**Regan Early**

**Curriculum Vitae**

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| Senior Lecturer in Conservation Biology, Centre for Ecology and Conservation University of Exeter, Penryn Campus, Cornwall, TR10 9FE, UK  [r.early@exeter.ac.uk](mailto:r.early@exeter.ac.uk)  [www.fabiogeography.com](http://www.fabiogeography.com) |

**Education**

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| PhD, University of York, UK. In collaboration with the Countryside Council for Wales | | 2003 - 2007 |
|  | Thesis title: “Conservation at the Landscape Scale; the Marsh Fritillary and other British Butterflies” |  |

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| Undergraduate degree: Oxford University, UK | | 1999 - 2002 |
|  | Bachelor of Arts in Biological Sciences (2i) |  |

# Professional experience

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| Postdoctoral Fellow, Cátedra Rui Nabeiro - Biodiversidade, Universidade de Évora, Portugal | | 2010 - 2014 |
| Postdoctoral Research Associate, Ecology and Evolutionary Biology, Brown University. | | 2008 – 2010 |
|  | Project title: **“**Improving the accuracy of range-shift predictions under climate change.” |  |
| Independent Researcher, Universidad Rey Juan Carlos, Madrid. | | 2007 |
|  | Project title: “Exploring the mechanisms of range limitation in a declining butterfly: implications for future distributions under climate change” |  |

