

ERI 2014 PEER-REVIEWED PUBLICATIONS

Publications within each pillar are listed alphabetically by the first ERI PI name to appear on the list of authors on each publication.

MARINE

Ma T.H.T., **Benzie J.A.H.**, Jiang-Gou, H. et al. (2014) *PmPPAF is a pro-phenoloxidase activating factor involved in innate immunity response of the shrimp Penaeus monodon*, Developmental and Comparative Immunology, 44, 1, 163–172

Cipriano A., **Burnell G.**, **Culloty S.** and Long S. (2014) *Evaluation of three tagging methods in marking sea urchins P. lividus populations under both laboratory and field conditions*, Journal of Aquatic Research & Development, 5, 276

O'Mahoney M., Rice O., Mouzakitis G. and **Burnell G.** (2014) *Towards sustainable feeds for abalone culture: Evaluating the use of mixed species seaweed meal in formulated feeds for the Japanese abalone, Haliotis discus hannai*, Aquaculture, 430, 9-16

Cosgrove R., **Cronin M.**, Reid D., Gosch M., Sheridan M., Chopin N. and **Jessopp M.** (2014) *Seal depredation and bycatch in set net fisheries in Irish waters*, Fisheries Resource Series, Bord Iascaigh Mhara, ISBN 978-1-903412-48-0

Cronin M., **Jessopp M.**, Houle J. and Reid D. (2014) *Fishery seal interactions in Irish waters current perspective and future research priorities*, Marine Policy, 44, 120-130

Flannery G., Lynch S.A., Carlsson J., **Cross T.F.** and **Culloty S.C.** (2014) *Assessment of the impact of a pathogen, Bonamia ostreae, on Ostrea edulis oyster stocks with different histories of exposure to the parasite in Ireland*, Aquaculture, 432, Special Issue, 243-251

O'Malley K.G., **Cross T.F.**, Carlsson J., Coughlan J.P., Dillane E. and **McGinnity P.** (2014) *Circadian clock gene (OtsClock1b) variation and time of ocean return in Atlantic Salmon (Salmo salar)*, Fisheries Management & Ecology, 21, 82-87

Vartia S., Collins P.C., **Cross T.F.**, **McGinnity P.**, et al. (2014) *Multiplexing with three-primer PCR for rapid and economical microsatellite validation*, Hereditas, 151, 2-3, 43-54

Darmody G., Maloy A.P., Lynch S.A., Prado-Alvarez M., Cotterill J., Wontner-Smith T. and **Culloty S.C.** (2014) *Tissue targeting of the European Flat Oyster (Ostrea edulis) using microencapsulated microbeads as a biological proxy*, Aquaculture International, 23, 647-659

Engelsma M.Y., **Culloty S.C.**, Lynch S.A., et al. (2014) *Bonamia parasites: a rapidly changing perspective on a genus of important mollusc pathogens*, Diseases of Aquatic Organisms, 110, 1-2, 5-23

Hu W., **Culloty S.C.**, Darmody G., Lynch, S., **Davenport J.** and **Sheehan D.** (2014) *Toxicity of copper oxide nanoparticles in the Blue Mussel (Mytilus edulis): A redox proteomic investigation*, Chemosphere, 108, 289-299

Flannery G., Lynch S.A., Longshaw M., **Culloty S.C.**, et al. (2014) *Inter laboratory variability in screening for Bonamia ostreae, a protistan parasite of the European Flat Oyster (Ostrea edulis)*, Diseases of Aquatic Organisms, 110, 1-2. 93-99

Lynch S.A., Flannery G., Hugh-Jones T., Hugh-Jones D. and **Culloty S.C.** (2014) *Thirty-year history of Irish (Rossmore) Ostrea edulis selectively bred for disease resistance to Bonamia ostreae*, Diseases of Aquatic Organisms, 110, 1-2, 113-121

Lynch S.A., Morgan E., Carlsson J., Mackenzie, C., Wooton E.C., Rowley A.F., Malham S. and **Culloty S.C.** (2014) *The health status of mussels, Mytilus spp., in Ireland and Wales with the molecular identification of a previously undescribed Haplosporidian*, Journal of Invertebrate Pathology, 118, 59-65

Mackenzie C.L., Lynch S.A., **Culloty S.C.**, et al. (2014) *Future oceanic warming and acidification alter immune response and disease status in a commercial shellfish species, Mytilus edulis (L.)*, Plos One, 9, 6, A e99712

Rowley A.F., Cross M.E., **Culloty S.C.**, Morgan E., **O'Riordan R.M.**, et al. (2014) *The potential impact of climate change on the infectious diseases of commercially important shellfish populations in the Irish Sea- A review*, ICES Journal Of Marine Science, 71, 4, 741-759

Davenport J., Jones T., Todd W., Thierry M., et al. (2014) *Pink spot, white spot: The pineal skylight of the Leatherback Turtle (Dermochelys scoriacea Vandelli 1761) skull and its possible role in the phenology of feeding migrations*, Journal of Experimental Marine Biology and Ecology, 461, 1-6

Davenport J., Jones T., Todd W., Thierry M., et al. (2014) *Unique characteristics of the trachea of the juvenile Leatherback Turtle facilitate feeding, diving and endothermy*, Journal of Experimental Marine Biology and Ecology, 450, Special Issue, 40-46

Greco G., Faimali M. and **Davenport J.** (2014) *Factors influencing the deterioration of the carapace surface during the moult cycle of Carcinus maenas (Linnaeus, 1758)*, Contributions to Zoology, 83, 3, 167-175

Sullivan T., Byrne C., Harman L., **Davenport J.**, **McAllen R.**, et al. (2014) *Determination of spatial and temporal variability of pH and dissolved oxygen concentrations in a seasonally hypoxic semi-enclosed marine basin using continuous monitoring*, Analytical Methods, 6, 15, 5489-5497

Devoy R. (2014) *Sea-Level Rise: Causes, Impacts, and Scenarios for Change*, In: Ellis J.T. and Sherman D.J. (eds.) Coastal and Marine Hazards, Risks, and Disasters, 1st Edition, Elsevier, ISBN 978-0123964830

McClatchey J., **Devoy R.**, Woolf D., et al. (2014) *Climate change and adaptation in the coastal areas of Europe's Northern Periphery Region*, Ocean & Coastal Management, 94, 9-21

Harrington C., Reen F. J., Mooij M.J., **Dobson A.D.W.**, **O'Gara F.**, et al. (2014) *Characterisation of Non-Autoinducing Tropicodithetic Acid (TDA) Production from Marine Sponge Pseudo vibrio Species*, Marine Drugs, 12, 12, 5960-5978

Lallier L.E., McMeel O., Greiber T., **Dobson A.D.W.**, et al. (2014) *Access to and use of marine genetic resources: understanding the legal framework*, Natural Product Reports, 31, 5, 612-616

