

Algal Research Lab Conference Contributions, 2007 - Oct 2011

2011

- Ashu-Ayem, E., Monahan, C., Nitschke, U., Murphy, L., Darby, S., Smith, P., **Stengel, D.B.**, O'Dowd, C. and Venables, D. Iodine emission and particle formation from *Laminaria digitata*. European Geosciences Union General Assembly, Vienna, 3-8 April 2011 (poster).
- Ceburnis D., Ovadnevaite J., Zacharias M., Bialek J., Connan S., Rinaldi M., Monahan C., Facchini M. C., Berresheim H., **Stengel D.** and O'Dowd C. D. Laboratory Studies into Sea-Spray Chemical Speciation in Plankton-Enriched Sea-Water. Goldschmidt 2011, Prague, Czech Republic, 14-19 August 2011 (oral).
- Dixneuf, S., Ruth, A.A., Nitschke, U. and **Stengel, D.B.** Molecular iodine emission rates of different thallus parts of *Laminaria digitata* using incoherent broadband cavity-enhanced absorption spectroscopy. 43rd Liège Colloquium on Ocean Dynamics, Liège (Belgium), 2-6 May 2011 (oral).
- Durcan, J., Cave, R., Tyrrell, L., **Stengel, D.B.**, McGovern, E. Development of Methods and Determination of Total and Inorganic Arsenic in Irish Marine Biota, March 2011 Marine Environment and Food Safety Internal Seminar, Marine Institute, March 28, 2011 Galway. (oral).
- Durcan, J., Cave, R., Tyrrell, L., **Stengel, D.B.**, McGovern, E. Development of Methods and Determination of Total and Inorganic Arsenic in Irish Marine Biota, May 2011 Botany and Plant Science Internal Seminar, NUI Galway, May 27, 2011, Galway (oral).
- Eschmann, C. and **Stengel, D.** Recovery of *Ascophyllum nodosum* after harvesting and potential interactions with climate change impacts in Ireland. 4th Congress of the International Society of Applied Phycology, Halifax, 19-24 June (poster).
- Murray, H., **Stengel, D.B.** and Cave R. Voltammetric determination of copper-complexing capacity of algal exuded organic ligands, Ryan Institute Research Day, June 9 2011 (poster).
- Murray, H., **Stengel, D.B.** and Cave R. Voltammetric characterization of algal-exuded organic ligands and their effect on copper bioavailability in seawater, SETAC North America Focused Topic Meeting on Pollutants in the Environment, August 24-27 2011 (oral).
- Murray, H., **Stengel, D.B.** and Cave R. The effect of algal-exuded organic ligands on metal bioavailability in seawater, April 6-8 2011, Environ 2011 (poster).
- Ní Longphuirt, S., Eschmann, C., Stengel, D.B. (2011) Impacts of Climate Change on Seaweed Productivity. Ryan Institute Research Open Day Programme, NUI Galway, June 9th, 2011 (oral).
- Ní Longphuirt, S., Eschmann, C., **Stengel, D.** The influence of increased atmospheric CO₂ on the primary production of exposed macroalgae over the annual cycle. 5th European Phycological Congress. Rhodes 4-9 September 2011 (oral).
- Nitschke, U., Ruth, A.A., Dixneuf, S. and **Stengel D.B.** Iodine in the brown macroalga *Laminaria digitata* and its significance in atmospheric processes. Ryan Institute Research Day, Galway (Ireland), 9 June (poster).
- Nitschke, U., Dixneuf, S., Muniyappa, M.K., Ruth, A.A., Spillane, C. and **Stengel, D.B.** Iodine emission from *Laminaria digitata* and potential effects on breast cancer. 4th Congress of the International Society for Applied Phycology, Halifax (Canada), 19-24 June 2011 (poster).
- Nitschke, U., Connan, S. and Stengel, D.B. Photophysiology of Phaeophyceae – the use of Rapid Light Curves may lead to misinterpretation of results. 4th Congress of the International Society for Applied Phycology, Halifax (Canada), 19-24 June 2011 (poster).
- Nitschke, U. and **Stengel, D.B.** Impact of environmental stressors on iodine release by *Laminaria digitata*. Botany and Plant Science Seminar, Galway (Ireland), 28th June 2011 (oral).
- Nitschke, U., Connan, S. and **Stengel, D.B.** Photosynthesis of emersed Phaeophyceae and artefacts generated by Rapid Light Curves. 5th European Phycological Congress, Rhodes Island (Greece), 4-9 September 2011 (oral).
- Stengel, D.B.** Contributions of algal research to marine biotechnology, Marine Institute, May 2011; SeaChange Review.
- Stengel, D.B.** Algal BioSciences Research Network - current and potential future contributions to Biotechnology R&D. ShareBio Workshop on European Biotechnology Networks, August 2011. Galway.
- Stengel, D.B.** Biotechnological and Industrial Applications of Macroalgae. 120th Anniversary Engineering Education, Hochschule Koethen (Germany), Workshop on Algal Biotechnology. (October 2011).

