

John Devaney

Postdoctoral Research Fellow
Smithsonian Environmental Research Center
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EDUCATION

BSc University College Cork, Ireland, Environmental Science 2006
PhD University College Cork, Forest Ecology, 2012

RESEARCH AND PROFESSIONAL EXPERIENCE

2015-present Postdoctoral Fellow, Terrestrial Ecology, Smithsonian Environmental Research Center, MD
2015 Consultant Ecologist, Department of Agriculture, Ireland
2012-2014 Postdoctoral Fellow, University College Cork & Environmental Protection Agency, Ireland
2011-2012 Ecologist, National Forest Inventory, Forest Service, Ireland
2007-2012 PhD Forest Ecology. University College Cork. The natural regeneration ecology of yew *Taxus baccata* L.
2007-2014 Part-time Lecturer and Teaching Assistant, School of Biological, Earth and Environmental Sciences, University College Cork, Ireland
2006 Research Assistant, Bilsa Tropical Forest Research Station, Ecuador
2005 Plant Breeding Assistant, Tozer Seeds Ltd, Surrey, United Kingdom

PUBLICATIONS

Devaney, J. L., Barrett, B. W., Barrett, F., Redmond, J. J., O'Halloran, J. Forest Cover Estimation in Ireland using Radar Remote Sensing: a Comparative Analysis of Forest Cover Assessment Methodologies. PlosOne, 2015
Devaney, J. L., Redmond, J. J., O'Halloran, J. Contemporary forest loss in Ireland; quantifying rare deforestation events in a fragmented forest landscape. Applied Geography, 2015
Devaney, J. L., Jansen, M. A. K., Whelan, P. W. (2014). Spatial patterns of natural regeneration in stands of English yew (*Taxus baccata* L.); Negative neighbourhood effects. Forest Ecology and Management, 321(1), 52 – 60.
Devaney, J. L., Whelan, P. W., Jansen, M. A. K (2014) Light responses of yew (*Taxus baccata* L.); does size matter? Trees, 2015
Devaney, J. L., Cott, G. M., Redmond, J. J., O'Halloran, J. Deforestation in Ireland 2000 – 2012; the findings of the DEFORMAP project. Irish Forestry, *In Review*

REPORTS, POPULAR ARTICLES AND PUBLICATIONS IN PREPERATION

- Devaney, J. L., Redmond, Cott, G., Barrett, B, J. J., O'Halloran *21st Century Deforestation in Ireland*. Final Report. Environmental Protection Agency, Ireland, 2016
- Devaney, J. L. *A review of NFI field procedures and methodologies for the assessment of ground vegetation*. Unpublished Report. Forest Service, Ireland, 2015
- Devaney, J. L., Redmond, J. J., O'Halloran (2014). Is deforestation in Ireland on the increase? *Environews* 28
- Devaney, J. L., Jansen, M., Whelan, P. (2010), The ecophysiological factors controlling the regeneration ecology of yew *Taxus baccata* L. *Environews* 20
- Devaney, J. L., M., Redmond, J. J., Carden, R., O'Halloran, J. Predicting effects of large herbivores on natural regeneration in Irish forests using National Forest Inventory data, *In Prep*
- Devaney, J. L., Whelan, P. W., Jansen, M. A. K. Leaf extract of yew (*Taxus baccata* L.) inhibits germination and early growth of conspecifics. *In Prep*
- Lehmann, M., Parker, J., Devaney. J. L The role of positively reinforcing microclimates in pioneer mangrove migration *In Prep*

GRANTS AND FELLOWSHIPS

- 2015 Smithsonian Bacon Postdoctoral Research Fellowship, \$100,000
- 2013 European Space Agency Category-1 proposal (Radar Remote Sensing), \$1000
- 2012 Environmental Protection Agency Ireland Postdoctoral Research Fellowship \$230,000
- 2010 School of Biological, Earth and Environmental Science Travel Grant, \$1000
- 2007 Research Studentship, Dept of Zoology, Ecology and Plant Science, UCC. Doctoral Scholarship, 2007, \$50,000

