

Phil Jean-François Bouchet MRes PhD

Quantitative ecologist

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h-index: 6 | Citations: 132

I am a quantitative ecologist with a background in marine science, statistical modelling and GIS. I have a strong interest in data analysis and the application of predictive models to wildlife conservation problems, using both frequentist and Bayesian approaches. With over a decade of experience conducting research on various megafauna species (whales, dolphins, fishes and sharks), I have a wide range of practical and numerical skills. Although my work is predominantly computational, my portfolio spans numerous ecosystems (coastal, offshore), spatial scales (local to global), bioregions (temperate to tropical), and field techniques (line transects to underwater videography).

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EDUCATION

- 2011-15** **PhD Marine Ecology** (1st class)
University of Western Australia (Perth, Australia)

Thesis: [Submarine topography as a predictor of mobile predator hotspots: Relevance and applications to conservation planning in the pelagic ocean](#)
- 2008-09** **MRes Marine Mammal Science** (1st class)
University of St Andrews (St Andrews, Scotland)

Thesis: Don't count your whales before they migrate: Using aerial surveys to assess the status of breeding stock 'D' humpbacks (*Megaptera novaeangliae*) in Western Australia
Associated paper: [Salgado et al. 2012. JCRM 12\(1\): 29-38](#)
- 2008** **Marine Mammal Management course** (Distinction)
Nova Southeastern University (Fort-Lauderdale, FL, USA)
- 2007** **MSc Marine and Coastal Sciences**
European Institute of Marine Studies, University of Western Brittany (Brest, France)
- 2003-06** **BSc. Zoology (1st class Honours)**
University of Western Brittany (Brest, France)

KEY EMPLOYMENT & ACADEMIC APPOINTMENTS

- 2015-18** **Postdoctoral Fellow**, University of Western Australia (Australia) & Australian Government's National Environmental Science Programme (NESP Marine Biodiversity Hub)

Research in model transferability and marine biodiversity monitoring, including standard operating protocols for pelagic sampling. This role required leading large teams of 10 to 50 collaborators. Specific duties included data collection, synthesis and management, training and supervision of students, stakeholder liaison, data analysis and modelling, preparation of technical reports and peer-reviewed journal articles, website maintenance, production of sampling designs for field campaigns and communication products (videos, maps, blog posts) for outreach. As part of this role I authored/co-authored 3 peer-reviewed publications and 7 technical reports, with a further 6 articles in various states of preparation.

- 2015 Data Analyst**, WA Department of Biodiversity, Conservation and Attractions (Australia)
- Responsible for deriving estimates of (i) the extent of occurrence and area of occupancy of the endemic snubfin dolphin (*Orcaella heinsohni*) in northwestern Australia, (ii) population abundance at a key site (Roebuck Bay) based on vessel-based line transect survey data. Duties included database management, processing of remote sensing imagery, data treatment and mapping using GIS, and extensive programming in R. As part of the research team on this project, I was co-awarded \$46,000 in grant funding from the Australian Marine Mammal Centre. The project has resulted in two scientific publications in preparation.
- 2011-13 Academic Tutor**, University of Western Australia (Australia)
- Tutor and/or demonstrator for several science units (i.e. science communication, R programming for ecologists) at the undergraduate and postgraduate level. Duties included writing and presenting tutorial material, conducting and marking examinations, and providing student support.
- 2010-11 Research Assistant**, Centre for Whale Research WA Inc. (Australia)
- Research on baleen whales (mainly pygmy blue *Balaenoptera musculus brevicauda* and humpback *Megaptera novaeangliae*), including genetics (biopsy) sampling, photo-identification mark-recapture, line transect counts and behavioural observations. This role also included community engagement activities as a naturalist/tour guide onboard whale watching cruises departing daily from Fremantle, WA during the whales' southbound migration.
- 2009-10 IT Consultant**, TMF Group (Switzerland)
- Development of Microsoft Excel macros and scripts to automate the analysis of financial data and the preparation of quarterly client reports. This role required liaising with individual staff members about their general needs and designing solutions to speed up their daily workflows.
- 2008 Research Assistant**, Centre for Whale Research WA Inc. (Australia)
- Large-scale biodiversity surveys conducted offshore under contract with industry, with a focus on characterising the little known migration path of West Australian pygmy blue whales (*Balaenoptera musculus brevicauda*). Additional satellite tagging surveys of humpbacks whales on coastal waters. Duties included field data collection (visual line transects), database management, and general vessel maintenance.
- 2007-08 IT Analyst & Reporting Manager Assistant**, Kemnay Services Ltd. (Switzerland)
- Development of computer scripts to streamline the processing of financial asset reports. This role required liaising with clients on a weekly basis to deliver updates on investment portfolios.

