



## CURRICULUM VITAE

FIONA DEVANEY

**B.Sc. (Hons.), Ph.D., H.Dip. Data Science and Analytics**

### EDUCATION

- 2019 - 2020 **H.Dip. Data Science and Analytics**, Maynooth University (1<sup>st</sup> Class Honours).
- 2002 - 2008 **Ph.D. Science (Ecology)**, University College Dublin. Ph.D. thesis title: "The Alder Marsh: Ecohydrology and Restoration Prospects of a Desiccating Dune Slack".
- 2002 - 2003 **Postgraduate Certificate in Research Methods**, University College Dublin.
- 1998 - 2002 **B.Sc. (Honours) Botany**, University College Dublin (2.1 Honours Degree).

### PROFESSIONAL EXPERIENCE

- October 2021 - present **Senior Ecologist**, BEC Consultants.
- May 2018 - December 2018 **Senior Ecologist**, BEC Consultants.
- March 2009 - April 2018 **Consultant Ecologist**, BEC Consultants.

As an ecologist with BEC Consultants, I am involved at all stages of the planning, organisation and implementation of botanical and habitat surveys, with special expertise in coastal and semi-natural grassland habitats. I returned to education in 2019 to gain a First-Class Honours Higher Diploma in Data Science and Analytics, and accordingly, I play an important role in all aspects of the data life cycle, from data recording (and its planning), data entry and database design, to data screening, standardisation, analysis, visualisation (graphs, tables, maps (using spatial datasets)), and lastly, in the production of technical reports. A select number of projects that I have worked on with BEC Consultants are listed below:

- *Coillte BIOForest 2025 – Mapping, 2023-Ongoing* – Project Manager. This project involves the field validation and assessment of potential biodiversity areas within the Coillte estate for BAU6 (Kerry, Cork and West Limerick). As project manager, my main duties are to work out the logistics of the field surveys, act as the main point of contact between my team and the client, review completed Biodiversity Area Assessment Forms, and invoicing.
- *National Fen Survey, 2022-Ongoing* – Data Manager/Senior Ecologist. This project involves, amongst others, the mapping of habitats, recording detailed relevés in a range of fen vegetation communities (Annex I and non-Annex I), and the assessment of the conservation status of three target Annex I fen habitats. As data manager for this project, I am intrinsically involved in all aspects of the data life cycle, from data screening, consolidation and analysis, to the production of individual site reports and habitat maps.
- *Coastal Data Management Project, 2021-2023* – Senior Ecologist. The main objective of this project is to provide data management support for coastal habitat monitoring projects which are currently on-going. I was primarily involved in overseeing the external consultant's non-spatial data submissions to ensure that high data quality standards were met and maintained.
- *Grassland Monitoring Survey, 2021-2022* – Senior Ecologist. This project involves the monitoring of three EU Annex I grassland habitats. My role in this project included data amalgamation and quality control, for both spatial and non-spatial data, with a particular focus on the EPA National Ecosystems Monitoring Network (NEMN) element of the project, and also in the condition assessments of the Annex I grassland habitats. I contributed to the development of the Rapid Assessment criteria for grasslands of High Nature Value, and designed the form currently in use.

