

# Stanford

---



## Lisa Curran

Roger and Cynthia Lang Professor in Environmental Anthropology and Senior Fellow at the Woods Institute for the Environment

### Bio

---

#### ACADEMIC APPOINTMENTS

- Professor, Anthropology
- Senior Fellow, Stanford Woods Institute for the Environment

#### PROGRAM AFFILIATIONS

- Center for East Asian Studies
- Center for Latin American Studies

#### PROFESSIONAL EDUCATION

- PhD, Princeton University , Ecology & Evolutionary Biology (1994)
- AB, Harvard University , Anthropology (1984)

### Teaching

---

#### COURSES

##### 2019-20

- Interdisciplinary Research Proposals: Effective Presentation, Skills, and Styles: ANTHRO 308B (Spr)
- Political Ecology of Tropical Land Use: Conservation, Natural Resource Extraction, and Agribusiness: ANTHRO 166 (Win)

##### 2018-19

- Interdisciplinary Research Proposals: Effective Presentation, Skills, and Styles: ANTHRO 308B (Spr)
- Political Ecology of Tropical Land Use: Conservation, Natural Resource Extraction, and Agribusiness: ANTHRO 166, ANTHRO 266 (Win)

##### 2017-18

- Interdisciplinary Research Proposals: Effective Presentation, Skills, and Styles: ANTHRO 308B (Spr)
- Political Ecology of Tropical Land Use: Conservation, Natural Resource Extraction, and Agribusiness: ANTHRO 166, ANTHRO 266 (Win)

##### 2016-17

- Interdisciplinary Research Proposals: Effective Presentation, Skills, and Styles: ANTHRO 308B (Spr)
- Political Ecology of Tropical Land Use: Conservation, Natural Resource Extraction, and Agribusiness: ANTHRO 166, ANTHRO 266 (Win)

## Publications

---

### PUBLICATIONS

- **Effects of understory fire management treatments on California Hazelnut, an ecocultural resource of the Karuk and Yurok Indians in the Pacific Northwest** *FOREST ECOLOGY AND MANAGEMENT*  
Marks-Block, T., Lake, F. K., Curran, L. M.  
2019; 450
- **Oil palm land conversion in Para, Brazil, from 2006-2014: evaluating the 2010 Brazilian Sustainable Palm Oil Production Program** *ENVIRONMENTAL RESEARCH LETTERS*  
Benami, E., Curran, L. M., Cochrane, M., Venturieri, A., Franco, R., Kneipp, J., Swartos, A.  
2018; 13 (3)
- **FIRE-DRIVEN BIOMASS AND PEAT CARBON LOSSES AND POST-FIRE SOIL CO<sub>2</sub> EMISSION IN A WEST KALIMANTAN PEATLAND FOREST** *JOURNAL OF TROPICAL FOREST SCIENCE*  
Astiani, D., Curran, L. M., Burhanuddin, Taherzadeh, M., Mujiman, Hatta, M., Pamungkas, W., Gusmayanti, E.  
2018; 30 (4): 570–75
- **First integrative trend analysis for a great ape species in Borneo.** *Scientific reports*  
Santika, T., Ancrenaz, M., Wilson, K. A., Spehar, S., Abram, N., Banes, G. L., Campbell-Smith, G., Curran, L., d'Arcy, L., Delgado, R. A., Erman, A., Goossens, B., Hartanto, et al  
2017; 7 (1): 4839
- **Science-based management in decline in the Southern Ocean.** *Science*  
Brooks, C. M., Crowder, L. B., Curran, L. M., Dunbar, R. B., Ainley, D. G., Dodds, K. J., Gjerde, K. M., Sumaila, U. R.  
2016; 354 (6309): 185-187
- **Biomass burning drives atmospheric nutrient redistribution within forested peatlands in Borneo** *ENVIRONMENTAL RESEARCH LETTERS*  
Ponette-Gonzalez, A. G., Curran, L. M., Pittman, A. M., Carlson, K. M., Steele, B. G., Ratnasari, D., Mujiman, Weathers, K. C.  
2016; 11 (8)
- **Managing water services in tropical regions: From land cover proxies to hydrologic fluxes** *AMBIO*  
Ponette-Gonzalez, A. G., Brauman, K. A., Marin-Spiotta, E., Farley, K. A., Weathers, K. C., Young, K. R., Curran, L. M.  
2015; 44 (5): 367-375
- **Assessing the influence of topography and canopy structure on Douglas fir throughfall with LiDAR and empirical data in the Santa Cruz mountains, USA** *ENVIRONMENTAL MONITORING AND ASSESSMENT*  
GRIFFITH, K. T., Ponette-Gonzalez, A. G., Curran, L. M., Weathers, K. C.  
2015; 187 (5)
- **Multiple pathways of commodity crop expansion in tropical forest landscapes** *ENVIRONMENTAL RESEARCH LETTERS*  
Meyfroidt, P., Carlson, K. M., Fagan, M. E., Gutierrez-Velez, V. H., Macedo, M. N., Curran, L. M., DeFries, R. S., Dyer, G. A., Gibbs, H. K., Lambin, E. F., Morton, D. C., Robiglio, V.  
2014; 9 (7)
- **Influence of watershed-climate interactions on stream temperature, sediment yield, and metabolism along a land use intensity gradient in Indonesian Borneo** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*  
Carlson, K. M., Curran, L. M., Ponette-Gonzalez, A. G., Ratnasari, D., Ruspita, Lisnawati, N., Purwanto, Y., Brauman, K. A., Raymond, P. A.  
2014; 119 (6): 1110-1128
- **Refined carbon accounting for oil palm agriculture: disentangling potential contributions of indirect emissions and smallholder farmers** *CARBON MANAGEMENT*  
Carlson, K. M., Curran, L. M.  
2013; 4 (4): 347-349
- **Effects of high-frequency understory fires on woody plant regeneration in southeastern Amazonian forests** *PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*  
Balch, J. K., Massad, T. J., Brando, P. M., Nepstad, D. C., Curran, L. M.  
2013; 368 (1619)

