

# 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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- **National Institute of Water and Atmospheric Research** **Hamilton, NZ**  
*Statistician* 01/2018–present
- **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*

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

Semadeni-Davies, A., **Jones-Todd, C. M.**, Elliott, A., Shankar, U., Tanner, C., Srinivasan, MS., & Muirhead, R. (2019) CLUES model calibration and its implications for estimating contaminant attenuation. *Agricultural Water Management*, 105853.

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. (**In press**). Statistics and Terrorism: Insights on terrorism lethality from Bayesian modeling. *Wiley StatsRef-Statistics Reference Online*.

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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- Member of the International Statistical Ecology Conference (ISEC) 2020 local organising committee.
- Department of statistics, University of Auckland
  - *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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- **Conference session chair**
  - Co-organiser and presenter at the Women in Data Science Conference, Auckland, March 2020.
  - Statistics in Ecology and Environmental Monitoring (SEEM) Conference, December 2019.
- **Manuscript reviewing**
  - *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).

## 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