- Rocha-Martin J., Harrington C., **Dobson A.D.W.** and **O'Gara F.** (2014) *Emerging strategies and integrated systems microbiology technologies for biodiscovery of marine bioactive compounds*, *Marine Drugs*, 12, 6, 3516-3559
- Seghal K.J., Nishanth L.A., Kennedy J., **Dobson A.D.W.** and Selvin J. (2014) *Halotolerant thermostable lipase from the marine bacterium Oceanobacillus sp. Pumb02 with an ability to disrupt bacterial biofilms*, *Bioengineered*, 5, 5, 305-318
- Vieglmann C., Parker J., Ooi T., Kennedy J., **Dobson A.D.W.**, et al. (2014) *Isolation and identification of Antitrypanosomal and Antimycobacterial active steroids from the Sponge Haliclona simulans*, *Marine Drugs*, 12, 5, 2937-2952
- Bastian T., Lilley M.K.S., Beggs S.E., Hays G.C. and **Doyle T.K.** (2014) *Ecosystem relevance of variable jellyfish biomass in the Irish Sea between years, regions and water types*, *Estuarine Coastal and Shelf Science*, 149, 302-312
- Svobodova H., Petrussek A. and **Doyle T.K.** (2014) *Land-based observations of ocean megafauna off Cape Clear Island (South-West Ireland) in the summer of 2008*, *Irish Naturalists' Journal*, 33, 2, 102-111
- Veiga J. M., Vlachogianni T., Pahl S., Thompson R. Kopke K., **Doyle T.**, Hartley B., Maes T., Orthodoxou D. and Loizidou X. (2014) *Enhancing public awareness and promoting co-responsibility for marine litter in Europe: the challenge of MARLISCO*, *Marine Pollution Bulletin*
- O'Driscoll D., Skrabakova Z. and **James K.J.** (2014) *Confirmation of extensive natural distribution of azaspiracids in the tissue compartments of mussels (Mytilus edulis)*, *TOXICON*, 92, 123-128
- Bodey T.W., **Jessopp M.**, Votier S.C., Gerritsen H.D., Cleasby I.R., Hamer K.C., Patrick S.C., Wakefield E.D. and Bearhop S. (2014) *Seabird movement reveals the ecological footprint of fishing vessels*, *Current Biology*, 24, R514-R515
- McAllen R.**, Hernandez-Milian G., **Rogan E.**, et al. (2014) *First record of a cetacean (Common Dolphin, Delphinus delphis) within the marine nature reserve at Lough Hyne, Co. Cork*, *Irish Naturalists' Journal*, 33, 2, 100-101
- Dalton C., O'Dwyer B., Taylor D., de Eyto E., Jennings E., Chen G., Poole R., Dillane M. and **McGinnity P.** (2014) *Anthropocene environmental change in an internationally important oligotrophic catchment on the Atlantic seaboard of western Europe*. *Anthropocene*, 5, 9-21.
- Friedland K.D., Shank B.V., Todd C.D., **McGinnity P.** and Nye J.A. (2014). *Differential response of continental stock complexes of Atlantic Salmon (Salmo salar) to the Atlantic multi-decadal oscillation*, *Journal of Marine Systems*, 133, 77-87
- Gurney W.S.C., Brennan L.O., Bacon P.J., Whelan K.F., O'Grady M., Dillane E. and **McGinnity P.** (2014). *Objectively assigning species and ages to salmonid length data from dual-frequency identification sonar*, *Transactions of the American Fisheries Society*, 143, 573-585.
- Mäkinen H., Vasemägi A., **McGinnity P.**, **Cross T.F.** and Primmer C.R. (2014) *Population genomic analyses of early phase Atlantic Salmon (Salmo salar) domestication/captive breeding*, *Evolutionary Applications*, 8, 1, 93-107
- Barbosa T.M., Phelan R.W., Leong D., **Morrissey J.P.**, **Dobson A.D.W.**, **O'Gara F.**, et al. (2014) *A novel erythromycin resistance plasmid from Bacillp. Strain HS24, isolated from the marine Sponge Haliclona Simulans*, *Plos One*, 9, 12, A e115583
- Kennedy J., Flemer B., Jackson S.A., **Morrissey J.P.**, **O'Gara F.** and **Dobson A.D.W.** (2014) *Evidence of a putative deep sea specific microbiome in marine sponges*, *Plos One*, 9, 7, Ae103400
- Crowley S. P., **O'Gara F.**, O'Sullivan O., **Dobson A.D.W.**, et al. (2014) *Marine Pseudovibrio sp. as a novel source of antimicrobials*, *Marine Drugs*, 12, 12, 5916-5929
- Vieglmann C., Margassery L.M., Kennedy J., O'Brien C., **O'Gara F.**, **Morrissey J.P.**, **Dobson A.D.W.**, et al. (2014) *Metabolomic profiling and genomic study of a Marine Sponge-associated Streptomyces sp.*, *Marine Drugs*, 12, 6, 3323-3351
- Lahive E., **O'Halloran J.** and **Jansen M.A.K.** (2014) *A marriage of convenience; a simple food chain comprised of Lemna minor (L.) and Gammarus pulex (L.) to study the dietary transfer of zinc*, *Plant Biology (Stuttgart, Germany)*, 1, 75-81
- McCarthy M., **O'Halloran J.**, **O'Brien N.M.**, **van Pelt F.N.A.M.**, et al. (2014) *Does the marine biotoxin okadaic acid cause DNA fragmentation in the Blue Mussel and the Pacific Oyster?* *Marine Environmental Research*, 101, 153-160
- Kennedy J., Margassery L.M., **O'Leary N.D.**, **O'Gara F.**, **Morrissey J.** and **Dobson A.D.W.** (2014) *Aquimarina amphilecti sp. nov., isolated from the sponge Amphilectus fucorum*, *International Journal Of Systematic And Evolutionary Microbiology*, 64, 2, 501-505
- Gray S.R.J., Gagnon A.S., Gray S.A., O'Dwyer B., **O'Mahony C.**, Muir D., **Devoy R.J.N.**, Falaleeva M. and **Gault J.** (2014) *Are coastal managers detecting the problem? Assessing stakeholder perception of climate vulnerability using Fuzzy Cognitive Mapping*, *Ocean & Coastal Management*, 94, 74-89
- Cross M., Lynch S.A., **O'Riordan R.M.** and **Culloty S.C.** (2014) *A health status of Clams, Mya arenaria and Ensis siliqua, in the Irish Sea*, *Journal of Invertebrate Pathology*, 11, 15-18
- Cross M.E., **O'Riordan R.M.** and **Culloty S.C.** (2014) *The reproductive biology of the exploited Razor Clam (Ensis siliqua) in the Irish Sea*, *Fisheries Research*, 150, 11-17
- Banguera-Hinestroza E., Evans P.G.H., Mirimin L., Reid R.J., Mikkelsen B., Couperus A.S., Deaville R., **Rogan E.** and Hoelzel A.R. (2014) *Phylogeography and population dynamics of the White-sided Dolphin (Lagenorhynchus acutus) in the North Atlantic*, *Conservation Genetics*, 15, 789-80
- Brown S., Reid D. and **Rogan E.** (2014) *Characteristics of fishing operations, environment and life history contributing to small cetacean bycatch in the Northeast Atlantic*, *Plos One*, 9, 8, Article No. e104468
- Fernandez R., Pierce G.J., Macleod C.D., **Rogan E.**, et al. (2014) *Strandings of Northern Bottlenose Whales (Hyperoodon ampullatus) in the north-east Atlantic: seasonality and diet*, *Journal of The Marine Biological Association of The United Kingdom*, 94, 6, 1109-1116
- Fontaine M.C., Roland K., Calves I., **Rogan E.**, et al. (2014) *Postglacial climate changes and rise of three ecotypes of Harbour Porpoises (Phocoena phocoena) in western Palearctic waters*, *Molecular Ecology*, 23, 13, 3306-3321
- Gosch M., Hernandez-Milian G., **Rogan E.**, **Jessopp M.** and **Cronin M.** (2014) *Grey Seal diet analysis in Ireland highlights the importance of using multiple diagnostic features*, *Aquatic Biology*, 20, 155-167