- **Carbon emissions from forest conversion by Kalimantan oil palm plantations** *NATURE CLIMATE CHANGE*  
Carlson, K. M., Curran, L. M., Asner, G. P., Pittman, A. M., Trigg, S. N., Adeney, J. M.  
2013; 3 (3): 283-287
- **Understanding the Impacts of Land-Use Policies on a Threatened Species: Is There a Future for the Bornean Orang-utan?** *PLOS ONE*  
Wich, S. A., Gaveau, D., Abram, N., Ancrenaz, M., Baccini, A., Brend, S., Curran, L., Delgado, R. A., Erman, A., Fredriksson, G. M., Goossens, B., Husson, S. J., Lackman, et al  
2012; 7 (11)
- **Committed carbon emissions, deforestation, and community land conversion from oil palm plantation expansion in West Kalimantan, Indonesia** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Carlson, K. M., Curran, L. M., Ratnasari, D., Pittman, A. M., Soares-Filho, B. S., Asner, G. P., Trigg, S. N., Gaveau, D. A., Lawrence, D., Rodrigues, H. O.  
2012; 109 (19): 7559-7564
- **Examining protected area effectiveness in Sumatra: importance of regulations governing unprotected lands** *CONSERVATION LETTERS*  
Gaveau, D. L., Curran, L. M., Paoli, G. D., Carlson, K. M., WELLS, P., Besse-Rimba, A., Ratnasari, D., Leader-Williams, N.  
2012; 5 (2): 142-148
- **Policy perils of ignoring uncertainty in oil palm research** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Paoli, G. D., Carlson, K. M., Hooijer, A., Page, S. E., Curran, L. M., Wells, P. L., Morrison, R., Jauhainen, J., Pittman, A. M., Gilbert, D., Lawrence, D.  
2011; 108 (25): E218-E218
- **Size, species, and fire behavior predict tree and liana mortality from experimental burns in the Brazilian Amazon** *FOREST ECOLOGY AND MANAGEMENT*  
Balch, J. K., Nepstad, D. C., Curran, L. M., Brando, P. M., Portela, O., Guilherme, P., Reuning-Scherer, J. D., de Carvalho, O.  
2011; 261 (1): 68-77
- **Tropical land-cover change alters biogeochemical inputs to ecosystems in a Mexican montane landscape** *ECOLOGICAL APPLICATIONS*  
Ponette-Gonzalez, A. G., Weathers, K. C., Curran, L. M.  
2010; 20 (7): 1820-1837
- **Water inputs across a tropical montane landscape in Veracruz, Mexico: synergistic effects of land cover, rain and fog seasonality, and interannual precipitation variability** *GLOBAL CHANGE BIOLOGY*  
Ponette-Gonzalez, A. G., Weathers, K. C., Curran, L. M.  
2010; 16 (3): 946-963
- **REDD pilot project scenarios: are costs and benefits altered by spatial scale?** *ENVIRONMENTAL RESEARCH LETTERS*  
Carlson, K. M., Curran, L. M.  
2009; 4 (3)
- **Negative fire feedback in a transitional forest of southeastern Amazonia** *GLOBAL CHANGE BIOLOGY*  
Balch, J. K., Nepstad, D. C., Brando, P. M., Curran, L. M., Portela, O., de Carvalho, O., Lefebvre, P.  
2008; 14 (10): 2276-2287
- **Differential effects of mammalian seed predators on the regeneration of five Papua New Guinean tree species and implications for sapling recruitment** *JOURNAL OF TROPICAL ECOLOGY*  
Jones, E. R., Curran, L. M., Wright, D. D., Mack, A. L.  
2008; 24: 259-267
- **Soil nutrients affect spatial patterns of aboveground biomass and emergent tree density in southwestern Borneo** *OECOLOGIA*  
Paoli, G. D., Curran, L. M., Slik, J. W.  
2008; 155 (2): 287-299
- **Negative fire feedback in a transitional forest of southern Amazonia** *Global Change Biology*  
Balch, J. K., Nepstad, D. C., Brando, P. M., Curran, L. M., Portela, O., de Carvalho, Jr, O., Lefebvre, P.  
2008; 14: 2276-2287
- **Soil nutrients affect spatial patterns of above ground biomass and canopy tree abundance throughout a Bornean landscape** *Oecologia*  
Paoli, G. D., Curran, L. M., Slik, J. W.

