



APPENDIX 12

***ECOLOGY AND ORNITHOLOGY
PROJECT TEAM CVS***

CURRICULUM VITAE



Sarah Mullen

Sarah is a Project Director (Ecology) with MKO with over 10 years' post graduate experience in ecology. Sarah holds a B.Sc. (Hons) in Botany, an M.Sc. in Biodiversity and Conservation and a Ph.D. in Botany. Prior to taking up her position with MKO in September 2018, Sarah worked as an Ecologist with Ryan Hanley Ltd. where she gained experience in multidisciplinary ecological surveys, ecological impact assessment and appropriate assessment. Since joining MKO Sarah has been responsible for the management, co-ordination and undertaking of flora, fauna and habitat surveys for a range of projects including large-scale energy infrastructure projects, residential and commercial developments, tourism projects and biodiversity monitoring and restoration projects. She has overseen the preparation of ecological reports to accompany planning applications including Ecological Impact Assessments, Stage 1 and Stage 2 Appropriate Assessment reports, Invasive Species Management Plans and Biodiversity/Habitat Management Plans. Sarah's key strengths and areas of expertise are in terrestrial flora and fauna ecology, including vegetation surveys, habitat mapping, invasive species surveys, mammal surveys, Appropriate Assessment and Ecological Impact Assessment. She holds membership with the Chartered Institute of Ecology and Environmental Management.

Current Role	Project Director (Ecology)
Qualifications	➤ Ph.D. Botany, Trinity College Dublin (2013). ➤ M.Sc. Biodiversity and Conservation, University of Leeds (2008). ➤ B.Sc. Botany (Hons), University College Dublin (2005).
Memberships	➤ Chartered Institute of Ecology and Environmental Management. ➤ Botanical Society of Britain and Ireland (BSBI) ➤ Bat Conservation Ireland
Relevant Experience	➤ Project Director MKO (March 2023 – present) ○ Management of the Ecology team including: ▪ Managing team capacity and deadlines. ▪ Overseeing and assisting the team in managing the survey and reporting requirements for a range of development types including renewable infrastructure developments, residential developments, tourism. ▪ Input into as well as review and sign-off on ecology reporting outputs from the team. ▪ Training and mentoring of the team in impact assessment and field surveying. ➤ Ecologist MKO (Senior Ecologist September 2022 – March 2023, Project Ecologist April 2021 – September 2022, Ecologist September 2018 – April 2021). ○ Responsible for overseeing the preparation of Biodiversity Chapters for EIARs, Ecological Impact Assessments (EcIA) and Appropriate Assessment (AA) reports for a range of projects including: ▪ Ballivor Wind Farm, Co. Meath and Westmeath, 2019-2024 – Lead ecologist responsible for the co-ordination and leading of ecology field surveys, advising the client on ecological constraints, preparation of the AASR, NIS and the Biodiversity chapter of the EIAR and preparation of Biodiversity Management Plan for the site.



- **Clonbern Wind Farm**, Galway, 2019-2024 - Co-ordination of ecology field surveys and overseeing the preparation of AASR, NIS and the Biodiversity chapter of the EIAR, advising on the preparation of Biodiversity Management Plan.
- **Dunneill Wind Farm Extension of Operation**, Sligo, 2021-2022 – Oversaw the preparation of the NIS and EIAR Biodiversity Chapter for the planning application.
- **Glenora Wind Farm**, Mayo, 2021-2023 – Undertook ecological surveys of the windfarm site to inform the NIS and EIAR.
- **Yew Point Eco-tourism Development**, Athlone, Co. Westmeath 2022-2023 – Co-ordination of and undertaking of detailed habitat, flora and fauna surveys, preparation of AASR, NIS and EcIA.
- **Trinity Hall Student Accommodation**, Dublin, 2019-2021 – Coordination of field surveys and preparation of EcIA, AASR and NIS.
- **Kilcullen Strategic Housing Development**, Kildare, 2020-2022 – Undertaking of field surveys and preparation of AASR, EcIA and Biodiversity Enhancement Plan.
- **Rosshill Strategic Housing Development**, Galway (2019-2021) – Biodiversity Chapter, AASR and NIS.
- **NUIG Student Accommodation 2018-2024** – Involved in undertaking habitat surveys, preparation of the AASR, NIS, EcIA and Biodiversity Management Plan for the planning application. Responsible for ensuring implementation of the Biodiversity Management Plan and for management of site supervision works.

- Ecologist, Ryan Hanley Ltd (April 2014 – February 2017)
- Intern, Global Biodiversity Information Facility, Museum fur Naturkunde, Berlin, Germany (July 2013 – October 2013)
- Ph.D. Researcher Botany, Trinity College Dublin (2009 – 2013)

Key Strengths & Areas of Expertise

Ecological Assessment and Appropriate Assessment

- Extensive experience carrying out Ecological Impact Assessment reports, Appropriate Assessment Screening reports, Natura Impact Statements and Biodiversity chapters for Environmental Impact Assessment Reports for a variety of construction projects, water services, drainage schemes and energy infrastructure projects.

Vegetation and habitat surveys

- Experience undertaking detailed vegetation and habitat surveys, including Annex I habitat condition assessments in grassland, peatland and woodland habitats. Experienced in habitat identification in line with Fossitt (2000) as well as in using the Irish Vegetation Classification (IVC) system.

Invasive Species Surveys

- Scoping and overseeing invasive species surveys and preparation of Invasive Species Management Plans.

Mammal Surveys



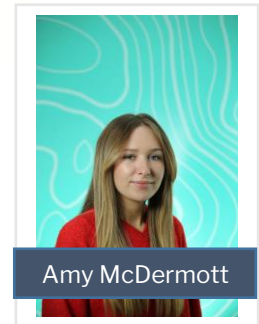
	- Experienced in undertaking terrestrial mammal surveys, including otter and badger, for ecological assessment surveys and pre-commencement surveys for windfarm and construction projects. Invertebrate surveys - Extensive experience undertaking plant-pollinator interaction surveys in semi-natural grasslands as part of PhD research. This included detailed bee, hoverfly and butterfly surveys. - Experience in undertaking marsh fritillary larval web surveys.
Publications	- Herbertsson L, Ekroos J, Albrecht M, Bartomeus I, Batáry P, Bommarco R, Caplat P, Diekötter T, Eikestam JM, Entling MH, Farbu S, Farwig N, Gonzalez-Varo JP, Hass AL, Holzschuh A, Hopfenmüller S, Jakobsson A, Jauker B, Kovács-Hostyánszki A, Kleve W, Kunin WE, Lindström SA.M, Mullen S, Öckinger E, Petanidou T, Potts SG, Power EF, Rundlof M, Seibel K, Söber V, Söderman A, Steffan-Dewenter I, Stout JC, Teder T, Tscharnkte T, Smith HG (2021) Bees increase seed set of wild plants while the proportion of arable land has a variable effect on pollination in European agricultural landscapes. <i>Plant Ecology and Evolution</i> 154(3): 341-350. https://doi.org/10.5091/plecevo.2021.1884 - Russo, L., Fitzpatrick, Ú., Larkin, M., Mullen, S., Power, E., Stanley, D., White, C., O'Rourke, A., & Stout, J. C. (2022). Conserving diversity in Irish plant-pollinator networks. <i>Ecology and Evolution</i>, 12, e9347. https://doi.org/10.1002/ece3.9347 - J.C. Stout, E.F. Power, D.A. Stanley and S.E. Mullen (2021) Pollinators and pollination networks in Irish farmland: implications for conservation of pollination services. Conference paper: Teagasc Biodiversity Conference: Conserving Farmland Biodiversity
Interpersonal & Communication	- Manage and advise a large team of ecologists at different stages in their careers. - Experienced working as part of a multi-disciplinary team on a variety of projects, communicating ecological survey requirements and constraints to clients. - Experience in consultation with statutory ecological consultees and other stakeholders including NPWS, Inland Fisheries Ireland, Biodiversity Officers for local authorities regarding sensitive ecological sites. - Experience liaising with landowners during my PhD research and communicating the nature of my work. - Completed LEAP Emerging Leaders Programme 2021-2022
Licenses Held	- Full clean driver's license. - Safe Pass - Bat Disturbance Licence (DER/BAT 2025-136)



Katy Beckett

CURRICULUM VITAE

Current role	Project Ecologist
Qualifications, Certificates, Licences	➤ M.Sc. Biodiversity and Conservation (2021-2022), Trinity College Dublin - Thesis on “<i>The effects of wind turbine proximity on vegetation and insect pollinator communities in an Irish agricultural context</i>” with Nature+ research group ➤ B.A. Environmental Science (2017-2021), Trinity College Dublin - Thesis on “<i>Irish invasive plants and their risk of hybridisation with native or other alien plants: a phylogenetic approach</i>”, awarded the ESAI Undergraduate of the Year award ➤ CIEEM Qualifying Member ➤ Member of Botanical Society of Britain and Ireland, BirdWatch Ireland
Years of experience	➤ 3 years
Relevant experience	➤ Multidisciplinary ecological walkover surveys for a range of large-scale projects including wind farms, solar farms and large-scale residential developments. ➤ Strong technical report writing skills with experience in managing and compiling AASRs, NISs, EcIAs, EIAR Biodiversity Chapters, Constraints Studies, Biodiversity Management and Enhancement Plans and Invasive Species Management Plans for a range of project types. ➤ Volunteer garden, countryside and iWeBS bird surveys for Birdwatch, Hen harrier and Red Kite vantage point surveys for the Golden Eagle Trust, Bird ID courses with BTO
Practical skills and aptitudes	➤ Habitat mapping and classification using Fossitt, ERICA, Annex I habitat ID ➤ Detailed botanical and vegetation surveys, Annex I habitat condition assessments for a number of peatland, grassland, woodland and coastal habitats ➤ Detailed mammal surveys e.g. badger, otter, red squirrel, pine marten, camera trapping ➤ Marsh fritillary larval web and habitat condition assessment surveys ➤ Insect surveys e.g. dedicated Odonata surveys, pollinator transects and ID ➤ Bat dusk and dawn emergence and re-entry surveys, night-time bat walkovers, bat habitat appraisals ➤ Breeding and winter bird surveys using visual and aural methods – leading training sessions for the MKO Ecology team on these surveys ➤ Proficient at QGIS and Field Maps
Interpersonal & Communication Skills	➤ Project Manager leading a small team of ecologist on a number of small, medium and large-scale projects ➤ Excellent time management and organisational skills ➤ Effective communication and presentation of reports, graphics, charts, mapping ➤ Liaising with clients, landowners, developers and consultants on inter-disciplinary teams
Licenses held	➤ Full Clean Irish Drivers License, Manual Handling Cert, Remote Emergency First Response Level 1, Coillte ERA 2024, SafePass



Amy McDermott

CURRICULUM VITAE

Current role	Graduate Ecologist
Qualifications	> B.Sc. (Environmental Science) (2025) University of Galway (Hons)
Memberships	> Qualifying Membership of the Chartered Institute of Ecology and Environmental Management (CIEEM)
Years of experience	> <1 year
Relevant experience	> Field surveying > Habitat Classification – Fossitt and ERICA > QGIS > Report writing through final year project thesis > Ecological Surveying on Large scale wind farm projects – vegetation surveys, mammal surveys, round-leaved wintergreen surveys, marsh fritillary surveys, constraints surveys etc. > Dedicated Odonata surveys > IWeBs bird surveying for BirdWatch Ireland
Key strengths and areas of expertise	> Microsoft office programs > Ecological surveys, small mammal surveys, bat surveys, vantage point bird surveys > Habitat mapping and data analysis > Report writing; AASR, NIS, ECIA, ISMP > Mammal Surveying > Marsh Fritillary Surveying
Interpersonal & Communication Skills	> Communication and Management of teams through customer service in a retail setting > Teamwork > Motivated > Confident in research and analysis > Hardworking and attentive > Eager to learn and gain experience
Licenses held	> Full clean driver's license



Aoife Jovce

CURRICULUM VITAE

Current Role	Project Director Ecology (Bats)
Qualifications	> MSc Agribioscience (2017), National University of Ireland, Galway. > BSc Environmental Science (2016), National University of Ireland, Galway. > MCIEEM
Years of Experience	> 7 Years' Consultancy Experience
Relevant Experience	Lead Bat Specialist for survey coordination, preparation and submission of bat impact assessment and reports for consented wind energy projects, including: • Seven Hills Wind Farm, Co. Roscommon • Ballivor Wind Farm, Co. Meath • Carrigarierk 2 Wind Farm, Co. Cork • Cleanrath Wind Farm, Co. Cork • Knocknamork Renewable Energy Development, Co. Cork • Derrinlough Wind Farm, Co. Offaly • Glenard Wind Farm, Co. Donegal • Sheskin South Wind Farm, Co. Mayo • Lackareagh Wind Farm, Co. Clare • Ballywater Wind Farm Lifetime Extension, Co. • Castledockrell Wind Farm Lifetime Extension, Co. • Ballyhorgan Wind Farm, Co. Kerry > Bat Ecologist – managing survey requirements for a variety of wind and solar energy planning applications, as well as commercial, residential and infrastructure projects including scope development, roost assessments, acoustic surveying, sonogram analyses, impact assessment and report writing. > Producing comprehensive Appropriate Assessment Screening Reports, Natura Impact Statements and providing essential inputs to Environmental Impact Assessment Reports. > Providing oversight and advice in the form of Ecological Clerk of Works. > Carrying out multi-disciplinary field surveys for a range of habitats and species including Badger, Otter and Marsh Fritillary. > Experienced in wading and boat electro-fishing as well as fish handling and identification. In depth knowledge and experience in in and river barrier identification and measurement.
Key Strengths & Areas of Expertise	> Bat Surveys, Handling, Mitigation and Impact Assessments; Acoustic sampling and sound analysis using Kaleidoscope Pro. > AA Screening, NIS reports and EIAR inputs. > Ecological Clerk of Works. > Invasive Species Management and Habitat surveys (terrestrial and aquatic). > Mammal Surveys (Badger, Otter etc.). > Electro-fishing and River Hydromorphology Assessment Technique (RHAT) surveys. > GIS Mapping (QGIS, ArcGIS, SAGA), and satellite image analysis. > Bat Conservation Ireland member.
Licenses and Certifications	> Roost Disturbance license no. DER-BAT-2026-124, DER-BAT-2025-117, DER-BAT-2024-54, DER-BAT-2023-14, DER/BAT 2022-06, DER/BAT 2021-02 and DER/BAT 2020-1. > Multiple site-specific bat derogation licenses & photography licences (30+). > CIEEM Bat Impacts and Mitigation 2019. > BCI Bat Tree Roost Identification and Endoscope. > IFM Electric Fishing Cert 2022 and HyDrone certificate of training 2025. > Kaleidoscope Pro Online 2020. > NPWS License No. C10/2021. > Safe Pass, Manual Handling Cert, Remote Emergency First Response Level 1, Coillte ERA 2021, Irish Rail – Personal Track Safety 2021 & 2024.





