



CURRICULUM VITAE

PHILIP M. PERRIN

B.Sc. (Hons.), M.Sc., Ph.D., MCIEEM, CEnv

EDUCATION

- 1999 – 2002 University of Dublin, Trinity College Dublin
Ph.D. thesis “The ecology of yew (*Taxus baccata*) in Ireland”
- 1997 – 1998 University of Nottingham
M.Sc. Environmental Management (Distinction)
- 1994 – 1997 University of Nottingham
B.Sc. Biology (1st Class Honours)

CAREER HISTORY

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|---|----------------------------------|
| Director of Ecology, BEC Consultants | Dec 2016 – present (full-time) |
| Principal Ecologist, BEC Consultants | Oct 2009 – Dec 2016 (full-time) |
| Senior Ecologist, BEC Consultants. | June 2004 – Oct 2009 (full-time) |
| Ecologist, BEC Consultants | Apr – Sept 2003 (part-time) |

I have been working with BEC Consultants for over 20 years and I am an experienced botanist and bryologist with the main areas of particular expertise being woodlands, saltmarsh and upland landscape ecology. I specialise in the analysis of large datasets of ecological data using univariate and multivariate analysis. I have considerable experience of analysing ecological communities using contemporary techniques including fuzzy analysis, non-metric multidimensional scaling, hierarchical cluster analysis and indicator species analysis. I have excellent report-writing skills and am an experienced project manager. A selection of my projects is listed below:

EPA research projects

- *Habitat mapping, monitoring and assessment using high-resolution imagery (iHabiMap) (2019-2023)*: Ecologist. This EPA-funded project researched methods for habitat mapping and assessment using data collected using UAVs. My main roles were helping devise the methodology, field surveying upland sites, saltmarshes and duneland, and reviewing manuscripts.
- *PeAT Lakes (2023)*: Consultant for Atlantic Technological University. I analysed data on the flora, entomology and hydrochemistry of lakes in the west of Ireland with a regard to characterising Annex I habitats 3130 and 3160.
- *Coastal Lagoons: Ecology & Restoration (CLEAR) (2019-2023)*: Data Analyst. This EPA-funded project researched the eutrophication of Lady's Island Lake in Wexford. My main role was analysing biochemical data collected from this site and from lagoons around the country.
- *Quantification of Blanket Bog Ecosystem Services to Water (QUBBES) (2016-2019)*: Consultant for Queen's University Belfast. This EPA-funded project researched hydrological processes on blanket bogs and their relationships with plant communities. My main role was to provide ecological advice on surveying and mapping of blanket bog communities and I assisted with fieldwork at two of the survey sites.
- *Saltmarsh Function and Human Impacts Related to Ecological Status (SAMFHIREs) (2016-2019)*: Project Co-ordinator. I wrote the funding proposal for this EPA project which was a collaboration with Trinity College Dublin and which researched various aspects of saltmarsh ecology. In addition

to co-ordinating the project and compiling the reports, my main roles were conducting field experiments on the impacts of livestock grazing, assisting with fieldwork investigating the effects of eutrophication, studying the role of the habitat in flood defence, assessing selected saltmarshes for the purposes of the Water Framework Directive, and recording vegetation data from rare saltmarsh communities.

- *Saltmarsh Angiosperm Assessment Tool for Ireland (SMAATIE) (2013-2014)*: Project Co-ordinator. I wrote the funding proposal for this EPA project. In addition to co-ordinating the project and compiling the reports, my main roles were collating and analysing relevé data to produce a national saltmarsh classification, supervising the development of a saltmarsh assessment tool to fulfil national obligations under the Water Framework Directive. Tool development involved modelling LiDaR data within GIS and researching similar tools developed by other EU Member States.