- *National Conservation Assessments (NCAs), 2018* – Project Manager/Lead Ecologist. The main objective of this project was to write the NCAs for ten EU Annex I upland habitats. Tasks included the analysis of large-scale ecological and spatial datasets and reports to produce up-to-date distribution and range maps for each of the habitats, assess the condition of the habitats on a national scale and identify the most significant pressures and threats.
- *Saltmarsh Monitoring Project 2017-2018* – Data Analyst. This project involved a collaboration between the National Parks and Wildlife Service (NPWS) and Environmental Protection Agency (EPA) to monitor and assess saltmarsh habitats for both the Habitats Directive and Water Framework Directive. I amalgamated, manipulated and then applied the data from this national project to the provisional amendments to the SMAATIE tool metrics in order to satisfy the requirements of the Water Framework Directive for this project.
- *Vegetated Shingle Monitoring (VSM) project, 2016* – Coastal expert and data analyst. My main duties for this project included acting as the team's expert on the EU Annex I sand dune habitats in an advisory capacity, data screening and analysis, and report writing, of which I was sole author of several individual site reports and co-author of the main national report. In addition to these duties, I wrote a review of the Ecological Information within the Natura 2000 Standard Data Forms (SDFs) for the SACs in which the EU Annex I habitats surveyed were located.
- *Saltmarsh Angiosperm Assessment Tool for Ireland (SMAATIE), 2013-2015* – Lead Ecologist. The main objective of this EPA-funded project was to develop and apply a tool for the ecological status assessment of the angiosperm Biological Quality Element in coastal and transitional waters for the Water Framework Directive. This was a desk-based study where my main roles included investigation of potential metrics for inclusion in the tool, the production of GIS habitat extent maps, development of an Ecological Quality Ratio calculator and production of a technical report and Practitioner's Guide, of which I was lead author.
- *Woodland Monitoring Survey, 2011-2012* – Consultant Ecologist. This project involved monitoring over 100 sites supporting two Annex I woodland habitats: 91A0 Sessile oak woods and 91E0 Alluvial forests. I carried out a number of field surveys and was involved in data entry and analysis.
- *Provisional Inventory of Ancient and Long-established woodlands, 2009* – Consultant Ecologist. This project involved the initialisation of a national inventory of ancient and long-established woodlands for the Republic of Ireland. I assisted in the desk-based research and data entry for this project.

March 2019 – August 2019

**Document Controller**, LotusWorks, Intel.

February 2009

**Consultant Ecologist**, Dublin City Council and UCD.

2008

**Consultant Ecologist**, Forest Environmental Research and Services

(FERS).

May 2006

**Assistant Ecologist**, Dr. Ciara Finnegan,

UCD.

## KEY SKILLS

### Languages:

Java, Python, R, SAS, SQL.

### Other software:

ArcMap 9.3, ArcMap 10, MS Office Suite (Access, Excel, PowerPoint, Publisher, Word), QGIS, Turboveg.

### Database Development:

MS Access, PostgreSQL, SQLite, Turboveg.

### Data Analysis:

Data Cleaning & Manipulation, Machine Learning, Probability and Inference, Regression Analysis, Relational Databases, Data Visualisation.

### Field skills:

Identification of a wide range of native Irish vascular plants, bryophytes, nocturnal macro-moths, and butterflies.

Field survey techniques and habitat mapping using the Irish Heritage Council classification system and EU Annex I habitat classification system.

Conservation status assessments of EU Annex I habitats.

## OTHER SKILLS

### Communication:

Excellent report writing and editing skills.

Experienced public speaker and adept at using Microsoft PowerPoint for oral and poster presentations.

### Teaching:

Trained associate ecologists and intern students (BEC Consultants).

Demonstrator to undergraduate science and agricultural science students (UCD).

Student mentor to Applied Master Students (UCD).

### Other:

Full clean drivers' licence.

Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

## PUBLICATIONS & REPORTS

Brophy, J.T., Perrin, P.M., Penk, M.R., **Devaney, F.M.** and Leyden, K.J. (2019) *Saltmarsh Monitoring Project 2017-2018*. Irish Wildlife Manuals, No. **108**. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Martin, J.R., Daly, O.H. and **Devaney, F.M.** (2017) *Survey and assessment of vegetated shingle and associated habitats at 30 coastal sites in Ireland*. Irish Wildlife Manuals, No. **98**. National Parks and Wildlife Service, Department of the Arts, Heritage, Rural and Gaeltacht Affairs, Ireland.

**Devaney, F.M.** & Perrin, P.M. (2015) *Saltmarsh Angiosperm Assessment Tool for Ireland (SMAATIE) (2013-W-DS-10) Practitioner's Manual*. Research Report Number **163**. Report prepared for the Environmental Protection Agency, Wexford.

**Devaney, F.M.** & Perrin, P.M. (2015) *Saltmarsh Angiosperm Assessment Tool for Ireland (SMAATIE) (2013-W-DS-10) EPA Research End of Project Report*. Report prepared for the Environmental Protection Agency, Wexford.

