

NATHAN JARED BOARDMAN KRAFT

Associate Professor

Department of Ecology and Evolutionary Biology, University of California, Los Angeles
621 Charles E. Young Drive South, Box 951606, Los Angeles, CA 90095, USA
email: nkraft@ucla.edu *tel:* 310-825-3593

Education:

- **Ph.D.** Integrative Biology, December 2008, **University of California, Berkeley**.
“Functional trait and phylogenetic-based tests of community assembly in a neotropical forest.” Supervisor: David Ackerly.
- **M.S.** Biological Sciences, September 2005, **Stanford University**.
- **A.B.** Biology, May 2001, **Brown University**, Providence, RI. Magna Cum Laude with Departmental Honors and Senior Biology Prize.

Appointments:

- **Associate Professor**, January 2016- present **University of California, Los Angeles**, Department of Ecology and Evolutionary Biology.
- **Assistant Professor**, July 2012- December 2015, **University of Maryland, College Park**, Department of Biology.
- **Specialist Scientist**, January - June 2012, **University of California, Santa Barbara**. Supervisor: Jonathan Levine.
- **Biodiversity Postdoctoral Fellow**, Oct 2009- December 2011, Biodiversity Research Centre, **University of British Columbia**, Vancouver.
- **Postdoctoral Researcher**, Jan-Sept 2009, Department of Integrative Biology, **University of California, Berkeley**. Supervisor: David Ackerly.

Publications (*published and in press- **bold** for lab members or visitors*):

44. Andrew Siefert, Cyrille Violle, Loïc Chalmandrier, Cécile H. Albert, Adrien Taudiere, Alex Fajado, Lonnie W. Aarssen, Christopher Baraloto, Marcos B. Carlucci, Marcus V. Cianciaruso, Vinícius de L. Dantas, Francesco de Bello, Leandro D. S. Duarte, Carlos R. Fonseca, Grégoire T. Freschet, Stéphanie Gaucherand, Nicolas Gross, Kouki Hikosaka, Benjamin Jackson, Vincent Jung, Chiho Kamiyama, Masatoshi Katabuchi, Steven W. Kembel, Emilie Kichenin, **Nathan Kraft**, Anna Lagerström, Yoann Le Bagousse-Pinguet, Yuanzhi Li, Norman Mason, Julie Messier, Tohru Nakashizuka, Jacob McC. Overton, Duane Peltzer, I. M. Pérez-Ramos, Valério D. Pillar, Honor C. Prentice, Sarah Richardson, Takehiro Sasaki, Brandon S. Schamp, Christian Schöb, Bill Shipley, Maja Sundqvist, Martin T. Sykes, Marie Vandewalle, David A. Wardle, 2015. A global meta-analysis of the relative extent of intraspecific trait variation in plant communities. ***Ecology Letters***, 18:1406-1419.

43. Rong Li, **Nathan Kraft**, Heng Li, 2015. Phylogenetic diversity and species richness in conservation planning within a global biodiversity hotspot. ***Conservation Biology***, 29:1552-1562.

