

ERI 2010 Peer-reviewed Publications

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

ENVIRONMENTAL CHEMISTRY PUBLICATIONS

O'Callaghan J.M., McNamara H., Copley M.P., **Hanrahan J.P.**, **Morris M.A.**, **Holmes J.D.**, *et al.* (2010) *Swelling of Ionic and Non-ionic Surfactant Micelles by High Pressure Gases*, *Langmuir*, **26**, 11, 7725-7731

Keane D.A., **Hanrahan J.P.**, Copley M.P., **Holmes J.D.**, **Morris M.A.**, *et al.* (2010) *A modified Stober process for the production of mesoporous Sub 2 micron silica microspheres; applications in HPLC*, *Journal of Porous Materials*, **17**, 2, 145-152

Delaney P., Healy R.M., **Hanrahan J.P.**, **Wenger J.C.**, **Morris M.A.**, **Holmes J.D.**, *et al.* (2010) *Porous silica spheres as indoor air pollutant scavengers*, *Journal of Environmental Monitoring*, **12**, 12, 2244-2251

Chen L., Fleming P., Morris V., **Holmes J.D.** and **Morris M.A.** (2010) *Size-Related Lattice Parameter Changes and Surface Defects in Ceria Nanocrystals*, *Journal of Physical Chemistry C*, **114**, 30, 12909-12919

Barry L., **Holmes J.D.**, Otway D.J., **Morris M.A.**, *et al.* (2010) *Unusual magnetism in templated NiS nanoparticles*, *Journal of Physics-Condensed Matter*, **22**, 7, 076001

Farrell R.A., Petkov N., Shaw M.T., **Holmes J.D.**, **Morris M.A.**, *et al.* (2010) *Monitoring PMMA Elimination by Reactive Ion Etching from a Lamellar PS-b-PMMA Thin Film by ex Situ TEM Methods*, *Macromolecules*, **43**, 20, 8651-8655

Collins G., Kolesnik M., Krstic V. and **Holmes J.D.** (2010) *Germanium Nanowire Synthesis from Fluorothiolate-Capped Gold Nanoparticles in Supercritical Carbon Dioxide*, *Chemistry of Materials*, **22**, 18, 5235-5243

Barth S., Hernandez-Ramirez F., **Holmes J.D.** *et al.* (2010) *Synthesis and applications of one-dimensional semiconductors*, *Progress in Materials Science*, **55**, 6, 563-627

O'Byrne J.P., L, Z.L., Tobin J.M., **Holmes J.D.** *et al.* (2010) *Growth of Carbon Nanotubes from Heterometallic Palladium and Copper Catalysts*, *Journal of Physical Chemistry C*, **114**, 18, 8115-8119

Chen L., Xu J., **Holmes J.D.** and **Morris M.A.** (2010) *A Facile Route to ZnO Nanoparticle Superlattices: Synthesis, Functionalization, and Self-Assembly*, *Journal of Physical Chemistry C*, **114**, 5, 2003-2011

Fleming P., Farrell R.A., **Holmes J.D.** and **Morris M.A.** (2010) *The Rapid Formation of La(OH)(3) from La₂O₃ Powders on Exposure to Water Vapor*, *Journal of the American Ceramic Society*, **93**, 4, 1187-1194

Barry L., **Holmes J.D.**, Otway D.J., **Morris M.A.**, *et al.* (2010) *Unusual magnetism in templated NiS nanoparticles*, *Journal of Physics-Condensed Matter*, **22**, 7, 076001

Collins G., Fleming P., Barth S., **Morris M.A.**, **Holmes J.D.**, *et al.* (2010) *Alkane and Alkanethiol Passivation of Halogenated Ge Nanowires*, *Chemistry of Materials*, **22**, 23, 6370-6377

Hobbs R.G., Barth S., Petkov N., **Morris M.A.**, **Holmes J.D.**, *et al.* (2010) *Seedless Growth of Sub-10 nm Germanium Nanowires*, *Journal of the American Chemical Society*, **132**, 39, 13742-13749

Farrell R.A., Petkov N., **Morris M.A.** and **Holmes J.D.** (2010) *Self-assembled templates for the generation of arrays of 1-dimensional nanostructures: From molecules to devices*, *Journal of Colloid and Interface Science*, **349**, 2, 449-472

O'Callaghan J.M., Petkov N., Copley M.P., **Morris M.A.**, **Holmes J.D.**, *et al.* (2010) *Time-resolved SAXS studies of periodic mesoporous organosilicas in anodic alumina membranes*, *Microporous and Mesoporous Materials*, **130**, 1-3, 203-207

Godsell J.F., Donegan K.P., Tobin J.M., **Morris M.A.**, **Holmes J.D.** *et al.* (2010) *Magnetic properties of Ni nanoparticles on microporous silica spheres*, *Journal of Magnetism and Magnetic Materials*, **322**, 9-12, 1269-1274

Li Z.L., Godsell J.F., O'Byrne J.P., **Morris M.A.**, **Holmes J.D.** *et al.* (2010) *Supercritical Fluid Synthesis of Magnetic Hexagonal Nanoplatelets of Magnetite*, *Journal of the American Chemical Society*, **132**, 36, 12540-12541

Chen L., Zhang W.H., Xu J., **Morris M.A.** *et al.* (2010) *Mesopore constrictions derived from the substitutionally co-packed SBA-15*, *Microporous and Mesoporous Materials*, **129**, 1-2, 179-188

Moriarty J., **Wenger J.C.** and Sidebottom H.W. (2010) *Product Study of the OH Radical and Cl Atom Initiated Oxidation of 1,3-Dioxane*, *Chemphyschem*, **11**, 18, 3980-3986