ADDITIONAL EXPERIENCE

- 2013 Photography Lab Supervisor**, Curtin University of Technology (Australia)
- 2012-13 Library officer**, University of Western Australia (Australia)
- 2012 Research scientist**, National Environmental Research Program (Australia)
- 2011 Administrative assistant**, Vice-Chancellery of the University of Western Australia (Australia)
- 2010-12 Assistant field coordinator**, Southwest Whale Ecology Study (Australia)
- 2010 Marine tour guide and sales assistant**, Rottnest Express (Australia)
- 2010 Data manager assistant**, Macquarie University (Australia)
- 2006 Research and animal care assistant**, Marine Mammal Research Lab of Oceanopolis (France)
- Marine education assistant**, Association Picardie Nature (France)
- 2004 Field volunteer**, Mingan Island Cetacean Study (Quebec)

SKILLS

- Software** Data analysis, visualisation and modelling (R, Python, MATLAB); Bayesian inference (R2WinBUGS, JAGS); Spatial statistics, mapping and survey planning (ArcGIS, R); Multivariate analyses (PRIMER, PERMANOVA add-on); Version control (Git); Academic writing (LaTeX); Web design (WordPress, CSS, HTML); Scientific illustration (Photoshop, Illustrator); Stereo-video processing (EventMeasure).
- Field work** >100 days at sea. Photo-identification and satellite tagging of blue and humpback whales; vessel-based line transect sampling of marine megafauna (inshore and offshore); aerial surveys for large cetaceans; baited remote underwater video systems (BRUVS) surveys; acoustic tagging of reef sharks; theodolite tracking of cetaceans from a land-based station.
- Languages** French (mother tongue), English (Cambridge Advanced English score: 210), Spanish (basic).

ONGOING ANALYSES & FORTHCOMING PUBLICATIONS

Transferability of cetacean density models from line transect data

Approach: Generalised additive models, block cross-validation.

Collaborators: **Bouchet P**, Péron C, Mannocci L, Ridoux V, Virgili A, Sequeira A, Yates K, Laran S, Thomas L, Thuiller W, Williams R, Mouillot D.

Mapping of shark/fish diversity and abundance hotspots on an ocean basin scale (Indo-Pacific)

Approach: Boosted regression trees, hotspots analysis.

Forthcoming paper: Letessier TB, Mouillot D, **Bouchet P**, Vigliola L, Fernandes M, Friedlander A, Sala E, Thompson C, Turner J, Juhel JB, Boussarie G, Caley J, Koldewey H, Maire E, Meeuwig J. Last refuges for marine top predators revealed through non-destructive baited video surveys.

Spatial distribution and conservation status assessment of snubfin dolphins at a regional scale across the remote Kimberley, northern Australia

Approach: Data integration across multiple sources, expert elicitation, Bayesian hierarchical model.

Forthcoming paper: Thiele D, **Bouchet P**, Waples K, Weisenberger F, Dambimangari Rangers, Uunguu Rangers, Balangarra Rangers, Raudino H. Cross-cultural knowledge, crowdsourcing, and expert elicitation inform the predicted distribution of snubfin dolphins in the Kimberley, Western Australia.

Comparative assessment of abundance estimates obtained with mark-recapture and model-based distance sampling methods, as applied to snubfin dolphins

Approach: Bayesian zero-inflated spatial model, Pollock's Robust Design model.

Forthcoming paper: **Bouchet P**, Raudino H, Thiele D, Miller DL, Brooks L, Waples K. Going the distance and beyond when estimating the abundance of a cryptic cetacean in a proposed marine protected area.

