

BRENDAN A. WINTLE

PERSONAL DETAILS

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Drivers License: Full Victorian Car Licence

QUALIFICATIONS

Bachelor of Forest Science (Hons)

University of Melbourne, 1990 – 1994

PhD, Spatial Ecological Modelling

Completed 2003, University of Melbourne

PROFESSIONAL SUMMARY

Research

- Deputy Director Commonwealth Environment Research Hub: Applied Decision Analysis
- Over 2 million dollars in research funding, including ARC and LWA Fellowships, ARC Discovery and Linkage grants, AFFA young scientist award
- Publications in international journals
- Ongoing international, domestic, and agency collaborations
- Invited speaker at Ecological Society plantations forum and DSE's Place and Purpose forum
- Active in the Ecological Society of Australia
- Supervision of postdoctoral and postgraduate researchers
- Hosted and attended international research working groups on optimal monitoring, conservation priorities, and decision theory.
- Undergraduate teaching and professional training courses

Policy advice

- Member of the Australian Forestry Standard Reference Committee
- Advised glider and forest owl threatened species recovery teams
- Advised DSE's Montreal indicators program
- Reviewed DEW's Natural Heritage Assessment Tool
- Development of codes of practice and RFA policy: QLD Dept of Natural Resources

Ecological Modelling

- Consultant to the Hunter Region Organization of Councils: methods for predicting the spatial distribution of threatened vertebrates
- Consultant to the Canadian Forest Service: Dynamic landscape modelling capabilities for threatened species risk assessment
- Co-host of a Bayesian Statistics professional training course for ecologists

RESEARCH

- 2007 - present **Deputy Director, Commonwealth Environment Research Facility: Applied Decision Analysis**
Fostering world-leading research in environmental decision making. The Hub brings together leading researchers in spatial analysis, monitoring design, decision theory, population modelling, risk assessment, and social science. The Hub provides advice to all levels of Government, NRM bodies, and ENGOs, about environmental policy, resource allocation, and monitoring strategies.
- 2007 - present **ARC Fellow (ARC Discovery), Senior Research Fellow, University of Melbourne**
Environmental monitoring under severe uncertainty; efficient design and allocation of resources to monitoring for decision making under uncertainty.
- 2004 - 2006 **Research Fellow, University of Melbourne (ARC Linkage)**
Practical, powerful and cost effective monitoring of biodiversity
- 2006 - 2007 *Member of the international Info-Gap Working Group, University of Texas, Huston.
Member of the MASCOs Working Group on Complex Systems, University of Melbourne.*
- 2004 - 2007 *Member of the optimal monitoring working group, University of Queensland*
- 2003 - 2004 **Research Fellow, Canadian Forest Service/University of Melbourne**
Dynamic Landscape models for evaluating forest management strategies
- 2003 - 2004 *Member of the Conservation Priorities Working Group at the National Centre for Ecological Analysis and Synthesis, UC Santa Barbara.*
- 1998 - 2003 **PhD, School of Botany, University of Melbourne**
Improved spatial models of wildlife habitat for managing forest landscapes

TEACHING

- 2003 - present Two day professional workshops on Bayesian statistics for ecologists
- 2007 Guest presenter, conservation planning course, Port Elizabeth, S. Africa
- 2001 - present Lecturer, Conservation Biology, Risk Assessment, University of Melbourne
- 2003 - present Guest lecturer, Environmental Processes, RMIT
- 2005 Guest lecturer, Conservation Biology, Deakin University
- 2004 Guest lecturer, Environmental Measurement, University of Melbourne
- 2001 Guest lecturer, Human Ecology, Southern School of Natural Medicines

GRANTS AND CONSULTANCIES

- 2007 - 2010 Department of Environment and Water, Commonwealth Environment Research Facility: Applied Environmental Decision Analysis. \$2.1M (Melbourne Node: Wintle, McCarthy, Burgman)
- 2007 - 2010 ARC Fellowship and ARC Discovery Grant, Optimal environmental monitoring under severe uncertainty. \$350,000 (Wintle & McCarthy)
- 2004 - 2007 ARC Linkage Grant, Re-imagining the Australian Suburbs: Biodiversity planning in urban fringe landscapes. \$497,000 (Bekessy, McCarthy, Wintle)
- 2002 - 2003 Wildlife habitat models for urban planning, Hunter Region Organization of Councils, \$120,000 (Wintle, Elith, Burgman)
- 2002 - 2003 Detectability of arboreal marsupials and large forest owls, State Forests of NSW. \$40,000 (Wintle & Burgman)

AWARDS AND SCHOLARSHIPS

2007 - 2010	ARC Fellowship
2003	Land & Water Australia, Traveling Fellowship
2001	Agriculture Fisheries and Forestry Australia, Young Scientist Award
2000	Holsworth Scholarship

PROFESSIONAL ACTIVITIES

- Member of the Editorial Board of *Diversity and Distributions*
- Guest Editor for *Conservation Biology*
- Manuscript reviewer for *Ecology*, *Conservation Biology*, *Austral Ecology*, *Biological Conservation*, *Ecological Applications*, *Acta Oecologia*, *Oryx*, *Journal of Animal Ecology*, *Journal of Herpetology*, *Copeia*, *Journal of Wildlife Management*, *Ecological Management and Restoration*
- Member of the Ecological Society of Australia, The Society for Conservation biology, The Wildlife Society of America, and the Ecological Society of America
- Project reviewer for the Australian Research Council and the EarthWatch
- Presenter at numerous international conferences and plenary speaker at two forums