2008; 155: 287-299

- **White-tailed deer (*Odocoileus virginianus*) alter herbaceous species richness in the Hiawatha National Forest, Michigan, USA** *AMERICAN MIDLAND NATURALIST*  
Holmes, S. A., Curran, L. M., Hall, K. R.  
2008; 159 (1): 83-97
- **Beyond mast-fruiting events: Community asynchrony and individual dormancy dominate woody plant reproductive behavior across seven Bornean forest types** *CURRENT SCIENCE*  
Cannon, C. H., Curran, L. M., Marshall, A. J., Leighton, M.  
2007; 93 (11): 1558-1566
- **Long-term reproductive behaviour of woody plants across seven Bornean forest types in the Gunung Palung National Park (Indonesia): supranual synchrony, temporal productivity and fruiting diversity** *ECOLOGY LETTERS*  
Cannon, C. H., Curran, L. M., Marshall, A. J., Leighton, M.  
2007; 10 (10): 956-969
- **Environment. Tropical forests and climate policy.** *Science*  
Gullison, R. E., Frumhoff, P. C., Canadell, J. G., Field, C. B., Nepstad, D. C., Hayhoe, K., Avissar, R., Curran, L. M., Friedlingstein, P., Jones, C. D., Nobre, C.  
2007; 316 (5827): 985-986
- **Soil nutrients limit fine litter production and tree growth in mature lowland forest of Southwestern Borneo** *ECOSYSTEMS*  
Paoli, G. D., Curran, L. M.  
2007; 10 (3): 503-518
- **Long-term reproductive behavior of woody plants across seven Bornean forest types in the Gunung Palung National Park (Indonesia): supra-annual synchrony, temporal productivity and fruiting diversity** *Ecology Letters*  
Cannon, C. H., Curran, L. M., Marshall, A. J., Leighton, M.  
2007; 10: 956-969
- **Biodiversity and human livelihood crises in the Malay archipelago** *CONSERVATION BIOLOGY*  
Sodhi, N. S., Brooks, T. M., Koh, L. P., Acciaioli, G., Erb, M., Tan, A. K., Curran, L. M., Brosius, P., Lee, T. M., Patlis, J. M., Gumal, M., Lee, R. J.  
2006; 20 (6): 1811-1813
- **Effects of partial throughfall exclusion on the phenology of *Coussarea racemosa* (Rubiaceae) in an east-central Amazon rainforest** *OECOLOGIA*  
Brando, P., Ray, D., Nepstad, D., Cardinot, G., Curran, L. M., Oliveira, R.  
2006; 150 (2): 181-189
- **Plant recruitment bottlenecks in temperate forest fragments: seed limitation and insect herbivory** *PLANT ECOLOGY*  
McEuen, A. B., Curran, L. M.  
2006; 184 (2): 297-309
- **Modelling conservation in the Amazon basin** *NATURE*  
Soares, B. S., Nepstad, D. C., Curran, L. M., Cerqueira, G. C., Garcia, R. A., Ramos, C. A., Voll, E., McDonald, A., Lefebvre, P., Schlesinger, P.  
2006; 440 (7083): 520-523
- **Village size and forest disturbance in Bhadra Wildlife Sanctuary, western Ghats, India** *BIOLOGICAL CONSERVATION*  
Karanth, K. K., Curran, L. M., Reuning-Scherer, J. D.  
2006; 128 (2): 147-157
- **Utility of Landsat 7 satellite data for continued monitoring of forest cover change in protected areas in Southeast Asia** *SINGAPORE JOURNAL OF TROPICAL GEOGRAPHY*  
Trigg, S. N., Curran, L. M., McDonald, A. K.  
2006; 27 (1): 49-66
- **Effects of small rodent and large mammal exclusion on seedling recruitment in Costa Rica** *BIOTROPICA*  
DeMattia, E. A., Rathcke, B. J., Curran, L. M., Aguilar, R., Vargas, O.  
2006; 38 (2): 196-202
- **Soil nutrients and beta diversity in the Bornean Dipterocarpaceae: evidence for niche partitioning by tropical rain forest trees** *JOURNAL OF ECOLOGY*  
Paoli, G. D., Curran, L. M., Zak, D. R.