- Hammond P.S., Gillespie D., Lovell P., **Rogan E.**, et al. (2014) *Large-scale surveys for cetaceans: Line transect assumptions, reliability of abundance estimates and improving survey efficiency - A response to MacLeod*, Biological Conservation, 170, 338-339
- Pazhayamadom D.G., Kelly C.J., **Rogan E.** and Codling E.A. (2014) *Decision Interval Cumulative Sum Harvest Control Rules (DI-CUSUM-HCR) for managing fisheries with limited historical information*, Fisheries Research, 171, 154-169
- Cole C., Coelho A.V., James R.H., **Sheehan D.**, et al. (2014) *Proteomic responses to metal-induced oxidative stress in hydrothermal vent-living mussels, Bathymodiolus sp., on the Southwest Indian Ridge*, Marine Environmental Research, 96, Special Issue, 29-37
- Karlsen O.A., **Sheehan D.** and Goksoyr A. (2014) *Alterations in the Atlantic Cod (Gadus morhua) Hepatic Thiol-proteome after methylmercury exposure*, Journal of Toxicology and Environmental Health-PART A-CURRENT ISSUES, 77, 650-662
- Schmidt W., Rainville L.C., McEneff G., **Sheehan D.**, et al. (2014) *A proteomic evaluation of the effects of the pharmaceuticals diclofenac and gemfibrozil on marine mussels (Mytilus spp.): evidence for chronic sublethal effects on stress- response proteins*, Drug Testing and Analysis, 6, 3, 210-219
- Sellami B., Louati H., Dellali M., **Sheehan D.**, et al. (2014) *Effects of permethrin exposure on antioxidant enzymes and protein status in Mediterranean clams Ruditapes decussatus*, Environmental Science And Pollution Research, 21, 6, 4461-4472
- Trevisan R., Delapiedra G., Mello D.F., **Sheehan D.**, et al. (2014) *Gills are an initial target of zinc oxide nanoparticles in oysters Crassostrea gigas, leading to mitochondrial disruption and oxidative stress*, Aquatic Toxicology, 153, Special Issue, 27-38
- McCarthy M., **van Pelt F.N.A.M.**, Bane V. and **O'Halloran J.** (2014) *Application of passive (SPATT) and active sampling methods in the profiling and monitoring of marine biotoxins*, Toxicon, 89, 77-86
- ## ENERGY
- Alcorn R.**, Blavette A., Healy M. and **Lewis A.** (2014) *FP7 EU funded CORES wave energy project: A coordinators' perspective on the Galway Bay sea trials*, The Journal of Underwater Technology, 21, 1, 1-9
- Alcorn R.**, **Dalton G.**, Healy M., and O'Connor M. (2014) *De-risking ocean energy*, In: Clean Tech, Clean Profits (2nd Edition) ISBN 978-0749470418
- Blavette A., O'Sullivan D.L., **Alcorn R.**, **Lewis T.W.** and **Egan M.G.** (2014) *Impact of a medium-size wave farm on grids of different strength levels*, IEEE Transactions on Power Systems, 10.1109/TPWRS.2013.2284513
- Kelly J., O'Sullivan D., **Wright W.M.D.**, **Alcorn R.** and **Lewis A.W.** (2014) *Challenges and lessons learned in the deployment of an offshore oscillating water column*, COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 33, 5, 1678 – 1704
- Cahill P., **Pakrashi V.**, Jackson N. and Mathewson A. (2014) *Comparison of piezoelectric materials for energy harvesting from civil infrastructure elements for use in health monitoring*, Life-Cycle of Structural Systems: Design, Assessment, Maintenance and Management, 10.1
- Hanrahan B.L., **Lightbody G.**, Staudt L. and **Leahy P.** (2014) *A powerful visualization technique for electricity supply and demand at industrial sites with combined heat and power and wind generation*, Renewable & Sustainable Energy Reviews, 31, 860-869
- Foley A.M., **Leahy P.G.**, Li K., **McKeogh E.J.**, and Morrison A.P. (2014) *A long-term analysis of pumped hydro storage to firm wind power*, Applied Energy, 137: 638-648
- Kurbatsky V., Spiryaev V., Tomin N., **Leahy P.** and Sidorov, D. (2014) *Power System Parameters Forecasting Using Hilbert-Huang Transform and Machine Learning*, Irkutsk State University Bulletin, 3, 4, 1-17
- Allen E., Wall D.M., Herrmann C. and **Murphy J.D.** (2014) *Investigation of the optimal percentage of green seaweed that may be co-digested with dairy slurry to produce gaseous biofuel*, Bioresource Technology, 170, 436-444
- Browne J.D., Allen E. and **Murphy J.D.** (2014) *Assessing the variability in biomethane production from the organic fraction of municipal solid waste in batch and continuous operation*, Applied Energy, 128, 307-314
- Browne J.D. and **Murphy J.D.** (2014) *The impact of increasing organic loading in two phase digestion of food waste*, Renewable Energy, 71, 69-76
- Fierro J., Gomez X. and **Murphy J.D.** (2014) *What is the resource of second generation gaseous transport biofuels based on pig slurries in Spain?* Applied Energy, 114, Special Issue, 783-789
- McEniry J., Allen E., **Murphy J.D.** and O'Kiely P. (2014) *Grass for biogas production: The impact of silage fermentation characteristics on methane yield in two contrasting biomethane potential test systems*, Renewable Energy, 63, 524-530
- Persson T., **Murphy J.D.**, Jannasch A-K., Ahern E., Liebetrau J., Trommler, M. and Toyama J. (2014) *A perspective on the potential role of biogas in smart energy grids*, International Energy Agency (IEA) Bioenergy, ISBN 978-1-910154-12-0
- Wall D.M., Allen E., Straccialini B., O'Kiely P. and **Murphy J.D.** (2014) *The effect of trace element addition to mono-digestion of grass silage at high organic loading rates*, Bioresource Technology, 172, Pages: 349-355
- Wall D.M., Allen E., Straccialini B., O'Kiely P. and **Murphy J.D.** (2014) *Optimisation of digester performance with increasing organic loading rate for mono- and co-digestion of grass silage and dairy slurry*, Bioresource Technology, 173, 422-42
- Grogan D.M., Leen S.B. and **Ó Brádaigh C.M.** (2014) *An XFEM-based methodology for fatigue delamination and permeability in composites*, Composite Structures, 107, 205-218
- Grogan D.M., Leen S.B., Semprimoschnig C.O.A. and **Ó Brádaigh C.M.** (2014) *Damage characterisation of cryogenically cycled carbon/PEEK laminate*, Composites Part A-Applied Science And Manufacturing, 66, 237-250
- Feerick E.M., Wilson J., Jarman-Smith M., **Ó Brádaigh C.M.** and McGarry J.P. (2014) *Self-tapping ability of carbon fibre reinforced PEEK suture anchors*, Journal of Biomaterials Applications, 23, 502-513
- Murray B.R., Leen S.B. and **Ó Brádaigh C.M.** (2014) *Void distributions and permeability prediction for rotationally moulded polymers*, Proceedings of the Institution of Mechanical Engineers, Part L, Journal of Materials: Design and Applications

- Daly H.E., Ramea K., Chiodi A., Yeh S., Gargiuloa M. and **Ó Gallachóir B.** (2014) *Incorporating travel behaviour and travel time into TIMES energy system models*, Applied Energy, 135, 429–439
- Deane J.P., Drayton G. and **Ó Gallachóir B.** (2014) *The impact of sub-hourly modelling in power systems with significant levels of renewable generation*, Applied Energy, 133, 152–158
- Glynn J., Chiodi A., Gargiuloa M., Deane J.P., **Ó Gallachóir B.**, et al. (2014) *Energy Security Analysis: The case of constrained oil supply for Ireland*, Energy Policy, 66, 312–325.
- Rogan F., Caiman C.J., Daly H.E., Dineen D., Deane J.P., **Ó Gallachóir B.**, et al. (2014) *LEAPs and Bounds—an energy demand and constraint optimised model of the Irish energy system*, Energy Efficiency, 7, 3, 441–466
- Waenn A., Connolly D. and **Ó Gallachóir B.** (2014) *Investigating 100% renewable energy supply at regional level using scenario analysis*, International Journal of Sustainable Energy Planning and Management, 3, 21–23
- Welsch M., Deane J.P., **Ó Gallachóir B.**, Rogan F., et al. (2014) *Incorporating flexibility requirements into long-term energy system models – A case study on high levels of renewable electricity penetration in Ireland*, Applied Energy, 135, 600–615
- O’Hagan A.M.** (2014) *Regulation of offshore renewable energy*, In: Warner R. and Kaye S. (eds.) Routledge Handbook of Maritime Regulation and Enforcement, Routledge, ISBN 978-0415704458
- Leeney R.H., Greaves D., Conley D. and **O’Hagan A.M.** (2014) *Environmental impact assessments for wave energy developments – learning from existing activities and informing future research priorities*, Ocean and Coastal Management, 99, 14–22
- Simas T., **O’Hagan A.M.**, O’Callaghan J., Hamawi S., Magagna D., Bailey I., Greaves D., Saulnier J.B., Marina D., Bald J., Huertas C. and Sundberg J. (2014) *Review of consenting processes for ocean energy in selected European Union Member States*, International Journal of Marine Energy, 9, 41–59
- Bruton K., Coakley D., Raftery P., Cusack D.O., Keane M.M. and **O’Sullivan D.T.J.** (2014) *Comparative analysis of the AHU InFO fault detection and diagnostic expert tool for AHUs with APAR*, Energy Efficiency, 10.1007/s12053-014-9289-z
- Bruton K., Raftery P., O’Donovan P., Aughney N., Keane M.M. and **O’Sullivan D.T.J.** (2014) *Development and alpha testing of a cloud based automated fault detection and diagnosis tool for Air Handling Units*, Automation in Construction, 39, 70–83
- Bruton K., Raftery P., Kennedy B., Keane M.M. and **O’Sullivan D.T.J.** (2014) *Review of automated fault detection and diagnostic tools in air handling units*, Energy Efficiency, 7, 335–351
- Murray S.N., Walsh B.P., Kelliher D. and **O’Sullivan D.T.J.** (2014) *Multi-variable optimization of thermal energy efficiency retrofitting of buildings using static modelling and genetic algorithms - A case study*, Building and Environment, 75, 98–107
- Sheng W., Alcorn R. and Lewis T.** (2014) *Assessment of primary energy conversions of oscillating water columns, Part I: Hydrodynamic analysis*, Journal of Renewable and Sustainable Energy, 6, 5
- Sheng W., Alcorn R. and Lewis T.** (2014) *Assessment of primary energy conversions of oscillating water columns, Part II: Power take-off and validations*, Journal of Renewable and Sustainable Energy, 6, 5
- Sheng W., Alcorn R. and Lewis T.** (2014) *On improving wave energy conversion, Part I: optimal and control technologies*, Renewable Energy, 10.1016/j.renene.2014.09.048
- Sheng W., Alcorn R. and Lewis T.** (2014) *On improving wave energy conversion, Part II: development of latching control technologies*, Renewable Energy, 10.1016/j.renene.2014.09.049
- Sheng W., Alcorn R. and Lewis T.** (2014) *Physical modelling of wave energy converters*, Ocean Engineering, 84, 29–36