- 42. Rong Li, Nathan Kraft, Jie Yang, Yuhua Wang, 2015.** A phylogenetically informed delineation of floristic regions within a biodiversity hotspot in Yunnan, China. *Scientific Reports*, 5: article number 9396.
- 41. Nathan Kraft, Oscar Godoy, Jonathan Levine, 2015.** Functional traits and the multidimensional nature of species coexistence. *Proceedings of the National Academy of Science*, 112:797-802.
- 40. Benjamin Blonder, David Nogués-Bravo, Michael Borregaard, John Donoghue II, Peter Jørgensen, Nathan Kraft, Jean-Philippe Lessard, Naia Morueta-Holme, Brody Sandel, Jens-Christian Svenning, Cyrille Violle, Carsten Rahbek, Brian Enquist, 2015.** Linking environmental filtering and disequilibrium to biogeography with a community climate framework. *Ecology*, 96:972-985.
- 39. Nathan Kraft, Peter Adler, Oscar Godoy, Emily James, Steve Fuller, Jonathan Levine, 2015.** Community assembly, coexistence, and the environmental filtering metaphor. *Functional Ecology*, 29:592-599.
- 38. Mark Vellend, Diane Srivastava, Kathryn Anderson, Carissa Brown, Jill Jankowski, Elizabeth Kleynehans, Nathan Kraft, Alatheia Letaw, Andrew MacDonald, Janet Maclean, Isla Myers-Smith, Andrea Norris, Xinxin Xue, 2104.** Assessing the relative importance of neutral stochasticity in ecological communities. *Oikos*, 123:1420-1430
- 37. Christine Lamanna, Benjamin Blonder, Cyrille Violle, Nathan Kraft, Brody Sandel, Irena Simova, John C. Donoghue II, Jens-Christian Svenning, Brian J. McGill, Brad Boyle, Vanessa Buzzard, Steven Dolins, Peter M. Jørgensen, Aaron Marcuse-Kubitza, Naia Morueta-Holme, Robert K. Peet, William Piel, Jim Regetz, Mark Shildhauer, Nick Spencer, Barbara M. Thiers, Susan K. Wiser, Brian J. Enquist, 2014.** Functional trait space and the latitudinal diversity gradient. *Proceedings of the National Academy of Science*, 111:13745-13750.
- 36. Irena Simova, Cyrille Violle, Nathan Kraft, David Storch, Jens-Christian Svenning, Brad Boyle, John Donoghue, Peter Jorgensen, Brian McGill, Naia Morueta-Holme, Robert Peet, Susan Wiser, William Piel, Jim Regetz, Mark Shildhauer, Barbara Thiers, Brian Enquist, 2014.** Shifts in trait means and variances in North American tree assemblages: species richness patterns are loosely related to the functional space. *Ecography*, 38:649-658.
- 35. Nathan Kraft, Gregory Crutsinger, Elisabeth Forrestal, and Nancy Emery, 2014.** Functional trait differences and the outcome of community assembly: an experimental test with vernal pool annual plants. *Oikos*, 123:1391-1399.
- 34. Oscar Godoy, Nathan Kraft, Jonathan Levine, 2014.** Phylogenetic relatedness and the determinants of competitive outcomes. *Ecology Letters*, 17:836-844.
- *Faculty of 1000 recommended article*

33. Rafael Cardenas, Renato Valencia, Adriana Argoti, **Nathan Kraft**, Olivier Dangles. Plant traits predicting herbivory in a highly diverse Neotropical rainforest, 2014. *Journal of Ecology*, 102:939-952.

32. Claire Fortunel, C.E. Timothy Paine, Paul V. A. Fine, **Nathan Kraft** and Christopher Baraloto, 2014. Environmental factors predict community functional composition in Amazonian forests. *Journal of Ecology*, 102:145-155.

31. Naia Morueta-Holme, Brian Enquist, Brian McGill, Brad Boyle, Peter Jorgensen, Jeffery Ott, Robert Peet, Irena Simova, Lindsey Sloat, Barbara Theirs, Cyrille Violle, Susan Wiser, Nick Spencer, Steven Dollins, John Donoghue II, **Nathan Kraft**, Jim Regetz, Mark Schildhauer, Jens-Christian Svenning, 2013. Habitat area and climate stability determine geographic variation in plant species range sizes. *Ecology Letters*, 16:1446-1454.

** featured as cover story*

30. **Nathan Kraft** and David D. Ackerly, 2013. The assembly of plant communities. In: The Plant Sciences- Ecology and the Environment, R. Monson, ed. Springer-Verlag, Berlin.

29. Jonathan Davies, Elizabeth Wolkovich, **Nathan Kraft**, Nicolas Salamin, Jenica Allen, Toby Ault, Julio Betancourt, Kjell Bolmgren, Elsa Cleland, Ben Cook, Theresa Crimmins, Susan Mazer, Gregory McCabe, Stephanie Pau, Jim Regetz, Mark Schwartz, Steven Travers, 2013. Phylogenetic conservatism in plant phenology. *Journal of Ecology*, 101:1520-1530.

28. Francesco Pomati, **Nathan Kraft**, Thomas Posch, Bettina Eugster, Jukka Jokela, Bas W. Ibelings, 2013. Size and fluorescence related traits are under selection by biotic and abiotic environmental changes in spring bloom phytoplankton communities of Lake Zurich (Switzerland). *PLoS ONE*, 8:e71677.

27. Peter Adler, Alex Fajardo, Andrew Kleinhesselink, **Nathan Kraft**, 2013. Trait-based tests of coexistence mechanisms. *Ecology Letters*, 16:1294-1306.

**Faculty of 1000 recommended article*

26. Adam B. Smith, Brody Sandel, **Nathan Kraft**, Susan Carey, 2013. Characterizing scale-dependent community assembly using the functional-diversity -area relationship. *Ecology*, 94: 2392-2402.