O'Dwyer M.A., Carey T.J., Healy R.M., **Wenger J.C.**, *et al.* (2010) *The Gas-phase Ozonolysis of 1-Penten-3-ol, (Z)-2-Penten-1-ol and 1-Penten-3-one: Kinetics, Products and Secondary Organic Aerosol Formation*, *Zeitschrift Fur Physikalische Chemie-International Journal of Research in Physical Chemistry & Chemical Physics*, **224**, 7-8, 1059-1080

Coeur-Tourneur C., Cassez A. and **Wenger J.C.** (2010) *Rate Coefficients for the Gas-Phase Reaction of Hydroxyl Radicals with 2-Methoxyphenol (Guaiacol) and Related Compounds*, *Journal of Physical Chemistry A*, **114**, 43, 11645-11650

Hellebust S., Allanic A., O'Connor I.P., **Wenger J.C.** and **Sodeau J.D.** (2010) *The use of real-time monitoring data to evaluate major sources of airborne particulate matter*, *Atmospheric Environment*, **44**, 8, 1116-1125

Fuchs H., Ball S.M., Bohn B., **Ruth A.A.**, **Venables D.S.**, *et al.* (2010) *Intercomparison of measurements of NO₂ concentrations in the atmosphere simulation chamber SAPHIR during the NO₃ Campaign*, *Atmospheric Measurement Techniques*, **3**, 1, 21-37

O'Sullivan D. and **Sodeau J.R.** (2010) *Freeze-induced reactions: formation of iodine-bromine interhalogen species from aqueous halide ion solutions*, *J Phys Chem A*, **114**, 46, 12208-12215

Healy R.M., Hellebust S., Kourtchev I., **Sodeau J.R.**, **Wenger J.C.**, *et al.* (2010) *Source apportionment of PM_{2.5} in Cork Harbour, Ireland using a combination of single particle mass spectrometry and quantitative semi-continuous measurements*, *Atmospheric Chemistry and Physics*, **10**, 19, 9593-9613

ENVIRONMENTAL MICROBIAL GENOMICS PUBLICATIONS

- Sangal V., Harbottle H., Mazzoni C.J., **Achtman M.**, et al. (2010) *Evolution and Population Structure of Salmonella enterica Serovar Newport*, Journal of Bacteriology, **192**, 24, 6465-6476
- Haensch S., Bianucci R., Signoli M., **Achtman M.**, et al. (2010) *Distinct Clones of Yersinia pestis Caused the Black Death*, Plos Pathogens, **6**, 10, e1001134
- Morelli G., Song Y.J., Mazzoni C.J., **Achtman M.**, et al. (2010) *Yersinia pestis genome sequencing identifies patterns of global phylogenetic diversity*, Nature Genetics, **42**, 12, 1140
- Olbermann P., Josenhans C., Moodley Y., **Achtman M.**, et al. (2010) *A Global Overview of the Genetic and Functional Diversity in the Helicobacter pylori cag Pathogenicity Island*, Plos Genetics, **6**, 8, e1001069
- Song Y.J., Roumagnac P., Weill F.X., **Achtman M.**, et al. (2010) *A multiplex single nucleotide polymorphism typing assay for detecting mutations that result in decreased fluoroquinolone susceptibility in Salmonella enterica serovars Typhi and Paratyphi A*, Journal of Antimicrobial Chemotherapy, **65**, 8, 1631-1641
- Latifi-Navid S., Ghorashi S.A., Siavoshi F., **Achtman M.**, **Falush D.**, et al. (2010) *Ethnic and Geographic Differentiation of Helicobacter pylori within Iran*, Plos One, **5**, 3, e9645
- Eppinger M., Worsham P.L., Nikolich M.P., **Achtman M.**, et al. (2010) *Genome Sequence of the Deep-Rooted Yersinia pestis Strain Angola Reveals New Insights into the Evolution and Pangenome of the Plague Bacterium*, Journal of Bacteriology, **192**, 6, 1685-1699
- Wagner D.M., Vogler A., Lee J., **Achtman M.**, et al. (2010) *Population Structure and Evolutionary History of Yersinia Pestis in North America*, Vector-Borne and Zoonotic Diseases, **10**, 1, 99-99
- Morelli, G., Didelot, X., Kusecek, B., **Falush, D.**, **Achtman, M.** et al. (2010) *Microevolution of Helicobacter pylori during Prolonged Infection of Single Hosts and within Families*, Plos Genetics, **6**, 7, e1001036
- Didelot X., Lawson D., Darling A., **Falush D.**, et al. (2010) *Inference of Homologous Recombination in Bacteria Using Whole-Genome Sequences*, Genetics, **186**, 4, 1435-U567
- Green R.E., Krause J., Briggs A.W., **Falush D.**, et al. (2010) *A Draft Sequence of the Neandertal Genome*, Science, **328**, 5979, 710-722
- Browne P., Barret M., **O’Gara F.** and **Morrissey J.P.** (2010) *Computational prediction of the Crc regulon identifies genus-wide and species-specific targets of catabolite repression control in Pseudomonas bacteria*, BMC Microbiology, **10**, 300
- McGlacken G.P., McSweeney C.M., O’Brien T., **O’Gara F.**, et al. (2010) *Synthesis of 3-halo-analogues of HHQ, subsequent cross-coupling and first crystal structure of Pseudomonas quinolone signal (PQS)*, Tetrahedron Letters, **51**, 45, 5919-5921
- Holcombe L.J., McAlester G., Munro C.A., **O’Gara F.**, **Morrissey J.P.**, et al. (2010) *Pseudomonas aeruginosa secreted factors impair biofilm development in Candida albicans*, Microbiology-SGM, **156**, 1476-1486
- MacAogain M., Mooij M.J., Adams C. and **O’Gara, F.** (2010) *Emergence of extended-spectrum beta-lactamase and fluoroquinolone resistance genes among Irish multidrug-resistant isolates*, Diagnostic Microbiology and Infectious Disease, **67**, 1, 106-109