ENVIRONMENT

- Barrett B., Nitze I., Green S. and **Cawkwell F.** (2014) *Assessment of multi-temporal, multi-sensor radar and ancillary spatial data for grasslands monitoring in Ireland using machine learning approaches*, Remote Sensing of Environment, 152, 109–124
- Pfeffer W.T., Arendt A.A., Bliss A., Bolch T. and **Cawkwell F.** (2014) *The Randolph Glacier Inventory: a globally complete inventory of glaciers*, Journal of Glaciology, 60, 221, 537–552
- Cott G.M., **Chapman D.V.** and **Jansen M.A.K.** (2014) *Differences in nitrogen-assimilating enzyme activity in halophyte species are habitat-related*, Journal of Plant Nutrition and Soil Science, 177, 5, 705–713
- Aykanat T., Johnston S.E., Cotter, D., **Cross T.F.**, **McGinnity P.**, et al. (2014) *Molecular pedigree reconstruction and estimation of evolutionary parameters in a wild Atlantic Salmon river system with incomplete sampling: a power analysis*, BMC Evolutionary Biology, 14, 68
- Davenport J.**, O’Callaghan M.J.A., Davenport J.L., **Kelly T.C.**, et al. (2014) *Mussel dropping by Carrion and Hooded Crows: biomechanical and energetic considerations*, Journal of Field Ornithology, 85, 2, 196–205
- Tan H., Mooij M.J., Barret M., Hegarty P., Harrington C., **Dobson A.D.W.** and **O’Gara F.** (2014) *Identification of novel phytase genes from an agricultural soil-derived metagenome*, Journal of Microbiology and Biotechnology, 24,1, 113–118
- Velivelli S.L.S., De Vos P., Kromann P., Declerck S. and **Doyle-Prestwich B.** (2014) *Biological control agents: from field to market, problems, and challenges*, Trends In Biotechnology, 32, 10, 493–496
- Fitzpatrick D.**, Evans-Hurso R., Fu Y., Burke T., Kruse J., Vos B., McSweeney S.G., Casaubieilh P. and Keating J.J. (2014) *Rapid profiling of enteric coated drug delivery spheres via Broadband Acoustic Resonance Dissolution Spectroscopy (BARDS)*, Analyst, 139 :1000–1006
- Reen F.J., Woods D.F., Mooij M.J., Chroinin M.N., Mullane D., Zhou L., Quille J, **Fitzpatrick D.**, Glennon J.D., McGlacken G.P., Adams C. and **O’Gara F.** (2014) *Aspirated bile: a major host trigger modulating respiratory pathogen colonisation in cystic fibrosis patients*, European Journal of Clinical Microbiology & Infectious Diseases, 33, 1763–1771
- Giller P.S.** and Greenberg L. (2014) *The relationship between individual habitat use and diet in Brown Trout*, Freshwater Biology, 60, 2, 256–266
- Abdallah N., Schlumpberger M., **Hanrahan J.P.**, Tobin J.M., et al. (2014) *Comparison of mesoporous silicate supports for the immobilisation and activity of cytochrome c and lipase*, Journal Of Molecular Catalysis B-Enzymatic, 108, 82–88