25. Hiroshi Tomimatsu, Takehiro Sasaki, Hiroko Kurokawa, Jon R. Bridle, Colin Fontaine, Jun Kitano, Daniel B. Stouffer, Mark Vellend, T. Martijn Bezemer, Tadashi Fukami, Elizabeth A. Hadly, Marcel G.A. van der Heijden, Masakado Kawata, Sonia Kéfi, **Nathan Kraft**, Kevin S. McCann, Peter J. Mumby, Tohru Nakashizuka, Owen L. Petchey, Tamara N. Romanuk, Katharine N. Suding, Gaku Takimoto, Jotaro Urabe, Shigeo Yachi, 2013. Sustaining ecosystem functions in a changing world: a call for an integrated approach. *Journal of Applied Ecology*, 50:1124-1130.

24. Susan J. Mazer, Steven E. Travers, Benjamin I. Cook, T. Jonathan Davies, Kjell Bolmgren, **Nathan Kraft**, Nicolas Salomin, David W. Inouye. 2013. Flowering date of taxonomic families predicts phenological sensitivity to temperature: implications for forecasting the effects of climate change on unstudied taxa. *American Journal of Botany*, 100:1381-1397.

23. Ben Cook, Elizabeth Wolkovich, Jonathan Davies, Toby Ault, Julio Betancourt, Jenica Allen, Kjell Bolmgren, Elsa Cleland, Theresa Crimmins, **Nathan Kraft**, Lesley Lancaster, Susan Mazer, Gregory McCabe, Brian McGill, Camille Parmesan, Stephanie Pau, Jim Regetz, Nicholas Salamin, Mark Schwartz, Steven Travers, 2012. Sensitivity of spring phenology to warming across temporal and spatial climate gradients in two independent databases. *Ecosystems*, 15:1283-1294.

22. E. M. Wolkovich, B. I. Cook, J. M. Allen, T. M. Crimmins, S. Travers, S. Pau, J. Regetz, T. J. Davies, J. L. Betancourt, **Nathan Kraft**, T. R. Ault, K. Bolmgren, S. J. Mazer, G. J. McCabe, B. J. McGill, C. Parmesan, N. Salamin, M. D. Schwartz, E. E. Cleland, 2012. Warming experiments underpredict plant phenological responses to climate change. *Nature*, 485:494-497.

**Faculty of 1000 recommended article*

**News coverage on BBC, CTV (Canada), Sveriges Radio, Frankfurter Allemagne*

21. Nathan Kraft, Nathan Sanders, James Stegen, Marti Anderson, Tom Crist, Howard Cornell, Mark Vellend, Jonathan Chase, Liza Comita, Kendi Davies, Amy Freestone, Susan Harrison, Brian Inouye, Jonathan Meyers, Nathan Swenson, 2012. Response to comments on “Disentangling the drivers of beta diversity along latitudinal and elevational gradients”. *Science*, 335:1573.

20. J. C. Stegen, A. L. Freestone, T. O. Crist, M. J. Anderson, J. M. Chase, L. S. Comita, H. V. Cornell, K. F. Davies, S. P. Harrison, A. H. Hurlbert, B. D. Inouye, **Nathan Kraft**, J. A. Myers, N. J. Sanders, N. G. Swenson, M. Vellend, 2012. Stochastic and deterministic drivers of spatial and temporal turnover in breeding bird communities. *Global Ecology and Biogeography*, 22:202-212.

19. Travis Ingram, Richard Svanback, **Nathan Kraft**, Pavel Kratina, Laura Southcott, Dolph Schluter, 2012. Intraguild predation drives evolutionary niche shift in threespine stickleback. *Evolution*, 66:1819-1832.

**Selected for ESA's 2012 Frost Award to T. Ingram.*

18. Bradford Hawkins, Christy McCain, Jonathan Davies, Lauren Buckley, Brian Anacker, Howard Cornell, Ellen Damschen, John-Avid Grytnes, Susan Harrison, Robert Holt, **Nathan Kraft** and Patrick Stephens, 2012. Different evolutionary histories underlie congruent species richness gradients of birds and mammals. *Journal of Biogeography*, 39:825-841.

