

Matthew Scott Luskin

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EDUCATION

B.A., 2008, University of California, Los Angeles Economics and Geography
**double major, magna cum laude, departmental honors*

Ph.D., 2016, University of California, Berkeley Environmental Science, Policy and Management

POSTDOCTORAL APPOINTMENT

2016-present^a Asian School of the Environment, Nanyang Technological University (Singapore)
^b Smithsonian Institution, CTFs-ForestGEO program (Washington DC)
Research fellow, advised by [Stuart Davies](#) and [David Wardle](#)

PUBLICATIONS (*co-first & corresponding author, I was the student's primary mentor)

All papers have hyperlinks to pdfs, [link Google Scholar profile](#), [link to ORCID](#)

- [Jia S](#), Wang X, Yuan Z, Lin F, Ye J, Hao Z & **Luskin MS*** (2018). Global signal of top-down control of terrestrial plant communities by herbivores. **Proceedings of the National Academy of Sciences** 115, 6237–6242.
- Luskin MS**, Ickes L, Yao TL & Davies SJ. (*in press*). Wildlife differentially affect tree and liana regeneration in a tropical forest: an 18-yr study of experimental defaunation versus artificially abundant herbivores. **Journal of Applied Ecology**.
- Luskin MS**, Albert WR & Tobler MV (2017). Sumatran tiger survival threatened by deforestation despite increasing densities in parks. **Nature Communications** 8: 1783, DOI 10.1038/s41467-017-01656-4/.
- Luskin MS**, Brashares JS, Ickes K, Fletcher CD, Wright SJ & Potts MD (2017). Cross-boundary subsidy cascades from oil palm degrade distant tropical forests. **Nature Communications** 8: 2231, DOI: 10.1038/s41467-017-01920-7/.
- Luskin MS**, Lee JSH, Edwards D, Gibson L & Potts MD (2018). A quantitative review of land sparing agricultural production strategies to conserve tropical forest biodiversity. **Global Food Security** 16, 29-35.
- Harrison RD, Sreekar R, Brodie JF, Brook S, **Luskin MS**, O'Kelley H, Rao M, Scheffers B & Velho N (2016). Impacts of hunting and wildlife trade on Asian tropical forests. **Conservation Biology** 30: 972-983.
- [Ke A](#) & **Luskin MS*** (2017). Integrating disparate occurrence reports to map data-poor species ranges and occupancy: a case study of the Vulnerable bearded pig *Sus barbatus*. **Oryx** 55: 1-11.
- Luskin MS**, [Christina ED](#), Kelley LC & Potts MD (2014). Modern hunting practices and wild meat trade in the plantation landscapes of Sumatra, Indonesia. **Human Ecology** 42: 35:45.
- Luskin MS** & Potts MD (2011). Microclimate and habitat heterogeneity through the oil lifecycle. **Basic and Applied Ecology** 12: 540–551.
- Luskin MS** (2010). Flying foxes prefer to forage in farmland in a tropical dry forest landscape mosaic in Fiji. **Biotropica** 42: 246–250.

PUBLICATIONS continued...Book Chapters

Luskin MS & **Ke A** (2017). The bearded pig. In Melletti M & Meijaard E (Eds). Ecology, Evolution and Management of Wild Pigs and Peccaries. Implications for Conservation. Cambridge University Press, UK.

Other peer-reviewed works

Luskin MS, **Ke A**, Linkie M, Meijaard E (2018). *Sus barbatus*. The IUCN Red List of Threatened Species: e.T41772A10559190.

Hudson LN, et al (including **Luskin MS**) 2017. The database of the PREDICTS (Projecting Responses of Ecological Diversity In Changing Terrestrial Systems). **Methods in Ecology and Evolution** 7: 145-188.

Lavelle D, Sardiñas HS, Blitzer E.J, Weinbaum KZ, **Luskin MS** & Brashares JS (2011). Book review of Nature's Matrix: Linking Agriculture, Conservation and Food Sovereignty by Perfecto, Vandermeer & Wright. *The Quarterly Review of Biology*, 86 (3), 220-221.

MEDIA

- Luskin et al (2017a) on tigers was featured by the [NY Times](#), [National Geographic](#), and >20 other print and online outlets
- Luskin et al (2017b) on oil palm impacts on wildlife was featured by [National Geographic](#) & others
- Jia et al & Luskin (2018) on herbivores impacts on plants featured by [Phys.org](#)
- Luskin et al (2014) on hunting in Sumatra was featured by [Mongabay.com](#)

AWARDS

2017-2018 NTU Performance Rating: Far exceeds expectations (top 5% of postdocs)

2016 Outstanding Graduate Student Instructor Award – Awarded to top 9% of UC Berkeley GSIs, based on student survey reports and nominated by professor.