2006; 94 (1): 157-170

- **Sustainability science from space: quantifying forest disturbance and land-use dynamics in the Amazon.** *Proceedings of the National Academy of Sciences of the United States of America*  
Curran, L. M., Trigg, S. N.  
2006; 103 (34): 12663-64
- **Tropical deforestation and the Kyoto Protocol** *CLIMATIC CHANGE*  
Santilli, M., Moutinho, P., Schwartzman, S., Nepstad, D., Curran, L., Nobre, C.  
2005; 71 (3): 267-276
- **Phosphorus efficiency of Bornean rain forest productivity: Evidence against the unimodal efficiency hypothesis** *ECOLOGY*  
Paoli, G. D., Curran, L. M., Zak, D. R.  
2005; 86 (6): 1548-1561
- **Effects of small rodents and large mammals on Neotropical seeds** *ECOLOGY*  
DeMattia, E. A., Curran, L. M., Rathcke, B. J.  
2004; 85 (8): 2161-2170
- **Lowland forest loss in protected areas of Indonesian Borneo** *SCIENCE*  
Curran, L. M., Trigg, S. N., McDonald, A. K., Astiani, D., Hardiono, Y. M., Siregar, P., Caniago, I., Kasischke, E.  
2004; 303 (5660): 1000-1003
- **Seed dispersal and recruitment limitation across spatial scales in temperate forest fragments** *ECOLOGY*  
McEuen, A. B., Curran, L. M.  
2004; 85 (2): 507-518
- **More than black and white: a new genus of nanophyrine seed predators of Dipterocarpaceae and a review of *Meregallia* Alonso-Zarazaga (Coleoptera : Curculionoidea : Nanophyidae)** *JOURNAL OF NATURAL HISTORY*  
Lyal, C. H., Curran, L. M.  
2003; 37 (1): 57-105
- **"Can we defy nature's end?" (vol 293, pg 2207, 2001)** *SCIENCE*  
Pimm, S. L.  
2001; 294 (5543): 788-788
- **Environment - Can we defy nature's end?** *SCIENCE*  
Pimm, S. L., Ayres, M., Balmford, A., Branch, G., Brandon, K., Brooks, T., Bustamante, R., Costanza, R., Cowling, R., Curran, L. M., Dobson, A., Farber, S., Da Fonseca, et al  
2001; 293 (5538): 2207-2208
- **Seed-feeding beetles of the weevil tribe Mecynolobini (Insecta : Coleoptera : Curculionidae) developing in seeds of trees in the Dipterocarpaceae** *JOURNAL OF NATURAL HISTORY*  
Lyal, C. H., Curran, L. M.  
2000; 34 (9): 1743-1847
- **Vertebrate responses to spatiotemporal variation in seed production of mast-fruiting dipterocarpaceae** *ECOLOGICAL MONOGRAPHS*  
Curran, L. M., Leighton, M.  
2000; 70 (1): 101-128
- **Experimental tests of the spatiotemporal scale of seed predation in mast-fruiting Dipterocarpaceae** *ECOLOGICAL MONOGRAPHS*  
Curran, L. M., Webb, C. O.  
2000; 70 (1): 129-148
- **Impact of El Nino and logging on canopy tree recruitment in Borneo** *SCIENCE*  
Curran, L. M., Caniago, I., Paoli, G. D., Astianti, D., Kusneti, M., Leighton, M., Nirarita, C. E., Haeruman, H.  
1999; 286 (5447): 2184-2188
- **Impact of El Nino and logging on canopy tree recruitment in borneo** *Science (New York, N.Y.)*  
Curran, L. M., Caniago, I., Paoli, G. D., Astianti, D., Kusneti, M., Leighton, M., Nirarita, C. E., Haeruman, H.  
1999; 286 (5447): 2184-88