Zacharias, M., Connan, S., Ceburnis, D., Ovadnevaite, J., Bialek, J., Rinaldi, M., O'Dowd, C.D., and **Stengel D.** Organic compounds produced by marine macro- and microalgae-environmental control and impacts on climate. Ryan Institute Research Day, Galway, 9th June 2011 (poster).

Zacharias, M., Connan, S., Ceburnis, D., Ovadnevaite, J., Bialek, J., Rinaldi, M., O'Dowd C.D., **Stengel, D.** Productivity and fate of organic compounds in marine algae. Botany and Plant Science Seminar Series, NUI Galway, 22 March 2011 (oral).

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Baer, J. and **Stengel, D.B.** Spatial variability in productivity, invasive success and likely impacts of *Sargassum muticum* in Ireland. XXth International Seaweed Symposium, Ensenada Baja California (Mexico), 22-26 February 2010 (poster).

Cave, R., **Stengel, D.B.**, Leech, D., Meunier, G., Murray, H. and Durcan, J. Metals in the Marine Environment (MIME). Marine Environment Workshop, Marine Institute, Renville, Co. Galway, 20 January 2010 (oral).

Durcan, J., **Stengel, D.B.**, Cave, R., Tyrrell, L., and McGovern, E. Determination of total and inorganic arsenic in Irish macroalgae. XXth International Seaweed Symposium, Ensenada Baja California (Mexico), 22-26 February 2010 (poster).

Durcan, J., **Stengel, D.B.**, Cave, R., Tyrrell, L., and McGovern, E. Development of methods and determination of total and inorganic arsenic in Irish marine biota. 7th annual Marine Biological Association Postgraduate Conference, University of Glasgow, 17-21 May 2010 (oral).

Durcan, J., Cave, R., Tyrrell, L., **Stengel, D.** and McGovern, E. Total and Inorganic arsenic in Irish seafood. SEGH 2010 Environmental Quality and Human Health, 27 June–2 July 2010, NUI Galway (oral).

Durcan, J., Stengel, D.B., Cave, R., Tyrrell, L. and McGovern, E. Determination of total and inorganic arsenic in Irish macroalgae. College of Science Research Day, NUI Galway, 12 April 2010 (poster).

Eschmann, C., Ní Longphuirt, S. and **Stengel, D.B.** The need for Improved Sustainable Management to Protect Biodiversity (*Ascophyllum nodosum*) - WP4: Natural Resource Exploitation and Global Change. BioChange Meeting, Dublin, 7 January 2010 (poster).

Eschmann, C., Ní Longphuirt, S. and Stengel, D.B. The need for Improved Sustainable Management to Protect Biodiversity (*Ascophyllum nodosum*) - WP4: Natural Resource Exploitation and Global Change. College of Science Research Day, NUI Galway, 12 April 2010 (poster).

Eschmann, C. and **Stengel, D.B.** Impacts of Climate Change on the Brown Intertidal Seaweed *Ascophyllum nodosum*. ClimECO2. International Summer School, Brest (France), 23-27 August 2010 (oral and poster).

