ABBEY E CAMACLANG

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EDUCATION

Doctor of Philosophy 2016
School of Biological Sciences
University of Queensland (Brisbane, QLD, Australia),
Thesis: "Identifying critical habitat for threatened species: concepts and challenges"

Master of Environmental Studies 2007
School of Resource and Environmental Studies
Dalhousie University (Halifax, NS, Canada)
Thesis: "Science, management, and policy in conservation biology:
protecting post-emergent hatchling Blanding's turtles in Nova Scotia"

Bachelor of Science (First Class Honours) in Ecology (Co-operative Education) 2004
Department of Biological Sciences
University of Calgary (Calgary, AB, Canada)
Thesis: "Temperature related variation in *Eptesicus fuscus* isolation calls and
its consequences for individual recognition"

AWARDS AND SCHOLARSHIPS

University of Queensland International Scholarship - **$87 000 + tuition waiver**	Jan 2012 – Jun 2015
NSERC Post Graduate Scholarship (Doctoral) - **$42 000**	Jan 2012 – Dec 2013
NSERC Alexander Graham Bell Canada Graduate Scholarship (Doctoral) - **$70 000**	Declined
Dalhousie University Faculty of Graduate Studies Scholarship - **$4 000**	Sep 2006 – Aug 2007
NSERC Post Graduate Scholarship (Master's) - **$34 600**	Sep 2005 – Aug 2007
NSERC Undergraduate Student Research Award - **$4 000**	May 2003 – Aug 2003

CURRENT RESEARCH

Postdoctoral Research Fellow Apr 2016 – Jan 2019
Australian National Environmental Science Programme (NESP) Threatened Species Recovery Hub,
School of Biological Sciences, Monash University – Melbourne, VIC, Australia

- Developed simulation models in MATLAB to model the dynamics and spread of introduced feral ungulates and weeds in the Victorian alpine region, their impact on alpine peatlands, and the consequences of alternative management actions
- Performed return-on-investment analyses to optimise management under uncertainty based on cost-effectiveness, and performed model sensitivity analyses and value of information analysis to identify influential parameters and estimate the potential gain in benefit by resolving uncertainty
- Assisted in organising and facilitating structured decision making workshops with managers and other stakeholders to identify management objectives and alternative management actions
- Co-supervised two undergraduate honours thesis students; provided advice on thesis research design and analysis, and support for field planning; provided feedback on research proposals and final theses

PREVIOUS RESEARCH EXPERIENCE

Species at Risk Modelling Intern/Aquatic Sciences Biologist 2010 – 2011
Fisheries and Oceans Canada, Pacific Biological Station – Nanaimo, BC, Canada

- Developed simulations of illegal fishing behaviour for northern abalone and used R and RAMAS GIS to conduct spatially explicit population modelling and sensitivity analyses to aid in recovery planning

Conservation Fellowship Research Specialist 2009 – 2010
Calgary Zoo Centre for Conservation Research – Calgary, AB, Canada

- Assisted with field surveys on various threatened species in the prairie region; reviewed camera trap images and performed statistical analysis of camera trap data using R to model swift fox habitat use near oil and gas structures

Editor, Recovery Strategy for the Eastern Ribbonsnake 2008
Parks Canada, Atlantic Service Centre – Halifax, NS, Canada

- Updated, reviewed and provided suggested edits to the draft of the recovery strategy, and assisted with the development and writing of selected sections of the recovery strategy

Research Assistant 2007 – 2008
Blanding's Turtle Research Team, Acadia University – Wolfville, NS, Canada

- Managed and conducted fieldwork to radio-track hatchling Blanding's turtles; organised, trained, and supervised field researchers; analysed hatchling behaviour, movement and habitat use data

TEACHING EXPERIENCE

Tutor – Animal Behaviour (3rd year undergraduate course) 2015
School of Biological Sciences, University of Queensland

Teaching Assistant – Nature Conservation (3rd year undergraduate course) 2006
Department of Biology, Dalhousie University

RECENT VOLUNTEER ACTIVITIES

Peer Reviewer for Scientific Journals Ongoing
Conservation Biology, Biological Conservation, Biodiversity and Conservation, Ecosphere, Wildlife Research, Canadian Journal of Zoology, Landscape and Urban Planning

Governance Officer and Policy Committee Member 2014 - 2015
Society for Conservation Biology – University of Queensland/Brisbane Chapter

Event Planner and Coordinator 2014
2014 UQ Environmental Decisions Group Retreat

Local Organising Committee Member and Volunteer 2013
Student Conference on Conservation Science – Australia 2013

PUBLICATIONS

Peer-reviewed Publications

- **Camaclang, AE**, JMR Curtis, I Naujokaitis-Lewis, MS Poesch, and MA Koops. 2017. Modelling the impact of poaching on metapopulation viability for data-limited species. Canadian Journal of Fisheries and Aquatic Sciences 74: 894-906.
- Martin, TG, **AE Camaclang**, HP Possingham, LA Maguire, and I Chadès. 2017. Timing of protection of critical habitat matters. Conservation Letters 10: 308-316.
- **Camaclang, AE,** M Maron, TG Martin, and HP Possingham. 2015. Current practices in the identification of critical habitat for threatened species. Conservation Biology 29: 482-492.
- **Camaclang, AE**, L Hollis, and RMR Barclay. 2006. Variation in body temperature and isolation calls of juvenile big brown bats, *Eptesicus fuscus*. Animal Behaviour 71: 657-662.