Bea Jackson

CURRICULUM VITAE

Current role	Ecologist Practitioner
Qualifications	➤ MSc Botany Trinity College, Dublin (2021-2023) ➤ BA (Hons) Botany from Trinity College, Dublin (2017-2021)
Memberships	➤ Qualifying Member of the Chartered Institute of Ecology & Environmental Management (CIEEM) ➤ Botanical Society of Britain and Ireland ➤ British and Irish Bryological Society ➤ Birdwatch Ireland
Years of experience	➤ December 2025 – Present, Ecologist Practitioner, MKO ➤ April 2025 – November 2025, Senior Consultant Ecologist, Scott Cawley Ltd. ➤ April 2024 – March 2025, Consultant Ecologist, Scott Cawley Ltd. ➤ October 2023 – March 2024, Graduate Ecologist, Scott Cawley Ltd.
Relevant Experience	➤ Habitat surveying and associated mapping and data management for road developments. ➤ Experience in conducting multidisciplinary and species-specific surveys, including wintering and breeding birds, newts, marsh fritillary, bat and mammal surveys for a range of projects including road developments, solar developments, data centre developments, and large-scale residential developments. ➤ Experience writing Appropriate Assessment Screening Reports, Natura Impact Statements, Ecological Impact Assessments, Biodiversity Chapters for Environmental Impact Assessment Reports, and other ecological reporting including Biodiversity Enhancement and Management Plans and Invasive Species Management Plans.
Key strengths and areas of expertise	➤ Habitat survey, classification and evaluation as per Fossitt (2000) and identifying Annex I habitat types ➤ Contributing to and writing technical reporting including Ecological Impact Assessment, Appropriate Assessment, and Biodiversity Chapters for inclusion in Environmental Impact Assessment Reports for a range of projects including linear infrastructure projects, renewable energy projects, data centre developments and large-scale residential developments. ➤ Volunteer for the Irish Wetland Bird Surveys (iWeBS) for Birdwatch Ireland.
Practical skills and aptitudes	➤ Multidisciplinary surveys covering habitats, protected mammals, invasive species on linear infrastructure projects, renewable energy projects, data centre developments and large-scale residential developments. ➤ Detailed botanical surveys (relevés) surveys of Annex I habitats ➤ Surveys for protected fauna species (birds, bats, otter, badger, newt, marsh fritillary)

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	> Proficient in the use of QGIS > Working collaboratively with other disciplines (e.g. engineers, hydrologists, hydrogeologists, landscape architects etc).
Interpersonal & Communication Skills	> Excellent time management and communication skills > Experience in managing survey teams and schedules for small-scale projects > Previous experience in managing a small team of seasonal bat ecologists at Scott Cawley Ltd. > Previous experience of delivery of internal training for invasive species identification, plant identification and grassland habitats at Scott Cawley Ltd.
Licenses held	> Full clean Irish Driver's license > Safe Pass



Chandra Walter

CURRICULUM VITAE

Current role	Ecologist
Qualifications	➤ BSc (Hons) Ecology (2015), UCC ➤ MSc Organic Horticulture (2017), UCC
Years of experience	➤ 5 Years; Consultancy Experience
Relevant experience	➤ Multidisciplinary ecological field surveys including botanical, invasive species, aquatic, mammal, marsh fritillary and bat surveys. ➤ Surveys for a range of consented renewable energy projects which include: ○ Cushaling WF, Co. Kildare/Co. Offaly ○ Littleton WF, Co. Tipperary ○ Drehid WF, Co. Kildare ➤ Experience in writing Appropriate Assessment Screenings, Natura Impact Statements, Ecological Impact Assessments, Appendix Reports for Environmental Impact Assessment Reports (EIARs) and Invasive Species Management Plans.
Key strengths and areas of expertise	➤ Survey skills including for bats, non-volant mammals, habitat and invasive species surveys, marsh fritillary surveys. ➤ Invasive Species Management Plans (for terrestrial and aquatic settings) ➤ Strong analytical skills in bat call analysis ➤ Strong technical report writing skills (AASR, NIS, ISMP, EcIA) ➤ Invasive species surveys/ management
Management/ supervision	➤ Supervision of junior staff during site work on a range of survey types ➤ Co-ordination of bat survey schedule and site work at Fehily Timoney and Company
Licenses held	➤ Full clean Irish driving license. ➤ Current Safe Pass holder. ➤ Manual handling course completed. ➤ Bat Derogation License



CURRICULUM VITAE



Ciara Lynn Sheehan

Current role	Graduate Ecologist
Qualifications	➤ B.Sc. (Hons) Ecology and Environmental Biology, University College Cork (2023)
Years of experience	➤ September 2023 – Present with MKO
Relevant experience	➤ Currently a Graduate Ecologist with MKO ➤ Experience in preparation of Appropriate Assessment Screening Reports and Ecological Impact Assessments ➤ Experience in creating maps using QGIS and ArcGIS ➤ Field surveying, habitat identification and invasive species identification experience
Practical skills and aptitudes	➤ Carrying out multidisciplinary walkover surveys and protected species surveys including marsh fritillary ➤ Plant identification ➤ Habitat assessment and identification following Fossitt's 'A Guide to Habitats in Ireland' ➤ Mapping using QGIS and ArcGIS ➤ Confident in report writing and using Microsoft Office (Word, PowerPoint, Excel)
Management/supervision	➤ Kate O' Donnell, Project Ecologist
Interpersonal and communication skills	➤ Flexible and self-motivated ➤ Dependable and works well in teams ➤ Effective communicator from liaising with colleagues and clients in MKO and from working in hospitality previously ➤ Public speaking and presentation skills
Licenses held	➤ Full clean Irish driving license ➤ SOLAS Safe Pass ➤ Manual Handling ➤ Coillte ERA

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Clare Mifsud

CURRICULUM VITAE

Current role	Project Manager - Bat Ecologist
Qualifications	➤ PhD Bat Ecology and Conservation, University of Malta (2015 – 2021) ➤ MSc Bat Ecology and Conservation, University of Malta (2012 – 2013) ➤ BSc (Hons) Biology and Chemistry, University of Malta (2007 – 2011)
Professional Experience	➤ 16 years' experience in bat research and conservation ➤ Experience in ecological consultancy including Environmental Impact Assessment for infrastructure projects ➤ Project Manager and Bat Ecologist responsible for delivery of bat assessments from survey design through to reporting
Wind Farm Experience	➤ Project Manager and lead bat ecologist on multiple onshore wind farm developments in Ireland ➤ Managed full project lifecycle including survey design, programming, fieldwork coordination, data analysis, impact assessment, mitigation design and reporting ➤ Lead author of five wind farm bat reports prepared for EIAR submission within a 12-month period ➤ Designed and implemented survey strategies in line with current best practice and industry guidance ➤ Undertaken static and transect surveys, roost assessments and acoustic analysis to inform impact assessment ➤ Interpreted bat activity data to assess significance of effects and inform design iteration ➤ Developed mitigation strategies including turbine buffers, lighting design and operational mitigation (e.g. curtailment/feathering) ➤ Coordinated multidisciplinary inputs and liaised with clients, design teams and regulatory stakeholders
Key strengths and areas of expertise	➤ Wind farm bat assessment and mitigation design ➤ Ecological Impact Assessment (EIA/EIAR) ➤ Bat survey methodologies and field techniques ➤ Data analysis and interpretation of bat activity ➤ Technical report writing and scientific communication
Interpersonal & Communication Skills	➤ Experience engaging with developers, consultants, regulatory authorities and stakeholders ➤ Clear and concise communication of technical information to specialist and non-specialist audiences
Licenses held	➤ Licensed to capture and handle bats, undertake roost inspections, and carry out bat-related survey and conservation activities ➤ Full driver's licence



Cuan Feely

CURRICULUM VITAE

Current role	➤ Practitioner Ecologist
Qualifications	➤ B.Sc. (Environmental Science) (2024) National University of Ireland, Galway (Hons) ➤ Certificate in Irish Wildflower Identification: ATU Sligo (FETAC Level 6)
Memberships	➤ Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM)
Years of experience	➤ 1.5 years
Relevant experience	➤ Experience in field surveying across a wide variety of ecological survey types ➤ Habitat classification according to Fossitt (2000) ➤ Proficient in QGIS and ArcGIS ➤ Report writing of a variety of ecology reports (EclA, AASR, PEA, NIS, Biodiversity Metric Report and Ecological Briefing Notes) ➤ Experience in carrying out appropriate assessment screenings for a variety of projects of various sizes including wastewater treatment plants, residential developments and rail infrastructure. Assisting in the survey effort for multiple wind farm projects, including: ➤ Cooloo Wind Farm, Co. Galway ➤ Gannow Wind Farm, Co. Galway ➤ Lemanaghan Wind Farm, Co. Offaly
Key strengths and areas of expertise	➤ Proficient at QGIS and Qfield ➤ Habitat mapping and classification using Fossitt guides and ERICA ➤ Botanical and vegetation surveying using relevés, species ID using relevant tools and keys ➤ Otter, badger, and other mammal surveys ➤ Marsh Fritillary surveying of suitable habitat and larval webs ➤ Bat dusk emergence, walked and driven bat transects ➤ Bat habitat appraisal surveys ➤ Breeding and winter bird surveys ➤ Peregrine Falcon surveys and associated reporting ➤ Report writing proficiency – AASR, NIS, EIAR, PEA, Biodiversity Metric Reports and Briefing Notes ➤ Effective presentation of reports, graphics, charts, and maps to convey information
Interpersonal and communication skills	➤ Effective communication with customers as a result of 5 years' experience in retail ➤ Experience working as part of a team of experienced ecologists across a wide variety of projects ➤ Effective communication and liaising with team members, clients, contractors and landowners

Offices in Galway and Dublin

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Licenses held

- > Full clean class B driver's license
- > Manual handling
- > SOLAS Safe Pass

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CURRICULUM VITAE



Caiti Farren

Caiti is a Practitioner Ecologist with MKO and holds a first-class BSc (Hons) in Botany from Trinity College Dublin. Caiti has experience in plant and pollinator identification and botanical field skills. Caiti is a member of the MKO Ecology Team which work on producing high quality Appropriate Assessment Screening Reports and Natura Impact Statements for a variety of clients.

Current Role	➤ Practitioner Ecologist.
Qualifications	➤ BSc Biological and Biomedical Sciences: Botany from Trinity College Dublin (FETAC Level 8). ➤ Certificate in Irish Wildflower Identification: ATU Sligo (FETAC level 6). ➤ Remote Emergency First Response Level 1
Industry Experience	➤ 2.5 years.
Relevant Experience	➤ Plant Identification, Pollinator Identification and Botanical Field Skills. ➤ Trained Ecological Clerk of Works. ➤ Trained in Appropriate Assessment production. ➤ Habitat Identification according to Fossitt (2000). ➤ Knowledge of protected areas under the Birds Directive (79/409/EEC) and the Habitats Directive (92/43/EEC). ➤ Familiar with handling, reading, and interpreting spatial datasets ➤ Production of high-quality writing.
Key Strengths & Areas of Expertise	➤ Plant and Pollinator surveys, and identification using keys. ➤ Assessment of habitats and species relevant to appropriate assessments. ➤ Proficient in Microsoft office programs (Word, Excel, PowerPoint).
Interpersonal & Communication Skills	➤ Strong communication and presentation experience. ➤ Leadership and managerial skills. ➤ Skilled in concise, informative writing. ➤ Strong ability to work and engage within a team.
Interests & Hobbies	➤ Reading, crafts, conservation volunteering work.
Licenses Held	➤ Full Clean License



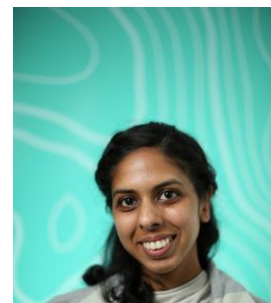
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CURRICULUM VITAE



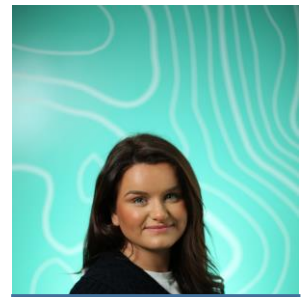
Deepali Mooloo

Current role	Ecologist
Qualifications	➤ MSc. Applied Coastal and Marine Management ➤ BSc. (Hons) Marine Science and Technology
Years of experience	➤ 7 years of experience working in marine and coastal ecology and management ➤ 2.5 years of experience working with MKO in both coastal and terrestrial ecology
Relevant experience	➤ Habitat identification according to Fossitt (2000) and identifying Annex I habitat types ➤ Knowledge of protected areas under the Birds Directive (79/ 409/EEC) and the Habitats Directive (92/43/EEC). ➤ Experience in the preparation of Appropriate Assessment Screening reports, Natura Impact Statements, Biodiversity Chapters, and Ecological Impact Assessments. ➤ Experience with mapping in QGIS and ArcGIS ➤ Experience in field surveys including mammal surveys.
Key strengths and areas of expertise	➤ Botanical surveys of Annex I habitats ➤ Report writing ➤ Winter bird and Breeding bird surveys ➤ Invasive alien plant species surveys ➤ Habitat mapping with ArcGIS and QGIS ➤ Tree ID and Woodland Botany ➤ Grassland and sedges Identification
Practical skills and aptitudes	➤ Botanical assessments for terrestrial, coastal and marine environments ➤ Mammal surveys of protected species
Interpersonal and communication skills	➤ Good communication skills in English, French, both oral and written, with the ability to work well as part of a team. ➤ Experience in leading survey teams for small-scale projects
Licenses held	➤ Full clean Irish driving license ➤ Current safe pass holder ➤ Manual handling course ➤ Coillte ERA ➤ Qualifying member of Chartered Institute of Ecology and Environmental Management

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Ellen Tuck

CURRICULUM VITAE

Current Role	➤ Practitioner Ecologist
Qualifications	➤ Level 6 FETAC Maths and Science, National University of Ireland, Galway. ➤ BSc Environmental Science (2022), National University of Ireland, Galway.
Years of Experience	➤ 1.5 years
Relevant Experience	➤ Completion of summer internship as a student Ecologist with MKO in Ecology, Ornithology, Environmental, and Landscape. ➤ Currently an Ecologist with MKO since May 2022. ➤ Experience in preparation of Pre-Screening Appropriate Assessment Reports, Natura Impacts Statements, and habitat mapping with QGIS and ArcGIS. ➤ Field surveying, habitat identification and invasive species identification experience.
Practical Skills & Aptitudes	➤ Skills including bat surveys, protected species surveys including marsh fritillary, otter and badger surveys. ➤ Mapping using QGIS, MapInfo and ArcGIS and MS Office programs. ➤ Invasive alien plant species surveys. ➤ Habitat assessment and identification according to Fossitt 2000 and ERICA ➤ Badger and other Mustelids (Field Studies Council). ➤ Winter woodland identification training ➤ Pearl Mussel Training
Management/ Supervision	➤ Liaising with clients on various projects. ➤ Liaises on a daily basis with colleagues both one-on-one and in meeting settings. ➤ Effective and clear communicator with over 15 years' experience working as a team member in various other roles.
Interpersonal & Communication Skills	➤ Liaising with clients and landowners. ➤ Effective and clear communicator. ➤ Team building and mentoring skills.





Planning and
Environmental
Consultants

Licenses Held

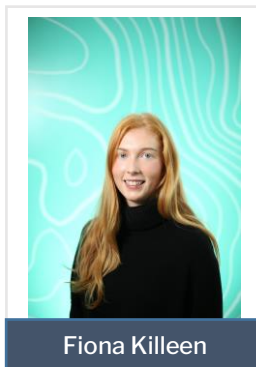
- > Full clean Irish driving license.
- > Safe Pass.
- > First Aid.
- > Coillte ERA 2022.
- > IAA Drone License A1 & A3 operator.



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Fiona Killeen

CURRICULUM VITAE

Current Role	Practitioner Ecologist
Qualifications	B.Sc. Environmental Science, 2nd Class Honours Grade 1, NUIG.
Memberships	- Qualifying membership with Chartered Institute of Ecology and Environmental Management - BirdWatch Ireland - Botanical Society of Britain & Ireland
Years of Experience	2+ year.
Relevant Experience	- Began a Graduate Ecologist role with MKO in September 2022 - present - Experience drafting and submitting a variety of planning reports for submission to a planning authority such as, Appropriate Assessment Screening Reports, Natura Impact Statements, EIAR Biodiversity Chapters, Ecological Impact Assessments, Preliminary Ecological Appraisal, Constraint reports, Briefing Notes, Bird reports, Invasive Species Management Plans, Fee Proposals and ecological inputs to tender documents. - Experience in conducting multidisciplinary walkover surveys in line with standard best practice, while assessing habitats according to Fossitt 92000) and experienced in habitat mapping using QGIS. Experience in conducting specific ecological surveys such as red listed/protected botanical surveys, otter, badger, wintering/breeding bird survey, Annex 1 habitat, breeding merlin, marsh fritillary, internal/external bat roost inspections, bat transects, deploying/collecting bat static detectors and camera trap mammal surveys. - Experience advising clients in person and through online meetings regarding potential additional steps undertaken to help reduce ecological planning risks associated with the Proposed Development. Experience liaising with clients throughout all stages of the ecological planning report process. - Experience advising and completing ecological reports/site surveys for a wide range of Proposed Developments including bog restoration, river restoration, felling forestry, upgrades to waste water treatment plants/water treatment plants, transport, renewable energy developments (wind and solar farms development), residential, hospitality and tourism, social developments, primary, secondary and third level educational developments throughout the country.

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Practical Skills & Aptitudes	> Confident, Logical, Self-motivated. > Confident with botanical, habitat, mammals and bird ID skills > Confident speaking directly and liaising with clients. > Habitat assessment and identification using Fossitt 2000. > Competent in using QGIS and ArcGIS online for creating fieldmaps and for habitat mapping.
Management/ Supervision	> Kate O'Donnell, Project Ecologist > Colin Murphy, Project Ecologist > Sarah Mullen, Project Director (Ecology) > Pat Roberts, Principal Ecologist > John Hynes, Ecological Director
Interpersonal & Communication Skills	> Dependable, positive, team player. > Comfortable using MS Teams and in person (in fast paced environments). > Strong communication, organization and time management skills. > Skills liaising with colleagues, clients, landowners and colleagues on various projects to meet deadlines.
Licenses Held	> Full, clean, Irish drivers' license. > Current Safe Pass holder > Manual handling course > First Aid





Kate O'Donnell

CURRICULUM VITAE

Kate is a Senior Ecologist in MKO with over 6 years' experience in consultancy. Kate holds a BSc. (Hons) in Ecology and Environmental Biology from UCC and a Level 8 Special Purpose Award in Digital Mapping and GIS from GMIT. Kate has extensive experience in multidisciplinary ecological surveys, Stage 1 and Stage 2 Appropriate Assessment and Ecological Impact Assessment reporting. Kate's key strengths are technical report writing, GIS mapping, terrestrial ecology surveys and botany.