Eschmann, C., Ní Longphuirt, S. and **Stengel, D.B.** The need for Improved Sustainable Management to Protect Biodiversity (*Ascophyllum nodosum*) - WP4: Natural Resource Exploitation and Global Change. EPA National Research Conference, Dublin, 23 June 2010 (poster).

Eschmann, C., Ní Longphuirt, S. and **Stengel, D.B.** The need for Improved Sustainable Management to Protect Biodiversity (*Ascophyllum nodosum*) - WP4: Natural Resource Exploitation and Global Change. Joint ECI-MRI Research Day, Galway, 17 June 2010 (poster).

Murray, H., Cave, R., and **Stengel, D.B.** The effect of algal-exuded organic ligands on metal bioavailability in seawater. European Meeting of Environmental Chemists 11, Portoroz Slovenia, 10 December 2010 (oral).

Ní Longphuirt, S., Eschmann, C., **Stengel, D.B.** Functioning of native and invasive macroalgae: primary production and the influence of climate change Botany and Plant Science Seminar Series, NUI Galway, 9 February 2011 (oral).

Ní Longphuirt, S. and **Stengel, D.B.** Macroalgal carbon budgets and potential impacts of Ocean Acidification. College of Science Research Day, NUI Galway, 12 April 2010 (poster).

Ní Longphuirt, S., **Stengel, D.B.** Macroalgal carbon budgets and potential impacts of Ocean Acidification ECI-MRI Research Day, NUI Galway, 17 June 2010 (Poster).

- Nitschke, U. and Stengel, D.B. Iodine in Algae - Significances in Nature and Possible Health Effects and Exchange at the Air-Sea Interface: Air Quality and Climate ImpactS (EASI-AQCIS). Workshop of the EASI-AQCIS Project, Galway, 16-17 February 2010 (oral).
- Nitschke, U., Dixneuf, S. and **Stengel, D.B.** Temporal Profile of Molecular Iodine Emission by *Laminaria digitata*. 13¹ Scientific Meeting of the Phycology Section of the German Botanical Society, Konstanz (Germany) March 2010 (oral).
- Nitschke, U., Dixneuf, S., Smyth, P.A. and **Stengel, D.B.** Iodine in Algae - Significances in Nature and Possible Health Effects: Preliminary Results of I₂ Emission Patterns of *Laminaria digitata*. 58th Annual Meeting of the British Phycological Society, Oban (UK), 6-10 January 2010 (poster).
- Nitschke, U., Dixneuf, S. and Stengel, D.B. Iodine, brown macroalgae and atmospheric chemistry: Emission of molecular iodine by *Laminaria digitata*. Irish Plant Scientists' Association Meeting, Dublin, 2-4 June 2010 (oral).
- Nitschke, U. and **Stengel, D.B.** Molecular iodine emission and photosynthetic performance of *Laminaria digitata* during emersion. Botany and Plant Science Seminar, Galway, 09 November 2010 (oral).
- O'Dowd, C., McGovern, E., Cave, C., Ward, B., **Stengel, D.B.**, McGrath, T., Kivimae, C., McVeigh, P. and Westbrook, G. Impacts of Increased Atmospheric CO₂ on Ocean Chemistry and Ecosystems. Marine Environment Workshop, Marine Institute, Renville, Co. Galway, 20 January 2010 (oral).
- O'Rourke, C., Connan, S., Eschmann, C. and **Stengel, D.B.** Characterisation of pigment levels and composition in the brown seaweed *Ascophyllum nodosum* in Galway Bay, Ireland. 58th Annual Meeting of the British Phycological Society, Oban (UK), 6-10 January 2010 (poster).
- Rinaldi, M., Decesari, S., Finessi, E., Ceburnis, D., Zacharias, M., Connan, S., **Stengel, D.B.**, O'Dowd, C.D. and Facchini, M.C. Characterization of sea spray OM from selected algal cultures. Goldschmidt 2010 'Earth, Energy, and the Environment', Knoxville Tennessee (USA), 13-18 June 2010 (poster).
- Stengel, D.B.**, Connan, S., Zacharias, M., Nitschke, U., Eschmann, C. and Ní Longphuirt, S. Characterisation of algal emissions involved in air quality and climate change in western Ireland. XXth International Seaweed Symposium, Ensenada Baja California (Mexico), 22-26 February 2010 (poster).
- Stengel, D.B.**, O'Rourke, C. and Connan, S. Variability in pigment composition and levels in the intertidal brown seaweed *Ascophyllum nodosum* from western Ireland. XXth International Seaweed Symposium, Ensenada Baja California (Mexico), 22-26 February 2010 (oral).
- Stengel, D.B.** and Connan, S. Pigments as natural products from marine macroalgae: limitations and potential – a case study from Ireland. ESF-COST High-Level Research Conference Marine Biotechnology: Future Challenges, Acquafredda di Maratea, Italy.
- Zacharias, M., Connan S., Ceburnis, D., Ovadnevaite, J., Dixneuf, S., Rinaldi, M., O'Dowd, C.D. and **Stengel, D.B.** Marine Algae: the missing link to cloud formation? Investigations on the emission and exudation of organic compounds. College of Science Research Day 2010 (April 12th) (oral).
- Zacharias, M., Connan, S. and **Stengel, D.B.** Bubble mediated aerosol production: Algal experiments. Workshop of the EASI-AQCIS Project, Galway, 16-17 February 2010 (oral).

