D., Fernandes P., Marrs R., Allen K., Doerr S., Clay G., McMorro J., Vandvik V. & Davies G.M. (2017). Controlled fires, politics, and the media. European Geosciences Union General Assembly. Vienna, Austria 23<sup>rd</sup> – 28<sup>th</sup> 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, 31<sup>st</sup> January – 3<sup>rd</sup> 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, 24<sup>th</sup> – 26<sup>th</sup> 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, 24<sup>th</sup> – 26<sup>th</sup> 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, 24<sup>th</sup> – 26<sup>th</sup> 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, 8<sup>th</sup> 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, 21<sup>st</sup> 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, 2<sup>nd</sup> 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, 30<sup>th</sup> 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. 11<sup>th</sup> 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, 15<sup>th</sup>-16<sup>th</sup> April 2016.*
7. *Muller T., Forrest D., Davies G.M., McConnel A. & Bishop P. (2016). Tree cover in Nithsdale and Annandale in the 18<sup>th</sup> and early 19<sup>th</sup> centuries. Dumfries Archival Mapping Project Events Series. Auldgirth, Scotland, 29<sup>th</sup> September 2016.*
6. *Muller T., Dalglish 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, 13<sup>th</sup>-16<sup>th</sup> 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. Fuegored International Meeting 2015, Universidad de Málaga - Andalucía Tech, Malaga, Spain, 18<sup>th</sup>-21<sup>st</sup> 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 10<sup>th</sup>-11<sup>th</sup> 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, 7<sup>th</sup> October 2015*

2. **Grau R., Davies G.M.,** Waldron S., Gray A. & Scott M. (2015). Fuel and climate controls on peatland fire severity. 5<sup>th</sup> International Conference of Fire Effects on Soil Properties. University College Dublin, Eire, 14<sup>th</sup>-17<sup>th</sup> July 2015.
1. **Grau R., Davies G.M.,** Waldron S., Gray A. & Scott M. (2015). Fire severity controls on peatland carbon dynamics [poster]. 5<sup>th</sup> International Conference of Fire Effects on Soil Properties. University College Dublin, Eire, 14<sup>th</sup>-17<sup>th</sup> July 2015.

### ***Funding proposals***

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Research grants secured or pending either as PI, Co-PI, contributing author (CA, where not eligible for PI/Co-PI status – e.g. on international applications) or collaborator (COL)

### **Successful applications**

- COL: (PI: Kettridge N., Co-PIs Belcher C., Doerr S., Gaston K., Heinmeyer A.): NERC Grant Toward Informed Decisions on Ecologically Adaptive Land management for mitigating UK FIRE. UK Natural Environment Research Council, 2023-2028, \$6M.
- COL: (PI: Stambaugh M., Co-PIs: Nowacki G., Rau B., McCorriston J.): Mapping past, present, and future hydro-ecology, fire, and vegetation for oak ecosystem restoration. Joint Fire Science Program 2022-2025.
- PI (Co-PIs: Scheerens J., Bergefurd B., Channon A.) Developing and promoting woodland pawpaw production practices to improve fruit yield and quality. NC SARE, 2022-2025, \$210k.
- PI (Co-PIs: Williams R., Lorenz K., Lal R., Basta N., Hattey J., Mehmood S., Demyan S., Sohngen B., Hamilton M.) An ecosystem carbon account for OSU's forest properties – towards a budget for carbon storage, sequestration and offsets. Ohio State Energy Partners Award, \$50k
- Co-PI (PI: Hattey J.; Co-PIs Sprunger C. Basta N., Wenner B., Williams R.) Future restoration: food in urban environments - training undergraduates for research and extension in restoration and agroforestry. USDA AFRI, 2021-2026, \$500k.
- CA: (PI: Owen J.; Co-PI: Gagkas Z.): Provision of analyses of Scottish Fire and Rescue Service (SFRS) Incident Reporting System (IRS) data in relation to wildfire incidents. Scottish Government, 2021-2022, \$23k.
- PI (Co-PIs: Hattey J., Bakker J., Demyan S., Culman S.): Post-fire recovery and restoration of soil health and ecosystem productivity in the sagebrush-steppe rangelands. USDA AFRI, 2021-2024, \$500k.
- Co-PI (PI: Signorini G.; Co-PIs: Scheerens J., Simon C., Bergefurd B., Jimenez-Flores R., Davies G.M.) A strategic and operational agenda to promote sustainable growth in the developing pawpaw value chain. USDA AFRI, 2021-2024 \$239k.
- PI (Co-PI: Francino S.): Collaborative research to improve wild pawpaw (*Asimina triloba* L. Dunal) fruit production. Warner Endowment Fund for Sustainable Agriculture Interdisciplinary Grant Program for On-Farm Research, 2020-2021, \$4k.
- 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. 2019-2020, \$46k.
- Co-PI (PI: Demyan S.) Development of a holistic restoration framework for human-degraded ecosystems. SEEDS Partnership Grant, 2019-2020, \$25k.