- 17.** Jonathan Davies, **Nathan Kraft**, Nicolas Salamin and Elizabeth Wolkovich, 2012. Incompletely resolved phylogenetic trees inflate estimates of phylogenetic conservatism. *Ecology*, 93:242-247.
- 16.** Nathan Swenson, Brian Enquist, Jason Pither, Andrew Kerkhoff, Brad Boyle, Michael Weiser, James Elser, William Fagan, Jimena Forero-Montaña, Nikolaos Fyllas, **Nathan Kraft**, Jeffrey Lake, Angela Moles, Sandra Patiño, Oliver Phillips, Charles Price, Peter Reich, Carlos Quesada, James Stegen, Renato Valencia, Ian Wright, S. Joseph Wright, Sandy Andelman, Peter Jørgensen, Thomas Lacher Jr., Abel Monteagudo, M. Percy Núñez-Vargas, Rodolfo Vasquez-Martínez, Kristen Nolting, 2012. The biogeography and filtering of woody plant functional diversity in North and South America. *Global Ecology and Biogeography*, 21:798-808.
- 15.** **Nathan Kraft**, Liza Comita, Jon Chase, Nathan Sanders, Nathan Swenson, Thomas Crist, James Stegen, Mark Vellend, Brad Boyle, Marti Anderson, Howard Cornell, Kendi Davies, Amy Freestone, Brian Inouye, Susan Harrison, Jonathan Myers, 2011. Disentangling the drivers of beta diversity along latitudinal and elevational gradients. *Science*, 333:1755-1758.
* selected as cover story; discussed in "Taking the Measure of Madidi", *Science*, 7/20/2012.
- 14.** Stephanie Pau, Elizabeth Wolkovich, Benjamin Cook, Jonathan Davies, **Nathan Kraft**, Kjell Bolmgren, Julio Betancourt and Elsa Cleland, 2011. Predicting phenology: Integrating climatology and evolution to improve forecasting in ecology. *Global Change Biology*, 17:3633-3643.
- 13.** Jonathan Chase, **Nathan Kraft**, Kevin Smith, Mark Vellend, Brian Inouye, 2011. Using null models to disentangle variation in community dissimilarity from variation in alpha-diversity. *Ecosphere*, 2:article 24.
- 12.** Daniel Peppe, Dana Royer, Bárbara Cariglino, Sofia Oliver, Sharon Newman, Elias Leight, Grisha Enikolopov, Margo Fernandez-Burgos, Fabiany Herrera, Jonathan Adams, Edwin Correa, Ellen Currano, J. Mark Erickson, Luis Felipe Hinojosa, John Hoganson, Ari Iglesias, Carlos Jaramillo, Kirk Johnson, Gregory Jordan, **Nathan Kraft**, Elizabeth Lovelock, Christopher Lusk, Ülo Niinemets, Josep Peñuelas, Gillian Rapson, Scott Wing, and Ian Wright, 2011. Sensitivity of leaf size and shape to climate: global patterns and paleoclimatic applications. *New Phytologist*, 190:724-739.
- 11.** Marti Anderson, Thomas Crist, Jonathan Chase, Mark Vellend, Brian Inouye, Amy Freestone, Nathan Sanders, Howard Cornell, Liza Comita, Kendi Davies, Susan Harrison, **Nathan Kraft**, James Stegen and Nathan Swenson, 2011. Navigating the multiple meanings of beta diversity: a roadmap for the practicing ecologist. *Ecology Letters*, 14:19-28.
*Faculty of 1000 recommended article

10. **Nathan Kraft**, Margaret Metz, Richard Condit, and Jerome Chave, 2010. The relationship between wood density and mortality in a global tropical forest dataset. *New Phytologist*, 188:1124-1136.
9. **Nathan Kraft** and David Ackerly, 2010. Functional trait and phylogenetic tests of community assembly across spatial scales in an Amazonian forest. *Ecological Monographs*, 80:401-422.
8. **Nathan Kraft**, Bruce Baldwin and David Ackerly, 2010. Range size, taxon age, and hotspots of neoendemism in the California flora. *Diversity and Distributions*, 16:403-413.
7. Brody Sandel, Leah Goldstein, **Nathan Kraft**, Jordan Okie, Michal Shuldman, David Ackerly, Elsa Cleland and Katharine Suding, 2010. Contrasting trait responses in plant communities to experimental and geographic variation in precipitation. *New Phytologist*, 188:565–575.
6. S. Joseph Wright, Kaoru Kitajima, **Nathan Kraft**, Peter Reich, Ian Wright, Daniel Bunker, Richard Condit, James Dalling, Stuart Davies, Sandra Díaz, Bettina Engelbrecht, Kyle Harms, Stephen Hubbell, Christian Marks, Maria Ruiz-Jaen, Cristina Salvador, Renato Valencia, and Amy Zanne, 2010. Functional traits and the growth-mortality tradeoff in tropical trees. *Ecology*, 91:3664-3674.
5. Lauren Buckley, Jonathan Davies, David Ackerly, **Nathan Kraft**, Susan Harrison, Brian Anacker, Howard Cornell, Ellen Damschen, John-Avid Grytnes, Bradford Hawkins, Christy McCain, Patrick Stephens, John Wiens, 2010. Phylogeny, niche conservatism, and the latitudinal diversity gradient in mammals. *Proceedings of the Royal Society B*, 277:2131-2138.
4. David Ackerly, Scott Loarie, Will Cornwell, Stu Weiss, Healy Hamilton, Ryan Branciforte and **Nathan Kraft**, 2010. The geography of climate change: implications for conservation biogeography. *Diversity and Distributions*, 16:476-487.
3. **Nathan Kraft** and David Ackerly, 2009. Response to comment on "Functional traits and niche-based tree community assembly in an Amazonian forest." *Science*, 324:1015-d.
2. **Nathan Kraft**, David Ackerly, and Renato Valencia, 2008. Functional traits and niche-based tree community assembly in an Amazonian forest. *Science*, 322:580-582.
 - *Faculty of 1000 recommended article
 - *Discussed in "On the origin of Ecological Structure", *Science* 10/2/09; focus of "Voyage of the Beagle" podcast 11/22/2009.