Manuscripts Currently in Preparation

- **Camaclang, AE**, I Chadès, TG Martin, and HP Possingham. In Preparation. Immediate protection is more important than accurate designation when the rates of habitat loss are high.
- Moore, JL**, AE Camaclang**, AL Moore, CE Hauser, MC Runge, V Picheny, and L Rumpff. In Preparation. Accounting for multiple threats and management actions improves the efficiency of managing multiple threats.

CONFERENCE PRESENTATIONS

- **Ecological Society of Australia Annual Conference** 2018
  25-30 Nov, Brisbane, Australia
  Mismatches between expert-based condition assessments, management thresholds, and field data for alpine and subalpine peatlands.
- **Joint Conference of the Ecological Society of Australia and the New Zealand Ecological Society** 2017
  26 Nov – 1 Dec, Hunter Valley, Australia
  Models and decision frameworks for optimal threat management in alpine and subalpine peatlands of Victoria
- **10th Annual Conference of the Society for Risk Analysis Australia and New Zealand** 2017
  20–23 Nov, Melbourne, Australia
  Using models and a decision framework to optimise threat management in alpine and subalpine peatlands of Victoria
- **Ecological Society of Australia Annual Conference** 2016
  28 Nov–2 Dec, Fremantle, Australia
  Linking threat management to the conservation and recovery of alpine and sub-alpine peatlands in Victoria
- **27th International Congress for Conservation Biology** 2015
  2–6 July, Montpellier, France (speed talk)
  Optimizing the trade-off between learning and doing in protecting species habitats
- **99th Annual Meeting of the Ecological Society of America** 2014
  10–15 August, Sacramento, USA
  Optimal trade-offs between learning and doing in habitat conservation

CONFERENCE PRESENTATIONS (cont.)

- **North America Congress for Conservation Biology** 2014
  13–16 July, Missoula, USA
  Mismatch between purpose and practice in the identification of critical habitats for threatened species
- **26th International Congress for Conservation Biology** 2013
  21–25 July, Baltimore, USA (poster presentation)
  What's in a name? Reviewing the concept and current practice of critical habitat identification for threatened and endangered species
- **Student Conference on Conservation Science – Australia** 2013
  21–31 January, Brisbane, Australia (poster presentation)
  Reviewing current approaches to critical habitat identification for threatened and endangered species
- **World Conference on Natural Resource Modeling** 2012
  9–12 July, Brisbane, Australia (received a student presentation award)
  Importance of poaching on northern abalone population viability in British Columbia
- **2nd International Marine Conservation Congress** 2011
  14–18 May, Victoria, Canada
  Effects of poaching on northern abalone population viability in British Columbia

TECHNICAL AND PROFESSIONAL DEVELOPMENT TRAINING

- **Introduction to Structured Decision Making** 2016
  Presented by: *US Fish and Wildlife Service and US Geological Survey* (National Conservation Training Centre, West Virginia, USA)
- **Talking Science with the Media** 2014
  Presented by: *Econnect Communication* (Brisbane, Australia)
- **Facilitation Skills Master Class** 2014
  Presented by: *Mary Maher & Associates* (Brisbane, Australia)
- **Advances in Conservation Impact Evaluation and Causal Inference** 2014
  Presented by: *Dr. Paul Ferraro* (Georgia State University)
- **Species Distribution Modelling** 2013
  Presented by: *Dr. Jane Elith* (University of Melbourne), and *Dr. Ramona Maggini* (University of Queensland)
- **Introduction to HexSim** 2013
  Presented by: *Dr. Nathan Schumaker* and *Dr. Allen Brookes* (US Environmental Protection Agency)
- **Advanced R** 2012
  Presented by: *Dr. Bill Venables* (CSIRO)
- **Introduction to Marxan** 2012
  Presented by: *ARC Centre of Excellence in Environmental Decisions* (University of Queensland)
- **Complex Systems and Geosimulation and Land Change Modelling** 2012
  Presented by: *Prof. Danielle Marceau* (University of Calgary), and *Prof. Robert Gilmore Pontius Jr.* (Clark University)
- **Introduction to ArcGIS II** 2010
  Presented by: *Coastal Resource Mapping Ltd* (Nanaimo, Canada)

SUMMARY OF RESEARCH AND PROFESSIONAL SKILLS

Research and Data Analysis

- Working knowledge of decision theory and analytical approaches
- Knowledge of research and experimental design and statistical sampling methods
- Experience in modelling and statistical analysis using R and MATLAB
- Knowledge of mapping and GIS analysis using ArcGIS
- Strong background in ecological and conservation biology theory
- Experience conducting systematic literature reviews and meta-analysis
- Familiarity with environmental law and policy analysis

Organisation and Communication

- Facilitating workshops with scientists, government, and conservation groups
- Collaborating with diverse stakeholders groups on conservation research programs
- Writing technical reports, project summaries, and scientific papers
- Oral and poster presentations for departmental seminars and scientific conferences
- Community outreach and presentations to promote wildlife research and conservation
- Training of students and volunteers in research, field methods, and data collection
- Event planning and project management experience

Field Methods

- Wetland habitat sampling and wetland vegetation identification
- Survey and mark-recapture techniques for small mammals, birds, and herpetofauna
- Radio-telemetry and animal behaviour observation methods