NPWS projects

- *Rare Vascular Plant Survey (2025-2026)*: Project Manager. This NPWS project involved the field survey and of 85 rare plant populations across Ireland. In addition to managing the project I compiled the report.
- *Ecological survey and restoration planning for NPWS woodland properties in County Wicklow (2024-2026)*: Project Manager. This NPWS project involved the field survey of woodlands in NPWS properties in County Wicklow including the Wicklow Mountains National Park, Glen of the Downs Nature Reserve, Knocksink Wood Nature Reserve, Vale of Clara Nature Reserve and Tomnafinnoge. It also involved the development of management plans and a woodland strategy. In addition to managing the project, my main roles included conducting fieldwork, identifying bryophyte samples, analysing data, producing maps and writing the reports.
- *Survey of NPWS woodland properties in the South Western region (SWOOP) (2022-2024)*: Project Manager. This project involved the field survey and assessment of wooded habitats at six properties in the South Western NPWS region: Killarney National Park, Glengarriff Woods Nature Reserve, Derrynafula, Uragh Wood Nature Reserve, Knockomagh Wood Nature Reserve and St Gobnet's Wood. In addition to managing the project, my main roles included devising the methodology, preparing digital recording forms, conducting fieldwork, identifying bryophyte samples, analysing data, producing maps and writing the report.
- *Woodland Monitoring Survey (2022-2024)*: Project Manager. This current NPWS project is monitoring 123 stands of Annex I woodland habitat distributed across the country. In addition to managing the project, my main roles are conducting fieldwork, analysing data and writing the report.
- *Woodland Reassessment Survey (2021-2023)*: Ecologist and GIS Technician. This NPWS project involved the field survey and assessment of thirteen undesignated woodland sites and preparation of document recommending their designation as Natural Heritage Areas. My main roles were conducting fieldwork, developing the assessment protocol, analysing data, producing maps and writing the report.
- *Saltmarsh Exclosure Resurvey (2021)*: This NPWS project involved the resurvey of grazing exclosures established during the SAMFHIREs project in Donegal and Wexford. I was involved with fieldwork, data analysis and reporting.
- *Rockforest Wood Management Plan (2020-2024)*: Project Manager. This current NPWS project involves writing an adaptive management plan for Rockforest Wood, an area within the Burren National Park, that hosts a population of potentially native Scots Pine. In addition to managing the project, my main roles are liaising with regional staff, conducting habitat mapping, surveying natural pine regeneration, aging selected trees using increment cores, researching legal protection options, assessing pollen immigration risks and writing the management plan.

- *Population survey of Pinus sylvestris and Taxus baccata at Rockforest Wood, Co. Clare (2019):* Project Manager. This NPWS project involved a survey of the potential native Scots Pine population in the Burren. In addition to managing the project, I conducted fieldwork, produced maps and wrote the report.
- *Rare plants monitoring project (2016-2017):* Field Ecologist. This NPWS project involved the survey of plant species listed in Annex II and V of the EU Habitats Directive for the purposes of Article 17 reporting. My main role was surveying upland bog and heath sites in Wicklow and Kerry for clubmosses.
- *Scientific Assistant for Blanket Bogs (2014-2015):* Ecologist/GIS Technician. This NPWS project sought to provide a scientific basis for the formulation of management plans for areas of turf-cutting on blanket bogs in SACs. My main roles were creating digital forms for recording in the field, conducting field surveys of bog habitats and recording peat depths, and conducting hydrological analysis of LiDAR data.
- *Upland Site-Specific Conservation Objectives (2014-2016):* Project Manager/Ecologist. This NPWS project consisted of three phases of work and involved developing Site-Specific Conservation Objectives for a range of upland Annex I habitats. These were applied to a selection of sites including those surveyed during the National Survey of Upland Habitats. I helped with this development in addition to managing early phases of the project.
- *Uncommon Grasslands Survey (2020-2022):* Ecologist/GIS Technician. On this NPWS project studying less common Annex I grassland habitats, I assisted with fieldwork at both uplands and lowland sites and produced the maps for the report.
- *National Survey of Upland Habitats (2020):* Ecologist. In Phase V of this NPWS project, I surveyed uplands habitats in the Ballyhoura Mountains and helped produce a crosswalk between the IVC and NSUH classifications.
- *National Fen Survey (2021-2024):* Ecologist. This current NPWS project involves the field survey and assessment of fen and mire sites distributed across the country. My main roles have been conducting fieldwork, developing the survey methodology, preparing digital recording forms, assisting with training events and preparing templates for site reports.
- *Scoping Study and Pilot Survey of Fens (2019-2021):* Project Manager. This NPWS project sought to prepare for a national survey of fens and mires by reviewing extant information, developing and trialling survey and assessment methodology and making a preliminary selection of target sites. In addition to managing the project my main roles were developing the methodology and both writing and editing the report.
- *Rare Vascular Plant Survey (2019-2020):* Project Manager. This NPWS project involved the field survey and of 85 rare plant populations across Ireland. In addition to managing the project, I assisted with fieldwork for several of the upland populations and compiled the report.
- *Fiddandarry Bog Restoration Project (2019-2022):* Ecologist. I assisted with fieldwork and report writing on this BirdWatch Ireland project to restore blanket bog and heath habitats.
- *National Survey of Upland Habitats (2009-2014):* Lead Ecologist. This NPWS project involved the survey and assessment of habitats across 16 uplands sites. My main roles in the field were training fieldworkers in the mapping methodology and the use of handheld computers, allocating daily survey areas to fieldwork teams, mapping vegetation communities, recording relevés and conservation assessments and updating a provisional uplands classification. My main roles in the office included production of TurboVeg databases, developing an upland habitat classification, identification of bryophyte samples and writing of site reports.
- *Irish Semi-natural Grasslands Survey (2007-2013):* Ecologist/Data Analyst. This NPWS project involved the survey and assessment of grassland sites across the country. My main roles were field surveying sites in Cos. Cork, Waterford, Cavan, Monaghan and Longford, and analysing relevé data to produce a national vegetation classification.