1. **Nathan Kraft**, Will Cornwell, Cam Webb and David Ackerly, 2007. Trait conservatism, community assembly, and the phylogenetic structure of ecological communities. ***The American Naturalist***, 170:271-283.

**Received the 2008 President's Award from the American Society of Naturalists for the best paper published in 2007 in The American Naturalist.*

Completed manuscripts (submitted, in review, or revision):

2. Chris Doughty, Adam Wolf... **Nathan Kraft**... (14 authors total). Megafauna extinction, tree species range reduction, and carbon storage in Amazonian forests. ***Ecography***, in review.

1. Xugao Wang, Thorsten Wiegand, **Nathan Kraft**, Nathan Swenson, Stuart Davies, Zhanqing Hao, Robert Howe, Yiching Lin, Keping Ma, Xiangcheng Mi, Sheng-Hsin Su, I-Fang Sun, Amy Wolf. Stochastic dilution effects weaken deterministic effects of niche-based processes on the spatial distribution of large trees in species rich forests. ***Ecology***, in revision.

Reports:

1. S. Joseph Wright, Daniel Bunker, James Dalling, Stuart Davies, Sandra Díaz, Bettina Engelbrecht, Kyle Harms, Kaoru Kitajima, **Nathan Kraft**, Christian Marks, Peter Reich, Renato Valencia, Ian Wright and Amy Zanne, 2006. Towards a functional trait based research program within the Center for Tropical Forest Science. Smithsonian Tropical Research Institute, Panama.

Awards and Recognition:

- **Highly Cited Researchers 2015**, Thompson Reuters, for being among the top 3,000 researchers globally (top 132 in "Environment/Ecology" field) in producing highly cited papers between 2003-2014.
- **Frost Award, Ecological Society of America (ESA) Aquatic Ecology Section**, 2012. Awarded to coauthor Travis Ingram for Ingram, Svanback, Kraft, Kratina, Southcott and Schluter, 2012, ***Evolution***.
- **Killam Postdoctoral Fellow Research Prize, University of British Columbia**, 2012. For outstanding postdoctoral research while at UBC.
- **President's Award, American Society of Naturalists**, 2008. For best paper published in *the American Naturalist* in 2007.
- **Outstanding Graduate Student Instructor Award**, Integrative Biology, UC Berkeley, April 2007.
- **Department Teaching Award**, Biological Sciences, Stanford, June 2004.

- **Honorable Mention**, National Science Foundation Graduate Research Fellowship Competition, 2003, 2004, 2005.
- **Biology Prize**, Biology Department, Brown University, May 2001.

Grants and Fellowships:

- 2015, National Science Foundation, Division of Environmental Biology, Population and Community Ecology program. "Functional traits and the mechanisms of species coexistence in an annual plant community." PI: Nathan Kraft, Co-PI Jonathan Levine. \$530,000, starting June 2015.
- 2015, National Science Foundation, Office of International and Integrative Activities. "US-Costa Rica Planning Visit: Evolution of Functional Traits in the Melastomataceae." PI: Ned Fetcher; Co-PI's: Frank Almeda, Nathan Kraft, Fabian Michelangeli. \$26,975.
- 2009, Biodiversity Postdoctoral Fellowship, The Biodiversity Research Centre, University of British Columbia. October 2009 - September 2011. \$94,000.
- 2009, "Functional diversity and species coexistence in tropical forests", 2-year postdoctoral fellowship, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA. \$82,000. Offered and declined.
- Student Travel Award, 2008, Sacker Colloquia, National Academy of Sciences, \$300.
- Center for Tropical Forest Science, Smithsonian Tropical Research Institution, November 2007, \$14,000 "The role of seedling functional traits in forest dynamics and community assembly at Yasuní and BCI." Awarded to Nancy Garwood, Nathan Kraft and Margaret Metz.
- Center for Tropical Forest Science, Smithsonian Tropical Research Institution, November 2006, \$10,000 "A leaf trait database for the Yasuní Forest Dynamics Plot."
- Summer research grants, Integrative Biology, Univ. of California, Berkeley, May 2006, 2007, 2008, \$9,500 total.
- NSF Research Experience for Undergraduates, 2000, Shoals Marine Laboratory.
- Hughes Advanced Research Fellowship, Brown University, 2000.

Mentoring:

Postdoctoral Scholars:

Dr. Kristin Powell, SESYNC postdoctoral fellow (October 2013- June 2014) *Currently:*
Program Manager, Center for Tropical Forest Science, Smithsonian Institution.
Dr. Claire Fortunel, UMD (February 2014- present)
Dr. Lei Chen, UMD/ China Scholarship Council fellow (June 2015- present)

Doctoral Students:

Ian McFadden, 2012 - **awarded NSF Graduate Research Fellowship*

Gaurav Kandlikar, 2014- **awarded NSF Graduate Research Fellowship and UMD Flagship Fellowship*

Marcel Vaz, 2014- **awarded Brazilian Ciência sem Fronteiras Fellowship*

Visiting Scientists:

Dr. Jeanne Osnas, postdoc in Lichstien Lab, University of Florida (2013-2014).

Dr. Rong Li, associate professor, Kunming Institute of Botany, China. Chinese Scholarship Fund visiting scholar (2013-2014).

Dr. Benoit Parmentier, postdoc in McGill Lab, Univ. of Maine (fall 2014- present).

Visiting doctoral students:

Marcos Carlucci, Duarte lab, UFRGS, Brazil, CAPES fellowship (spring 2014).

Cristina Crespo Bastias, Valladares lab, Museo Nacional de Ciencias Naturales, Spain (fall 2014).

Doctoral Dissertation and/or Examination Committees:

University of Maryland:

Cora Ann Johnstone, UMD BEES Ph.D., advisor: Dan Gruner

Juannan Zhou, UMD BEES Ph.D., advisors: Michele Dudash and Charlie Fenster

Jason Berg, UMD BEES Ph.D., advisor: Michele Dudash

Chris Frye, UMD Plant Sciences Ph.D., advisor: Maile Neel

Carlos Silva, UMD Geography Ph.D., advisor: Jim Kellner

Silvia Alvarez, UMD BEES Ph.D., advisor: Bill Fagan

Carly Muletz, UMD BEES Ph.D., advisor: Karen Lips

Grace DiRenzo, UMD BEES Ph.D., advisor: Karen Lips

Elise Larson, UMD BEES Ph.D., advisor: Bill Fagan

Andrew Foss-Grant, UMD BEES Ph.D., advisor: Bill Fagan.

Elsewhere:

Fons Van Der Plas, University of Groningen, Netherlands Ph.D., Advisor: Han Olff.

Amy Milo, George Washington University Ph.D., Advisor: Amy Zanne.

Georges Kunstler, Iresta Grenoble, France- Habilitation.

Barnabas Haruna Daru, University of Johannesburg, South Africa. Advisors: Michelle Van Der Bank and T. Jonathan Davies.

Undergraduate Mentoring:

Samantha Cruz (F2014), Cara Heilveil (S2015), Ali Sanz (F2015). University of Maryland tropical forest wood anatomy project.

Kylie McLeod, University of British Columbia, NSERC Undergraduate Student Research Awards (USRA) Program, summer 2010. With Mark Vellend.

Tania Aftandilians, UC Berkeley Undergraduate Research Apprentice Program (URAP), 2007-2008.

Teaching:

Lead instructor:

Fall 2015 UMD, BSCI 361: Principles of Ecology. (undergraduate lecture course, enrollment 52)

Spring 2015 UMD, BIOL608O: Coexistence in Ecological Communities. (graduate seminar; enrollment 10)

Fall 2014 UMD, BSCI 361: Principles of Ecology. (undergraduate lecture course, enrollment 41)

Fall 2013 UMD, BIOL 608E: Community Ecology: Foundations and Frontiers. (graduate seminar, enrollment 15)

Spring 2013 UMD, BSCI 361: Principles of Ecology. (undergraduate lecture course, enrollment 67)

Teaching Assistant:

Fall 2008 UC Berkeley, Biology 154: Plant ecology.

