Melissa Chapman

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EDUCATION

University of California Berkeley **Berkeley, CA**
PhD Candidate: Dept. of Environmental Science, Policy, and Management *Aug 2018-present*
Advisors: Dr. Carl Boettiger and Dr. Justin Brashares

Yale University **New Haven, CT**
Bachelor of Science: Dept. of Ecology and Evolutionary Biology & Dept of African Studies *Sept 2010-May 2014*
Advisor: Dr. Sunil Parikh

SELECT RESEARCH EXPERIENCE

Helmholtz Centre for Environmental Research (UFZ) *May 2019 - Aug 2019*
Visiting Scientist
- Three month position with the POLISES (Policy Instruments and Social-Ecological Systems) research group. Worked on integrating more complex decision models into agent based simulations of common pool resources.

Woodwell Climate Research Center (Woods Hole Research Center) *Sept 2015 - Apr 2018*
Research Assistant II
- Collaborated with NGOs and government agencies on interdisciplinary and applied research in the Democratic Republic of Congo, Costa Rica, Papua New Guinea, and Brazil

REDD+ Projet Équateur *Jan 2016 - Sept 2016*
Measurement, Reporting and Verification (MRV) Analyst
- Developed a spatially explicit model of deforestation utilizing biophysical, socioeconomic, and political data in the Equateur province of the Democratic Republic of Congo

PEER-REVIEWED PUBLICATIONS

(**Submitted* (*Preprint available*) Kurz, D. et al [including **Chapman, MS**]. Building bridges in the post-Trump era: can conservation scientists help recover bipartisan support for U.S. environmental protection?. *EcoEvoxiv*. DOI: 10.32942/osf.io/entgj

(**Submitted*) **Chapman, MS**, et al. Tipping points in diversified farming systems. (**code**)

(**In review*) Hasting, Z. et al [including **Chapman, MS**]. Toward socially just transitions to agroforestry for climate mitigation and adaptation.

(**In review*) Ordway, E. et al., [including **Chapman, MS**]. Leveraging the NEON Airborne Observation Platform for socio-environmental systems research.

(**In review*) Scoville, C., et al. [including **Chapman, MS**]. Algorithmic Conservation Governance in a Changing Climate.

6. **Chapman, M.**, et al. (2020). Large climate mitigation potential from adding trees to agricultural lands. Global Change Biology. (**code**)
5. Oestreich, W., **Chapman, M.**, and Crowder, L.B. (2020). A comparative analysis of dynamic management in marine and terrestrial systems. Frontiers in Ecology and the Environment. (**code**)
4. Griscom, Bronson W., et al. [including **Chapman, M**]. (2020). National mitigation potential from natural climate solutions in the tropics. Philosophical Transactions of the Royal Society B.
3. Samndong, R. A., Bush, G., Vatn, A., **Chapman, M.** (2018). Institutional analysis of causes of deforestation

in REDD+ pilot sites in the Equateur province: Implication for REDD+ in the Democratic Republic of Congo. *Land use policy*

2. Galvin, B. D., Li, Z., Villemaine, E., Poole, C. B., **Chapman, M. S.**, Pollastri, M. P., ... & Carlow, C. K. (2014). A Target Repurposing Approach Identifies N-myristoyltransferase as a New Candidate Drug Target in Filarial Nematodes. *PLoS neglected tropical diseases*, 8(9), e3145.

1. Cunningham, Courtney, et al. [including **Chapman, M**] (2014). Impaired consciousness in partial seizures is bimodally distributed. Neurology, 82(19), 1736-1744. *Neurology* 82.19 (2014): 1736-1744.

**Submitted articles available upon request*

TECHNICAL REPORTS, POLICY BRIEFS, AND THESES

5. Galbiati, L.A., and Botero, M., et al [including **Chapman, M.**]. (2017) "Prioritizing Areas for Reforestation of Private Lands in the Brazilian Amazon". Policy Brief. available at: http://ipam.org.br/wp-content/uploads/2017/08/Prioritizing-Areas-for-Reforestation-of-Private-Lands- eng-web.pdf

4. Cuthbert, R.J., Bush, G., **Chapman, M.**, Ken, B., G, Neale, E. and Whitmore, N. (2016) Analysis of National Circumstances in the Context of REDD+ and Identification of REDD+ Abatement Levers on Papua New Guinea. Wildlife Conservation Society, Goroka, Papua New Guinea. ISBN: 978-0-9943203-3-9

3. Bush, G., Nassikas, Z., and **Chapman, M.** (2017). Forest Landscape Restoration in Costa Rica: A spatially explicit multi-criteria tool for policy management prioritization and cost-benefit analysis. Presented to Costa Rica Forest Financing Ministry. Available upon request.