- Co-PI (PI: Basta N., Co-PIs: 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 (Co-PIs: 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.

### **Successful applications by student advisees**

- Novais W. & Block J. (2020) Sustainable practices of prescribed burning and goat grazing to restore a degraded eastern oak forest. OSU Sustainability Institute Student Grant, 2020-2021, \$5,000.
- 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.

### ***Teaching and supervision***

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#### **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 (2015-2022) 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) ENR 8890.02
- Wilds Restoration Field Course (2019) 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-present) ENR 8890.01
- Landscape Architecture Design Studios (2015-present) LARCH 6910
- Community Ecology (2017, 2020) EEOB 5470
- Global Climate Change: Causes and Consequences (2020) GEOG 3900

### 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-advised students indicated with \*

- \*Sarah Francino (PhD student - 2019-present)
- \*Adriana Dacres (PhD student - 2021-present)
- Rachel Glover (PhD student - 2016-2022):
- \*Jo Kingsbury (PhD student - 2016-2021): Effects of ecological and agricultural disturbance on forest-grassland ecotones and wildlife in Beni, Bolivia: Consequences for restoration, conservation and sustainable ranching
- \*Roger Grau (PhD Student - 2012-2016): Drought and fuel structure controls on fire severity effects on post-fire vegetation and soil carbon dynamics
- MK Klenkar (MS Student – 2022-present): Litter decomposition and long term plant community response to management in an invaded eastern hardwood forest
- Josephine Duffy (MS Student – 2022-present): Soil carbon sequestration and soil health in reclaimed mineland prairies
- Austen Dixon (MS Student – 2022-present): Growth and performance of pawpaws established in restored woodland patches
- Monika Moreu-Vicente (MS Student – 2022-present): Development and stakeholder perceptions of wildfire-resilient approaches to peatland land-management
- Marcos Gimenez Diaz (MS Student – 2021-present): Effects of sagebrush-steppe wildfires on soil infiltration and physical characteristics
- Jeremy Block (MS Student -2019-2021): Ecological effects and control of woody invasive species in an eastern oak-hickory forest.
- \*Wanderson Novais Pereira (MS Student - 2019-2021): Goat browse selectivity and economic performance during conservation grazing in an invaded oak-hickory forest

- Charles Davis (MS Student - 2019-2021): Impact of fuel management strategies on potential fire behavior in the heathlands and moorlands of North-West Europe
- Jordan Reding (MS student - 2017-2019): Rock climbing or lichen climbing? How rock climbing impacts bryophyte and lichen communities within the Red River Gorge
- Sarah Francino (MS student - 2017-2019): Variation in pawpaw (*Asimina triloba* L. Dunal) productivity and fruit quality among cultivars and orchards in Ohio.
- \*Yushan Hao (MS student - 2016-2019): Characterization of peat bog CO<sub>2</sub> and CH<sub>4</sub> production potentials in relation to peat physico-chemical properties and vegetation composition
- Julie Slater (MS student - 2016-2018): Historical land use changes and hydrochemical gradients in Ohio's *Sphagnum*-dominated peatlands

#### *Graduate Research Committee Member at OSU*

2022 – present	McKenna Monar	Evolution, Ecology and Organismal Biology
2022 – present	Lucy Guarnieri	Entomology
2021 – present	Katie Gaffney	Environment and Natural Resources
2021 – present	Ziyu Dong	Environment and Natural Resources
2019 – 2022	James Wright	Environment and Natural Resources
2019 – 2022	Andrew Wilk	Environment and Natural Resources
2015 – 2022	Ryan McCarthy	Evolution, Ecology and Organismal Biology
2019 – 2021	Alice Snyder	Environment and Natural Resources
2019 – 2021	Leah Weston	Evolution, Ecology and Organismal Biology
2018 – 2020	Leanna Dejong	Environment and Natural Resources
2018 – 2020	Lana Milbern	Environment and Natural Resources
2017 – 2019	Christopher Riley	Entomology
2017 – 2019	Kate Donlon*	Environment and Natural Resources
2016 – 2019	Camilo Rey-Sanchez	Environmental Science Graduate Program
2016 – 2019	Andrew Lybbert*	Evolution, Ecology and Organismal Biology
2016 – 2018	Danielle Frevola	Evolution, Ecology and Organismal Biology
2016 - 2017	Kaitlyn Benson	Environment and Natural Resources
2015 – 2019	Tania Burgos-Hernandez	Environment and Natural Resources

#### *External/Internal PhD Examiner*

External examiner or examination committee member for PhD dissertations at other universities

2020	Ashleigh Harper	Swansea University, Wales
2016	Nuria Prat	University College Dublin, Republic of Ireland
2015	Joshua Johnston	King's College London, United Kingdom
2015	Maxwell Lukenbach	McMaster University, Canada

#### *Graduate Faculty Representative on dissertation examinations at OSU*

2017	Qi Guo	Earth Sciences
2019	Xinjie Tong	Food, Agricultural and Biological Engineering
2020	Chieh-Ming Wu	Environmental Health Sciences

#### **Undergraduate dissertation supervision**

- Kayla Engle (Honors student – 2021-present): Variation in soil and hydrochemical characteristics in a historically mined Ohio peat bog



- Ellen Kieser (Honors student – 2020-2022): Relationships between plant productivity and diversity in restored prairie ecosystems
- Maddie Reuschling (Honors student – 2019-2021): Fuel moisture and flammability of goldenrod (*Solidago* spp.)
- Liberty Brigner (Research Distinction – 2015-2016): Poor pawpaw production in woodland patches - what's the explanation?