Current Role	Senior Ecologist
Qualifications	➤ BSc. (Hons) Ecology and Environmental Biology (2019), UCC. ➤ Level 8 Special Purpose Award in Digital Mapping and GIS (2021), ATU. ➤ Certificate of training in Freshwater Pearl Mussel Surveying (2022). ➤ ILM Certificate – Level 4 Award in Leadership and Management (2024). ➤ Associate Member of CIEEM
Years of Experience	➤ Senior Ecologist at MKO (July 2025 – Present) ➤ Project Ecologist at MKO (July 2022 – July 2025). ➤ Ecologist at MKO (February 2022 – July 2022). ➤ Ecologist at RPS (January 2021 – January 2022). ➤ Graduate Ecologist at RPS (June 2019 – December 2020). ➤ Dalkeith Reserves Project Group volunteer (June – August 2018).
Relevant Experience	➤ Multidisciplinary ecological field surveys for a range of projects including road upgrade and realignment schemes, flood relief schemes, IDA developments, sewerage schemes and wind farms. ➤ Extensive experience writing Appropriate Assessment Screening Reports, Natura Impact Statements, Ecological Impact Assessments, Construction Environmental Management Plans, Constraints Studies and Biodiversity Chapters for Option Selection Reports and Environmental Impact Assessment Reports for large scale infrastructure projects. ➤ Site supervision as an Ecological Clerk of Work. ➤ Large scale habitat mapping for road developments. ➤ Terrestrial mammal surveys for road developments and flood relief schemes.
Practical Skills & Aptitudes	➤ Strong botanical ID skills of both vascular and non-vascular plants ➤ Skilled in identifying habitat types as per Fossitt (2000) and identifying potential Annex I habitat types. ➤ Strong technical report writing skills (AASR, NIS, Biodiversity Chapters, EcIA). ➤ Mapping using QGIS, MapInfo and ArcGIS. ➤ Mammal surveys including otter and badger. ➤ Invasive species survey/ management. ➤ Freshwater Pearl Mussel Surveys
Management/ Supervision	➤ Project Manager leading a team of four ecologists





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Interpersonal & Communication Skills

- > Liaising with clients and landowners.
- > Strong time management skills.
- > Team building and mentoring skills.

Licenses Held

- > Full clean Irish driving license.
- > Current safe pass holder.
- > Manual handling course completed.



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Kate Leahy

CURRICULUM VITAE

Current role	Bat Ecologist
Qualifications	➤ BSc (Hons) in Zoology, University of Galway
Memberships	➤ CIEEM Qualifying Member ➤ Botanical Society of Britain and Ireland ➤ BirdWatch Ireland
Years of experience	2 years
Relevant experience	➤ Carrying out bat surveys and providing technical report inputs for multiple wind farm projects, for example: • Cooloo Wind Farm, Co. Galway • Cahermurphy Wind Farm, Co. Clare • Lackareagh Wind Farm, Co. Clare ➤ Appropriate Assessment, Natura Impact Statement and Ecological Impact Assessment preparation for public infrastructure and forestry ➤ Experience in habitat surveying, including Annex I habitat condition assessments ➤ Protected species surveys including otter, badger, marsh fritillary and bat
Key strengths and areas of expertise	➤ Production of high-quality writing ➤ Map creation and data management on QGIS and ArcGIS ➤ Knowledge of protected areas under the Birds Directive (79/409/EEC) and the Habitats Directive (92/43/EEC) ➤ Habitat identification according to Fossitt (2000) using relevés, species ID using keys
Interpersonal and communication skills	➤ Strong communication and teamwork skills ➤ Public engagement through Cell Explorers events during period of volunteer work ➤ Skilled in concise, informative writing – was awarded Best Project Zoology 2023, University of Galway for achieving the highest grade for final year project ➤ Recipient of the Employability Award, University of Galway
Licences and certifications	➤ Full, clean driving licence ➤ Manual handling ➤ SOLAS SafePass ➤ Water Safety Training ➤ Coillte Environmental Risk Assessment Course Certificate ➤ Remote Emergency First Response Level 1



Mairead Kavanagh

CURRICULUM VITAE

Mairead Kavanagh is an enthusiastic and passionate Ecologist, having joined MKO in May 2023. Mairead holds a BSc Botany and Plant Sciences, National University of Ireland, Galway. Since joining MKO, Mairead has been a valued member of the MKO Ecology Team. In her role as an ecologist, Mairead has gained experience in a range of different projects across several sectors, including public infrastructure, forestry, renewable energy, conservation and housing.

Current Role	Practitioner Ecologist
Qualifications	- BSc. Botany and Plant Sciences, National University of Ireland, Galway - Certificate in Digital Mapping and GIS (Geographical Information Systems)
Years of Experience	3 years' experience as an Ecologist with MKO
Relevant Experience	Assisting in the survey effort for multiple wind farm projects, including: - Ballivor Wind Farm, Co. Meath - Clonberne Wind Farm, Co. Galway - Maughanaclea Wind Farm, Co. Cork In addition to leading the survey effort and assisting in the production of EIA reports for a number of wind farms currently at the pre-planning stage. - Preparation and production of Appropriate Assessment Screening Reports and Natura Impact Statements for housing, public infrastructure, and forestry. - Assisting in the production of EIAR reports for multiple wind farm sites. - Experience in conducting a range of species-specific surveys, including wintering and breeding birds, marsh fritillary, and mammal surveys. - Leading survey effort for large scale projects, including wind farms and roads projects. - Supervising construction activities and working as an Ecological Clerk of Work (ECoW), carrying out operational and condition compliance monitoring of habitats, fauna and flora. - Carrying out invasive species surveys and developing management plans for their eradication and sustained management, including large scale mapping of Rhododendron in Killarney National Park.
Practical Skills & Aptitudes	- Experience with ArcGIS and QGIS - Field survey skills, including Annex I habitat assessment. - Good knowledge of Irish and EU environmental law, including the Habitats and Birds directives.

	Transect and emergence bat surveys, bat habitat appraisals and roost inspections.
Interpersonal & Communication Skills	- Liaising with clients, contractors and landowners - Presenting findings of ecological surveys in client meetings
Licenses Held	- Full clean class B drivers' license - Safe Pass - Manual Handling - Personal Track Safety (Irish Rail)





RUDRAKSH GUPTA

CURRICULUM VITAE

Bio	Rudraksh Gupta has worked as an ecologist with MKO since 2021 and is the bryophyte and fern specialist within the company. He provides advice and guidance to other members of the ecology team in respect of the identification of species and assessment of bryophyte rich habitats such as peatlands, woodlands and grasslands. Rudraksh has compiled bryophyte identification manuals for the MKO ecology team in relation to specific habitats. He has undertaken numerous detailed botanical surveys and in-house trainings of peatland, upland, grassland, woodland and habitats. In addition to the above, he has undertaken Ecological Impact Assessments for a variety of developments and prepared high quality Appropriate Assessment Screening Reports (AASR) and Natura Impact Statements (NIS). He is a member of the Botanical Society of Britain and Ireland (BSBI) and British and Irish Bryological Society (BIBS). He regularly attends meetings and field trips and has written associated newsletter articles. He is an Associate member of CIEEM.
Current Role	Ecologist and Bryophyte Specialist
Qualifications	➤ BSc (Hons) Botany from University of Delhi, India (2012-2015) ➤ MSc Environmental Sciences from Amity University, Noida, India (2016-2018) ➤ MSc Biodiversity and Conservation from Trinity College Dublin (2019-2021)
Years of Experience	➤ Over four years' experience working as an Ecologist in Ireland ➤ Four years' experience in conducting vegetation and habitat surveys
Relevant Experience	➤ A5 Road Scheme Project, Co. Tyrone – Dedicated Bryophyte survey ➤ Windfarms: Conducted Multidisciplinary Walkover Surveys at Balleydermot, Ballybroder, Kilsallagh, Cunlaghfadda, Cooloo, Ballivor, Dunneill and Umma More Windfarms. ➤ Renewable energy Projects – Dedicated peatland habitat assessments ➤ Conducted Annex 1 Alluvial Woodland Surveys at Hazelwood in Sligo, Cornagillagh and Derrycarne in Leitrim for Coillte & Native Woodland Trust by setting up 20x20m plots. ➤ Experience in writing Appropriate Assessment Screening Reports, Natura Impact Statements, Ecological Impact Assessments and EIAR Biodiversity Chapters for a wide range of developments including residential, renewable energy, nature restoration, transport infrastructure and forestry. ➤ Experience in preparing Appropriate Assessment Screening Reports (AASR) and Natura Impact Statements (NIS) for a wide variety of forestry operations, including clearfell and reforestation, thinning, continuous cover forestry (CCF), forest road construction, and clearfelling fire-damaged sites for the Coillte Eco Services 2020-2026 Project since July 2022.
Practical Skills & Aptitudes	➤ Recognised expert in bryophyte and pteridophyte identification. ➤ Surveying different habitats (bogs, woodlands, fens, heaths, grasslands), birds, mammals. ➤ Proficient in the Geohub Coillte Environmental Assessment Viewer and QGIS.





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Management/ Supervision	➤ Providing guidance and advice to the MKO ecology team in using bryophytes to assess protected habitats. ➤ Training and supervising graduate ecologists with report writing (Appropriate Assessments and Natura Impact Statements) for the Coillte Eco Services 2020-2026 Project and using Geohub Coillte Environmental Assessment Viewer.
Interpersonal & Communication Skills	➤ Teamwork: Conducting, habitat and botanical with a team of 2-3 people at MKO ➤ Highly motivated, enthusiastic and dependable ➤ Communication: Regularly getting in touch with clients and landowners
Licenses Held	➤ Safe Pass ➤ Manual Handling ➤ Coillte Environmental Risk Assessment Course Certificate (C09658) ➤ Associate Member of CIEEM



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CURRICULUM VITAE



Ryan Connors

Current Role	Bat Ecologist
Qualifications	> BSc in Zoology > MSc in Conservation Behaviour
Memberships	> Bat Conservation Ireland Member > CIEEM Qualifying member
Years of Experience	> 2
Relevant Experience	> Bat Ecologist – managing survey requirements for a variety of wind energy planning applications, as well as commercial, residential and infrastructure projects. This includes scope development, roost assessments, acoustic surveying, sonogram analyses, impact assessment and report writing. > Providing essential inputs to Environmental Impact Assessment Reports. > Carrying out multi-disciplinary field surveys for a range of habitats and species. > Supervision of vegetation removal and tree felling. > Experienced in passive acoustic monitoring, with proficiency in survey design and sound analysis using PAMguard software, acquired during postgraduate studies
Key Strengths & Areas of Expertise	> Assessment of structures and trees for bat roost potential. > Acoustic analysis of Irish bats. > Manual surveying of bats incl. dusk emergence and walked transects. > Data analysis and interpretation.
Practical Skills & Aptitudes	> Bat Surveys, Mitigation and Impact Assessments > Bio-acoustic sampling and sound analysis using Kaleidoscope Pro & PAMGuard > EIAR inputs > Ecological Clerk of Works > Habitat surveys (terrestrial & aquatic) > GIS Mapping (QGIS, ArcGIS), and satellite image analysis
Interpersonal & Communication Skills	> Pitching ideas or solutions > Experience working with clients and customers in both the service and consultancy industry. > Accepting constructive criticism > Excellent communication and team working skills developed while working on a vast array of projects, both in remote fieldwork settings or within large interdisciplinary professional teams.
Licenses Held	> Safe Pass > Manual Handling > Full clean driver's license > Bat derogation license





CURRICULUM VITAE

Bridin Foster is a graduate Ornithologist at MKO. She attended University College Cork where she completed a BSc (Hons) in Zoology. Bridin has less than one years' experience working with MKO in bird surveying, data management, mapping and and preparing Appropriate Assessment Screening Reports and Natura Impact Statements.

Current Role	Graduate Ornithologist
Qualifications	BSC in Biological, Earth and Environmental Science - Zoology
Industry Experience	<1 years experience as a graduate ornithologist at MKO
Relevant Experience	MKO Ireland April 2023 - Working as a graduate ornithologist - Working on the Coillte team (preparing Appropriate Assessment Screening Reports and Natura Impact Statements) UCC 2021-2022 - Carried out a behavioural study on the Drill monkeys in Fota Wildlife Park for the summer using focal and scan sampling methods. - Inputting data into excel and carrying out GLMM statistical models using R studios. - Presenting my findings to the keepers and management at Fota wildlife park Fota Wildlife Park and UCC 2022 - Received a Bursary from UCC and Fota Wildlife Park to continue researching drill monkey behaviour for 6 weeks. Fota Wildlife Park and UCC 2022 - Worked at the UCC stand for the Fota Wildlife Science Fair (education) UCC 2022 - Field trip course as part of my degree at the field studies council research center on the Isle of Cumbrae, Scotland. - I carried out a behavioural study on an oystercatcher population with another student. Fota Wildlife Park 2021 - Work experience of patrolling and education work at Fota Wildlife Park.
Key Strengths & Areas of Expertise	- Statistical analysis - Administrative software such as Microsoft Excel, Word and outlook. - QGIS for data management and workspace creation. - Bird survey methodology - Report writing (prescreening reports and nature impact statement reports) - Working as part of a team - Working with members of the public





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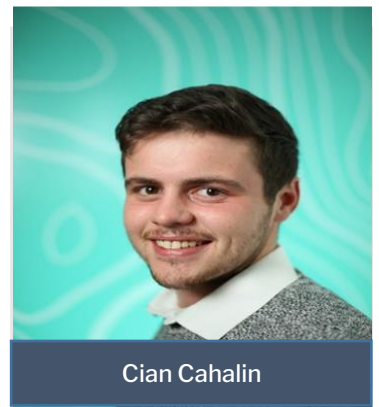
Interpersonal & Communication Skills	> Working as a waitress on Cape Clear island and wildlife patrolling in Fota wildlife park gave me experience in dealing with members of the public in an understanding and helpful manner. > Group work projects and presentations as part of my degree helped me gain experience in working with other people and public speaking.
Interests & Hobbies	> Birdwatching and observing wildlife. > Art, especially drawing animals and plants. > Playing guitar. > Swimming and walking in the countryside.
Licenses Held	> Safe Pass Card > Manual Handling course > ERA training course



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Cian Cahalin

CURRICULUM VITAE

Cian is an Ornithologist who took up his position in June 2023. Cian graduated with a Second-Class Honours Grade 1 B.Sc. (Honours) Degree in Wildlife Biology from Munster Technological University (MTU) in 2023. Cian has extensive experience in producing various kinds of scientific reports from his time in MTU. He also gained valuable field work experience with the college acquiring a wide base of knowledge regarding survey techniques and species identification.

Current Role	Project Ornithologist
Qualifications	Bachelor of Science (Honours) in Wildlife Biology Munster Technological University
Industry Experience	3 years +
Relevant Experience	(February 2026 – Present) (June 2024 – February 2026) – Ornithologist - Bird survey and data management experience. - Report writing experience (June 2023 – June 2024) – Graduate Ornithologist MKO (June 2022 – September 2022) -Student Ornithologist MKO
Key Strengths & Areas of Expertise	- Extensive Bird, Mammal, Freshwater invertebrate and Vegetation identification skills. - Strong data management skills, being proficient in several relevant software packages including QGIS, SPSS and R-studio. - A good knowledge of various types of survey methodologies including those for Bird, Mammal, and vegetation surveys. - Well versed in European and Irish legislation pertaining to the protection of the natural environment
Interpersonal & Communication Skills	- My time in college provided me with a strong ability to communicate which helps in drafting scientific reports and explaining said reports in a non-technical manner. - My time in the hospitality sector has provided me with good interpersonal skills ensuring customer satisfaction while also managing other team members.
Interests & Hobbies	- My hobbies include Sailing, Skiing, Rugby, Hiking, Golf and Bird watching. - I also have a keen interest in historical events and various world mythologies
Licenses Held	- Full Clean Irish driving license - RYA Powerboat level 2 Certificate - VHF Radio license - Canoe level 2 certificate - Safe Pass





Conor Geoghegan

CURRICULUM VITAE

Conor Geoghegan is an Ornithologist at MKO. He attended National University of Ireland where he completed a BSc (Hons) in Environmental Science. Conor has two years' experience working with MKO in bird surveying, report writing and QGIS mapping. He has experience in carrying out bird surveys for a variety of proposed developments, primarily including windfarms and flood relief schemes.

Current Role	Practitioner Ornithologist
Qualifications	➤ NUIG Environmental Science Graduate, 2.1 grade achieved. ➤ Research assistant internship on the Grey Partridge Project.
Years of Experience	➤ 2 years
Relevant Experience	➤ Working as a full-time practitioner ornithologist for two years now. ➤ Many years of experience in birding as a hobby. ➤ 6-month internship as a research assistant in the applied ecology unit of NUIG studying the effects an agri-environmental scheme on invertebrate diversity and abundance to assess its conservation benefits for the protected grey partridge.
Practical Skills & Aptitudes	➤ Regular use of Microsoft excel and word for data management and reporting. ➤ Bird and Invertebrate ID. ➤ Surveying techniques relevant to bird identification and data collection. ➤ Extensive use of QGIS for field surveys and data analysis, including the creation of survey templates for new sites. ➤ Experience in preparing invoices and setting up rapport projects. ➤ Experience in conducting recce site visits and habitat appraisals for various species.
Management/ Supervision	➤ Accompanying graduate ornithologists to help provide training in bird ID, survey techniques, data collection and QGIS mapping in the field ➤ Weekend manager on Ballyconnell pig farms from 2018-2021.
Interpersonal & Communication Skills	➤ Experience coordinating surveys alongside members of the ornithology and ecology teams in MKO. ➤ Liaising with colleagues and clients to organize survey schedules and site visits. ➤ Worked in laboratory conditions requiring clear and concise communication. ➤ Co-ordinated a team of employees and distributed work fairly.
Licenses Held	➤ Breeding red grouse surveying license ➤ Safe pass and manual handling certificate ➤ Full Irish driver's license





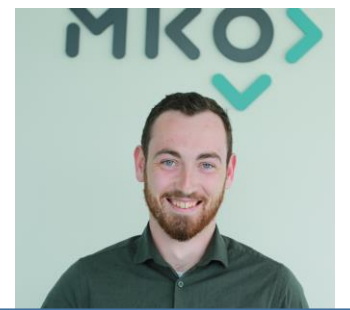
John Downes

CURRICULUM VITAE

John Downes is an Ornithologist at MKO. He attended the University of Galway where he completed a BSc (Hons) in Environmental Science. John has experience working with MKO in bird surveying, data management and mapping. He has experience in carrying out bird surveys for a variety of proposed windfarm developments.

