

5. CURRICULUM VITAE AND PUBLICATIONS

PART 1

1a. Personal details

Full name	Title Dr	First name Charlotte	Second name(s) Moragh	Family name Jones-Todd
Present position	Lecturer			
Organisation/Employer	University of Auckland			
Contact address	Department of Statistics			
	University of Auckland			
	Auckland			Post code 1142
Work telephone	+64 (0)9 923 7688		Mobile	
Email	c.jonestodd@auckland.ac.nz			
Personal website (if applicable)	https://cmjt.github.io/			

1b. Academic qualifications

2017, PhD, Statistics, University of St Andrews
 2013, MSc, Statistics, University of St Andrews
 2012, BSc Hons, Mathematics, Aberystwyth University

1c. Professional positions held

2019–present, Lecturer in Statistics, University of Auckland
 2018–2019, Statistician, National Institute of Water and Atmospheric Research
 2017–2018, Statistical Consultant, Sea Mammal Research Unit, University of St Andrews
 2014–2016, Statistics Tutor, Centre for Academic, Professional and Organisational Development, University of St Andrews
 2007–2012, Veterinary Assistant, John Downes Veterinary Surgery

1d. Present research/professional speciality

My research focuses on the development of novel point process models, in particular, the use of stochastic structures to account for unexplained, but relevant, spatial and/or temporal variation in real world applications. To date I have developed and applied such models in the fields of ecology, terrorism studies, and cancer research.

1e. Total years research experience:

5 years post-PhD

1f. Professional distinctions and memberships (including honours, prizes, scholarships, boards or governance roles, etc)

2022, Marsden Fund Fast-Start Grant recipient, Royal Society of New Zealand
 2021, New Zealand Statistical Association, Worsley Early Career Award
 2017, Invited speaker, Royal Statistical Society Conference, Glasgow, UK
 2017, Statistical Excellence Award for Early-Career Writing finalist, Young Statisticians Section of the Royal Statistical Society.
 2015, Invited speaker, Statistische Woche young statisticians session, Hamburg, Germany
 2017, Invited speaker, Royal Statistical Society Conference, Exeter, UK
 2015, Royal Statistical Society 2015 Challenge finalist
 2012, Pennington Prize for Pure Mathematics, Aberystwyth University

1g. Total number of peer reviewed publications and patents	Journal articles	Books	Book chapters, books edited	Conference proceedings	Patents
	8	0	0	2	0

PART 2

2a. Research publications and dissemination

* **Publications in journals ranked as A* / A (top 5% / 20%) by the Australian Research Council.**

Peer reviewed journal articles

Jones-Todd, C. M., Pirotta, E., Durban, J., Claridge, D., Baird, R., Falcone, E., Schorr, G., Watwood, S., & Thomas, L. **(2022)** Continuous-time discrete-space models of marine mammal exposure to Navy sonar. *Ecological Applications*, 32 (1): e02475.

- * Semadeni-Davies, A., **Jones-Todd, C. M.**, Elliott, S., Shankar, U., Tanner, C., Srinivasan, MS., & Muirhead, R. **(2020)** CLUES model calibration and its implications for estimating contaminant attenuation. *Agricultural Water Management*, 228, 105853.

Semadeni-Davies, A., **Jones-Todd, C. M.**, Srinivasan, MS., Muirhead, R., Elliott, A., Shankar, U., & Tanner, C. **(2019)** CLUES model calibration: residual analysis to investigate potential sources of model error. *New Zealand Journal of Agricultural Research*, 1–24.

- * Soranio-Redondo, A., **Jones-Todd, C. M.**, Bearhop, S., Hilton, G. M., Lock, L., Stanbury, A., Votier, S. C., & Illian, J. B. **(2019)**. Understanding species distribution in dynamic populations: a new approach using spatio-temporal point process models. *Ecography*, 42 (6), 1092–1102.

- * **Jones-Todd, C. M.**, Caie, P., Illian, J. B., Stevenson, B. C., Savage, A., Harrison D, J., & Bown, J. **(2019)**. Identifying prognostic structural features in tissue sections of colon cancer patients using point pattern analysis. *Statistics in Medicine*, 38 (8), 1421–1441.

- * Python, A., Illian, J. B., **Jones-Todd, C. M.**, & Blángiardo, M. A Bayesian approach to modelling subnational spatial dynamics of worldwide non-state terrorism, 2010–2016. **(2019)**. *Journal of the Royal Statistical Society, Series A (Statistics in Society)*, 182 (1), 323–344.

Kool, B., Buller, S., Kuriyan, R., **Jones-Todd, C. M.**, Newcombe, D., & Jones, P. **(2018)**. Alcohol and injury among attendees at a busy inner city New Zealand emergency department. *Injury*, 49 (4), 798–805.

- * **Jones-Todd, C. M.**, Swallow, B., Illian, J. B., & Toms, M. **(2018)**. A spatio-temporal multi-species model of a semi-continuous response. *Journal of the Royal Statistical Society, Series C (Applied Statistics)*, 67 (3), 705–722.

Refereed conference proceedings

- **Jones-Todd, C. M.**, & Renelle, A. **accepted**. Virtual experiments to teach experimental design: A web-based tool for biostatistics students bridging the gap between data collection and statistical analysis. In S. Peters (Ed.), Proceedings of the 11th International Conference on Teaching Statistics.
- Python, A., Illian, J. B., **Jones-Todd, C. M.**, & Blángiardo, M. **(2016)** Explaining the lethality of Boko Haram's terrorist attacks in Nigeria, 2009–2014: A hierarchical Bayesian approach. Bayesian Statistics in Action: BAYSM 2016, 231–239.

Other forms of dissemination (reports for clients, technical reports, popular press, etc)

- Hatami, R., Lane, S., Robinson, A., Inglis, G., **Jones-Todd, C. M.**, & Seaward, K. Improving New Zealand's marine biosecurity surveillance programme. A statistical review of biosecurity vectors. Ministry for Primary Industries website. **2021**.
- Python, A., Illian, J. B., **Jones-Todd, C. M.**, & Blángiardo, M. Statistics and Terrorism: Insights on terrorism lethality from Bayesian modeling. Wiley StatsRef-Statistics Reference Online. **2020**
- Dudley, B., & **Jones-Todd, C. M.** New Zealand coastal water quality assessment update. Ministry for the Environment. **2018**.
- Graham, E., **Jones-Todd, C. M.**, Wadhwa, S., & Storey, R. Analysis of stream responses to riparian management on the Taranaki ring plain. Taranaki Regional Council. **2018**.
- **Jones-Todd, C. M.** A time to kill: Great British serial killers. Significance Online. **2017**.
- **Jones-Todd, C. M.** Modelling complex dependencies inherent in spatial and spatio-temporal point pattern data. PhD Thesis, University of St Andrews. **2017**.