- *Woodland Monitoring Project (2011-2012)*: Ecologist. This NPWS project involved monitoring stands of Annex I woodland habitat distributed across the country. My main roles were developing the monitoring criteria and conducting fieldwork at three woodland sites.
- *National Survey and Assessment of Irish Sea-cliffs (2011)*: Data Analyst. I was responsible for production of a classification of sea-cliff vegetation on this NPWS project.
- *National Survey of Native Woodlands (2003-2008)*: Lead Ecologist. This NPWS project involved the survey of over 1000 woodland sites distributed across the country. My main roles were personally surveying over 250 native woodlands, conducting statistical analysis, preparing soil samples for analysis, producing a national classification for native woodlands, identifying bryophyte samples and writing the final report.
- *Provisional Inventory of Ancient and Long-established Woodland in Ireland (2009-2010)*: Project Manager. This NPWS project involved researching potential ancient woodland through field surveys and by using historical maps and documents. In addition to managing the project, my main roles were identifying information sources, conducting statistical analysis of ancient woodlands indicators and co-writing the report.
- *Management Plan for Ballyseedy Wood SAC (2008)*: Joint project manager. I was responsible for surveying, research, meeting with stakeholders and writing the management plan for Kerry County Council.
- *Killarney National Park Habitat Map (2007-2011)*: Assistant. On this NPWS project, I participated in fieldwork and production of the habitat map, and also reviewed and edited the report.

Other projects

- *Irish Vegetation Classification (2015-2024)*: Project Manager. Commissioned by the National Biodiversity Data Centre, I produced a national-scale classification for grasslands, woodlands, saltmarsh, heaths, bogs, fens, freshwater habitats, dunes, rocky habitats and weed communities. I provided the associated content for the project webpages and designed a web-mounted application, ERICA, for statistical classification of relevés and species lists. I also wrote an accompanying handbook.
- *Scottish Grasslands Analysis (2022-2023)*: Data Analyst. Commissioned by the Open University, I analysed data from Scottish wet grassland including machair in combination with data from similar habitats in Ireland. The aim was to provide supporting evidence for amendments to the UK National Vegetation Classification.
- *Dublin Mountains Makeover Long-term Monitoring (2021)*: Project Manager. I conducted fieldwork and wrote the report for this Coillte-funded project which I also managed. The project involved establishing a network of permanently marked monitoring plots across Coillte sites in the Dublin Mountains in both forest and heathland habitats.
- *Howth Heathland Study (2019-2024)*: This project for Fingal County Council has involved multiple phases. My roles have included the mapping of habitats, recording of relevés, experimental cutting of heathland vegetation, report writing and making presentations to stakeholders.
- *Resurvey of People's Millennium Forest Transects (2019)*: Ecologist. My main responsibilities on this project were conducting survey work at the monitoring site in Sligo.
- *EU Action Plan on European Dry Heaths (2019)*: Advisor. I represented Ireland at an international workshop on producing an action plan for this Annex I habitat.
- *Galway City Transport Plan (2013-2014)*: Surveyor/Analyst. Under contract to Scott Cawley, I conducted mapping and assessment in the field of a range of habitats including limestone pavement, heath, scrub, woodland, fen, blanket bog, transition mire and calcareous grassland. I produced reports and maps, compiled relevé data and processed bryophyte identifications.