Current Role	Ornithologist.
Qualifications	NUIG Environmental Science Graduate, 2.1 grade achieved.
Industry Experience	<2 Years.
Relevant Experience	- Full time employment as a field ornithologist with MKO. - Experience from birding as a hobby. - Microsoft excel and data management. - Trained in bird and habitat ID. - Surveying techniques relevant to bird identification and habitat management.
Key Strengths & Areas of Expertise	- Strong observational skills and a keen aptitude for fieldwork and surveys. - Solo and remote working. - Navigation of rural and remote areas both on foot and driving. - Experienced in habitat mapping and classification. - GIS mapping and data management.
Interpersonal & Communication Skills	- Effective communicator in matters both written and verbal. - Many years of experience working effectively as part of a team. - Experienced in working with the public.
Licenses Held	Full, clean driver's license.





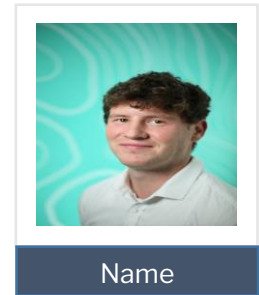
Jack Kennedy

CURRICULUM VITAE

Jack Kennedy is a Field Ornithologist with MKO Ltd., having graduated with a BSc(Hons) Zoology from University College Cork. He has carried out seabird project work for Port of Cork and Birdwatch Ireland Black Guillemot survey, and upland fieldwork for the UCC Hen Harrier project SHINE. Through this practical experience Jack has a broad knowledge and skillset in both marine and terrestrial ecology. He also has strong skills in IT with Microsoft packages, data handling in Excel, SPSS and R/R Studio statistical softwares and use of MapInfo for ecological data visualization. Within the Ornithology Team at MKO he has collected, compiled, mapped and analyzed data for several windfarm projects.

Current Role	Field Ornithologist
Qualifications	➤ BSc. (Hons) Zoology – University College Cork
Years of Experience	➤ 3 years
Relevant Experience	➤ Proficient in ecological survey techniques: Habitat mapping, vegetation surveys, small mammal surveying, transect and vantage point bird surveys. ➤ Microsoft Office specialist certified in Word, Powerpoint, Excel. ➤ Interpretation and visualization of data using MapInfo for inclusion in EIA. ➤ Vantage point surveying & disturbance monitoring at Port of Cork Common Tern colony. ➤ Surveyor for BirdWatch Ireland 4th National Seabird survey. ➤ JNCC Marine Mammal Observer. ➤ 2 months marine surveying experience.
Practical Skills & Aptitudes	➤ Strong working knowledge of R/R Studio in ecological data visualisation and interpretation. ➤ Report writing, data interpretation. ➤ Planning and conducting observational field surveys at a number of windfarm sites around Ireland. ➤ Fieldwork survey techniques. ➤ Small watercraft handling & working experience at sea.
Interpersonal & Communication Skills	➤ Presentation of thesis findings to University College Cork staff and students, Port of Cork and NPWS staff. ➤ Liaising with Irish Naval Service, Marine Institute and Port of Cork authority; agricultural community, and general public on a range of project work.
Licenses Held	➤ Full drivers licence 2014 (B/BE) ➤ STCW-95 Survival at Sea, Damage Control and Fire Fighting.





Name

CURRICULUM VITAE

Current role	Ornithologist
Qualifications	➤ B.Sc. (Hons) in Field Biology And Wildlife Tourism (2020), Second Class Honours, ➤ Institute of Technology, Tralee
Years of experience	➤ 3.5 years post-graduate experience in environmental consultancy
Relevant experience	➤ Experience carrying out a wide range of ornithological surveys in line with recognized methodologies, including vantage point surveys, breeding/wintering walkover surveys, waterbird distribution surveys, breeding raptor surveys, species specific surveys (hen harrier, woodcock, barn owl, red grouse). ➤ Specialised and species-specific surveys and modern techniques utilising drone surveys in identifying breeding raptor species. ➤ Predominantly working on pre-construction/operational wind farm sites, flood relief schemes and greenway projects across several counties. ➤ Proficient in compiling and managing data and QGIS experience. ➤ Liaising with clients, subcontractors and private landowners. ➤ Report writing experience: end of season reports, interim reports.
Practical skills and aptitudes	➤ Bird ecology and identification. ➤ Report Writing for large coastal and onshore developments ➤ Data management and IT skills – Microsoft Office, QGIS, QField ➤ Research/information gathering. ➤ Data management. ➤ Sample collection – terrestrial and aquatic invertebrates, vegetation, water and soil samples. ➤ Habitat mapping.
Interpersonal & Communication Skills	➤ Great communication skills when working as part of a team or dealing with clients on a highly professional level. ➤ Works as part of an experienced multi-disciplinary team within an environmental consultants.
Licenses held	➤ Full clean driving license ➤ Safe Pass ➤ Manuel Handling Course ➤ Coillte ERA Training ➤ Remote Emergency Care – REC3 certificate ➤ Previously held a red grouse tape and lure license.

Jennifer Snook

Address: 9 Sli Na gCapall, Craughwell, Co. Galway | **Tel:** 087 754 1690
Email: jennifer.snook@hotmail.com | **LinkedIn:** linkedin.com/in/jennifersnook123

Personal Summary

- I am an enthusiastic and dedicated worker with over three years' experience in ecological consulting and over fifteen years in administration and client-facing roles.
 - I completed a Business Management Diploma to enhance my skill set, and in 2023 I graduated from Munster Technological University with a Bachelor of Science (Honours) in Wildlife Biology.
 - I am actively seeking to utilise these skills and engage in a new role in a dynamic and challenging industry.
-

Education

Bachelor of Science (Honours) In Wildlife Biology [2019 – 2023]

Munster Technological University (MTU) | Tralee, Co. Kerry | www.traleeit.ie

Irish Wildlife | Outdoor Skills | Physics | Field Biology & Earth Science | Maths & Statistics for Science | Zoology 1 & 2 | Botany 1 & 2 | Microbiology | GIS | Health & Safety Outdoors | Environmental Science (Water, Soil & Air) | Soil Science | Ecology 1, 2 & 3 | Habitat Studies 1 & 2 | Nature Interpretation & User Impact Management | Research Methods | Wildlife Research Project 1 & 2 | Biodiversity | Land Use Management | Biostatistical and Geographical Data Applications | Environmental Protection | Biodiversity Conservation | Habitat Conservation Management | Environmental Impact Assessment

Management Diploma [2017 – 2018]

Pitman Training Kerry | Tralee, Co. Kerry | www.pitman-training.ie

Microsoft Office: Word, Excel, Outlook, and Powerpoint | Costing and Pricing | Professional Typing | Communications in an Organisation | HR Essentials | Time Management | Personalities, Profiles, and Plans | Introduction to Business Law | Bookkeeping | Understanding Business Accounts in Ireland |

Leaving Certificate with Honours [2007]

St Brigid's Secondary School Killarney

Employment History

Ecologist [2023 to Current] MWP | Tralee, Cork, Limerick & Galway

- Admin: Scheduling monthly ornithology survey with subcontractors, facilitating queries from clients and staff, ensuring all surveys are assigned and completed.
- Ecological & Ornithological surveys: site constraints, habitat mapping, multidisciplinary walkovers, invasive species, mammal trails, bat surveys, ornithological surveys, and habitat relevées.
- Report Writing: EcIA, EIAR, AA screening and NIS. Site specific briefing notes.
- Liaising with clients, stakeholders and project managers to ensure deadlines and targets are adhered to.

Graduate Ecologist [June 2023 – October 2023] MKO | Tuam Road, Co. Galway

- Surveys: site constraints, habitat mapping, multidisciplinary walkovers, invasive species, terrestrial mammal, bat and bird surveys, kick-sampling, drone surveys, and habitat relevées.
- Report Writing: EcIA, EIAR, AA screening and NIS.
- QGIS Mapping: EU and Nationally designed sites, river catchments, groundwater vulnerability, habitat mapping.
- Data Management: Generating reports, NBDC and NPWS records, uploading data, map creation, and report formatting.

Student Ornithologist [April 2022 - September 2022] MKO | Tuam Road, Co. Galway

- Completing surveys including breeding woodcock surveys, breeding raptor surveys, breeding, walkover surveys, and dusk bat survey.
- Compiling Datasets: SCI/SPA Species Lists, Trail Camera Footage, Masterbird, Breeding Birds
- GIS: Generating survey maps, site locations, and generating flight paths.
- Subconsultant liaison: Processing quotes, generating purchase orders, approving invoices, reviewing, correcting, and digitising survey data.

Front Office Receptionist [May 2021 – September 2021] Meadowlands Hotel | Tralee, Co. Kerry

- Welcoming guests to the hotel; general check-in and out procedures.
- Dealing with large volumes of phone calls, generating reports, and customer queries.
- Utilising HotSoft and TablePath to deal with queries quickly and efficiently.
- Recommending local tourist attractions and amenities.

Volunteer Zookeeper [May 2020 – September 2020] Eagles Flying Sanctuary | Ballymote, Co. Sligo

- Educating the public, giving guided tours, and answering wildlife queries.
- Feeding, training, and developing and implementing enrichment activities for the animals.
- Cleaning, maintaining and repairing enclosures.
- Administration of treatment and specialised diets.

Customer Service Associate [August 2018 – December 2018] Amazon | Remote Work

- Dealing with customer queries and complaints.
- Ensuring service levels were reached and providing excellent customer service.
- Coaching team members to improve quality targets.

Office Administration [January 2018 – August 2018] Munster Joinery | Ballydesmond, Co. Cork

- Data entry, compiling reports and recording client queries.
- Organising appointments and contacting clients to confirm.
- Constantly reviewing technical manuals to ensure correct information is issued.

Front Office Receptionist [2015 - 2018] Ballygarry House Hotel | Tralee, Co. Kerry

- Handling queries by phone, email, or in person with exceptional customer service.
- Lodgments of large cash and card transactions and ensuring daily lodgements are correct.
- Stationary Manager: Regular stock takes, controlling stock levels, and ensuring competitive prices.

Skills

- | | | |
|--------------------|--------------------|-------------------------------|
| • Microsoft Office | • Customer Service | • Time Management |
| • Remote First Aid | • Ecology | • AA & EIA |
| • Manual Handling | • Problem-Solving | • Communication |
| • Habitat Mapping | • QGIS | • Full Clean Driver's License |
| • Safe Pass | • BNG 4.0 Metric | • Teamwork |

Interests and Achievements

- Accredited NWC (National Woodland Conservation) Ecologist (2024).
- I enjoy attending nature and biodiversity events.
- I completed NStEP Introductory Class Rep Training Diversity Training and Student Voice (2020).
- I enjoy keeping fit and healthy by walking, hiking, and going to the gym.
- I completed FIBKA Beginners Beekeeping Course (2021).
- I enjoy volunteering at a range of animal shelters.
- I have been awarded employee of the month on numerous occasions.
- I co-founded and coached the Sliabh Luachra Camogie Club.
- I also enjoy learning new skills and undertaking new training wherever possible.

References

I have a number of references available upon request.



Katie Grice

CURRICULUM VITAE

Current role	Ornithologist
Qualifications	- B.S.c (Hons) Zoology - University College Cork (2019 - 2023) - Student ornithologist with MKO (May - August 2022) - Graduate ornithologist with MKO (September 2023 - September 2024) - Ornithologist with MKO (September 2024 - present)
Memberships	- Member of Birdwatch Ireland - Qualifying CIEEM member
Years of experience	<2 years professional experience conducting bird surveys at student, graduate and practitioner levels 5+ years hobbyist birding experience <2 years professional experience writing end of season reports, interim reports and annual monitoring reports
Relevant experience	- Conducting a range of ornithological surveys including vantage point surveys, breeding raptor, waterbird distribution, breeding & winter walkovers, and species-specific surveys incl. breeding woodcock and hen harrier roost surveys - Data processing and management using Microsoft Excel and QGIS - QGIS experience in storing and manipulating collected data in preparation for ornithology reports
Key strengths and areas of expertise	- Ability to follow methodologies for a number of different ornithological surveys - Bird ID skills encompassing various taxa (raptors, passerines, waterbirds), both visually and aurally - Knowledge of bird ecology and behaviour - Classifying habitats according to Fossitt's Guide to Habitats in Ireland
Practical skills and aptitudes	- Good IT skills and experience working with Microsoft Office Suite and QGIS - Report writing and scientific writing
Interpersonal & Communication Skills	- Ability to work both independently and as part of a team - Engage in regular meetings with colleagues to discuss survey findings - Co-ordinating survey schedule with colleagues
Licenses held	- Coillte Environmental Risk Assessment Certificate - Current SafePass holder



Louis de Vries

CURRICULUM VITAE

Current role	Ornithologist
Qualifications	Qualifications from Université Jean Monnet (Saint-Etienne – FRANCE): > 2016 - BSC – Life Sciences > 2018 - MSC – Ecology and Ethology
Years of experience	> 1.5 years as an ornithologist in environmental consultancy > 3.5 years in Marine biology > 0.5 years in scientific research in aquatic biology
Relevant experience	> Louis has extensive experience in ornithological surveys, working primarily on pre-construction wind farm sites across Ireland. He has conducted a variety of surveys, including vantage point, walkover, and waterbird surveys, as well as more specialized surveys for species like hen harrier, red grouse, kingfisher, and cormorant. Louis is proficient in GIS software and R studio, which he uses to compile, map, and analyze project data. He also prepares interim and end-of-season reports. > Louis has over three years of experience in marine conservation, focusing on ship strikes and marine mammal surveys. He has managed projects, led surveys, and conducted scientific mediation. His experience demonstrates a commitment to marine conservation and strong skills in project management, research, and data analysis.
Practical skills and aptitudes	> An tSrbhis Oideachais Leanunaigh agus Scileanna (SOLAS) Safe Pass > Manual handling course
Interpersonal & Communication Skills	> Louis is a skilled ornithological report writer, producing high-quality interim and end-of-season reports for clients. He also has experience managing teams involved in data collection during his previous experiences.
Licenses held	> 2014 - EU driver's license > 2021 - Boat license > 2024 - JNCC Marine Mammal Observer (MMO) involving guidelines for industry. This course also incorporated a Certificate of Training in Irish Mitigation and Guideline for Industry using NPWS Service Guidelines
Physical/other	> Bird watching & wildlife photography > Travelling and discovering new cultures



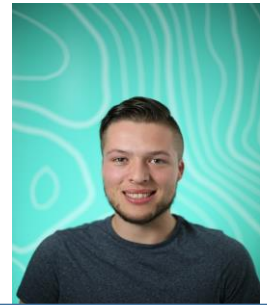
Laura Granicz

CURRICULUM VITAE

Current Role	Ecologist
Qualifications	➤ Master of Science in Biology – 2017 – University of Pecs - Specialization: Zoology
Years of Experience	➤ 4,5 years
Relevant Experience	➤ Ecologist – MKO (2022 march – ongoing): various tasks connected to bat surveys. ➤ Research Assistant – A Rocha France, Erasmus+ Program (2020-2021): wildlife surveys (bat acoustical survey, waterbird survey, dragonfly survey, reptile survey). ➤ Assistant research fellow – Institute of Soil Sciences and Agricultural Chemistry, Hungarian Academy of Sciences (2019-2020): soil ecology related fieldwork, laboratory work. ➤ Assistant Project Manager - Danube-Ipoly National Park Directorate, Hungary (2017-2019): bat related conservational project management.
Practical Skills & Aptitudes	➤ Practice in accomplish ecological surveys (roost surveys and acoustical surveys for bats, Capture Mark Recapture method for butterflies, refugia technique for reptiles, transect survey for dragonflies). ➤ Bat sound analysis (automatic, manual). ➤ Using stereo and compound microscopes, telescopes, camera traps, bat detectors, mammal live traps.
Management/ Supervision	➤ Previous experience in conservational project management.
Interpersonal & Communication Skills	➤ Good communication skills.
Licenses Held	➤ Bat roost disturbance license ➤ Safe pass