**Publications**

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| **Peer-reviewed Journals**  **(pdfs of most publications are freely available via ORE, https://ore.exeter.ac.uk/)** |
| L Bütikofer, K Anderson, DP Bebber, JJ Bennie, RI Early, IMD Maclean. 2020. The problem of scale in predicting biological responses to climate. *Global Change Biology*. <https://doi.org/10.1111/gcb.15358> |
| C Patterson, M Slater, R Early, C Laing. 2020 [The status of Clibanarius erythropus after a recent range expansion to Great Britain, with the highest latitude recording of a gravid individual](javascript:void(0)). *Marine Biodiversity Records* 13 (1), 1-7. <https://doi.org/10.1186/s41200-020-00186-1> |
| R García‐Valdés, A Estrada, R Early, V Lehsten, X Morin. 2020 [Climate change impacts on long‐term forest productivity might be driven by species turnover rather than by changes in tree growth](javascript:void(0)). *Global Ecology and Biogeography* 29, 1360–1372. <https://doi.org/10.1111/geb.13112> |
| Wallingford, P.D., Morelli, T.L., Allen, J.M., Beaury, E.M., Blumenthal, D.M., Bradley, B.A., Dukes, J.S., Early, R., Fusco, E.J., Goldberg, D.E., Ibáñez, I., Laginhas, B.B., Vilà, M., Sorte, C.J.B. 2020. Adjusting the lens of invasion biology to anticipate impacts of climate-driven range shifts. *Nature Climate Change* 10, 398–405. <https://doi.org/10.1038/s41558-020-0768-2> |
| Li, X.-J., M.-F. Wu, J. Ma, B.-Y. Gao, Q.-L. Wu, A.-D. Chen, J. Liu, Y.-Y. Jiang, B.-P. Zhai, R. Early, J. W. Chapman and G. Hu "Prediction of migratory routes of the invasive fall armyworm in eastern China using a trajectory analytical approach." *Pest Management Science* 76: 454-463. <https://doi.org/10.1002/ps.5530> |
| Bradley, B.A., Laginhas, B.B., Whitlock, R., Allen, J.M., Bates, A.E., Bernatchez, G., Diez, J., Early, R., Lenoir, J., Vilà, M., Sorte, C.J.B. 2019 **“Disentangling the abundance-impact relationship for invasive species” *PNAS* 116(20): 9919-9924.** <https://doi.org/10.1073/pnas.1818081116> |
| Ivory, S, Russell, J, Early, R, Sax, D. “Broader niches revealed by fossil data do not reduce estimates of range loss and fragmentation of African montane trees” *Global Ecology and Biogeography* 28(7): 992-1003. <https://doi.org/10.1111/geb.12909> |
| Araújo, M.B., Anderson, R.P., Barbosa, A.M., Beale, C.M., Dormann, C.F., Early, R., Garcia, R.A., Guisan, A., Maiorano, L., Naimi, B., O’Hara, R.B., Zimmermann, N.E., Rahbek, C. “Standards for distribution models in biodiversity assessments”. *Scientific Advances* 5: eaat4858*.* <https://doi.org/10.1126/sciadv.aat4858> |
| Early R, Keith SA. 2019 “Geographically variable biotic interactions and implications for species ranges”. *Global Ecology and Biogeography* 28:42-53*.* <https://doi.org/10.1111/geb.12861> |
| Early R, González-Moreno P, Murphy ST, Day R. 2018 “Forecasting the global extent of invasion of the cereal pest Spodoptera frugiperda, the fall armyworm”. *Neobiota* 40: 25-50. <https://doi.org/10.3897/neobiota.40.28165> |
| Arevall J, Early R, Estrada A, Wennergren U. Eklof A. 2018 “Conditions for successful range shifts under climate change - the role of species dispersal and landscape configuration” *Diversity and Distributions* 24:1598–1611. <https://doi.org/10.1111/ddi.12793> |
| Morrison, L, Estrada, A, Early, R. 2018 “Species traits suggest European mammals exposed to climate change are also highly vulnerable" *Diversity and Distributions* 24:1321–1332. <https://doi.org/10.1111/ddi.12769> |
| Montesinos-Navarro, A., Estrada, A., Font, X., Matias, M.G., Meireles, C., Mendoza, M., Honrado, J.P., Prasad, H.D., Vicente, J.R, Early, R. 2018 “Community structure informs species geographic distributions”. *PLOS One* 13(5): e0197877. <https://doi.org/10.1371/journal.pone.0197877> |
| Robinson BS, Bennie J, Early R, Inger R, Gaston KJ. 2018 “Sweet flowers are slow and weeds make haste: anthropogenic dispersal of plants via soil”. *Journey of Urban Ecology* 1-6. <https://doi/10.1093/jue/juy004> |
| van Kleunen, M, Essl, F, Pergl, J, Brundu, G, Carboni, M, Dullinger, S, Early, R, González-Moreno, P, Groom, Q, Hulme, P, Kueffer, C, Kühn, I, Maguas, C, Maurel, N, Novoa, A, Parepa, M, Pyšek, P, Seebens, H, Tanner, R, Touza, J, Verbrugge, L, Weber, E, Dawson, W, Kreft, H, Weigelt, P, Winter, M, Klonner, G, Talluto, M, Dehnen-Schmutz, K.2018 “The changing role of ornamental horticulture in plant invasion” *Biological Reviews* Early View <https://doi.org/10.1111/brv.12402>*.* |
| Fordham, D.A., Bertelsmeir, C, Brook, B.W., [Early, R](https://researchpubs.exeter.ac.uk/userprofile.html?uid=23746)., Neto, D., Brown, S.C., Ollier, S., Araujo, M.B. 2017 “How complex should models be? Comparing correlative and mechanistic range dynamics models”. Global Change Biology **24**(3): 1357-1370. |