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- Connan, S., Zacharias, M. and **Stengel, D.B.** Algae in Climate Change Research - some preliminary results from the EASI-AQCIS Project. 5th Workshop of Surface Ocean Lower Atmosphere Studies (SOLAS)-Ireland, Galway, 14 December 2009 (oral).
- Durcan, J., Cave, R., Tyrrell, L., **Stengel, D.** and McGovern, E. Development of methods and determination of total and inorganic arsenic in Irish marine biota. ASLO 2009 Aquatic Science meeting, Nice, 25-30 January 2009 (poster).
- Durcan, J., Cave, R., Tyrrell, L., **Stengel, D.** and McGovern, E. Development of methods and determination of total and inorganic arsenic in Irish marine biota. ENVIRON, 18-20 February 2009, Waterford I.T. (poster).
- Durcan, J., Cave, R., Tyrrell, L., **Stengel, D.**, and McGovern, E. Development of methods and determination of total and inorganic arsenic in Irish marine biota. College of Science Research Day, NUI Galway, 20 April, 2009 (poster).
- Eschmann, C. and **Stengel, D.B.** An evaluation of the effects of predicted climate change on *Ascophyllum nodosum*. Environmental Change Institute, Research Day, NUI Galway 24 June 2009 (poster).

- Eschmann, C. and **Stengel, D.B.** An evaluation of the effects of predicted climate change on *Ascophyllum nodosum*. College of Science Research Day, NUI Galway, 20 April 2009 (Poster)
- Eschmann, C. and **Stengel, D.B.** An Evaluation of the Effects of Predicted Climate Change on *Ascophyllum nodosum*. Irish Plant Scientists' Association Meeting, Dublin, 19-20 March 2009 (poster).
- Eschmann, C. and **Stengel, D.B.** Effects of environment and impact of harvesting on different *Ascophyllum nodosum* populations. Postgraduate Ecology Forum, Galway, 14-17 April 2009 (oral).
- Eschmann, C. and **Stengel, D.B.** Effects of harvesting and predicted climate change on populations of the brown intertidal seaweed *Ascophyllum nodosum* in Ireland. Deutsche Botanikertagung, Leipzig, Germany, 6-10 September 2009 (oral).
- Eschmann, C. and Stengel, D.B. Work Package 4: Natural Resource Exploitation and Global Change – The need for improved sustainable management to protect biodiversity (*Ascophyllum nodosum*). Biochange/Simbiosys Meeting, Galway, 25-26 February 2009 (oral).
- Higgins, N. and **Stengel, D.B.** Contribution of lichens to biodiversity and productivity in different habitats in Swaziland, Southern Africa. Irish Plant Scientists' Association Meeting, Dublin, 19-20 March 2009 (oral).
- Higgins, N. and **Stengel, D.B.** Diversity and abundance of lichens across an altitudinal gradient in Swaziland, southern Africa. College of Science, NUI Galway, Research Day, 20th April 2009 (poster).
- Higgins, N. and **Stengel, D.B.** Diversity and abundance of lichens across an altitudinal gradient in Swaziland, southern Africa. Postgraduate Ecology Forum, Galway, 14th to 17th April 2009 (oral).
- Higgins, N and **Stengel, D.B.** Diversity and abundance of lichens across an altitudinal gradient in Swaziland, southern Africa. Environmental Change Institute, NUI Galway, Research Day, 24th June 2009 (poster).
