

Eco-Stats '15—Technological advances between ecology and statistics

Colombo Theatres, UNSW, December 8-10, 2015

Program

Sunday, December 6th, 9-5: Workshop—Intro to regression modelling (Day One)

Red Centre lab M020

Monday, December 7th, 9-5: Workshop—Intro to regression modelling (Day Two)

Red Centre lab M020

Tuesday, December 8th —Skills Building Day

Colombo Theatres

Time	<i>Colombo Theatre B</i>	<i>Colombo Theatre C</i>
8:00-8:55	Registration (<i>Colombo foyer</i>)	
8:55-9:00	Welcome (<i>Colombo foyer</i>)	
9:00-10:30	<u>Occupancy modelling with PRESENCE via R</u> <u>Darryl MacKenzie (Proteus Consulting)</u>	<u>Reproducible research with <i>remake</i> on R</u> <u>Daniel Falster (Macquarie University)</u>
10:30-11:00	Morning tea provided (<i>foyer</i>)	
11:00-12:30	<u>Spatial statistics on stream networks using <i>SSN</i></u> <u>Jay ver Hoef (US National Marine Mammal Lab)</u>	<u>Hierarchical modelling of species communities</u> <u>with <i>HMSC</i>. Otso Ovaskainen (U Helsinki)</u>
12:30-1:30	Lunch provided (<i>foyer</i>)	
1:30-3:00	<u>Point process modelling on R</u> <u>Ian Renner (U Newcastle)</u>	<u>Power analysis for GLMM's with <i>lme4</i> and <i>simr</i></u> <u>Peter Green (Landcare Research NZ)</u>
3:00-3:30	Afternoon tea provided (<i>foyer</i>)	
3:30-5:00	<u><i>CaPow</i>—an R interface for capture-recapture</u> <u>power analysis. Rachel Fewster (U Auckland)</u>	<u>Model-based multivariate analysis with</u> <u><i>mvabund</i> David Warton (UNSW)</u>
5:00-7:00	Welcome reception (<i>the White House</i>)	

Wednesday, December 9th —Invited talks and poster session

Colombo Theatre C

8:00-8:50	Registration (<i>Colombo foyer</i>)
8:50-9:00	Welcome (<i>Colombo Theatre C</i>)
9:00-10:30	Estimating biodiversity turnover. Melodie McGeoch, Cang Hui (Chair: Guillaume Latombe)
10:30-11:00	Morning tea provided (<i>foyer</i>)
11:00-12:30	Analysing counts in stream networks. Bruce Chessman, Jay ver Hoef (Chair: Wesley Brooks)
12:30-2:00	Lunch provided and Poster Session (<i>Colombo foyer</i>)
2:00-3:30	Capture-recapture using modern technology. Paul Sunnucks, Rachel Fewster (Chair: Jakub Stoklosa)
3:30-4:00	Afternoon tea provided (<i>foyer</i>)
4:00-5:00	Publishing in <i>Methods in Ecology and Evolution</i> . Shinichi Nakagawa, Douglas Yu, Matt Schofield <i>Evening suggestion—the Doncaster</i>

Thursday, December 10th —Invited talks and breakout session

Colombo Theatre C

9:00-10:30	Model-based analysis of metagenomics data. Douglas Yu, Otso Ovaskainen (Chair: Gordana Popovic)
10:30-11:00	Morning tea provided (<i>foyer</i>)
11:00-12:30	Modelling strategic behaviour during combat. Michael Kasumovic, Daniel Falster (Chair: Will Cornwell)
12:30-2:00	Lunch and breakout Sessions (<i>Colombo rooms</i>)
2:00-3:30	Occupancy modelling with imperfect detection. Alan Welsh, Darryl MacKenzie (Chair: David Warton) Discussants: Gurutzela Guillera-Arroita, Matt Schofield
3:30-4:00	Afternoon tea provided (<i>foyer</i>)
4:00-5:00	Discussion <i>Evening suggestion—the White House</i>

Program

Posters

Colombo foyer

On display in the Colombo foyer Wednesday and Thursday all day. Poster session Thursday 1-2.
Poster abstracts available online.

1. Nigel Andrew, Ian Oliver, Josh Dorrrough and Helen Doherty, *Landscape adaptation for biodiversity conservation in a changing climate*
2. Matthew Binns, Nigel Andrew, Heloise Gibb, David Warton, *Response of Australian Grassland Thysanoptera to a Changing Climate*
3. Paula Bran, Richard Barker, Matthew Schofield, *Ergodic properties of a Markov chain used for inferring genotype from corrupted DNA*
4. Andrew Dopheide, *Meta-barcoding of terrestrial biodiversity from soil DNA: methodological considerations and application to an island ecosystem*
5. Dr Michael Drielsma, Jamie Love, Glenn Manion, Hanieh Saremi, Tom Harwood, Kristen Williams, *Biodiversity Impacts and Adaptation to Climate Change at a sub-continental scale*
6. I Gede Nyoman Mindra Jaya, Henk Folmer and Budi Nurani, *Bayesian spatio-temporal modeling and mapping of Dengue Fever The Case of the City of Bandung, Indonesia*
7. Natalie Kelly, Amanda Hodgson, David Peel, *Statistics for studying abundance and distribution of marine mammals using Unmanned Aerial Vehicles (UAVs)*
8. Vira Koshkina, Yan Wang, Ascelin Gordon, Matt White, Lewi Stone, *Improving prediction power of Species Distribution Models: Combining presence-only data with limited presence-absence data*
9. Guillaume Latombe, Cang Hui, Mariona Roige & Melodie A. McGeoch, *The landscape of turnover: a spatially explicit mapping of species turnover using zeta diversity*
10. Louise McMillan, Rachel Fewster, *Where Did They Come From? Visualizing Population Genetics*
11. Shaun Nielsen, Ezequiel M. Marzinelli and Torsten Thomas, *Sampling and analysis of microbial communities using 16S rRNA gene surveys – characteristics of the generated data*
12. David Nipperess, *A general framework for measuring biodiversity based on rarefaction curves*
13. Anna Norberg, *Analyzing community data – how well do different statistical frameworks predict species occurrence and community patterns?*
14. Gordana Rasic, Ary A Hoffmann, *Molecular mark-recapture using relationship estimates from genome-wide SNPs*
15. Aida Sartimbul, Hideaki Nakata, Nurin Hidayati, Zulfan Khaidar, *Water temperature variation due to Indian Ocean dipole impact on purse seine fisheries dynamics in Prigi Bay, Indonesia: a statistical approach*
16. Matthew Schofield, Simon Bonner, *Misidentification in mark-recapture: connecting the latent multinomial*
17. Phuti Sebatjane, Peter Njuho, *Quantifying aggregation and zero inflation in faecal egg counts of sheep and goats.*
18. Khoa T. Tran, Brett Ninness, *Novel Parallel Markov Chain Monte Carlo Design for Random Sampling in Challenging Densities*
19. Marijke Welvaert, Peter Caley, *Is it a bug or a pest? Inferring reporting probabilities of pests from citizen science records.*
20. Kally Yuen, Mark J Antos, Gary Summers, Emma Danby, Sylvia van der Peet and Carlie Bronk, *Fox Control Program and Remote Camera Monitoring in Great Otway National Park*