- Gleeson O., **O’Gara F.**, and **Morrissey J.P.** (2010) *The Pseudomonas fluorescens secondary metabolite 2,4 diacetylphloroglucinol impairs mitochondrial function in Saccharomyces cerevisiae*, Antonie Van Leeuwenhoek International Journal of General and Molecular Microbiology, **97**, 3, 261-273
- O’Sullivan C., O’Hare P., **O’Leary N.D.**, **Dobson A.D.W.**, et al. (2010) *Deposition of substituted apatites with anticolonizing properties onto titanium surfaces using a novel blasting process*, Journal of Biomedical Materials Research Part B-Applied Biomaterials, **95B**, 1, 141-149
- Moroni A.V., Arendt E.K., **Morrissey J.P.**, et al. (2010) *Development of buckwheat and teff sourdoughs with the use of commercial starters*, International Journal of Food Microbiology, **142**, 1-2, 142-148
- Baker P.W., Kennedy J., **Morrissey J.P.**, **O’Gara F.**, **Dobson A.D.W.**, et al. (2010) *Endoglucanase activities and growth of marine-derived fungi isolated from the sponge Haliclona simulans*, Journal of Applied Microbiology, **108**, 5, 1668-1675
- Kennedy J., Flemer B., Jackson S.A., **Morrissey J.P.**, **O’Gara F.**, **Dobson A.D.W.**, et al. (2010) *Marine Metagenomics: New Tools for the Study and Exploitation of Marine Microbial Metabolism*, Marine Drugs, **8**, 3, 608-628
- Miller S.H., Browne P., Prigent-Combaret C., **Morrissey J.P.**, **O’Gara F.**, et al. (2010) *Biochemical and genomic comparison of inorganic phosphate solubilization in Pseudomonas species*, Environmental Microbiology Reports, **2**, 3, 403-411
- Mooij M.J., O’Connor H.F., Tian Z.X., **Morrissey J.P.**, **O’Gara F.**, et al. (2010) *Antibiotic selection leads to inadvertent selection of nfxC-type phenotypic mutants in Pseudomonas aeruginosa*, Environmental Microbiology Reports, **2**, 3, 461-464

SUSTAINABLE ENERGY & ENVIRONMENTAL ENGINEERING PUBLICATIONS

- Chuixiang Y., Ricciuto D., **Kiely G.**, et al. (2010) *Climate control of terrestrial carbon exchange across biomes and continents*, Environmental Research Letters, **5**, 3, Article Number 034007
- Sottocornola M. and **Kiely G.** (2010) *Energy fluxes and evaporation mechanisms in an Atlantic bog in south west Ireland*, Water Resources Research, **46**, Article Number W11524
- Mishurov M. and **Kiely G.** (2010) *N₂O flux dynamics of grassland undergoing afforestation*, Agriculture, Ecosystems and Environment, **139**, 1-2, 59-65
- Kim D.G., Mishurov M. and **Kiely G.** (2010) *Effect of increased N use and dry periods on N₂O emissions from a fertilised grassland*, Nutrient Cycling in Agroecosystems, **88**, 3, 397-410
- Sottocornola M. and **Kiely G.** (2010) *Hydrometeorological controls on the CO₂ exchange variation in an Irish blanket bog*, Agriculture and Forest Meteorology, **150**, 2, 287-297
- Garbulsky M.F., Peñuelas J., Papale D., Ardö J., Goulden M.L., **Kiely G.**, et al. (2010) *Patterns and controls of the variability of radiation use efficiency and primary productivity across terrestrial ecosystems*, Global Ecology & Biogeography, **19**, 2, 253-26
- Gilmanov T.G., Aires L., Barcza Z., Baron V.S., Bellelli L., Beringer J., Billesbach D., Bonal D., Bradford J., Ceschia E., Cook D., Corradi C., Frank A., Gianelle D., Gimeno C., Gruenwald T., Guo H.Q., Hanan N., Haszpra L., Heilman J., Jacobs A., Jones M.B., Johnson D.A., **Kiely G.**, et al. (2010) *Productivity, Respiration, and Light-Response Parameters of World Grassland and Agroecosystems Derived From Flux-Tower Measurements*, Rangeland Ecology & Management, **63**, 1, 16-39

