

FULL PUBLICATIONS LIST – Dr. Kieran O'Driscoll

Peer-reviewed articles in research journals

Biamis, C., **O' Driscoll, K.** and Hardiman, G. (2020) Microplastics in the marine environment: A review of the role of sentinel species in assessing the environmental and public health impacts. *Case Studies in Chemical and Environmental Engineering*, 3, 100073. doi: 10.1016/j.cscee.2020.100073

Coyle, R., Hardiman, G. and **O'Driscoll K.** (2020) Microplastics in the marine environment: A Review of their sources, distribution processes and uptake and exchange in ecosystems. *Case Studies in Chemical and Environmental Engineering*, 2, 100010. doi: 10.1016/j.cscee.2020.100010

Chen, X., Foley, A., Zhang, Z., Wang, K. and **O'Driscoll K.** (2019) An assessment of wind energy potential in the Beibu Gulf considering the energy demands of the Beibu Gulf Economic Rim, *Renewable and Sustainable Energy Reviews*, 119, 109605. doi: 10.1016/j.rser.2019.109605

Chen, X., Wang, K., Zhang, Z., Zeng, Y., Zhang, Y. and **O'Driscoll, K.** (2017) An assessment of wind and wave climate as potential sources of renewable energy in the nearshore Shenzhen coastal zone of the South China Sea, *Energy*, 134, pp. 789-801. doi: 10.1016/j.energy.2017.06.043

O'Driscoll, K. and Levine, M.D. (2017) Simulations and observation of nonlinear internal waves on the continental shelf: Korteweg–de Vries and extended Korteweg–de Vries solutions. *Ocean Science*, 13(5), pp. 749– 763. doi: 10.5194/os-13-749-2017

O'Driscoll, K., Robinson, J., Chiang, W-S., Chen, Y-Y., Kao, R-C. and Doherty, R. (2016) The environmental fate of polybrominated diphenyl ethers (PBDEs) in western Taiwan and coastal waters: evaluation with a fugacity-based model. *Environmental Science and Pollution Research*, 23, 13222-13234. doi: 10.1007/s11356-016-6428-4

O'Driscoll, K., Mayer, B., Su, J. and Mathis, M. (2014) The effects of global climate change on the cycling and processes of persistent organic pollutants (POPs) in the North Sea. *Ocean Science*, 10, pp. 397–409. doi: 10.5194/os-10-397-2014

O'Driscoll, K., 2014. Air-sea exchange of legacy POPs in the North Sea based on results of fate and transport and shelf-sea hydrodynamic ocean models. *Atmosph.*, 5, pp. 156-177.

Chen, X., Dangendorf, S., Narayan, N., **O'Driscoll, K.**, Tsimplis, M., Su, J., Mayer, B. and Pohlmann, T. (2014) On sea level change in the North Sea influenced by the North Atlantic Oscillation: Local and remote steric effects. *Estuarine, Coastal and Shelf Science*, 151, pp. 186-195. doi:10.1016/j.ecss.2014.10.009

Su, J., Sein, D., Mathis, M., Mayer, B. and **O'Driscoll, K.**, Chen, X. Mikolajewicz, U., and Pohlmann, T. (2014) Assessment of a zoomed global model for the North Sea by comparison with a conventional nested regional model. *Tellus A*, 66(1), 23927. doi: [10.3402/tellusa.v66.23927](https://doi.org/10.3402/tellusa.v66.23927)

O'Driscoll, K., Mayer, B., Ilyina, T. and Pohlmann, T. (2013) Modelling the cycling of persistent organic pollutants (POPs)

in the North Sea system: fluxes, loading, seasonality, trends. *Journal of Marine Systems*, 111-112, pp. 69-82. doi: 10.1016/j.jmarsys.2012.09.011

Chen, X.P., Liu, C.Y., **O'Driscoll, K.**, Mayer, B., Su, J. and Pohlmann T., (2013) On the nudging terms at open boundaries in regional ocean models. *Ocean Modelling*, 66, pp. 14-25. doi: 10.1016/j.ocemod.2013.02.006

