

# Curriculum Vitae—Charlotte M. Jones-Todd

## Personal Details



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**Position:** Statistician

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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 mathematics *first class*** **Wales, UK**  
*Aberystwyth University* 2009–2012

## Employment

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- **National Institute of Water and Atmospheric Research**  
*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** 2017  
*Royal Statistical Society*
- **RSS 2015 Challenge—Finalist** 2015  
*Royal Statistical Society*
- **School of Mathematics PhD Scholarship** 2013–2016  
*University of St Andrews*
- **EPSRC MSc Scholarship** 2012  
*University of St Andrews*
- **Pennington Prize for Pure Mathematics** 2012  
*Aberystwyth University*

## Publications

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### *Published*

**Jones-Todd, C. M.**, Caie, P., Illian, J. B., Stevenson, B. C., Savage, A., Harrison D, J., & Bown, J. (In press) Identifying prognostic structural features in tissue sections of colon cancer patients using point pattern analysis. *Statistics in Medicine*, DOI:10.1002/sim.8046.

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.

### *Under review after revision*

Sorania-Redondo, A., **Jones-Todd, C. M.**, Bearhop, S., Hilton, G. M., Lock, L., Stanbury, A., Votier, S. C., & Illian, J. B. Estimating species distribution in dynamic populations using point process models: a case study in the Eurasian crane and perspectives in ecology. *Ecography*.

### *In preparation*

**Jones-Todd, C. M.**, Illian, J. B., & Marques, T. Applications of a joint marked point process spatio-temporal model. In preparation for submission to *Spatial Statistics*.

Stevenson, B. C., Borchers, D. L., **Jones-Todd, C. M.**, & Kidney, D. ascr: an R package for the analysis of spatial capture-recapture data. In preparation for submission to *Ecography*.

**Jones-Todd, C. M.**, Pirotta, E., & Thomas, L. Continuous-time discrete-space models of marine mammal exposure to Navy sonar. In preparation for submission to *Ecological Modelling*.

### Other reports.....

#### *Reports*

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*

*Submitted to Significance*

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

## **Technical Skills**

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

## **Professional Service**

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- Manuscript reviewing
  - 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).
- **Judge** Waikato Science and Technology Fair 2018

## References

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**Dr Janine B. Illian**

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Centre for Research into Ecological and Environmental Modelling  
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**Dr Rob Schick**

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