O'Neill, F.H., Brophy, J.T., **Devaney, F.M.**, Nash, R. and Barron, S.J. (2014) *Assessment of the Conservation Status of the Great Island Channel SAC (001058)*. Report for Cork County Council.

Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., Hodd, R.L. & **Devaney, F.M.** (2014) National Survey of Upland Habitats (Phase 4, 2013-2014), Site Report No. 15: Slieve Mish Mountains cSAC (002185), Co. Kerry. Draft report submitted to National Parks and Wildlife Service, Dublin.

Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., Hodd, R.L. & **Devaney, F.M.** (2014) National Survey of Upland Habitats (Phase 4, 2013-2014), Site Report No. 16: Caha Mountains cSAC (000093), Cos. Cork and Kerry. Draft report submitted to National Parks and Wildlife Service, Dublin.

Delaney, A., **Devaney, F.M.**, Martin, J.R. & Barron, S.J. (2013) Monitoring survey of Annex I sand dune habitats in Ireland. *Irish Wildlife Manuals*, No. **75**. National Parks and Wildlife Service, Dublin.

**Devaney, F.M.**, Martin, J.R., O'Neill, F.H. & Delaney, A. (2013) *Irish Semi-natural Grasslands Survey Annual Report No. 4: Western seaboard counties (Clare, Galway, Kerry, Limerick, Mayo) & County Tipperary*. Report submitted to the National Parks & Wildlife Service, Dublin.

- Martin, J.R., **Devaney, F.M.**, O'Neill, F.H. & Delaney, A. (2013) *Irish Semi-natural Grasslands Survey Annual Report No. 5: Leinster (except Offaly, Longford, Dublin & Kildare)*. Report submitted to the National Parks & Wildlife Service, Dublin.
- O'Neill, F.H., Martin, J.R., **Devaney, F.M.** & Perrin, P.M. (2013) The Irish Semi-natural Grasslands Survey 2007-2012. *Irish Wildlife Manuals*, No. **78**. National Parks and Wildlife Service, Dublin.
- Brophy, J. & **Devaney, F.** (2013) *Ecological Study of the Royal Canal between Talbot Bridge and Maynooth Train Station*. Report submitted to the National Transport Authority, Dublin.
- Devaney, F.** & Barron, S. (2013) *Appropriate Assessment Screening Report for a proposed six storey development*. Report submitted to John O'Neill & Associates, Architects & Interior Designers Ltd., Dublin.
- Brophy, J. & **Devaney, F.** (2013) *Appropriate Assessment Screening Report for the Variation to the Wexford Town and Environs Development Plan 2009-2015 with regard to the Joint Housing Strategy 2013-2019*. Report prepared for Wexford County Council, Wexford.
- Devaney, F.M.**, O'Neill, F.H., McNutt, K.E. & Martin, J.R. (2012) *Progress Report on the Consolidation of the Irish Semi-natural Grasslands Survey data (2007-2011)*. ArcGIS attribute table, Microsoft Access ® and Turboveg for Windows databases. Report submitted to the National Parks & Wildlife Service, Dublin.
- Delaney, A., Martin, J.R., **Devaney, F.M.**, McNutt, K.E., Barron, S.J. & O'Neill, F.H. (2011) *Interim report for the survey and conservation status monitoring of Annex I sand dune habitats in Ireland*. Report submitted to the National Parks & Wildlife Service, Dublin.
- O'Neill, F.H., Martin, J.R., **Devaney, F.M.**, McNutt, K.E., Perrin, P.M. & Delaney, A. (2010) *Irish Semi-natural Grasslands Survey Annual Report No. 3: Counties Donegal, Dublin, Kildare & Sligo*. Report submitted to the National Parks & Wildlife Service, Dublin.
- O'Neill, F.H., Martin, J.R., Perrin, P.M., Delaney, A., McNutt, K.E. & **Devaney, F.M.** (2009) *Irish Semi-natural Grasslands Survey Annual Report No. 2: Counties Cavan, Leitrim, Longford & Monaghan*. Report submitted to the National Parks & Wildlife Service, Dublin.
- Devaney, F.M.** (2008) *The Alder Marsh: Ecohydrology and Restoration Prospects of a Desiccating Dune Slack*. Ph.D. thesis, University College Dublin.