Spring 2008, UC Berkeley, Biology 250: Plant functional ecology and global change. Distributed graduate seminar run through NCEAS.

Fall 2007, UC Berkeley, Biology 153: Population and Community Ecology.

Spring 2006, UC Berkeley, Biology 1B: Introductory biology.

Fall 2005, UC Berkeley, Biology 1B: Introductory biology.

Spring 2004, Stanford University. Bio 43: Plant physiology, ecology and evolution.

Fall 2002, Boston University Tropical Ecology Program, Ecuador (full semester program, four courses with extensive mentoring of independent research projects).

Guest lectures:

University of Maryland

Fall 2012 "Landscape ecology" - **BSCI 361: Principles of Ecology.**

University of British Columbia

Fall 2011 "Neutral Theory in Community Ecology" - **BIOL 407: Plant Ecology.**

Fall 2011 "How do you study a community with 1,100 species?" - **Zoology 502: Skills and Concepts for Advanced Ecology.**

Fall 2010 "Implementing null models in R" - **BIOL 548B: Stochasticity in Community Ecology.**

Spring 2010 "Niches, null models, and tropical forest dynamics" - **Zoology 502: Skills and Concepts for Advanced Ecology.**

University of California, Berkeley

Fall 2008, "Diversity and coexistence" - **IB 154: Plant ecology.**

Spring 2008, "Introduction to R"/ "Trait-based community analyses in R" - **NCEAS Distributed Graduate Seminar: "Ushering in a new era of functional ecology: Dynamics in a changing environment"**, UC Berkeley + 4 other campuses.

Fall 2007, "Nonequilibrium communities" - **IB 153: Population and community ecology.**

Selected Scientific Presentations:

Invited Departmental Seminars:

- 2016 sDiv, Leipzig, Germany.
- 2015 University of Washington, Biology, *Student-Invited Edmondson Lecture*.
- 2015 UMD Center for Environmental Science, Appalachian Laboratory.
- 2015 University of North Carolina, Chapel Hill, Ecology Seminar Series.
- 2015 Helmholtz Zentrum für Umweltforschung (UFZ), Department of Ecological Modeling, Leipzig, Germany.
- 2015 UCLA Department of Ecology and Evolutionary Biology
- 2014 Michigan State University, Plant Biology.
- 2014 University of Sherbrooke, Department of Biology, Quebec, Canada.
- 2013 Center for Tropical Forest Science annual workshop, Front Royal VA.
- 2013 George Washington University, Biological Sciences.
- 2013 University of California, Davis, Evolution and Ecology Department.
- 2013 Univ. California, Santa Barbara, Ecology, Evolution and Marine Biology.
- 2012 Columbia University, E3B Department.
- 2011 University of Chicago, Department of Ecology and Evolution.
- 2011 Stanford University, Department of Biological Sciences.
- 2011 University of Maryland, Department of Biology.
- 2011 University of British Columbia, Departments of Botany and Zoology.
- 2011 University of Pittsburg, Department of Biology.
- 2011 Washington University in St. Louis, Department of Biology.
- 2011 Tulane University, Department of Ecology and Evolutionary Biology.
- 2011 Princeton University, Department of Ecology and Evolutionary Biology.
- 2010 Stony Brook University, Ecology and Evolution Department.
- 2010 University of Victoria, Department of Biology.
- 2010 Rice University, Department of Ecology and Evolutionary Biology.
- 2009 University of Toronto, Department of Ecology and Evolutionary Biology.
- 2009 University of California, Berkeley, Integrative Biology.
- 2009 University of California, Davis, Center for Population Biology.
- 2006 Pontificia Universidad Católica del Ecuador, Dept. Biology.

Invited talks in organized symposia:

- 2013 Community Assembly and Ecosystem Function Symposium, Ecological Society of America Annual Meeting, Minneapolis, MN.
- 2013 Trait Biogeography Symposium, 6th Biennial Meeting of International Biogeography Society, Miami, FL.
- 2012 Community Assembly Symposium, EAWAG Aquatic Research Laboratory, Switzerland.
- 2011 58th Annual Systematics Symposium, Missouri Botanical Garden.
- 2010 Association for Tropical Biology and Conservation annual meeting, Bali, Indonesia, organized session on community phylogenetics.
- 2010 Symposium: 'Ecosystem management applying to ecosystem adaptability science: Robustness and stability of organisms and ecosystems,' Tohoku University, Sendai, Japan.
- 2009 Ecological Society of America Annual Meeting, Albuquerque, NM, Organized session on community phylogenetics.