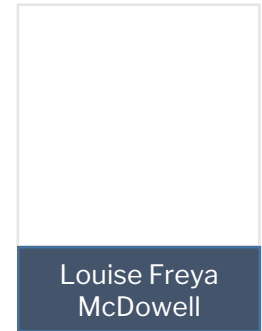
CURRICULUM VITAE



Luke Lambert

Current Role	➤ Practitioner Ornithologist June 2023-October 2024 ➤ Coillte Team October 2024-present
Qualifications	➤ BA (MAJOR) III in University College Cork, majoring in Geography and minoring in English ➤ MRes (Master of Research) with the Department of Geography in University College Cork, with a thesis titled "Urban Green and Blue Space in Cork City and its importance to bird diversity"
Years of Experience	➤ <two years' experience with MKO
Relevant Experience	➤ Field Surveying for 12 windfarm projects such as Ardderroo, Mayo Windfarm and Richfield, consisting of Vantage Point, Walkover, Hen Harrier Roost, Breeding Raptor, Red Grouse and Woodcock surveys. ➤ Inter-tidal surveys for Rosslare/Wexford Town Flood Relief Scheme ➤ A year and a half as a research assistant with University College Cork on the ECHOES Project (Effect of Climate Change on bird habitats across the Irish Sea), working as a fieldworker collecting, monitoring and uploading data from satellite tagged Eurasian Curlew at Ballyteige Burrow, Wexford. ➤ Three months as a Swift surveyor with Birdwatch Ireland in Dublin. ➤ Published research paper in geographies 1(3) journal in 2021 titled "The importance of connected and interspersed urban green and blue space for biodiversity: A case study in Cork City, Ireland".
Practical Skills & Aptitudes	➤ Field surveying experience in coastal, farmland, upland and forestry habitats ➤ Interim and End of Season Reporting ➤ QGIS mapping ➤ Data analysis, compilation and mapping ➤ Wildlife Photography
Management/Supervision	➤ Management of survey and map data for 8 projects within the Ornithology team ➤ Project Set-up and survey design experience
Interpersonal & Communication Skills	➤ Part of the fieldwork and community engagement teams with the ECHOES Project, including giving presentations and walk and talks to scout and nature groups. Also manned information stands at various public events in Ireland. ➤ Landowner engagement ➤ Working in a team, liaising on surveys and reporting any important observations.
Licenses Held	➤ SOLAS Safe Pass ➤ Coillte ERA Course

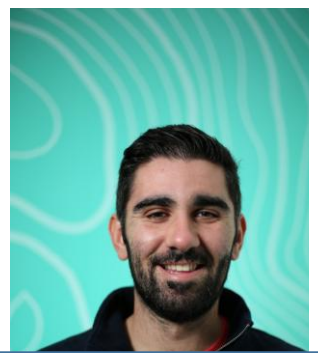




Louise Freya
McDowell

CURRICULUM VITAE

Current role	Seasonal Field Ornithologist
Qualifications	> BSc Zoology (Hons) National University of Ireland, Galway
Years of experience	> First ornithological role > 2 years working outdoors
Relevant experience	> Background in marine mammal observation, certified JNCC MMO. > Native species expert and guide at Galway Atlantaquaria, member of visitor experience team included beach cleans and guided beach tours, educational activity development. > PADI Scuba Instructor and island guide, Co. Kerry. > IWDG Volunteer surveyor onboard Ulysees.
Key strengths and areas of expertise	> Personal birding experience, good ID capabilities. > Experience in habitat surveying methods/techniques. > Wildlife photography > Experience in water sampling
Practical skills and aptitudes	> Powerboat license, competent crew member > Certified First Aid Instructor.
Management/ supervision	> Captain of NUIG Surf Club 2020-2022 > Auditor ZooSoc 2021-2022 > Held supervisor roles in service industry, equipped with good interpersonal and leadership skills.
Interpersonal & Communication Skills	> Tour guide, surf instructor, beach lifeguard, scuba instructor, logistics officer.
Licenses held	> Full drivers licence > Powerboat licence



Marcus Hogan

CURRICULUM VITAE

Current Role	Ornithologist
Qualifications	➤ BSc. (Hons) Microbiology (Level 8), University of Galway (2020)
Memberships	➤ Birdwatch Ireland ➤ Irish Whale and Dolphin Group
Years of Experience	➤ 1.5 years in ornithology (MKO) ➤ 20+ years in ornithology (personal)
Relevant Experience	➤ October 2022 – Present; Ornithologist for MKO ➤ 2023 – present; JNCC MMO certified ➤ 2022 - present; Irish Whale and Dolphin Group – local coordinator for Co. Galway. ➤ 2022 – present; IWDG WhaleTrack Programme – collaborator ➤ 2021 – present; IWDG stranding network volunteer ➤ 2021 – present; Irish Basking Shark Project – collaborator ➤ 2021 – present; Fair Seas campaign collaborator ➤ 2021 – Research assistant, Thiele Lab, College of Medicine, University of Galway
Practical Skills & Aptitudes	➤ Ornithology and ecology skills ➤ Report writing ➤ Data management ➤ IT skills (i.e., Microsoft Office, ArcGIS, QGIS) ➤ 4+ years experience operating UAVs ➤ Countless hours at sea – powerboating, spotting, sailing, diving.
Management/ Supervision	➤ My role as the local coordinator for the IWDG in Galway is to manage local events/watches and to gather and validate cetacean sightings off the west coast, in particular bottlenose dolphins in the inner Galway Bay area. ➤ As part of the IWDG strandings scheme I assist in educating the public on how to deal with cetaceans washed ashore either alive or deceased. ➤ In college I served as class representative for both third and fourth year of my degree along with committee positions in the diving, rowing and equestrian clubs.





Planning and
Environmental
Consultants

Interpersonal & Communication Skills

- Regularly update colleagues on important bird observations on site.
- Regularly engage with members of the public when conducting surveys.
- As a local coordinator for the IWDG I have extensive experience dealing with both the public and the media including national broadcasters RTE and TG4

Licenses Held

- Full Category B Drivers Licence
- Safe Pass
- INSS Power Boating certificate (level 2)
- VHF Operator's Licence
- Coastal Navigation Cert.
- Drone licence – A2 certificate of competency



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Nessa Lee

CURRICULUM VITAE

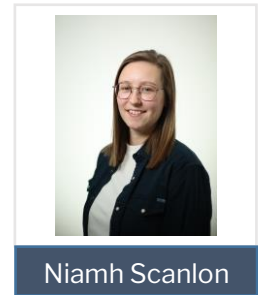
Nessa Lee is a Project Ornithologist at MKO. She attended National University of Ireland where she completed a BSc (Hons) in Environmental Science. Nessa has 4 years' experience working with MKO in project management, data management, report writing and bird surveying to name but a few. Nessa is also responsible for a pod of five field ornithologists. She has experience in carrying out bird surveys for a variety of projects including but not limited to proposed windfarm developments, as well as experience in bird monitoring at operational windfarms.

Current role	Project Ornithologist
Qualifications	➤ Bachelor of Science, Environmental Science, National University of Ireland, Galway
Memberships	➤ CIEEM Qualifying membership. ➤ Vincent Wildlife Trust
Years of experience	➤ 4 years
Relevant experience	➤ Viewshed Analysis & Collision Risk Modeling for internal and external projects. ➤ Bird surveying and mapping on sites across the country, in a multitude of habitats. ➤ Environmental Impact Assessment, end of season & interim report writing. ➤ Data management and collation for EIAR ornithology chapters, FI requests and sub-con. ➤ Data reviewing reports for clients on external data. ➤ Management of up to 15 sub-consultants monthly. ➤ Training of new employees as well as providing training to established members of staff and whole company knowledge shares ➤ Carried out work on over 150 diverse projects i.e. pre-planning windfarm sites, operational sites, flood relief schemes etc.
Practical skills and aptitudes	Professional ➤ Interpersonal skills ➤ Effective communication ➤ Public Speaking Technical ➤ Project management ➤ Data compilation, management, and analysis ➤ Report Writing
Management/supervision	➤ Level 4 Award in Leadership & Management ➤ Management of up to 10 projects within the ornithology team ➤ Management and work assignment for over 15 subconsultants monthly ➤ Project set-up and survey design experience
Interpersonal & Communication Skills	➤ Experience of liaising with landowners for the allowance of site access ➤ Robust relations with multiple clients in the wind farm sector; experience with updating clients and colleagues with important observations on survey sites. ➤ Interdepartmental relations & liaising on large scale wind farm projects



Licenses held

- > Full Irish Drivers License (Road Safety Authority).
- > An tSerbhis Oideachais Leanunaigh agus Scileanna (SOLAS) Safe Pass.

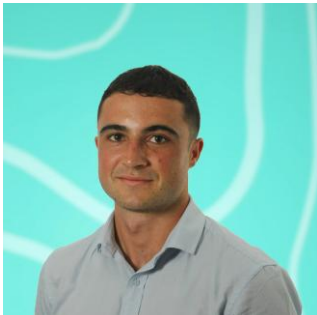


CURRICULUM VITAE

Current role	Field Ornithologist
Qualifications	➤ B.Sc. (Hons) in Field Biology and Wildlife Tourism (2020), Second Class Honors, Institute of Technology, Tralee.
Memberships	➤ Bird Watch Ireland
Years of experience	➤ 3 years
Relevant experience	➤ Experience using the SNH guidelines for ornithological surveys such as vantage point surveys, waterbird surveys, breeding/ wintering walkover surveys, hen harrier roost surveys, breeding raptor, red grouse, and woodcock surveys. These surveys are carried out on pre-construction and operational windfarms across the Northwest of Ireland. ➤ Report writing (Interim and end of season). ➤ Analyzing data collected from the field. ➤ Attending training courses online carried out by BTO.
Practical skills and aptitudes	➤ Bird ecology and identification. ➤ Proficient in various software programs including QGIS and ArcGIS. ➤ Good data input and management skills. ➤ Experience in habitat mapping techniques using Fossits guide. ➤ Good mammal, vegetation, and tree identification skills.
Interpersonal & Communication Skills	➤ Strong interpersonal communication and written skills gained throughout my college years allow me to produce scientific reports and communicate well with lecturers and peers. ➤ I am highly motivated and can take direction and advice from senior staff to reach deadlines and goals.
Licenses held	➤ Full clean Irish driving license for 10 years. ➤ Safe Pass ➤ Manual Handling Course. ➤ Coillte ERA Training. ➤ Remote Emergency Care – REC3 certified. ➤ Previously I held a red grouse tape and lure license. ➤ Gun License.



CURRICULUM VITAE



Oisín Casasin

Oisín is a Graduate Ornithologist who took up his position in September 2024. Oisín graduated with a First Class Honours in Wildlife Biology from Munster Technological University in 2024. Before working for MKO, Oisín worked with NPWS as a Hen Harrier Warden in Co. Clare. During his time at MTU, Oisín has gained valuable ornithological skills.

Current role	Graduate Ornithologist
Qualifications	> B.Sc. (Hons) Wildlife Biology: First Class Honours
Years of experience	> Over 1 year experience between environmental consultancy and public authority jobs.
Relevant experience	> September 2024-present: Graduate Ornithologist at MKO. > May-August 2024: Hen harrier warden for NPWS. > March-August 2023: Student Ecologist at MWP.
Practical skills and aptitudes	> Experience carrying out bird surveys including Vantage Point, Walkover and Breeding Raptor. > Experience carrying out Waterbird Distribution surveys, including surveying along the banks of the River Shannon. > Targeted bird surveys for Woodcock, Kingfisher, Sand martin, Hen harrier and Red grouse. > Experience in conducting bat surveys, habitat surveys and invertebrate surveys. > Experience using Microsoft Office, QGIS and RStudio.
Interpersonal and communication skills	> Reporting > Preparation of ornithological reports
Licenses held	> Full, Clean Driver’s Licence > SOLAS Safe Pass > Manual Handling > Kayaking Level 2
Physical/ other	> Hobbies include outdoor pursuits: hillwalking, kayaking, surfing, football



Peter Capsey

CURRICULUM VITAE

Current role	Project Trainer, Ornithology
Qualifications	- BA Modern Languages and Information Systems - Leadership Development Programme, IMI - Internal Quality Auditing - Time Management
Memberships	- Membership of Chartered Institute of Ecology and Environmental Management (CIEEM) - BirdWatch Ireland
Years of experience	- Four years with the Ornithology team at MKO. - Thirty years' experience in the IT and Telecommunications industries.
Relevant experience	- I have worked primarily on wind farm projects, carrying out vantage point, breeding raptor, Hen Harrier roost and seasonal walkover surveys, as well as waterbird distribution surveys in the locality of the sites. - I have carried out coastal bird surveys for Greenway projects. - I have been responsible for training and mentoring new recruits to the MKO Ornithology team in the field since 2022. The training specifically covers the methodologies used when completing the various types of survey that the Ornithology team undertakes. - I have over 40 years' experience in birding. During those years I have undertaken various ornithological surveys in the Republic of Ireland and Great Britain. - My professional background before joining MKO was in project and quality management, primarily in the IT and Telecommunications industries.
Key strengths and areas of expertise	- Methodologies for surveys carried out by the MKO Ornithology team. - Planning the monthly survey schedule used when training new members of the MKO Ornithology team, and carrying out the scheduled training. - Bird identification.
Practical skills and aptitudes	- Safe Pass. - First aid for lone workers.
Management/supervision	- Two years' experience of planning the training schedule and leading the training for new members of the MKO Ornithology team, and mentoring the new members as required once the training is complete. - Eighteen months subcontracting as Senior Project Manager at the Road Safety Authority.



	➤ Five years as Program Quality Manager at LMI Ericsson, managing a team of 10 quality engineers. ➤ Eighteen months as Quality Manager at the Digital Enterprise Research Institute, NUI Galway. ➤ Two years as Quality Manager, managing team of 2 quality engineers, and Customer Support Manager, managing team of 6 support engineers, at Softancy software house.
Interpersonal & Communication Skills	➤ Training and mentoring new members of the Ornithology team in survey methodologies. ➤ Experience of presenting to teams at all levels, including senior management. ➤ Leader of birding walks around east County Galway for various organisations and schools, for example NUI Galway, BirdWatch Ireland, the Irish Wildlife Trust and national schools situated in east County Galway.
Licenses held	➤ Full, clean drivers' license. ➤ Breeding Red Grouse survey license from NPWS.
Physical/other	➤ Surveyor of Rahasane Turlough for the Irish Wetland Bird Survey (I-WeBS) since 1998. ➤ Surveys in Co. Galway for 2007-2011 British and Irish Breeding Bird Atlas. ➤ British Trust for Ornithology Breeding Bird Survey in Somerset, near Bristol. ➤ Monitoring of Peregrine Falcon nest site in Bristol with Bristol Ornithological Club. ➤ Treasurer of Bristol Ornithological Club for one year.



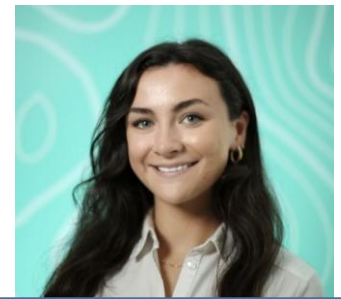
Patrick Manley

CURRICULUM VITAE

Patrick Manley is a Senior Ornithologist with MKO with over 9 years of experience in environmental consultancy. Patrick holds BSc (Hons) in Geology from University College Dublin. Since joining MKO, Patrick has worked on wind farm projects, solar farm projects, residential developments, data centres, county council projects and National Parks and Wildlife Service projects. He specialises in ornithological consulting, including Environmental Impact Assessments and has specialist knowledge in designing, executing and project managing ornithological assessments, primarily in the renewable industry. Prior to joining MKO in August 2016, Patrick gained experience through his involvement in several bird conservation projects, including protected curlew, seabirds and waders. Within MKO, Patrick plays a large role in the management and confidence building of junior members of staff and works as part of a large multi-disciplinary team to produce EIAR chapters.

Current Role	Senior Ornithologist
Qualifications	➤ Bachelor of Science (Hons) Geology, UCD (2013).
Memberships	➤ Full member CIEEM
Years of Experience	➤ 9 years' experience in designing, executing and project management of ornithological assessment in the renewables sector. Patrick has an additional three years' experience in wildlife conservation.
Relevant Experience	➤ Experience in Environmental Impact Assessments, primarily for wind energy developments. ➤ Design of habitat enhancement plans for bird species of conservation concern, including hen harrier, whooper swan and waders. ➤ Experience in managing and coordinating the in-house survey team and sub-consultants and directly liaising with clients, landowners and other stakeholders. ➤ Bird surveying for a wide range of projects, including wind farms and solar farms. Survey methods include vantage point surveys, winter walkover surveys, breeding walkover surveys, wintering wildfowl distribution surveys and breeding raptor surveys.
Key Strengths & Areas of Expertise	➤ Bird surveying: Extensive experienced in a wide range of bird survey methods throughout Ireland for various environmental projects. Examples of these including Vantage Point Surveys (Following Scottish Natural Heritage guidance (SNH)), Breeding Raptor Surveys (following SNH & Hardey methods), Breeding Wader Surveys (following SNH, Brown & Shepherd and O'Brien & Smith), Breeding Woodcock (following Gilbert <i>et al.</i> methods), Migratory/Wintering Waterfowl (Following SNH and I-WeBS methods) and Red Grouse Tape Lure Survey (following NPWS & BWI methods). ➤ Data Management: Experience in collecting, collation and analysis of large data sets, writing of interim reports and end of season reports for projects and with the ecological applications of QGIS and MapInfo software. ➤ Project Management: Project manager for a number of wind farm sites, responsible for designing scope of works, coordinating surveys, liaising with clients and preparing reports. ➤ People management: supervises a survey unit within MKO's ornithology team.