- Ahmed A., Ploennigs J., **Menzel K.**, et al. (2010) *Multi-dimensional building performance data management for continuous commissioning*, *Advanced Engineering Informatics*, **24**, 4, 466-475
- Rafique R., Poulsen T.G., Nizami A-S., **Murphy J.D.** and **Kiely G.** (2010) *Effect of thermal, chemical and thermo-chemical pre-treatments to enhance methane production*, *Energy*, **35**, 12 4556-4561
- Sheehan C., Harrington J. and **Murphy J.D.** (2010) *An environmental and economic assessment of topsoil production from dredge material*, *Resources Conservation and Recycling*, **55**, 2, 209-220
- Sheehan C., Harrington J. and **Murphy J.D.** (2010). *A technical assessment of topsoil production from dredged material*, *Resources, Conservation and Recycling*, **54**, 1377–1385
- Smyth B., Smyth H. and **Murphy J.D.** (2010) *Can grass biomethane be an economically viable biofuel for the farmer and the consumer?*, *Biofuels Bioproducts & Biorefining-Biofpr*, **4**, 5, 519-537
- Thamsiroj T. and **Murphy, J.D.** (2010) *Difficulties Associated with Monodigestion of Grass as Exemplified by Commissioning a Pilot-Scale Digester*, *Energy & Fuels*, **24**, 4459-4469
- Nizami A.S., Thamsiroj T., Singh A. and **Murphy J.D.** (2010) *Role of Leaching and Hydrolysis in a Two-Phase Grass Digestion System*, *Energy & Fuels*, **24**, 4549-4559
- Thamsiroj T. and **Murphy J.D.** (2010) *How much of the target for biofuels can be met by biodiesel generated from residues in Ireland?*, *Fuel*, **89**, 11, 3579-3589
- Singh A., Pant D., Korres N.E., **Murphy J.D.**, et al. (2010) *Key issues in life cycle assessment of ethanol production from lignocellulosic biomass: Challenges and perspectives*, *Bioresource Technology*, **101**, 13, 5003-5012
- Korres N.E., Singh A., Nizami A. and **Murphy J.D.** (2010) *Is grass biomethane a sustainable transport biofuel?*, *Biofuels Bioproducts & Biorefining-Biofpr*, **4**, 3, 310-325
- Nizami A.S. and **Murphy, J.D.** (2010) *What type of digester configurations should be employed to produce biomethane from grass silage?*, *Renewable & Sustainable Energy Reviews*, **14**, 6, 1558-1568
- Thamsiroj T. and **Murphy J.D.** (2010) *Can Rape Seed Biodiesel Meet the European Union Sustainability Criteria for Biofuels?*, *Energy & Fuels*, **24**, 1720-1730
- Singh A., Smyth B.M. and **Murphy J.D.** (2010) *A biofuel strategy for Ireland with an emphasis on production of biomethane and minimization of land-take*, *Renewable & Sustainable Energy Reviews*, **14**, 1, 277-288
- Smyth B., **O’Gallachóir B.P.**, Korres N.E. and **Murphy, J.D.** (2010) *Can we meet targets for biofuels and renewable energy in transport given the constraints imposed by policy in agriculture and energy?*, *Journal of Cleaner Production*, **18**, 16-17, 1671-1685
- Cahill C.J., Bazilian M. and **Ó Gallachóir B.P.** (2010) *Comparing ODEX with LMDI to measure energy efficiency trends*, *Energy Efficiency*, **3**, 317-329
- Foley A.M., **O’Gallachóir B.P.**, Hur J. and **McKeogh E.J.** (2010) *A strategic review of electricity systems models*, *Energy*, **35**, 12, 4522-4530
- Deane J.P., **O’Gallachóir B.P.** and **McKeogh E.J.** (2010) *Techno-economic review of existing and new pumped hydro energy storage plant*, *Renewable & Sustainable Energy Reviews*, **14**, 4, 1293-1302
- Cahill C.J. and **O’Gallachóir B.P.** (2010) *Monitoring energy efficiency trends in European industry: Which top-down method should be used?*, *Energy Policy*, **38**, 11, 6910-6918
- Dalton G. and **O’Gallachóir B.P.** (2010) *Building a wave energy policy focusing on innovation, manufacturing and deployment*, *Renewable & Sustainable Energy Reviews*, **14**, 8, 2339-2358

TERRESTRIAL & FRESHWATER ENVIRONMENT PUBLICATIONS

Irwin S. and **Davenport J.** (2010) *Oxygen Microenvironment of Coralline Algal Tufts and Their Associated Epiphytic Animals*, *Biology and Environment-Proceedings of the Royal Irish Academy*, **110B**, 3, 185-193

Davenport J. (2010) *Thingies*, *New Scientist*, **207**, 2779, 69-69

Aubry A., Becart E., **Davenport J.** and **Emmerson M.C.** (2010) *Estimation of survival rate and extinction probability for stage-structured populations with overlapping life stages*, *Population Ecology*, **52**, 3, 437-450

Jasionek G., Zhdanov A., **Davenport J.**, et al. (2010) *Mitochondrial Toxicity of Microcystin-LR on Cultured Cells: Application to the Analysis of Contaminated Water Samples*, *Environmental Science & Technology*, **44**, 7, 2535-2541

Rall B.C., Vucic-Pestic O., Ehnes R.B., **Emmerson M.C.**, et al. (2010) *Temperature, predator-prey interaction strength and population stability*, *Global Change Biology*, **16**, 8, 2145-2157

Geiger F., Bengtsson J., Berendse F., **Emmerson M.C.** et al. (2010) *Persistent negative effects of pesticides on biodiversity and biological control potential on European farmland*, *Basic and Applied Ecology*, **11**, 2, 97-105

O’Gorman E.J., Jacob U., Jonsson T. and **Emmerson M.C.** (2010) *Interaction strength, food web topology and the relative importance of species in food webs*, *Journal of Animal Ecology*, **79**, 3, 682-692

Riipinen M.P., Fleituch T., Hladyz S., **Giller P.** et al. (2010) *Invertebrate community structure and ecosystem functioning in European conifer plantation streams*, *Freshwater Biology*, **55**, 2, 346-359

O’Hea N.M., Kirwan L., **Giller P.** and Finn, J.A. (2010) *Lethal and sub-lethal effects of ivermectin on north temperate dung beetles, *Aphodius ater* and *Aphodius rufipes* (Coleoptera: Scarabaeidae)*, *Insect Conservation and Diversity*, **3**, 10, 24-33

Hladyz S., Tiegs S.D., Gessner M.O., **Giller P.**, et al. (2010) *Leaf-litter breakdown in pasture and deciduous woodland streams: a comparison among three European regions*, *Freshwater Biology*, **55**, 9, 1919-1929

Cahill M.A., Caprioli G., Vittori S. and **James K.J.** (2010) *Elucidation of the Mass Fragmentation Pathways of Potato Glycoalkaloids and Aglycons using Orbitrap Mass Spectrometry*, *J. Mass Spectrom.*, **45**, 1019–1025.

Jansen M.A.K., Le Martret B. and Koornneef M. (2010) *Variations in constitutive and inducible UV-B tolerance; dissecting photosystem II protection in *Arabidopsis thaliana* accessions*, *Physiol. Plant*, **138**, 22-34

Potters G., Horemans N., **Jansen M.A.K.**, Caubergs R.J., Guisez Y. and Pasternak T. (2010) *Dehydroascorbate and glutathione have opposite effects on cell division and cell differentiation in *Nicotiana tabacum* L. SR-1*, *In Vitro Cell. Dev. Biol.—Plant*, **46**, 289–297.