| Martínez-Padilla, J., Estrada, A., Early, R. Garcia-Gonzalez, F. “Evolvability meets biogeography: multi-species analyses reveal greatest evolutionary potential at intermediate levels of environmental favourability” 2017 *Proceedings of the Royal Society B* **284**(1856): |
| Estrada, A., Morales-Castilla, I., Meireles, C., Caplat, P., Early, R. “Equipped to cope with climate change: traits associated with range filling across European taxa" 2017 *Ecography* **41**:770-781. |
| Hulme, P., Brundu, G., Carboni, M., Dehnen-Schmutz, K., Dullinger, S., Early, R., Essl, F., Gonzalez-Moreno, P., Groom, Q., Kueffer, C., Kuehn, I., Maurel, N., Novoa, A., Pergl, J., Pysek, P., Seebens, H., Tanner, R., Touza, J., van Kleunen, M., Verbrugge, L. 2017 “Integrating invasive species policies across ornamental horticulture supply-chains to prevent plant invasions”. *Journal of Applied Ecology* **55**(1): 92-98. |
| \*Early, R., Bradley, B.A., Dukes, J.S., Lawler, J.J., Olden, J.D., Blumenthal, D.M., D’Antonio, C.M., Gonzalez, P.G., Grosholz, E.D., Ibañez, I., Miller, L.P., Sorte, C.J.B., Tatem, A.J. 2016 “Invasive species in the 21st Century: Global threats and national response capacities”. Online *Nature Communications* DOI: 10.1038/NCOMMS12485. [Coverage by the BBC](http://www.bbc.co.uk/news/science-environment-37165712).  \***Web of Science Highly Cited paper.** |
| Estrada, A., Morales-Castilla, I., Caplat, P., Early, R. “Usefulness of species traits in predicting range shifts”. 2016 *Trends in Ecology and Evolution* **31**(3): 190-203. [Coverage by Scientific American](http://www.scientificamerican.com/article/which-species-will-survive-climate-change/), altimetric score of 100. |
| Ivory, S., Early, R., Sax, D.F. Russell, J. “Niche expansion and temperature sensitivity of tropical African montane forests”. 2016 *Global Ecology and Biogeography* **25** 693-703*.* [Coverage by Science](http://science.sciencemag.org/content/352/6292/1422.3). |
| Estrada, A., Meireles,C., Morales-Castilla I., Poschlod, P, Vieites, D, Araújo, M.B., Early, R. Species’ intrinsic traits inform their range limitations and vulnerability under environmental change. 2014 *Global Ecology and Biogeography.* **24**(7): 849-858 |
| Bradley, B.A., Early, R., Sorte, C.J.B. “Space to invade? Comparative range infilling and potential range of invasive and native plants”.2014 *Global Ecology and Biogeography* **24**(3): 348-359. [Coverage by Science](http://www.sciencemag.org/news/2015/01/invasive-plants-taking-over-us). |
| R. Early, Sax, D. “Climatic niche shifts between species native and naturalised ranges raise concern for ecological forecasts during invasions and climate change”. 2014 *Global Ecology and Biogeography* **23** (12): 1356-1365. [Coverage by the Independent](http://www.independent.co.uk/environment/plants-can-deal-much-better-with-changes-in-climate-than-previously-thought-9719119.html). |
| Bradshaw, C.J.A., Brook, B.W., Fordham, D.A., Herrando-Pérez, S., Cassey, P., Early, R., Sekercioglu, C.H., Araújo, M.B.A. 2014. “Range-restricted and sparsely distributed birds demonstrate highest temporal range-size lability”. *Proceedings of the Royal Society of London B*. **281**(1786) |
| Ibáñez,I., Diez, J.M., Miller, L.P., Olden, J.D, Sorte, C.J.B., Blumenthal, D.M., Bradley, B.A. D’Antonio, C.M., Dukes, J.S, Early, R., Grosholz, E.D., Lawler, J.L. 2014 “Integrated Assessment of Biological Invasions” *Ecological Applications* **24**: 25-37 |
| Sax, D. F., Early, R., Bellemare, J. "Niche syndromes, extinctions and management under climate change." 2013. *Trends in Ecology and Evolution* **28**: 517-523. |
| Dawson, M.N., Algar, A.C., Antonelli, A., Dávalos, L.M., Davis, E., Early, R., Guisan, A., Jansson, R., Lessard. J-P., Marske, K.A., McGuire, J., Stigall, A.L., Swenson, N.G., Niklaus E., N.E. and Gavin, D.G. 2013 “A horizon scan of Biogeography”. Frontiers of Biogeography **5**(2) |
| Schwartz, M.W., Hellmann, J.J., McLachlan, J.M., Sax D.F., Borevitz, J.O., Brennan, J., Camacho, A.E., Ceballos, G., Clark, J.R., Doremus, H., Early, R., Etterson, J.R., Fielder, D., Gill, J.L., Gonzalez, P., Green, N., Hannah, L., Jamieson, D.W. , Javeline. D., Minteer, B.A., Odenbaugh, J., Polasky, S., Richardson, D.M., Root, T.L., Safford, H.D., Sala, O., Schneider, S.H., Thompson, A.R., Williams, J.W., Vellend, M., Vitt, P., Zellmer, S. 2012. "Managed Relocation: integrating the scientific, regulatory and ethical challenges". *Bioscience* **62**(8): 732-743 |