Susan Doran

CURRICULUM VITAE

Susan Doran is an Environmental Scientist at MKO. She attended University College Cork where she completed a BSc (Hons) in Ecology and Environmental Biology. Susan has over 2 years' experience working with MKO in data and project management, analysis, surveying and mapping. Susan has also been responsible for sub-contractor management within the ornithology team. She has experience in carrying out the EIA for a variety of renewable energy developments, flood relief schemes and recreational developments as well as experience in monitoring at operational windfarms.

Current Role	Environmental Scientist
Qualifications	➤ Bsc in Ecology and Environmental Biology from University College Cork
Memberships	➤ Institute for Environmental Management and Assessment ➤ Chartered Institute of Ecology and Environmental Management ➤ British Ecological Society ➤ Botanical Society of Britain and Ireland ➤ British Trust for Ornithology
Years of Experience	➤ Over 2 years
Relevant Experience	➤ 2 years of project management ➤ 1.5 years people management ➤ 5 Years in Data Administration ➤ BTO ringing and handling of birds ➤ 1 Year wild marine mammal handling experience ➤ Bird surveying for 2 year in the field
Key Strengths & Areas of Expertise	➤ Administrative software such as Microsoft Excel, Word and Outlook ➤ QGIS for data management and workspace creation ➤ Bird survey methodology ➤ Vast experience dealing with the public.
Practical Skills & Aptitudes	➤ Bird ID by sight and call ➤ Data compilation, management and analysis ➤ GIS Mapping ➤ Statistical analysis ➤ Bird ID by sight and call





Management/ Supervision	> Management of a large team of over 20 subconsultants. > Managed reservations team in a 5* hotel for 4 years. > Training of new hires in current role and in past workplaces. > Project set-up and survey design in final year college thesis. > Data management in current role.
Interpersonal & Communication Skills	> Email and phone communication via client contact, sub-consultant management and hospitality experience. > Many experiences throughout education including group work, presentations and field work which all require a high level of communication skills and working well with others. > Successfully leading serval teams while working in hospitality and in animal rescue positions.
Licenses Held	> Full Irish Driver's License (Road Safety Authority). > INSS Power Boating certificate (level 2) > BTO ringing license. > Red Grouse Survey Licenses > Barn Owl Survey License



CURRICULUM VITAE 2023

Summary

My most recent position is working as a contract bird surveyor (April 2017-May 2023) monitoring wind farm sites. I have also worked and as a Marine mammal observer (August 2019) for marine dredging and drilling projects e.g., in Doolin, Loughs Foyle & Swilly. Bird and marine mammal survey for Aqualicense Ltd (2019) for a salmon farm.

Prior to that, I worked as a Fisheries Assistant with Inland Fisheries Ireland (December-August 2018). I was ageing bass scales, updating databases, assisting WFD estuary fish surveys, electro-fishing and designed a brochure for good handling of elasmobranchs.

From April 2016-2023 I worked as a contract Ornithologist doing wind farm bird surveys in Donegal, Leitrim, Sligo, Mayo, Offaly, Kildare and Galway for McCarthy Keville O'Sullivan Planning Consultants. I have also worked as an MMO for Aquafact, IWDG, NPWS, Roadbridge, Atlantic Towage and Irish Drilling. My previous contracts include;

- Fisheries Technician - review and report on "*Salmon policy in other jurisdictions*" and compiling salmon stock data for Inland Fisheries Ireland (August-December 2017).
- Marine Mammal Observer (MMO) for Roadbridge on the Belmullet Sewerage Scheme (July 2017). On site.
- Wind farm bird surveys in Mayo, Sligo, Donegal, Kildare, Leitrim for McCarthy Keville O'Sullivan Environmental consultants. MKO Ireland. (April-July 2017-2023).
- MMO for Aquafact for harbour dredging at Rosslare Europort, County Wexford (Dec 2016). Environmental compliance.
- In October 2016 I was MMO for Geo-mara on a new marina project involving confined underwater blasting, dredging and dumping at sea in Rossaveal, Galway. environmental compliance. On site.
- Ornithologist monitoring Sand Martins for Aquafact on Aquacomms Transatlantic Fibre Optic cable landfall in Killala, County Mayo (August 2015).
- ICCAT Blue fin tuna Fishery Observer in the Mediterranean (June 2015) for MRAG Ltd (UK).
- Marine mammal observer (MMO) for Aquafact environmental consultants on a new ferry pier involving build underwater blasting and dredging in Doolin, County Clare (2014-15). environmental compliance and mitigation. On site.

As an ecologist I have experience surveying birds, fish, raptors, marine mammals and bats and worked in aquaculture, coastal construction projects, renewable energy (wind farms) and the fisheries sector in Ireland. I have professional experience as a falconer, photojournalist, videographer. I have several months experience at sea as a Marine mammal observer (MMO) for the Marine Institute, National Parks and Wildlife Service and Irish Whale and Dolphin Group on fisheries surveys and marine mammal surveys. I graduated with a BSc Honours (2.1) in Freshwater and Marine Biology from GMIT in 2012. My research thesis was on the Diet of Herring (*Clupea harengus*) and Sprat (*Sprattus sprattus*) in the Celtic Sea.

Personal information

Date of Birth: 8th January 1957

Nationality: Irish

Address Claggan, Kilmeena, Westport, Co. Mayo, Ireland.

Phone: +353 83 4658374

Email: shayfennelly@gmail.com

Clean driving license 2000-2022

Qualifications

Digital Media production – Web Video, DIT 2013

BSc (Honours 2.1) in Freshwater and Marine Biology, GMIT 2012.

Certificate in Video Production 2004

Certificate in Fish Farming Letterkenny IT 1983

National Union of Journalists membership number 0902536

Courses/Certificates

Safe Pass for working on construction sites renewed 2021-2025

Introduction to ArcGisPro| Esri Ireland| March 2018.

VHF Radio Course September 2016

UAVs for Environmental Sciences | Scottish Marine Biological Association| 2015

ICCAT Blue fin tuna Regional Observer Program for Fishery Observer (MRAG)|2015

Passive Acoustic Technology, University of California | 2014 (www.biowaves.net)

Passive Acoustic Monitoring (PAM) Training cert: 000178 (IntelligentOcean) | 2011

BIM Personal Sea survival Techniques Certificate | 2011

National Powerboat/RIB Level 2 Certificate | 2011

EURO/Universal or BOSIET, HUET with OLF | 2009-2013

Seafarer Medical Certificate (ENG11) | 2010

STCW-95 Safety Training and Elementary First Aid (BIM) | 2007

Marine Mammal Observer Training Course (IWDG/JNCC) | 2007

Sea going & Marine Mammal Observer (MMO) Experience

- 2016-2019 Skipper of a Marine Survey Office Licensed passenger vessel/safety boat operating in Clew Bay, Mayo
- 2015 May ICCAT Blue fin tuna Fishery Observer, Balearic Islands, Mediterranean
- 2014 April-2015 April MMO for new pier build at Doolin, Co. Clare, Ireland
- 2011 MMO on Blue whiting acoustic survey for Marine Institute, Ireland.
- Fennelly S, (2011) Cetacean Distribution and Relative Abundance Survey during FSS Blue Whiting Survey 2011. Report to the Marine Institute, Oranmore, Galway, Ireland.
- 2011 MMO for Irish Whale and Dolphin Group (IWDG) for EIS for marine hydro power project in Ireland. Dr Simon Berrow, (IWDG)
- 2010 MMO/IWDG on cetacean survey, North West coast Ireland, for the National Parks and Wildlife Service.
- 2008 Twelve-month effort watch at Downpatrick head, Co Mayo for the IWDG.
- 2007 Observer on a week geophysics research cruise-WESTLINE to the Rockall Trough, off Ireland on Ireland's research vessel, the Celtic Explorer

- 2003 Journalist writing on marine enterprise based in Petty Harbor and Fogo Island, St. John's in Newfoundland, Canada.
- 1995 Mate – on Tuna fishing trawler, Skipper Alan Glanville Dunmore East to Bermeo, Spain, Bay of Biscay.
- 1994-1998 Established ecotourism business otter watching in Clew Bay, Mayo.
- 1993 Co-ordinated the first whale and dolphin survey in Ireland, Co Mayo with the Irish Whale and Dolphin Group and Dr Jonathan Gordon/IFAW.
- 1989 Photographer on the Whitbread Race, Montevideo, Uruguay.
- 1987 Photographer/Video cameraman on a 3 month sailing trip from Ireland to St Petersburg.
- 1982 Cetacean observer on UK MAFF herring survey cruise for the National Board for Science and Technology (Ireland).
- 1980 Observer on a 2-week cetacean/seabird survey of Ireland's west coast from Westport to Plymouth, with Dr Peter Evans, UK.

Education

Digital Media Production-Web Video Digital Skills Academy/DIT 2012-2013

BSc (Hons) Freshwater & Marine Biology GMIT Galway 2008-2012

BSc Marine Science Yr1 National University of Galway 2007-2008

Project Management Course FORBAIRT Dublin 1992

Business Appraisal Course FAS. Dublin 1992

Letterkenny Institute of Technology Certificate in Fish Farming 1982-1983

Diploma in Applied Biology Dublin Institute of Technology (DIT) 1977-1979

Projects

- 2016-2019 I set up a marine passenger boat ecotour/angling small business called *Wild Atlantic Charters* in Clew Bay County Mayo.
- Baseline whale and dolphin surveys, marine mammal observer.
- I have documented aquaculture, fishing and coastal communities in photojournalist assignments in Ireland, the Shetland Islands UK, Malta, Europe, Newfoundland Canada, Tanzania Africa, Uruguay South America, Hong Kong China, Virgin Islands USA. My photojournalism from 2000-2012 has focused on aquaculture, coastal zone management, marine ecotourism, offshore exploration, air sea rescue, oil pollution, traditional sailing craft and the decline of salmon, bluefin tuna, whales and dolphins.
- Marine ecotourism projects, *Island Otterwatch*, whaling/island visitor centre in Mayo.
- As a member of the Irish Whale and Dolphin Group in 1993 I coordinated the first whale and dolphin survey in Ireland off Co. Mayo. As a Director of the IWDG I helped to establish it as Ireland's leading marine NGO. (www.iwdg.ie)
- I set up Aquaphoto, a marine photolibrary to complement my work as a freelance photojournalist 1990-2014. www.aquaphoto.ie

Awards

In 1995 I was awarded an Environmental Endeavour Award from the Electricity Supply Board, Calouste Gulbenkian Foundation and Conservation Volunteers Ireland for Island Otterwatch - showing people how to watch coastal otters, and for protecting and improving Ireland's environment.

In 2001 I received a national print award for a story in the Irish Times on how the Shetland Islanders benefited from the discovery of North Sea Oil and what Mayo could learn from this, in the context of a new gas field found off Ireland's coast.

Employment

Date	Employer	Position
2023	McCarthy Keville O'Sullivan Irish Drilling Ltd.	Ornithologist Marine mammal Observer (MMO) Lough Foyle & Swilly MMO
2018	Atlantic Towage Ltd. Inland Fisheries Ireland & McCarthy Keville O'Sullivan	Fisheries Assistant & Ornithologist
2017 August- July	Inland Fisheries Ireland Roadbridge	Fisheries Technician MMO Belmullet Sewerage Scheme
April-July	McCarthy Keville O'Sullivan Aquafact	Ornithologist windfarm bird surveys Drone photography
2016	Aquafact	MMO Rosslare Europort Dredging
2015	MRAG Ltd.	Blue Fin tuna Fishery Observer
2014-2015	Aquafact, Galway	Marine mammal observer, Doolin pier construction, Co. Clare.
1990-2014	Aquaphoto Library (Stock Photography)	Freelance Photographer/journalist
Oct. 2007	Invited Writer to the Hong Kong Baptist University, International Writers Workshop with the theme "Writing the Sea and the Waterfront," one month in Hong Kong and China	
2003-2007	Aquaphoto	Freelance Photographer/Journalist
Oct. 2003	Freelance Journalist Newfoundland	Marine enterprise research,
1994-1998	Island Otterwatch Clew Bay, Co. Mayo.	Nature Guide for otter watching, Self-employed
1995	Alan Glanville	Mate -Tuna Fishing boat
1993	International Fund for Animal Welfare	Project Co-ordinator Mayo Whale and Dolphin Survey
1992	FAS, Dublin	Business Appraisal Course
Developed Project Proposal for an Ocean Education Visitor Centre, Blacksod Bay, Mayo		
1991-1992	Island Trust NGO Milltown, Dublin	Editor, An t-Oileanach Island's development newsletter,
Island Trust submission for offshore islands LEADER 1 (EU development funding program) to Department of Agriculture.		
1988-1989	WHITBREAD Round World Race Freelance Marine Photographer, Uruguay, Argentina.	

1987	South Kerry Sailing Caherdaniel,	Photographer for book published by Collins "Sailing to Leningrad" Roger Foxall.
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Video Cameraman for Ulster Television/Channel Four TV Program, "40 Degrees East," based on a 3 month sailing trip on a 6 metre yacht from Kerry to Russia on a circumnavigation of the Baltic Sea and then Soviet Union states.

Date	Employer	Position
1986		Photojournalist
1986	Eamonn de Buitlear, Bray, Co. Wicklow.	Wildlife filming assistant Otters in Clew Bay
1986	Clew Bay Oyster Co-op Westport, Co. Mayo.	Oyster Stocks Survey
1985	Salmon Research Trust Newport, Co. Mayo	Salmon smolt husbandry
1986-1983	Island Seafarms Blackshell Mussel Farm	Mussel Farming
1986-1983	Clew Bay Oyster Co-op. Westport, Co. Mayo.	Oyster Fisherman
	MAFF Fisheries Cruise MMO National Board for Science & Technology, Dublin	Observer on herring survey
1980-1979	Dr Peter Evans Oxford University	MMO Observer on Cetacean/ Seabird Cruise off the West of Ireland
1978-1976	Forest & Wildlife Service NPWS Research Branch	Wildlife research assistant Ornithologist & Falconer on bat, Peregrine falcon, merlin & seal Surveys.

Publications

Gordon J., Berrow S., Rogan E., Fennelly S., (2000), Acoustic Whale and Dolphin Survey off the Mullet Peninsula, Co. Mayo. Irish Naturalist's Journal. 26(7/8) 251-259.)

Conor Ryan, Simon Berrow, Alessandro Pierini, Joanne O'Brien, Ian O'Connor and David McGrath (2010) Inshore Boat-based Surveys for Cetaceans. Report to the National Parks and Wildlife Service. IWDG. pp.33. Primary logger on NW Cetacean survey.

Various feature stories on the marine environment, on developing Ireland's aquaculture

industry, in Fish Farming International; on Ireland's fishing industry in the Irish Skipper, the Marine Times and Fishing News newspapers; and various stories on environmental matters in national newspapers and magazines in Ireland and the UK.