- Graham C.T., Drinan T.J., **Harrison S.S.C.** and **O'Halloran J.** (2014) *Relationship between plantation forest and Brown Trout growth, energetics and population structure in peatland lakes in western Ireland*, *Forest Ecology and Management*, 321, Special Issue, 71-8
- Graham C.T., **Harrison S.S.C.** and Harrod C. (2014) *Differences in the contributions of dietary water to the hydrogen stable isotope ratios of cultured Atlantic Salmon and Arctic Char tissues*, *Hydrobiologia*, 721, 45-55
- Harrison S.S.C.**, Hutton S., Baars J.R., Kirakowski T., **O'Halloran J.**, et al. (2014) *Contrasting impacts of conifer forests on Brown Trout and Atlantic Salmon in headwater streams in Ireland*, *Biology And Environment-Proceedings Of The Royal Irish Academy*, 114B, 3, 219-231
- Kavanagh J.A. and **Harrison S.S.C.** (2014) *The contribution of a drainage network to the spatial and temporal patterns of macroinvertebrate diversity across an agricultural headwater catchment*, *Biology And Environment-Proceedings Of The Royal Irish Academy*, 114B, 3, 181-19
- Higgs K.T.**, Boyd J. D. and Williams B.P.J. (2014) *An Early Devonian Age for the Bulls Head Formation, Lower Old Red Sandstone, Dingle Peninsula*, *Irish Journal of Earth Sciences*, 32, 50-70
- Armstrong M.J., O'Dwyer C., Macklin W.J. and **Holmes J.D.** (2014) *Evaluating the performance of nanostructured materials as lithium-ion battery electrodes*, *Nano Research*, 7, 1, 1-6
- Borah D., Ghoshal T., Shaw M.T., Petkov N., **Holmes J.D.**, **Morris M.A.**, et al. (2014) *The morphology of ordered block copolymer patterns as probed by high resolution imaging*, *Nanomaterials and Nanotechnology*, 4, 1-13
- Borah D., Rasappa S., Sentharamaikannan R., **Holmes J.D.** and **Morris M.A.** (2014) *Graphoepitaxial directed self-assembly of polystyrene-block-polydimethylsiloxane block copolymer on substrates functionalized with hexamethyldisilazane to fabricate nanoscale silicon patterns*, *Advanced Materials Interfaces*, 1, 3, Article No. 1300102
- Buitrago E., Badia M.F.B., Georgiev Y.M., **Holmes J.D.**, et al. (2014) *Electrical characterization of high performance, liquid gated vertically stacked SiNW-based 3D FET biosensors*, *Sensors And Actuators B-Chemical*, 199, 291-30
- Chaudhari A., Ghoshal T., Shaw M.T., **Holmes J.D.**, **Morris M.A.**, et al. (2014) *Formation of sub-7 nm feature size PS-b-P4VP block copolymer structures by solvent vapour process.*, In Wallow, T.I., Hohle, C.K., (eds) *Advances In Patterning Materials And Processes*. Conference on Advances in Patterning Materials and Processes XXXI Location: San Jose, Clifornia. Date: FEB 24-27, 2014. Book Series: Proceedings of SPIE, 9051 Article No. 905110
- Collins G., Aureau D., **Holmes J.D.**, et al. (2014) *Germanium oxide removal by citric acid and thiol passivation from citric acid-terminated Ge(100)*, *Langmuir*, 30, 47, 14123-14127
- Collins G., Schmidt M., McClacken G.P., O'Dwyer C. and **Holmes J.D.** (2014) *Stability, oxidation, and shape evolution of PVP-capped Pd Nanocrystals*, *Journal of Physical Chemistry C*, 118, 12, 6522-6530
- Collins G., Schmidt M., O'Dwyer C., **Holmes J.D.**, et al. (2014) *Enhanced catalytic activity of high-index faceted palladium nanoparticles in Suzuki Miyaura Coupling due to efficient leaching mechanism*, *ACS Catalysis*, 4, 9, 3105-3111
- Collins G., Schmidt M., O'Dwyer C., **Holmes J.D.**, et al. (2014) *The origin of shape sensitivity in palladium-catalyzed Suzuki-Miyaura cross-coupling reactions*, *Angewandte Chemie-International Edition*, 53, 16, 4142-4145
- Cummins C., Mokarian-Tabari P., **Holmes J.D.** and **Morris M.A.** (2014) *Selective Etching of poly(lactic Acid) in Poly(styrene)-Block-Poly(D,L)Lactide Diblock Copolymer for Nanoscale Patterning*, *Journal of Applied Polymer Science*, 131, 18, Article No. 40798
- Duffy R., Shayesteh M., Thomas K., **Holmes J.D.**, et al. (2014) *Access resistance reduction in Ge nanowires and substrates based on non-destructive gas-source dopant in-diffusion*, *Journal of Materials Chemistry C*, 2, 43, 9248-9257
- Fagas G., Nolan M., Georgiev Y.M., **Holmes J.D.**, et al. (2014) *Component design and testing for a miniaturised autonomous sensor based on a nanowire materials platform*, *Microsystem Technologies-Micro-And Nanosystems-Information Storage And Processing Systems*, 20, 4-5, 971-988, Special Issue
- Gangnaik A., Georgiev Y.M., McCarthy B., **Holmes J.D.**, et al. (2014) *Characterisation of a novel electron beam lithography resist, SML and its comparison to PMMA and ZEP resists*, *Microelectronic Engineering*, 123, 126-130
- Geaney H., Collins G., Glynn C., **Holmes J.D.** and O'Dwyer C. (2014) *Palladium nanoparticles as catalysts for Li-O₂ battery cathodes*, *ECS Transactions*, 58, 21-29
- Geaney H., O'Connell J., **Holmes J.D.** and O'Dwyer Colm (2014) *On the use of gas diffusion layers as current collectors in Li-O₂ battery cathodes*, *Journal of the Electrochemical Society*, 161, 14, A1964-A1968
- Georgiev Y.M., Petkov N., McCarthy B., **Holmes J.D.**, et al. (2014) *Fully CMOS-compatible top-down fabrication of sub-50 nm silicon nanowire sensing devices*, *Microelectronic Engineering*, 118, 47-53
- Georgiev Y.M., Yu R., Petkov N. and **Holmes J.D.**, et al. (2014) *Silicon and germanium junctionless nanowire transistors for sensing and digital electronics applications*, In: Nazarov A., Balestra F., Kilchyska V. and Flandre D. (eds.) *Functional Nanomaterials And Devices For Electronics, Sensors And Energy Harvesting*. Book Series: Engineering Materials, Pages: 367-388
- Ghoshal T., Sentharamaikannan R., Shaw M.T., **Holmes J.D.** and **Morris M.A.** (2014) *Fabrication of ordered, large scale, horizontally-aligned Si nanowire arrays based on an in situ hard mask block copolymer approach*, *Advanced Materials*, 26, 8, 1207-1216
- Glynn C., Creedon D., Geaney H., **Holmes J.D.**, et al. (2014) *Optimizing vanadium pentoxide thin films and multilayers from dip-coated nanofluid precursors*, *ACS Applied Materials & Interfaces*, 6, 3, 2031-2038
- Hinde C.S., Ansovini D., Collins G., **Holmes J.D.**, et al. (2014) *Extruded metal nanoparticles as sustainable oxidation catalysts*. Conference: 248th National Meeting of the American-Chemical-Society (ACS) Location: San Francisco, California, Date: AUG 10-14, 2014. Abstracts of papers of the American Chemical Society, 248 Meeting Abstract: 914-INOR
- Kelly R.A., **Holmes J.D.** and Petkov N. (2014) *Visualising discrete structural transformations in germanium nanowires during ion beam irradiation and subsequent annealing*, *Nanoscale*, 6, 21, 12890-12899