| Diez, J.M., D’Antonio, C.M., Dukes, J.S., Grosholz, E.D., Olden, J.D., Sorte, C.J.B., Blumenthal, D.M, Bradley, B.A., Early, R., Ibáñez, I., Jones, S.J., Lawler, J.L., Miller, L.P. “Will Extreme Climatic Events Facilitate Biological Invasions?”. 2012. *Frontiers in Ecology and Evolution* **10**(5): 249-257. |
| Bradley, B., Blumenthal D.M., Early, R, Grosholz,E.D., Lawler, J.L., Miller, L.P., Sorte, C.J.B., D’Antonio, C.M., Diez, J.M., Dukes, J.S., Ibanez, I., Olden, J.D. 2012. “Global change, global trade and the next wave of plant invasions”. *Frontiers in Ecology and Evolution* **10**(1): 20-28. |
| Early, R. & Sax, D. 2011. “Climate-path analysis reveals potential limitations on species range shifts”. *Ecology Letters* **14**: 1125-1133. [Recommended by the Faculty of 1000](file:///E:\NON_PROJECT\ADMIN\CV\FCT__SIG%20Curriculum%20Vitae.pdf). |
| Guo, Q., Sax, D., Qian, H. & Early, R. 2011. “Latitudinal shifts of introduced species: possible causes and implications”. *Biological Invasions.* **14**: 547-556 |
| Richardson, D.M., Hellmann, J.J., McLachlan, J., Sax, D.F., Schwartz, M.W., Brennan, J., Gonzalez, P., Root, T., Sala, O., Schneider, S.H., Ashe, D., Camacho, A, Rappaport, J., Clark, Early, R., Etterson, J., Fielder, D., Gill, J., Minteer, B.A., Polasky, S., Safford, H., Thompson, A., & Vellend, M. 2009. “Multidimensional evaluation of managed relocation”. *Proceedings of the National Academy of Sciences of the United States of America.* **106**(24): 9721-9724 |
| Early, R., Anderson, B. & Thomas, C.D. 2008. “Using habitat distribution models to evaluate large-scale landscape priorities for spatially dynamic species”. *Journal of Applied Ecology* **45**(1): 228-238. |
| Bulman, C.R., Wilson, R., Holt, A.R., Galvez Bravo, L., Early, R.I., Warren, M.S. & Thomas, C.D. 2007. “Minimum viable metapopulation size, extinction debt and the conservation of a declining species”. *Ecological Applications* **17**(5): 1460-1473*.* |
| Early, R. & Thomas, C.D. 2006. “Multi-species conservation planning: identifying landscapes for the conservation of viable populations using local and continental species priorities”. *Journal of Applied Ecology*. **44**(2): 253-262. |
| Moilanen, A., Franco, A.M.A., Early, R.I., Fox, R., Wintle, B.A. & Thomas, C.D. 2005. “Prioritizing multiple-use landscapes for conservation: Methods for large multi-species planning problems”. *Proceedings of the Royal Society of London B*. **272**(1575): 1885–1891. |
| **In Submission** |
| Robinson, B, Inger, R, Early, R, Gaston, KJ “Anthropogenic drivers of distribution and abundance of an invasive non-native plant” In revision *Diversity and Distributions* |
| Chan, M., Nok, P., Tsang, T., Dingle, C., Early, R., Sorte, CJB. “Microhabitat coverage but not habitat heterogeneity influences avian species composition in Hong Kong urban parks” In submission *Urban Forestry & Urban Greening.* |
| **Conservation and Pest Management Recommendations, non-peer reviewed** |
| Jeger M, Bragard C, Caffier D, Candresse T, Chatzivassiliou E, Dehnen-Schmutz K, Gilioli G, Grégoire J-C, Jaques Miret J-A, Navajas Navarro M, Niere B, Parnell S, Potting R, Rafoss T, Rossi V, Urek G, Van Bruggen A, Van der Werf W, West J, Winter S, Day R, **Early R**, Hruska A, Nagoshi R, Gardi C, Musbach-Schultz O, MacLeod A. Pest risk assessment of *Spodoptera frugiperda* for the European Union. Produced by request of the European Commission, and adopted by EFSA Panel on Plant Health (PLH) on 20 June 2018. |
| Day R, Abrahams P, Bateman B, Beale T, Clottey V, Cock M, Colmenarez Y, Corniani N, **Early R**, Godwin J, Gomez J, Gonzalez Moreno P, Murphy ST, Oppong-Mensah B, Phiri N, Pratt C, Silvestri S, Witt A. September 2017. “Fall Armyworm: Impacts and Implications for Africa”. Evidence Note compiled by CABI (Centre for Agriculture and Biosciences International) for DFID (UK Department for International Development). |
| Day R, Abrahams P, Bateman B, Beale T, Clottey V, Cock M, Colmenarez Y, Corniani N, **Early R**, Godwin J, Gomez J, Gonzalez Moreno P, Murphy ST, Oppong-Mensah B, Phiri N, Pratt C, Silvestri S, Witt A. 2017 “Fall Armyworm: Impacts and Implications for Africa”2017. Outlooks on Pest Management 28(5):196-201. |
| Institute for European Environmental Policy (IEEP) in collaboration with BiodivERsA partners and project scientists (2017). "The Common Agricultural Policy can strengthen biodiversity and ecosystem services by diversifying agricultural landscapes". |
| Sax, D., **Early, R**. & Guo, Q. 2010. “Assessing risks of plant invasions in the eastern United States: a biogeographic perspective” Technical Report to the US Forest Service. |
| **Book Reviews** |
| Early, R. 2014. “Distribution Ecology – Any Way Forward?” Frontiers of Biogeography **6**(2): 94-96. |