- Potters G., Horemans N. and **Jansen M.A.K.** (2010) *The cellular redox state in plant stress biology - a charging concept*, Plant Physiology and Biochemistry, **48**, 292-300.
- Hectors K., Jacques, Prinsen E., Guisez Y., Verbelen J.P., **Jansen M.A.K.** and Vissenberg K. (2010) *UV radiation reduces epidermal cell expansion in leaves of Arabidopsis thaliana*, J. Exp. Bot., **61**, 4339-4349.
- Biswas D.K., Scannell G., Akhmetov N., Fitzpatrick D. and **Jansen M.A.K.** (2010) *2,4,6-Trichlorophenol mediated increases in extracellular peroxidase activity in three species of Lemnaceae*, Aquatic Toxicology, **100**, 289-294.
- Moloney C., Griffin D., **Jones P.W.**, Bryan G.J., McLean K., Bradshaw J.E. and Milbourn, D. (2010) *Development of diagnostic markers for use in breeding potatoes resistant to Globodera pallida pathotype Pa2/3 using germplasm derived from Solanum tuberosum ssp andigena CPC 2802*, Theoretical and Applied Genetics, **120**, 3, 679-689
- Deliopoulos T., Minnis S.T., **Jones P.W.** and Haydock P.P.J. (2010) *Enhancement of the efficacy of a carbamate nematicide against the potato cyst nematode, Globodera pallida, through mycorrhization in commercial potato fields*, Journal of Nematology, **42**, 1, 22-32
- O'Callaghan Y. and **O'Brien N.** (2010) *Bioaccessibility, cellular uptake and transepithelial transport of alpha-tocopherol and retinol from a range of supplemented foodstuffs assessed using the caco-2 cell model*, International Journal of Food Science and Technology, **45**, 7, 1436-1442
- Liskova K., Kelly A.L., **O'Brien N.** et al. (2010) *Effect of Denaturation of alpha-Lactalbumin on the Formation of BAMLET (Bovine alpha-Lactalbumin Made Lethal to Tumor Cells)*, Journal of Agricultural and Food Chemistry, **58**, 7, 4421-4427
- Skrabakova Z., **O'Halloran J.**, van Pelt F.N.A.M., **James K.J.** et al. (2010) *Food contaminant analysis at ultra-high mass resolution: application of hybrid linear ion trap - orbitrap mass spectrometry for the determination of the polyether toxins, azaspiracids, in shellfish*, Rapid Communications in Mass Spectrometry, **24**, 20, 2966-2974
- Crowe O., Coombes R.H., Lysaght L., **O'Halloran J.** et al. (2010) *Population trends of widespread breeding birds in the Republic of Ireland 1998-2008*, Bird Study, **57**, 3, 267-280
- Smiddy P. and **O'Halloran J.** (2010) *Breeding biology of Barn Swallows Hirundo rustica in Counties Cork and Waterford, Ireland*, Bird Study, **57**, 2, 256-260
- Copland A.S. and **O'Halloran J.** (2010) *Simple and rapid biodiversity Assessment (SARBAS): An evaluation method of Ireland's Agri-Environment scheme*, Aspects of Applied Biology
- Copland A.S. and **O'Halloran J.** (2010) *Agri-Environment impacts and opportunities for summer bird communities on lowland Irish farmland*, Aspects of Applied Biology
- Oxbrough A.**, **Irwin S.**, **Kelly T.C.** and **O'Halloran J.** (2010) *Ground-dwelling invertebrates in reforested conifer plantations*, Forest Ecology and Management, **259**, 10, 2111-2121
- Oxbrough A.**, **Gittings T.**, **Kelly T.C.** and **O'Halloran J.** (2010) *Can Malaise traps be used to sample spiders for biodiversity assessment?*, Journal of Insect Conservation, **14**, 2, 169-179
- Tedesco S. and **Sheehan D.** (2010) *Nanomaterials as emerging environmental threats*. Current Chemical Biology, **4**, 151-160.
- Sheehan D.** (2010) *Environmental proteomics and biomarker discovery*, Comparative Biochemistry and Physiology A-Molecular & Integrative Physiology, **157**, 1, S42-S42
- Hu W.T., Tedesco S., McDonagh B. and **Sheehan D.** (2010) *Shotgun redox proteomics in sub-proteomes trapped on functionalised beads Identification of proteins targeted by oxidative stress*, Marine Environmental Research, **69**, S25-S27
- Tyther R., Ahmeda A., Johns E., **Sheehan D.**, et al. (2010) *Proteomic Profiling of Perturbed Protein Sulfenation in Renal Medulla of the Spontaneously Hypertensive Rat*, Journal of Proteome Research, **9**, 5, 2678-2687
- Madadlou A., Iacopino D., **Sheehan D.**, et al. (2010) *Enhanced thermal and ultrasonic stability of a fungal protease encapsulated within biomimetically generated silicate nanospheres*, Biochimica Et Biophysica Acta-General Subjects, **1800**, 4, 459-465
- Hu W.T., Tedesco S., McDonagh B., **Sheehan D.**, et al. (2010) *Selection of thiol- and disulfide-containing proteins of Escherichia coli on activated thiol-Sepharose*, Analytical Biochemistry, **398**, 2, 245-253
- Herzog G., Roger A., **Sheehan D.** et al. (2010) *Ion-Transfer Voltammetric Behavior of Protein Digests at Liquid vertical bar Liquid Interfaces*, Analytical Chemistry, **82**, 1, 258-264
- Kiely M., Black L.J., Plumb J., **Sheehan D.** et al. (2010) *EuroFIR eBASIS: application for health claims submissions and evaluations*, European Journal of Clinical Nutrition, **64**, S101-S107
- Sheehan D.**, McDonagh B. and Barcena J.A. (2010) *Redox proteomics*, Expert Review of Proteomics, **7**, 1, 1-4
- Hu W.T., Tedesco S., Faedda R., **Sheehan D.** et al. (2010) *Covalent selection of the thiol proteome on activated thiol sepharose: A robust tool for redox proteomics*, Talanta, **80**, 4, 1569-1575
- Madadlou A., O'Sullivan S.M. and **Sheehan D.** (2010) *Fast protein liquid chromatography. In protein Chromatography: Methods and Protocols*. Methods in Molecular Biology Series (D. Walls and S. Lourhran eds.) Humana Press (springer), Totowa, New Jersey.
- Sleeman D.P.** (2010) *American mink (Mustela vison Schreber 1777) in Cork City*, Irish Naturalists' Journal, **31**, 67-68
- Stuart P., Hawkins C.J., **Sleeman D.P.** and Lawton C. (2010) *First record of Skjabingylus petrowi (Nematode: Metastrongyloidea) in a pine marten Martes martes from Ireland*, European Journal of Wildlife Research, **56**, 679-680
- Kelleher K.M., Oliver G.A. and **Sleeman, D.P.** (2010) *The composition and sex of rodent prey taken by Barn owls Tyto alba at a roost in County Cork*, Irish Birds, **9**, 35-40
- Ronayne S.T. and **Sleeman D.P.** (2010) *Long-eared owl Osio otus nestling choked to death on prey*, Irish Birds, **9**, 128
- Wilson M.W.**, **Gittings T.**, **Kelly T.C.** and **O'Halloran J.** (2010) *The importance of non-crop vegetation for bird diversity in Sitka spruce plantations in Ireland*, Bird Study, **57**, 1, 116-120
- Sweeney O.F.M., **Wilson M.W.**, **Irwin S.**, **O'Halloran J.** et al. (2010) *Breeding bird communities of second-rotation plantations at different stages of the forest cycle*, Bird Study, **57**, 3, 301-314
- Sweeney O.F.M., **Wilson M.W.**, **Irwin S.**, **O'Halloran J.**, et al. (2010) *Are bird density, species richness and community structure similar between native woodlands and non-native plantations in an area with a generalist bird fauna?*, Biodiversity and Conservation, **19**, 8, 2329-2342