Survey planning for estimating the population size of West Australian humpback whales

Approach: Numerical simulations based on different sampling scenarios, power analyses.

Forthcoming paper: **Bouchet P**, Salgado-Kent CP, Jenner CSK. Optimal aerial survey planning for estimating the abundance of Stock 'D' humpback whales (*Megaptera novaeangliae*).

PEER-REVIEWED PUBLICATIONS

- In review** **Bouchet P**, Yates K, Caley JM, Mengersen K, Randin C, Parnell S, Fielding AH, Bamford AJ, Ban S, Barbosa AM, Dormann CF, Elith J, Embling CB, Ervin GN, Fisher R, Gould S, Graf RF, Gregr EJ, Halpin P, Heikkinen RK, Heinänen S, Jones AR, Krishnakumar PK, Lauria V, Lozano-Montes H, Mannocci L, Mellin C, Mesgaran MB, Moreno-Amat E, Mormede S, Novaczek E, Oppel S, Ortuño Crespo G, Peterson AT, Rapacciuolo G, Roberts JJ, Ross RE, Scales KL, Schoeman D, Snelgrove P, Sundblad G, Thuiller W, Torres LG, Verbruggen H, Wang L, Wenger S, Whittingham MJ, Zharikov Y, Zurell D, Sequeira AMM. Key questions in model transferability. *Trends in Ecology and Evolution* (Submitted 29.09.17).

Bouchet P, Letessier TBL, Caley MJ, Nichol SL, Hemmi JM, Meeuwig JJ. Spatial dimensions of pelagic diversity in a geodiverse offshore marine park. *Journal of Applied Ecology* (Submitted 14.12.17).

Thompson C, **Bouchet P**, Meeuwig J. First sub-surface sighting of Shepherd's beaked whale (*Tasmacetus shepherdi*). *Marine Mammal Science* (Submitted 17.04.18).

2018 Sequeira A, **Bouchet P**, Yates K, Mengersen K, Caley J. [Transferring biodiversity models for conservation: Opportunities and challenges](#). *Methods in Ecology and Evolution*, 9(5): 1250-1264.

Impact factor: 6.554 | Altmetric score: 26 | Citations: 0

2017 Allen S, Pollock K, **Bouchet P**, Kobryn H, McElligott D, Nicholson K, Smith J, Loneragan N. [Preliminary estimates of the abundance and fidelity of dolphins associating with a demersal trawl fishery](#). *Scientific reports*, 7: art4995. Impact factor: 4.259 | Altmetric score: 192 | Citations: 0

Bouchet P, Meeuwig J, Huang Z, Letessier T, Nichol S, Caley J, Watson R. [Continental-scale hotspots of pelagic fish abundance inferred from commercial catch records](#). *Global Ecology and Biogeography*, 26: 1098-1111. Impact factor: 5.273 | Altmetric score: 42 | Citations: 2

Letessier TB, **Bouchet PJ**, Meeuwig JJ. [Sampling mobile oceanic fishes and sharks: Implications for fisheries and conservation planning](#). *Biological Reviews*, 92(2): 627-646.

Impact factor: 11.615 | Altmetric score: 42 | Citations: 10

2015 **Bouchet PJ**, Meeuwig JJ. [Drifting baited stereo-videography: A novel sampling tool for surveying pelagic wildlife in offshore marine reserves](#). *Ecosphere*, 6: art137.

Impact factor: 2.86 | Altmetric score: 13 | Citations: 10

Bouchet PJ, Meeuwig JJ, Salgado Kent CP, Letessier TBL, Jenner CKS. [Topographic determinants of mobile vertebrate predator hotspots: Current knowledge and future directions](#). *Biological Reviews*, 90(3): 699-728. Impact factor: 11.615 | Altmetric score: 8 | Citations: 26

Parsons ECM, Baulch S, Bechshoft T, Bellazzi G, **Bouchet PJ**, Cosentino AM, Godard-Coding CAJ, Gulland F, Hoffmann-Kuhnt M, Hoyt E, Livermore S, MacLeod CD, Matrai E, Munger L, Ochiai M, Peyman A, Recalde-Salas A, Regnery R, Rojas-Bracho L, Salgado-Kent CP, Slooten E, Wang JY, Wilson SC, Wright AJ, Young S, Zwamborn E, Sutherland WJ. [Key research questions of global importance for cetacean conservation](#). *Endangered Species Research*, 27(2): 113-118.