- (2015) Clew Bay seaweed cutters set up association Mayo News Jan.
- (2013) Harbour Porpoises under threat from seismic survey in Killiney Bay
- (2010) Turbot farm gears up for market launch Intrafish Oct 2010
- (2010) The job: virus hunter photo Financial Times 5 September 2010
- (2010) Cruinnu na mBad brings a new cargo of tourism Afloat Nov 2010
- (2009) Protest continues as Corrib offshore gas pipeline is laid August Inshore Ireland
- (2009) Government abandons model ICZM approach Inshore Ireland Feb 2009
- (2008) Leachate: a risk or not? Inshore Ireland Feb 2008
- (2008) Islands await firefighting report Inshore Ireland 2008
- (2007) Incentives needed to reverse Islands population Inshore Ireland Dec 2007
- (2007) Problems of offshore islands outlined Inshore Ireland Dec 2007
- (2007) Shellfish farmers oppose leachate discharge in Clew Bay Inshore Ireland April
- (2007) Concerns over effluent discharge pipe in Broadhaven Bay SAC Inshore Ireland March
- (2007) Sound pollution threatens whales off Ireland Inshore Ireland March
- (2007) Authorities approve emergency leachate release into designated shellfish waters Inshore Ireland March 2007
- (2007) Council seek permission to dispose leachate in Clew Bay Inshore Ireland
- (2007) Clare Island Pioneering organic salmon farming Inshore Ireland Oct 07
- (2007) Ireland's environmental stewardship awarded red light status Inshore Ireland July
- (2007) Shellfish farmers voice concerns over threat to Clew Bay
- (2006) Government to review oil and gas licensing terms Inshore Ireland Dec 2006
- (2006) No postmortem for Sperm whale Inshore Ireland 2006
- (2006) Corrib Gas: consent before consultation? Inshore Ireland April 2006
- (2006) The decline of Irish Drift netting Fishing News 8 Sept 06
- (2006) Salmon season ends-maybe for good Fishing News August 06
- (2006) Marine wildlife neglected as offshore drilling continues An Taisce magazine
- (2006) Classification regime heads up gigas oyster workshop Inshore Ireland July
- (2006) SEA Public consultation fails but licensing recommended Inshore Ireland
- (2006) Substantial safety margin provided recommendations are followed Inshore Ireland April 2006
- (2006) Spring oyster harvest in Blacksod Bay Inshore Ireland April 2006
- (2006) Irish system proving its worth Fish Farming International May 2006
- (2006) Ireland neglects its marine biodiversity Inshore Ireland Feb 2006
- (2006) Danger in Irish waters 05-11/1/06 Village magazine Jan 06
- (2005) Tanzania invests in new marine institute Fish Farming International Oct 05
- (2005) Net Loss BBC Wildlife magazine UK September05
- (2005) Endangered giant turtle drowned in Clew Bay Village magazine August05
- (2005) New Crabber for Ireland Fishing News UK July05
- (2005) Aine Patricia new crabber joins mayo fleet Fishing News UK July05
- (2005) New Crab Fishing Vessel for Mayo fisherman Marine Times July 05
- (2005) Fishing vessel set adrift wrecked in Clew Bay Marine Times May05
- (2005) New Sea Urchin farming system at ISA conference Marine Times May05
- (2005) Urchin system launched at Irish meeting Fish Farming International April 05
- (2005) Garda investigate Old Head boat vandalism Mayo News April05
- (2005) Gama employees march for better pay - photo Village magazine April05
- (2005) Tsunami aid gets through Fish News International UK March05
- (2005) John Roche gunned down in Kilmainham-photo The Star March05
- (2005) Budget Brian Cowen- photo Accountancy Ireland Feb05
- (2005) Seafood producer's oppose Council's leachate disposal Marine Times Jan05
- (2004) Corrib gas gets planning approval Marine Times Dec04
- (2004) Mussel growers face huge waste bill Fish Farming International Dec04
- (2004) Galway bay tragedy stuns fishing community Marine Times Oct04
- (2004) Government undermines consensus ICZM in Bantry MarineTimes Oct.04

- (2004) EU Commission pursues legal action against government Marine Times
- (2004) Shellfish industry goes from strength to strength Marine Times April 2004
- (2004) Aquaculture big business in Canada Fish Farming International May04
- (2004) Oil spill in Connemara Marine Times April 2004
- (2004) Fogo Island Fishing Co-operative Marine Times March 2004
- (2004) Gone but not forgotten Newfoundland's Irish Ireland of the Welcomes March
- (2004) Marine Ecotourism whalewatching in Newfoundland Marine Times Jan. 2004
- (2004) Irish Air Corps cannot meet the standard Marine Times Feb. 2004
- (2003) Tagging giants Bluefin off Donegal, Irish Independent Magazine, 11/10/2003
- (2003) Lessons from the Coast of Death, Irish Independent Magazine, 26/4/2003
- (2003) Spill could pass Å1.1billion, Fish Farming International, April 2003
- (2003) Mystery Seabird Deaths in Wexford, Marine Times, May 2003
- (2003) Sceilig's splinter of stone, Ireland of the Welcomes, Jan-Feb.2003
- (2002) Erris fishermen withdraw from monitoring group, The Irish Skipper, Oct.
- (2002) Effluent outfall must move, fishermen, The Irish Skipper, July 2002
- (2002) Consultation confused with participation? Fish Farming International, May
- (2002) A pale green light for Corrib, The Irish Skipper, May 2002
- (2002) Integrated approach to development in Clew Bay, The Irish Skipper, April
- (2002) Irish oysters caused Hong Kong illness, Irish Times, 15/3/2002
- (2002) The Mullet peninsula- at the mouth of the sea, Ireland of the Welcomes Jan.
- (2001) Mayo looks to the Shetland-Corrib Gas Field, Irish Times, 21/7/2001.
- Awarded John Healy National Print Journalism Award in 2001 for Corrib gas IT story
- (2001) Mayo fishermen concerned over Corrib Gas, The Irish Skipper, June 2001.
- (2001) Whale of a Time, Irish Independent Magazine, 23/7/2001.
- (2001) Bluefin Tuna Fishery Blossoms off Ireland, Fishing News, 30/3/2001.
- (2001) Yawl come back to Achill! (Achill yawls), Ireland of the Welcomes, Jan/Feb
- (2000) Shores of Distress, (marine tragedy) Irish Independent Magazine 4/11/2000.
- (2000) When is an island not an island? The Mayo News, 3/11/1999.
- (2000) The Hunt for Salmon (drift-netting at sea) Fishing News, 6/10/2000.
- (2000) Day of the Dolphin, Irish Independent Magazine, 9/9/2000.
- (2000) The crude cost of neglect on our coastline, Irish Examiner 13/7/2000.
- (2000) Atlantic Patrol aboard C252, The Mayo News, 31/5/2000.
- (1999) Clew Bay- what does it mean to you? The Mayo News, 7/7/1999.
- (1998) Government ignores Strategic Environmental Assessment, Western People 15/7
- (1995) Question over long term safety of sheep dips, The Mayo News, 14/6//1995.
- (1987) Eastward Ho! first Irish yacht to Leningrad since Russian revolution.

SUMMARY OF QUALIFICATIONS

- 2:1 honours degree in Bachelor of Science, with a major in botany
- 6+ years' experience as an Ecologist, with particular focus on Appropriate Assessment
- Extensive experience in habitat/bird/mammal surveys (including bats)
- Holds valid Safe Pass
- Holds Irish Aviation Drone Licence for categories A1, A2, and A3
- Excellent technical skills in Microsoft Office, QGIS, Kaleidoscope Pro
- Fluent in Irish and English
- Full, clean driver's license

RELEVANT EXPERIENCE

Consultant Ecologist - Self Employed

June 2021 - Present

As a self-employed ecologist I have worked on the following projects:

- AASR, NIS, EcIA, CEMP, Invasive Species Management Plans, Bat Surveys, breeding and wintering bird surveys for planning applications nationwide (single houses, housing developments, windfarms, agricultural buildings, heritage grants).
- NPWS Farm Planner (ongoing). Habitat surveys, mammal surveys, preparation of management plan, liaison with landowners, preparing GIS files, report writing, as well as annual monitoring of the site
- Curlew Champion and Curlew Advisory Officer on the Curlew Conservation Programme (2021-2022). Breeding curlew surveys at a range of sites in the Slieve Aughty Mountains SPA. Liaison and good relationship with landowners was essential as many of the surveys occurred on private land. The role required communication and management of other team members. An annual report was prepared and completed at the end of each survey year.
- Preparing Plans for Nature for the Hare's Corner project in Co. Galway. Habitat surveys and management plans, as well as landowner liaison was essential for this role.
- Field Technician for UKCEH led Countryside Survey in Britain and Northern Ireland. Work was heavily field based and required habitat surveys and quadrats in a range of habitats, as well as organic soil sampling.

Project Ecologist and Field Technician, University of Galway

October 2022 – March 2026

- Conducting habitat surveys on blanket and raised bogs nationwide to inform restoration plans
- Measuring Greenhouse Gas Emissions from blanket and raised bogs using LGR-ICOS™ GLA131 Analyser
- Monitoring baseline conditions onsite such as water level, light intensity, NDVI, soil pH and moisture
- Conducting drone flights to create DEM models and NDVI analysis
- Gathering field data on current and historical peatlands to inform RePEAT project

Project Ecologist, Planning Consultancy Services, Galway**November 2018 – March 2021**

- Writing Appropriate Assessment Screening Reports, Natura Impact Statements, Ecological Impact Assessments and Construction Environmental Management Plans for planning and forestry applications; often having to clarify to clients unfamiliar with the legislation which reports are necessary.
- Designing and conducting mammal/bat/bird surveys to determine baseline information that will inform an impact assessment of a proposed plan or project. Survey types depend on the location and nature of the proposed project and can range from a walkover survey to dedicated vantage point surveys.

Field Technician, Terrafact, Ontario**April 2015 - September 2015**

This job involved surveying forests in rural Ontario as part of the Ecological Land Classification Survey. Surveyed lands were classified based on species composition and soil type. The information gathered by the field technicians was then used by the Ministry of Natural Resources in conjunction with aerial imagery to create habitat maps of large areas of forested land, providing expansive and detailed data for forest planners, conservation authorities, and logging companies.

- Job consisted of work entirely conducted in the field, with one other co-worker and very little supervision.
- Surveyed a variety of woodland habitats including: White pine dominated mixed woodlands, Red pine plantations, tolerant hardwoods etc.
- Organised work in most efficient manner and set schedule, work goals and deadlines while ensuring that I followed safe work practices.
- Conducted daily survey work and maintained records using GPS, various forestry tools (clinometer, FRI classification keys, basal area prism, diameter tape, Dutch auger).
- Made decisions and solved problems in highly challenging and often stressful work environments.

Laboratory/Field demonstrator, NUI Galway**September 2013 – November 2014**

- Supervised 1st and 3rd year biology students conducting laboratory experiments to ensure safe and efficient work methods.
- Demonstrated the use of microscopes, and application of chemicals.
- Explained how to use a key to identify plant species in the field.
- Taught groups how to conduct relevés and estimate percentage cover of individual species in a range of habitats including turloughs, and semi natural deciduous woodlands.

EDUCATION

NUI Galway, Bachelor of Science, Major in Botany 2010-2014

Relevant Subjects: 1st year: Biology; 2nd year: Aquatic Plant Science, Plants Humans and Environment; 3rd year: Applied Aquatic Plant Science, Plant Ecology and Paleoecology, Fundamental Skills in Earth and Ocean Sciences; 4th year: Current topics in Algal Science, Plant Genetics, Cell systems and Biology, Ecology and Conservation Issues, Current Topics in Plant Science, Palaeobotany and Climate Change, History of Life

VOLUNTARY WORK

Surveyor, All Ireland Daubenton's Bat Waterways Survey
Research assistant, NUI Galway
Research assistant, AranLIFE, Aran Islands

August 2019 – Present
August 2014 – January 2015
July 2014

TRAINING AND CERTIFICATIONS

- Safe Pass
- Valid Bat Roost Inspection Licence issued by Department of Culture, Heritage and Gaeltacht
- A1, A2, and A3 Drone Licence (Irish Aviation Authority)
- Introduction to GIS – 2 Day Training Course (NUI Galway),
- Counting birds and the Wetland Bird Survey (British Trust for Ornithology),
- Wader ID (British Trust for Ornithology),
- Sound analysis workshop (Bat Conservation Trust),

REFERENCES

Available on Request

Bill Brazier B.Sc. (Hons.), MIFM, Ph.D (in prep)

Senior aquatic ecologist/Associate Director – Triturus Environmental Ltd.

DOB: 07/08/1988

Email: bill.brazier@triturus.ie

Phone: 086-3758585

<https://www.linkedin.com/in/bill-brazier/>



Biography

Bill Brazier (B.Sc. (Hons.) Applied Freshwater & Marine Biology, MIFM) is an aquatic, fisheries and mammalian ecologist with over 15 year's professional experience in Ireland. He is a senior ecologist, team leader and Associate Director at Triturus Environmental Ltd. and is completing a PhD in fish genetics at UCC. He has extensive experience in a wide range of ecological and environmental projects including EIAR, EclA and AA/NIS reporting, renewable energy developments, flood relief schemes, road schemes, invasive species management, Blueways/Greenways, active travel, biodiversity projects and non-volant mammal monitoring, having written and contributed to over one thousand technical consultancy reports in his career thus far. Highly competent in GIS, he specialises in aquatic ecology and freshwater fish, inclusive of fisheries assessments, macrophytes, water quality, hydromorphology, riparian habitats, otter, freshwater pearl mussel, white-clawed crayfish and amphibians, holding full national licences for all of these species. Bill is one of Ireland's most experienced otter specialists and fisheries scientists, having held over 250 section 14 authorisation licences for fisheries related work in freshwater and transitional habitats.

Qualifications

- B.Sc. (Hons) Applied Freshwater & Marine Biology, Galway-Mayo IT (2006-2010) (1.1 grade)
- Ph.D. fish ecology & genetics (final year deferred), University College Cork (2010-present)

Employment history

- January 2023 – present – Associate Director, Triturus Environmental Ltd.
- April 2019 – present – Senior aquatic ecologist, Triturus Environmental Ltd.
- 2011 – 2018 – Freelance ecological consultant (mostly with Triturus Environmental Services)
- 2010 - Marine Institute Archival Data Analyst bursar

Key skills & competencies

- EIAR, EclA, AA, NIS
- Electro-fishing, fish salvage, fisheries assessments, fish health screening, fish habitat appraisals
- River hydromorphology (including RHAT, MQI, MORPH indices)
- Environmental DNA (eDNA) surveys & metabarcoding (including dietary DNA studies)
- Ecological Clerk of Works (EcoW)
- Biological water quality (Q-sampling, SSRS, SSIS)
- GIS, digital terrain models, habitat mapping & bathymetric surveys
- Ecological design and habitat creation
- Ecological training delivery (OPW staff, local authorities, citizen scientists etc.)
- Invasive species and management
- Otter surveys (including Human Disturbance Index, population genetic studies, dietary DNA studies, habitat management, artificial holt design/installation & trail camera monitoring)
- Protected species surveys (freshwater pearl mussel, white-clawed crayfish, amphibians, mammals, macrophytes, freshwater gastropods etc.)
- Biodiversity management, enhancement & community engagement
- ISA National Powerboat Handling Certificate (Level 2) & Certificate in Personal Sea Survival Techniques
- Graphic/web design and digital/print publication (Adobe suite)

Selected project experience

Renewable energy developments

Wind, solar & other renewable developments (client: numerous)

Bill has undertaken detailed, industry-leading aquatic and fisheries baselines for a very high number of consented and proposed renewable energy developments (>100 individual projects, list available upon request) throughout the state in the 2018-2026 period. This work has been regularly completed for large companies such as FuturEnergy Ireland, Greensource, SSE Renewables, Bord na Mona, Galetech, Gas Networks Ireland, Brookfield, Ørsted and Statkraft.

The work on each project typically encompasses electro-fishing, fisheries habitat appraisals, eDNA, biological water quality, white-clawed crayfish, Annex I aquatic habitats and otter surveys, with specialist surveys for species such as common lizard and freshwater pearl mussel on a site-specific basis. Experience includes both baseline and pre-construction data collation for proposed wind farms and solar farms (inclusive of grid routes), with more recent experience on battery energy storage systems (BESS), biogas facilities and gas pipelines. The data collected informs EIAR/NIS preparation and planning applications.

Work on larger-scale and higher-profile developments includes Glenora wind farm, Derrinlough wind farm, Cushaling wind farm, Meenbog wind farm, Meentycat wind farm, Castlebanny wind farm, Timahoe North solar farm, Dublin Array, Shannon LNG Project and Gas Network Ireland's Strategic Gas Emergency Reserve (SGER).

Habitat Restoration & Management

River Burren Riparian Quality Index study 2025-2026 (client: Carlow County Council)

Triturus Environmental Ltd. developed a novel technique to assign a quality rating to riparian habitat by examining riparian (ecosystem services), structure / integrity and contiguous land use practices. The extensive study over 35km of the River Burren tributary of the River Barrow in Co. Carlow was the first of its kind in Ireland and provided invaluable insights into the restoration of riparian ecosystems.

Royal Canal *Myxas glutinosa* survey & management plan, 2025 (client: Fingal Co. Co. & NTA)

Triturus were commissioned by DBFL Consulting Engineers Ltd., on behalf of Fingal County Council and the National Transport Authority (NTA), to undertake survey for the endangered glutinous snail (*Myxas glutinosa*), a highly endangered freshwater mollusc, to inform the proposed Royal Canal Urban Greenway Scheme. The most significant populations of the snail found in recent decades were recorded and a detailed management plan was developed for the species conservation.

Ardcanaght (Castlemaine) Habitat Creation Feasibility Study, 2023 (client: OPW)

Considering site-specific works constraints and costly proposed refurbishments to a total of 3.7km of existing flood embankments at Castlemaine, a habitat creation feasibility study investigating a managed retreat scenario involving the re-flooding of lands (embankment breaching) within the polder was completed. Triturus conducted detailed baseline surveys including habitat mapping, ornithology and aquatic ecology of the 140 hectare site were undertaken and a detailed habitat creation feasibility report was prepared. The study concluded the benefits of carbon capture through the re-creation of natural intertidal saltmarsh and wetland habitats in addition to habitat creation through planting of native woodland.

Ecosystem Pollution Assessments

PFAS contamination study of aquatic food webs 2025-2026 (client: Dublin Airport Authority)

Triturus completed the first aquatic food chain PFAS study in Ireland on behalf of Dublin Airport Authority. The very detailed study examined the transfer and bioaccumulation of PFAS in invertebrates, fish and otter using molecular techniques. In this respect it was also the first study to examine metabarcoding of otter diet in spraint to identify the prey base linkages for contamination transfer to top predators.