2015 Distinguished Graduate Student Lecture – Awarded to one student annually in the UC Berkeley Dept of ESPM by the Chair.

FELLOWSHIPS AND SALARY-BASED GRANTS (USD \$191,000 awarded)

- ¹ Fulbright STEM Research Fellowship - USA Dept of State (2013; \$25,000)
- ² Philomathia Foundation – STEM Research Fellowship (2015 & 2016; \$40,000)
- ³ NSF Graduate Research Fellowship Program (2011; \$121,500)
- ⁴ The Foreign Language and Area Studies Fellowship – USA Dept of Education (2013; \$7,000)
- ⁵ UCLA Honors Program - Stone Estate undergraduate research fellowship (2008; \$2,500)

NON-SALARY RESEARCH GRANTS (USD \$46,000 awarded)

- ¹ **PI: National Geographic Society**, Committee for Research and Exploration (\$23,000)
- ² **PI: Columbus Zoo Conservation Grant** (\$5000)
- ³ **PI: LA Zoo Conservation Grant** (\$2,500)

RESEARCH GRANTS CONTINUED...

- ⁴ **PI:** ZGAP Species Conservation \$2,500
- ⁵ **PI:** Bat Conservation International Research Award (\$400 + partnership)
- ⁶ **PI:** Swift International Research Award (\$2,500)
- ⁷ **PI:** Fundraising from private donors to tiger research program (\$11,000)

INVITED WORKSHOPS

- 2018 **Bottom-up and top-down drivers of SE Asian rainforests.** I co-led a 1-week workshop at the Asian School on the Environment (NTU) alongside Drs. David Wardle, Stuart Davies, and Shawn Lum. Participants included preeminent scientists in the fields of tropical forest community ecology.
- 2018 **Smithsonian CTFS-ForestGEO annual workshop (Czech Republic).** These fully-funded two-week events focus on using 'big data' tree censuses from across the globe to understand the processes governing tree diversity. My role was to assess the impacts of wildlife in shaping tree sapling dynamic across sites.
- 2017 **Smithsonian CTFS-ForestGEO annual workshop (Puerto Rico).** General description above; I focused on describing decadal shifts in tree populations among hyperdiverse sites.
- 2016 **Smithsonian CTFS-ForestGEO annual workshop (Hainan, China).** General description above; I focused on impacts of wildlife at the Pasoh Research Forest in Malaysia.
- 2016 **NSF's NGEETropics group: The Future of tropical forests in Asia: Experimental and modelling approaches (Singapore).** Provide insights into how wildlife shifts tree demographics in Asia.

PROFESSIONAL SERVICE & SYNERGISTIC ACTIVITIES

1. **Peer-reviewer** for >20 journals including Ecology Letters, Nature Communications, Biological Conservation, Nature Climate Change, Journal of Applied Ecology, PLoS ONE, others
2. **Founding board member** and continuing scientific advisor for Panels for Progress (2012-present). Co-develop, fund-raise, and implement charity projects to use solar panels to power remote NGOs (e.g. orphanages). Information available at www.panelsforprogress.org.
3. **Board Member** of the Bay Area Tropical Forest Network (2014-2016). Co-organize monthly meetings of scientists, business and NGO leaders revolving around environmental issues. Information available at <http://tropicalforestnetwork.org/>.
4. **Active participant** in 'Conservation Plenary' series (Singapore), hosted by Assistant Professor Janice Lee at NTU and split between the Asian School of the Environment and NUS Department of Biology.
5. **Board member** of the Society for Conservation, Berkeley Chapter (2012-2014). Co-organize monthly meetings of students and scientists, usually involving hosting an invited speaker.

MENTORSHIP

Inspiring and mentoring undergrad and graduate students from diverse backgrounds is one of my core passions and pursuits. I strongly advocate for my students to publish their senior theses in peer-reviewed journals. Students I've mentored for 1-yr or more include Evelyn Christina Dita (Indonesian international student at UC Berkeley), Alison Ke (UC Berkeley), Wido Albert (Indonesian at Andalas University in Sumatra), and senior theses at NTU by Lee Wen Si, Yeo Shu Hui, and Chan Jia Hui. I also have taken approximately 20 undergraduates on 1-3 month field experiences in Thailand, Malaysia, and Indonesia and mentored many of these on independent projects.