Impact factor: 1.325 | Altmetric score: 248 | Citations: 17

Letessier T, **Bouchet P**, Reisser J, Meeuwig J. [Baited videography reveals remote foraging and migration behaviour of sea turtles](#). *Marine Biodiversity*, 45(4): 609-610.

Impact factor: 1.646 | Altmetric score: 5 | Citations: 4

2013 Letessier TBL, Meeuwig JJ, Gollock M, Groves L, **Bouchet PJ**, Chapuis L, Vianna G, Kemp K, Koldewey HJ. [Assessing pelagic fish populations: The application of demersal techniques to the mid-water environment](#). *Methods in Oceanography*, 8: 41-55.

Impact factor: n/a | Altmetric score: 15 | Citations: 32

2012 Salgado Kent CP, Jenner KCS, Jenner MN, **Bouchet PJ**, Rexstad E. [Southern Hemisphere breeding stock "D" humpback whale population estimates from North West Cape, Western Australia](#). *Journal of Cetacean Research and Management*, 12(1): 29-38.

Impact factor: 0.8 | Altmetric score: 26 | Citations: 25

TECHNICAL REPORTS & BOOK CHAPTERS

2018 **Bouchet P**, Meeuwig J, Huveneers C, Langlois T, Letessier T, Lowry M, Rees M, Santana-Garcon J, Scott M, Taylor M, Thompson C, Vigliola L, Whitmarsh S. [Chapter 6: Marine sampling field manual for pelagic BRUVS \(Baited Remote Underwater Videos\)](#). In: Field Manuals for Marine Sampling to

Monitor Australian Waters. National Environmental Science Programme (NESP), pp 105-132.

Langlois T, Williams J, Monk J, **Bouchet P**, Currey L, Goetze J, Harasti D, Huveneers C, Lerodionou D, Malcolm H, Whitmarsh S. [Chapter 5: Marine sampling field manual for benthic stereo BRUVS \(Baited Remote Underwater Videos\)](#). In: Field Manuals for Marine Sampling to Monitor Australian Waters. National Environmental Science Programme (NESP), pp 82-104.

Bouchet P, Meeuwig J, Erbe C, Salgado-Kent C, Wellard R, Pattiaratchi C. [Bremer Canyon Emerging Priorities Project EP2: Occurrence and distribution of marine wildlife in the Bremer Bay region - Final Report](#). National Environmental Science Programme (NESP) Marine Biodiversity Hub, 32 p.

Bouchet P, Wellard R, Erbe C, Meeuwig J. [Aerial visual survey of cetaceans and other megafauna in the Bremer Marine Park and surrounding areas](#). Short communication prepared for the National Environmental Science Programme (NESP), Marine Biodiversity Hub, 5 p.

2017 Miller K, Puotinen M, Przeslawski R, Huang Z, **Bouchet P**, Radford B, Li J, Kool J, Picard K, Thums M, Meeuwig J, Nichol S. [NESP Project D1 Ecosystem understanding to support sustainable use, management and monitoring of marine assets in the North and North-West regions - Final Report 2016](#). Report to the National Environmental Science Programme, Marine Biodiversity Hub. Australian Institute of Marine Science, 146 p.

2016 Meeuwig J, Turner J, **Bouchet P**. Bremer Canyon Science Report: Workshop held 25 October 2016. Report to the National Environmental Science Programme, Marine Biodiversity Hub, 27 p.

2015 Przeslawski R, Miller K, Nichol S, **Bouchet P**, Huang Z, Kool J, Radford B, Thums M. [NESP D1: Developing a toolbox of predictive models for the monitoring and management of KEFs and CMRs in the North and North-west regions](#). Scientific workshop report to the National Environmental Science Programme Marine Biodiversity Hub, 23 p.