OTHER PROFESSIONAL HISTORY

2002 - 2003 **Habitat Mapping Consultant: Hunter Region Organization of Councils**

- Develop and test wildlife habitat models and maps for use in local government planning and development zoning in the Hunter Region
- Provide advice on conservation targets and priority conservation areas for a range of rare and threatened species in the region

1996 - 1998 **Senior Policy Officer, QLD Department of Natural Resources**

- State Coordinator for the assessment of the Ecologically Sustainable Forest Management (ESFM) Systems for the SEQ Regional Forest Agreement
- Develop codes of practice for management of activities on State Forests
- Advise the Director General and the Minister on forest management issues and issues arising out of the RFA process

PUBLICATIONS

Chisholm, R.A., and B.A. Wintle. 2007. Landscape stochasticity in population viability analysis. *Ecological Applications*. **17**:317-322

Moilanen, A., and B.A. Wintle. 2007. Quantitative reserve network aggregation via the boundary quality penalty. *Conservation Biology*. **21**:355-364

Fox, D.R., Y. Ben Haim, K. Hayes, M.A. McCarthy, B.A. Wintle, and P.Dunstan. 2007. An info-gap approach to power and sample size. *Environmetrics* **18**:189-207.

Venier, L. A., J. L. Pearce, B. A. Wintle, and S. A. Bekessy. 2007. Future forests and indicator species population models. *The Forest Chronicle* **83**:36-40.

Moilanen, A., M. C. Runge, J. Elith, A. Tyre, Y. Carmel, E. Fegraus, B. A. Wintle, M. A. Burgman, & Y. Ben Haim. 2007. Planning for robust reserve networks using uncertainty analysis. *Ecological Modelling* **199**:115-124.

Wintle B.A., & D.B. Bardos. 2006. Modelling species habitat relationships with spatially autocorrelated observation data. *Ecological Applications* **16**:1945-1958.

Moilanen, A., and B. A. Wintle. 2006. Uncertainty analysis favors selection of spatially aggregated reserve networks. *Biological Conservation* **129**:427-434.

- Moilanen, A., B.A. Wintle, J. Elith, & M.A. Burgman. 2006. Uncertainty analysis for large-scale reserve selection. *Conservation Biology* **20**:1688-1697.
- Wintle B.A., S.A. Bekessy, J.L. Pearce, L.A. Veneir, & R.A. Chisholm. 2005. Utility of Dynamic Landscape Metapopulation Models for Sustainable Forest Management. *Conservation Biology* **19**:1930-1943.
- Wintle, B.A., J. Elith, and J. Potts. 2005. Fauna habitat modelling and mapping; A review and case study in the Lower Hunter Central Coast of NSW. *Austral Ecology* **30**:719-738.
- Wintle, B. A., R. P. Kavanagh, M. A. McCarthy, and M. A. Burgman. 2005. Estimating and dealing with detectability in occupancy surveys for forest owls and arboreal marsupials. *Journal of Wildlife Management* **69**:905-917.
- Martin, T. G., B. A. Wintle, S. Low Choy, P. Kuhnert, J. M. Rhodes, S. A. Field, and H. P. Possingham. 2005. Zero tolerance ecology: improving ecological inference by modeling the sources of excess zero observations. *Ecology Letters* **8**:1235-1246.
- Moilanen, A., A.M.A. Franco, R.I. Early, R. Fox, B.A. Wintle, and C.D. Thomas. 2005. Prioritizing multiple-use landscapes for conservation: methods for large multi-species planning problems. *Proceedings of the Royal Society B* **272**:1885-1891.
- Wintle, B. A., M. A. McCarthy, K. P. Parris, and M. A. Burgman. 2004. Precision and bias of methods for estimating point survey detection probabilities. *Ecological Applications* **14**:703-712.
- Wintle, B. A., M. A. McCarthy, C. T. Volinsky, and R. P. Kavanagh. 2003. The use of Bayesian Model Averaging to better represent the uncertainty in ecological models. *Conservation Biology* **17**:1579-1590.

CONFERENCE AND OTHER PAPERS

- Bekessy, S. A., and B. A. Wintle. 2006. More than one route to PhD success. *Nature* **443**:720.
- Wintle BA, MA McCarthy and RP Kavanagh 2001. The use of Bayesian model averaging to better represent the predictions of ecological models, *Proceeding of the 2001 ModSim conference*, Canberra
- Fox JC, TJ Regan, SA Bekessy, BA Wintle *et al.* 2004. Linking landscape ecology and management to population viability analysis. University of Melbourne, Melbourne.
- Walshe, T. V., and B. A. Wintle. 2006. Guidelines for communicating performance against standards in forest management. Forest and Wood Products Research & Development Corporation, Canberra.
- Venier LA, Pearce JL, Wintle BA, Bekessy SA (2007) Modelling and monitoring: examining the utility of dynamic landscape metapopulation models for sustainable forest management. Paper presented at the 'Monitoring the Effectiveness of Biological Conservation conference, 2-4 November 2004, Richmond, British Columbia.
- Bekessy, SA., BA Wintle, C Riddington, A Lechner, M Buxton, and M White. 2007. Change and Continuity in Peri-Urban Australia: Trends in Biodiversity and Vegetation. Land & Water Australia, Canberra.

LANGUAGES

First language: English

Intermediate: Spanish

REFEREES

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