- *EU Red List Habitats (2015)*: Territorial Expert. I provided data for this European initiative on a range of habitats including scrub, heath, bog, cliff, scree, flush, fen and mire habitats.
- *Limerick Tunnel Translocation Project (2005-2014)*: Assistant. I participated in project planning, fieldwork and report editing. Fieldwork involved translocation and monitoring of populations of *Hordeum secalinum*, *Schoenoplectus triquetus* and *Groenlandia densa*. Commissioned by Direct Route.
- *People's Millennium Forest Transects (2009)*: Project Manager/Lead Ecologist. I organised fieldwork at four sites across country. I was responsible for surveying, bryophyte identification, carabid beetle identification, data analysis and report writing. This project was funded by a Heritage Council grant.
- *Aughinish Alumina Translocation Project (2007-2012)*: Assistant. I participated in project planning, fieldwork and report editing. Fieldwork involved translocation and monitoring of populations of *Hordeum secalinum* and *Sanguisorba officinalis*. Commissioned by Aughinish Alumina.
- *County Cork Inventory of Ancient and Long-established Woodland (2010)*: Project Manager. This project was a follow-up to the *Provisional Inventory of Ancient and Long-established Woodland in Ireland* and focussed specifically on County Cork. Commissioned by Cork County Council.
- *Management Plan for Balrath Wood (2007)*: Joint project manager. I was responsible for surveying, research, meeting with stakeholders and writing the management plan for Meath County Council.
- *Pitcairn Island Environment Plan (2006-2007)*: Editor. I was responsible for reviewing of plan objectives and editing this plan for the UK Foreign and Commonwealth Office

Post-doctoral Research College, Trinity College Dublin. Mar 2003 – May 2004 (part-time)

People's Millennium Forest Transects: Lead ecologist. I wrote the tender for this project and secured the funding. My tasks included organising fieldwork at four sites across country, liaison with Coillte staff, surveying, bryophyte identification, carabid beetle identification, soil analysis, data analysis and report writing.

Estate assistant, Nottinghamshire Wildlife Trust. 1995 – 1999 (part-time)

Volunteer. I conducted practical woodland management as part of voluntary work predominantly based in ancient and secondary woodland of the Sherwood Forest area.

Lecturer, Brackenhurst Agricultural College, Nottinghamshire. Mar – May 1998 (part-time)

I was responsible for writing of ecology lectures and teaching students on NVQ Countryside Management courses.

SKILLS & ADDITIONAL INFORMATION

Membership of Professional Organisations

- Full membership of Chartered Institute of Ecology and Environmental Management
- Chartered Environmentalist through the Society for the Environment
- Member of the British Bryological Society and Regional Recorder for Cos. Carlow and Laois.

Conference Presentations

- British Ecological Society Winter Meeting, 1999, Leeds University

- Irish Botanists' Meeting, 2002, National University of Ireland, Maynooth
- European Vegetation Conference, 2006, National University of Ireland, Galway
- British Ecological Society Annual Meeting, 2008, Imperial College London
- 25th Irish Environmental Researchers Colloquium (Environ), 2012, University College Dublin
- CIEEM Irish Section Conference, 2013, Red Cow Hotel, Dublin
- CIEEM Irish Section Conference, 2014, Holiday Inn, Belfast
- NPWS Annual Conference, 2014, Radisson Blu Hotel, Athlone
- Irish Uplands Forum Workshop, 2015, Trinity College, Dublin.
- CIEEM Irish Section Conference, 2016, Glenview Hotel, Delgany, Wicklow

Peer-reviewer

- Nature
- Scientific Reports
- Plant Ecology (formerly Vegetatio)
- Journal for Nature Conservation
- Forest Ecology & Management
- Ecological Indicators
- Science of the Total Environment
- Biology and Environment: Proceedings of the Royal Irish Academy
- Dendrobiology
- Journal of Mountain Science
- Forest Systems (formerly Investigación Agraria: Sistemas y Recursos Forestales)