O'Driscoll, K. and Kamenkovich, V. (2012) The analysis of large-scale turbulence characteristics in the Indonesian seas derived from a regional model based on the Princeton Ocean Model. *Ocean Science*, 8(4), pp. 615-631. doi: 10.5194/os-8-615-2012

Alheit, J., Pohlmann, T., Casini, M., Greve, W., Hinrichs, R., Mathis, M., **O'Driscoll, K.**, Vorberg, R. and Wagner, C. (2011) Climate variability drives anchovies and sardines into the North and Baltic Seas, *Progress in Oceanography*, 96(1), pp. 128-139. doi: 10.1016/j.pocean.2011.11.015

O'Driscoll, K. and Kamenkovich, V. (2009) Dynamics of the Indonesian seas circulation. Part I - The influence of bottom topography on temperature and salinity distributions. *Journal of Marine Research*, 67(2), 119 - 157.

Kamenkovich, V., **O'Driscoll, K.** and Nechaev, D.A. (2009) Dynamics of the Indonesian Seas. Part II - The role of pressure head. *Journal of Marine Research*, 67(2), pp. 159 - 184.

Rosenfield, D, Kamenkovich, V., **O'Driscoll, K.** and Sprintall, J. (2009) Validation of a regional Indonesian seas model based on a comparison between model and INSTANT transports. *Dyns. Atm. Oc.*, 50, pp. 313-330. doi: 10.1016/j.dynatmoce.2010.02.005

Other Publications (Theses):

O'Driscoll, K.T.A. (2007) *A 3D regional model of the Indonesian seas circulation*. PhD Thesis, University of Southern Mississippi (Advisor: Professor Vladimir Kamenkovich). VDM Verlag, 176 pages. ISBN-13: 978-3639087963

O'Driscoll, K.T.A. (1999) *Nonlinear internal waves on the continental shelf*. Masters Dissertation, College Oceanic and Atmospheric Sciences, Oregon State University. (Advisor: Professor Murray Levine). 125 pages.

Peer reviewed conference proceedings

O'Driscoll, K., Ilyina, T., Pohlmann, T., Mayer, B. and Damm, P. (2011) Modelling the fate of persistent organic pollutants (POPs) in the North Sea system (from Earth System Science 2010: Global Change, Climate and People), *Procedia Environmental Sciences*, 6, pp. 169–179. doi: 10.1016/j.proenv.2011.05.018

Pohlmann, T., Mayer, B., Mathis, M. and **O'Driscoll, K.** (2012) Experiences from regional climate forecasts for the 21st century for the North Sea and its application to Vietnamese and adjacent waters. *Proceedings of the International Conference on “Bien Dong 2012”, Kỷ yếu Hội nghị Quốc tế “Biển Đông 2012”,* at Nha Trang, 12-14 September, pp. 19-26.

Selected peer reviewed conference presentations

Biamis, **O'Driscoll, K.**, Bize, Thompson, and Hardiman (2019) Actions of Microplastic-derived Endocrine Disrupting Chemicals on Seabird Epigenetics, *QUB Computational Biology Symposium*, Belfast, November 2019.

Chen, X., Wang, K., Zhang, Z., Zeng, Y. and **O'Driscoll, K.** (2017) Assessment of wind and wave climate in the Shenzhen coastal zone of the South China Sea, *EGU General Assembly*, Vienna, Austria, April 2017.

O'Driscoll, K. (2016) A novel ecosystem approach to modelling transport and cycling of persistent organic pollutants (POPs) in coastal and shelf systems. *10th Network POPs Conference*. University of Birmingham.

O'Driscoll, K. (2014) The role of turbulence in the cycling of persistent organic pollutants in the North Sea, *EGU General Assembly*, Vienna, Austria, April 2014.

Chen, X., **O'Driscoll, K.**, Mayer, B., Su, J., Mathis, M., Narayan, N. and Pohlmann, T. (2013) The role of surface and advective heat and salt fluxes in the variability of North Sea temperature and salinity. *EGU General Assembly*, Vienna, Austria, 2013.

Rechid, Petersen, Jacob, Kriegsmann, **O'Driscoll**, and Mathis. (2013) Klimaschutz für die Klimafolgen- und Anpassungsforschung in der Metropolregion Hamburg. *Clim Serv Cen*. Germany. 2013.