- Long B., Verni G.A., O'Connell J., **Holmes J.D.**, et al. (2014) *Molecular Layer Doping: non-destructive doping of silicon and germanium*. In IEEE (eds.) Proceedings from 20th International Conference on Ion Implantation Technology (IIT 2014) Location: Portland, Oregon. Date: JUN 26-JUL 04, 2014
- McSweeney W., Lotty O., **Holmes J.D.**, et al. (2014) *The influence of carrier density and doping type on lithium insertion and extraction processes at silicon surfaces*, *Electrochimica Acta*, 135, 356-367
- Mokarian-Tabari P., Cummins C., Rasappa S., **Holmes J.D.**, **Morris M.A.**, et al. (2014) *Study of the kinetics and mechanism of rapid self-assembly in block copolymer thin films during solvo-microwave annealing*, *Langmuir*, 30, 35, 10728-10739
- O'Regan C., Biswas S., Petkov N. and **Holmes J.D.** (2014) *Recent advances in the growth of germanium nanowires: synthesis, growth dynamics and morphology control*, *Journal Of Materials Chemistry C*, 2, 1, 14-33
- Rasappa S., Borah D., Sentharamaikannan R., **Holmes J.D.**, **Morris M.A.**, et al. (2014) *Fabrication of 3-D nanodimensioned electric double layer capacitor structures using block copolymer templates*, *Journal Of Nanoscience And Nanotechnology*, 14, 7, 5221-5227
- Santos-Martinez M.J., Rahme K., Corbalan J.J., **Holmes J.D.**, et al. (2014) *Pegylation increases platelet biocompatibility of gold nanoparticles*, *Journal of Biomedical Nanotechnology*, 10, 6, 1004-1015
- Schmidt M., Amann A., Keeney L., **Holmes J.D.**, et al. (2014) *Absence of Evidence not equal Evidence of Absence: statistical analysis of inclusions in multiferroic thin films*, *Scientific Reports*, 4, Article No. 5712
- Smith M.D., Taylor E., Sadler T.C., **Holmes J.D.**, et al. (2014) *Determination of Ga auto-incorporation in nominal InAlN epilayers grown by MOCVD*, *Journal of Materials Chemistry C*, 2, 29, 5787-5792
- Thorat A.V., Ghoshal T., Carolan P., **Holmes J.D.** and **Morris M.A.** (2014) *Defect chemistry and vacancy concentration of luminescent europium-doped ceria nanoparticles by the Solvothermal Method*, *Journal of Physical Chemistry C*, 118, 20, 10700-10710
- Thorat A.V., Ghoshal T., **Holmes J.D.**, Nambissan P.M.G. and **Morris M.A.** (2014) *A positron annihilation spectroscopic investigation of europium-doped cerium oxide nanoparticles*, *Nanoscale*, 6, 1, 608-615
- Wortmann L., Ilyas S., Niznansky D., **Holmes J.D.**, et al. (2014) *Bioconjugated iron oxide nanocubes: synthesis, functionalization, and vectorization*, *ACS Applied Materials & Interfaces*, 6, 19, 16631-16642
- Yu R., Georgiev Y.M., Das S., **Holmes J.D.**, et al. (2014) *Junctionless nanowire transistor fabricated with high mobility Ge channel*, *Physica Status Solidi-Rapid Research Letters*, 8, 1, 65-68
- Caprioli G., Cahill M. and **James K.J.** (2014) *Liquid Chromatography-Orbitrap mass spectrometry method for the determination of toxic glycoalkaloids and their aglycons in potato upper soil*, *Journal of the Brazilian Chemical Society*, 25, 9, 1681-1687
- Caprioli G., Cahill M., Vittori S. and **James K.J.** (2014) *Liquid Chromatography-Hybrid Linear Ion Trap-High-Resolution Mass Spectrometry (LTQ-Orbitrap) Method for the determination of glycoalkaloids and their aglycons in potato samples*, *Food Analytical Methods*, 7, 7, 1367-1372
- Caprioli G., Cahill M., Vittori S. and **James K.J.** (2014) *Mass Fragmentation Studies of alpha-Tomatine and Validation of a Liquid Chromatography LTQ Orbitrap Mass Spectrometry Method for its quantification in tomatoes*, *Food Analytical Methods*, 7, 8, 1565-1571
- Caprioli G., Logrippo S., Cahill M. and **James K.J.** (2014) *High-performance liquid chromatography LTQ-Orbitrap mass spectrometry method for tomatidine and non-target metabolites quantification in organic and normal tomatoes*, *International Journal of Food Sciences and Nutrition*, 65, 8, 942-947
- Devaney J.L., **Jansen M.A.K.**, and **Whelan P.M.** (2014) *Spatial patterns of natural regeneration in stands of English Yew (Taxusbaccata L.); Negative neighbourhood effects*, *Forest Ecology And Management*, 321, Special Issue, 52-60
- Pasternak T., Asard H., Potters G. and **Jansen M.A.K.** (2014) *The thiol compounds glutathione and homoglutathione differentially affect cell development in Alfalfa (Medicagosativa L.)*, *Plant Physiology and Biochemistry*, 74, 16-23
- Hectors K., Van Oevelen S., Geuns J., **Jansen M.A.K.**, et al. (2014) *Dynamic changes in plant secondary metabolites during UV acclimation in Arabidopsis thaliana*, *Physiologia Plantarum*, 152, 2, 219-230
- Coughlan N.E., **Kelly T.C.** and **Jansen M.A.K.** (2014) *Mallard Duck (Anas platyrhynchos)-mediated dispersal of Lemnaceae: a contributing factor in the spread of invasive Lemna minuta?* *Plant Biology (Stuttgart, Germany)*
- Fuller L., Newman M., Irwin S., **Kelly T.**, **O'Halloran, J.**, et al. (2014) *Ground-dwelling spider diversity in rare European oak and yew woodlands and the impact of grazing*, *Biodiversity and Conservation*, 23, 8, 1911-1929
- Fuller L., Oxbrough A., **Kelly T.**, **O'Halloran J.**, et al. (2014) *The response of ground-dwelling spiders (Araneae) and hoverflies (Diptera: Syrphidae) to afforestation assessed using within-site tracking*, *Forestry*, 87, 2, Special Issue, 301-312
- Graham C.T., Wilson M.W., Gittings T., **Kelly T.C.**, Irwin S., Sweeney O.F.M., and **O'Halloran J.** (2014) *Factors affecting the bird diversity of planted and semi-natural oak forests in Ireland*, *Bird Study*, 61, 309-320
- Irwin S., Pedley S.M., Coote L., **Kelly T.C.**, **O'Halloran J.**, et al. (2014) *The value of plantation forests for plant, invertebrate and bird diversity and the potential for cross-taxon surrogacy*, *Biodiversity and Conservation*, 23, 3, 697-714
- Lewis L.J., **Kelly T.C.** and **Davenport J.** (2014) *Black-tailed Godwits (Limo salimosa islandica) and Redshanks (Tringa totanus) respond differently to macroalgal mats in their foraging areas*, *Wader Study Group Bulletin*, 121, 2, 85-9
- Pedley S.M., Martin R.D., Oxbrough A., **Kelly T.C.**, **O'Halloran J.**, et al. (2014) *Commercial spruce plantations support a limited canopy fauna: Evidence from a multi taxa comparison of native and plantation forests*, *Forest Ecology and Management*, 314, 172-182
- Jozsa J., **Kiely G.** and Borthwick A.G.L. (2014) *Sediment flux and its environmental implications*, *Journal of Environmental Informatics*, 24, 2, 111-120
- Kuppel S., Peylin P., Maignan, F., **Kiely G.**, et al. (2014) *Model-data fusion across ecosystems: from multisite optimizations to global simulations*, *Geoscientific Model Development*, 7, 6, 2581-2597

- Mallick K., Jarvis A., Wohlfahrt G., **Kiely G.**, et al. (2014) *Components of near-surface energy balance derived from satellite soundings - Part 2: Noontime latent heat flux*, *Biogeosciences*, 11, 24, 7369-7382
- Pratola C., Barrett B., Gruber A., **Kiely G.** and **Dwyer E.** (2014) *E valuation of a global soil moisture product from finer spatial resolution SAR Data and ground measurements at Irish sites*, *Remote Sensing*, 6, 9, 8190-8219
- Song B., Niu S., Luo R., **Kiely G.**, et al. (2014) *Divergent apparent temperature sensitivity of terrestrial ecosystem respiration*, *Journal Of Plant Ecology*, 7, 5, 419-428
- Verma M., Friedl, M.A., Richardson A.D., **Kiely G.**, et al. (2014) *Remote sensing of annual terrestrial gross primary productivity from MODIS: an assessment using the FLUXNET La Thuile data set*, *Biogeosciences*, 11, 8, 2185-2200
- Wellock M.L., Rafique R., La Perle C.M., **Kiely G.**, et al. (2014) *Changes in ecosystem carbon stocks in a grassland Ash (*Fraxinus excelsior*) afforestation chronosequence in Ireland*, *Journal Of Plant Ecology*, 7, 5, 429-438
- Yuan W., Cai W., Liu S., **Kiely G.**, et al. (2014) *Vegetation-specific model parameters are not required for estimating gross primary production*, *Ecological Modelling*, 292, 1-10
- Yuan W., Cai W., Xia J., **Kiely G.**, et al. (2014) *Global comparison of light use efficiency models for simulating terrestrial vegetation gross primary production based on the La Thuile database*, *Agricultural And Forest Meteorology*, 192, 108-120
- Kim D.G., Rafique R., **Leahy P.**, **Kiely G.**, et al. (2014) *Estimating the impact of changing fertilizer application rate, land use, and climate on nitrous oxide emissions in Irish grasslands*, *Plant and Soil*, 374, 1-2, 55-7
- Liu W., Xu X., McGoff N.M., **Leahy P.**, **Kiely G.**, et al. (2014) *Spatial and seasonal variation of dissolved organic carbon (DOC) concentrations in Irish streams: Importance of soil and topography characteristics*, *Environmental Management*, 53, 5, 959-967
- McVeigh P., Sottocornola M., Foley N., **Leahy P.** and **Kiely G.** (2014) *Meteorological and functional response partitioning to explain interannual variability of CO₂ exchange at an Irish Atlantic blanket bog*, *Agricultural And Forest Meteorology*, 194, 8-19
- McIntyre O.** (2014) *Environmental Protection of International Watercourses under International Law* (Ashgate Publishing, Aldershot, 2007) translated by Prof. Qin, Tianbao, School of Law, Wuhan University and published by *Intellectual Property Publishing House*, Beijing
- McIntyre O.** (2014) *The human right to water and reform of the Irish water sector*, *Journal of Human Rights and the Environment*, 5, 1, 74-101
- McIntyre O.** (2014) *The human right to water as a creature of global administrative law: a triumph of good governance values?* In Singh P. and Mayer B. (eds.), *Critical International Law: Post-Realism, Post-colonialism and Transnationalism* (Oxford University Press, New Delhi, 249-275
- McIntyre O.** (2014) *The protection of freshwater ecosystems revisited: towards a common understanding of the 'ecosystems approach' to the protection of transboundary water resources*, *Review of European, Comparative & International Environmental Law*, 23, 1, Special Issue, 88-95
- Moloney M., and **McKeogh E.** (2014) *Analysis of investment decisions in Irish state infrastructure*, *Proceedings of the Institute of Civil Engineers, Urban Design and Planning*, 167, 2, 69-78
- Anderson R.P., McCoy V.E., **McNamara M.E.** and Briggs, D.E.G. (2014) *What big eyes you have: the ecological role of giant pterygotid eurypterids*, *Biology Letters*, 10
- Godefroit P., Sinitsa S.M., Dhouailly D., Bolotsky Y.L., Sizov A.V., **McNamara M.E.**, Benton M.J. and Spagna, P. (2014) *A Jurassic ornithischian dinosaur from Siberia with both feathers and scales*, *Science (New York, N.Y.)*, 345, 451-455
- Godefroit P., Sinitsa S.M., Dhouailly D., Bolotsky Y.L., Sizov A.V., **McNamara M.E.**, Benton M.J. and Spagna P. (2014) *Response to comment on 'A Jurassic ornithischian dinosaur from Siberia with both feathers and scales'*, *Science*, 346
- McNamara M.E.**, Saranathan V., Locatelli E., Noh H., Briggs D., Orr P. and Cao H. (2014) *Cryptic iridescence in a fossil weevil generated by single diamond photonic crystals*, *Journal of The Royal Society Interface*, 11
- McManamon C., de Silva J.P., Power J., Ramirez-Garcia S., **Morris M.A.** and Cross, G.L.W. (2014) *Interfacial characteristics and determination of cohesive and adhesive strength of plasma-coated hydroxyapatite via nanoindentation and microscratch techniques*, *Langmuir: the ACS journal of surfaces and colloids*, 30, 11412-11420
- O'Regan C., Biswas S., Barth S., **Morris M.A.**, **Holmes J.D.**, et al. (2014) *Size-controlled growth of germanium nanowires from ternary eutectic alloy catalysts*, *Journal Of Materials Chemistry C*, 2, 23, 4597-4605
- Simao C., Khunsin W., Kehagias N., **Morris M.A.**, et al. (2014) *Order quantification of hexagonal periodic arrays fabricated by in situ solvent-assisted nanoimprint lithography of block copolymers*, *Nanotechnology*, 25, 17
- Thorat A.V., Ghoshal T., **Morris M.A.** and Nambissan P.M.G. (2014) *Eu-doped cerium oxide nanoparticles studied by positron annihilation*, *Acta Physica Polonica A*, 125, 756-759
- Gethins L., Guner O., Demirkol A., Rea M.C., Stanton C., Ross R.P., Yuceer Y. and **Morrissey J.P.** (2014) *Influence of carbon and nitrogen source on production of volatile fragrance and flavour metabolites by the yeast *Kluyveromyces marxianus**, *Yeast*, 32, 1, 67-76
- Morrissey J.P.**, Etschmann M.M., Schrader J., de Billerbeck G.M. (2014) *Cell factory applications of the yeast *Kluyveromyces marxianus* for the biotechnological production of natural flavour and fragrance molecules*, *Yeast*, 32, 1, 3-16
- O'Byrne M., Ghosh B., Schoefs F. and **Pakrashi V.** (2014) *regionally enhanced multiphase segmentation technique for damaged surfaces*, *Computer-Aided Civil and Infrastructure Engineering*, 29, 9, 644-658
- O'Sullivan A.M., O'Callaghan Y.C., O'Grady N.M., Waldron D., Smyth T., **O'Brien N.M.** and Kerry J.P. (2014) *An examination of the potential of seaweed extracts as functional ingredients in milk*, *International Journal of Dairy Technology*, 67, 182-193.
- McCarthy A.L., O'Callaghan Y.C., Connolly A., Piggott C.O., FitzGerald R.J. and **O'Brien N.M.** (2014) *Phenolic-enriched fractions from brewers' spent grain possess cellular antioxidant and immunomodulatory effects in cell culture model systems*, *Journal of the Science of Food and Agriculture* 94, 1373-1379.

