

Meryl Theng

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📄 <https://scholar.google.com/citations?user=36vJVrcAAAAJ&hl=en>

EDUCATION

The University of Adelaide, Adelaide, South Australia, Australia 2019–2022

Ph.D., Ecology and Conservation, Advisors: Steven Delean, Phill Cassey & Chloe Bracis

National University of Singapore, Singapore 2008–2012

B.Sc., Environmental Biology (Honours)

CURRENT POSITION

The University of Adelaide, Adelaide, South Australia, Australia 2019–

PhD candidate, Invasion Science & Wildlife Ecology Group, School of Biological Sciences

RESEARCH INTERESTS

Quantitative Ecology, Modelling & Simulations, Population Dynamics, Movement Ecology, Spatial Ecology, Wildlife Monitoring, Mammal Ecology, Wildlife Conservation & Management

PUBLICATIONS

Peer-reviewed

1. **Theng M**, Palencia P, Cassey P, Delean S (*in preparation*) Evaluating camera trap-based abundance estimators for unmarked populations.
2. **Theng M**, Prowse TA, Cassey P, Delean S & Bracis C (*submitted*) The integrated role of resource memory and scent-mediated territoriality in the emergence of home-ranges. BioRxiv: 2021.05.07.443202. <https://doi.org/10.1101/2021.05.07.443202>.
3. **Theng M**, Milleret C, Bracis C, Cassey P & Delean S (*In press*) Confronting spatial capture-recapture models with realistic animal movement simulations. (Special Feature Article). *Ecology*, e3676. <https://doi.org/10.1002/ecy.3676>.
4. **Theng M**, Wan FJA, Jain A, Tan D, Blanca H, Tan H, Kristensen N, Meier R & Chisholm RA (2020) A comprehensive assessment of diversity loss in a well-documented tropical insect fauna: almost half of Singapore's butterfly species extirpated in 160 years. *Biological Conservation*, 242: 108401. <https://doi.org/10.1016/j.biocon.2019.108401>.
5. **Theng M**, Glikman JA & Milner-Gulland EJ (2018) Exploring saiga horn consumption in Singapore. *Oryx*, 52(4): 736–743. <https://doi.org/10.1017/S0030605317001624>.

6. Moretti B, Al-Shiekhly OF, Guerrini M, **Theng M**, Gupta BK, Haba MK, Khan WA, Khan AA & Barbanera F (2017) Phylogeography of the smooth-coated otter (*Lutrogale perspicillata*): distinct evolutionary lineages and hybridization with the Asian small-clawed otter (*Aonyx cinereus*). *Scientific Reports*, 7: 41611.
 7. **Theng M**, Sivasothi N & Tan HH (2016) Diet of the smooth-coated otter *Lutrogale perspicillata* (Geoffroy, 1826) at natural and modified sites in Singapore. *The Raffles Bulletin of Zoology*, 64: 290–301.
 8. **Theng M** & Sivasothi N (2016) The Smooth-Coated Otter *Lutrogale perspicillata* (Mammalia: Mustelidae) in Singapore: Establishment and Expansion in Natural and Semi-Urban Environments. *IUCN/SCC Otter Specialist Group Bulletin*, 33(1): 37–49.
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GRANTS & AWARDS

- National Geographic Explorer Grant NGS-72125R-20 (2022/3) [US\$28,186]
 - Virtual International Statistical Ecology Conference (2020) Student Poster Prize [US\$220]
 - Adelaide Scholarship International (2019–2022), The University of Adelaide [c. US\$170,000]
 - National Geographic Early-career Grant WW-266ER-17 (2018/9) [US\$4,800]
 - Rufford Small Grant 24012-1 (2018/9) [US\$6,532]
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PAPERS REVIEWED

Biological Conservation (1), Journal of Insect Conservation (1), Global Ecology and Conservation (1), Journal of Wildlife Management (1)

LANGUAGE & SKILLS

Languages: English (native), Mandarin (intermediate)

R programming (advanced): statistics, modelling, simulations, spatial, data manipulation, Bayesian inference through JAGS & NIMBLE, RMarkdown

Modelling & simulations (advanced): mechanistic movement, hierarchical models, spatial capture-recapture, random encounter model, distance sampling, occupancy, hidden Markov models, sensitivity analysis, boosted regression trees, species distribution models, etc.

Other: GIS (QGIS, ArcGIS, R), shell scripting, high performance computing, markdown, Jupyter, git

PRESENTATIONS

- Poster – “Confronting spatial capture-recapture models with realistic animal movement simulations”, **British Ecological Society Quantitative Ecology SIG Annual Meeting (virtual)**. September 2021.
- Oral – “The integrated role of resource memory and scent-mediated territoriality in the emergence of home-ranges”, **Ecological Society of America Annual meeting (virtual)**. August 2021.

- Poster – “Capturing the complexity of animal movement in model estimation from camera-trap data”, **International Statistical Ecology Conference (virtual)**. June 2020. [Awarded Student Prize].
- Oral – “Illegal Otter Trade: An analysis of seizures in selected Asian countries (1980–2015)”, **13th International Otter Congress** (Singapore). July 2016.
- Oral – “Status of otters in Singapore”, **Asian Otter Conservation Meet** (National Centre for Biological Sciences, Bangalore, India) organised by the IUCN Otter Specialist Group. July 2013.

OTHER PROFESSIONAL POSITIONS

Research assistant

Theoretical Ecology and Modelling Lab, National University of Singapore 2018–9

Faunal ecologist

Camphora Pte. Ltd., Singapore 2017

Programme officer

TRAFFIC Southeast Asia, Petaling Jaya, Malaysia 2015–7

Faunal ecologist

Ecology Matters Pte. Ltd., Singapore 2015–6

Research Assistant

Tropical Marine Science Institute, National University of Singapore 2013–5

Field Lead

National Parks Board (NParks), Singapore 2013

PROFESSIONAL AFFILIATIONS

IUCN SSC

Small Carnivore Specialist Group Member 2019–

Otter Specialist Group Member 2011–

National Geographic Society

National Geographic Explorer 2017–

TEACHING EXPERIENCE

The University of Adelaide, Australia

- Demonstrator: *Concepts in Ecology III* (third-year undergraduate course), *Concepts in Ecology II* (second-year undergraduate course). 2021.

National University of Singapore, Singapore

- Guest Lecturer: *Aquatic Vertebrate Diversity* (fourth-year undergraduate course), lecture titled “Otter Research in Singapore”. 2017 & 2018.
- Teaching Assistant: *Biodiversity* (first-year undergraduate course), *Ecology and the Environment* (second-year undergraduate course). 2011–2012.