O'Driscoll, K., Mathis, M., Pohlmann, T., Mayer, B., Ilyina, T. and Damm, P. (2012) Persistent organic pollutants in the North Sea in the 21st century: simulations with a combined hydrodynamic and fate and transport ocean model. *SETAC Europe 22nd Annual Meeting*, Berlin, May 2012.

Flagg, D., Grawe, D., Daneke, C., Hoffmann, P., Jacob, D., Kirschner, P., Kriegsmann, A., Linde, M., Mayer, B., **O'Driscoll, K.**, Pohlmann, Schlünzen, K.H., Schoetter, R., Teichert, W. and Zorita, E. (2011) Hamburg 2K: Climate modeling and downscaling for Hamburg, Germany under a 2K global warming scenario. *AGU Fall Meeting*, San Francisco, CA, December 2011.

O'Driscoll, K., Pohlmann, T., Mayer, B., Ilyina, T. and Damm, P. (2011) Modelling the cycling of persistent organic pollutants in shelf seas with a combined hydrodynamic and fate and transport ocean model: the North Sea system. *SETAC Europe 21st Annual Meeting*, Milan, May 2011.

O'Driscoll, K., Pohlmann, T., Ilyina, T., Mayer, B. and Damm, P. (2010) Modelling the fate of Polychlorinated biphenyls (PCBs) in the North Sea System with a Fate and Transport Ocean Model (FANTOM). *International PCB Workshop in 2010*. Visby, Sweden, May 2010.

O'Driscoll, K., Pohlmann, T., Ilyina, T., Mayer, B. and P. Damm. Modelling the fate of persistent organic pollutants (POPs) in the North Sea System. *AIMES Conf.*, Earth System Science. Edinburgh, May 2010.

O'Driscoll, K., T. Ilyina, Pohlmann, T., Mayer, B. and P. Damm. (2009) Modelling the role of air-sea exchange processes in the cycling of persistent organic pollutants (POPs) in the North Sea. *SOLAS conference*, November 2009, Barcelona.

Kamenkovich, V.M., **O'Driscoll, K.**, Nechaev, D. and Rosenfield, D. (2008) Analysis of dynamics of the Indonesian Seas circulation with a regional model based on the POM. *INSTANT Workshop, Lamont-Doherty Earth Observatory*, Columbia University, NY, May 2008.

Kamenkovich, V.M. and **O'Driscoll, K.** (2008) The analysis of turbulent mixing near topographic features in the Indonesian seas based on results of simulations with a regional model. *Ocean Sciences*, Orlando, Florida, 2008.

O'Driscoll, K. and Kamenkovich, V.M. (2007) The analysis of distributions of some turbulence characteristics in the Indonesian Seas based on results of simulations with a regional model, *IUGG General Assembly*, Perugia, Italy, 2007.

O'Driscoll, K. and Kamenkovich, V.M. (2007) The analysis of temperature, salinity and transport distributions in the Indonesian Seas based on results of simulations with a regional model, *IUGG General Assembly*, Perugia, Italy, 2007.

O'Driscoll, K., Kamenkovich, V.M. and Nechaev, D.A. (2006) Modeling the circulation of the Indonesian seas with a

regional model, *Ocean Sciences*, Honolulu, Hawaii, 2006.

O'Driscoll, K., Kamenkovich, V.M. and Nechaev, D.A. (2006) Developing a regional model of the Indonesian seas circulation based on the POM. *70th Mississippi Academy of Sciences*, Vicksburg, MS, 2006.

O'Driscoll, K., Kamenkovich, V.M and Nechaev, D.A. (2005) A regional model of the 3-D circulation of the Indonesian Seas, *EGU*, Vienna, Austria, 2005.

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O'Driscoll, K. and Levine, M.D. (2000) Nonlinear waves on the continental shelf: KdV solutions, *Ocean Sciences*, San Antonio, Texas, 2000.

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Dillon, T.M., Erofeev, Y.A., Barth, J., May, G. and **O'Driscoll, K.** (1996) MicroSoar: A Next-Generation Oceanic Turbulence Measuring System, *AGU*, San Francisco, CA, Fall 1996.