Sweeney O.F.M., **Wilson M.W.**, **Irwin S.**, **O'Halloran J.**, *et al.* (2010) *The influence of a native tree species mix component on bird communities in non-native coniferous plantations in Ireland*, *Bird Study*, **57**, 4, 483-494

Sweeney, O.F.M., **Wilson M.W.**, **Irwin S.**, **O'Halloran J.** *et al.* (2010) *A lack of large-diameter logs and snags characterises dead wood patterns in Irish forests*, *Forest Ecology and Management*, **259**, 10, 2056-2064

MARINE PUBLICATIONS

Bastian T., Stokes D, Kelleher J.E., Hays G.C., **Davenport J.** and **Doyle T.K.** (2010) *Fisheries bycatch data provide insights into the distribution of the mauve stinger (*Pelagia noctiluca*) around Ireland*, *ICES Journal of Marine Science*, Published by: doi: 10.1093/icesjms/FSQ178

Lynam C.P., Lilley M.K.S., **Bastian T.**, **Doyle T.K.**, Beggs S.E., and Hays, G.C. (2010) *Have jellyfish in the Irish Sea benefited from climate change and overfishing?* *Global Change Biology*, Published by: doi: 10.1111/j.1365-2486.2010.02352.x

Hellstrom M., Kavanagh K.D. and **Benzie J.A.H.** (2010) *Multiple spawning events and sexual reproduction in the octocoral *Sarcophyton elegans*, Moser 1919 (Cnidaria: Alcyonacea) on Lizard Island, Great Barrier Reef*, *Marine Biology*, **157**, 383-392.

Benzie J.A.H. (2010) *Integration of quantitative and molecular genetics in shrimp breeding*, *Asian Fisheries Science*, **23**, 497-523.

Le Sourd F., Probert I., Kervella A.E., Murphy D., **Benzie J.A.H.** and Kloareg B. (2010) *Marine Genomics and Metagenomics: Methods and Challenges of Knowledge Transfer for industries*, *Proceedings of the 5th international Symposium on Cosmetic Ingredients and Biotechnologies*, pp 9-19, COSM'ING 2010, June, St-Malo, France.

McCarron E., **Burnell G.**, Kerry J. and **Mousakitis G.** (2010) *An experimental assessment on the effects of photoperiod treatments on the somatic and gonadal growth of the juvenile European purple sea urchin *Paracentrotus lividus**, *Aquaculture Research*, **41**, 7, 1072-1081

Thaler A.D., Zelnio K., Jones R., **Carlsson J.**, *et al.* (2010) *Characterization of 12 polymorphic microsatellite loci in *Ifremeria nautilei*, a chemoautotrophic gastropod from deep-sea hydrothermal vents*, *Conservation Genetics Resources*. DOI 10.1007/s12686-010-9174-9.

Zlenio K.A., Thaler A.D., Jones R.E., Saleu W., Schultz T.H., Van Dover C.L. and **Carlsson J.** (2010) *Characterization of nine polymorphic microsatellite loci in *Chorocaris* sp. (Crustacea, Caridea, Alvinocarididae) from deep-sea hydrothermal vents*, *Conservation Genetics Resources*, DOI: 10.1007/s12686-010-9243-0.

Collier M.J. and Scott M. (2010) *Focus group discourses in a mined landscape*, *Land Use Policy*, **27**, 304-312

Kavanagh A.S., **Cronin M.A.**, Walton M. and **Rogan E.** (2010) *Diet of the harbour seal (*Phoca vitulina vitulina*) in the west and south-west of Ireland*, *Journal of the Marine Biological Association of the United Kingdom*, **90**, 8, 1517-1527

Cronin M., Zuur A.F., **Rogan E.** and McConnell B.J. (2010) *Using mobile phone telemetry to investigate the haul-out behaviour of harbour seals *Phoca vitulina vitulina**, *Endangered species research*, **10**

Anderson C.M., Aparicio G.J., Atangana, A.R., Beaulieu J., Bruford M.W., Cain F., Campos T., Cariani A., Carvalho M.A., Chen N, Chen P.P., Clamens A.L., Clark A.M., Coeur D'Acier A., Connolly P., Cordero-Rivera A., Coughlan J.P., **Cross T.S.**, *et al.* (2010) *Permanent Genetic Resources added to Molecular Ecology Resources Database 1 December 2009-31 January 2010*, *Molecular Ecology*, **10**, 576-579.