Caley J, **Bouchet P**, Kool J, Meeuwig J, Nichol S, Przeslawski R. [Oceanic Shoals Commonwealth Marine Reserve - A guide](#). Brochure produced for the National Environmental Research Programme (NERP), 13 p.

2013 Huang Z, Przeslawski R, Kool J, Li J, **Bouchet P**, Nichol S. [Australian marine environmental data: Descriptions and metadata](#). Record 2013/21. Geoscience Australia: Canberra, 214 p.

Nichol SL, Howard FJ, Kool J, Stowar M, **Bouchet P**, Radke L, Siwabessy J, Przeslawski R, Picard K, Alvarez de Glasby B, Colquhoun J, Letessier T, Heyward A. [Oceanic Shoals Commonwealth Marine Reserve \(Timor Sea\) Biodiversity Survey: GA0339/SOL5650 – Post Survey Report](#). Record 2013/38. Geoscience Australia: Canberra, 112 p.

CONTRIBUTED PRESENTATIONS

2018 Przeslawski R, Picard K, Nichol S, Radford B, **Bouchet P**. Applying geoscience to biodiversity monitoring: Case studies from an Australian marine park (*PeerJ Preprints*, 6: e26520v1). Talk @ 4th World Conference on Marine Biodiversity, Montreal, Canada

2017 Thiele D, **Bouchet P**, Waples K, Weisenberger F, Dambimangari Rangers, Uunguu Rangers, Balangarra Rangers, Raudino H. Cross-cultural knowledge, citizen science and expert elicitation inform the predicted distribution of snubfin dolphins in the Kimberley, Western Australia. Poster @ 22nd Conference of the Society for Marine Mammalogy, Halifax NS, Canada

2016 **Bouchet P**, Sequeira A, Peterson E, Mengersen K, Caley J, Yates K. Model transferability: Lessons learnt and ways forward (Symposium & focus group on 'Increasing the utility of predictive models: Understanding model transferability'). Talk @ 4th International Marine Conservation Congress (IMCC4), St John's NL, Canada

Bouchet P, Meeuwig J, Huang Z, Letessier T, Nichol S, Caley J, Watson R. Continental-scale hotspots of pelagic fish abundance inferred from commercial catch records.
Talk @ 4th International Marine Conservation Congress (IMCC4), St John's NL, Canada

Letessier T, Mouillot D, **Bouchet P**, Meeuwig J. Human footprint, habitat refuges, and conservation priorities for open ocean vertebrates.
Talk @ 4th International Marine Conservation Congress (IMCC4), St John's NL, Canada

2014 **Bouchet P**, Meeuwig J, Huang Z, Letessier T, Nichol S, Caley J, Watson R. Finding big fish in a big pond: Continental-scale models of pelagic predator hotspots around Western Australia.
Talk @ Biology seminar series, University of WA, Perth, Australia

2013 **Bouchet P**, Salgado-Kent C, Jenner C. Assessing the effects of survey planning on abundance estimates of breeding stock 'D' humpback whales from North West Cape, Western Australia.
Talk @ 20th Conference of the Society for Marine Mammalogy, University of Otago, Dunedin New Zealand

Burton C, Salgado-Kent C, Glencross R, Marley S, Recalde-Salas A, Attard C, **Bouchet P**, Moller L. Southwest Whale Ecology Study (SouWEST): An integrated collaborative project using multiple platforms to investigate the ecology and behaviour of baleen whales in southwestern Australia.
Talk @ 3rd Biennial Southwest Marine Conference, Dunsborough, Australia

Letessier T, **Bouchet P**, Meeuwig J. Large marine reserves and pelagic species: The missing piece in open ocean management.
Talk @ UWA Oceans Institute seminar series, University of Western Australia, Perth, Australia

Letessier T, **Bouchet P**, Meeuwig J. Pelagic stereo-BRUVS - update on recent work.
Talk @ National Environmental Program (NERP) Marine Biodiversity Hub meeting, Perth, Australia

Bouchet P, Letessier T, Meeuwig J. Peering into the deep blue: Development and application of a midwater video system to monitor pelagic wildlife.
Talk @ Centre for Marine Science and Technology (CMST) seminar series, Curtin University, Perth, Australia