### International Workshops

- PyroLife Online PhD Course- Understanding fire in the landscape: biophysical aspects (2021). <https://pyrolife.lessonsonfire.eu/fire-in-the-landscape-introduction-to-biophysical-aspects/>

### University of Glasgow (2010-2014)

#### Course leader

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

#### Contributor

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

**Supervision:** 1, post-doctoral researcher, 2 PhD Students, 2 Master's students, 2 Honours student dissertations, 2 research technicians, 1 teaching associate

### University of Washington (2008-2010)

#### Course leader

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

#### Contributor

- Fire Ecology (5000 equivalent)

**Supervision:** 3 field technicians (2009-2010)

### Recognition and awards

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- North American Colleges and Teachers of Agriculture, Educator Award (2021)
- Chadwick Arboretum, Ohio State University, Collaborator of the Year Award (2019)
- Review and 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***

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2019 – present	Member of stakeholder advisory group for the Scottish Government’s “Scottish Fire Danger Rating System” project.
2019-2020	Supported to Appalachia Ohio Alliance to secure > \$1M in funding to monitor and restore Utzinger Bog.
2018-present	Education and outreach activity (workshop, seminar, training and farm visits) for pawpaw production
2018	Advice to Scottish Natural Heritage (statutory conservation body) on severity assessment for peatland wildfires
2018	Advice to UK Fire and Rescue Services on fighting severe peatland wildfires
2016-2017	Invited Advisory Board member Conservation Evidence group (University of Cambridge) - global evidence on the effects of conservation interventions for shrublands
2016	Advice to Friends of the Lower Olentangy Watershed to provide advice on restoration projects and collaboration on pawpaw planting
2016	Advice to Columbus Ecological Restoration Program regarding invasive control at Tuttle Park
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
2015 – 2016	Advice to Buckeye Lake Historical Society regarding management of Cranberry Bog State Nature Preserve
2015 – 2016	Judge: Denman Undergraduate Research Forum
2015 – 2016	Judge: The Ohio Academy of Science, State Science Day
2015	Member: Organizing Committee for 5 <sup>th</sup> International Conference on Effects on Soil Properties
2015	Member: Scientific Committee for International Conference on Fire Behaviour and Risk
2015	Member: Search Committee for Director of Restoration Ecology position at The Wilds
2014	Invited participant European Forest Risk Facility Workshop on forest fires
2014	Member of the Riparian Annan Water Project Steering Group (2014)
2013-2014	Member of the Scottish Wildfire Forum (Scottish Government Advisory Body)
2012-2014	Invited contributor to Scottish review of management burning regulations
2012-2015	Member of the Corehead and Devil’s Beeftub Steering Group (landscape restoration project)
2012-2015	Member of the Dumfries Archival Mapping Project Steering Group (2012-2015)
2011-2014	Led development of the University of Glasgow Campus Teaching Garden

2010-2014	Talks for the University of Glasgow's public engagement events programme
2008	Invited contributor to review of UK vegetation fire statistics (2008)
2006-2014	Training/advice to land-managers in best practice and adaptive management for peatland prescribed fire use

## Service

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### 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*, *FIRE*
- 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), Swansea University (2020)
- 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 5<sup>th</sup> 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 – Graduate Studies Committee (2015-present) [*Chair as of Jun 2021*]
- OSU – General Education Curriculum Review member (2019)
  - Lived Environment GE Theme Committee (2020-present)
- OSU –Hiring Committee – Faculty Forest Ecology and Restoration (2019-2021) [*Chair*]
- OSU – Hiring Committee – Lecturer in Applied Ecology (2022) [*Chair*]
- OSU – Junior Faculty Meeting narrative writing panel participant (2019)
- OSU – SENR Forest Ecology and Restoration faculty hire committee (2019-2021)
- OSU – OARDC SEEDS Grant Committee (2015-2021)
  - SEEDS Graduate Research Grant Committee (2017-2021) [*Co-chair*]
- 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* –Director of Restoration Ecology at The Wilds search committee (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***

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- 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, 7<sup>th</sup> December 2016

### ***Memberships***

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British Ecological Society, Association for Fire Ecology, Society for Ecological Restoration, Ohio Academy of Science. NACTA Educator Award.