**Grants in support of research and development**

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| Co-I of Natural Resources Wales contract “Development of a dormouse landscape model to support strategic conservation approaches in Wales**”**. | 2020-2021  £25,000 |
| Co-I of Natural England contract LIFE Recreation ReMEDIES (LIFE18 NAT/UK/000039) to model locations for seagrass restoration in the south of England. | 2020  £20,000 |
| Joint PI of UK Met Office contract to improve the pollen forecast with information about pollen distribution and phenology. | 2019  £20,000 |
| PI of CABI contract “Forecasting the global invasion of *Tuta absoluta*”. | 2018  £8000 |
| Joint PI of UK Met Office contract “Pollen Modelling – vegetation source mapping”. | 2018  £26,000 |
| Co-I of Agri-Tech Cornwall ERDF funding “Assessing crop pest and disease risk using drones”. | 2017  £217,000 |
| PI of CABI contract “Forecasting of Fall Armyworm in Ghana and Zambia”. | 2017  £4000 |
| PI of BBSRC GCRF IAA sub award “Combatting Pest Alien Species in Central Africa”. | 2017  £15,000 |
| Co-I CMBA seedcorn funding “Invasion of an allergenic plant due to climate change – How much can models be coarsened to illuminate the underlying dynamics and improve our understanding?” | 2017  £10,000 |
| Co-I of Spanish Research Council i-LINK workshop “Synthesis on the impacts between biological invasions and environmental change”. | 2017 |
| Co-supervisor of Swedish Research Council post-doctoral grant “Biotic interactions and their role on species’ distribution and abundance in a context of environmental changes. A case-study of a community of nettle-feeding butterflies and their parasitic insects”. | 2016 |
| Lead Supervisor of NERC iCASE studentship “Climate opportunists: a threat to UK biodiversity and ecosystems?” | 2015  £86,776 |
| ‘Co-performer’ of “Conserving threatened plants in a non-stationary world: a predictive framework for assessing risks and guiding management” (SERDP, the US Department of Defense Strategic Environmental Research and Development Program). | 2015-2018 $930,000 |
| Co-supervisor of NERC iCASE studentship “Spatial Dynamics of range expanding Gilt-Head Bream in UK inshore waters”. | 2014  £86,776 |
| PI of QuerCom: “Environmental controls of community structure and ecosystem function: an assessment with cork oak (*Quercus suber*) communities in the Iberian Peninsula” (Fundação para a Ciência e a Tecnologia, Portugal). | January 2014 – December 2014 €50,000 |
| Lead PI of EC21C: “European Conservation for the 21st Century” (BiodivERsA pan-European project). Grant provides funding for five research partners, including €100,000 under my personal management. | 2013 – 2015 €1.2 million |
| Post-Doctoral Fellowship (Fundação para a Ciência e a Tecnologia, Portugal): “Species range shifts under 21st century climate change: limitations and conservation strategies”. Funds salary and research for six years. | 2010 - 2013 |
| Brown Environmental Change Initiative, working group grant: “How does phenology determine species ranges and what are the implications for future ranges under climate change?” | January 2009  €4300 |
| International Biogeography Society Travel Grant, for attendance at the IBS 2009 annual meeting. | 2008  €520 |
| British Ecology Society, Small Ecological Project Grant: “Exploring the mechanisms of range limitation in a declining butterfly: implications for future distributions under climate change” | 2007  €2500 |