2012 **Bouchet P**, Meeuwig J. Predictive models of mobile oceanic predator (MOP) hotspots in the Eastern Indian Ocean.
Talk @ National Environmental Program (NERP) Marine Biodiversity Hub annual researchers' meeting, Natural History Museum, Sydney, Australia

2011 **Bouchet P**, Meeuwig J, Salgado-Kent C, Jenner C. Predictive models of mobile oceanic predator (MOP) hotspots in the Eastern Indian Ocean.
Poster @ Australian National Network in Marine Science (ANNiMS) conference, University of WA, Perth, Australia

Bouchet P, Salgado-Kent C, Jenner C. Breeding stock 'D' humpback whale population estimates from North West Cape, Western Australia.
Talk @ Workshop on 'Sampling elusive wildlife species: Accounting for detection probability', Murdoch University, Perth, Australia

Salgado Kent C, Marley S, **Bouchet P**, Nagy J. A theodolite tracking study of baleen whales in Geopraphe Bay, Western Australia.
Talk @ 48th Annual Australian Marine Science Association (AMSA) Conference, Fremantle, Australia.

2010 **Bouchet P**, Salgado-Kent C, Jenner C. Visibility bias in aerial surveys of cetaceans: An application to breeding stock 'D' humpback whales.
Talk @ Centre for Marine Science and Technology (CMST) seminar series, Curtin University, Perth, Australia
Bouchet P, Jenner C. Modelling strategies for the study of blue whales in the Sub Tropical Convergence.
Talk @ Southern Hemisphere Blue Whale Workshop, University of Adelaide, Adelaide, Australia

GRANTS & FUNDING

- 2017 NESP Marine Biodiversity Hub Project D2 (CI), University of Western Australia [AUD \$120,000]
- 2016 Allen Award (conference travel grant), Australian Marine Science Association [AUD \$2,500]
NESP Marine Biodiversity Hub Project D1 (CI), University of Western Australia [AUD \$120,000]
- 2014 Research grant (CI), Australian Marine Mammal Centre (AMMC) [AUD \$46,000]
- 2013 Research grant (PI), Australian Academy of Science (AAS) [AUD \$15,000]
- 2011 PhD studentship & top-up scholarship, University of Western Australia [AUD \$120,000]

HONOURS & AWARDS

- 2017 Winner, Frontiers in Marine Science Field Work Photography Competition [EUR € 500]
- 2016 Valedictorian, March PhD Graduation, University of Western Australia ([watch speech online](#))
- 2015 Highly commended, Graduate Research School Publication prize, University of Western Australia.
Awarded for the *Biological Reviews* paper entitled [Topographic determinants of mobile vertebrate predator hotspots: Current knowledge and future directions](#).

MENTORING & SUPERVISION

- PhD Christopher Thompson (University of Western Australia, 2017-2021)
Resetting the baseline: The ecology of remote pelagic fish assemblages
- Masters Thelma Paianotis (University of Western Australia & ENS Paris-Saclay, 2017)
Dynamics of fish schooling behaviour in relation to shark abundance

TEACHING & WORKSHOPS

- 2013 Scientific photography, Curtin University of Technology, Perth, Australia
- 2012-13 R for life scientists, University of Western Australia, Perth, Australia
Global Climate Change and Biodiversity, University of Western Australia, Perth, Australia
Scientific modelling (population dynamics), University of Western Australia, Perth, Australia
- 2012 Science literacy and communication, University of Western Australia, Perth, Australia
- 2011 Sampling elusive wildlife: Accounting for detectability, Murdoch University, Perth, Australia

TECHNICAL TRAINING

- 2018 Combining different data types in a single model (Taught by Dr. Nick Golding, Dr. Nick Isaac)
@ University of St Andrews, UK
Hierarchical modelling of species communities (Taught by Dr. Otso Ovaskainen)
@ University of St Andrews, UK
Statistical models for animal movement (Taught by Dr. Mevin Hooten, Dr. Brett McClintock)
@ University of St Andrews, UK
- 2017 Bayesian capture-recapture models (Taught by Dr. Robert Rankin)
@ Dalhousie University, Halifax, Canada
Analysis of data from high-resolution animal-borne tags (Taught by Dr. Stacy DeRuiter)
@ Dalhousie University, Halifax, Canada
- 2017 Bayesian modelling using *inlabru* (Taught by Dr. Janine Illian, Prof. David Borchers, Prof. Finn Lindgren)
@ Millport Field Station, Isle of Cumbrae, UK