- Valcarcel J., Reilly K., Gaffney M. and **O'Brien N.M.** (2014) *Effect of genotype and environment on the glycoalkaloid content of rare, heritage and commercial potato varieties*, Journal of Food Science, 79, 1039-1048
- Kehoe J.J., Liskova K., Mok K.H., **O'Brien N.M.**, Kelly A.L. and Brodtkorb A. (2014) *Formation of cytotoxic α -Lactalbumin / sodium oleate complexes: concentration and temperature effects*, International Dairy Journal, 38, 65-7
- Costello A., Reen F. J., **O'Gara F.**, et al. (2014) *Inhibition of co-colonizing cystic fibrosis-associated pathogens by Pseudomonas aeruginosa and Burkholderia multivorans*, Microbiology-SGM, 160, 1474-1487 Part: 7
- Egan F., Barret M. and **O'Gara F.** (2014) *The SPI-1-like Type III secretion system: more roles than you think*, Frontiers In Plant Science, 5, Article No. 34
- Hennessy E., O'Callaghan J., Mooij M.J., **O'Gara F.**, et al. (2014) *The impact of Simvastatin on pulmonary effectors of Pseudomonas aeruginosa infection*, Plos One, 9, 7, Article e102200
- Legendre C., Reen F.J., Woods D.F., **O'Gara F.**, et al. (2014) *Bile acids repress hypoxia-inducible Factor 1 signaling and modulate the airway immune response*, Infection And Immunity, 82, 9, 3531-3541
- McCarthy R.R., Mooij M.J., Reen F.J., **O'Gara F.**, et al. (2014) *A new regulator of pathogenicity (bvlR) is required for full virulence and tight microcolony formation in Pseudomonas aeruginosa*, Microbiology-SGM, 160, 1488-1500 Part: 7
- Shang F., Muimhneachain E.O., Reen F.J., **O'Gara F.**, et al. (2014) *One step preparation and electrochemical analysis of IQS, a cell-cell communication signal in the nosocomial pathogen Pseudomonas aeruginosa*, Bioorganic & Medicinal Chemistry Letters, 24, 19, 4703-4707
- Bougaham A.F., Moulai R. and **O'Halloran J.** (2014) *Trophic ecology of the Grey Wagtail (Motacillacinerea) before and during the breeding season in the region of Bejaia (Algeria)*, Comptes Rendus Biologies, 337, 7-8, 466-473
- Crowe O., Musgrove A.J. and **O'Halloran J.** (2014) *Generating population estimates for common and widespread breeding birds in Ireland*, Bird Study, 61, 1, 82-90
- McDevitt A.D., Montgomery W.I., Tosh D.G., **O'Halloran J.**, et al. (2014) *Invading and expanding: range dynamics and ecological consequences of the Greater White-toothed Shrew (Crociduraruscula) invasion in Ireland*, Plos One, 9, 6, Article e10040
- Oxbrough A., Irwin S., Wilson M. and **O'Halloran J.** (2014) *Mechanisms and predictors of ecological change in managed A selection of papers from the second international conference on biodiversity in forest ecosystems and landscapes*, Forest Ecology and Management, 321, Special Issue, 1-4
- O'Leary N.D.**, Mooney A., O'Mahony M. and **Dobson A.D.W.** (2014) *Functional characterization of a StyS sensor kinase reveals distinct domains associated with intracellular and extracellular sensing of styrene in P. putida CA-3*, Bioengineered, 5, 2, 114-122
- Haigh A., Kelly M., Butler F. and **O'Riordan R. M.** (2014) *Non-invasive methods of separating hedgehog (Erinaceuseuropaeus) age classes and an investigation into the age structure of road kill*, Acta Theriologica, 59, 1, 165-171
- Haigh A., O'Keeffe J., **O'Riordan R.M.** and Butler F. (2014) *A preliminary investigation into the endoparasite load of the European Hedgehog (Erinaceus europaeus) in Ireland*, Mammalia, 78, 1, 103-107
- Haigh A., **O'Riordan R.M.** and Butler F. (2014) *Hedgehog (Erinaceus Europaeus) mortality on Irish roads*, Wildlife Biology, 20, 3, 155-160
- Haigh A., **O'Riordan R.** and Butler, F. (2014) *An investigation into the occurrence of Hedgehog (Erinaceus europaeus) on Irish roads*, Wildlife Biology
- Byrne A.W., **Quinn J.L.**, O'Keeffe J.J., **Sleeman D.P.**, **Davenport J.**, et al. (2014) *Large-scale movements in European Badgers: has the tail of the movement kernel been underestimated?* Journal Of Animal Ecology, 83, 4, 991-1001
- Bouwhuis S., **Quinn J.L.**, Sheldon B.C. and Verhulst S. (2014) *Personality and basal metabolic rate in a wild bird population*, Oikos, 123, 1, 56-62
- Cole E.F. and **Quinn J.L.** (2014) *Shy birds play it safe: personality in captivity predicts risk responsiveness during reproduction in the wild*, Biology Letters, 10, 5, Article No. 20140178
- Quinn J.L.**, Cole E.F. and Morand-Ferron J. (2014) *Studying microevolutionary processes in cognitive traits: a comment on Rowe and Healy*, Behavioural Ecology, 25, 6, 1297-1298
- Raghunandan R., Perrin A., **Ruth A. A.** and Orphal J. (2014) *First analysis of the 2v(1)+3v(3) band of NO₂ at 7192.159 cm(-1)*, Journal of Molecular Spectroscopy, 297, 4-10
- Ryall Á.** (2014) *Environmental Information Rights in Ireland: an assessment of compliance with the Aarhus Convention & EU Law*, Environmental Liability, 22, 182
- Ryall Á.** (2014) *Planning for access to justice in environmental matters*, Irish Planning and Environmental Law Journal, 21, 131
- Sage C.** (2014) *Food security, food sovereignty and the special rapporteur: Shaping food policy discourse through realising the right to food*, Dialogues In Human Geography, 4, 2, 195-199
- Sage C.** (2014) *Environment and Food: The Author's Response*, Sociologia Ruralis, 54, 1, 112-115
- Sage C.** (2014) *The transition movement and food sovereignty: From local resilience to global engagement in food system transformation*, Journal of Consumer Culture, 14, 2, Special Issue, 254-275
- Sambunaris A., Bose A., Gommoll C.P., **Sheehan D.**, et al. (2014) *A Phase III, double-blind, placebo-controlled, flexible-dose study of levomilnacipran extended-release in patients with major depressive disorder*, Journal of Clinical Psychopharmacology, 34, 1, 47-56
- Allocati N., Masulli M., Del Boccio P., **Sheehan D.**, et al. (2014) *Identification of an elongation factor 1B gamma protein with glutathione transferase activity in both yeast and mycelial morphologies from human pathogenic Blastoschizomycescapitatus*, Folia Microbiologica, 59, 2, 107-113
- Ilyas S., Rehman A., Varela A.C. and **Sheehan D.** (2014) *Redox proteomics changes in the fungal pathogen Trichosporonasahii on arsenic exposure: identification of protein responses to metal-induced oxidative stress in an environmentally-sampled isolate*, Plos One, 9, 7, Article No. e102340

