

# Meryl Theng

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

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## 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)

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## CURRENT POSITION

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

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

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## RESEARCH INTERESTS

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

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## PUBLICATIONS

*Peer-reviewed*

1. **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>.
2. **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>.
3. **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>.
4. 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.
5. **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.

6. **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.

#### *Upcoming*

- **Theng M**, Prowse TA, Cassey P, Delean S & Bracis C (*In review*) 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>.
- **Theng M**, Palencia P, Cassey P, Delean S (*In prep*) Evaluating camera trap-based abundance estimators for unmarked populations.

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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)

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### LANGUAGE & SKILLS

**Languages:** English (native), Mandarin (intermediate)

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

**Modelling (advanced):** 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

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### 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)”; Poster – “Diet of the smooth-coated otter *Lutrogale perspicillata* (Geoffroy, 1826) at natural and modified sites in Singapore”, **13<sup>th</sup> 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.

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## 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

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## PROFESSIONAL AFFILIATIONS

### IUCN SSC

Small Carnivore Specialist Group Member 2019–

Otter Specialist Group Member 2011–

### National Geographic Society

National Geographic Explorer 2017–

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## 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.