2. **Chapman, M.** Myhre, L. (2014) "A Geographic Correlation of Spina Bifida and Malaria in Kenya". Yale Department of African Studies Senior Thesis. Advisor: Sunil Parikh

1. **Chapman, M.** (2014) "Assessing patterns of malaria risk: Environmental determinants of differential malaria susceptibility between Mossi and Fulani people in Burkina Faso". Yale Department of Ecology and Evolutionary Biology Senior Thesis. Advisor: Sunil Parikh

PRESENTATIONS AND SEMINARS

1. **Chapman, M.**, et al. Tipping points in diversified farming systems. Ecological Society of America 2020 Meeting. Contributed Talk.

2. **Chapman, M.**. Large climate mitigation from adding trees to agricultural lands and how that potential might be realized. The Nature Conservancy Seminar Series (Invited Talk). July 9, 2020.

3. **Chapman, M.**. Large climate mitigation from adding trees to agricultural lands. Woodwell Climate Research Center Friday Seminar Series (Invited Talk). June 10, 2020.

4. **Chapman, M.**, Walker, W. (2018). A Global Analysis of Woody Aboveground Carbon Storage in Crop and Pasture lands. American Geophysical Union. (Presentation)

5. **Chapman, M.**, Nassikas, A., Bush, G. (2017). Spatial prioritization of reforestation in Costa Rica. Costa Rica Forest Finance (FONAFIFO). (Presentation)

6. **Chapman, M.** (2014) Assessing a geographic correlation between spina bifida and malaria in Kenya. Yale Mellon Forum.

7. **Chapman, M.** Myhre, L. (2014) Pursuing Independent Research as Undergraduates. Yale Global Health Panel.

8. **Chapman, M.**, Galvin, B., and Carlow, T. (2011) Cloning, Expression, and Biochemical Char- acterization of Myristoyltransferase and Farnesyltransferase from Brugia Malay, Two New Antifi- larial Drug Targets. New England Biolabs Symposium. (Poster)

FELLOWSHIPS AND GRANTS

- SESYNC Graduate Student Pursuit: Co- PI **(project link)** ($35000) 2020-2021
- Berkeley Center For Technology, Society, and Policy Fellowship **(project link)** ($4000) 2020
- NEON Science Summit Travel Grant ($900) 2019
- Safari Club Wildlife Ecology Field Grant ($2200) 2019
- NSF National Research Trainee ($32,000) 2018-2020
- POLISES 3-month Visiting Scientist Travel and Research Funding ($6,000) 2019
- Foreign Language Area Studies (FLAS) Fellowship: Kiswahili ($35,000) 2012- 2014
- Kingsley Trust Association Senior Fellowship ($5,000) 2014
- Yale Collaborative Action Project Grant ($5,000) 2013-2014

WORKSHOPS AND WORKING GROUPS

- SESYNC Cyberinfrastructure Summer Institute July 2020
- NIMBioS Adaptive Management Tutorial Apr 2020
- People, Land, Ecosystems: Leveraging NEON for Socio-Environmental Synthesis Feb 2020
- National Ecological Observation Network (NEON) Science Summit 2019
- Advancing Integrated Process-Based Modeling of Socio-Environmental Systems (SESYNC) 2019-2020
- Graduate Student Workshop on Socio-Environmental Synthesis (SESYNC) Aug 2019
- Ecological Forecasting Initiative Summer Course 2019
- Mathematical Ecology Working Group: Woods Hole, MA 2017-2018

TEACHING EXPERIENCE

- University of California Berkeley *Graduate Student Instructor, Data Science for Global Change Ecology* 2020
- Amazon Environmental Research Institute: *Technical Mentor for Public Policy Course* 2017
- Yale University: *Undergraduate Teaching Assistant, Physics I* 2013-2014
- Yale University: *Undergraduate Teaching Assistant, Organic Chemistry II* 2012-2013

OUTREACH AND LEADERSHIP

- Ecological Forecasting Initiative *Student Working Group Co-chair* 2019-present
- UC Berkeley Graduate Student Association (GSA) 2018-Present
- Letters to a Pre-scientist: *Volunteer* 2019-Present
- Bay Area Scientists in Schools (BASIS): *Instructor* 2018-Present
- Society for Conservation Biology, Berkeley Chapter: *Planning Committee Officer* 2018-2019
- 500 Women Scientists - Woods Hole Chapter: *Media Outreach* 2017-2018
- Yale Public Health Coalition: *President (2012-2013), Secretary (2011)* 2011-2013
- Yale Varsity Cross Country and Track and Field: *Captain (2014)* 2010-2014

Skills

- **Mathematics and Statistics:** structured population models, decision making algorithms, spatial statistics, causal inference, animal movement analysis, state-space models, bayesian statistics
- **Computer and programming:** R, python, github, ArcGIS, Google Earth Engine, Java
- **Laboratory:** PCR, Western blot, RNAi knockdown, gene analysis, protein expression, FPLC purification