TEACHING

Instructor, co-instructor, and guest lectures at NTU

- Summer 2018 Instructor for ASE Field Experience: Methods in Wildlife Ecology (Sarawak Borneo)
- 3 week full-time hands-on field course
 - Attended by 4 NTU undergrads, 1 Thai masters student, 1 USA masters student
- Spring 2018 Co-taught: Intro to Ecology at NTU in ASE, led by Patrick Martin
- I taught 1 of 11 weeks of instruction; teaching scores: 4.53/5 (lecture) & 4.53/5 (lab)
- Spring 2018 Guest lecturer: Advanced Topics in Ecology at NTU in ASE, led by David Wardle
- Fall 2017 Guest lecturer: Tropical Ecology at NTU in ASE, led by Shawn Lum
- Spring 2017 Instructor for ASE Field Experience: Methods in Wildlife Ecology
- Sarawak Borneo and Peninsular Malaysia (7 weeks; 6 NTU students)
- Spring 2016 Co-taught: Intro to Ecology at NTU in ASE, led by Patrick Martin
- I designed and taught 3 of 11 weeks of instruction
 - My teaching scores were 4.76 (lectures) and 4.82 (lab tutorials)

Teaching as a Graduate Student Instructor (GSI) at UC Berkeley

- Fall 2015 GSI for "Wildlife Ecology" (ESPM 114)
- 145 students, Professor: Justin Brashares
- Fall 2015 GSI for "Conservation Biology" (Integrative Biology c152)
- 75 students, Professor: Steve Beissinger
- Spring 2015 GSI for "Conservation Biology in Working Landscapes" (ESPM c158)
- 30 students, Professor Claire Kremen
- Fall 2012 GSI for "Biology and Geomorphology of Tropical Islands", a 13-unit field course taught in French Polynesia (Moorea and Tahiti). The curriculum includes the fundamentals of field research, marine and terrestrial ecology, geomorphology, biodiversity sampling, invasion biology, animal behavior.

OTHER PROFESSIONAL EXPERIENCES

10 years of fieldwork experience in Indonesia, Malaysia, and Thailand. I use a wide range of data collection approaches including including biophysical and ecological measurements, social science methods (interviews and monitoring wildlife trade). While in Indonesia (Sumatra), I managed ~30 people to conduct camera trapping and tiger monitoring. This required working with regional government authorities, NGOs, and national parks.

Experienced user of *R* statistical software and multivariate statistical methods, including hierarchal modeling, and particular expertise in analytical approaches for tree and wildlife data, including capture-recapture methods and single and multi-species occupancy models for single or multiple seasons and/or sites.

INVITED PRESENTATIONS *(conference talks not shown for brevity)*

Top-down control of plants by herbivores. 2017. Conservation plenary series (NTU, Singapore).

Negative density dependence cause by wildlife. 2017. Conservation plenary series (NUS, Singapore).

Trophic cascades from tiger extirpation in Southeast Asia. April 2015. The Distinguished Graduate Student Lecture, awarded by the Department of Environmental Science, Policy, and Management, UC Berkeley.

Ecological cascades in Southeast Asia. November 2016. Stanford Biology Department's "Ecology and Evolution" seminar.

Oil palm-triggered forest trophic cascades. 2014. Association for Tropical Biology and Conservation (ATBC). Cairns.

Dual threats of hunting and land use change. 2014. SCB-Asia Chapter. Melaka, Malaysia.

INVITED PRESENTATIONS CONTINUED (conference talks not shown for brevity)

Disrupted Ecology of a Bioregion. 2013. National University of Singapore, Biological Sciences Seminar Series.

Sumatran Tiger Conservation in Oil Palm Landscapes. 2013. Annual meeting of HarimauKita (Indonesia).

Trophic Cascades in Sumatra's Forest Fragments. 2013. Andalas University (Indonesia).

Improving Oil Palm Landscapes for Biodiversity Conservation. 2011. ATBC (Tanzania).

LANGUAGES

Fluent in English, proficient in Bahasa Malay/Indonesian and Spanish

REFERENCES

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|---|---|
| Dr. Stuart Davies, Director of CTFS-ForestGEO | +1 (201) 633-0961; daviess@si.edu |
| Dr. David Wardle, Professor at NTU | +65 8240 5589; david.wardle@ntu.edu.sg |
| Dr. Matthew Potts, Assoc Professor at UC Berkeley | +1 (510) 642-5580; mdpotts@berkeley.edu |
| Dr. Claire Kremen, Professor at UC Berkeley | +1 (510) 643-6339; ckremen@berkeley.edu |
| Dr. Luke Gibson, Assoc Professor at SUSTech | +852-63798546; biodiversity@sustc.edu.cn |
| Dr. Ryan Chisholm, Assoc Professor at NUS | +65 9230 3304; chisholm@nus.edu.sg |
| Dr. Thomas Gillespie, Assoc Professor at UCLA | +1 (310) 825-1818; tg@geog.ucla.edu |