[Liffey Estuary transitional fish surveys & biological water quality assessment, 2025-2026 \(client: Encyclis\)](#)

Triturus was commissioned on behalf of Encyclis Ltd. to undertake benthic invertebrate, fisheries and sediment quality surveys to define estuarine biotopes inclusive of ecosystem health on the River Liffey Estuary in the vicinity of the Dublin Waste to Energy water discharge near Poolbeg, Co. Dublin. Comprehensive surveys inclusive of beam trawling, fyke netting, seine netting and Van Veen grab sampling for invertebrates / sediment classification was undertaken inclusive of laboratory analysis.

[Tara Mines heavy metals study, 2025 \(client: Tara Boliden\)](#)

Triturus completed an ecosystem level study examining heavy metal pollution in invertebrates, salmonid and cyprinid fish in the River Boyne. It also examined sediment heavy metal pollution using sediment cores, biological water quality and fish community structure. A comprehensive report was prepared.

Fisheries

[Liffey Estuary transitional fish surveys & biological water quality assessment 2025 \(client: Encyclis\)](#)

Undertook an aquatic and fisheries baseline survey of the River Liffey Estuary in the vicinity of the Dublin Waste to Energy water discharge near Poolbeg, Co. Dublin. This included detailed baseline surveys of fisheries, physiochemical, benthic sediment and benthic invertebrate data for the heated discharge to the Liffey Estuary from the Dublin Waste to Energy plant to satisfy industrial emissions licence environmental compliance conditions. The fisheries survey included beach seining, fyke netting and beam trawling methodologies and aimed to assess the diversity and abundance of fish in the Liffey Estuary, focusing on the area adjacent to the Dublin Waste to Energy plant heated water discharge. Surveys of the sediments and benthic macro-invertebrate community were also completed through the use of grab sampling to inform biotope mapping and estuarine sediment/ biota quality.

[Great Island CCGT Power Station, 2022-2025 \(Client: Aztec & SEE\)](#)

Completed multiple 3-week long fish impingement studies of the cooling water system of Great Island CCGT to provide data on the fish species in Waterford Estuary and recommendations for fish conservation as part of plant operations.

[Fish salvage/translocations \(client: various\)](#)

Completed a very high number of fish salvage/translocation operations on rivers, lakes and Irish canals to facilitate repair and diversion works, typically utilising a combination of boat-based electro-fishing and or backpack electro-fishing but also seine netting and fyke netting. Clients include Waterways Ireland, Irish Rail, and local authorities.

[Tarmonbarry Weir rehabilitation and fish bypass channel design, 2022 \(client: Waterways Ireland\)](#)

Completed detailed baseline aquatic ecological and fisheries reporting to inform aquatic ecological constraints for fish passage design for Tarmonbarry Weir on the River Shannon, Co. Roscommon, in addition to informing EIAR and NIS preparation. This included an assessment of various fish passage options including rock ramp and bypass channel designs.

[Enniscorthy FRS, 2022 \(client: Mott MacDonald/OPW\)](#)

Investigated the presence and distribution of migratory shad (*Alosa* spp.) in the River Slaney, Co. Wexford using environmental DNA techniques, in collaboration with colleagues in UCD (Dr. Jens & Nettan Carlsson). The study provided comprehensive data on the distribution of shad species in the Slaney and indicated that shad preferentially selected habitat (for spawning) in the lower reaches of the river despite potential accessibility further upstream.

[Stillorgan Reservoirs, 2022 \(client: Murphy International Ltd./NM Ecology Ltd.\)](#)

Team leader on one of the largest fish translocations in the history of the state. A combination of fyke netting, seine netting and boat-based electro-fishing was undertaken to translocate fish from 6.9 hectares of two dewatered reservoir basins. This was undertaken via a section 14 licence and an accompanying national finfish transfer licence which facilitated fish capture and translocation to the Grand Canal. Prior to the salvage operation fish tissue and organ samples were collected and screened for bacteriology, histology and immunology by the Marine Institute as part of fish health screening. More than 7000 perch, stickleback and

brown trout were translocated to receptor site. The dewatered reservoirs were successfully decommissioned following fish salvage.

[Sea lamprey spawning survey, Lower Mulkear River, 2018 & 2022 \(client: IDA\)](#)

Undertook a sea lamprey spawning survey of the Lower Mulkear River, Co. Limerick used a fixed-wing drone and infrared imagery to detect sea lamprey redds. Redd sites were validated on the ground using an RTK-enabled Trimble GPS and a correction factor was developed based on the accuracy of detection by the drone relative to data collected in the field. The project successfully established the most important zones of the river used by spawning lamprey with over 50 redds detected. This was the first time an aerial drone had been used to map sea lamprey redds in Ireland. The surveys were repeated during 2022 to capture river lamprey spawning in addition to sea lamprey. Environmental DNA (eDNA) was collected to support the findings of the study.

[Meenbog fisheries restoration, 2021 \(Client: MKO\)](#)

Completed a very detailed catchment-wide study of fisheries habitat following the Meenbog peat slide (Nov 2020) over 19km of river channel, producing a detailed report outlining the identified impacts and making management recommendations for fisheries enhancement to facilitate river ecosystem recovery.

[Fermoy Weir, 2021 \(client: DixonBrosnan\)](#)

Completed the aquatic and fisheries baseline (including electro-fishing) for proposed weir works on the River Blackwater, Fermoy, Co. Cork. The survey also investigated the distribution of migratory shad species (*Alosa* spp.) in the River Blackwater using environmental DNA techniques, the first time such a study had been completed in Irish waters. The results indicated that shad species were unable to navigate instream barriers and were confined to the lower reaches of the River Blackwater.

[Lake & specialist macrophyte surveys](#)

[Royal Canal macrophyte & invertebrate monitoring surveys, 2022-2026 \(client: ROD\)](#)

Undertook annual surveys of the Royal Canal between Spencer Dock and Kilcock over a five year period years surveying 40 survey reaches. The comprehensive surveys documented the full diversity of aquatic plants and invertebrates each year, greatly contributing to the knowledge base of species distribution within the canal inclusive of invasive species and rare/protected species such as opposite-leaved pondweed. The data has informed and will continue to inform numerous infrastructural proposals by identifying key ecological constraints and supporting mitigation by avoidance and or design.

[Lough Funshinagh Interim & Permanent Flood Relief Schemes, 2024-2025 \(client: Roscommon Co. Co. & OPW\)](#)

Undertook an aquatic and fisheries baseline assessment of Lough Funshinagh, a designated turlough, and numerous surrounding hydrologically connected wetlands. The ongoing work involved collaboration with experts from Arup and Ryan Hanley working within a large multi-disciplinary team to support the preparation of the EclA and NIS for the permanent and interim flood relief schemes. Several examples of the Annex I habitat 'Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation (3150)' (aka rich pondweed lake habitat) were recorded during the survey of the 47 hectare (summer area) turlough basin. The rare molluscan fauna *Myxas glutinosa* and *Anisus vortex* were recorded (in adjacent Lough Ree) in addition to the rare water beetle *Dytiscus circumcinctus*.

[Floating river vegetation survey of the Lower River Lee, Co. Cork, 2020 & 2025 \(client: various\)](#)

Conducted detailed surveys of the distribution of Annex I (3260) floating river vegetation in the Lower River Lee between Inniscarra Dam and Cork City Centre. Transect and underwater dive surveys were undertaken using random replicated blocks. The distribution and cover of *Ranunculus*, *Potamogeton*, *Callitriche* and moss species was estimated and distribution maps compiled.

[Ballyallia Lake floating boardwalk & jetty installation, 2023 \(client: Clare County Council & MKO\)](#)

Undertook an aquatic and fisheries baseline assessment of Ballyallia Lake SAC (000014) and SPA (004041), surveying for the presence of rare macrophytes invertebrates and fish including profiling the lake typology through the collection of physiochemical water quality. Surveyed for Annex I 3150 habitat in addition to recording a diverse macrophyte assemblage. Lake eDNA metabarcoding was used to profile the fish stocks successfully. The results informed design proposals for the proposed development.

Opposite-leaved pondweed (*Groenlandia densa*) management plan, 2018-2023 (client: IDA)

Completed detailed opposite-leaved pondweed surveys of the Loughmore Canal, Co. Limerick through a full macrophyte audit of the canal which was also mapped with fixed-wing drone. A detailed management plan was prepared in light of proposed flood alleviation works to conserve opposite-leaved pondweed. A follow up survey post canal maintenance and implementation of the management plan in 2021 resulted in a 82-fold increase in the distribution of the legally protected plant within the study area (8200%).

Floating river vegetation survey of the Enniscorthy FRS, 2022 (client: Mott McDonald & OPW)

The most comprehensive floating river vegetation survey ever undertaken in Ireland was completed on the River Slaney part of the Slaney River Valley SAC (000781), during June 2022. The survey included real-time drone (UAV) imagery and was used in conjunction with boat-based surveys to map total FRV distribution and coverage on the lower River Slaney over 12km of channel using a total coverage approach. The ecological surveys also included site specific surveys for the Flora Protection Order macrophytes *Callitriche truncata* and *Groenlandia densa* with numerous new records collected. The rare pondweed hybrid *Potamogeton x cooperi* was also identified.

Lough Skannive water abstraction, Carna 2019-2020 (client: Ryan Hanley)

Conducted a detailed lake habitat survey of the macrophyte community of a 50-hectare lake using transects. This helped profile vegetation corresponding to the Annex I 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) and informed EIAR preparation.

Lough Aderra aquatic management plan, 2021 (client: Ballintotis Community Council & LAWPRO)

Completed a baseline aquatic ecology survey of Lough Aderra, Co. Cork. The survey informed the preparation of a detailed plan to manage eutrophication and the proliferation of noxious growth of the native macrophyte *Myriophyllum spicatum*.

Páirc na Mara Marine Innovation Park, 2018-2020 (client: Ryan Hanley/ Údarás na Gaeltachta)

Preparation and management of Biodiversity & Water Quality Chapter for EIAR report. The project involved fresh water abstraction from the Lough Skannive catchment, Co. Galway and the development of a marine innovation park. Extensive baseline surveys were completed including catchment-wide electro-fishing, Arctic charr netting and spawning surveys, physiochemical water quality including Q-sampling, lake macro-invertebrates, detailed lake habitat surveys including macrophytes and classification of Annex I oligotrophic isoetid lake habitat (3110). The baseline surveys were conducted in 4 lake basins and in multiple feeder rivers. The baseline data compiled informed the preparation of a very detailed Environmental Impact Assessment report that involved a multidisciplinary approach. It included the application of water balance modelling according to UKTAG thresholds relative to the identified aquatic sensitivities. This ensured Water Framework Directive compliance in adherence to a detailed schedule of environmental commitments. It also delivered commitments to protect Annex I aquatic habitats and salmonid fish, inclusive of the Red-listed Arctic char.

Loch an Mhuilinn water abstraction, 2017 (client: Ryan Hanley)

Detailed bathymetric study of Loch an Mhuilinn, Co. Galway to inform fresh water abstraction, in addition to aerial drone surveys. Surveys were undertaken using state of the art hardware and software, RTK-enabled Trimble GPS, Lowrance SONAR, fixed wing drone and ReefMaster software. The Annex I littoral habitat 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) was characterised with over 20 species of macrophyte plants records including *Nitella flexilis* and *Elatine hydropiper*. Lacustrine littoral salmonid spawning areas were identified and a comprehensive report was prepared.

Otter (selected projects only)

Carlow otter survey, 2025-2026 (client: Carlow County Council)

Undertook a county-wide otter survey in County Carlow comprising the entire length of the Mountain River and Burrin River, plus sections of the River Barrow and River Slaney, covering 75km of channel. A comprehensive report with focus on management and conservation was prepared. The survey utilised the novel Human Disturbance Index (HDI) and Total Corridor Otter Survey (TCOS) methodologies. The survey also assessed and calculated RHAT scores along each surveyed watercourse and was able to relate river hydromorphology to otter sign distribution. A parallel study of the River Burrin tributary of the River Barrow developed a novel Riparian

Quality Index (RQI) that characterised river reaches for restoration by examining riparian services function, riparian structure and land use management practices.

[Fingal otter survey, 2024-2025 \(client: Fingal County Council\)](#)

Undertook a large-scale otter survey across 14 rivers (102km) and all coastal habitat (120km) within Fingal County Council jurisdiction and prepared comprehensive report with a primary focus on management and conservation. The survey utilised our novel Human Disturbance Index (HDI) and TCOS methodologies. The survey also assessed and calculated RHAT scores along each surveyed watercourse and was able to relate river hydromorphology to otter sign distribution. The results will be used to inform local biodiversity policy and developments.

[Midleton Flood Relief Scheme, Co. Cork, 2018 and 2025 \(Client: Arup\)](#)

Completed a catchment wide otter survey in 2018 and again in 2025, preparing a detailed baseline report on otter sign records to inform EIAR preparation and impact assessment.

[Dublin City otter genetics, 2022-2025 \(client: Dublin City Council\)](#)

As a follow-on from the initial Dublin City otter survey (2018-20), Bill formed part of the specialist core team to re-survey the area and collect otter spraint for detailed genetic analysis. Working with colleagues at UCD, the samples were sequenced and analysed using single nucleotide polymorphisms (SNPs) in an attempt to accurately estimate the number of individual otters in the greater Dublin area for the first time, thus forming a crucial part of future otter management and conservation in Dublin City.

[Royal Canal Greenway Otter & Badger Survey, 2021-2025 \(Client: DBFL\)](#)

Undertook an 8km surveys of the Royal Canal between Castleknock and Leixlip over 3 x time periods to inform the EIAR preparation for the Royal Canal Urban Greenway. It included trail camera monitoring, site specific mitigation and conservation measures for otter (and badger) populations.

[Glashaboy/ Sallybrook Flood Relief Scheme, Co. Cork, 2016-2025 \(Client: various\)](#)

Undertook extensive otter surveys of the Glashaboy River and tributaries including holt monitoring with trail cameras over multiple time periods between 2016 and 2025.

[Cork City otter survey, 2020-2023 \(client: Ryan Hanley/Cork City Council\)](#)

Completed the most comprehensive otter survey and subsequent report of the Cork City area and collected an unprecedented number of genetic samples to analyse and estimate the otter population of the wider Cork City area. The findings of the survey are to be incorporated into the latest biodiversity policy for the city.

[Dun-Laoghaire Rathdown otter survey, 2019-2020 \(client: Dun-Laoghaire Rathdown County Council\)](#)

Undertook a large-scale otter survey across 12 rivers and all coastal habitat within DLR jurisdiction and prepared a comprehensive report with a large focus on management and conservation. The survey utilised our novel Human Disturbance Index (HDI) and TCOS methodologies. The survey also assessed and calculated RHAT scores along each surveyed watercourse and was able to relate river hydromorphology to otter sign distribution.

[Dublin City otter survey, 2018-2020 \(client: Dublin City Council\)](#)

Completed the largest survey of urban otter populations in Ireland to date and prepared a comprehensive report with a large focus on management and conservation. The lower reaches of over 20 watercourses within Dublin City were surveyed for otter signs using the novel Total Corridor Otter Survey (TCOS) methodology (developed by Triturus), with a particular emphasis on quantifying and mapping otter habitat. RHAT methodology was used to classify and map otter habitat quality along 500m sections of each watercourse. Novel methodology (the Human Disturbance Index, HDI) was developed by Triturus and used to detect relative levels of human disturbance/encroachment on riparian areas and the relative effects on otter sign distribution. The study identified an important link between riparian seclusion and otter breeding areas, greatly informing future management in Dublin City and improving knowledge of urban otter populations. The findings of the survey have been successfully incorporated into the latest Dublin City biodiversity policy.

[River Bride \(Blackpool\) Flood Relief Scheme, \(2015-2024\) \(Client: Ryan Hanley & OPW\)](#)

Undertook detailed otter surveys over five separate years (2015, 2016, 2018, 2019 & 2024) on the River Bride including trail camera surveys. The 2024 work involved the collection of otter spraint for genetic analysis and

was used to estimate the number of otters in the wider Cork City area utilising microsatellites.

Royal Canal Cycleway Phase 4B, 2022 (Client: Dublin City Council)

Undertook a 10km survey of the Royal Canal Premium Cycle Route Phase 4B between Ashtown and the River Liffey confluence (Spencer Dock). It included site specific mitigation and conservation measures for otter (and badger) populations.

Tullamore Otter Survey, 2021 (Client: Tullamore Tidy Towns)

Undertook an otter survey of the Tullamore River over c.5km channel to inform a management and conservation plan for otter. It also included a trail camera study of breeding and resting areas.

Poddle FAS Otter Survey, 2021 (Client: Nicholas O' Dwyer)

Completed a survey along 8km of the River Poddle and prepared a detailed baseline report to inform mitigation for the flood alleviation scheme.

Santry River Otter Survey, 2021 (Client: Dublin City Council)

As part of the Santry River Restoration Project an otter survey was conducted over 11km of river channel with a conservation and management plan prepared for otter.

Lower River Lee Flood Relief Scheme Otter Survey, Co. Cork, 2014-2015 (Client: OPW & Ryan Hanley)

Extensive otter surveys of the Lower River Lee, Curraheen, Bride and Glenamought Rivers were undertaken over two years between the summer of 2014 and autumn of 2015. The surveys included boat and bank-based surveys of activity including the monitoring of holting areas using trail cameras. A comprehensive report with mitigation was prepared to prevent impacts to the species.