

# Curriculum Vitae—Charlotte M. Jones-Todd

## Personal Details

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**Position:** Lecturer

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## Education

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- **PhD in statistics** **Scotland, UK**  
*University of St Andrews* 2013–2017
- **MSc in statistics *dissertation distinction*** **Scotland, UK**  
*University of St Andrews* 2012–2013
- **BSc (Hons) in mathematics *first class*** **Wales, UK**  
*Aberystwyth University* 2009–2012

## Employment

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- **Department of Statistics, University of Auckland** **Auckland, NZ**  
*Lecturer* 07/2019–present
- **National Institute of Water and Atmospheric Research** **Hamilton, NZ**  
*Statistician* 01/2018–07/2019
- **University of St Andrews** **Scotland, UK**  
*Consultant, School of Mathematics and Statistics & Sea Mammal Research Unit* 02/2017–12/2017
- **University of Auckland** **Auckland, NZ**  
*Consultant, School of Epidemiology & Biostatistics* 02/2017–05/2017
- **University of St Andrews** **Scotland, UK**  
*Tutor, School of Mathematics and Statistics* 2014–2016
- **University of St Andrews** **Scotland, UK**  
*Tutor, Centre for Academic, Professional and Organisational Development* 2014–2016
- **John Downes Veterinary Surgery** **Wales, UK**  
*Veterinary Assistant, Receptionist* 2007–2012

## Scholarships and Awards

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- **Statistical Excellence Award for Early-Career Writing—Finalist**  
*Royal Statistical Society* 2017
- **RSS 2015 Challenge—Finalist**  
*Royal Statistical Society* 2015
- **School of Mathematics and Statistics PhD Scholarship**  
*University of St Andrews* 2013–2016
- **EPSRC MSc Scholarship**  
*University of St Andrews* 2012
- **Pennington Prize for Pure Mathematics**  
*Aberystwyth University* 2012

## Publications

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### Published

**Jones-Todd, C. M.,** Pirota, E., Durban, J., Claridge, D., Baird, R., Falcone, E., Schorr, G., Watwood, S., & Thomas, L. (**Under review**) Continuous-time discrete-space models of marine mammal exposure to Navy sonar.

Semadeni-Davies, A., **Jones-Todd, C. M.,** Elliott, A., 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. (2020) CLUES model calibration: residual analysis to investigate potential sources of model error. *New Zealand Journal of Agricultural Research*, 1–24.

Soriano-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.

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 reports

#### Reports

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*. July 2020.

Dudley, B., & **Jones-Todd, C. M.** New Zealand coastal water quality assessment update. Ministry for the Environment. May 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. March 2018.

#### Magazine Articles

**Jones-Todd, C. M.** A time to kill: Great British serial killers. *Significance Online*.

Python, A., Illian, J. B., **Jones-Todd, C. M.,** & Blángiardo, M. The Deadly Facets of Terrorism. *Significance*

## Service

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- Technical support for the Statistics Teachers' Day, 2020 *Bring Your Own 'big ideas' for teaching statistics*
- Member of the International Statistical Ecology Conference (ISEC) 2020 local organising committee.
- Department of Statistics, University of Auckland
  - *Chair of the Christmas function organising committee, 2020*
  - *Department of Statistics working from home committee*
  - *Department of Statistics sustainability working group coordinator*
  - *Member of the Faculty of Science sustainability committee*
  - *Ecological statistics group coordinator*
- Judge at the Waikato Science and Technology Fair 2018

## Other Service

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- **Associate Editor**
  - *Journal of Statistical Theory and Practice*
- **Conference session chair**
  - virtual International Statistical Ecology Conference (vISEC), July 2020.
  - Statistics in Ecology and Environmental Monitoring (SEEM) Conference, December 2019.
- **Student paper judge**
  - virtual International Statistical Ecology Conference (vISEC), July 2020.
- **Manuscript reviewing**
  - *Methods in Ecology and Evolution*
  - *Spatial Statistics*
  - *Journal of Peace Research*
  - *Advances in Statistical Analysis*
  - *Scientific Reports*
  - *Ecology*
  - *Journal of the Royal Statistical Society, Series C*
  - *Ecology and Evolution*
  - *Ecological Research*
- **Interview panel member**
  - Centre for Academic, Professional and Organisational Development (CAPOD).

## Grants & Contracts

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- 2021
  - Teaching Development Fund, Faculty of Science, University of Auckland (\$5,000)
- 2020
  - Faculty Research Development Fund, Faculty of Science, University of Auckland (\$20,000)
  - National Institute of Water and Atmospheric Research contract (\$10,000)

## Students

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- Honours & Masters
  - Zhenyuan Zhang, MProfStuds Data Science Data scraping and wrangling, 2021.
  - Elvyna Tungawan, MProfStuds in Data Science *Analyzing activity data from rheumatoid arthritis patients*, 2020.
  - Anthony Timings (Charlie), honours *Spatiotemporal modelling of NZ murders*, 2020.
- PhD
  - Em Rushworth, PhD *Compositional data analysis in a Bayesian framework*, 2020–ongoing.

## Technical Skills

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**Advanced user of:** R, Git, Bash,  $\text{\LaTeX}$ , C++, HTML, CSS, Python

## Memberships

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- New Zealand Statistical Association (NZSA)
- International Biometric Society (IBS), Australasian Region