Fermer J., **Culloty S.C.**, **Kelly T.C.** and **O'Riordan R.M.** (2010) *Temporal variation of *Meiogymnophallus minutus* infections in the first and second intermediate host*, *Journal of Helminthology*, **84**, 4, 362-368

Lynch S.A., Abollo E., Ramilo A., **Culloty S.C.**, *et al.* (2010) *Observations raise the question if the Pacific oyster, *Crassostrea gigas*, can act as either a carrier or a reservoir for *Bonamia ostreae* or *Bonamia exitiosa**, *Parasitology*, **137**, 10, 1515-1526

Culloty S.C., Favier E., Ní Riada M., Ramsay N.F. and **O'Riordan R.M.** (2010) *Reproduction of the biogenic reef-forming honeycomb worm *Sabellaria alveolata* in Ireland*, *Journal of the Marine Biological Association of the United Kingdom*, **90**, 3, 503-507

Maloy A.P., **Culloty S.C.**, Bolton-Warberg M., Fitzgerald R. and Slater J.W. (2010) *Molecular identification of laser dissected gut contents from hatchery reared larval cod, *Gadus morhua*: a new approach to diet analysis*, *Aquaculture Nutrition*, doi: 10.1111/j.1365-2095.2010.00836.x

Fermer J., **Culloty S.C.**, **Kelly T.C.** and **O'Riordan, R.M.** (2010) *Manipulation of *Cerastoderma edule* burrowing ability by *Meiogymnophallus minutus metacercariae**, *Journal of the Marine Biological Association of the United Kingdom*, **91**, 4, 907-911

Fermer J., **Culloty S.C.**, **Kelly T.C.** and **O'Riordan R.M.** (2010) *Parasitological survey of the edible cockle, *Cerastoderma edule* (*Bivalvia*) on the south coast of Ireland*, *Journal of the Marine Biological Association of the United Kingdom*, **91**, 4, 923-928

Cotter E., Malham S.K., O'Keeffe S., Lynch S.A., Latchford J.W., King J.W., Beaumont A.R. and **Culloty, S.C.** (2010) *Summer mortality of the Pacific oyster, *Crassostrea gigas*, in the Irish Sea: The influence of growth, biochemistry and gametogenesis*, *Aquaculture*, **303**, 1-4, 8-21

McCarthy M. and **Culloty S.C.** (2010) *Optomisation of two immunofluorescent antibodies for the detection of *Escherichia coli* using immunofluorescent microscopy and flow cytometry*, *Current Microbiology*, **62**, 2, 402-408

Drummond L., Mulcahy M.F. and **Culloty S.C.** (2010) *A survey of the health status of the Manila clam *Ruditapes philippinarum* in Ireland with specific reference to brown ring disease*, *Aquaculture International*, **18**, 5, 787-800

Cummins V. and McKenna, J. (2010) *The potential role of Sustainability Science in coastal zone management*, *Ocean & Coastal Management*, **53**, 12, 796-804

Ballinger R., **Cummins V.** and Smith H. (2010) *Implementing ICZM: The experience of Northwest Europe*, *Ocean & Coastal Management*, **53**, 12, 725-726

Fraher J., **Davenport J.**, Fitzgerald E., and **Doyle T.** *et al.* (2010) *Opening and closing mechanisms of the leatherback sea turtle larynx: a crucial role for the tongue*, *Journal of Experimental Biology*, **213**, 24, 4137-4145

Broszeit S., **Davenport J.** and **McAllen R.** (2010) *First documented record of *Rhabdomolgus ruber* (Echinodermata: Holothuridea) in Irish waters*. *Marine Biodiversity Records online*, 3, e64. DOI:10.1017/S1755267210000485