**Research supervision**

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| Post-doc Hannah Wauchope “Understanding the past to protect the future: Identifying key areas for biodiversity protection in the Arctic” | Oct 2020- |
| MByRes student Chloe Field (co-supervisor). “Investigating small mammal biodiversity and morphology using capture-mark-recapture methods in the Rungan Landscape, Borneo.” | Oct 2018 - |
| MByRes student Ellie Wyatt (co-supervisor) “Variation in fruiting availability and butterfly populations among habitat types in a diverse forest landscape.” | Oct 2018 - |
| PhD student Margaret Bolton, University of Exeter Environmental Intelligence Centre for Doctoral Training. | Oct 2019 - |
| PhD student Brittany Trew (co-supervisor). | Oct 2018 - |
| MByRes student Charlotte Jeffers (co-supervisor) “Impact of variations in snow cover on camouflage efficacy in Snowshoe Hares.” | Jun 2018 – July 2020 |
| Post-doc Luca Butikofer (co-supervisor) Climatehub. Mapping climate risks and opportunities across Cornwall and the Isles of Scilly. | Nov 2018 - Dec 2019 |
| Post-doc Helene Audusseau (co-supervisor) “Biotic interactions and their role on species’ distribution and abundance in a context of environmental changes. A case-study of a community of nettle-feeding butterflies and their parasitic insects” | Jan 2017 - |
| MByRes student Christophe Patterson, University of Exeter “Where did the UK population of *Clibanarius erythropus* (St Piran’s crab) originate?” | Sept 2018 - |
| PhD student Shari Mang, University of Exeter (co-supervisor) “Assessment of the relationship between landscape-scale habitat diversity and mammal diversity to identify areas of conservation priority and predict the consequences of land-use change on biodiversity.” | Oct 2017 - |
| PhD student Jamie Cranston, University of Exeter funded by a NERC iCASE studentship. Project title: “Climate opportunists: a threat to UK biodiversity and ecosystems?” | Oct 2016 – Nov 2020 |
| PhD student Henry Hakkinen, University of Exeter funded by the NERC GW4+ DTP. Project title: “Unexplained limits on species distributions. What do they mean for conservation?” | Oct 2015 - Oct 2019 |
| PhD student Jen Lewis, University of Exeter funded by NERC Industrial Case studentship with CEFAS (co-supervised with Dr Frank Van Veen). Project title: “Spatial dynamics of range-expanding Gilt-Head Bream in UK inshore waters” | Oct 2015 - Jan 2020 |
| PhD student Beth Robinson, University of Exeter (co-supervised with Prof. Kevin Gaston). Project title: “Human-wildlife conflict and the spread of Japanese Knotweed in the UK”. Graduated. | Jan 2014-2017 |
| Masters By Research student Tom Carlin, University of Exeter. Project title: “Climate opportunists: a threat to UK biodiversity and ecosystems?” | Oct 2015 – Feb 2018 |
| Post-doc Alicia Montesinos, in the project ‘QuerCom’. University of Évora, Portugal. | Apr 2014 – May 2015 |
| Post-doc Alba Estrada, in the Biodiversa project ‘European Conservation for the 21st Century’. University of Évora, Portugal. | May 2013 – May 2015 |
| Technician Catarina Meireles, in the Biodiversa project ‘European Conservation for the 21st Century’. University of Évora, Portugal. | Jan 2013 – Dec 2015 |
| Chief Scientist on wilderness expeditions for teenage students to the Amazon and the Yukon Territory. British Schools Exploring Society. | 2006 - 2007 |