SELECTED CONFERENCE PRESENTATIONS, SEMINARS AND INVITED TALKS

- Devaney, J. (2015) Ireland, Forests and Biodiversity. SERC Seminar Series, Smithsonian Environmental Research Center, MD
- Devaney, J. (2014) 21st Century Deforestation in Ireland; the findings of the DEFORMAP project. DEFORMAP end of project workshop, Environmental Research Centre, Cork, Ireland
- Devaney, J. (2014) Deforestation Estimation and Mapping in Ireland. Forest Service Inspectors Conference 2014. Invited talk. Dublin, Ireland, Sept, 2014
- Devaney, J., Barrett, B., Redmond, J., O'Halloran, J. (2014) Deforestation in Ireland 2000 – 2012; an assessment of existing and potential estimation techniques, Forest Change 2014, Kardinal-Döpfner Haus, Freising, Germany , April 2014.
- Devaney, J. L., Redmond, J. J., O'Halloran, J. (2013) Estimation of deforestation in Ireland 2000 – 2012; a comparison of assessment methods, ENVIRON 2013, National University of Ireland, Galway, Feb 2013.
- Devaney, J., Barrett, B., Redmond, J., Cawkwell, F., O'Halloran, J. (2013) Reducing Uncertainties Associated with Deforestation Estimation in Ireland using Optical and Radar Sensors, European Space Agency (ESA) Living Planet Symposium, Edinburgh, Scotland , September 2013.
- Devaney, J. D., Jansen, M., Whelan, P. (2011), The role of light in the regeneration ecology of yew *Taxus baccata*. Plant Population Biology Conference, Department of Plant Science, University of Oxford, UK, 2011.

- Devaney, J. L., Jansen, M., Whelan, P. (2012). Negative neighbourhood effects in yew woodlands. Second International Conference on Biodiversity in Forest Ecosystems and Landscapes. University College Cork, Ireland Aug 2012
- Devaney, J. D., Jansen, M., Whelan, P. (2010), The ecophysiological factors controlling the regeneration ecology of yew *Taxus baccata* L. 20th Irish Environmental Researchers' Colloquium, Limerick Institute of Technology, Feb 2010
- Devaney, J., Barrett, B., Redmond, J., Cawkwell, F., O'Halloran, J. (2013) Reducing Uncertainties Associated with Deforestation Estimation in Ireland using Optical and Radar Sensors. 7th Irish Earth Observation Symposium, Dublin, Ireland, Oct 2013.

TEACHING EXPERIENCE

- 2014 Lecturer in Forest Ecology for Diploma in Field Ecology, School of Biological, Earth and Environmental Sciences (UCC) including leading field trips in plant ecology.
- 2014 Lecturer (Forests and Land-Use Change) for the Agri-Food Graduate Development Programme. UCC
- 2009 – 2010 Teaching Assistant on residential field courses (Practical Landscape Conservation, Ireland and Practical Field Ecology, Portugal). UCC
- 2007 – 2010 Teaching assistant; Soil Science, Conservation Biology, Agroecology, Applied Plant Biology, Field Ecology and Biology, UCC.

OUTREACH, SYNERGISTIC ACTIVITIES, AND AFFILIATIONS

- Smithsonian Environmental Research Center, Open House, May 2015
- Co-Organizer of Culture Night "Science in the City" 2013 - 2014. Open evenings informing general public of environmental research activities at University College Cork
- UCC Plus+ Student Ambassador 2008 – 2010. Mentor for groups of high school students interested in science and geography.
- Guest speaker at Killarney National Park Autumn Lecture Series 2012
- Peer Review. Reviewer for international journals Plant Physiology and Biochemistry, Forests, Applied Geography, Remote Sensing and others
- Member of the Environmental Sciences Association of Ireland 2008 – present

SKILLS

- Field: Vegetation survey and ID, soil sampling, forest structure assessment, mapping, GPS, hemispherical photography, trail camera survey
- Lab: Soil and water analyses, photosynthesis analysis (chlorophyll fluorescence and gas exchange), plant tissue culture, nutrient CHN elemental analyzer, phosphorous, protein assay
- Software: Statistical software (R, SPSS, GraphPad, Primer, PCORD, MVSP), GIS (ArcGIS, QGIS), Analytical software (ImagingWin, ImageJ, Gap Light Analyzer), Forest inventory (FieldMap, Turboveg), Microsoft Office, EndNote, Wordpress

SELECTED PROFESSIONAL DEVELOPMENT

- Advanced ArcGIS. Smithsonian National Museum of Natural History, Washington DC.
- ArcGIS Intermediate Training Course, exeGIS Ltd, Wales. May 2013
- National Forest Inventory Field Methods Training Course, Forest Service, Ireland, Oct, 2011
- Statistics and Data Analysis, Highland Statistics, University College Cork, Sept 2010.
- Teaching and Learning for postgraduate students, University College Cork, 2010.