- Heindel K., Titschack J., **Dorschel B.**, et al. (2010) *The sediment composition and predictive mapping of facies on the Propeller Mound-A cold-water coral mound (Porcupine Seabight, NE Atlantic)*, Continental Shelf Research, **30**, 17, 1814-1829
- White, M. and **Dorschel B.** (2010) *The importance of the permanent thermocline to the cold water coral carbonate mound distribution in the NE Atlantic*, Earth and Planetary Science Letters, **296**, 3-4, 395-402
- Thierens M., Titschack J., **Dorschel B.**, **Wheeler A.J.**, et al. (2010) *The 2.6 Ma depositional sequence from the Challenger cold-water coral carbonate mound (IODP Exp. 307): Sediment contributors and hydrodynamic palaeo-environments*, Marine Geology, **271**, 3-4, 260-277
- Cameron E., **Gamble J.**, Price R., et al. (2010) *The petrology, geochronology and geochemistry of Hauhungatahi volcano, SW Taupo Volcanic Zone*, Journal of Volcanology and Geothermal Research, **190**, 1-2, 179-191
- Lopez-Rivera A., O'Callaghan K., Moriarty M., **James K.J.** et al. (2010) *First evidence of azaspiracids (AZAs): A family of lipophilic polyether marine toxins in scallops (Argopecten purpuratus) and mussels (Mytilus chilensis) collected in two regions of Chile*, Toxicon, **55**, 4, 692-701
- Canás I.R., O'Callaghan K., Moroney C., Hamilton B., **James K.J.** and Furey A. (2010) *The development of a rapid method for the isolation of four azaspiracids for use as reference materials for quantitative LC-MS/MS methods*, Anal. Bioanal. Chem., **398**, 1477-1491
- James K.J.**, Carey B., **O'Halloran J.**, **Van Pelt F.N.A.M.**, et al. (2010) *Shellfish toxicity: human health implications of marine algal toxins*, Epidemiology and Infection, **138**, 7, 927-940
- O'Regan S.M., **Kelly T.C.**, Korobeinikov A., O'Callaghan M.J.A. and Pokrovskii, A.V. (2010) *Lyapunov functions for SIR and SIRS epidemic models*, Applied Mathematics Letters, **23**, 3
- Prinz K., **Kelly T.C.**, **O'Riordan R.M.** and **Culloty S.C.** (2010) *Infection of Mytilus edulis by the trematode Echinostephilla patellae (Digenea: Philophthalmidae)*, Journal of Helminthology, **84**, 2, 193-198
- Prinz K., **Kelly T.C.**, **O'Riordan R.M.** and **Culloty S.C.** (2010) *Factors influencing cercarial emergence and settlement in the digenean trematode Parorchis acanthus (Philophthalmidae)*, Journal of Marine Biological Association of the United Kingdom, doi:10.1017/S002531541000071.
- Prinz, K., **Kelly T.C.**, **O'Riordan R.M.** and **Culloty S.C.** (2010) *Occurrence of macroparasites in four common intertidal molluscs on the south coast of Ireland*, Marine Biodiversity Records, 3 (e89); doi:10.1017/S1755267210000035.
- Prinz K., **Kelly T.C.**, **O'Riordan R.M.** and **Culloty S.C.** (2010) *Temporal variation in prevalence and cercarial development of Echinostephilla patellae (Digenea, Philophthalmidae) in the intertidal gastropod Patella vulgata*, Acta Parasitologica, **55** (1) 39-44.
- Baxter E.J., Walne A.W., Purcell J.E., **McAllen R.** and **Doyle T.K.** (2010) *Identification of jellyfish from Continuous Plankton Recorder samples*, Hydrobiologia, **645**, 1, 193-201
- Griffiths A.M., Machado-Schiaffino G., Dillane, E. Coughlan J., Horreo J.L., Bowkett A.E., Minting P., Toms S., Roche W., Gargan P., **McGinnity P.**, **Cross T.** et al. (2010) *Genetic stock identification of Atlantic salmon (Salmo salar) populations in the southern part of the European range*, BMC Genetics, **11**, 31
- Gurney W.S.C., Bacon P.J., McKenzie E., **McGinnity P.**, et al. (2010) *Form and uncertainty in stock-recruitment relations: observations and implications for Atlantic salmon (Salmo salar) management*, Canadian Journal of Fisheries and Aquatic Sciences, **67**, 16
- O'Hagan A.M.** and Ballinger R.C. (2010) *Implementing Integrated Coastal Zone Management in a national policy vacuum: Local case studies from Ireland*, Ocean & Coastal Management, **53**, 12, 750-759
- Juhel G., Moroney G., **O'Riordan R.** and **Culloty S.** (2010) *Dynamics of endoparasitic infection in zebra mussels, Dreissena polymorpha, in Lough Derg, Ireland*. In: The Zebra Mussel in Europe. Leiden, The Netherlands: Backhuys Publishers.
- O'Riordan R.M.**, Power A.M., and Myers A.A. (2010) *Factors, at different scales, affecting the distribution of the genus Chthamalus Ranzani (Cirripedia, Balanomorpha, Chthamaloidea)*, Journal of Experimental Marine Biology and Ecology, **392**, 1-2, 46-64
- Fontaine M.C., Tolley K.A., Michaux J.R. and **Rogan E.** et al. (2010) *Genetic and historic evidence for climate-driven population fragmentation in a top cetacean predator: the harbour porpoises in European water*, Proceedings of the Royal Society of B-Biological Sciences, **277**, 1695, 2829-2837
- Kraak S.B.M., Kelly C.J., Codling E.A. and **Rogan E.** (2010) *On scientists' discomfort in fisheries advisory science: the example of simulation-based fisheries management-strategy evaluations*, Fish and Fisheries, **11**, 2, 119-132
- Murphy S., Pierce G.J., Law R.J., Bersuder P., Jepson P.D., Learmonth J.A., Addink M., Dabin W., Santos M.B., Deaville R., Zegers B.N., Mets A., **Rogan E.**, et al. (2010) *Assessing the effect of persistent organic pollutants on reproductive activity in small cetaceans in the eastern North Atlantic*, Journal of Northwest Atlantic Fishery Science, **42**, 153-173
- Ryan C., **Rogan E.**, and **Cross T.** (2010) *The use of Cork Harbour by bottlenose dolphins (Tursiops truncatus (Montagu, 1821))*, Irish Naturalists' Journal, **31**
- Pretly J., Sutherland W.J., Ashby J., **Sage C.** et al. (2010) *The top 100 questions of importance to the future of global agriculture*, International Journal of Agricultural Sustainability, **8**, 4, 219-236
- Tedesco S., Doyle H., Blasco J., **Sheehan D.**, et al. (2010) *Oxidative stress and toxicity of gold nanoparticles in Mytilus edulis*, Aquatic Toxicology, **100**, 2, 178-186
- Tedesco S., Doyle H., Blasco J., **Sheehan D.**, et al. (2010) *Exposure of the blue mussel, Mytilus edulis, to gold nanoparticles and the pro-oxidant menadione*, Comparative Biochemistry and Physiology C-Toxicology & Pharmacology, **151**, 2, 167-174
- Chora S., McDonagh B., **Sheehan D.**, et al. (2010) *Ubiquitination and carbonylation of proteins in the clam Ruditapes decussatus exposed to nonylphenol using redox proteomics*, Chemoshpere, **81**, 10, 1212-1217
- Friel D. and **Sleeman D.P.** (2010) *A neonate harbour porpoise (Phocoena phocoene (L.)) with damaged skin*, Irish Naturalists' Journal, **31**, 55