- 2016 Spatial analysis of ecological data (Taught by Prof. Jason Matthiopoulos)
@ Millport Field Station, Isle of Cumbrae, UK
- 2016 Research Bazaar (ResBaz)
@ Murdoch University, Perth, Australia
- 2015 Advanced spatial analysis (Taught by Dr. Jennifer Miller)
@ University of Western Australia, Perth, Australia
- 2014 Bayesian modelling (Taught by Prof. Kerrie Mengersen)
@ University of Western Australia, Perth, Australia
- 2013 Spatial models for distance sampling data (Taught by Dr. Jason Roberts)
@ University of Otago, Dunedin, New Zealand
- 2013 Multivariate statistics using PRIMER (Taught by Dr. Bob Clarke, Dr. Marti Anderson)
@ University of Western Australia, Perth, Australia
- 2011 Bayesian modelling (Taught by Prof. Kerrie Mengersen)
@ University of Western Australia, Perth, Australia
- 2010 Qualitative modeling workshop (Taught by Dr. Jeff Dambacher)
@ Murdoch University, Perth, Australia
- 2008 Introductory and Advanced Distance Sampling (Taught by Prof. Len Thomas, Prof. David Borchers)
@ Centre for Research into Ecological & Environmental Modelling, University of St Andrews, UK

FIELDWORK EXPERIENCE

- 2017 Pelagic baited camera surveys of the Ascension Island EEZ (UK Overseas Territory)
Ascension Island Government, *3 weeks*
- 2014 Pelagic baited camera surveys around the islands of Rapa and Marotiri, French Polynesia
National Geographic Society (Pristine Seas Programme), *2 weeks*
- 2013 Pelagic baited camera surveys of the Perth submarine canyon, south-western Australia
Australian Academy of Science & University of Western Australia, *5 days*
- 2012 Biodiversity survey of the Oceanic Shoals Australian Marine Park, northern Australia (pelagic and benthic videography, sled sampling, visual observations, sediment sampling, water profiling)
University of Western Australia & partners, *1 month*
- 2012 Acoustic tagging of reef sharks at the Rowley Shoals, north-western Australia
Australian Institute of Marine Science, *1 week*
- 2010-11 Land-based theodolite tracking of cetaceans in Geographe Bay, south-western Australia
Southwest Whale Ecology Study, *6 weeks*
- 2007-10 Cetacean research (satellite tagging, line transect sampling, biopsy sampling, photo-identification, biophysical sampling, acoustic logger deployments) along the West Australian coast
Centre for Whale Research WA Inc., *15 months*
- 2006 Daily visual monitoring of grey and harbour haul-outs, Normandy, France
Association Picardie Nature, *4 weeks*
- Land-based observations of grey seal responses to vessel traffic, Brittany, France
Marine Mammal Research Lab of Oceanopolis, *4 weeks*
- 2004 Vessel-based surveys and biopsy sampling of cetaceans, Gulf of St Lawrence, Canada
Mingan Island Cetacean Study, *2 weeks*

MEDIA & IMPACT

Global reach: Research shared in 33 countries (top 25%)

Greatest hit: Top publication saved and shared 770 times (top 1%)

Global South: 10% of people who saved and shared my research

See my [personal webpage](#) for further information and media highlights.

ACADEMIC SERVICE

Editor	Associate Editor , Remote Sensing in Ecology and Conservation. Review Editor , Frontiers in Marine Science (Marine Megafauna section).
Reviewer	Methods in Ecology and Evolution, Frontiers in Marine Science, Diversity and Distributions, Marine Environmental Research, Journal of Wildlife Management (see my Publons profile).
Member	Australian Marine Science Association, Society for Marine Mammalogy, British Ecological Society, Ecological Society of Australia, Society for Conservation Biology