Online profiles

Google Scholar profile: <http://scholar.google.com/citations?user=hDVAjYYAAAAJ&hl=en>

Researchgate profile: https://www.researchgate.net/profile/Philip_Perrin/?ev=hdr_xprf

Web of Science: <https://www.webofscience.com/wos/author/record/1333428>

ORCID: <https://orcid.org/0000-0002-8597-8432>

Awards

Chartered Institute of Ecology and Environmental Management Members' Award 2017 (Winner)

SELECTED PUBLICATIONS

Peer-reviewed journal publications

Cruz, C., **Perrin, P.M.**, Martin, J.R., O'Connell, J., McGuinness, K. & Connolly, J. (2024) Mapping of temperate upland habitats using high-resolution satellite imagery and machine learning. *Environmental Monitoring and Assessment* 196, 869. <https://doi.org/10.1007/s10661-024-12998-0>

Cruz, C., Martin, J.R., **Perrin, P.M.** & (2023) Assessing the effectiveness of UAV data for accurate coastal dune habitat mapping. *European Journal of Remote Sensing* 56: 2191870. <https://doi.org/10.1080/22797254.2023.2191870>

Cruz, C., McGuinness, K., **Perrin, P.M.**, O'Connell, J., Martin, J.R. & Connolly, J. (2023) Improving the mapping of coastal invasive species using UAV imagery and deep learning. *International Journal of Remote Sensing* 44: 5713–5735. <https://doi.org/10.1080/01431161.2023.2251186>

Lynch, K.E., Penk, M.R., **Perrin, P.M.** & Piggott, J.J. (2022) Cattle grazing of a Celtic Sea saltmarsh affects invertebrate community composition and biomass, but not diversity. *Wetlands* 42: 125. <https://doi.org/10.1007/s13157-022-01643-6>

- Penk, M.R. & **Perrin, P.M.** (2022) Variability of plant and surface soil carbon concentration among saltmarsh habitats in Ireland. *Estuaries and Coasts* **45**: 1631-1645. <https://doi.org/10.1007/s12237-021-01042-w>
- Penk, M.R., **Perrin, P.M.**, Kelly, R., O'Neill, F. & Waldren, S. (2020) Plant diversity and community composition in temperate northeast Atlantic salt marshes are linked to nutrient concentrations. *Applied Vegetation Science* **23**: 3–13. <https://doi.org/10.1111/avsc.12459>
- Penk, M.R., **Perrin, P.M.** & Waldren, S., (2020) Above- to belowground vegetation biomass ratio in temperate north-east Atlantic saltmarshes increases strongly with soil nitrogen gradient. *Ecosystems* **23**: 648–661. <https://doi.org/10.1007/s10021-019-00428-z>
- Perrin, P.M.** & Waldren, S. (2020) Vegetation richness and rarity in habitats of European conservation value in Ireland. *Ecological Indicators* **117**: 106387. <https://doi.org/10.1016/j.ecolind.2020.106387>
- Penk, M.R., Wilkes, R., **Perrin, P.M.** & Waldren, S. (2019) Nutrients in saltmarsh soils are weakly related to those in adjacent coastal waters. *Estuaries and Coasts* **42**: 675–687. <https://doi.org/10.1007/s12237-018-00486-x>
- Rodríguez-Rojo, M. P., Jiménez-Alfaro, B., Jandt, U., Bruelheide, H., Rodwell, J. S., Schaminée, J. H. J., **Perrin, P. M.**, Kački, Z., Willner, W., Fernández-González, F. & Chytrý, M. (2017) Diversity of lowland hay meadows and pastures in Western and Central Europe. *Applied Vegetation Science* **20**: 702–719. <https://doi.org/10.1111/avsc.12326>
- Perrin, P.M.** & Mitchell, F.J.G. (2013) Effect of shade on growth, biomass allocation and leaf morphology in European yew (*Taxus baccata* L.). *European Journal of Forest Research* **132(2)**: 211-218. <https://doi.org/10.1007/s10342-012-0668-8>
- Roche, J.R. & **Perrin, P.M.** (2011) A new county record for alpine clubmoss (*Diphasiastrum alpinum*) from the Comeragh Mountains, Co. Waterford (H6). *Irish Naturalists' Journal* **31**: 149-150. <https://www.jstor.org/stable/41419137>
- Perrin, P. M.**, Mitchell, F. J. G. & Kelly, D. L. (2011) Long-term deer exclusion in yew-wood and oakwood habitats in southwest Ireland: Changes in ground flora and species diversity. *Forest Ecology and Management* **262**: 2328-2337. <https://doi.org/10.1016/j.foreco.2011.08.028>
- Perrin P. M.**, Kelly D.L. & Mitchell F.J.G (2006) Long-term deer exclusion in yew-wood and oakwood habitats in southwest Ireland: Natural regeneration and stand dynamics. *Forest Ecology and Management* **236**: 356–367. <https://doi.org/10.1016/j.foreco.2006.09.025>
- Perrin P. M.**, Martin J.R., Barron S.J. & Roche J.R. (2006) A cluster analysis approach to classifying Irish native woodlands. *Biology and the Environment. Proceedings of the Royal Irish Academy* **106B**: 261-275. <https://www.jstor.org/stable/20728599>
- Perrin, P.M.** (2000) Activity of pipistrelle bats (*Pipistrellus pipistrellus*) and Natterer's bats (*Myotis nattereri*) over lowland heathland. *Journal of Practical Ecology and Conservation* **4**: 27-36.