**Teaching**

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| Lecturer: Trends in Ecology and Evolution (level 3 undergraduate). University of Exeter, Penryn Campus. | Jan 2020 - |
| Module Coordinator: Yukon-Alaska field course (level 3 undergraduate). University of Exeter, Penryn Campus. | Sept 2017 - |
| Lecturer: Science and Society (level 3 undergraduate). University of Exeter, Penryn Campus. | Jan 2017 - |
| Fellow of the Higher Education Academy | 2016 |
| Module Coordinator: Biodiversity and Conservation (level 2 undergraduate). University of Exeter, Penryn Campus. | Jan 2015 - Dec 2019 |
| Lecturer: Costa Rica (level 3 undergraduate), Grand Challenges (level 2 undergraduate), Kenya (MSc level). University of Exeter, Penryn Campus. | Jan 2014 - 2016 |
| Guest Lecturer: “Biological Invasions under Climate Change” for Doñana Biological Reserve international course (“Ecological consequences of climate change: integrating research approaches”). | Oct 2013 |
| Guest Lecturer: “Introduction to BIOMOD using R” for Doñana Biological Reserve international course (“Ecological consequences of climate change: integrating research approaches”). | Oct 2012 |
| Course development and delivery: “Concepts and techniques in species distribution modelling”. A 24 hour Masters-level module. Universidade de Évora | Dec 2011 |
| Guest Lecturer, Universidade de Évora Biology PhD Program” “Controversies in invasion ecology” | Apr 2011 |
| Guest Lecturer, Universidade de Évora: “Phytosociological techniques in global ecology and biogeography” | Apr 2011 |
| Guest Lecturer, Brown University EEB: "Metapopulation biology and large-scale conservation strategies", for Conservation Biology senior class. | Sept 2009 |
| Guest Lecturer, Brown University ECI: “Climate change and biodiversity”, for Watson International program for mid-career African scientists. | Sept 2009 |

**Outreach and Media**

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| “The Great Climate Change Race”, a board game for 11-14 years olds I developed as a resource for teachers to illustrate the effects of climate change on wildlife |
| I regularly discuss my research with the public, particularly young people, through events such as [Café](http://thepoly.org/seeds-of-time/) [Scientifique](http://falmouthcafescientifique.weebly.com/), [public science festivals](http://www.exeter.ac.uk/cornwall/scienceinthesquare/images/Science_in_the_Square_flyer_2015.pdf), and school visits. |
| I appeared as a panelist on Radio 4’s [Shared Planet](http://www.bbc.co.uk/programmes/b04yftkz), discussing the connection between humans and the natural world |
| My research has been covered by the mainstream and scientific media, including   * BBC Radio 4, BBC World Service * [The Independent](http://www.independent.co.uk/environment/plants-can-deal-much-better-with-changes-in-climate-than-previously-thought-9719119.html), [BBC](http://www.bbc.co.uk/news/science-environment-15117874), [iNews](https://inews.co.uk/essentials/news/environment/air-travellers-bringing-crop-eating-insect-colonisers-europe-africa/) * [Scientific](http://www.scientificamerican.com/article.cfm?id=amphibians-other-species-may-struggle-climate-induced-migration) [American](http://www.scientificamerican.com/article/which-species-will-survive-climate-change/), [Nature Research Highlights](http://www.scientificamerican.com/article.cfm?id=amphibians-other-species-may-struggle-climate-induced-migration), Science News * [The Conversation](https://theconversation.com/revealed-why-some-animals-and-plants-will-thrive-under-climate-change-54860) |