- Karmous I., Chaoui A., Jaouani K., **Sheehan D.**, et al. (2014) *Role of the ubiquitin-proteasome pathway and some peptidases during seed germination and copper stress in bean cotyledons*, Plant Physiology and Biochemistry, 76, 77-85
- Rainville L.C., Carolan D., Varela A.C., **Sheehan D.**, et al. (2014) *Proteomic evaluation of citrate-coated silver nanoparticles toxicity in Daphnia magna*, Analyst, 139, 7, 1678-1686
- Sheehan D.**, Hu W. and Rainville L.C. (2014) *Effects of engineered metal and metal oxide nanoparticles on model aquatic organisms: Finding protein targets by redox proteomics*, Conference: 248th National Meeting of the American-Chemical-Society (ACS) Location: San Francisco, California, Date: AUG 10-14, 2014. Abstracts Of Papers Of The American Chemical Society, 248, Meeting Abstract: 518-COLL
- Sleeman D.P.**, Collins D.M. and **Davenport J.** (2014) *Where and when Badger (Meles meles) road casualties occurred in the Four Area Study*, Irish Naturalists' Journal, 33, 2, 119-12
- Dall'Osto M., Hellebust S., Healy R.M., **Sodeau J.R.**, **Wenger J.**, et al. (2014) *Apportionment of urban aerosol sources in Cork (Ireland) by synergistic measurement techniques*, Science Of The Total Environment, 493, 197-208
- Healy R.M., Evans G.J., Murphy M., **Sodeau J.R.**, **Wenger J.**, et al. (2014) *Predicting hygroscopic growth using single particle chemical composition estimates*, Journal Of Geophysical Research-Atmospheres, 119, 15, 9567-9577
- Healy R. M., Evans G. J., Murphy M., Sierau B., Arndt J., McGillicuddy E., O'Connor I.P., **Sodeau J.R.** and **Wenger J.C.** (2014) *Single-particle speciation of alkylamines in ambient aerosol at five European sites*, Analytical and Bioanalytical Chemistry, 1-11
- Healy D.A., Huffman J.A., O'Connor D.J., Pohlker C., Poschl U. and **Sodeau J.R.** (2014) *Ambient measurements of biological aerosol particles near Killarney, Ireland: a comparison between real-time fluorescence and microscopy techniques*, Atmospheric Chemistry and Physics, 14, 8055-8069
- O'Connor D.J., Healy D.A., Hellebust S., **Sodeau J.R.**, et al. (2014) *Using the WIBS-4 (Waveband Integrated Bioaerosol Sensor) technique for the on-line detection of pollen grains*, Aerosol Science And Technology, 48, 4, 341-349
- O'Connor D.J., Lovera P., Iacopino D., **Sodeau J.R.**, et al. (2014) *Using spectral analysis and fluorescence lifetimes to discriminate between grass and tree pollen for aerobiological applications*, Analytical Methods, 6, 1633-1639
- O'Connor D.J., Sadys M., Skjoth C.A., **Sodeau J.R.**, et al. (2014) *Atmospheric concentrations of Alternaria, Cladosporium, Ganoderma and Didymella spores monitored in Cork (Ireland) and Worcester (England) during the summer of 2010*, Aerobiologia, 30, 4, 397-411
- O'Sullivan D., McLaughlin R.P., Clemitshaw K.C. and **Sodeau J.R.** (2014) *Cold-surface photochemistry of selected organic nitrates*, Journal of Physical Chemistry A Volume: 118 Issue: 42 Pages: 9890-9900
- Healy R. M., Riemer N., **Wenger J.C.**, Murphy M., West M., Poulain L., Wiedensohler A., O'Connor I. P., McGillicuddy E., **Sodeau J.R.** and Evans G. J. (2014) *Single particle diversity and mixing state measurements*, Atmospheric Chemistry and Physics, 14, 12, 6289-6299
- Kourtchev I., Fuller S.J., Giorio C., Healy R.M., Wilson E., O'Connor I.P., **Wenger J.C.**, McLeod M., Aalto J., Ruuskanen T.M., Maenhaut W., Jones R.L., **Venables D.S.**, **Sodeau J.R.** and Kalberer M. (2014) *Molecular composition of biogenic secondary organic aerosols using ultrahigh resolution mass spectrometry: comparing laboratory and field studies*, Atmospheric Chemistry and Physics, 14, 2155-2167
- Kourtchev I., O'Connor I.P., Giorio C., Fuller S.J., Kristensen K., Maenhaut W., **Wenger J.C.**, **Sodeau J.R.**, Glasius M. and Kalberer M. (2014) *Effects of anthropogenic emissions on the molecular composition of urban organic aerosols: An ultrahigh resolution mass spectrometry study*, Atmospheric Environment, 89, 525-53
- Riva M., Healy R.M., Flaud P.M., **Wenger J.**, et al. (2014) *Kinetics of the Gas-Phase Reactions of Chlorine Atoms with Naphthalene, Acenaphthene, and Acenaphthylene*, Journal Of Physical Chemistry A, 118, 20, 3535-3540
- Bourke D., Stanley D., O'Rourke E., Thompson R., Carnus T., Dauber J., Emmerson M., **Whelan P.**, Hecq F., Flynn E., Dolan L. and Stout J. (2014) *Response of farmland biodiversity to the introduction of bioenergy crops: effects of local factors and surrounding landscape context*, Global Change Biology Bioenergy, 6, 3, Special Issue, 275-289
- Devaney J.L., **Whelan P.M.**, and **Jansen M.A.K.** (2014) *Light responses of Yew (Taxus baccata L.); does size matter?* Tree Physiology, 29, 109-118
- Webb S.L., Murton B.J. and **Wheeler A.J.** (2014) *Rheology and the Fe³⁺-chlorine reaction in basaltic melts*, Chemical Geology, 366, 24-31