- Nitschke, U., Smyth, P.P.A. and **Stengel, D.B.** Iodine in Algae - Significances in nature and possible health effects. IRCSET Symposium 2009 Dublin, September 2009 (poster).
- O'Rourke, C., Connan, S., Eschmann, C. and **Stengel, D.B.** Characterisation of pigment levels and composition in the brown seaweed *Ascophyllum nodosum* in Galway Bay, Ireland. Annual Meeting Botanical Society of the British Isles, London, November 2009 (poster).
- Stengel, D.B.** Algae - Environment interactions: applications in climate change research and biomonitoring. University of Mainz, Ebernburg Annual Graduate School workshop (Analytical Chemistry), October 2009 (invited lecture).
- Zacharias, M. Marine Algal Biological Cycling; 4th International SOLAS Summer School, Cargese, Corsica, France 3-15 August 2009 (oral).
- Zacharias, M., Connan, S. and **Stengel, D.B.** Implication of environmental factors on growth, productivity and pigment composition of algae. Irish Plant Scientists' Association Meeting, Dublin 19-20 March 2009 (poster).
- Zacharias, M., Connan, S. and **Stengel, D.B.** Marine Algal Biological Cycling. 4th Postgraduate Ecology Forum, 14-17 April 2009, Galway (oral).
- Zacharias, M., Connan, S. and **Stengel, D.B.** Implication of environmental factors on growth, productivity and pigmentation of algae; 3rd Environmental Change Institute, Research Day, NUI Galway, 24 June 2009 (poster).
- Zacharias, M., Connan, S. and **Stengel, D.B.** Implication of environmental factors on growth, productivity and pigmentation of algae. College of Science Research Day, NUI Galway 20 April 2009 (poster).

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- Baer, J. and **Stengel, D.** Ecological studies on the invasion of *Sargassum muticum* in Ireland. 2nd Environmental Change Institute, Research Day, NUI Galway, 11th June 2008 (poster).
- Connan, S., and **Stengel, D.B.** Metal binding capacities of different phenol fractions of the brown seaweed *Ascophyllum nodosum*. 2nd Environmental Change Institute, Research Day, NUI Galway, 11th June 2008 (poster).
- Connan, S. and **Stengel, D.B.** Environmental and physiological considerations when applying seaweeds in coastal monitoring. 11th International Conference on Applied Phycology, Galway, 21-27 June 2008 (oral).
- Connan, S. and **Stengel, D.B.** Macroalgal biomonitoring – applying phenolic compounds as biomarkers for metal uptake characteristics in Irish coastal environments. Environmental Protection Agency STRIVE Seminar 2008, Dublin, 13-14 November 2008 (oral).

- Stengel, D.B.** Marine Algae and Climate Change - current research at NUIG. Climate Change Workshop Marine Institute, Renville, Co. Galway, November 2008 (oral).
- Welsh, S., Bozniak, E., Connan, S. and Stengel, D. The effects of desiccation on the phenols of *Ascophyllum nodosum*. 22nd National Conference on Undergraduate Research, Salisbury (USA), 10-12 April 2008 (oral).
- Zacharias, M. and **Stengel, D.B.** A comparison of different parameters used to estimate marine primary productivity for climate change research. 2nd Environmental Change Institute, Research Day, NUI Galway, 11th June 2008 (poster).