Contributed presentations at national meetings:

- 2011 Ecological Society of America Annual Meeting, Austin, TX.
- 2009 Ecological Society of America Annual Meeting, Albuquerque, NM
- 2008 Ecological Society of America Annual Meeting, Milwaukee, WI.
- 2008 Sackler Colloquia of the National Academy of Sciences, "Biogeography, Changing Climates and Niche Evolution", Irvine, CA.
- 2007 Ecological Society of America Annual Meeting, San Jose, CA

Professional Service:

International:

Lead author (one of 20+), **United Nations Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Americas Assessment, Chapter 3.** 2015-present.

Editorial:

Editorial Board: *Ecology* and *Ecological Monographs*, 2013 – present.

Editorial Board: *Axios Review*, 2013- present.

Ad hoc peer reviewer: *National Science Foundation, Nature, Science, Proceedings of the National Academy of Science, Trends in Ecology and Evolution, University of Chicago Press, Ecology, Ecology Letters, Ecological Monographs, Evolution, the American Naturalist, Global Ecology and Biogeography, Journal of Ecology, New Phytologist, Journal of Applied Ecology, Oikos, Oecologia, Biotropica, Biology Letters, Ecography, Diversity and Distributions, Ecological Research, Basic and Applied Ecology, PLoS One, Netherlands Organization for Scientific Research.*

Associate faculty member: Faculty of 1000 - Community Ecology & Biodiversity, 2010-2011.

Working groups and workshops:

Working group participant, "sNICHE: Expanding Neo-Chessonian coexistence theory towards a stochastic-niche theory for species-rich communities". sDiv- German Center for Integrative Biodiversity Research, Leipzig, Germany. 2015- present. Organizers: Thorsten Weigand and Stan Harpole.

Invited workshop participant, "Ecological and evolutionary perspectives on biodiversity dynamics and community assembly", November 2012, EAWAG Aquatic Research Laboratory, Switzerland.

Working group participant: "Macroevolution of Ecosystem Services", July 2012-present, National Socio-Environmental Synthesis Center, Annapolis, MD. Organizers: Jeannine Cavender-Bares and Steve Polaski.

Working group participant: "Developing an integrated botanical information network (BIEN) to investigate the impacts of global climate change on plant biodiversity," 2011 - 2012, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA. Organizers: Brian Enquist, Richard Condit, Robert Peet, Brad Boyle, Steven Dolins.

Working group participant: "Forecasting phenology: Integrating ecology, climatology, and phylogeny to understand plant responses to climate change," 2010 - 2011, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA. Organizers: Benjamin Cook and Elizabeth Wolkovich.

Working group participant: "A synthesis of patterns, analyses, and mechanisms of beta-diversity along ecological gradients", 2009 - 2010, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA. Organizers: Jonathan Chase, Nathan Sanders, Amy Freestone.

Workshop co-organizer: "Climate Change and Bay Area Protected Areas", July 2009, Gordon and Betty Moore Foundation, Palo Alto, CA.

Working group participant: "The role of niche conservatism in producing biodiversity gradients". 2008 - 2009, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA. Organizers: Howard Cornell, Susan Harrison, Christy McCain.

Distributed Graduate Seminar Participant/ teaching assistant: "Ushering in a new era of functional ecology: Dynamics in a changing environment", March 2008, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA. Organizers: Elsa Cleland, Katherine Suding.

Working group participant: "Towards a functional trait based research program within the Center for Tropical Forest Science," 2006, Smithsonian Tropical Research Institute, Panama.

Departmental and Campus Service:

University of California, Los Angeles

Search Committee Member, Plant diversity and evolution faculty search, 2016.

University of Maryland

Biological Sciences Graduate Program Admissions Committee 2014-2015

Faculty Advisory Committee (alternate) Fall 2014.

Biology Department Liason to University Library System. 2013- 2015.

Updated 2/22/2016

Seminar Committee Chair, Biological Sciences Behavior, Ecology, Evolution and Systematics (BISI-BEES) program. 2013-2015.

Search Committee Member: Department of Biology open rank faculty search, 2012 - 2013.

University of British Columbia

Seminar committee member, Biodiversity Research Seminar Series, Biodiversity Research Centre, 2010 - 2011.

Retreat co-organizer: Ecology and Evolution Fall Retreat, University of British Columbia, Simon Fraser University, University of Victoria, Fall 2009 and 2010.