**Professional activities**

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| **Invited Scientific and Policy-orientated Working Groups** |  |
| “[The Other Side of Invasibility: Vulnerability of Recipient Ecosystems](https://www.nceas.ucsb.edu/workinggroups/other-side-invasibility-vulnerability-recipient-ecosystems)” at NCEAS | 2019-2021 |
| “Predicting Ecological Impacts of Global Change” An international colloquium meeting annually to ask how climate change alters the impacts of invasive species. Initially funded by the Borchard Foundation. | 2015 - 2018 |
| “Plant invasions and ornamental horticulture: synthesizing the role of deliberate introductions as invasion hubs in an era of global change.” A Working Group of “Alien Challenge”, an EU COST Action (TD1209). | 2015 - 2016 |
| “Agreed standards for biodiversity models” Working Group 3 of HarmBio (Harmonizing Global Biodiversity Modelling), an EC COST project | 2012 - 2017 |
| “Tracking the biotic response to global climate change through genomic analysis” at NESCent (Project Leaders: Alan Bergland, Dmitri Petrov, Paul Schmidt) | 2012 |
| “Climate change and invasive species: are non-natives poised for greater success in future climatic conditions?” at NCEAS (Project Leaders: Cascade Sorte, Jeff Dukes, and Joshua Lawler) | 2011 - 2012 |
| “Assisted Migration: Evaluating a New Strategy for Species Conservation”. (Project Leaders: Jessica Hellmann, Jason McLachlan, Dov Sax, Mark Schwartz) | 2008 - 2009 |
| “Phenology and Climate Change”, an Environmental Change Working Group at Brown University (Project Leaders: Jim Tang, Johanna Schmitt) | 2008 - 2009 |
| UK Biodiversity Action Plan steering committee for the Marsh Fritillary (Project Leaders: Butterfly Conservation, English Nature, Countryside Council for Wales, Scottish Natural heritage) | 2003 - 2006 |
| **Professional Appointments** |  |
| Member of the science steering group, the Rock Pool Project, Cornwall, UK | Jan 2020 - |
| Organiser of the British Ecological Society’s Macroecology Special Interest Group Annual Meeting. | 2019 |
| Treasurer of the British Ecological Society’s Macroecology Special Interest Group. | Jul 2016 - Jul 2019 |
| Honorary Assistant Professor in the School of Biological Sciences, University of Hong Kong. | 2015 - 2018 |
| Early Career Researcher representative, University of Exeter CEC, UK. | 2015 - 2017 |
| **Reviews and Peer Assessment** |  |
| Associate editor: Frontiers of Biogeography | 2019 onwards |
| Associate editor: Ecology Letters | 2015 onwards |
| Associate editor: Ecography | 2013 - 2015 |

**Invited seminars (since 2011)**

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| UCL Dept. Genetics, Evolution, and the Environment seminar series, UK | Oct 2020 |
| Plenary speaker 4th Conference of the specialist group Macroecology of the Ecological Society of Germany, Austria and Switzerland, University of Konstanz, Germany. | Mar 2020 |
| Durham University Dept. Biosciences seminar series, UK. | Jan 2020 |
| University of Edinburgh, UK. | Dec 2018 |
| Centre for Biosciences International, Egham, UK. | Jul 2018 |
| Plenary speaker BES Symposium 2017 “The Macroecology of Alien Species: Patterns, Drivers, and Consequences of Global Biotic Exchange”. Durham, UK. | Jul 2017 |
| Plenary Speaker, BES Macroecology Special Interest Group Annual Meeting. Oxford, UK. | Jul 2016 |
| National Oceanography Centre POETS Corner, Southampton, UK. | Apr 2016 |
| University of York, UK. | Feb 2016 |
| University of Plymouth, UK. Biological and Marine Sciences seminar series. | Oct 2015 |
| Plenary speaker EMAPi (Ecology and Management of Alien Plants Invasions) annual conference, Hawai’i, USA. | Sept 2015 |
| University of Liverpool, UK. Institute for Integrative Biology seminar series. | Feb 2014 |
| Department of Physics, Chemistry and Biology, Linkoping University, Sweden. | Nov 2013 |
| CIBIO, Porto, Portugal. | Apr 2013 |
| Museo Nacional de Ciencias Naturales, Madrid, Spain. | Mar 2013 |
| University of Wisconsin, Madison, USA. Annual Tuartha lecture, Yi Fu Tuan lecture series. | May 2012 |
| University of Wisconsin, Madison, USA. Seminar at the Climate, People, and the Environment Program at the Nelson Institute for environmental studies. | May 2012 |
| Imperial College, Silwood Park, UK. Ecology and Evolution Seminar Series | Feb 2011 |

**Additional skills and qualifications**

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| **Languages**: Spanish (C1) |
| Open Water Scuba Diving Instructor (BS-AC) |