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- Baer, J. and **Stengel, D.** Ecological studies on the invasion of *Sargassum muticum* in Ireland. 1st Environmental Change Institute Research Day, NUI Galway, 21 June 2007 (poster).
- Connan, S. and Stengel, D.B. Effect of the environment on phenol content of *Ascophyllum nodosum* and its impact on their metal binding properties: first results from a transplant experiment in Galway Bay. 17th Irish Environmental Researchers' Colloquium, Carlow, 26-28 January 2007 (poster).
- Connan, S. and **Stengel, D.B.** Environmental control of brown algal phenol production related to their metal binding properties. XIXth International Seaweed Symposium, Kobe (Japan), 26-31 March 2007 (poster).
- Connan, S. and **Stengel, D.B.** Environmental control of brown algal phenol production and assessment of their metal binding properties. 1st Environmental Change Institute Research Day, NUI Galway, 21st June 2007 (poster).
- Connan, S. and **Stengel, D.B.** Environmental control of the metal binding properties of phenolic compounds in two intertidal brown algae. 4th European Phycological Congress, Oviedo (Spain), 23-27 July 2007 (oral).
- Connan, S. Ar Gall, E., and **Stengel, D.B.** Phenolic compounds from *Ascophyllum nodosum* (Fucales, Phaeophyceae): seasonal variation and environmental control. 55th Annual Meeting of the British Phycological Society Meeting, Belfast, 3-6 January 2007 (oral).
- Durcan, J., Cave, R., Tyrrell, L., **Stengel, D.B.** and McGovern, E. Determination of Arsenic in Marine Biota. Challenger Society Symposium, NUI Galway, 2007 (poster).
- Loughnane, C., Connan, S., Tuohy, M.G., Cruet-Hennequart, S., Carty, M. and **Stengel, D.B.** Phlorotannins in Irish brown seaweeds: Investigation of their UV-protective effects and potential as natural sunscreens. 4th Health Sea International Symposium Health Sea, Granville (France), 4-5 October 2007 (oral).
- Loughnane, C.J., Connan, S. and **Stengel, D.B.** Brown algal phlorotannins as natural UV-screening compounds. XIXth International Seaweed Symposium, Kobe (Japan), 26-31 March 2007 (poster).
- Loughnane, C.J., Connan, S., and **Stengel, D.B.** Brown algal phlorotannins as natural UV-screening compounds. 1st Environmental Change Institute Research Day, NUI Galway, 21 June 2007 (poster).
- Loughnane, C.J., Carty, M. and **Stengel, D.B.** Preliminary investigations of the potential of brown algal phlorotannins as natural sunscreens. 4th European Phycological Congress, Oviedo (Spain), 23-27 July 2007 (poster).
- Lyons, R., Connan, S. and **Stengel, D.B.** A preliminary study into the effects of nutrients and salinity on biomarkers in the brown seaweed *Ascophyllum nodosum* (Fucales). 17th Irish Environmental Researchers' Colloquium, Carlow, 26-28 January 2007 (poster).
- McGrath, H. and **Stengel, D.** *Ascophyllum* and climate change – a preliminary study. 1st Environmental Change Institute Research Day, NUI Galway, 21 June 2007 (poster).
- McGrath, H. and **Stengel, D.** Productivity of *Ascophyllum nodosum* and climate change – some preliminary results. 4th European Phycological Congress, Oviedo (Spain), 23-27 July 2007 (poster).
- Stengel, D.B. Exchange at the Air-Sea Interface: Air Quality and Climate ImpactS (EASI-AQCIS) Marine Algal Biological Cycling: Algal experiments. Workshop of Surface Ocean Lower Atmosphere Studies (SOLAS)-Ireland, Galway, December 2007 (oral).