Selected other publications

- Perrin, P.M.** (2024) Handbook for the Irish Vegetation Classification, National Biodiversity Data Centre, Waterford.
- Roche, J.R., **Perrin, P.M.** & O'Neill, F.H. (2023) *Taxus baccata* woods in Ireland: ecology, conservation status and necessary conservation measures, in: Ramil-Rego, P., Rodríguez Guitián, M.A. Ferreiro da Costa, J. & Gómez-Orellana, L. (Eds.) (2023). Conservación y restauración de los bosques de tejo en Europa. Monografías do IBADER. Serie Biodiversidade. IBADER. Universidade de Santiago de Compostela. Lugo, pp. 353-371.
- O'Neill, F.H., **Perrin, P.M.**, Denyer, J., Martin, J.R., Brophy, J.T. & Daly, O.H. (2023). Scoping study and pilot survey of fens. *Irish Wildlife Manuals*, No. 143. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.
- Perrin, P.M.**, Waldren, S., Penk, M.R. & O'Neill, F.H. (2020) Saltmarsh Function and Human Impacts in Relation to Ecological Status (SAMFHIREs) (2015-W-MS-19), *EPA Research Reports*, No. 313. Environment Protection Agency, Wexford, Ireland.
- Brophy, J.T., **Perrin, P.M.**, Penk, M.R., Devaney, F.M. & 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.
- Devaney, F.M., **Perrin, P.M.** (2015) Saltmarsh Angiosperm Assessment Tool for Ireland (SMAATIE) (2013-W-DS-10) Practitioner's Manual, *EPA Research Reports*, No. 163. Environment Protection Agency, Wexford, Ireland.
- 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, Department of Arts, Heritage and the Gaeltacht, Ireland.
- Barron, S.J., Delaney, A., **Perrin, P.M.**, Martin, J.R. & O'Neill, F.H. (2011). National survey and assessment of the conservation status of Irish sea cliffs. *Irish Wildlife Manuals*, No. 53. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

- Perrin, P.M.** & Daly, O. (2010) A provisional inventory of ancient and long-established woodland in Ireland. *Irish Wildlife Manuals*, No. 46. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.
- Perrin, P.M.**, Barron, S.J., Roche, J.R. & O'Hanrahan, B. (2014) Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland. Version 2.0. *Irish Wildlife Manuals*, No. 79. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Perrin, P.M.**, Barron, S.J., Roche, J.R. & O'Hanrahan, B. (2010) Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland. Version 1.0. *Irish Wildlife Manuals*, No. 48. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.
- Cross, J.R., Little, D., **Perrin, P.M.** (2010) The classification of native woodlands in Ireland and its application to native woodland management (Native Woodland Information Note No. 6). Woodlands of Ireland, Ireland.
- Perrin, P.M.**, Martin, J.R., Barron, S.J., O'Neill, F.H., McNutt, K.E. & Delaney, A.M. (2008) National Survey of Native Woodlands 2003-2008: Volumes I and II. Report submitted to National Parks & Wildlife Service, Dublin, Ireland.